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8<sup>TH</sup> ANNUAL CONFERENCE  
ON PLANNING RESEARCH

**AESOP TG**

PUBLIC SPACES & URBAN  
CULTURES ANNUAL MEETING

*JOINT CONFERENCE*

GENERATIVE PLACES  
SMART APPROACHES  
HAPPY PEOPLE

EDITED BY SARA SANTOS CRUZ | FERNANDO BRANDÃO ALVES | PAULO PINHO

THE RESEARCH CENTRE FOR TERRITORY, TRANSPORTS AND ENVIRONMENT

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FEUP UNIVERSITY OF PORTO  
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# **BOOK OF PROCEEDINGS**

**JOINT CONFERENCE  
CITTA 8<sup>TH</sup> ANNUAL CONFERENCE ON PLANNING RESEARCH  
AESOP TG / PUBLIC SPACES & URBAN CULTURES MEETING**

## **GENERATIVE PLACES**

## **SMART APPROACHES**

## **HAPPY PEOPLE**

Edited by Sara Santos Cruz, Fernando Brandão Alves, Paulo Pinho

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# Preface

**Paulo Pinho**

Director of CITTA

This book includes a representative sample of the most relevant papers (42 in total) presented at the 8<sup>th</sup> CITTA Annual Conference on Planning Research. The conference took place in Oporto in September 2015 and resulted from a joint venture between our research centre CITTA and the AESOP's Thematic Group on *Public Spaces and Urban Cultures*.

The main theme and title of the conference "Generative Places, Smart Approaches, Happy People" proposes a reflection on an ambitious and wide scoped triangle in which seems to converge timeless and contemporary edge cutting planning issues, such as planning for inspiring and friendly places, planning with people for better equipped and happier communities, and innovative approaches and methodologies to design and jointly implement locally based and socially responsive policies and initiatives.

The book is organized in three main chapters. The first one, gathering ten papers, deals with the physical dimension of planning and with the increasingly subtle and fuzzy boundaries between the real and the virtual world, and the corresponding challenges for thinking and planning the cities of the XXI century. The second chapter deals with the social dimension of urban planning and, in particular, with the factors, conditions and participatory methodologies to build successful mediation processes. This chapter includes eleven papers. Finally, the third chapter, the bulkiest one with 21 papers, is dedicated to the cultural dimension of planning, embracing a wide range of topics related to local identities and meanings. Surely not by chance, this cultural dimension gathers the largest number of research papers presented at the conference, illustrating the increasing importance of culture and culture related topics, in the way we currently see a new and far-reaching role for urban planning and management.

Finally, I would like to express my deep thanks to all my colleagues and researchers that some ten years ago decided to embark in this adventure called CITTA and, in particular, to Sara Santos Cruz and Fernando Brandão Alves for the organization of the conference and for the joined preparation of this book of proceedings. In addition, I would like to thank Sabine Knierbein and Gabriella Esposito de Vita from the AESOP Thematic Group involved, for all their fruitful and rewarding collaboration as well. A word of thanks is also due to Joana Bailão for all her dedicated and competent work in the final editing and paging of this bulky book of proceedings.



# Theme of the conference

**Sara Santos Cruz, Fernando Brandão Alves**

University of Porto, Portugal

Along the decades, planning has been evolving from expert-led or top-down approaches to more community-led, interactive and participatory approaches, valuing the social capital of local communities and putting citizens at the centre of planning processes. Research has been emphasizing the importance of local contexts to set goals and establish priorities through adaptive learning processes. Additionally, it is relevant to identify places here understood as 'generative places', where the emergence of local initiatives based on knowledge-based creativity and interactive learning occur. In other words, places should demonstrate the capacity to flourish and reinvent themselves - hopefully revealing their true *genius loci*, meaning the location's unique character - most of the times through spontaneous processes based on community action and groups of individuals' initiatives.

BECOMING LOCAL means that the contemporary rationale should zoom in to 'local' spaces and places, policies and practices, and everyday life; this way, the human capital (citizens and their social and cultural background) play an important role as key agents of urban change and, in particular, of defining what is meaningful within the city. The understanding and the production of these meaningful places is, nowadays, increasingly confronted with diversified real (material) and virtual (immaterial) spheres of urban spaces, either private or public. Planning has to be prepared to embrace both these spheres of the city, as they both contribute to the construction of meaningful places.

Moreover, the idea that the use of technological or smart driven approaches in planning processes can, firstly, facilitate political discourse and participation by strengthening the link between citizens and governors, and secondly, better respond to people needs and improve the quality of life of citizens, has been around in different contexts and dimensions. Several projects, applications and approaches are making evident that we are forced to live and use technology in our daily activities and inevitably in the city arena. Technology affects our behaviours and the way we move and live in urban areas at various levels. However, regarding the access to (new) technologies (transports, communication/ICT networks, etc.), a certain asymmetry still exists due to the vulnerability of some communities and deprived families. Also, the operative structures of public institutions and private representative bodies of local people interests are often different. Additional, in some regions, physical distance is not yet counterbalanced with technological proximity. Thus, participatory planning processes may be less efficient and even threatened. Though, it is imperative to investigate and discuss how these technological tools can lead to the idea of what is usually designated as e-inclusion and most importantly how it can promote, ultimately, social cohesion and integration.

Intensifying the role of citizens, by either community-led, interactive, or participatory approaches, is consensually argued as responding more directly to people's needs and aspirations. Nonetheless, the level of quality of life, and even the level of happiness, is far from being truly and completely achieved. Urban planning has been concerned in creating better places, but nowadays is also focusing in increasing the levels of happiness, following the wider trend in discussing what makes people happier.

# **1. Physical Dimension / Real and virtual boundaries**



# Public Spaces as Places of Informal Appropriation

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This paper aims at understanding some forms of appropriation of public space and exploiting their potential in our contemporary cities. To start with, the concepts of use and appropriation are clarified in order to proceed with the research more focused on the topic of appropriation, specifically informal forms of appropriation. From the literature review, it is possible to determine three types of informal appropriation of spaces - proximity spaces, found spaces and open-ended spaces. In parallel, some planning strategies are identified - those that encourage appropriation and that could guide for new intervention(s) in urban places where this need is recognized. Then, some representative case studies are analysed, from within the public spaces and equipments of the city of Porto. These cases will enable the identification of characteristics and reasons for particular forms of expression in public life. In a first phase, twenty spaces in the city with different typologies are visited envisioning the second phase, in which clear forms of informal appropriation will be deeper studied.

The ultimate goal is to clarify that, on one hand, in some of these cases the informal appropriations are just an adaptation to the activity undertaken, but on the other hand, and beyond that, they usually reveal some failures in the physical infrastructures existing in public spaces that should be overcome.

Lastly, and based on the literature review and case studies, a methodological proposal for intervention is presented according to different scenarios of informal appropriation, as well as, good practices of urban planning to promote ways of appropriation.

**Keywords:** Informal appropriation, public space, place, participative planning, methodological proposal.

## 1 Introduction

The importance of public spaces as spaces of social interaction and public life is consensually recognized. Over time, these spaces have been reflecting the ways of living of societies and showing the interactions between people and the city, accompanied by different paradigms of planning and management of urban spaces, linked to social, political, economic and cultural changes. Recently, there has been a growing concern with the quality of urban spaces based on paradigms of sustainability and competitiveness, but also, and more importantly, on the quality of life. As such, it is recognized that urban spaces should be designed for people, i.e. they must respond to their needs and desires.

Although the literature have been studying qualitative features for better public spaces, referring to formal forms of use and appropriation of spaces and public places, there are other forms of informal appropriation, which have been less studied and that are also of great importance.

This research is part of a master's thesis that seeks to understand the context of informal appropriation demonstrations, determine the characteristics of different spaces and typologies of appropriations and, in face of different situations/scenarios, define a methodology for intervention, determining in which cases one should intervene, and propose measures to meet the needs.

## 2 Literature review

The term 'appropriation' is defined, according to Lefebvre (1970), as the purpose of social life, appearing in contrast to domination. However, urban space expresses the relationship between two relevant concepts: domination and appropriation. The first (domination) corresponds to constraints, uprisings, and actions shaped by the State; the second (appropriation), relates to a set of different

possibilities and to some subversion that through use aims to contradict domination (Sobarzo, 2006). However, these are not exclusionary terms, thus, these spaces and their relationships can be understood in everyday life.

Lefebvre also refers to appropriation as a right to the city, along with participation. That is, on the one hand, people should be entitled to participate in the production of space, and on the other, they should also be entitled to appropriation, as a complete use of space in everyday life; collective and inclusive rights allowing for appropriation and change in spaces according to the needs of its inhabitants (Sadri and Sadri, 2012).

As such, the right to appropriation comprises a maximization of use value relative to the exchange value (Purcell, 2003), which should be the basis of city-building processes, and revaluation of public space. Appropriation is defined as a human action in which individuals exercise their right to the city and the street, as a place of encounters. Ostermann and Timpf (2009) also define appropriation of a space as the process by which every human being, constantly, consciously or unconsciously, claims that space. According to these authors, if, on the one hand, it happens in personal space, where the intrusion of others can be regarded as unwanted, on the other hand, it happens simply when something is done somewhere, i.e. the space is appropriate, illustrated by activities like reading on a park bench or play football. Although not completely clarified by the authors, the examples given are for optional activities, i.e. activities driven by individuals - voluntary - and most of the times associated with leisure activities, as pointed out by Gehl and Svarre (2013). As such, optional activities are distinguished from necessary activities - productive and reproductive activities, such as shopping, or commuting to work, referred by Frank and Stevens (2007), and related to a perspective of use or use of space.

As regards the voluntary and optional activities, distinguished by Mendonca (2007), these can be formal - when a given space is planned accordingly - or - spontaneous - when triggered by the creativity and wishes of users.

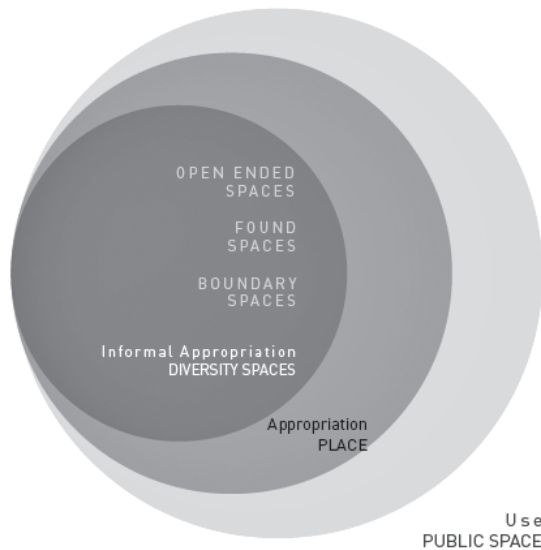
The formal appropriations of (public) space correspond to the opportunities of use indicated directly by the urban built environment, while the informal appropriations are defined as alternatives formulated by the population for their own needs and desires (Mendonça, 2007). In this sense, the appropriation will be more than a form of reaction to domination and a behavior that demonstrates a territorial instinct, which may go against the planned program for the city, as formal appropriation, and in the case of alternative forms of appropriation to those that were previewed, as informal appropriation.

Moreover, the appropriation will, thus, be a way of using the public space, however, the use of public space is not synonymous of ownership. Appropriation involves, besides the perspective of use, a sense of belonging, revealing some kind of identification to the place and justifying the choice of a location over another. On one hand, the appropriation occurs in significant places for those who practice it, on the other, it is also the appropriation that makes these spaces turn into places with meaning, which, again, concurs with the idea of interactivity, also mentioned by De Haan (2005).

For Frank and Stevens (2007), spontaneous activities that occur in urban public spaces turn those spaces into more diverse spaces in the sense that its features provide more freedom to

conduct certain activities. Thus, these authors define appropriation as a characteristic of all areas of diversity - space that has been appropriated by citizens in the practice of activities not predefined by a program (Frank and Stevens, 2007). Nonetheless, the fact that appropriation is considered as a spontaneous activity, defining all these spaces, does not mean that it also contemplates the appropriation as a formal practice in other contexts. For a place to become diverse, people should recognize the possibilities inherent in it and make use of these possibilities for their own purposes, addressing the potential risks of doing so (Frank and Stevens, 2007).

Thus, some of these spaces contain a set of physical characteristics that lead, or not, to appropriation (Frank and Stevens, 2007). The spaces in which these characteristics are present, and where people recognize them, encourage the appropriation, where a set of activities allow the transformation of the urban space into a dynamic space, giving life and vitality to cities.



**Figure 1-** From use to appropriation (Source: adapted from PPS).

There are three types of spaces of diversity considered in the informal appropriation: open spaces, found spaces and, lastly, proximity spaces. In the first, adaptability and flexibility criteria are pondered in the planning process, as pointed out by Aminzadeh and Afshar (2007), in order to respond to a variety of needs and desires from users. In the second - found spaces - spaces are discovered by individuals, although the spaces were not designed for the activities undertaken by people. An example of these spaces, frequently cited in the literature, is the staircase of the Public Library in New York (Carr et al, 1992; Rivlin, 2007).

The main difference between these two kinds of spaces is that, while in the first, there is some scope for discovery and creativity, reflected in different ways of informal appropriation, in the latter, spaces become appropriated by the recognition of contextual features, although they were not considered at the time of the project: "this is the essence of found spaces: people finding

possibilities in available public spaces and appropriating and adapting them for their own purposes" (Rivlin, 2007, p40).

Moreover, Stevens (2007, p73) adds another group to spaces of diversity, based on the definition of liminality (when the boundary between the interior and the exterior can be opened); the space becomes broad and diverse, and a wide variety of perceptions, movements and meetings are possible and sometimes associated with architectural elements that define them: porches, stairs, entrance doors, colonnades, etc.

These liminal spaces will be here considered slightly different from Stevens (2007). They will be, similar, in what concerns the boundary between inner and outer space, but considered as proximity spaces, in the sense that the appropriation happens because of the proximity to the interior. Due to the emergence of the popularity of public spaces, it becomes essential to understand how planning can promote appropriation, thus promoting and enhancing the link between people/individuals and the space, in building and improving a sense of place.

### **3 Strategies for enhancement and transformation of spaces into public places**

In the literature review, there are some guiding principles to value public spaces, as well as initiatives designed to enhance the sense of place. It should be noticed that it is desirable to have the focus on the "urban" in urban design, rather than on the "design", so that urban design should therefore be responsible for creating an environment that satisfies, informs and inspire its users (Inam, 2010).

Understanding the processes of appropriation of public space is, then, important to the design and sustainable management of urban environments (Ostermann and Timpf, 2007). Various and diverse components that encourage appropriation should be considered during the planning process of public spaces and explicitly included in projects.

At the same time, thinking of public spaces should, of course, take into consideration that the city gives way to many publics (Gaffikin, McEldowney and Sterrett, 2010), so that public spaces should respond and meet the needs of all and diverse publics. As referred by Tardiveau and Mallo (2014), the indeterminacy of space offers "room" for the creative appropriation and alternative ways of living in the city. Aminzadeh and Afshar (2007) highlights that urban environments should provide a variety of activities without the need to be constantly restructured or modified in terms of the physical environment, and should be able to adapt and change easily to provide different activities. For each of these conditions, different terms are used: the first is defined as an "adaptive" environment and the second as a "flexible" environment (Aminzadeh and Afshar, 2007). These characteristics are important to take into account for the diversity of publics and the variety of their desires and needs, as well as to increase the demand for public space, evident in the increase of activities and events organized by various entities/institutions, in particular by municipalities.



**Figure 2 and 3** – Urban Park as a flexible space (Source: authors)

Public spaces should, thus, be multifunctional and inclusive, comprising different publics or audiences of the city. Consequently, open spaces, somehow undefined for multiple publics, appeal for discovery and creativity of its users, and are spaces of informal appropriation. To these spaces, planned to be undetermined, one can add another type of spaces - found spaces. Both spaces - open and found spaces - are designated by Frank and Stevens (2007), as spaces of diversity.

Diversity spaces are, in fact, those that constitute the main arenas for informal appropriation, being able to meet a set of needs and rights in public space. Planning for (informal) appropriation should maintain somehow a certain level of indeterminacy, adapting better to different audiences and offering among other things, capacity to change (versatility, adaptability, multifunctionality), freedom of action, some control over the space and encouragement to discovery. It should also be noted the importance of crucial aspects, such as public opinion, efficient maintenance management and security.

Being aware of the importance of public spaces as a socialization space, construction of identity and quality of life, some initiatives in this context are here identified, reflecting the importance of appropriation in planning. First, streets should be, apart from being connecting and crossing spaces, designed to give priority to urban life and pedestrian circulation, reducing the impact of the car whenever possible. Secondly, in order to create spaces for people, the importance of participatory and collaborative processes should be highlighted, based on bottom-up approaches rather than top-down, breaking away from the traditional hierarchy and bureaucratic processes, but instead involving new groups of the society, local community and new partnerships (Healey, 2003).

Below, some approaches based on these principles are presented. In particular, *placemaking* and *tactical urbanism* are presented, as they constitute two relevant approaches in this matter. While in the first, the approach is focused in urban design geared to the places themselves and to build a sense of place, improving the quality of the places in the public sphere (Aravot, 2010), through a set of principles defined by the *Project for Public Spaces* (2008), that consider planning, design and management of public spaces.

- 1- The community is the expert
- 2- You are creating a place, not a design
- 3- You can't do it alone
- 4- The'll always say, "It can't be done"
- 5- You can see a lot just by observing
- 6- Develop a vision

- 7- Form supports function
- 8- Triangulate
- 9- Start with the petunias
- 10- Money is not the issue
- 11- You are never finished

Tactical urbanism is based on the definition of temporary initiatives at low risk, which could be turned into long-term interventions. So, it allows in a flexible and cost-effectively way to test the impact of initiatives and make corrections before departing to large investments (Lydon et al., 2014). Its uses and applicability may be quite diverse: it can support the recovering of projects that were on hold and realize some of the most realistic or interesting ideas, or raise public awareness to identify a small, but urgent, problem. Also, when included as part of a participatory planning process, it can better reinforce trust between the different stakeholders and leaders of community (Lydon et al., 2014).

It will be desirable that municipalities adopt these strategies of intervention, and develop pilot projects, inexpensive and temporary as a tool to promote change (Pfeifer, 2013). In any case, municipalities should be opened to the emergence of interventions of any kind and accommodating whenever possible (and desirable) spontaneous initiatives promoted by citizens.

## **4 Case studies in the city of Porto**

### **4.1 The context**

The concepts of "use" and "appropriation" are sometimes overlapped and confused. The 'use' of public space will be here understood as a necessary use, such as pointed out by Gehl and Svarre (2013). So, the term 'use' is associated with a necessary use of space. The terms formal or informal 'appropriation' is associated with a set of optional activities in a space assigned to a particular meaning, i.e. transforming it into a place. Thanks to the contribution of Mendonça (2007), it was possible to distinguish forms of formal and informal appropriation. If, the first corresponds to a planned use for a given space, the second corresponds to forms of spontaneous use.

As referred initially, the study has been focusing on forms of informal appropriation, although both forms of appropriation are, obviously, assumed as valuable and necessary in public spaces. In this way, the case studies selected are restricted to places that give rise to a spontaneous appropriation, manifested in optional and unplanned activities. They can emerge in a number of diverse spaces: open spaces, found spaces and proximity spaces.

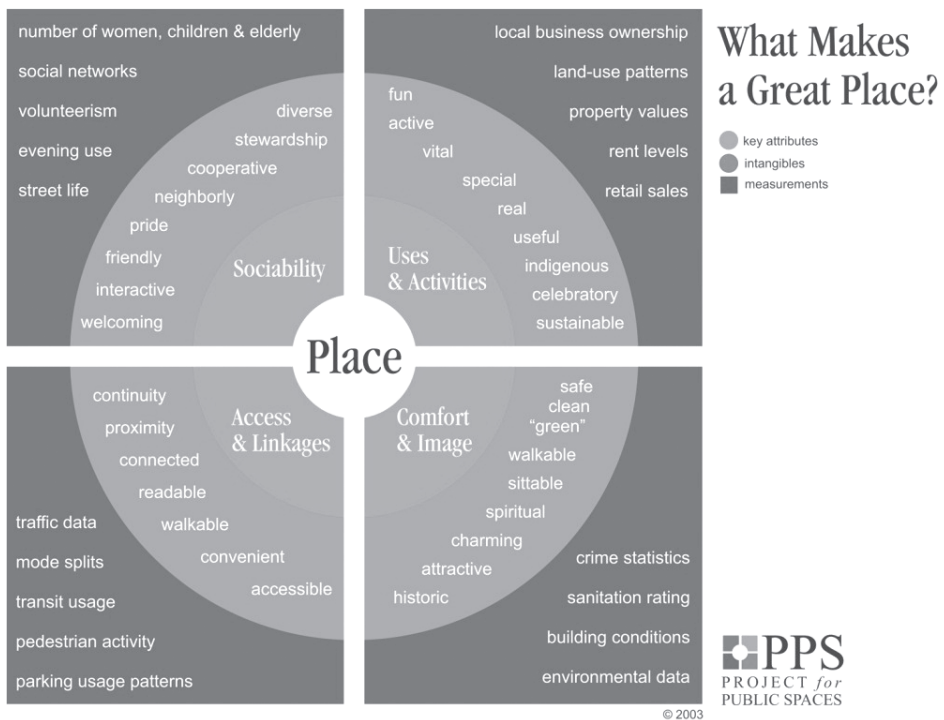
### **4.2 Methodology**

The methodology applied to the case studies focuses, firstly, on non-participant observation of multiple locations, with written and photographic records of the observations. A first phase of pre-selection consists on a visit to twenty case studies, either public spaces or facilities of the city - squares, gardens, streets and parks.

In order to guide the observation and focus the primary analysis of the various spaces, the methodology for assessing the functioning of public spaces, established by the "Project for Public Spaces" (2007; 2008) was used (Figure 1).

This way, after the first phase, we can understand the flows within the spaces and the changes occurring in it, selecting the ones to be further analysed in the next phase, i.e. places with clear manifestations of informal appropriation.

In the second phase, the observation of the activities is further developed, and completed with photographic survey in order to illustrate the space and its public life. Alongside, some interviews by questionnaire are held in order to measure the attitudes, perceptions, and motivations that cannot be obtained by observation of behavior (Project for Public Spaces, 2005).



**Figure 4-** Diagram of space (PPS, 2007; PPS 2008)

In addition, we proceeded with interviews in the Porto municipality, in order to better understand the role and approach of planning in the management of public spaces in face of this type of appropriations.

With all sources of information in the application of the methodology (written and photographic records, data obtained in different contexts, and the interviews), the study intends to understand what is behind these forms of appropriation and what distinguishes them. Our analysis should propose an intervention approach.

**Table 1** - Main structure of the methodology

<b>Phase I</b>	Non participant observation based on PPS methodology (2007; 2008) Photographic records	20 spaces of different typologies
<b>Phase II</b>	Non participant observation Photographic records Interviews by questionnaires	7 spaces of different typologies
<b>Phase III</b>	Interviews in the Porto municipality	Urban Planning Department

*Phase I*

The first phase of this study consists of the non-participant observation of twenty public spaces of different types in order to meet a greater variety of forms of informal appropriation. Obviously, we could find interesting forms of appropriation in other public spaces within the city, but like in any other study there is always the need to restrict the sample and inevitably excluded some areas.

The following table resumes the typologies and the respective spaces that were analysed in the first phase. They are represented in figure 5.

**Table 2** - Spaces studied and typologies

<b>Parks</b>	<b>Gardens</b>	<b>Squares/Gardens</b>	<b>Squares and streets</b>
1.Quinta do Covelo	3.Jardim de S. Lázaro	5.Praça do Infante D. Henrique	11.Praça da Batalha
2.Parque da Cidade	4.Jardim do Passeio Alegre	6.Praça do Marques de Pombal	12.Praça D. João I
		7.Praça da República	13.Av. dos Aliados
		8.Praça de Lisboa	14.Praça das Cardosas
		9.Praça Mouzinho de Albuquerque/	15.Rua das Flores
		Rotunda da Boavista	16.Praça da Ribeira
		10.Praça Velásquez	17.Praça Carlos Alberto
			18.Praça dos Leões
			19.Praça da Cordoaria
			20.Casa da Música



**Figure 5** - Map representing the case studies - Phase I (Source: Google earth).

### *Phase II and III*

The case studies selected for the next phase were: the City Park, the Garden of Saint Lazarus, the Marquês de Pombal Square, the Republic Square, Casa da Musica, Cordoaria Square and Leões Square. In all, we came up with seven case studies with clear characteristics of what we intended to study. We gave some attention to forms of informal appropriation with some kind of repetition over time, in found or open spaces.

For the typology – boundary spaces – the application of the methodology was a bit simplified, because of their characteristics. The fact that those spaces connect the inside with the outside makes this kind of appropriation almost obvious and inevitably. However, from our observations and visits around all the studied places, some boundary spaces were identified. In these cases, we consider that interviews are unnecessary to understand what drives those forms of appropriation, as in general, just by looking at, the reason for appropriation is usually understandable.



**Figure 6**- Urban Park



**Figure 7**- S. Lázaro Garden



**Figure 8-** Marquês Garden



**Figure 10-** Leões Square



**Figure 11-** Praça da Cordaria



**Figure 12-** Casa da Música



**Figure 9-** República Square

For each of the case studies, based on data analysis, different situations /scenarios are identified: with distinctive or similar features, identifying different types of appropriation of spaces, according to our literature review.

The Urban Park is a special case, completely distinct from the others, not only from the point of view of its nature, but also because of the wide diversity of activities taking place there. It is recognized immediately that this is one space that was designed as such, thus, allowing a wide range of opportunities and appropriations, and consequently more easily allows adaptation to the needs and desires of a wide and diverse public – therefore, it is an open space. This concept and its informality seems to be recognized and well interpreted by the majority of its users, so in general, we cannot indicate major flaws from the infrastructural point of view or the need for any intervention. However, according to an interview with the head of the department in charge of the

management of the Urban Park, sometimes the Division of Parks and Gardens of the municipality, receives requests for more specific playgrounds and fitness circuits within the park.



**Figures 13 e 14 - Boundary spaces**

In other spaces of the city, like the Marquês de Pombal Square, the Garden of São Lázaro, the Republic Square, the surrounding area of the Casa da Música, the Cordoaria Square and the Leões Square, activities of informal appropriation with greater expression occur associated to a particular group of people - in the first three cases, elderly men, and in the others, mostly young people (boys). These spaces are distinguished because we find the presence of a group of people and a specific activity.

In the three first spaces analysed, we could observe groups of people playing cards especially during the afternoon. Furthermore, there are some distinctions regarding the urban furniture and the greater or lesser need for adaptation in physical terms. In the case of the Marquês Square, the garden presents a set of fixed granite tables and benches that support the activity. However, because this granite furniture is somewhat uncomfortable, users adapt it, by placing large paperboards on the table. Most of the interviewed, pointed out some other absences, such as, the lack of public bathrooms and shelters, suggesting the rehabilitation of the old existing library that is currently abandoned.

In the São Lázaro Garden, one can find a different situation. According to the interviews with the users and the municipality, the 'informal' urban furniture is made of plastic tables and chairs that are kept under the bandstand, and daily placed outside, so that the users can play cards.

In these two situations, the furniture, either fixed or mobile, is kept in the space. But in the Republic Square there are no tables, so the solution is to innovate and adapt. As such, users improvise by putting wooden boards in the longstanding park benches. Two players seat at the ends of the board and the other two in the bank's extreme. As expected, when we asked the users for the need and type of intervention, all interviewed pointed out to the lack of tables and the desire for an intervention by the municipality in this regard.

The results obtained in the surroundings of the Casa da Música and the Leões Square were quite similar. Although, most of the users do not point out to the need for intervention in the space, the need for a skatepark in Porto is recurrent. Most of the users / skaters feel somehow frustrated, because they are forced to use spaces that are not designed for this practice,

consequently where the provision of appropriate equipment, such as rails and boxes, does not exist. Thus, skaters use the spaces in a limited and more monotonous way, taking advantage of the banks or ramps. The lack of appropriate infrastructures is seen as a form of discrimination carried out towards their activity/practice.

The Cordoaria Square has similar aspects in comparison to the previous two examples. The majority of users are young people (mostly boys), but instead of skate, the activity undertaken is football. Another distinctive aspect is the fact that users live in the surrounding areas. According to data obtained by the interviews, most acknowledge that although the space has not specific characteristics for the practice, it adapts to the use they want. Thus, interviewers do not find relevant the need for intervention.

#### *Methodological proposal to address different contexts of informal appropriation*

Considering the case studies described above, the characteristics of the spaces and the literature review, it is evident that in some cases of informal ownership, there is the need for intervention, or at least it is desirable to occur. Basically, the key question is: in what circumstances these practices reveal only a "desire" or go beyond that and reveal a real "need"?

Thus, it is necessary to understand what is behind the various forms of informal appropriation, what is the context, and sense the need to intervene in the spaces, or not. In case of a positive answer, it is essential to define how the intervention should be done.

Based on the case study and on the literature review of planning strategies to develop a good place, we suggest the following intervention methodology for spaces of informal appropriation.

1) **Observation and identification** of informal appropriation activities. Initially, it will be necessary to understand and identify when such activities occur.

2) In the case of a **proximity space** - their characteristics are:

- Proximity from outer space to the inside of the buildings;
- Presence of architectural elements like stairs, porches, etc;
- Sometimes, the presence of customization elements;
- Extension of activities from the inside to the outside.

In general, these spaces do not need intervention, since they are, by nature, informal spaces of appropriation.

3) In the case of not being a proximity space, the observation should be repeated (in different moments of the day/week) and in addition, in order to understand the context of the manifestations of informal appropriation, some interviews with the actors/users involved should be conducted. By this time, it is important to understand the profile of users and the uses (distance from residence, frequency of use and time), identification, or not, of deficiencies in the space, the perception of attachment of individuals to that space and the willingness for an intervention by the municipality, for example.

4) Based on the responses and observation, it is important to clarify the following aspects: the informal appropriations reveal only a desire of users to develop a certain activity in the space OR reveal also lacks/shortages in the spaces analysed, as well as, in other spaces within the city?

The following tables present the systematization of the different scenarios identified.

**Table 3** – Scenarios identified and ways of intervention.

<b>If</b> / different activities of informal appropriation occur frequently and sometimes also simultaneously / the activities of informal appropriation reveal an adaptation only related to the activity / through interviews, most people refer there is no need of any intervention	<b>If</b> / a certain form of informal appropriation is taking place in the space, usually for a specific group and with great regularity
<b>OPEN-ENDED SPACES</b> The concept related to the creation and the design of these spaces allows for informal appropriations. Usually there is no need for intervention.	<b>FOUND SPACES</b> It is necessary to <b>understand</b> , case by case, <b>if there is only an adaptation associated with the activity, OR if it is also associated with the infrastructure.</b>

In case of a **found space** there are three situations to be considered.

**Table 3** – Scenarios identified and ways of intervention.

SPACES	CHARACTERISTICS	APPROACH
Type I Ex.: Praça da Cordoaria	<b>Adaptation only to the activity</b> In general, there are no lacks/failures in the space nor any desire to change by the municipality, (or other entities).	The existing infrastructure adapts to the activities. There is no need for intervention.  Understanding and evaluation of impacts of the interventions / changes should lead to decision making, accordingly.  When possible, there should be a temporary intervention, based on the principles of tactical urbanism, allowing to evaluate the impact, make some adjustments and ensure success.
Type II Ex.: Casa da Música, Praça dos Leões	<b>Adaptation only to the activity</b> In general, most people do not refer any lacks /failures but reveals a desire for intervention in the city, because there is a lack in the city for that activity.	
Type III Ex.: Jardim de São Lázaro Jardim/ Praça do Marquês de Pombal	<b>Adaptation only to the activity</b> There is a significant number of lacks/failures referred by people interviewed, not necessarily related to the activity.	
Type IV Ex.: Praça da República	<b>Adaptation to the activity &amp; infrastructure</b> All people interviewed identify a need for intervention by the municipality.	

In short, given the diversity of spaces and forms of informal appropriation, it is essential to understand the context, through the perception of the users. Only then, it is possible to decide whether, or not, planning should act and play an important role in the improvement of these areas, and therefore the quality of life of those who conduct the appropriation (i.e. the potential users).

## 5 Conclusions

The adaptation of individuals to space, expressed by appropriation, is natural, and should be facilitated (Carmona, 2013). As such, planning should carry out projects and interventions to promote such appropriation, valuing and promoting public spaces and diversity in the urban realm.

In addition, formal or informal appropriation, as a voluntary activity, reveals a sense of belonging to space, often explaining why people choose a specific place and not another. Furthermore, in the case studies of this research, appropriation also reveals a considerable degree of attachment to the place.

In informal appropriations, the main focus of this research, it can be said that in some cases there is only a direct adaptation due to the activity undertaken, which is possible because of a certain flexibility of the space. In other contexts, beyond that, the appropriation also reveals infrastructural deficiencies/lacks, either in the space itself, or in other areas within the city.

In short, if in some cases, these appropriations are desirable, since they reveal a connection/attachment of people to the space and, thus, contribute to greater richness of urban life, in other cases, appropriations manifest deficiencies that should be fixed and overcome. Therefore, it is essential to understand what is behind any kind of appropriation, in order to better decide on how to proceed.

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# The (in) formal city - Is there room for the informal in the formal city?

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The early times of informal settlements is that of the formal city, and both reflect the history of civilization's evolution and its urbanization development trends.

For many centuries, cities have been territories of choice to live and work for most of the world's population, and despite being unique areas of opportunity and innovation, they also present abundant problems, namely in developing countries. The proliferation of expansive and unplanned territorial areas, social melting pots with poor housing conditions and lack of environmental conditions, figure as one of urban areas main existent difficulties of the 20<sup>th</sup> and 21<sup>st</sup> century. This "*spontaneous and informal city*" has been steadily rising in light of the world's continuous demographic escalate and persistent migration movements from rural to urban areas. But, is such "*informal city*" so different from its counterpart, the "*formal city*"? What separates them?

This is the background question that will be addressed in this paper by exploring the existent "*symbiotic links*" between the formal and the informal city.

**Keywords:** City; Urban; Formal; Informal; Slum

## 1 Introduction

The following paper focuses on a subject that is gradually emerging and gaining importance for the past decades in the international agenda, as one of the twentieth century most noticeable problems, one that urges swift solving. The proliferation of squatter settlements, as a direct result of urban poverty, demographic advance and intensive rural-urban migrations, specifically in developing countries, has been increasingly contributing to the construction of informal cities within the formal city.

Considering such thematic, the report intends to present the main differences and similarities between these two distinct concepts, namely by exploring their symbiotic links, in order to present a critical review on the particularities and meanings of such informal areas and the role they play in the twentieth first century cities and societies.

In order to do so it was necessary not only to explore the origins and development of informality but also identify and comprehend the known differences and similarities between the concepts by investigating existent definitions on the subject provided from well-known authors.

Initial interpretations demonstrate that both concepts are essentially the opposite of one another and that formality can be understood as something to aspire and informality as something to decline. Nevertheless, all those that know both realities realize that although apparently accurate, such conclusion is in fact more complex, and in fact the main differences between these two notions reside in four "simple" features: Dimension, Resources, Determination and Recognition.

## 2 Framework

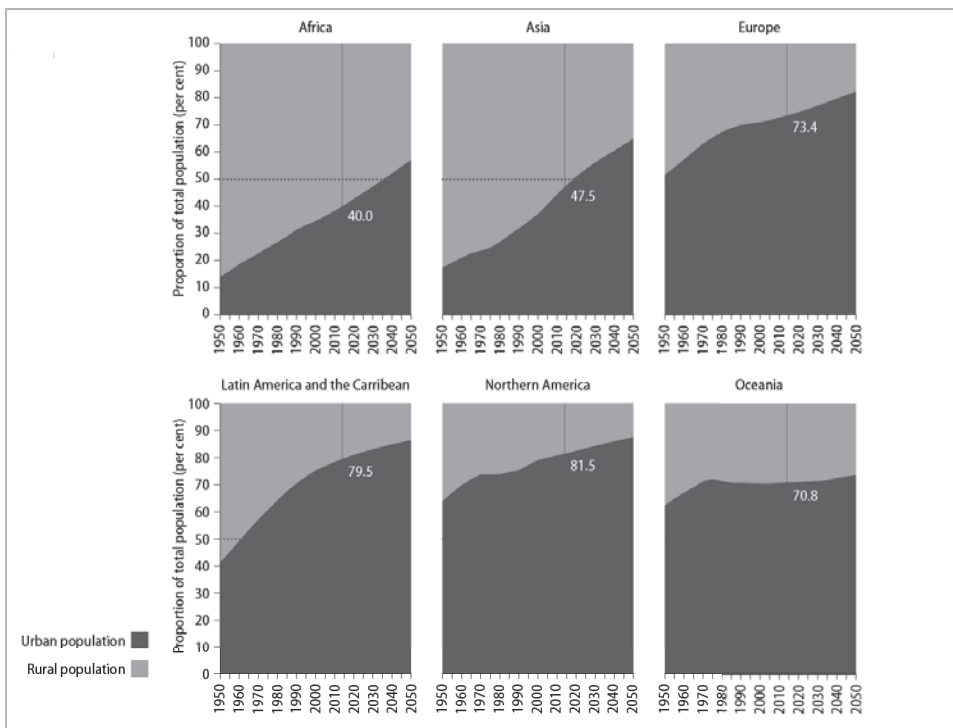
Kostof (2009) considers there to be two types of city. The first type is the planned or designed city, one that has an orderly geometric pattern, registered and developed by an overseeing authority,

thus allowing us to consider it as the “**formal city**”. The second type of city is the spontaneous or geomorphic city, one that is absent design, rules and regulations, and “**subject to no master plan but the passage of time**” (Kostof, 2009, p.43). Such type could be understood as the “**informal city**”.

It is a known fact that the informal or unplanned city has been steadily emerging for the past centuries in light of the world's rising demographic trends, existent economic asymmetries (between the developed and developing countries), and constant migration flows from rural to urban areas (Figure 1).

In one of its most recent reports, the UN (2014) addressed a fundamental question regarding such migration trends, namely the reason for this incessant attraction that we all share for urban areas.

▣ *For the UN (2014, p.3) “cities are important drivers of development and poverty reduction in both urban and rural areas, as they concentrate much of the national economic activity, government, commerce and transportation, and provide crucial links with rural areas, between cities, and across international borders. Urban living is often associated with higher levels of literacy and education, better health, greater access to social services, and enhanced opportunities for cultural and political participation.”*



**Figure 1.** Urban and Rural Population as proportion of total population, by major areas, 1950-2050. (Source: in UN, 2014)

Stewart Brand (2009) also elaborates on this particular subject. In his opinion people move to cities because urban areas are “new” and exciting, they are lands of opportunity, better paid than rural areas, upwardly mobile, resilient and they are creativity hubs. In fact, since the dawn of time, cities are territories of choice to live and work for most of the world's population. And despite being lands of opportunity and creativity, stage of great changes and innovation, they are also areas of abundant problems. Its expansive and unplanned growth, poor housing conditions, insecure land tenure, needs in terms of infrastructure and services, or environmental degradation, are well known difficulties, which they accommodate.

In 2012, approximately 863 million people lived in such informal and deprived urban areas in developing countries<sup>1</sup>, representing, roughly, 33% of its urban population (UN-Habitat, 2013). A trend that, unfortunately, endures and grows stronger by the minute.

But is this “*informal city*” so different from its counterpart, the “*formal city*”? What separates them? Its origins? Its urban form and townscape? Its resilience and sustainability? Its social and economic characteristics? Its cultural and ethnic heritage? These are some of the main questions that will be addressed in this report by exploring the existent “*symbiotic links*” between “*formal and informal city*”.

The report is organized in two parts. The first will provide a brief historical description exploring not only the origins and development of informality but also the impact of such development in today's societies. The second part will focus on the identification and comprehension of known differences and similarities on both concepts, doing so by providing diverse definitions from different authors offering similar or distinct visions and approaches on the matter.

Discussion will begin to reveal a critical review on the described particularities and meanings of such urban areas, as well as a reflection, one that will likely provide more questions than answers, regarding the role of informal settlements in modern day cities.

### 3 Concepts and definitions. A theoretical discussion

#### 3.1 The past, the present, what future?

The history of informal settlements is that of the formal or planned city, and both reflect, no more than the history of civilization's progress and urbanization development trends. Angel (2012) considers that such urbanization process, one that represents the settlement of human population in urban areas, is easily understandable if divided into three periods.

The first period started with the first known cities of the world, founded at the advent of established agriculture and cattle breeding, and continued to the beginning of one of mankind's most exquisite and “darkest” moments, the industrial and capitalist revolution (1800). During this first period, little is known regarding the informal city or the existence of spontaneous settlements.

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<sup>1</sup> - According to UN-Habitat, presently, this is a problem that is mostly focused in developing countries cities. In developed countries the existence of informal settlements is considered residual (UN-Habitat, 2013).

Most known facts regard to what is designated as the “(...) *spatial dimension of contemporary urban stratifications* (...)” (UN-Habitat, 2003, p.63), which means that the morphology and spatial limits of a city did not significantly reflect the social and economic status of its inhabitants.

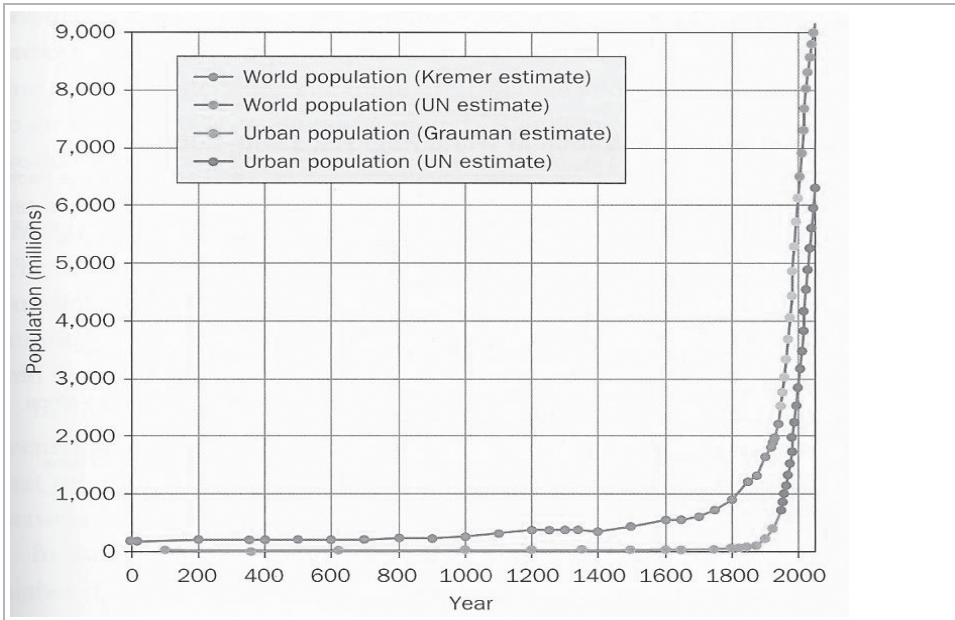
Plato (360 BC), in his book *Republic*, stated that: “*for indeed any city, however small, is in fact divided into two, one the city of the poor, the other of the rich; these are at war with one another* (...)” (Plato, 360BC, 278). Such statement reflected that already at that time, crosscutting lines of occupational differentiation that mitigated eventual patterns of existent social segregation were already present. Another example is that in Pompeii and Herculaneum, local households served as shelter to several people with distinct status namely, the patrician owners, their slaves and eventual tenants (UN-Habitat, 2003).

Wallace-Hadrill (1994) also regards that during the Middle Ages it was not uncommon that apprentices and masters shared the same living quarters and that even the aristocracy shared their households with their domestic servants. According to Kostof (2009), in Japan, between the 4th and 6th century AD, the fortified Palaces of the Rulers were considered to be the generating nucleus from where cities spawned. These palace-capitals drew about themselves an unplanned accretion of craftsmen, artisans and military retainers that adding to the Ruler's personal administrative staff, which resided in the Palace, stimulated a local social readjustment from which spontaneous urban forms were born. It is believed that such “**erratic social process**” was also one of the key elements that contributed for the irregular form of the first Mesopotamian cities (Kostof, 2009).

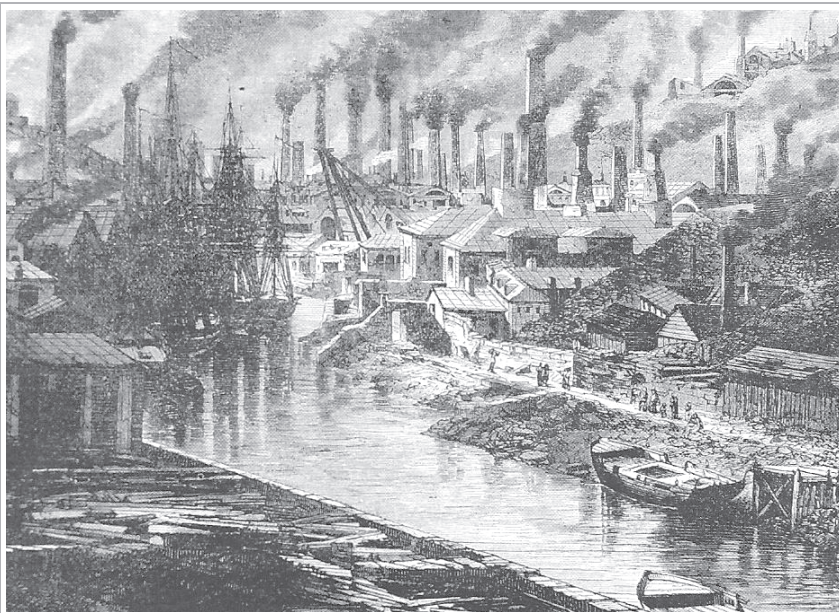
One of the first known reports suggesting spatial segregation as a result of social status occurred later, in the 17th century. The British East India Company after establishing a local fort, settled the white population in its surrounding area while the native population was located outside the fort's protection walls (Kostof, 2009). The second period, referred by Angel (2012) as the “*scientific and technological revolution*” began in the eighteen hundred's and extended until the end of the first decade of the twenty-first century. During this period population growths, sustained by a rapid urban expansion, began to accelerate and in merely two and a half centuries our population grew from approximately 1 billion to 6.9 billion people, half of it residing in cities (Angel, 2012) (Figure 2). This is in fact the most significant period regarding slums history, since it was around this time (early 19th century) that the first notions on slums emerged (UN-Habitat, 2003).

It is a known fact that the growth of slum areas during the 18th and 19th centuries was intimately related to the conversion from an economic model of subsistence to a capitalist economic model (Figure 3). Such change contributed vastly to the rise of social disruption, inequality, profit seeking and exploitation. This new modern economic structure allowed that both life and social conditions evolved to an unbalanced point, one prone to the stigmatization of particular disfavoured social groups like the immigrants and the urban poor.

Therefore, “**slum**” could be regarded as an upper middle class term created to show how they had enhanced their social and economic status over disfavoured social classes (UN-Habitat, 2003).



**Figure 2.** World Population and Urban Population growth trends, 0-2010.  
(Source: *in Angel*, 2012)



**Figure 3.** Copper works in Swansea Harbor, Wales, late 1800s.  
(Source: *in Angel*, 2012)

Cities like London, Berlin, Paris and Barcelona in Europe and New York and Chicago across the Atlantic struggled to resolve this particular social and spatial problem, and in most

situations the simplest envisioned solution was to “(...) *abandon the sick, overcrowded cities as dead, or to eradicate their infected parts, namely the slums*”<sup>2</sup> (Kostof, 2009, p.53) (Figure 4).

During this historical period, several vivid descriptions and illustrations regarding the immoral and inhuman conditions in which slum residents subsisted were provided by known authors and artists<sup>3</sup> (Figure 5). Nonetheless, one of the sharpest reports was provided by the New York State Tenement House Commission of 1900,<sup>4</sup> which described the tenement districts of New York City as “(...) *places in which thousands of people are living in the smallest place in which it is possible for human beings to exist – crowded together in dark, ill ventilated rooms in many of which the sunlight never enters and in most of which fresh air is unknown. They are centres of disease, poverty, vice and crime, where it is a marvel, not that some children grow up to be thieves, drunkards and prostitutes, but that so many should ever grow up to be decent and self-respecting.*” (Hall, 2002, p.39).

Although exclusively describing slum conditions in New York City at that particular time, such description could be considered “*global and timeless*”.

During the first half of the twentieth century, the planet painfully experienced two world wars that had dire consequences on humankind known way of life and urban landscapes. In addition, the military demobilization that followed these armed engagements systematically produced a spontaneous wave of “*self-produced buildings*” that spawned in the vicinities of many post war European cities (UN-Habitat, 2003).

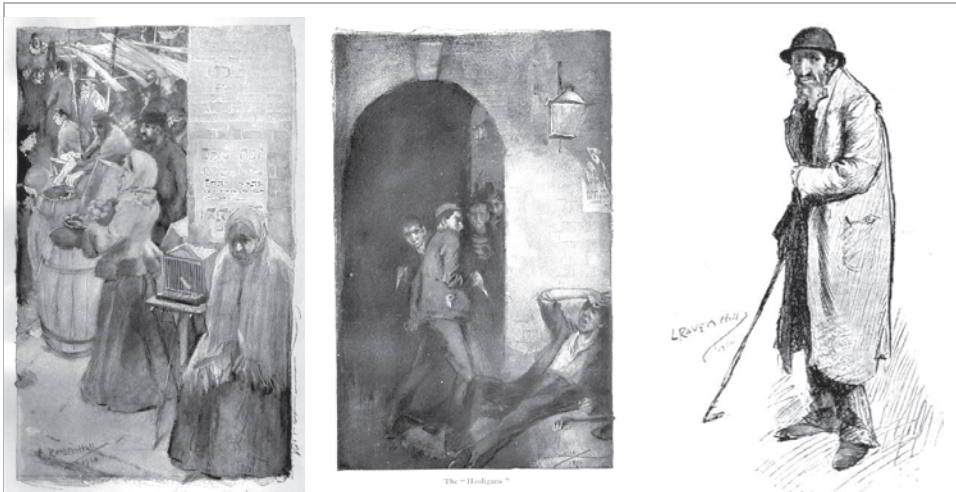


**Figure 4.** in Rabat (Morocco), a precarious hillside shantytown rises toward a more permanent .development self-built housing. (Source: in Kostof, 2009)

2 - One of the most illustrative examples of such actions is the revamping of Paris in mid-19th century by Baron Haussmann. Such procedure involved demolishing half of the city's buildings, the creation of a sewage system and wide boulevards, providing to the world a new and fresh representation of French political power and richness.

3 - Dickens (1853) with his novel “Bleak House”, Leonard Raven-Hill (1901) with his illustrations regarding slum life in the East End (“Depletions of life in the East End”), Margaret Harkness (1889) with her novel “In Darkest London” and James Thomson (1874) with his poem “The City of Dreadful Night”.

4 - Regarding the Tenement House problem, which includes the report of the New York State Tenement House Commission of 1900 (Hall, 2002).



**Figure 5.** Leonard Raven-Hill: "Depictions of Life in the East End".  
(Source: *in* The Victorian Web, 2015 [June 20, 2015])

Additional slum development processes also occurred in countries<sup>5</sup> that either by geographic or political reasons, did not experienced these wars up-close, being primarily triggered on account of rural-urban migration flows, natural growth processes and, to a lesser extent, population displacement following internal armed conflicts and violence (UN-Habitat, 2003).

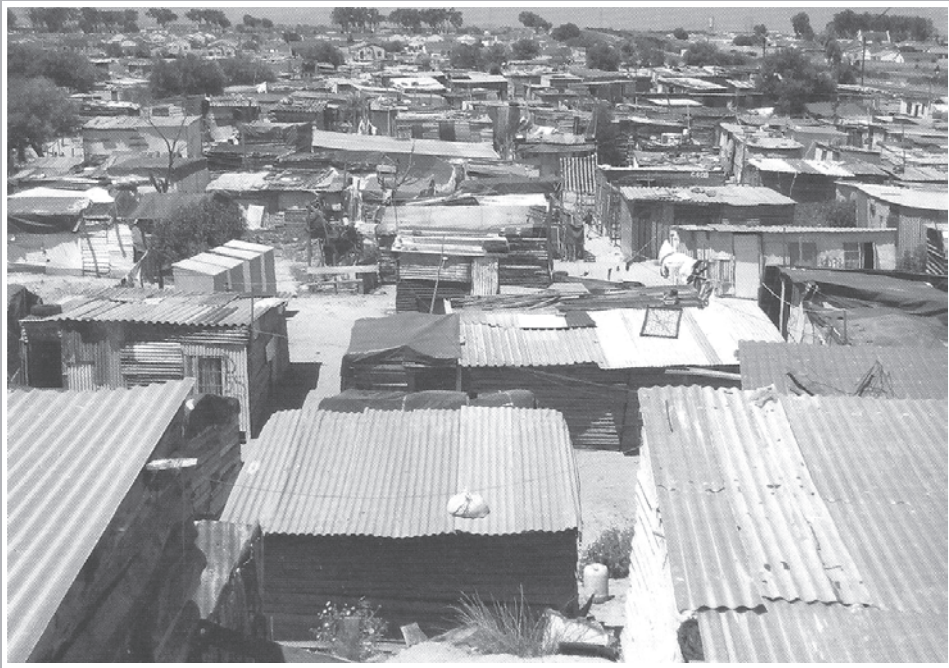
The first decades of the second half of the twentieth century, were fundamentally times of reconstruction and learning procedure. Europe, in particular, was recovering from an extensive war turning her in the perfect laboratory for experimenting on some of the new modern urban principles that rose in Europe by 1933. One of such urban development principles expressly recognized the necessary demolition of all neighbourhoods that did not provide adequate conditions to its residents, stating "*the universally acknowledged laws of hygiene bring a grave indictment against the sanitary conditions of cities. It is not enough to formulate a diagnosis or even to discover a solution; the solution must be prescribed by the responsible authorities. In the name of public health, entire districts should be condemned. Some of them, the result of hasty speculation, merit only the pickaxe (...)*" (Le Corbusier, 1973, p.62) (Figure 6).

Such orientations, although well intended, contributed to the demolishing of perfectly viable heritage housing and areas, replacing them, in most cases, with high rise public-housing blocks that were nothing more than unequal and ethnic segregated spaces located in city fringes and displayed no regard what so ever for its inhabitant's cultural identity (UN-Habitat, 2003).

This functionalist and rationalist model of assessing the slum problems in urban areas through its "*cleansing*" would endure until the late seventies, at which moment a more self-conscious model began to emerge. This new dimension of slum intervention promoted social

<sup>5</sup> - Abidjan, Côte D'Ivoire; Ahmedabad, India; Beirut, Lebanon; Durban, South Africa; Kolkata, India; Moscow, Russian Federation; Rio de Janeiro and São Paulo, Brazil, among others, experienced intensive and extensive slum formation situations (UN-Habitat, 2003).

inclusion as the required and appropriate response to the human settlements condition, through public involvement, new upgrading policies and a fresh governance system.



**Figure 6.** Slum estate located in Cape Town, South Africa.  
(Source: in Gehl, 2010)

Such new model was a direct result of gathered knowledge and performed work regarding the “**origins of informality**”<sup>6</sup>. This theory was being developed since 1960 by prominent scholars as Abrams (1964), Mangin (1967), Turner (1968), Peattie (1970) and Perlman (1976) among others, which challenged this renewed paradigm of social and spatial exclusion (Lombard, 2014). In addition to these technical manifestations, and similarly to what happened in the industrial period, cultural contributions were also determinant in “*giving voice*” to this urban slum conundrum and thus reaching a more educated class<sup>7</sup>.

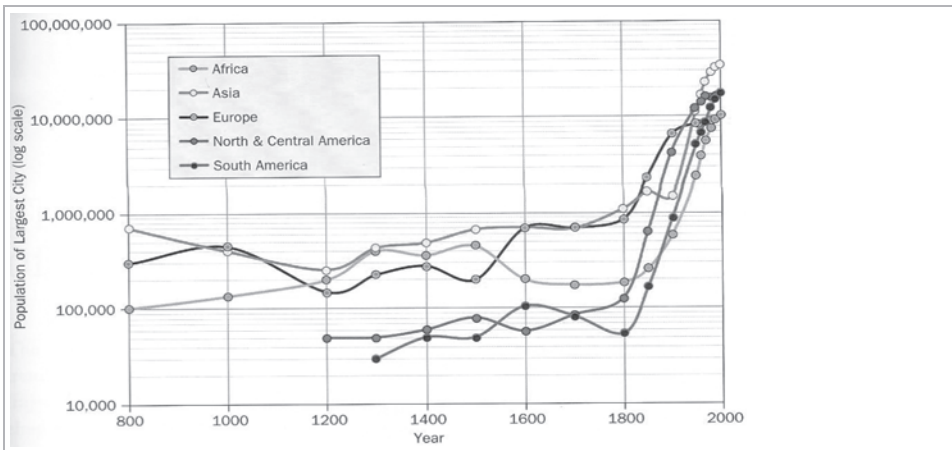
The tipping point came in 1976 through an historical document produced in result of the United Nations Conference on Human Settlements, in which for the first time in modern history “(...) *the nations of the world expressed their concern over the extremely serious condition of human settlements, particularly that which prevails in developing countries, (...)*” (United Nations, 1976, p.2). From this moment on, the paradigm of informality would be inscribed in world’s maps as one of the twentieth century’s most noticeable “complications”, one that required immediate solving.

<sup>6</sup> - Their research focused on informal settlements as a particular spatial manifestation of informality as opposed to the informal debate regarding modern economic activities (Lombard, 2014).

<sup>7</sup> - Bob Dylan’s twisted urban landscapes in “Desolation Row”; Tracy Chapman’s “Fast Car”; and the musical West Side Story were among some of the artistic productions influenced by slum life (UN-Habitat, 2003).

The following years were fertile regarding the gathering and production of scientific data on urban poverty, allowing the development of accurate profiles on existent human settlements, thus contributing to the first internationally recognized definition of “*slum*”<sup>8</sup> (UN-Habitat, 2007). This work provided the fundamentals that supported the development of a concrete action plan envisioned to reduce extreme poverty in the World - The Millennium Declaration (UN-Habitat, 2007). Ten years passed and regardless the world’s best efforts, the slum problem endured and remained strong.

The third, and final period, can be described as an ongoing period, one that has already started in some of the world’s developed countries in which the urban share of their total population is no longer increasing. Such period is expected to last until the end of the current century by which time the urban population of the world will be overwhelmingly urban. In fact, the first four years of this second decade of the 21st century have disclosed a continuous trend on rural-urban migration flows that remain the strongest in the least developing countries. Angel (2012) reveals that at the 2010 migration growth rate, 190.000 people are added to the urban fabrics on a daily basis, an average of approximately 8.000 people per hour (Figure 7).



**Figure 7.** Population of the Largest City by Continent, 800-2000.  
(Source: in Angel, 2012)

The United Nations highlights that, globally, 54% of the current world population (7.3 Billion)<sup>9</sup> resides in urban areas and that by 2050 such estimates will rise to a total of 66%<sup>10</sup> and the world population will reach 9.6 billion (UN, 2013) (Figure 8).

<sup>8</sup> - “Different cultures and countries define the physical and social attributes of slums differently. UNHABITAT acknowledges this diversity and the fact that slums take many different forms and names. Bearing this in mind, in 2002, UN-HABITAT, the United Nations Statistical Division and the joint UN-HABITAT/World Bank Cities Alliance gathered together a group of experts to define slums and propose a way to measure them. The resulting definition and methodology represent a compromise between theoretical and methodological considerations. The agreed-upon definition is simple, operational and pragmatic: it can be easily understood and adapted by governments and other partners; it offers clear, measurable indicators, provided as a proxy to capture some of the essential attributes of slums; and it uses household-level data that is collected on a regular basis by governments, development agencies and non-governmental organizations, which is accessible and available in most parts of the world” (UN-Habitat, 2007, p.29).

<sup>9</sup> - Worldometers (2015, January 17). Retrieved from <http://www.worldometers.info/world-population/>

Considering recent history regarding world's economic and demographic trends, mainly its estimate predictions on slum advancement in this “*planet of cities*”, the question that rises is; *how will this third period end? What future is envisioned for “our” challenge on slums?*

Major area, region, country or area	Population (thousands)									Average annual rate of change (per cent)
	Urban			Rural			Proportion urban (per cent)			
	1990	2014	2050	1990	2014	2050	1990	2014	2050	
WORLD	2 285 031	3 880 128	6 338 611	3 035 786	3 363 656	3 212 333	43	54	66	0.9
More developed regions <sup>a</sup>	830 952	980 403	1 113 500	317 326	275 828	189 610	72	78	85	0.3
Less developed regions <sup>b</sup>	1 454 079	2 899 725	5 225 111	2 718 460	3 087 828	3 022 723	35	48	63	1.2
Least developed countries <sup>c</sup>	107 335	283 855	895 701	402 019	635 275	914 889	21	31	49	1.7
Less developed regions, excluding least developed countries <sup>d</sup>	1 346 744	2 615 870	4 329 410	2 316 440	2 452 553	2 107 834	37	52	67	1.3
Less developed regions, excluding China	1 126 378	2 115 652	4 148 069	1 854 345	2 446 901	2 684 617	38	46	61	0.9
High-income countries <sup>e</sup>	834 931	1 035 404	1 212 666	287 614	256 311	185 266	74	80	87	0.3
Middle-income countries	1 325 274	2 555 840	4 284 327	2 346 129	2 484 859	2 139 791	36	51	67	1.3
Upper-middle-income countries	793 208	1 541 090	2 155 352	1 153 047	920 812	562 801	41	63	79	1.5
Lower-middle-income countries	532 067	1 014 751	2 128 975	1 193 082	1 564 047	1 576 990	31	39	57	1.1
Low income countries	109 850	268 441	819 856	394 871	616 562	883 673	22	30	48	1.5
Sub-Saharan Africa <sup>f</sup>	132 971	345 617	1 136 822	357 144	579 083	937 624	27	37	55	1.4

**Figure 8.** Urban and Rural Population, average annual rate of change 1990-2050.  
(Source: in UN, 2014)

### 3.2 Formal(ity) vs informal(ity)

The following issue discusses the meanings and similarities between the notions of the formal and the informal. For instance the Merriam-Webster online dictionary<sup>11</sup> refers that formal is something “*done in due of lawful form (a formal contract, a formal recognition)*”, and formality can be understood as “*the compliance with formal or conventional rules and also an established form of procedure that is required or conventional*”. The Oxford online dictionary<sup>12</sup> considers that something is formal when “*having a conventionally recognized form, structure, or set of rules*”, while formality can be understood as “*a thing that is done simply to comply with convention, regulations or custom*”. In addition, Cambridge online dictionary<sup>13</sup> describes formal as somewhat “*public or official*” exemplifying as “*a formal garden is carefully designed and kept according to a plan, and it is not allowed to grow naturally*”. In addition, formality is considered, as “*something that the law or an official process says must be done*”.

Let us now look at informality. The Merriam-Webster online dictionary<sup>14</sup> refers that informality is something “*marked by the absence of formality or ceremony*”. The Oxford online

<sup>10</sup> - In China and India alone, it is estimated a total of 352 million new urban residents (United Nations, 2014).

<sup>11</sup> - Merriam-Webster dictionaries. (2015, January 17). Retrieved from <http://www.merriam-webster.com/dictionary/formal>

<sup>12</sup> - Oxford dictionaries. (2015, January 17). Retrieved from <http://www.oxforddictionaries.com/definition/english/formal>

<sup>13</sup> - Cambridge dictionaries. (2015, January 17). Retrieved from <http://dictionary.cambridge.org/dictionary/british/formal>

<sup>14</sup> - Merriam-Webster dictionaries. (2015, January 17). Retrieved from <http://www.merriam-webster.com/dictionary/informality>

dictionary<sup>15</sup> also addresses informality as being the “*absence of formality*”. Finally, the Cambridge dictionaries online<sup>16</sup> regards informality as a situation that is “*not formal or official*”. Therefore, formality can be understood as a required and formal concept that must comply with a set of conventions, rules and regulations, or customs, which are public or official, and therefore recognized. On the other hand, informality can simply be interpreted as the opposite of all that.

Nevertheless, let us take an even closer look at these same concepts when applied to a spatial and social organization, namely a City. In order to do so, and in light of the vast existing terms associated with the notions of “*formal and informal city*”, we first need to select the appropriate expressions to connect to each of the referred concepts.

Regarding “**formal city**”, the authors believe that the most appropriate expression is “*city*” itself (despite the assortment of existent synonyms<sup>17</sup>). The reason is simple. Most known definitions, provided by renowned authors or institutions associate the idea of “*city*” with planning, design, governance, symbolism, economy, community, and identity, among others. Therefore, the expression “*city*” can be considered as an adequate description of formality.

On the other hand, informality is a much complex and wider notion. There are several different descriptions and approaches that are used by different nations and cities, as well as by both public and private organizations, thus providing a variety of interpretations<sup>18</sup>.

In addition to different descriptions regarding the same concept, we can also verify the existence of different expressions referring to informality, namely “*(...) slum; shanty; squatter settlement; informal housing and low income community (...)*”<sup>19</sup> (UN-Habitat, 2003).

Such diversity is the result of the relativity of the concept, making it difficult to define considering just one or two parameters. Bearing in mind the assortment of terms, and despite their very interesting particularities, the author believes that the expression “**slum(s)**” is the most appropriate to continue exploring the concept of informality. Such choice is due to the fact that this is the most commonly used and described term by world renowned institutions that have been focusing their area of study and acquired expertise on such particular subject<sup>20</sup>.

Having selected “**city**” and “**slum**” as associated expressions for the notions of formality and informality, let us now apprehend how different authors describe both of them. Regarding

<sup>15</sup> - Oxford dictionaries. (2015, January 17). Retrieved from <http://www.oxforddictionaries.com/definition/english/informality>

<sup>16</sup> - Cambridge dictionaries. (2015, January 17). Retrieved from <http://dictionary.cambridge.org/dictionary/british/informal>

<sup>17</sup> - Town, cosmopolis, metropolis, municipality, burg. Merriam-Webster dictionaries. (2015, January 17). Retrieved from <http://www.merriam-webster.com/dictionary/city>

<sup>18</sup> - In the city of Ibadan in Nigeria, slums are considered unplanned settlements that lack infrastructures and are occupied by low-cost and low quality housing, whose residents are mostly poor and illiterate and lack land tenure. On the other hand, in Calcutta, India, slums, despite presenting lack of adequate water and sanitation infrastructures and a low quality housing occupation as common features with Ibadan, possess a very different particularity. Some of these slum areas have land titles which makes them officially recognized by local authorities (UN-Habitat, 2003).

<sup>19</sup> - Throughout the world, there are several expressions that describe these types of settlements, namely: Bidonvilles (France); asentamientos irregulares (Spain); Elendsviertel (Germany); Trushchobi (Russia); Bairro da Lata (Portugal); Favela (Brazil); Gecekondur (Turkey); Ghetto (United States); Umjondolo (Africa), among others (UN-Habitat, 2003, 9-10).

<sup>20</sup> - The World Bank, United Nations (UN), Food and Agriculture Organization (FAO), United Nations Children's Fund (UNICEF), Cities Alliance (CA), Architecture for Humanity (AH) ...

"city", Mumford (1937, p.37) describes it as "(...) a geographic plexus, an economic organization, an institutional process, a theatre of social action, and an aesthetic symbol of collective unity".

Levi-Strauss (1961, cited by Sinha, 2012, p.56) considers "(...) by its form, as by the manner of its birth, the city has elements at once of biological procreation, organic evolution and aesthetic creation. It is both a natural object and a thing to be cultivated, something lived and something dreamed. It is the human invention par excellence".

For the United Nations (2007, p.7), the definition of city is "(...) a built-up or densely populated area, containing the city proper (single political jurisdiction that contains the historical city centre), suburbs and continuously settled commuter areas. It may be smaller or larger than a metropolitan area; it may also comprise de city proper and its suburban fringe or thickly settled adjoining territory". Kostof (2009, p.37-41) consider the city as "(...) a place where a certain energized crowding of people takes place; (...) a town never exists unaccompanied by other towns; Cities are places that have some physical circumscription, whether material or symbolic, to separate those who belong in the urban order from those who do not; Cities are places where there is specialized differentiation of work (...). These distinctions create social hierarchies: the rich are more powerful than the poor (...). Cities are places favoured by a source of income (...). Cities are places that must rely on written records. It is through writing that they will tally their goods, put down the laws (...), and establish title to property – which is extremely important, because in the final analysis a city rests on a construct of ownership. Cities are places that are intimately engaged with their countryside, that have a territory that feeds them and which they protect and provide services for (...). Cities are places distinguished by some kind of monumental definition, that is, where the fabric is more than a blanket of residences. This means a set of public buildings that give the city scale, and citizenry landmarks of a common identity; finally, cities are places made up of buildings and people".

Mumford (1937) describes "city" as a spatial, economic and social, institutional organisation, which is a symbol of mankind's determination and labour. Levi-Strauss highlights the city as man's greatest invention, something that in light of its origin, its physical features and its evolution should endure and nurtured. On the other hand, the UN (2007) definition focus predominantly on its physical characteristics overlooking its social, cultural, economic and institutional features. Although presenting a wider and richer reflexion on the concept of "city", Kostof (2009) also looks at it as a spatial, economic and social institutional organisation, adding historical heritage, creativity, culture; identity, supremacy and segregation as important features of his description.

Regarding **slum** definitions, Cities Alliance<sup>21</sup> (1999, p.1), considers that they are "(...) neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition of rights, sprawling at the edge of cities. Some are more than fifty years old, some are land invasions just underway. Slums have various names, Favelas, Kampongs, Bidonvilles,

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<sup>21</sup> - The Cities Alliance (CA) is a global partnership for urban poverty reduction and the promotion of the role of cities in sustainable development.

*Tugurios, yet share the same miserable living conditions. Slums do not have basic municipal services — water, sanitation, waste collection, storm drainage, street lighting, paved footpaths; roads for emergency access; schools and clinics within easy reach, safe areas for children to play and places for the community to meet and socialise. Slums are worsening while the average age of city populations is increasing; the average age of slum dwellers is decreasing, so youths and children suffer most; visible disparities between slums and better-off neighbourhoods increase the social tensions in poorer areas; and unplanned growth of settlements makes conventional service provision complicated and costly”.*

The UN<sup>22</sup> (2007, p.21) describes **slum** as “(...) a group of individuals living under the same roof in an urban area who lack one or more of the following five conditions: Durable housing of a permanent nature that protects against extreme climate conditions; Sufficient living space which means not more than three people sharing the same room; Easy access to safe water in sufficient amounts at an affordable price; Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people; Security of tenure that prevents forced evictions”.

For Lumanti (2004, p.2)<sup>23</sup> “(...) slum communities are defined by poverty, low income, inadequate living conditions and sub-standard facilities. These communities are usually inhabited by socially disadvantaged people (people regarded as lower caste). Unlike squatter settlements, the residents of these slum areas generally own their land and houses, which are very small in size and have formal title papers (Lalpurja) to prove their ownership. These communities are also officially recognized by authorities. On the other hand, a slum area, where the residents do not have Lalpurjas is defined as a squatter settlement. Thus, all squatter settlements are slums but a slum may not be a squatter settlement”.

Kostof (2009, p.64-69) understands slum areas as “(...) unauthorised, unregulated patches of urban growth are seen by their inhabitants neither as temporary shelter nor as the equivalent of urban slums, (...). To them, rural migrants who mean to stay, these are permanent settlements alive to the pride of ownership and the ambition of self-improvement. They start out as shanty towns on unoccupied land at the distant edges of town, or in centrally located areas too difficult to develop, like steep slopes, canyons, garbage dumps. At this stage they have the look of refugee’s camps – no vegetation; no services; open trenches for sewers down rutted, unpaved streets. The building materials are what comes to hand or can be scavenged, mostly cardboard and scrap metal”.

For the Cities Alliance (1999), slums are characterised as high density spatially neglected and segregated urban areas. These unplanned squalid settlements are social melting pots, absent of basic municipal services that “provide” appallingly poor housing (with inappropriate living

<sup>22</sup> - In 2002, UN-Habitat developed in collaboration with additional stakeholders a provisional definition for “slum”. Essentially such areas were seen as urban settlements in which more than half of its population resided in inadequate housing and had no access to basic services. More recently, a new definition was developed. This more operational definition focuses on the household as the basis unit of analysis, since they can be geographically contiguous or isolated (UN-Habitat, 2007).

<sup>23</sup> - LUMANTI- Support Group for Shelter is an ONG dedicated to the reduction of urban poverty in Nepal. This definition was presented at a workshop, in a discussion note entitled: “What is a Slum?” that took place in November 9th of 2004 and was organized by the NGO Forum for Urban Water & Sanitation.

conditions and absent security of tenure), to its predominantly young population. On the other hand, the United Nations (2007) definition focus predominantly on the physical characteristics of slum areas overlooking its social, cultural and economic necessities (which are harder to analyse and register). The non-governmental organisation Lumanti (2004), also understands slums as spatial and social sensitive areas. These settlements are inhabited by an underprivileged population who lack appropriate living conditions, although possessing titles of property<sup>24</sup> and therefore being recognised by local authorities. Kostof (2009) understands slums as unauthorised and unplanned areas, located in hazardous sites at great distance of city centres. Nevertheless he also highlights that the residents of slums, mainly rural migrants, have a very different perception of such territories. For most slum dwellers these are not mere temporary shelters and they take great pride *"(...) in keeping their homes as clean and beautiful as possible, even more so during festivities"* (Sinha, 2012, p.55).

So, considering the presented discussion for both concepts, the following key-words can be highlighted, namely, economic organisation; institutional process; social action; aesthetic; symbol; built-up; densely populated; city proper; suburbs; commuter areas; energised; physical circumscription; social hierarchies; title to property; scale; citizenry; landmarks; identity; buildings; people, regarding the expression **"city"** and living conditions; high density; squalid; squatter settlements; legal recognition; rights; edge of cities; municipal services; social tensions; youths; children; unplanned growth; urban area; durable housing; living space; safe water; adequate sanitation; security of tenure; poverty; low income; socially disadvantaged, regarding the expression **"slum(s)"**.

Therefore, we can verify that the definitions of **"city"** focus mostly on their strong points, referring what they possess, and obscuring their problems and deprivations. On the other hand, the definitions of **"slum"** claim precisely the opposite. All definitions highlight on the negative, mainly its difficulties and deprivations, never mentioning any of the positive characteristics that slum areas

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<sup>24</sup> - The subject of land title is in fact a critical issue regarding slum areas, one that according to the United Nations is most urgent to address and resolve. With that in mind, in 2003 they identified the following conditions regarding land tenure in informal settlements:

Formal home-ownership: *"(...) means that the owner of the structure has freehold or long leasehold title over the land, with the ability to sell or mortgage the improvements, to leave it to descendants and to make any changes to the structure that are desired"*.

Formal Private Rental: *"(...) involves a lease or equivalent entitling the lessee to quiet enjoyment of the property for a fixed time, or until certain conditions are fulfilled, as long as the rent is paid and the property is maintained."*

Informal Home-Ownership – Squatting: *"Squatters are people who occupy land or buildings without the permission of the owner. Squatting occurs when an occupant has no claim to the land she or he occupies that can be upheld in law"*.

Informal Home-Ownership – Illegal subdivisions: *"(...) refer to settlements where the land has been subdivided, resold, rented or leased by its legal owner to people who build their houses upon the plots that they buy."*

Public Rental: *"Public rental housing generally grants unlimited tenure, even to the next generation, at a subsidized rental; but it grants no property rights"*.

Informal Rental: *"Informal renting can take many forms, from occupying backyard shacks in public housing in South Africa, to subtenants in squatter housing in the favelas of Brazil, to pavement dwellers in India who make regular payments to someone in authority in order to keep their position. This group, along with new squatters, have the most fragile housing situation, short of having no shelter. They are able to live where they do until someone moves them along"*.

Customary tenure: *"Parts of many cities, particularly in Africa, have no state formalized ownership of land and the land is not marketable. Instead, it is held by traditional leadership entities, such as chiefs, in trust for the community and its use is controlled through leases that allow rights of surface use for a fixed period (or in perpetuity to members of the local community)"*.

indeed possess such as ethnic diversity, resilience, creativity and cultural heritage, among others. In fact, the only common features to be emphasised regarding city (*formality*) and slum (*informality*), is that both are seen as urban and as densely populated areas.

Basically, “*formality*” is seen as something to aspire and “*informality*”, as something to decline.

#### 4 Final considerations

In the previous topics, the authors presented two concepts (*formality* and *informality*) in order to clarify the differences between them. Initial interpretations demonstrated, that, essentially, they are the opposite of one another and, apparently, possess a reduced number of common features. Nevertheless, all those that know both realities, either by professional or by living experience, realise that such final statement, although accurate, is in fact more complex. Such complexity derives from the fact that these notions possess more common features than those presented. Let us look at them. Cultural aspects are one of the features not highlighted as a similarity, when in fact slum dwellers have, directly<sup>25</sup> and indirectly<sup>26</sup>, made valuable contributions to the 20th century cultural life, either in music, literature or dance (UN-Habitat, 2003). Social aspects are also another common feature that was not highlighted. Famine, poverty, crime, and social exclusion are also well-known stigmas of cities in developed countries<sup>27</sup>. Economic distresses namely the existence of informal or parallel transactions, are also another shared concern between “*formal and informal cities*”<sup>28</sup>.

The current environmental degradation of developed countries and cities, which is a direct result of ecological crimes, massive garbage production and of a high percentage of CO2 emissions, can be easily compared to the informal city's environmental challenge regarding sanitation and garbage disposal inefficiency. Last but not least, although presently informal settlements are not a main concern in “*developed cities*”, its presence, nevertheless, is still well felt<sup>29</sup>.

<sup>25</sup> - “It is hard to overestimate the contribution that slum dwellers have made to cultural life during the 20th century. Contributions have included some of the main musical and dance movements of the 20th century: jazz, blues, rock and roll, reggae, funk and hiphop music in the US; the ballads of Edith Piaf in France; breakdance in New York; fado in Portugal, flamenco in Spain and rebetika in Athens; township music and souks in Africa; and various Latin American dance crazes in Brazil and Argentina (...)” (UN-Habitat, 2003, p.71).

<sup>26</sup> - “The literature of slum areas has ranged from deep social critiques of misery and crushed hopes, such as Tennessee Williams’s *A Street Car Named Desire*; Zola in *France*; *Angela’s Ashes* in *Dublin*; Charles Dickens and George Orwell in *England*; Saul Bellow, John dos Passos, James Baldwin and other black urban writers in the US, as well as Selby’s grim *Last Exit to Brooklyn*; Maria de Jesus’s *Beyond all Pity* or Meja Mwangi’s novels of slum life and despair in *Nairobi* (...)” (UN-Habitat, 2003, p.71).

<sup>27</sup> - According to recent data (2013) provided by Portugal’s National Statistics Institute to a national newspaper, of the 1.9 million people which are at poverty risk (approximately 20% of the population), 120.000 are children. Público. (2015, January 19). Retrieved from <http://www.publico.pt/n1678356>

<sup>28</sup> - In Portugal, it is estimated that in 2013, the informal economy represented approximately 27% of the country’s GDP. Público. (2015, January 19). Retrieved from <http://www.publico.pt/n1678942>

<sup>29</sup> - Recently in Portugal, namely in Ria Formosa, in the Algarve, a large number of informal households was demolished since they were located in an environmental protected and sensitive area. Público. (2015, January 19). Retrieved from <http://www.publico.pt/n1678356>. In addition, several Municipalities are still trying to resolve illegal urban operations that resulted in unauthorized land developments and illegal housing. Diário de Notícias. (2015, January 19).

Even regarding urban planning and design there are also known similarities, since not all informal settlements start out with a spontaneous occupation absent of rules and intent.<sup>30</sup> (Figure 9)



**Figure 9.** The El Carmen settlement in the Comas district of Lima, Peru, was laid out in a block pattern by squatters prior to their occupation of the site in the late 1960s. By 2012 it was an established suburban neighborhood.

(Source: Google Earth Pro V. 7.1.2.2041. (April 4, 2015). El Carmen, Lima, Peru. 11°56'15.23"S, 77° 2'32.23"W, Eye alt 1.24 km. Digital Globe 2015. <http://www.google.com/earth/> [August 3, 2015]).

In light of such explanations, one can likely determine that the main differences between formality and informality, reside in four "simple" features: **Dimension, Resources, Determination and Recognition.**

**Dimension**, represents the length of existent social, economic, cultural, environmental and territorial problems between both concepts, which are in fact far larger in the informal city. **Resources**, are understood as the available means to cope with such problems in order to resolve or diminish their impact and presence in cities. The lack of resources of most third world countries helps to explain the dominant presence of informality in their territories. **Determination**, characterizes the social and political interest and resolve in addressing such matters, namely the intent of better people's lives. **Recognition**, represents society's acceptance regarding informality, not as something to decline, but as a new urban challenge, one to contest and improve while

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Retrieved from [http://www.dn.pt/inicio/portugal/interior.aspx?content\\_id=3939580&seccao=Sul](http://www.dn.pt/inicio/portugal/interior.aspx?content_id=3939580&seccao=Sul)

<sup>30</sup> - "(...) the creation of Pampa de Comas, a large squatter settlement on public land on the desert outskirts of Lima, did require serious planning and coordination. Comas was formed by a series of organized invasions that were carefully thought out and far from spontaneous. People came together in the city, often organized by zealous priests, to plan and prepare for them. Civil engineering students from a local university were called upon to help with site planning and, using their school's instruments, they clandestinely surveyed the land in advance of its occupation. Then on a carefully selected date, usually at night, dozens of families occupied a large site in Comas. (...) Comas is now a fully built urban neighborhood, indistinguishable from any neighborhoods in the city. Squatters were eventually awarded title documents, and the houses in the district are now part of Lima's formal housing market" (Angel, 2012, p.65-66).

finding praise for “(...) *the responsive and flexible evolution of its form, and its native ease with the rhythms of communal living*” (Kostof, 2009, p.43).

To resume, and in light of the previously stated, it is not only possible for the formal and informal city to coexist, as, in some cases, it is also a necessity. These informal settlements are territories of choice and opportunity, the first step on a new life, for many urban migrants, providing them with cheap accommodation and easy access to labour, and providing the formal city with a much needed young and energetic workforce.

Such symbiotic relation has been enduring through time and has been contributing, in some cases, for the production of more resilient and creative cities (Figure 10).



**Figure 10.** The Formal and the Informal City, Caracas, Venezuela.  
(Source: *in* Iwan Baan photography, 2012)

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Figure 10 - Iwan Baan: "Torre David / Gran Horizonte" Fotografia, Venezuela, Caracas, 2012. 13th International Architectural Exhibition-la Biennale di Venezia. Source: Iwan Baan photography. Site: [http://www.iwan.com/photo\\_Venice\\_Biennale\\_2012\\_U TT-Iwan\\_Baan\\_Torre\\_David.php](http://www.iwan.com/photo_Venice_Biennale_2012_U TT-Iwan_Baan_Torre_David.php).



# Seeing, standing and sitting: the architecture of co-presence in small urban spaces

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The senses are part of the everyday life of the people and they play an important role to experience the quality of public spaces. This paper addresses the question to what extent people co-presence in public spaces is related to their field of vision while they are seated in benches or movable chairs or just standing there. A method based on Isovists and Visibility Graph Analysis (Space Syntax) is proposed for the evaluation of space affordances concerning visibility, exposure, use, comfort and social interaction. Through the analysis of places, a more detailed and qualitative interpretation of the city is carried out. One reason why this research is done is to learn how space syntax analysis is applicable to the study of public spaces and another is to make the analysis comparable with other environmental and behavior approaches like "prospect and refugee theory" and the "edge effect".

William Whyte, who extensively investigated patterns of co-presence and suggested the importance of places to seat in successful public spaces used to say that "people seat wherever they have a place to seat". In this paper we pretend to be a little more specific and investigate the hypothesis that "people seat wherever they have a place to see" combining direct observation with space syntax tools and techniques.

The layout of plaza Paiva Couceiro in Lisbon was analyzed according to space syntax methodology. Standing activities were mapped several times and at different times of the day. Using the software UCL Depthmap the position of the benches and other standing places were evaluated in terms of isovist properties and syntactic measures. The results were compared with the behavior mapping.

The study demonstrates the use of the proposed method in the evaluation of the social life of public spaces showing evidences on the relation between standing activities and the importance of the fields of vision in people social behavior. The results suggest a good correlation between the syntactic measures and the user evaluation of the benches and other standing places within the plaza. The results also suggest how designers and policymakers can manipulate space in order to contribute to improve urban life.

**Keywords:** Public spaces, visibility, space configuration, prospect and refugee theory, edge effect.

## 1 Introduction

Sight is the most highly developed of our senses and it affects the way we use public spaces. In this paper we suggest that static activities in public spaces, like seeing, standing and sitting are related with the way we see. According to William Whyte (1980), one of the main functions of public spaces is to see other people. What are the properties of the space, which favours this purpose is the objective of this research. The study of the environment in terms of visibility relationships is necessary to understand human perception of spatial conditions. This is an important aspect of the architecture of co-presence in public spaces.

Different theories and disciplines explore the question of visibility in the built environment and its relation with people's perceptions and behaviour. One is isovist analysis (Benedikt, 1979). In the famous paper "To take hold of space: isovists and isovist fields" Benedikt created maps of properties of the visual field at points within plans of buildings. "The space that can be seen from any vantage point is called an isovist and the set of such spaces forms a visual field whose extend defines different isovist fields based on different geometric properties" (Batty, 2001). He believed that these maps would give an insight into how people navigate in space.

In 2001 Alasdair Turner create Depthmap, a software developed to combine Isovist fields

with Space Syntax theory (Hillier and Hanson, 1984) to provide a measure of how well integrated isovists themselves are within a plan of an environment. The methodology was then formalized as Visibility Graph Analysis (VGA) and various graph measures, not just integration, can be made. "The idea was that all possible occupiable locations within the built environment would be categorized by their visual relationships to other occupiable spaces through a continuous map" (Turner, 2004). Because VGA has proved to give a good indication of how people interact with space, we will explore this technique to analyse space configuration of public spaces in order to understand static activities.

Other empirical approaches sustain reasons for people to choose a place based on visibility wherever they stand or sit watching other people in public spaces. Prospect-refuge theory (Appleton 1975) expands the idea of "to see without being seen" as a primitive human behaviour. It states that the ability to see (prospect) but not to be seen (refuge) is basic to many biological needs. According to Appleton the ability to see without being seen increases perceived safety, which increases the aesthetic pleasure experienced in the environment. An enclosed space promotes feelings of relaxation, comfort and happiness whereas a prospect is said to be stimulating and exciting (Ramanujam, 2006). In this context, prospect and refuge approach can be used as an ecologically based theory to provide a potentially valuable framework for several researches of people behaviour in public spaces. The same idea is present in the concept of panopticism (Foucault, 1977). The panoptic space allows a permanent state of control and power through visibility: Who is subjected to a field of visibility and knows it, feels constrained by the power of being seen - "visibility is a trap". Also Ghel (2010) discussed the concept of "edge effect" in urban space. Spaces along the facades or transitional zones between one space and the next are the most popular zones for staying. According to Ghel the obvious explanation for the popularity of edge zones is that placement at the edge of a space provides the best opportunities for surveying it. At the edge, one is less exposed than if one is out in the middle of a space (2010:149). Finally Alexander et al. (1977) refers that since people enjoy looking at the pedestrian flow, the life of public spaces forms naturally around their borders and edges where people gravitate. According to these authors (1977: 600), "if the edge fails the space never becomes alive, becoming a place just to walk through and not to stop".

As the permanence of people in public spaces is an important factor of successful environments, the purpose of this research was to study the spatial properties of environments of co-presence in relation to visibility, prospect and refuge theory and edge effect. A successful public space, where static activities like seeing, standing and sitting make the difference for effective use of the space, was a pre-condition for case study.

## 2 Case Study

This research involves the analysis of spatial and social patterns of co-presence (static activities) in Plaza Paiva Couceiro in Lisbon. Paiva Couceiro Plaza was built in the 1950 with a formal layout, which articulates two main streets of the city, Av. General Roçadas and Rua Morais Soares. For this reason, the place is very accessible from the global city. At the same time it is a local center that establish a clear relationship between different neighborhoods and their communities. The

plaza was redesigned in 2010 and is almost used by inhabitants of the surroundings, especially older people and card players. Despite the main pedestrian area is an island surrounded by traffic lanes, people use it in their daily journeys because it has a good accessibility, which invites one to cross the area. There is also plenty of shade from the trees in the summer, places to sit, furniture for children's to play, water and a café. All these activities promote diversity which bring success to the place.

### 3 Method

The methodology developed in this research is based on extensive understanding and empirical analysis of a public space - Plaza Paiva Couceiro. The most important aspect of this research is the application of the method developed within space syntax theories namely the Visual Graph Analysis (VGA). One reason why this research is done is to learn how space syntax analysis is applicable to the study of public spaces and another is to make the analysis comparable with other environmental and behavior approaches like "prospect and refuge theory" and the "edge effect" which have been described above.

Space Syntax is a set of theories and techniques for analyzing spatial configurations originally conceived to understand the social effects of a spatial layout (Hillier and Hanson 1984). "The point of departure for space syntax is that human societies use space as key and necessary resource in organizing themselves. In doing so, the space of inhabitation is configured – a term that space syntax recognizes as an act of turning the continuous space into a connected set of discrete units" (Bafna, 2003).

In order to investigate whether there is a relationship between the 'edge effect' and the 'theory of prospect and refuge' and patterns of stationary activity in public space, we compare and correlate the results of direct observation of public life with Visual Graph Analysis from space syntax methodology.

Using direct observation (Whyte, 1980 and Ghel, 2010, 2014) data on standing people was documented over several summer days for several periods of time: mid-morning and lunch time (off peak for static occupancy) and afternoon (peak for static occupancy), (Fig. 1 and Fig. 2). Within periods of half an hour people were mapped on their positions. People moving were excluded from the quantitative analysis. Temperatures and uncomfortable areas within the sun (specially the benches) were also mapped. Photographs and films register the main activities of the place. Figure 2 represents the shape and size of the place, the distribution of the furniture and the patterns of stationary activity in public space according to time period.

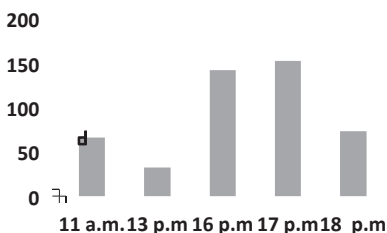


Figure 1. Total number of static people observed according to time period.

The main technique used in this research is Isovist and Visual Graph Analysis (VGA) applied through the software Depthmap developed by Alasdair Turner (2001) from two stands of thought: Isovist analysis (Benedikt, 1979) and space syntax (Hillier and Hanson, 1984). Within this technique the demarcation of boundaries in space allows particular visibility relationship and this in turn generates probabilistic patterns of staying within the people being housed.

Based on the city cartography and site investigation, the plan of plaza was redrawn to illustrate its boundaries, layout and the context. The elements were then divided into layers. The plan shows data of the physical spaces and landscape components, which are characterized by pavement, trees, benches, tables and people positions, (Fig. 2).

A grid of points with 0.5 meters was overlaid on the plan of the plaza. A graph was then made of the points, where each point is connected to every other point that it can see. The knee-isovist level was prepared by including layers for both eye-height obstructions (such as walls) and other objects that might block permeability (such as tables and benches). Various graphs measures were then calculated so that all possible occupiable locations within the plaza can be categorized by their visual relationships to other occupiable spaces through a continuous map which give a good indication of how people might interact with space (Turner, 2004:1-2). Depthmap stores the measures and produces a colored visualization of the data. The color of each point is assigned using the value of each measure. A rainbow spectrum is employed in which red denotes the maximum value and blue represents the minimum value of a measure. The colours of orange, yellow and green are assigned respectively for the intermediate values. Each measure is therefore illustrated by its own diagram (Fig. 3 and 4).

Figures 3 and 4 represent the geometric properties and syntactic measures of isovists used in this paper. The geometric properties of Isovist are measures of the single isovist and are local properties which can be instantly apprehended by someone standing in the space. The syntactic measures, in contrast with geometric measures are not properties of the individual Isovist considered in isolation but are properties of that isovist's relation to all other isovists in the system.

The isovist geometric properties analyzed in this paper were Area, Perimeter, Minimal and Maximum Radial, Compactness and Drift Magnitude (Fig. 3). The syntactic measures used were Connectivity, Visual Integration HH, Visual Control and Controllability and Visual Step Depth.

The next step in this research was to compare the patterns of static people with the different measures calculated in VGA analysis. In essence, the sample of Isovist measures for each pause point location is compared against the total population of static people observed according to the time period. Finally, the links between space and spatial behavior will be presented and discussed.

#### **4 Spatial Analysis of the plaza Paiva Couceiro**

In this section we analyze how spaces are related to each other and to the whole spatial system, how this influence static activity in the plaza and how the distribution of space situates people and things in relation to each other.

The pedestrian area of plaza Paiva is a convex space of about 1250 m<sup>2</sup>. By definition, a convex space is one in which no straight line drawn between any two points goes outside the space

(Hillier and Hanson, 1984). In practice this means that wherever the observer is, there will always be a local convex element of some kind, in which every point is visible from every other point. This convex space is a rectangle with 50m\*25m elongated SW-NE and protected from the traffic lanes by a large green boundary. The shape and dimension of the pedestrian area reflects the social field of vision. It enables onlookers to stand on one corner and get a general view of what is going on the plaza. These distances also allow one to recognize people in an easy way inside the plaza. According to Ghel we usually recognize a person at somewhere between 50 and 70 meters. Body language can also be read from this distance. And at the distance of about 22 – 25 meters, which is the distance between the longer sides of the plaza, we can accurately read facial expression and dominant emotions (2010:34).

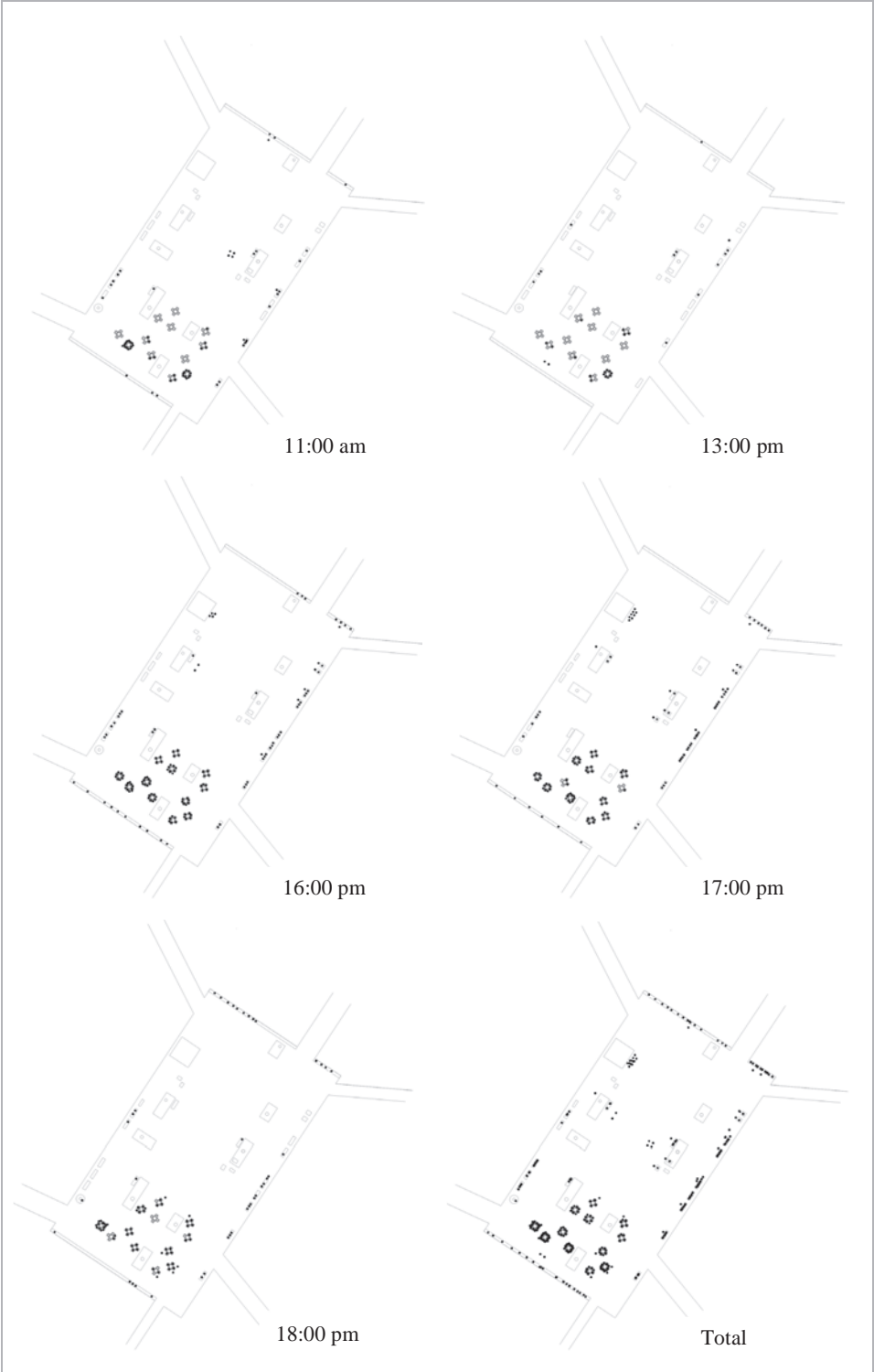
Given this background we can now compare static activities and configurational properties of space according to isovist properties and space syntax measures. The distribution of static activities tends to follow the spatial properties in a number of ways. Figs. 1 and 2 summarize static people spatial pattern distribution according to time period. Table 1, Figs. 3 and 4 show the spatial patterns of the different measures of VGA analysis correlated with the pattern of static people in the plaza. Table 2 shows the correlation matrix between measures of isovist attributes. Following we will describe the spatial pattern of each measure and its correspondence with the static activity within the plaza.

**Table 1.** Different measures of VGA (Visibility Graph Analysis).

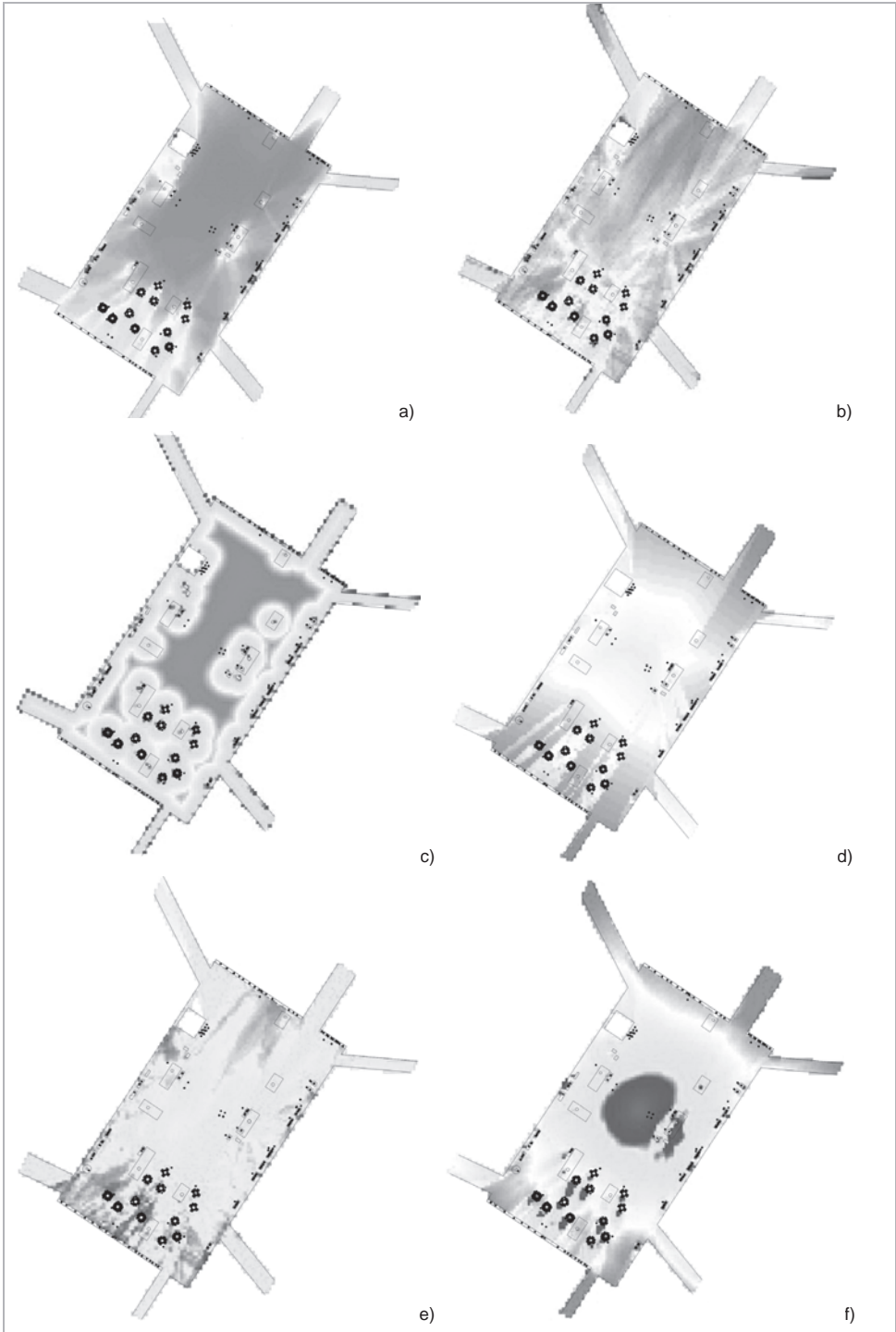
Measures	average	minimum	maximum
Isovist Area	733	28	1081
Isovist Perimeter	476	43	743
Isovist Minimum Radial Lenght	2.04	0	8
Isovist Maximum Radial Lenght	45	10	70
Isovist Compactness	0.047	0.010	0.46
Isovist Drift Magnitude	14	0.16	38
Visual Connectivity	2940	112	4339
Visual Integration HH	22.27	8.82	37.2
Visual Control	1	0.06	1.51
Visual Controllability	0.50	0.02	0.73
Visual Step Depth 1	1.85	0	3
Visual Step Depth 2	1.36	0	2

#### 4.1 Isovist Area, Perimeter and Compactness

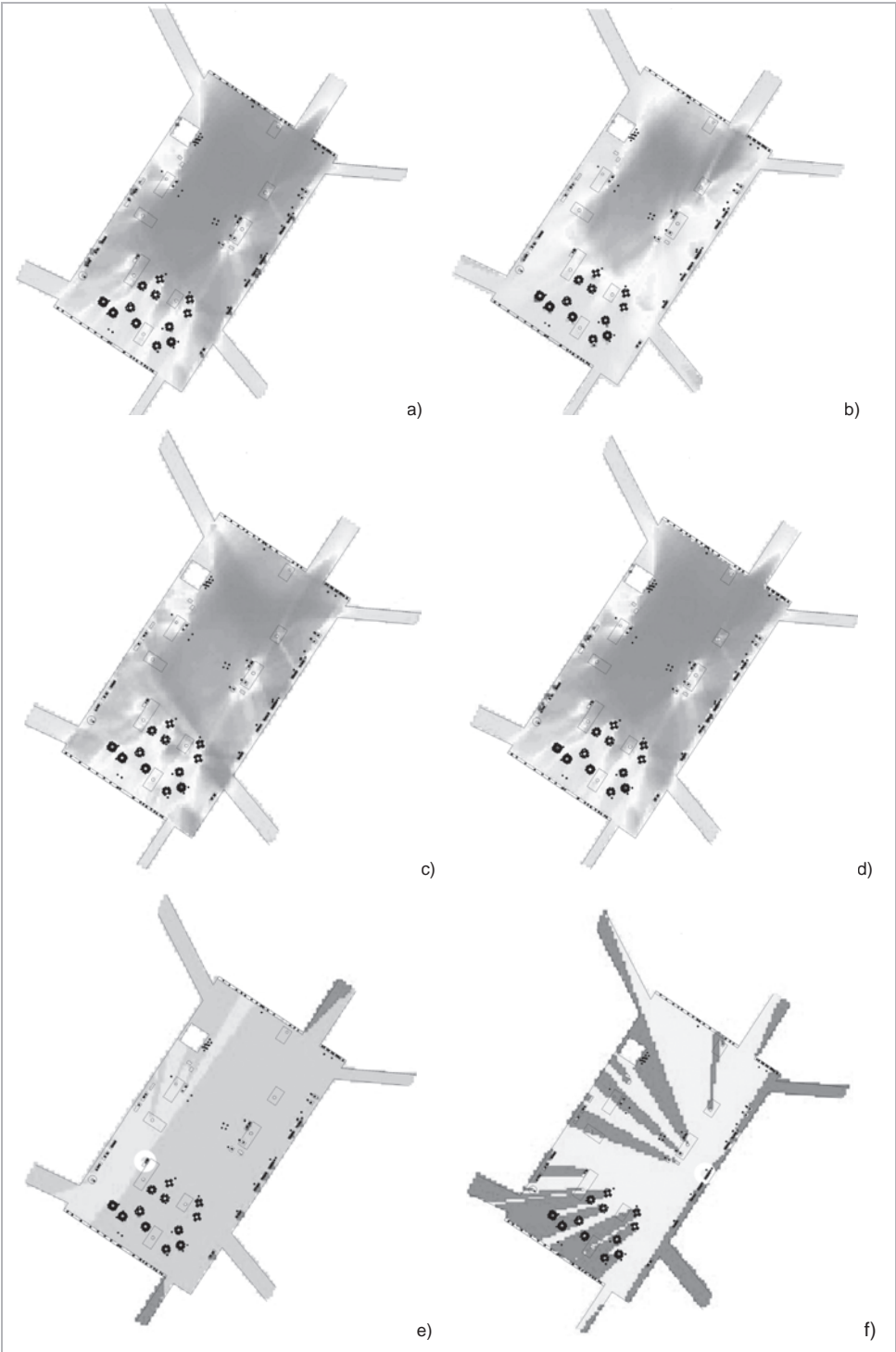
Isovist area is the amount of space visible from a particular point of view, (Fig. 3-a). The location of greatest Isovist area is found at the center of the plaza. From this location, it is possible to see the entire width and length of the plaza. Other locations of high Isovist area occur at the corners of the plaza and at the NE side as well at the intersection of major visual axes. Most of the plaza have a higher than average isovist area value ( $>733\text{m}^2$ ). Consequently, there are many places with good visibility. Exceptions for some benches where people avoid to sit, and table games that have a lower value than average. Perhaps this explains the success of this plaza for card players, which need some privacy.



**Figure 2.** Pattern of distribution of static people observed according to time period



**Figure 3.** Isovist geometric properties a) Isovist Area; b) Isovist Perimeter; c) Isovist Minimum Radial Length; d) Isovist Maximum Radial Length; e) Isovist Compactness; f) Isovist Drift Magnitude



**Figure 4.** Syntactic measures a) Connectivity; b) Visual Integration HH; c) Visual Control; d) Visual Controllability; e) Visual Step Depth; f) Visual Step Depth.

Isovist Perimeter (Fig.3-b) or how much environmental (real) surface can be seen from each point (Benedikt, 1979) indicates that most people were pausing in locations with values higher than average value ( $>476\text{m}$ ) or the locations which offered the longer lines of sight and consequently smaller than the average Isovist Compactness value ( $<0,047$ ), (Fig. 3-e). All of these results are related: locations, which permit the viewer long lines of sight would consequently have a larger perimeter and lower compactness. The parts of the plaza whose isovists have a high perimeter value are predominantly located at the edges, especially at the longest side of the plaza or at entrances. These locations appear to be ideal locations for people seeing, standing and sitting.

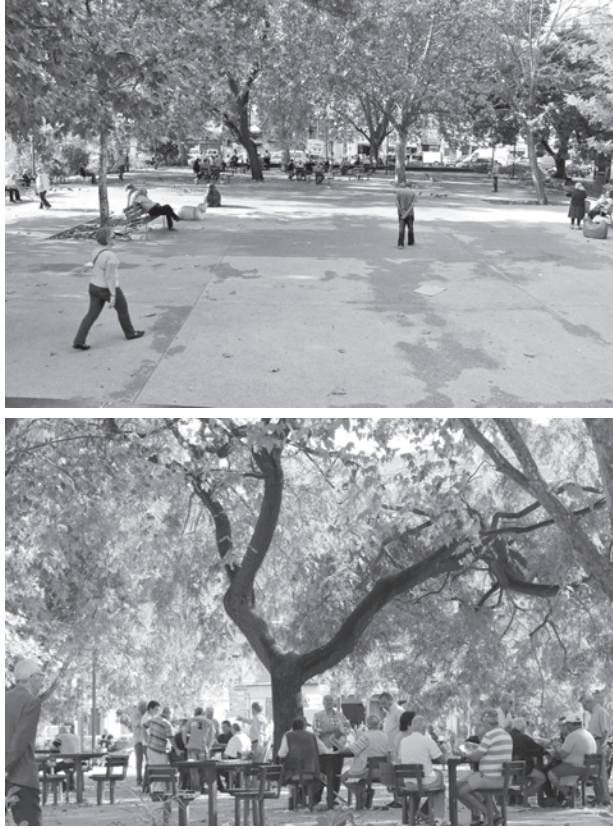
**Table 2.** Correlation matrix for isovist attributes.

	Area	Perimeter	Minimum Radial	Maximum Radial	Compactness	Drift Magnitude	Connectivity	Integration HH	Control	Controllability
Area	1.000	0.681	0.426	0.001	0.179	0.143	0.999	0.911	0.936	0.999
Perimeter	0.681	1.000	0.277	0.014	0.533	0.075	0.680	0.557	0.738	0.675
Min Radial	0.426	0.277	1.000	0.051	0.054	0.198	0.427	0.561	0.428	0.428
Max Radial	0.001	0.014	0.051	1.000	0.018	0.632	0.001	0.025	0.000	0.002
Compactness	0.179	0.533	0.054	0.018	1.000	0.063	0.178	0.127	0.248	0.172
Drift Magnitude	0.143	0.075	0.198	0.632	0.063	1.000	0.142	0.194	0.138	0.142
Connectivity	0.999	0.680	0.427	0.001	0.178	0.142	1.000	0.913	0.936	0.999
Integration HH	0.911	0.557	0.561	0.025	0.127	0.194	0.913	1.000	0.849	0.914
Control	0.936	0.738	0.428	0.000	0.248	0.138	0.936	0.849	1.000	0.935
Controllability	0.999	0.675	0.428	0.002	0.172	0.142	0.999	0.914	0.935	1.000

#### 4.2 Isovist Minimal and Maximal Radial Length and Drift

Reinforcing the above results is the fact that people are also stopping in locations with much lower than average Minimal Radial Length ( $<2,04\text{m}$ ), (Fig. 3-c). Minimal radial length is a measure of how close or distant a viewpoint is from an occluding surface. Therefore, the visualization of this measure in the plaza show clearly a preference for the closest occluding surface from the Isovist generating-point. Every static activity takes place within a distance between 0 and 1 meters from the edge surface. In some rare cases, we found distances between 2 to 3 meters. Exceptionally only one case was identified within a distance of 4 meters from the edge: A mother following her small children. Note that there is no reference beyond this value. This pattern also emphasizes the organic structure of the plaza through levels of scale: Cells, groups of cells, forming different areas in the plaza, all organized around a very clear and central area with branches which distribute them. The appropriation of the edges is very clear. The center remains empty for more dynamic activities like through movement, football, bike, etc.

The measure Maximum Radial Length identifies the longest lines of sight in the plaza (Fig. 3-d). These occur at both edges of the longer side of the rectangle of the plaza. The results indicate that most people were pausing in locations with values higher than Maximum Radial Length value ( $>45\text{m}$ ).



**Figure 5.** Paiva Couceiro Plaza showing through movement and stationary activities: Seeing, standing and sitting (above) and card players game main activity (below).

Both measures, Minimal and Maximum Radial length provides the best evidence of prospect (maximum radial) and refugee (minimum radial). They also provide good evidence for edge effect in urban space.

Finally, within this group of Isovist properties we have the Drift Magnitude which is the distance between the viewer's location and the center of the Isovist polygon (Fig. 3-f). This measure describes the strength of the visual pull and the force of movement (Ostwald & Dawes, 2013). The pattern of Drift is quite interesting as the values tend towards to local minima at the center of the plaza, the mean area of through movement. It was observed that patterns of drift resemble to patterns of movement. People tend to navigate through the centers of spaces.

#### 4.3 Syntactic Measures

In terms of space syntax measures, it also appears that people are pausing strategically. Connectivity represents how many locations each node can see (Turner, 2004), (Fig. 4-a). It has a good correlation with the geometric property Isovist Area or how much space can be seen from each point. For this reason we didn't present this important measure. Integration is the most

famous measure in space syntax literature defined by Hillier and Hanson (1984), (Fig. 4-b). In VGA it is a global measure that computes the mean shortest length for all the nodes through the visibility graph (Al\_Sayed et al., 2014). Correlated with the measure of connectivity it gives us the measure of intelligibility of the space, or how easy is to recognize a space within the system and to know where you are. The pattern of visual connectivity as well as visual integration HH has their highest values on the centre of the plaza and they gradually decrease to the periphery. This means that the nodes with the bigger isovists as well as the more accessible ones are those on the centre of the plaza. Compared with the pattern of static activities we can see that this points are not the most preferred by people for stationary activity. As Arruda concludes in her paper (2005), “stationary activity is more likely to happen in relatively segregated spaces off-set from the main access points”. However and exception for card players and their watchers, it appears that people are also stopping in locations with a higher than average isovist connectivity (>2940).

There is a tendency for static activities to be out of the integration core. Only some specific groups stop in this area, like mothers with their children's attracted by the emptiness of the centre for playground. Usually people prefer to sit at the benches situated around the integration core in areas within the average integration value (=22) and closer to some edge surface. From there one can easily observe the square crossing movement, the main attraction of successful public spaces. The sitting places within the more segregated areas of the system have a tendency to be relatively used by single persons or smaller groups, for private reading, or just to be alone. The south area of the plaza, where is situated the game tables, is the most segregated area of the plaza.

The correlation between the measures of connectivity and integration shows that this environment is also very intelligible ( $R^2=0.91$ ), (Table 2). The spaces with higher visibility (Connectivity) are also the spaces with better visual accessibility (Integration HH). This fact influences positively the stopping behaviour.

Control is a measure which again comes from Hillier and Hanson (1984), while controllability is a measure proposed by Turner (2001). The visually dominant areas have the highest values of control (Fig. 4-c) while the areas that may be easily dominated have the highest values of controllability, (Fig. 4-d). In order to have control, a node must see a large number of spaces, but these spaces should each see relatively little as it happen at the Bentham's panopticon (Turner 2004). The spatial patterns of control and controllability are very coincident. This aspect is quiet visible in the correlation between these two measures (0.935), (Table 2). According to Turner (2004) some spaces can be both controllable and controlling and others uncontrollable and uncontrolling. This is the case, and the spatial areas of control and controllability have the same pattern. Like the measures of integration and connectivity the highest values of control and controllability are located at the centre of the plaza and they gradually decrease to the periphery. People are stopping and sitting in areas within the average value of control (=0.99) and controllability (=0.50). However there are some exceptions: In one extreme, table games with their card players and their watchers where these values are very low (approx. 0.50 and 0.25 respectively). In the other extreme the bench identified in Fig. 4-f where the same measures are higher than the average (1.31 and 0.64 respectively). This explains why this bench have a higher degree of occupancy compared with others.

The measures of control and controllability indicate that the space is homogeneous. The high values of control are coincidence with the values of controllability. This means that the plaza doesn't have the characteristics of the panoptic space – instead, it is a good place to see and to be seen. This fact sustains an important activity of public space: 'people looking at other people', (Whyte, 1980).

Like connectivity and integration static activities tend not to happen in areas of higher values of control and controllability. Strategically these are important nodes for movement in the system and people standing in the plaza like to watch the others passing by.

Finally we look at the Visual Step Depth of two benches, each one with very different isovist attributes. The Step Depth of one point is an approximation to an isovist of that point. As described above, an isovist is a polygon, which contains all the visible area from a particular location. "Every node one step away from your selected point is directly visible from that location, i.e., all those nodes are within the Isovist of the point location" (Turner, 2004:12). Step Depth 1 (Fig. 4-e) is the number of turns that it takes to get from the current bench location to any other place in the plaza. Everything directly visible from this location is at depth one (green area). Within this bench we need three steps to see the all area of the plaza. However in Step Depth 2 (Fig. 4-f) we can see much more area at depth one (yellow area) and we only need two steps to see the all area of the plaza. This have a big impact in people's behaviour within the two benches. Bench two is much more used then bench one. Moreover the last one is only occupied for short periods of time whenever people look always very uncomfortable. The bench is situated almost in the middle of the plaza with a higher value of controllability than control, lake of protection from the back (refugee) and a small isovist (prospect).

## 5 Conclusion

The research showed that isovists are an important element in the assessment of the distribution of stationary people inside public spaces. In terms of isovist geometric properties and syntactic measures it appears that people are pausing strategically. People are pausing in locations offering strategic visual properties to prospect and at the same time refuge. This is especially clear in the measures of minimal and maximum radial, but also within the measures of control and controllability. People prefer locations that afford unusually long lines of sight and large isovist areas, but also protection from the back, or in other words, places that have a certain degree of control but not too much controllable.

There is a tendency for static activities to be out of the integration core and clear preference for areas with some levels of privacy around the main area of movement. It seems that people avoid very exposed spaces and prefer areas that provide good views but close to an edge surface.

It may be summarized that people are being exceedingly strategic in terms of where they stop to survey the plaza. They pause in locations offering maximum visual, local/global information, reducing the necessity to change place frequently. People's choice locations for static activities can therefore be seen to be both strategic and maximally efficient.

The results confirm the relationship between 'isovist fields', 'prospect and refugee' theory and 'edge effect' in the study of patterns of stationary activity within successful public space.

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# Connecting places. Smart pedestrian space: network potentials based on user experiences and activities

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Considering the current trends of urban redevelopment of Belgrade's riverfronts with two megaprojects along the Sava and Danube rivers ("Belgrade Waterfront" and "City on Water"), Kosancicev venac could be developed as an important pedestrian connection between this sites and historical core of the city. The methods that were used in analysis include method of direct surveying of inhabitants based on the Kevin Lynch's determination of the image of the city, Space Syntax method, as well as the method of mapping users on social maps (via social networks).

The aim of the text was measuring the intensity of pedestrian movement in the monitored territory and concentrations of users in open public spaces. Summarizing and interpreting the collected data obtained three groups of results: the image of Kosancicev venac, composed of five elements: paths, edges, districts, nodes and landmarks; an overview of the intensity of pedestrian movement on the observed territory, compared with the content located along the path and with the distribution of elements of the image of the city and the intensity of users (space syntax) and data obtained through social networks, with the aim to measure the quality of open public spaces and concentration of users. This research has indicated the potential of the analyzed area for the formation of transverse and longitudinal pedestrian flows as well as concentrations. However, they could enable active use of the research area and integrate the connections of the Sava's and Danube's Amphitheatre.

**Keywords:** Open public spaces, Belgrade, Kosancicev venac, Social maps

## 1 Introduction

Kosancicev venac is placed in the historical urban core of Belgrade next to the confluence of Danube and Sava rivers and Belgrade fortress. Its network of open public spaces is isolated from other parts of the city although it is one of the most attractive and important urban ambient. During the last 20 century of its existence Belgrade's riverfronts have never been an integral part of the city, because of the barriers between historical urban core and the rivers like: railroads, rail facilities, roads and dense industrial zones. Furthermore, problems with flooding are still not resolved, especially along the right Sava riverbank. Today, Belgrade is faced with inadequate use of water and waterfront and devastated and neglected foreground that opens by looking at the river. Several studies, Master plans and detailed regulation plans were done during the last two decades with the overall aim to activate the significant potential of the waterfront and, as an integral part of the city, to build a high quality public spaces that will enhance the appearance and the importance not only of the location but the entire Belgrade as well (Djukic, Vukmirovic, 2014).

One of the main objectives of the Master plan of Belgrade 2021 is regeneration of neglected waterfronts. The achieving of this goal has been seen through relocation of industrial area, railroad and transit traffic along the riverfronts. The area along the rivers has got new land use with the focus on central, business and residential use. According to the plan, those changes should enable better connections between riverbanks and city and provide more live and vibrant open public spaces. One of the conclusions of the Belgrade waterfront Study, which first phase was finished in 2009, is that "the most valuable, central part of the waterfront, is the most neglected and

that the most attractive locations are almost completely degraded" (Urbanisticki zavod Beograda, 2009). This is in contrast to the potential of the location that include: the value of the waterfront areas in the strictest meaning of the term, inadequate disuse of potentially useful land, vast, diverse and valuable natural areas and large and important cultural heritage of the city, as part of the culture and history of the city in general (Djukic, Vukmirovic, 2014). The newest document adopted by the Belgrade City Authority titled as *Project IME: Identity\_Mobility\_Environement* (2015) of the City of Belgrade also point out the importance of the connection of the rivers' waterfronts as well as the extension of the pedestrian zone of Knez Mihailova street as one of twenty identified subprojects.

By placing an emphasis on pedestrian environment, a light is put on the significance of small/human scale, often neglected in contemporary projects and development strategies. Scenes that correspond to this point of view put focus on specific advantages of cities proportional to human dimensions, senses and walking speed and form a basis for more complex and diverse relations (Djukic and Vukmirovic 2014; Vukmirovic, 2014). They correspond to improving the quality of the smallest places in such way that people are simply attracted to go there and spend time there. Seen from this perspective, pedestrian movement is of twofold character (Vukmirovic, 2014; Gehl, 2010), since it is perceived as both mode of transport and an opportunity for many other activities. In accordance with this, the basic characteristics of walking and elements that influence it include the speed of pedestrian environment, distances, and the quality of route.

Walking has become a very popular topic after the 1960-ies, when numerous authors were engaged in these issues with the goal of developing models for designing street furniture (Schubert, 1967; Whyte, 1988); developing models based on relations between the level of services and pedestrian movement (Fruin, 1971; Polus and Schofer, 1983), and forming a rulebook for urban planning (Crawford, 2002) and pedestrian behaviour (Brilon and Grosmann, 1993; Kirsch, 1964). They have used the research methods that mainly pertain to direct monitoring, as well as the use of photographs and films of concrete locations filmed during an extended period of time. Numerous investigations have shown that it is possible to foresee the dynamics of pedestrian movement, that it is possible to influence pedestrian flows (via urban design), as well as that pedestrians can move relatively freely and independently only along short distances, while along longer paths movement is conditioned by other pedestrians (Djukic and Vukmirovic, 2012a).

## FLAGSHIP PROJECTS LOCATED AT THE CONFLUENCE OF THE SAVA AND DANUBE



**Figure 1:** Flagship projects located at the confluence of the Sava and Danube. Source: Vukmirovic 2015

Because of its cultural and historical importance and its position within the urban structure of the City of Belgrade<sup>1</sup>, Kosancicev venac was selected as the subject of this research. Considering the current trends of urban development of Belgrade with the aim of activating the areas along the banks of the Sava (“Belgrade on water”, “Beton hala” international competition, etc.), Danube rivers (“Beko” and “City on water”), there is a need to study the ways that could achieve connection among them (see in Figure 1). The establishment of a network of pedestrian routes that connect Sava’s and Danube’s Amphitheatre and which could be passed through the old city centre is allocated as one of the possible ways of thinking as well as an important developmental path seen in the actual project of the extension of pedestrian zone of Knez Mihailova Street (City of Belgrade – Office of the Director of City Planning 2015). In accordance with this, the research presented in this paper is based on a theoretical framework in the domain of urban design, pedestrian movement and quality of the pedestrian environment with the aim to examine the actual trends of using the area of Kosancicev venac and the ways it could be reintegrated within the network of pedestrian spaces.

## 2 Methodologies

Having in mind the general aim of the research, measuring the intensity of the pedestrian movements and recording the status of attractiveness of open public spaces at Kosancicev venac, the focus is placed on spatial level of the problem, i.e. onto characteristics and elements of pedestrian environment seen from the physical aspect and on intensity and concentration of users and their satisfaction about the quality of open public spaces. The research has used the methods that are developed and tested for several years (Djukic and Vukmirovic, 2012) on University of Belgrade – Faculty of Architecture on elective course “Network of pedestrian flows in function of

<sup>1</sup> Located between Sava River and pedestrian zone of Knez Mihajlova Street

urban redesign” on bachelor studies and on compulsory course “Urban design methods” on Master studies – Integral Urbanism, as well as new developed software application Twitter search engine at University of Nis - Faculty of Electronic engineering. The first part of the study was conducted with bachelor and master students during spring semester of the 2014/15 school year, while the software application was developed during the PhD course “Advanced topics in data and knowledge engineering”.

However, the methods that were used in analysis could be divided into three parts and include: (1) method of direct surveying of inhabitants based on the Kevin Lynch’s determination of the image of the city, (2) Space Syntax method, as well as (3) the method of mapping users on social maps (via social networks).

## **2.1 Image of the place**

According to many authors there is a strong connection between the experiences of urban space and presence of people using open urban space (Gehl, 2010; Jacobs, 2011; Lynch, 1974, Hiller and Henson, 1984). It is related with the people’s activities, cognitive experiences and also depends on the way the people interact between each other. In that regard, Whyte considers that the number of the people in urban space is not the only important fact, it should include time they spend in the place, as well as the fact are they come alone or in groups (1980). Quality space and critical mass of users are prerequisites for processes in which small events can blossom (Jacobs, 2011) and on the other hand, it is the main precondition for successful public space. Furthermore, cultural context as the main factor of identity is an unavoidable part of collective memory with its incorporated signs (Djukic, 2011). The intensity of use of urban space is related to the users’ experience, created through everyday rhythms. During the time such a places usually become a part of the collective memory (Dovey, 2008; Boyer, 2001).

The analysis of physical qualities of open spaces was enabled through a method of direct population survey that included 200 inhabitants of Belgrade. The socio-demographic structure of the group was similar to the structure of the inhabitants and users of open public spaces. The survey has been done during the April 2015. It covered the area of Kosancicev venac as well as the contact zones: Sava riverbank, Danube riverbank and the main pedestrian area within the city centre. The questionnaire was structured around five sections/thematic entities i.e. elements of mental maps defined by Kevin Lynch (1960) – paths, edges, districts, nodes and landmarks.

## **2.2 Characteristics of intensity of use - space syntax method**

Jane Jacobs stress the importance of the relations between users and their physical environment, as well as the diversity between the users who shape the place, for the quality of the space an everyday life. However, diversity of uses and concentration of activities, especially in the ground floors of the buildings next to the pedestrian paths, are necessary for the creation of lively and vibrant city spaces (Vukmirovic 2013; Dobbins, 2009; Gehl, 2006; Hillier, Henson, 1984). The wide ranges of activities in the ground floors that generate inviting entrances towards passers directly influence the activity of users (Habraken, 1999).

Observation of the intensity of pedestrian movement has been done applying Space Syntax method. This method defined by Bill Hillier (Hillier, Hanson, 1984) was used to evaluate the intensity of pedestrian movement around and through the area of Kosancicev venac, as well as to define the connections between the concentration of activities in the ground floor of the buildings and number of the users of the open public spaces. Networks of pedestrian flows are presented in the form of a hierarchy, according to the number of pedestrians.

Measurements were conducted on workdays, four times a day and during the weekend. During the workdays, the number of pedestrians and bicyclists were measured: in the morning, period from 8am to 9am, when local inhabitants perform activities such as going to work or school or for grocery supplies; from 11am to 12 noon, which coincides with end of school hours for elementary school students, breaks for high school students and the lunch break for the employed (this period also coincides with the start of working hours of cafes and restaurants); in the afternoon, from 4pm to 5pm, when local inhabitants come back from work; and from 9pm to 10pm, in the so-called evening hours. During the weekends, the measurements have been done three times a day. On Saturday the number of pedestrians was measured in the morning period from 11am to 12noon, during the afternoon hours from 4pm to 5pm and during the evening from 10pm to 11pm. On Sunday it was measured in the morning period from 11am to 12noon, during the afternoon hours from 4pm to 5pm and during the evening from 8pm to 9pm.

### **2.3 Geo mapping - social maps**

The phenomenon of the city cannot be observed only through the functional relationship (Rossi, 1999), neither the morphology of urban space (Zukin, 2010). City is a complex cultural process, and everyday life of places and their inhabitants is an outcome of that process. Cultural context is referred to the meanings that persons, individuals or groups, associated to the place. Those meanings are outcomes of cultural, traditional, historical and particular experiences of certain place (Djukic, 2011). Open public spaces should provide a spatial framework for different kinds of gathering and multileveled interaction, and also should include virtual flows, stimulating merging of physical and digital reality (Stupar, Djukic, 2015). Exchange of information between users is expanded, "from one-to-one to many-to-many" (Carroll, Rosson, 2003).

Digital social media is a medium that allows creative participation of users and social maps are important indicators for measuring the concentration of users and their satisfaction about the quality of open public spaces. The importance of data-exchange is increasing and its intensity becomes a significant characteristic of urban environment (Vukmirovic and Vanista Lazarevic 2015; Abreu Torres, Sá Antunes Costa, 2014; Vidler, 1992) and its 'visibility' (Stupar and Djukic, 2015; Vukmirovic and Vanista Lazarevic 2015). Geo-social or location-based networking systems which is globally widespread, have been shaping a parallel digital space based on the interactions between citizens and the urban open spaces during the last decade (Gordon, de Souza e Silva, 2011; Abreu Torres, Sá Antunes Costa, 2014; Cranshaw at all, 2010). Those digital tools, networks and applications (Vukmirovic and Vanista Lazarevic 2015), allowing users to capture, produce and process information in real time and communicate, spreading information in real time. That

information full of cognitive and perceptive clues provides local government and urban designers and planners a good base for redevelopment and retrofitting of the open urban spaces.

On the other side by careful observation and interpretation of results of these analysis *it is possible to form 1) ranking list of most visited cities and their specific locations, 2) separate locations within a city which are most visited by tourists, i.e. inhabitants, 3) ways in which people move throughout the city, 4) separate most visited locations and periods during the day when that occurs, 5) map attractiveness of specific contents on certain location and temporal interval in which this content is most visited, etc* (Vukmirovic and Vanista Lazarevic 2015).

Online social media has become an integral part of urban development study and there are now a many researchers utilizing these services for analyses. Particularly, Twitter is the most popular data sources for research because of its open network allowing access to information published through the platform. There are many studies based on data from Twitter, focused on the text of the tweets or the network graph connecting users. Some studies are devoted to geographic information attached to tweets, based on the user location and relying on a geographic metadata indicating the location where the tweet was authored, provided via GPS (Global Positioning System) or cellular/wireless triangulation.

Since the Twitter data available via APIs (Application Programming Interface) enables real-time programmatic access to tweets archive, it is possible to develop software application for collecting, filtering and analyzing tweets in a different ways. The software application Twitter search engine is developed using PHP programming language, as a common server-side scripting language designed for web development and also used as a general-purpose programming language. The Twitter API is used for collecting information regarding location and time of tweets in order to create a maps of considered places in Belgrade with public and geo-tagged tweets. The application has interface for query criteria selection (location coordinates, date range). When criteria is defined, the application sends query to Twitter service and as response receives collection of tweets satisfied given criteria and stores collected tweets in local database.

Generally, the software application Twitter search engine provides functionalities regarding information on twitter social network – user name, tweet content, the user's geographic location (latitude and longitude) at the time each tweet is sent. The application relies on data available in twitter geocode that collect data in area determined by geo-coordinates (latitude and longitude) and chosen radius with resolution of 100m.

The user interface is shown in the Figure 2, illustrating information and possibilities of software application prototype, that can be upgraded regarding different select criteria including data mining - tweet content analyses, temporal and spatial filtering as well as trend analyses, type of used operating sistem, user traceability etc.

178.62.164.252/TwitterGIS/twitterSearch.php

Twitter search engine

44.8169991 20.4533323 .1 Search

10 Records per page search:

Ime	Vreme	Text
AlxandarT83	Sun Jul 26 20:27:45 +0000 2015	(U)Lice Beograda No. 43 #konaknjeginjeljubice #residence #architecture #geometry #Beograd #Belgrade... <a href="https://t.co/HFdQk34AkZ">https://t.co/HFdQk34AkZ</a>
noxnoces69	Sat Jul 25 11:03:13 +0000 2015	My dear <a href="http://t.co/NoPQdpQvK5">http://t.co/NoPQdpQvK5</a> and her fresh new balayage ☺ #hair #hairstyle #haircolour #balayage... <a href="https://t.co/My9OsUDx4t">https://t.co/My9OsUDx4t</a>
noxnoces69	Tue Jul 21 15:23:55 +0000 2015	I've met one cute girl today @noxnoces69 with soul of a big child and we had so much fun doing this... <a href="https://t.co/PLL4wXpZtC">https://t.co/PLL4wXpZtC</a>
noxnoces69	Mon Jul 20 22:53:47 +0000 2015	In one day blonde-transformation with @kimberly1027 ☺ Keeping the hair integrity and strenght and... <a href="https://t.co/inPZr0fKIw">https://t.co/inPZr0fKIw</a>
noxnoces69	Mon Jul 20 17:25:09 +0000 2015	poshworldbybranislava and her gorgeous sunkissed shiny hair ☺ #hair #naturalhair #shinyhair... <a href="https://t.co/BN3zLXNXZx">https://t.co/BN3zLXNXZx</a>
Optimizasyoncu	Fri Jul 24 19:49:36 +0000 2015	Day of the wine (@ Trattoria Campania in Belgrade, Serbia w/ @sibelucts) <a href="https://t.co/8vNtoIsUc">https://t.co/8vNtoIsUc</a>

Figure 2: Overview of the collected geocoded tweets: user ID, time and text.

For the purpose of the research presented here, the application is adapted in terms of possibility to choose pre-defined places (Republic Square, Sava Quay, Park near Vuk's Monument, and Slavija Square), and thus to analyse twitter user activity in a given time interval including presentation on the map (see Figure 3).

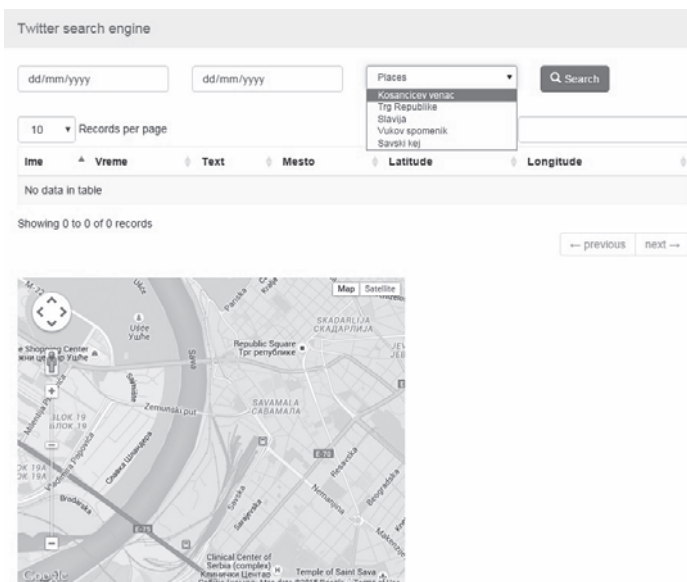


Figure 3: Interface of the Twitter search engine with user ID, time, place and position



**Figure 4:** Presentation of the geo-location of Twitter users

The purpose of the developed software is to provide automated data collection, as an initial step for the analysis of the data obtained from Twitter users. In addition to determining the number of users and messages, as well as their distribution in time, processing the collected data it is possible to present the geo-location users within considered area or any its part defined as a structure of polygons. The software automatically determines the geo - location of twitter users on the map and his username that can be seen by selecting tweet mark on the map (see Figure 4). The research results obtained after the application of offered methodologies are presented below.

### 3 Results

Following the structure of the research methodologies presented in the previous chapter, results of the research of the territory of Kosancicev venac will be presented.

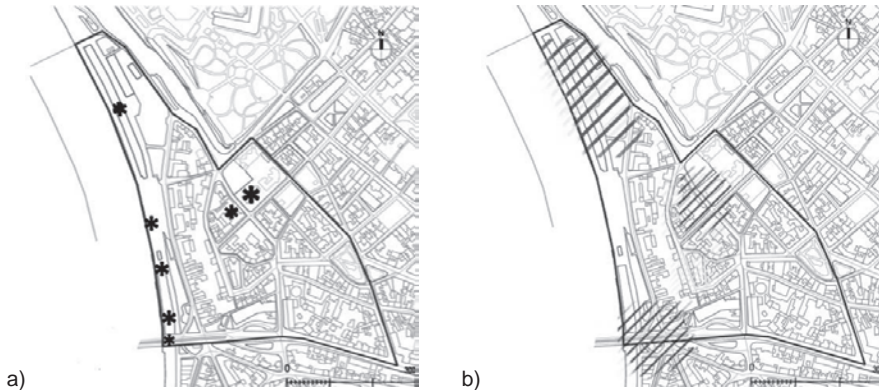


**Figure 5:** Image of Kosancicev venac

### 3.1. Image of Kosancicev venac

There were five groups of the questions related to the landmarks, districts, paths, edges and nodes. The results gathered by surveying the local inhabitants can be seen on the map (see Figure 5).

The first group of the questions was considering the topic of the landmarks. The users indicated five landmarks within the research territory (see Figure 5a): Main church (Saborna church), Orthodox patriarchy, Beton hala (adaptive reuse of industrial heritage next to the Sava riverbank), Brankos' bridge and Big stairs (which connect Kosancicev venac with Sava riverbank).

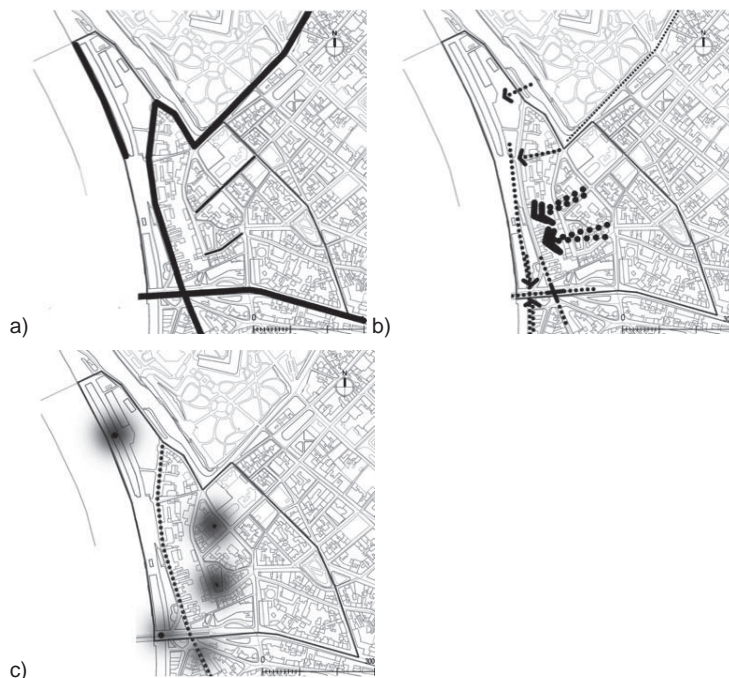


**Figure 6:** a) Landmarks and b) districts of Kosancicev venac

The second group was dedicated to the districts. Four districts are identified on the research polygons (see Figure 6b). Those are: area around Orthodox patriarchy, Beton hala, district around the National library (destroyed during the bombing in 1941) and district around the Brankos' bridge (on the right riverbank of the Sava river). By interpreting the received answers it was determined that the most visited is the area of the Kosancicev Venac Street, because of its aesthetic and ambient qualities and hospitality facilities, like cafes, restaurants and wine bars. This area is visited during the day, but also during the evening.

In relation to the paths, Kosancicev Venac Street has also been recognised as the most visited and the most pleasant because of its aesthetic and ambient qualities. In addition, Kosancicev Venac Street is marked as the public place that need reconstruction, better maintenance and improvements. Kralja Petra Street, Pariska Street and pedestrian path along the right Sava riverbank are also recognised as important paths of the research location (see Figure 7a).

Pariska Street is identified as an edge, or clear boundary between the area of Kosancicev venac and Kalemegradn's park on the north. Karadjordjeva Street is also recognized as an edge or barrier between the area and riverbank (see Figure 7b). On the south, respondents have allocated Brankova Street as a borderline, as well as barrier between the area of Kosancicev venac and the area of Savamala.



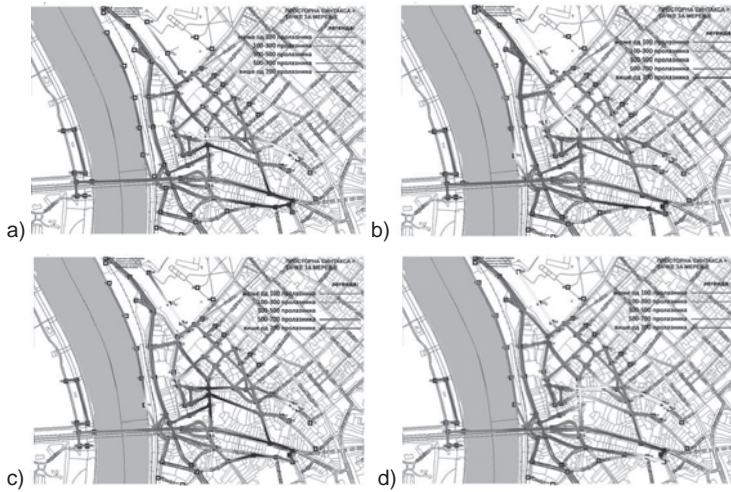
**Figure 7:** a) Paths, b) edges and c) nodes of Kosancicev venac

As nodes the most respondents have recognised cafes in Kosancicev Venac Street and crossing of Pariska and Sime Merkovica Street as the most frequently used point (see Figure 6c). The cafes are seen as popular meeting points. On the other side, crossing of Pariska and Sime Markovica Street is the transport hub of two important streets of the city.

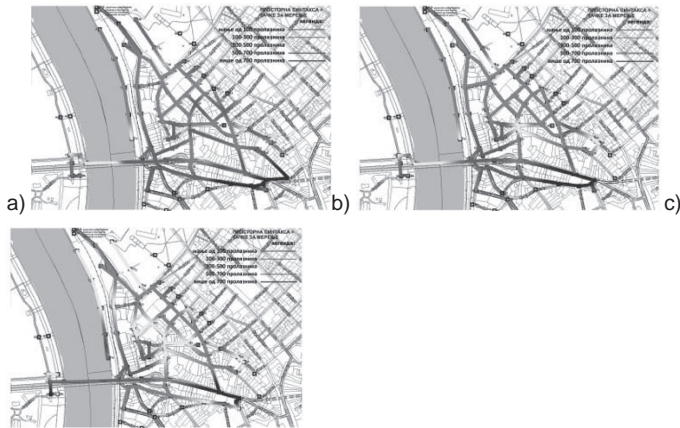
### 3.2 Space syntax

Flows and concentration of pedestrian movement is demonstrated by using coloured diagrams. The highest results are presented in violet, while the lowest in blue. Between those two extremes are other values, shown in red, yellow and green (violet lines - more than 700 pedestrians per hour, red lines - from 500 to 700 pedestrians, yellow lines - from 300 to 500 pedestrians per hour, green lines - from 100 to 300 pedestrians per hour and blue lines - from 0 to 100 pedestrians per hour).

The first graphic demonstrates the intensity of pedestrian movements during the working days at the selected four intervals from 8-9h, 11-12h, 17-18h and 21-22h (see Figure 8), the second graphic presents the situation that happened during Saturday at the three defined intervals from 11-12h, 17-18h and 21-22h (see Figure 9), and the third one shows situation related to Sunday also at the three selected periods of the day from 11-12h, 17-18h and 21-22h (see Figure 9).

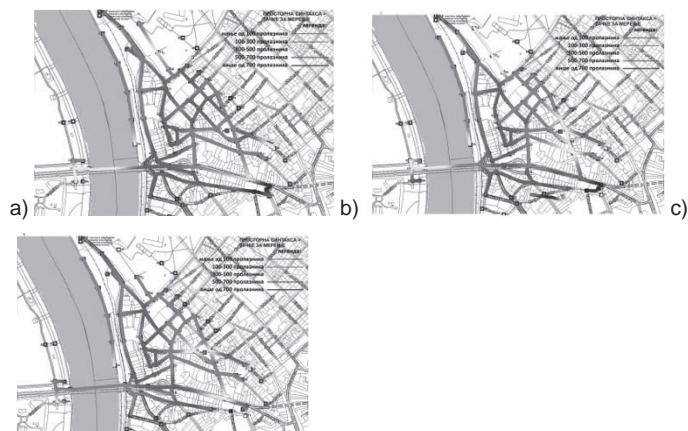


**Figure 8:** Intensity of the pedestrian movement during the working days at the Kosancicev venac  
a) 8-9h, b) 12-13h, c) 17-18h and d) 21-22h. Source: Petrovic S., Vlajic A., Stojic B. (2015)



**Figure 9:** Intensity of the pedestrian movement during Saturday at the Kosancicev venac  
a) 12-13h, b) 17-18h and c) 21-22h. Source: Petrovic S., Vlajic A., Stojic B. (2015)

The highest intensity of pedestrian movement, as seen from diagrams, (see Figure 10), which corresponds to the lines, marked in violet accounts to more than 700 pedestrians per hour is recorded around one of the main public bus nodes, next to the open green market (Zeleni venac) towards Branko bridge and pedestrian zone Knez Mihajlova Street. The intensity is highest at this point during the whole week at all measured times.



**Figure 10:** Intensity of the pedestrian movement during Sunday at the Kosancicev venac  
a) 12-13h, b) 17-18h and c) 21-22h. Source: Petrovic S., Vlajic A., Stojic B. (2015)

Besides this, measurements have shown that pedestrian movements are most intensive along the streets which connect the main traffic nodes, pedestrian zone of Knez Mihailova Street and park within Belgrade fortress. The most intensive pedestrian flows are along Pop Lukina Street, especially in time interval during afternoon working days, when inhabitants returning back home from work. High intensity of pedestrian movements is also recorded along Brankova Street, Carice Milice Street and Jug Bogdanova Street. Those paths are recognized as the main pedestrian connections between the open public spaces, pedestrian zone and main bus stops (next to the open green market).

Increased intensity of pedestrian movements occurs during weekends along Brankova Street, across the Brankos' bridge and Toplicin Venac Street. The most of those paths connect parks, squares, shopping zone, recreation area and shopping mall Usce on the other side of the river Sava.

The lowest intensity of pedestrian movements is recorded along Karadjordjeva Street that is predominant traffic street, the paths under the Branko's bridge and the last stop of tram No 2 next to the Kalemegdan fortress.



**Figure 11:** Analysis of activities in the ground floors: a) types of activities, b) detail analysis of ground floor activities and c) densities of activities. Source: Jelisivac J., Skerovic J. and Vukovic T., 2014

The analysis of the content units in ground floors of buildings consists is the second part of space syntax method. The results show 12 types of activities that could be find on the territory of

Kosancicev venac. Identified types of activities include: services, commerce, restaurants and cafes, transport, business, culture, health, administration, churches, playgrounds, crafts and other activities. In general, this location is mixed-use in its character (see Figure 11), but there are specific parts of the territory dominated by certain activities (area of Saborna church, part of the Kosancicev Venac Street with cafes, etc.).

### 3.3 Geo-mapping

As a first step of analyses regarding geo-maping, we collected all geocoded tweets sent between June 25 and July 25, 2015. It is important to point out that tweets in predefined places of interest determining by coordinates and radius. The data illustrating attractiveness of places, based on activities of twitter users at the Kosancicev Venac, as well as connected places – Republic Square, Sava Quay, Park near Vuk's Monument, and Slavija Square, in the considered period, are presented in the Table 1. The data about the number of geocoded tweets emanating from these places reveals a large amount of inequality in the user activity. The largest places in terms of information production through Twitter are Republic Square and Kosancicev Venac.

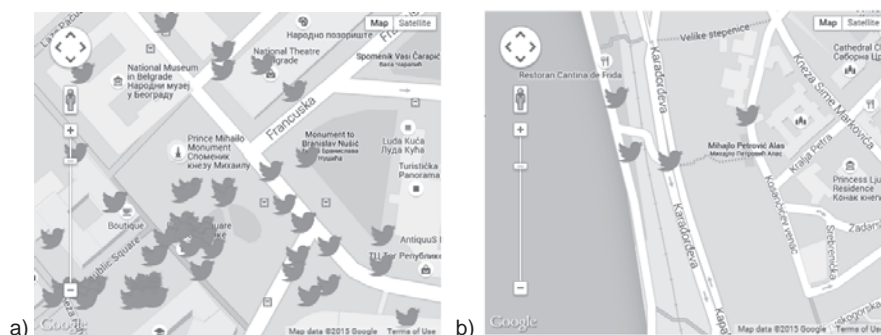
**Table 1:** Number of users and number of tweets at Kosancicev venac and other important open public spaces near it, in the period 25th June to 25th July 2015. Source: Jokovic J. (2015)

Place	Kosancicev Venac	Republic Square	Sava Quay	Park near Vuk's Monument	Slavija Square
Number of users	22	103	5	5	2
Number of tweets	50	242	6	15	2

The map of the spatial distribution of tweets is allowing better understanding of the geography of content on the platform. The georeferenced map of Kosancicev map, with marked twitter users is presented in Figure 12. It shows the density of use of Kosancicev venac and areas in the immediate vicinity.



**Figure 12:** Density of Twitter users at Kosancicev venac. Source: Dincic N., Dzakovic N. (2015)



**Figure 13:** Density of tweets at a) Republic Square and b) Sava Quay. Source: Dincic N., Dzakovic N. (2015)

The Figure 13 presents the maps with marked tweets in considered period at the Republic Square and Sava quay. The results shown at the map could be also interpreted as an illustration of the attractiveness and liveability of the selected areas. In accordance with that perspective, we can conclude that Kosancicev venac is not attractive as other public places in its surroundings like Vojvode Vuka's Park, Kralja Petra Street as well as Republic Square and Sava Quay.

Similar to the situation with the intensities of pedestrian movement the reason for this could be find in the domain of activities in the buildings' ground floors. If we omit the Republic Square as one of the most important open public spaces at the city level, in relation to the other analysed public spaces we can say that the most visited areas are near by Museum of Applied Arts, Cafe Amelie and Supermarket Deli restaurant and shop at Toplicin venac and Beton Hall with lot of restaurants and bars at area at Sava Quai. On the other side, the most visited place that belongs to the area of Kosancicev venac is Princess Ljubica's Residence (Konak kneginje Ljubice).

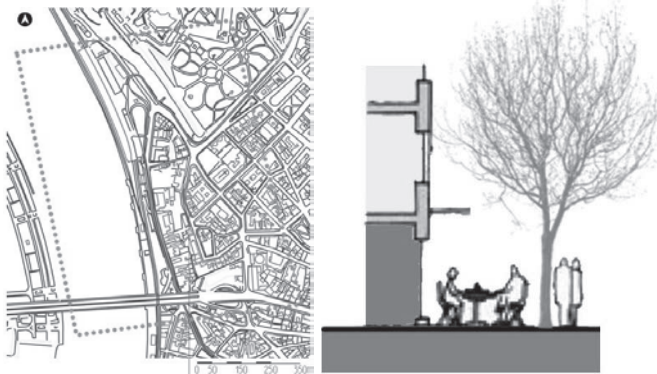
#### 4 Discussions

It is necessary to compare the results of the intensity of pedestrian movements between different areas as well as different open public spaces and its relationship with the character and density of activities. While the districts are recognised according the physical characteristics, nodes are identified through the intensity and concentration of users and activities.

Comparing the number of pedestrians of inner zone of Kosancicev venac with the connected area, it is oblivious that it is significant lower within the zone. Accessibility, lack of maintenance, sporadic activities and predominant residential function of the whole area are the main causes for such situation.

Based on the results of analysis of the number of pedestrians on observes public spaces it can be concluded that the highest concentration of users can be found in streets that belong to the parts of the area that are close to the Knez Mihajlova street, as the main pedestrian street in Belgrade. During the whole week, pedestrian movement a high intensity (more than 500 pedestrians per hour) is recorded in this area.

However, the distribution and character of activities and functions in ground floor objects is of importance for the analysis of pedestrian movement. The relationship between density and diversity of activities in the ground floor and the intensity of pedestrian movement has been recognised along the direction of Kralja Petra and Toplicin venac streets. The residential function is predominant at the whole area. The most frequent and most diverse activities are located along Kralja Petra Street, Kosancicev venac Street and Pop Lukina Street (see Figures 11 and 14). Other activities are distributed at various points so there is no continuity observed.



**Figure 14:** Parts of the streets where the ground floors are opened to the street and the way they are used. Source: Minic M. and Uzelac M. (2015)

According to the data provided by the research, the number of connected lines through the site is satisfied, the existing landmarks are sufficient and easily readable and recognizable but the position of nodes and their connections should be improved. Furthermore, it is possible to solve the problem of geomorphological barriers between the site and right Sava riverbank with lifts, mechanical stairs and cable car.

Citizens' digital footprints, such as the case of geo-tagged information could be used for different purposes and interpret in different ways such as measurement of intensity of use of particular areas, evaluation of the attractiveness of specific activities and contents, determination of the significance of particular buildings and open public spaces with both point of view of inhabitants and visitors. In the context of open public space qualities like safety, accessibility, comfort, attractiveness and liveability, the general interpretation can be that a geotag confirms someone's presence at a certain location in a certain time, which is also a confirmation that at that place at that time something interesting happens.

The maps with remarkable detail offers a starting point - the example presented in this research demonstrating the ability of the application, and even more important only allows us to visualise the quantity of geocoded tweets that pass through the platform. However, it will become more important to understand the geographies of information. These information could be use in interpreting how inhabitants and visitors experience the city, where are their favourite places or places of fear, what program that city offer is interesting and the most visited, etc. On the other hand it provide an opportunity to create and develop new methods in analysing the actual state of

open public spaces, thanks to new, more technologically advanced tools, as well as in evaluating the potentials of public spaces for future interventions.

In general, the geo locative medias may be used in urban design for better communication between practitioners, local government and users as well as could be an auxiliary tool for urban planning and design. The reason for this could be found in its special possibility for establishing a certain spatio-social relationships that could not be identified and analysed in this way in this way until now.

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# Characteristics of the intensive places: Open public places in the towns of Vojvodina Province

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Most of the towns in Vojvodina Province nowadays lack of “flourish” places or those where the public life is intensive. On the other hand, the place “intensity” that already exists in urban space can be spread around and new places of urban activity can be generated. As place intensity, here is not considered only the density of users, but urban spectacle related with cultural context and local characteristics of place. This paper aims to enhance the public life of Vojvodina town and to increase the “intensity” of their urban space. In order to achieve this, the circumstances and characteristics that make one place “intensive” and keep it “flourish” must be identified and analyzed. The relevance of this study is that the results of the analysis can serve as a base on which guidelines for the enhancement of public life and place identity can be established. The focus of this work is the places on open public space, which is a main carrier of urban life in Vojvodina towns. However, open public space can be considered as the locus of urbanity and town’s identity in a broader sense. Bearing in mind these two attributes of open public space, the theoretical background dealing with its intensity is established. The methodology guiding this research is established, and it is formed from two parts. By comparing and overlapping all the data collected, the characteristics that make the open public space intensive, “lively” but also rooted in the “local” are identified.

**Keywords:** open public space, intensive places, Vojvodina towns.

## 1 Introduction

During the last two centuries the Vojvodina Province towns have suffered more transformation than ever before (Pusic, 1987). At the same time, this was the period in which the main characteristics of Vojvodina towns were created. In the first half of the XIX century some of the most important urban elements and carriers of urban life of towns were formed. The second part of XX century brought rapid development of the urban fabric. The level of transformation of inherited structure increased, affecting the way the city space is organized and used. Urban areas augmented significantly and the recognizable image of towns changed. Mentioned growth was criticized as a project of urbanization equalized to industrialization (Vujosevic, 2004). By realization of this project some new city spaces were created and were incorporating human scale and needs (Kulić and Mrdžuljas, 2012). Even though, the number of new open public spaces, which would stimulate the urban life and flows, was decreasing in respect to the build-up areas and new neighborhoods developed around the old urban cores. The Vojvodina towns started to lack in flourish places and places which make one town vibrant and intensive. On the other hand, city spaces created in the second half of XX century, often did not incorporated the elements of “local” (traditional, cultural, geographical, etc.) while transforming the town’s identity. The regional and global trends and ideology were manifested through the built structure. This tendency is still present. While the density of urban space was increasing, its intensity was decreasing.

In that context, Vojvodina towns, which have had specific cultural and urban development, are facing two problems. First problem consists in the fact that everyday urban spectacle is reduced on only few open public spaces (mostly situated in the city center, e.g. main street or square). Second problem is that even if the new open public spaces have been created, they usually are not attractive enough to “invite people” (Gehl, 2010); their urban design often has not considered the

local characteristics and cultural context in which they have been constructed. That has influenced not just the urban identity of a town, but also the intensity of use of those open public spaces.

In order to overcome the problems recognized, this work stresses the importance of intensifying urban life in Vojvodina towns. The need to create and keep open public space flourish maintaining the place-identity created within specific cultural context is highlighted. This work has been developed around the initial position that only by understanding the places in which urban life is "intensive", the "intensity" can be generated and the new places of urban life can be created. The issue of urban intensity has been discussed in terms of the relationship with urban density and the main characteristics of urban space, which influence its genesis. The importance of cultural context and the process of town construction have been analyzed as well. Cultural context together with urban evolution were presented and observed as a factor that should always be considered when dealing with any urban process and phenomena, including the process of creation and enhancement of intensive places.

Open public space is a main carrier of urban life in Vojvodina towns. However, it could be considered as the locus of urbanity and town's identity (Djukic, 2011). From here derive the object of the analysis - open public space (streets and squares). The focus will be placed on the study of characteristics which open public space make intensive and maintain it flourish during time, despite the urban transformation that has suffered. The relevance of this study is that it attempts to connect the past and future of Vojvodina towns, and to discuss such an important and actual issue, as is the intensity of urban space. Also, the relevance of this paper relies in the possibility that the result obtained can serve as a base on which guidelines for the enhancement of public life and place identity can be established.

## **2 Intensity of Urban Space**

### **2.1 Intensity versus Density**

Intensity is a word used to describe a high degree of some quality. In urban planning and design, density is considered to be the amount of people or elements of urban form (e.g. dwelling units, floor area) per unit area of land. Indeed, when we speak of the city today, we inevitably gravitate to the question of density, but density alone can never fully qualify the city. On the other hand, the intensity of urban space recently has associated some new values, which go beyond the mere quantitative notion of urban density (Porqueddu, 2015). The relationship between density and intensity can be described, for example, by DeLanda that used to mark the difference between volume and temperature. For instance, the temperature of a body of water is intensive while the volume is extensive; to double the volume does not change the temperature. In other words, while a space may have physical dimensions, it is intensity that gives place its potency and its primacy (Dovey, 2008). By this illustrative example the complex relationship between density and intensity is signalized. Compared to the density, the intensity cannot be measured so precisely. Still, intensity of urban space can be studied and should be studied.

Nevertheless, it is the intensity, and not density, that is most strongly linked to the sense and affect of place, states Dovey – "the intensity of sunlight; the buzz of conversation; the

whiteness of the walls; the vastness of the sea; the sound of birds; the smell of coffee" (2008: 26). The density of urban space (density of built structure, people or traffic), in that way, can be considered as one of the factors influencing the urban intensity closely related to the experience of space of everyday life. Many authors find the connection between the experiences of urban space and presence of people using urban space (Gehl, 2010; Jacobs, 2011; Lynch, 1974). It should be stressed that more than with numbers or density, the experience of urban space is related with the people's activities and depends on the way the people interact between each other. In that regard, intensity, and not density, is related to the meaning of place (Tuan, 2001). Whyte considers that it is not important only the number of people in urban space, but the time they spend in the place, in fact, if they come alone or in groups, etc. (1980). It is not the numbers, crowds and city size that matters, and according to Gehl "a few people in a narrow village street can easily present a lively, beckoning picture" (2010: 64). Still, density can certainly provoke intensity. Good space and critical mass are prerequisites for processes in which small events can blossom (Jacobs, 2011).

## 2.2 Characteristics of urban intensity

Although it has rarely been highlighted as such, ideas about urban intensity (which goes beyond the notion of urban density) have already been explored during the 60s and 70s. Above all, the origin of urban intensity can be sought in the work of Jane Jacobs.

In the light of Jacobs's ideas, intensity of urban space is understood as an emergent property of the relation between people and their physical environment. In that context, urban intensity is related to the urban flows and everyday rhythms (as children play, shopping, going to the work or school, etc). It is bond not only to the people's activities, but it is also generated by differences between the people and diversity of persons using and shaping urban space (to their different tastes, knowledge, needs, preferences, provisions, etc). Intensity is considered as a potential for endless random and unpredictable interaction between heterogeneous individuals and activities, which is recently re-proposed as one of the main conditions for emergent urban complexity (Porqueddu, 2015: 169).

Although explaining intensity as an outcome of social diversity, Jacobs highlighted four conditions related with the characteristics of urban space by which intensity is achieved. This condition served as a base on which many authors developed their theories on urban intensity and theories on flourish and lively city spaces. Even though Jacobs was criticized to give too much importance to the "physical" aspect (Zukin, 2010), her work influenced urban design in cities at the end of XX century.

According to Jacobs, all four conditions should be complied, while the absence of one can diminish the potential of one spatial unit, and these are:

- The neighborhood (it also can be referred to other spatial unit of that range) has to fulfill more than one primary function.
- Most blocks should be small, the streets and the chances to turn on the corners should be abundant.

- The neighborhood should be composed by buildings that belong to the different periods of urban evolution and that show different architectural and aesthetic qualities, including old houses, representing a great variety of their economic performance.
- It should exist proper density and concentration of people inhabiting the neighborhood or using certain urban space.

Mixed uses development and adequate distribution of activities and functions in space and time is what Jacobs considered to be the most important from the four conditions mentioned above. Diversity of uses is necessary for the creation of lively city spaces (Dobbins, 2009; Gehl, 2006). This is especially referred to the usage of ground floors. The capacity of ground floors – the immediate interface between outdoor public space and indoor space – is to accommodate a wide range of activities and to generate inviting entrances towards passers (Habraken, 1999). The ground floors directly influence the urban activity, but also set the approximate limits to what activities could come to occupy them in the future. The second condition is referred to the morphology of urban structure. It can be observed through the configuration of paths between buildings. Within these paths, direct and logical routes, modest space dimensions, and a clear hierarchy where decisions have been made about which spaces are the most important are crucial (Gehl, 2010). In a broader sense, streets and open public space determines the adjacency and proximity between the tenants of an area and its public spaces, setting them up to be encountered by many or to be hidden from movement and view (Hillier and Hanson, 1984). Although Jacobs did not stress the importance of monumental and historical buildings, the third condition still suggests the importance of historical references. Some recent research has showed that precisely traditional buildings, even if appear in small densities, mark the spatial units and make them recognizable (Muminovic, 2013). Fourth condition confirms that density is just one element participating in the genesis of intensity, while the proper density is always relative (Whyte, 1980; Gehl, 2010).

### 2.3 Cultural Context

Intensity, as it has already been stated, depends on everyday rhythms, function and design of urban environment (the proportion of space, connectivity, usage of the ground floor, commodity, etc.). However, the phenomenon of the city cannot be observed only through the functional relationship (Rossi, 1999), neither the morphology of urban space (Zukin, 2010). City is a complex cultural process, and everyday life of places and their inhabitants is an outcome of that process. Cultural context is referred to the meanings that persons, individuals or groups, associate to the place. Those meanings are outcomes of cultural, traditional, historical and particular experiences of a certain place (Djukic, 2011). Characteristics and process related to the construction and use of urban space must be observed by reading the records from the past and recognizing the cultural references. In that regard, intensity of urban space cannot be studied independently from cultural context within it has been generated. It has been proved that cultural context determines the patterns of use and the form of urban space (Bobic, 2004; Gehl, 2008). For instance, the Mediterranean culture is related with the intensive public life, although there are other regions with favorable climate. The urban space of Mediterranean's towns is composed from many squares, patios, etc. or the places that Whyte (1980) has described as "small public spaces". Even in the

time when the process of globalization is influencing architecture and cities worldwide, cultural background is still a very important factor that should be considered when transforming the urban space (Seamon, 2012; Zukin, 2010). Taking the example of plaza Jemaa el-Fna in Marrakesh, it can be noticed that the intensity and identity of plaza and its surroundings, derives from popular Moroccan cultural traditions performed through musical, religious and artistic expressions. On the other hand, the plaza, which is "locally rooted", is also famous on the global level.

Even the intensity of urban space, above all is related to the experience of urban space created through everyday rhythms - Colebrook observed intensities as directly desired effects or qualities rather than meanings - it is part of the collective memory which goes beyond the 'overcoded' experiences reduced to signified identities (Dovey, 2008; Boyer, 2001). Cultural context is constructed and incorporated by the signs of collective memory (Lewicka, 2008). Its construction is a never ending process related with different cycles through the territory reorganized and transformed. Each cycle is accumulating and storing its own wisdom, enhancing the knowledge of genetic rules and contributing to the preservation and reproduction of territorial identity through transformation (destructive and reconstructive) based on the cultural specificity (Magnagni, 2008). In order to analyze the cultural context within the urban intensity generated, the cycles of construction and constriction of urban space must be analyzed.

### 3 Methodology

The analysis of intensity of open public spaces in Vojvodina towns is performed on the case study of the town of Pancevo. The main street in Pancevo, Radomir Putnika Street, and the streets and open public spaces connected to the main street are studied. The main street is selected because of the importance that has for the urban life and urban identity of Pancevo.

The methodology guiding the analysis derives from the theoretical background, and it is formed from two parts. In the first part, it is analyzed the cultural context within the main street and town of Pancevo that has been created. The characteristics of the main street are explained through the different cycles of construction of urban fabric of Pancevo created within the urban space of town. In the second part, the main street is observed in regard the four conditions that Jacobs highlighted as a crucial in the creation of "urban ballet" and urban intensity. This condition serves as a base for the analysis of everyday urban flows, which was complemented with principles derived from urban practice. The pedestrian flows and concentration of users, uses of ground floors, proportion and scale of built structure are analyzed. In that order, the method of space syntax is used as one of the technics by which the relationship between functions, uses, flows and concentration of users is examined and checked.

Throughout the analysis three important approaches to urban research were used to a lesser or greater extent: the time-space system, the relation between process and consequence and the relation between global and local. By comparing and selecting all the data collected, the characteristics that make the open public space intensive, "lively" but also rooted in the "local" are identified.

## 4 Intensity of Main Street in town of Pancevo

### 4.1 Cultural and historical context

In the construction of the town of Pancevo five main periods can be distinguished: (1) period of the formation of organic urban tissue; (2) period of medieval fortress; (3) period after adoption of the settlement instructions in 1772; (4) period after adoption of the Regulation on Towns Construction second half of XIX century and the first half of XX century) and (5) period of second half of XX century.

- 1) First information and findings related to the urban evolution of Pancevo dated from the XII century. In that time, the town was described as lively trade settlement with the organic urban structure. The plans and maps showing the city of that period are not preserved. However, the dates indicated that the town had suffered demolitions and reconstruction in the period from XII century till the period of Ottoman rule (1552-1718). During the period of ottoman rule, Pancevo maintained the role that had before and was recognized as an important traffic node and center of economy. Otoman period in Pancevo did not leave important physical traces, but it certainly had influenced the cultural patterns of use of urban space.
- 2) In the middle age, the Hungarians constructed the fortress. Since the time of the construction, the fortress had been demolished and rebuilt several times. Still, its position remained the same. On the map describing the town of Pancevo in 1720 (Figure 1.), the position and the form of the fortress can be appreciated. The same map discerned the trace of the main street of Pancevo nowadays (in the village outside the wall, marked by letter "C" and perpendicular to the river flow). Also, the position of the Strosmaier Street (the second most important street in Pancevo) it is marked by the axis of the bridge on the eastern gate. On the base of this observation, it can be concluded that the position of the main street, as well as the position of the Strosmaier Street (now Street of Njegos), derives from the urban matrices of the middle age fortress (and it was traced in the zone inside the wall). The fortress was destructed in 1737 during the withdrawal of the Ottomans. On the same place the Austro-Hungarian monarchy built the new fortress, which spatial organization remained the urban elements and organization of the former one. The new fortress lost its military role quite soon after the construction, but has kept the role of the main urban nucleus of Pancevo.
- 3) The reconstruction of irregular urban matrix was done at the beginning of XIX century. However, the traces of the former fortress remained visible, as it can be perceived on the plan of Pancevo from 1820 (Figure 2). The Main Square is formed nearby the Main Street and the coherent urban core was intended to be created on the place of the old fortress. During this period, the industry was developed and the bourgeoisie class was formed.
- 4) On the plan of the town of Pancevo from 1890 (Figure 3), it can be noticed that the built structure increased significantly (comparing with the plan from 1820). The form of the Main

Street (and square, now already formed) remained, but was showing the higher level of urbanity. The Main Street was pedestrian and used as a promenade (*corzo*). The street had a commercial character and was a flourish place of the town.

- 5) In the second half of XX century the reconstruction of the Main Street was planned in order to increase the density of the built structure. The proposal was to transform the existing promenade into the boulevard. However, the proposal has never been completely realized. Some new/modern buildings were constructed, but the street kept its recognizable image. The street lost its pedestrian character. Figures 5,6 and 7 show the places, which defined the urban core of Pancevo nowadays.



Figure 1. Gabriel Bodners' Map of Pancevo fortress from 1720 (source: Historical Archives of Pancevo)



Figure 2. Map of Pancevo from 1820 (source: Historical Archives of Pancevo - Map. I 5302-198)



**Figure 3.** Map of Pancevo from 1890 (source: Historical Archives of Pancevo )



**Figure 4.** Intensive places - open public spaces of the urban core of Pancevo. 1. Main Street/Street of Radomir Putnik; 2. Street of Njegos; 3. Main Square; 4. Square; 5. River Tamiš (source: elaborated by the authors)

## 4.2 Characteristics

Using the method of Space Syntax applied to the area of the urban center of Pancevo, it was demonstrated that the highest concentration of users is not in the Main Street. The highest value of users' concentrations, measured in the period from May to October, was found in the Street of Njegos (former Strosmajer Street), as well as in the town square (Figure 5 and Figure 6). Comparing the results from the space syntax with the results of analysis of usage of the ground floors (Figure 7 and Figure 5), it was showed that the directions of movement that users select are related to the activity of ground floors. Active ground floors attract more users (e.g. cafes, shops, galleries, etc.). Directions of user's movement are also determined by the continuity or rhythm in which active ground floors appear. Even though the major part of ground floors is active, it is

evidenced the uniformity of uses (commercial uses) in the Main Street. For a difference, the Street of Njegos is characterized by more diversity in the uses changing in a smaller distance (commercial, residence, office, culture). Main Street is a place where many residents of Pancevo spend their time (Figure 7).



**Figure 5.** Space syntax analysis of urban core of Pancevo: pedestrian flows (source: Djukic, A., 2011)



**Figure 6.** Space syntax analysis of urban core of Pancevo: concentration of users (source: Djukic, A., 2011)



**Figure 7.** Analysis of activities in the ground floors: types of activities (source: Djukic, 2011)

It was proved that the concentration of users depends on the accessibility of the street or on “the chances to turn on the corners”. The Main Street can be accessed from different points and directions. The intensity of the connection is the strongest in the case of the path relating the Main Street with the Main Square. It is evidenced that small streets surrounding the Main Square and Main Street are quite lively because of the many spots offering potential action or rest. The accessibility and the “porosity” of urban tissue are increased by passages appear occasionally.

It can be concluded that the physical structure - dimensions and proportion of the Main Street and urban tissue of the immediate sounding- incorporate the human scale (“most blocks should be small”). The width of the main street varies from 21m to 30m. By changing the form and street profiles the micro-zones within the street are created. In that regard, the positive affect of the dynamic and intensity of experience is achieved. The length of the street is 424m, which is considered as an ideal length in the terms of the monotony-dynamic (Moughtin, 1995). The subtle curvature of the street, provoke the sensation of intimacy and safety to the users. Proportion of the main street or relationship with-elevation range from 1:1,2 to 1: 5,5 (the deviation from the optimum proportions is considerable). Although the Main Street is curved and mainly with buildings of not more than two floors, the juxtaposition of different visual plan is not achieved.

The beginning of the Main Street is defined by position of the square, while the end is not defined. Analyzing the character of physical structure and its transformation in regard to the street longitude, it could be noticed that: two-thirds of the street shows the continuity of the built structure (same volumes, same vertical regulation, similar materials, etc.); and one-third of the street shows discontinuity (different volumes and height of buildings, use of different materials, etc.). This has resulted in the different character of the street façade (Figure 8). While one is continuous and equilibrated, the other is characterized by continuous change of types of elements of the built structure. Different manners of creating “contrast” are used in order to avoid a monotony of the street; for instance, the relation between empty-full, built-un built, etc.



**Figure 8.** The Main Street in town of Pancevo

Main Street is composed by the buildings belonging to the different periods of urban space construction, which altogether formed the recognizable image of the street (Major part of buildings dated from the XIX century (period 3 and period 4). Although with similar volumes, these buildings are characterized by timed differences in architectural styles. The buildings constructed after the WWII, besides the architectural form and expression, can be recognized by the facades, which are setback. Differences in the street regulation do not only mark the periods of urban construction, but also have various positive effects. For instance, the confrontation between light and shadow, richness of views, creation of spots of users retention, etc.

According to the Space Syntax analysis, it could be concluded that in the Main Street exist proper density and concentration of users. Observations on the field showed that the types of users vary in respect to their age, gender and social status. In that regard, it also varies the types of their activities (children play, elder people sitting on the bench, etc.). The spots of users concentration are related with the points of connection between Main Street and other open public spaces (as Street of Njegos, Main Square, etc.). Patterns of use of the street and open public space in a broader sense are closely related to the cultural context. These are influenced by the Mediterranean and by the North (Middle Europe). Main Street can be qualified as a lively city space.

#### **4 Conclusions**

The research described in this paper highlights the importance of continuous adjustments and upgrading of public spaces, especially those within the historical urban core of the towns. Their intensity and density were analyzed through different methods. Collected data were compared in order to provide the relevant characteristics that make the open public space intensive, "lively", but also rooted in the "local". Cultural context, which incorporated the signs of collective memory, was considered as the most important one. Three important approaches to urban research were used to a lesser or greater extent: the time-space system, the relation between process and consequence and the relation between global and local.

From the first part of the analysis derived that the Main Street was traced at the very beginning of the urban construction of Pancevo. It was traced at the strategic place in regard to the position of the river and former fortress. Despite the transformations of urban matrices, closely related with the different cultural influences and modes of space production, Main Street preserved the basic characteristics of the physical structure (curvature, dimensions, etc.). Those can be considered as elements of urban identity of the Vojvodina towns (Djukic, 2011). Beside that has marked the image of Pancevo, Main Street has influenced the genesis of surrounding urban structure (e.g. it determined the position of the main square).

Although it is still an important place of urban activity and centrality, the street lost the significance that had at the end of XIX and beginning of XX century. This is related with the loss of its pedestrian character, which indicates that by pedestrianizing the street, urban intensity can be increased. It is noticed the lack of diversity of usage of the ground floors. Even though they are active, the uses of ground floors and the way they are complementing mutually are not always attractive. Therefore, the introduction of new uses, which could attract people, is recommended. These should consider the existing cultural patterns of use of open public space in Pancevo.

The different periods of urban space construction has resulted in the incoherent morphologic ensemble. There is no specific rule by which the relationship between rhythm, height, and image of street facade can be determined. This can lead to the confusion among the users while creating the mental images of the town. Hence, the legibility is not always related to the urban intensity. Within the Main Street, the substructure or sub-ensembles can be perceived and they are defined by different character of physical structure. The diversity these substructures create has contributed to the urban intensity; at the first place, in terms of intensity of experience of urban space. The form and the proportion of the street should be preserved. On the one hand, length and width of the street are adapted to the human scale. On the other hand, they reflect the urban identity of Pancevo and identity of Vojvodina towns in a broader sense. However, the vertical regulation should be corrected in some segments in order to improve the reaches of visual planes and create image of the street, which would be clearer.

From the analysis it is derived that the connectivity of the Main Street and the way it is related to the other open public spaces is very important for the urban intensity. Main Street, Main Square and Street of Njegos create the spatial ensemble. This ensemble is the main carrier of the urban life in the town. Even the connections between the mentioned spaces are qualified as satisfactory, their enchantment in the terms of their diversification is recommended. It is suggested the introduction of new passages and creation of new spots for users activity or retain along the existing paths. It is also suggested the stronger relationship with the river (nearby to the end of the Main Street; see Figure 4 and Figure 6). That would stress the favourable situation of the street and remain the relationship with the natural and urban soundings.

It can be concluded that the urban intensity of the Main Street in Pancevo has been constructed during the different cycles of space-time construction and incorporating different cultural influences. The relationship between the "past" and the "present" can be perceived in the physical structure, but also in the function that street has had. However, this relationship could be stronger. On the other hand, it has been demonstrated that the intensity of the Main Street relies on

the accomplishment of four conditions defined by Jacobs which are registered in lesser or greater extent. Therefore, the characteristics of the Main Street in Pancevo (and its immediate surroundings) can be used in order to enhance the intensity of open public space of Pancevo or other towns with similar character.

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# Finding Accessibility Thresholds: exploring the perception of travel time

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Accessibility measurements are still under debate within academic field and professional practice (te Brömmelstroet, Silva and Bertolini, 2014). Over the last decades, many accessibility instruments have been developed based on assumptions fuelled by mobility patterns. At least, the operational form of accessibility measures should follow accessibility goals distinguishing “real mobility” from “potential mobility” (Silva, 2008). In fact, there seems to be a gap in the implementation of operational measures on the assessment of mobility patterns and accessibility levels in planning.

This paper aims to discuss the appropriate accessibility thresholds to be used in accessibility measures. For this, the results of a survey are presented by evaluating accessibility perceptions instead of mobility patterns. The survey is innovative because is focused on accessibility questions related to people's everyday life, also collecting socio-economic data and mobility patterns (as control variables). The survey has been conducted in the city of Oporto from November 2014 to April 2015 involving a representative sample of the population.

The main result of this research will contribute to the improvement of the understanding on accessibility thresholds supported by a wide range of individual preferences, disconnecting accessibility assessment from mobility assumptions. Both “real” and “potential” accessibility preferences are assessed by type of opportunity / activity. In addition, categories of activities are also grouped according to “short” or “long” term duration by preferable transport mode.

**Keywords:** Accessibility Planning; Accessibility Measures; Accessibility Thresholds; Local Planning

## 1 Introduction

This paper presents important results of the application of an accessibility survey in Portugal. The main objective is to understand population's concerns about local accessibility and assess their current needs and expectations to benefit their day-to-day life by seeking accessibility thresholds that can be transferred to planning practice.

The adopted methodology includes the implementation of an accessibility survey and its comparative analysis for finding accessibility thresholds that might be used in accessibility measures. The survey has been distributed under two different approaches (face-to-face and online) and took four months to achieve representativeness (from November 2014 to April 2015).

It is expected that the results on thresholds for accessibility measures can bring benefits and future references regarding the calculation of accessibility, which is currently measured using mobility assumptions only. It was therefore possible to identify the expectations of the population relating them to local accessibility indicators. Thus, most accessibility thresholds identified by the survey are linked to average journey times (as well as waiting times) by different transport modes and for the most important daily activities for the population. The results also show groups of “short” and “long” term activities according to preferable transport mode.

In short, the main objectives of the survey are the following:

1. Identifying the prevailing transport modes in relation to different travel purposes;
2. Identifying average and maximum admissible travel times for different activity (i.e. origin-destination);

3. Identifying average and maximum admissible waiting times for public transport (PT), especially bus and metro transport modes;
4. Evaluating the degree of satisfaction of the population in connection with availability of transport service and the availability of activities in a particular area;
5. Understanding the perception of the population in improving urban accessibility.

The first section provides a brief introduction of the main goals of the paper. Section 2 addresses the current debate on accessibility instruments highlighting the importance in defining accessibility thresholds in the implementation of accessibility measures. Section 3 shows an overview of the survey framework describing the sampling, the intervention area, and the implementation of the survey. The results are outlined in Section 4 by identifying people's perceptions concerning accessibility according to their most important needs. Section 5 summarizes the comparison of both real and ideal travel times.

## **2 Conceptual discussion on numerical thresholds within accessibility instruments**

Whereas mobility is well defined in urban planning, a major shortcoming in defining accessibility goals remains misty. The differences between accessibility- and mobility-based planning are still unclear in practice (e.g. Handy, 2002, Envall, 2007) and some authors have considered both mobility and accessibility as “Yin and Yan” of planning (e.g. Ross, 2000). Despite this changes in both planning approaches, the interpretation of accessibility has been focused on sustainability guidelines. By integrating several strategies through different planning contexts and sectors, accessibility planning was able to promote similar planning solutions standardizing the common language among developers, practitioners and stakeholders.

In addition, the effort for understanding both concepts in urban planning leads us to its practice by defining specific parameters and tools for its measurement and operational form. It is evident that accessibility implementation has been somehow limited. This difficulty seems to indicate a misunderstanding on how to distinguish real mobility (representing the current travel behaviour and people's choices) from potential mobility (that means the choices people have) (Silva, 2008; 2013). The operational gap is maybe due to the few references in scientific literature in which the potential of accessibility for the development of mobility management implies changing from real mobility indicators to potential ones.

The assessment of accessibility in urban environment continues to be widely. Accessibility operationalization has been increasingly compromised due to the undefined thresholds (or parameters) that are not yet considered as consensual among practitioners (this discussion is directly related to different goals of accessibility planning and also may differ according to each tool). It is true that accessibility thresholds have been based on traditional transport and mobility assumptions over the last decades. Once again, this may raise to another important issue related to the implementation gap between planners, developers and potential users when using accessibility instruments (e.g. te Brömmelstroet, 2013, Vonk et al, 2005).

In line with this, the usefulness of Planning Support Instruments (PSI) and Planning Support Systems (PSS) as well as the overarching consideration on Accessibility Instruments (AI)

have been raised by different authors. The main difference is concerning "planning/policy measures" vs. "planning/policymaking process" (Hull et al., 2010; te Brömmelstroet, Silva and Bertolini 2014). Accordingly, PSI are tools dedicated to support specific spatial planning tasks. In turn, PSS are geoinformation-technology-based instruments in which accessibility instruments can be included (e.g. Geertman, 2009). However, these instruments are not as easy to use in practice due to its complexity and also to the lack of handling experience by users.

According to the glossary of Action TU1002 (Hull et al., 2010), accessibility instruments have been designed to support planning practice. They measure accessibility through maps and numeric values or quantitative indicators (te Brömmelstroet, Silva and Bertolini, 2014). These instruments normally use different techniques for data selection, definition of strategies' analysis, definition and integration of data and quantifiable thresholds baselines, being together organized under a Geographic Information System (GIS) based on data management software and/or open source tools.

Thinking about accessibility still needs a change of vision concerning the use of indicators and/or measures for its measurement despite accessibility-based planning be considered as person-centred new paradigm (as opposed to infrastructure-centred planning). That is why accessibility assessment is not only related to accessibility measures interpretation but also on how to get clear notions about mobility and accessibility concepts (including its thresholds) within social policies and political contexts. Therefore, a number of common indicators in accessibility measurement are actually about (real) mobility, such as: travel distance, travel time, travel frequency, number of trips, transport mode, average travel speed per person, etc (for more details on mobility main indicators, see Silva, 2013). In fact, despite of the number of accessibility instruments available in the literature, most define accessibility thresholds based on mobility data with little or no research on individual perceptions of accessibility thresholds, i.e., on what people perceive to be accessible and what are the conditions people would consider as admissible to identify a destination as accessible.

In addition to the above, when including accessibility-based PSI in planning practice, some common choices must be weighted comprising distance decay, competition effects, personal or group constraints, different trip purposes, transport modes and different times of day and/or weeks (Silva, 2013). These choices should include, in particular, the trips (such as unit of measurement), considering as performance indicators all transport modes (and each specific multimodal service level), the access to land use and the generalized cost to achieve activities. Expectations of users should be also taken into account for transport options, utility and cost-efficiency. Also, using mix clusters by integrating land use and transport through mobility's improvement strategies should be considered in the calculation of accessibility (e.g. Litman, 2011).

Some authors have categorized accessibility instruments in different ways regarding operational requirements (e.g. Hull et al., 2010; DHC, 2007). In this paper, we will try to answer some of the gaps in accessibility practice taking into consideration the accessibility improvements instruments based on Hull et al.'s (2010) recommendations. Although accessibility assessment depends of different types of planning goals, accessibility instruments should consider the following elements:

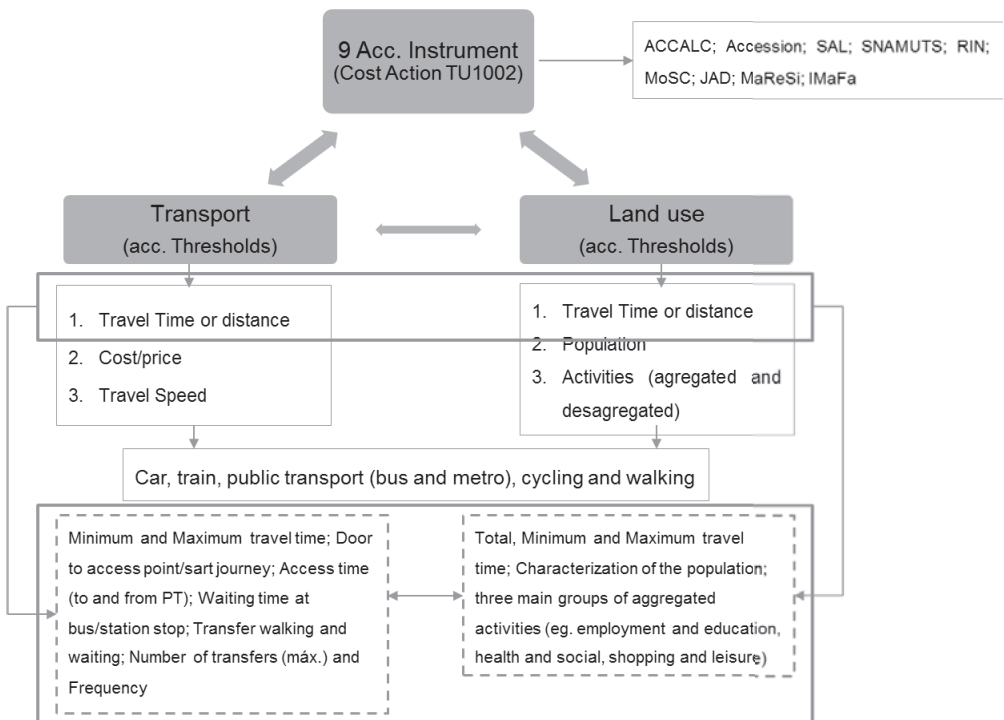
- all modes of transport;
- all public transport networks;
- the interchanges options between public transport and other modes;
- the minimum time accepted for transfers or interchanges;
- the faster, cheapest or shortest route;
- the minimum number of transfers or interchanges required to complete the journey;
- the influence of specific times of day, distinguishing work and non-work trips (the days of the week or weekend related to the access of specific activities);
- the declining attractiveness of potential activities regarding travel time or distance from an origin;
- different access speeds for walking mode taking into consideration the specific area and the population group;
- different thresholds walking access for boarding points concerning time and distance, especially for public transport by area and population group;
- real time traffic congestion, delays or roadwork within transport modes' networks;
- different types of constraints considering physical features;
- the capacity or comfort of transport depending on the purpose of the trip and the specific population group;
- bus stop quality, the environmental surroundings and the support to users also depending on the people's needs (including the security and safety of infrastructure and transport networks);
- quality of public space;
- the environmental impact (eg CO2 emissions, and others);
- the ability to identify changes by improving (or decreasing) accessibility in relation to the demand and to land use patterns in particular areas.

To review the accessibility thresholds used by current accessibility instruments we have reviewed a collection of them provided by the COST Action TU1002. Hull et al. (2010) describe 22 of these instruments in detail, allowing for an evaluation of the accessibility thresholds used in each of them. In fact, all instruments define admissible travel distances, travel costs, travel time, waiting times, and other issues defining personal thresholds for what is and is not accessible, based on personal experience, prior research or current travel behaviour. Although recognized by some authors, the fact that accessibility thresholds are not necessarily defined by actual mobility patterns (for instance, an average travel time of 30 min does not mean that people consider activities over 30 min as not accessible) has not prevented many of them to use these values when defining admissible travel choices.

Constraints may be associated to some principles of transport planning and to economic assessment related to public sector (for instance, it is more important the global investment cost and its benefits which are usually focused on mobility basis and on derived offer, travel speeds (and distances), infrastructure provision and performance) (e.g. Hull et al.'s, 2010; Silva, 2013). Unfortunately, these assumptions are often confused with accessibility characteristics. Although most of mobility measures are simple and easy to acquire, they say very little about the interactions

between transport system, land use changes and individual preferences (considered as principles of accessibility-based planning).

The detailed review of the COST Action Accessibility Instruments revealed that nine (out of 22) defined specific accessibility threshold for their instruments (Fig. 1). These have been summarized in the figures below. These thresholds were divided into two main groups: Transport and Land use. From these observations, we have concluded these limits include travel time or distance, cost, travel speed and land use opportunities, because they are easiest to use and to acquire in planning practice. It was also possible to observe the difficulty for finding these cut-offs mainly persisting in the operationalization of accessibility measures.



**Figure 1** – Review on COST Action TU1002's accessibility instruments

From the review of accessibility instruments, we can say the travel time is the cut-off used in the measurement of accessibility. This threshold can be defined as total travel time, or may be scaled (as minimum and maximum travel times). In addition, they were associated with different modes of transport (i.e. car, train, PT, cycling and walking). Concerning the group of Transport accessibility (Fig. 2), other thresholds have also been identified as the time taken from the origin to bus or station stop or to car. Also, the access time (to and from PT), the waiting time at bus/station stop, the walking transfer, the number of transfers and the frequency (depending on the period of day) have been also found. On one hand, we can say that "5 minutes" have been associated to the earlier thresholds, although differing from both waiting time (ranging from 1.25 minutes to 20 minutes) and transfer waiting (10 minutes).

		Transport Modes								
		Walking	Cycling		PT (bus, metro)		Train, tram	Car		
Travel time or distance	Total Travel time or distance	maximum walking distance ≥ 1600m (3); maximum route distance =	maximum cycling distance ≥ 5000m		walking distance/time to alternative bus stops or railway stations: 400m and/or 800m (2)		walking distance/time to alternative bus stops or railway stations: 400m and/or 800m (2)	20min (3)		
	Minimum Travel time	1km (8)	1000m=10min (2); 10min (7)		10min (7); coverage analysis: 300m (=5min) (10);		coverage analysis: 600m (10);	15min (7)		
	Maximum Travel time	10min (3); 2km (8)	2000m=5min (2); 800m=10min (3); 400m=5min (2); 20min (7)		20min (3); 45min (7); coverage analysis: 900m (=15min) (10); 15min (11)		coverage analysis: 1200m (=20min) (10);	30min (7)		
	Time on the vehicle	NF	NF		NF		NF	NF		
	Door to access point/start journey (walking time)	1,25 mile (Maximum) (1)	5 min (minimum) (1)		1,25 mile (Maximum distance) (1); doorstep frequency index at the relevant bus stop or rail station: ≥400m (0,85 index); 400m<x<800m (0,35 index) (2); 400m (10)		NF	5 min (minimum) (1)		
	Access time (to and from PT)	1,25 mile (Maximum) (1)	NA		5 min (minimum) and/or 10min (normal) (1); 2,5 min + 2,5 min (200m apprx.)(3)		5 min (minimum) and/or 10min (normal) (1)	NA		
	Waiting time at bus/station stop	NA	NA		20min (Maximum) (1); 100m (or 1,25min) (3)		NF	NA		
	Transfer walking	NA	NA		5min (Minimum) (1)		NF	NA		
	Transfer waiting	NA	NA		10min (Minimum) (1)		NF	NA		
	Number of transfers (maximum)	NA	NA		3 (1) (2); 2 (3);		NF	NA		
	Frequency	NA	NA		15 minutes (2); 20 min weekday interpeak; 30 min Sat/Sun (buses); 30 min weeday interpeak (4);		NF			
	period of day	NA	NA		any (1); am peak 7.00-10.00 (2); am peak hour 8.00-9.00 (2) (3); pm peak 16.00-19.00 (2); pm peak period 17.00-18.00 (2); off peak 10.00-16.00 (2); morning peak hour (11)		NF	NA		
	Parking time	NA	NF		NA		NA	NF		
	Time at junctions	NF	NF		NF		NA	NF		
Cost / Price	Tranfer distance, Comfort/quality, Price, Land slope, Relationship between distance on the network and distance in a straight line, Existence of obstacles/barriers, Trip total price (including travel distance, oil price, tolls, maintenance, parking, etc), Parking price: Not Found									
Speed	Speed	3 mph (not average) (1); 5 km/h (average) (EC, 2000) (3); 4,5 km/h (accepting na average detour index of 1,2)	Motorway	0 mph (1)	Speed of Public Transport is derived from the timetabled service (in NPTDR) (1); PTAL (2)			Derived from Traffic master data (49 mph - urban road) (1)		
			Urban Motorway	0 mph (1)	PT Average speed = depending on the operators (Bus = between 15 and 30km/h); (Metro = between 29 and 35 km/h) (4)		Long distance rail transport	between 70-120 km/h (5)	Continental wide-area	
			A road	9.9 mph (1)	Interregional and regional bus	between 25-50 km/h (5)	Regional rail transport outside built-up areas	between 35-110 km/h (5)	Inter-regional	
			B road	9.9 mph (1)	Local bus	between 20-35 km/h (5)	Independent rail	between 25-45 km/h (5)	Regional	
			Minor road	9.9 mph (1)			Light rail	between 10-30 km/h (5)	Local	
			Local street	9.9 mph (1)			Tram	between 5-25 km/h (5)		
			Private road – restricted access	3 mph (1)			Train = 50 km/h (3)			
			Private road – public access	9.9 mph (1)						
			Pedestrian street	3 mph (1)						
			Alley	3 mph (1)						
			5 km/h (EC, 2000) (3)							
			Outside built-up areas	between 20-30 km/h (5)						
			Inside built-up areas	between 15-25 km/h (5)						
Accessibility Instruments: Accession (UK) (1); ACCALC (UK) (2); SAL (3); SNAMUTS (4); RIN (5); MoSC (6); JAD (7); MaReSi (8); IMaFa (10)										
Not Applicable (NA); Not Found (NF) = not available or Not Included										

Figure 2 – Transport Accessibility Thresholds

The trip may differ according to the number of transfers (between two or three) and this fact may also influence the total travel time to access an activity. The threshold of frequency has a variation of 15 and 30 min for interpeak weekday and 30 minutes on weekend. We did not find any amounts related to the travel cost nor with the time spent on the vehicle, either because they are not applicable to all of transport modes or because they were not provided by data accessibility tools. With regard to travel speed, there is not the common agreement among some authors that the speed is a threshold of accessibility. However, we found relevant to include them in the table below as they are needed to measure accessibility by distinguishing accessibility levels within distinct urban areas.

On the other hand, land use accessibility thresholds (Fig. 3) focus on the ranges of travel time in relation to activities (or groups of activities) by mode of transport. This group is considered by twofold important elements: the characterization of the population and the three groups of aggregated activities (such as: employment and education, health and social, shopping and leisure). The minimum travel intervals to achieve all activities vary between 10 minutes (for bicycle and PT) and 15 minutes (for the car). Concerning maximum travel times, these values diverge from 10 min (walking) to 20 min (bicycle). PT values vary from 20 and 30 to 45 minutes. The same occurs with car, taking 20 and 30 minutes for the maximum travel time. However, both minimum and maximum threshold are defined as distance (1 km and 2 km, respectively) for walking mode.

			Total Travel time (minutes) (journey) or distance		Minimum Travel time (minutes) or distance				Maximum Travel time (minutes) or distance				Non car available	Car available
			Minimum	Maximum	Walking	Bicycle	PT	Car	Walking	Bicycle	PT	Car		
Population	Population (1) (2) (3)	weighted averages (based on census track) (1) (2) (3); Employment status (1) (2) (3); Age/gender (1) (2); Cultural factors (ethnicity, faith, etc) (2); Responsibilities (carer, lone parent, etc) (2); 10000 inhabitants (9); [500-1000] residents (11)											(1) (2) (3) (4)	(1) (2) (3) (4)
	Employment and Education	Employment (1) (2) (3); defined as 3 employment sites accessible with at least 100 jobs, at least 500 jobs and at least 5000 jobs (1)	20 (1)	40 (1);		10 (7)	10 (7)	15 (7)	10 (3)	20 (7)	20 (3); 45 (7);	20 (3); 30 (7)		
Land use/ Activities		Primary School (1) (2) (3)	15 (1)	30 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7); 30 (11)	30 (7)		
		Secondary School (1) (2) (3); colleges (2)	20 (1)	20 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7); 30 (11)	30 (7)		
		Further Education (1) (2) (3); training centres (2)	30 (1)	60 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7); 30 (11)	30 (7)		
	Health and Social	GP (1) (2); Health centres (2); social security offices (2); job centres, post offices (2) (3) (2); Pharmacies (3); Clinics (3); Banc offices (3); ATM (2); Public Administration Services (3)	15 (1)	30 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7)	30 (7)		
		Hospital (1) (2) (3)	30 (1)	60 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7)	30 (7)		
	Shopping and Leisure	Shopping (2)			1km (8)	10 (7)	10 (7)	15 (7)	2km (8)	20 (7)	45 (7); 15 (11)	30 (7)		
		Leisure (3)				10 (7)	10 (7)	15 (7)		20 (7)	45 (7); 30 (11)	30 (7)		
		Food store (1) (2) (3)	15 (1)	30 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7)	30 (7)		
		Town centre (1)	15 (1)	30 (1)		10 (7)	10 (7)	15 (7)		20 (7)	45 (7)	30 (7)		
	Accessibility instrument: Accession (UK) (1); ACCALC (UK) (2); SAL (3); SNAMUTS (4); RIN (5); MoSC (6); JAD (7); MaReSi (8)													

Figure 3 – Land use Accessibility Thresholds.

### 3 Accessibility Survey Method

The main objective of the survey is to understand the concerns of the population about accessibility needs by finding local accessibility limits (barely visible in accessibility planning practice). Three important parts of the survey can be distinguished for trying to encompass comprehensive accessibility concept, such as: individual characteristics, real travel (considered mobility) and potential mobility (considered accessibility). The survey method is mainly focused on transport and land use components (Geurs and Eck, 2001), the characterization of the population, definition of the sampling, survey implementation approaches and results obtained (Fig. 4).

This survey has been developed in the scope of a PfD research focused on introducing accessibility concepts into local Masterplans. The case study of the PhD research involved the municipality of Porto (Portugal). The development of accessibility measures for the above mentioned purpose was preceded by a survey aiming to understand local perceptions of the population of the Oporto municipality and results cannot be generalized. However, they will be used to discuss current assumptions on accessibility perceptions and the risk of using travel behaviour as proxy for accessibility thresholds.

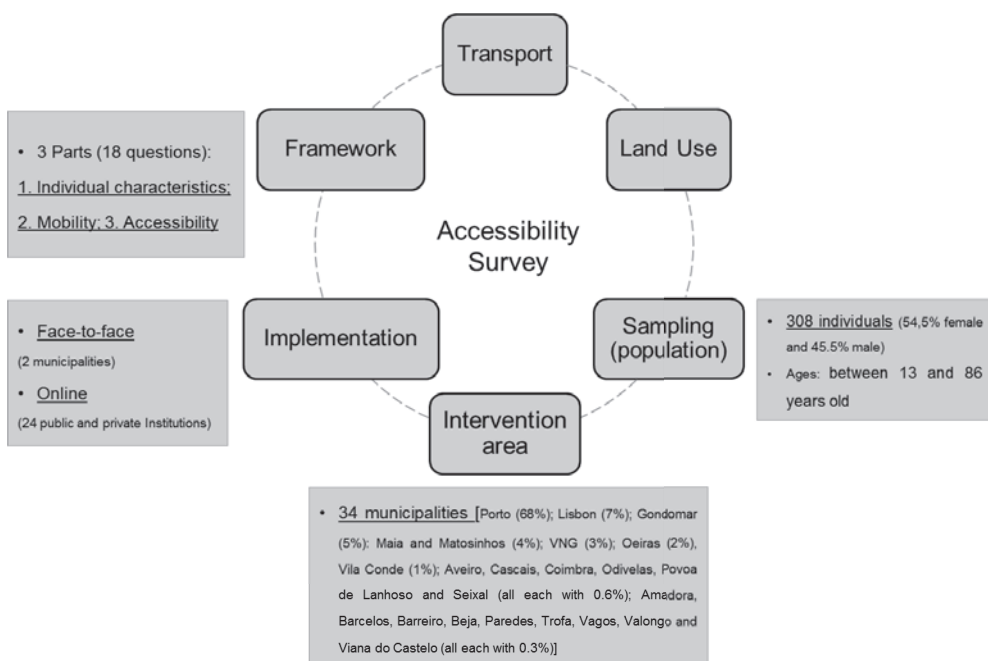


Figure 4 – Accessibility Survey method

#### 3.1 Definition of the sampling survey and intervention area

Survey was completed by 308 individuals of both sexes (54.5% female and 45.5% male) with ages between 13 and 86 years old, all residents in Portugal. Most of the answers came from the municipality of Porto (67.52%), followed by Lisbon (6.8%), Gondomar (5.2%), Maia (4.2%),

Matosinhos (3.9% ), Vila Nova de Gaia (2.9%), Oeiras (1.9%) and Vila do Conde (1.0%). The municipalities less participatory were Aveiro, Cascais, Coimbra, Odivelas, Póvoa de Lanhoso and Seixal (all each with 0.6%). In addition, 0.3% of the sampling is from Amadora, Barcelos, Barreiro, Beja, Paredes, Trofa, Vagos, Valongo and Viana do Castelo (Table 1).

The technique applied in the selection of the sampling is called “simple random selection” which depends on the accuracy degree required and on the heterogeneity of the answers (not depending on the large amount of sample answers).

**Table 1** – Percentage of the sampling (females and males) of Porto

Sex	Municipality	Frequency	Percent
Female	Barcelos, Beja, Cascais, Coimbra, Paredes, Póvoa de Lanhoso, Seixal, Trofa, Viana do Castelo, Vila do Conde	1 (in each of the municipalities)	,6
	Gondomar	8	4,8
	Lisboa, Matosinhos	7 (in each of the municipalities)	4,2
	Maia	9	5,4
	Porto	121	72,0
	Vila Nova de Gaia	6	3,6
	Total	168	100,0
Male	Amadora, Barreiro, Cascais, Coimbra, Póvoa de Lanhoso, Seixal, Vagos, Valongo, Aveiro, Odivelas, Vila do Conde	1 (in each of the municipalities)	,7
	Gondomar	2 (in each of the municipalities)	1,4
	Lisboa	8	5,7
	Maia	14	10,0
	Matosinhos	4	2,9
	Oeiras	5	3,6
	Porto	6	4,3
	Vila Nova de Gaia	86	61,4
	Total	3	2,1
		140	100,0

### 3.2 Survey framework

Survey structure is divided into three parts, namely: 1) population characteristics, 2) mobility and 3) accessibility, composed by eighteen questions in its entirety (Fig 5). First part contains six questions regarding gender, age, residence parish, household, education level and employment status. Second part addresses five questions about the daily trips (mobility patterns), focused on two trip purposes, transport modes, travel times for each trip (door to door, from origin to destination), transfer times and average and maximum waiting times for public transport (including metro, bus and train). In addition, monthly expenses of each individual have also been identified. Lastly, third part covers the last seven questions of the survey mainly focused on local urban accessibility (e.g. Silva, 2013), and distinguished by different “holding” times (duration) to certain places. That means, it represents the time duration in which each person or group may perform to particular activity by setting the desirable travel time for reaching a destination by different transport mode. Accessibility to different activities was considered. The following nine aggregated (and sixty-two sub-aggregated activities) have been considered in the survey, such as: 0) Job; 1) Education (Kindergarten; 1st cycle schools and pre-school education; Basic schools of 2nd and 3rd cycles; Basic schools integrated; Schools of 2nd and 3rd cycles of basic education; High schools;

Professional School; Higher Education; 2) Social (Day care; Nursery School; Nursing home; Home care services; Unit integrated continuous care; Nursing home with residence; Autonomous residence; Occupational Activity Centre); 3) Sport (Small sports grounds; Swimming Pool (Pavilion); Municipal pavilion; Multipurpose Pavilion; Sport halls; Large sports fields; Athletic tracks; Gyms); 4) Culture (Cinema; Theatre; Art gallery; Auditorium / Shows; Library; Public archives; Museums; Religious centres; Cemetery); 5) Health (Hospital; Health Centre; Health extension; Family health units; Basic emergency units; Clinics; Pharmacies); 6) Shopping (Market; Supermarket/Food store; Hotels; Restaurants; Grocery; Telecommunication stores; Clothing stores; Shoe stores; Bookstores; Hairdressers; Bars); 7) Services/Amenities (Court of law; Municipal services; Post office; Information points; Banks; Employment centres); 8) Leisure (City park; Gardens; Specific areas (e.g. playgrounds); 9) Public Security (Public security police; Republican National Guard; Fire department). A final group has been added as “I have all that I need”, corresponding to the maximum individual satisfaction. Besides, transport modes correspond to PT (including Metro, bus and train), bicycling, walking and car.

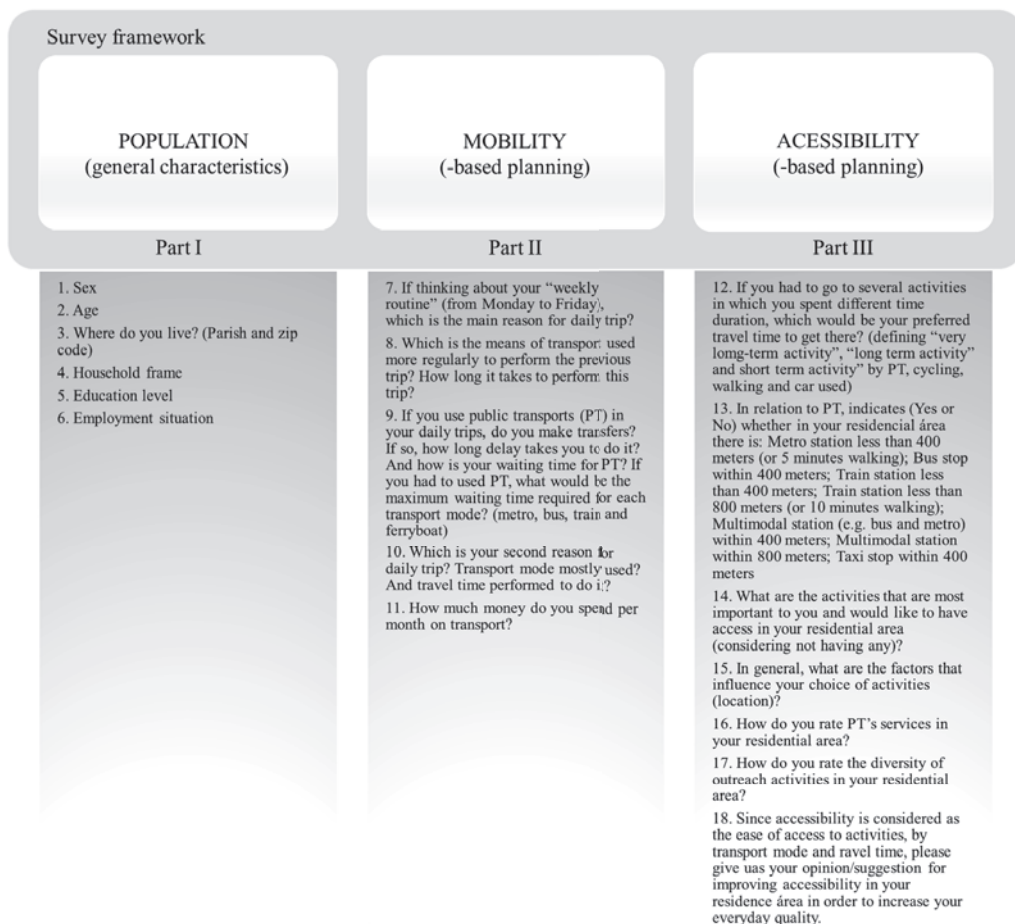


Figure 5 – Survey framework

Finally, most of the questions are designated as "closed questions" in survey framework by choosing a limited number of responses (e.g. especially in defining travel time). Moreover, open and semi-open questions have also been set allowing respondents to give some opinions. This option was intended to ensure that any information field could be beheld in the investigation and not excluded from the analysis. The survey has been built according to the following structure:

### 3.4 Survey implementation

The survey has been distributed in both person and online approaches. Person delivery (face-to-face) has been made early in the process approaching citizens in parish councils. On the one hand, surveys have been given to people in person with the help of an interviewer. This first approach has been only applied in two parishes from the municipality of Porto, such as Bonfim and Campanhã. Due to timely issues of survey implementation and the lack of economic and personal resources, it has not been possible to apply them in other Parishes. On the other hand, the survey was also provided through the website pages, or newsletter or via Facebook of each institution. This online approach has included 12 contacts (out of 24) from public to private institutions for the dissemination of the survey (Table. 2).

**Table 2** – Time-duration of the survey and contacts established

Contacts (institutions)	From-to	Survey implementation
Bonfim Parish Council	24th Nov – 28 <sup>th</sup> Nov 2014	Face-to-face
Campanhã Parish Council	1 <sup>st</sup> Dec – 5 <sup>th</sup> Dec 2014	Face-to-face
Massarelos e Lordelo do Ouro Parish Council	19th Jan – 26 <sup>th</sup> Jan 2015	Online
Ramalde Parish Council	4 <sup>th</sup> Dec – 12 <sup>th</sup> Dec 2014	Online
Centro Histórico do Porto Parish Council	22nd – 29th Dec 2014	Online
Aldoar, Foz e Nevogilde Parish Council	2nd Dec – 9 <sup>th</sup> Dec 2014	Online
Paranhos Parish Council	2 <sup>nd</sup> Dec – 9 <sup>th</sup> Dec 2014	Online
STCP – Sociedade de Transportes Colectivos do Porto	23 <sup>rd</sup> Mar – 24 <sup>th</sup> Apr 2015	Online
Metro do Porto	26 <sup>th</sup> Feb – 30 <sup>th</sup> Apr 2015	Online
Associação pela Mobilidade Urbana em Bicicleta - MUBI	10 <sup>th</sup> Dec – 17 <sup>th</sup> Dec 2014	Online
Associação Campo Aberto	9 <sup>th</sup> Jan – 16 <sup>th</sup> Jan 2015	Online
Events & News (CITTA)	1 <sup>st</sup> Feb – 28 <sup>th</sup> Feb 2015	Online

## 4 Outcomes from Oporto

### 4.1 PART I: Population: general characteristics

As already mentioned above, the total of respondents is 308 individuals. The population from Porto municipality represents 1/3 of the total sampling (207 individuals). The general population is characterized by living with dependents (35.7%) although there is ¼ of the population living alone (6.8%). Most of them are graduated (30.5%), 19,8% have a Master degree and 2,9% are PhD student. Some individuals are attending high school (19.2%) and both 3rd and 1st Cycle cover 8.1% and 8.8% of the population, respectively. Education levels related to Professional Education, Bachelor and 2nd cycle are both around 3.2% and 2.9%, respectively. Some individuals have no level of education at all (0,3%).

**Table 3** – Percentage of the sampling (females and males)

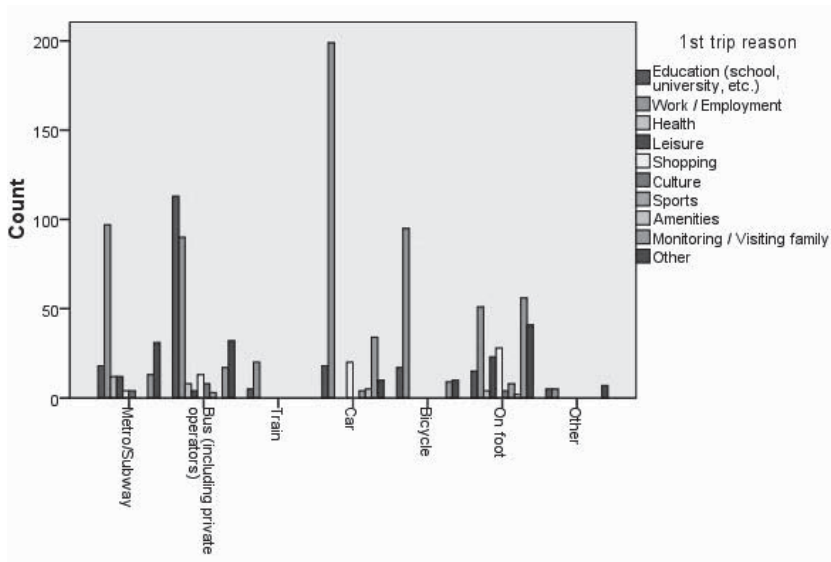
Population (general characteristics)	Total of the Sampling (including Porto municipality)	Porto municipality (only)
Individuals	308 (54,5% female and 45,5% male)	207 (58,5% female and 41,5% male)
Age	Between 13 and 86 years old	Between 15 and 86 years old
Municipalities	34 (municipalities)	7 (parish councils)
Household	35,7% live with dependents and 25% live alone (6,8%)	38,6% live with dependents and 8,7% live alone but with dependents
Education level	Graduated (30,5%) and 0,3% have no level of education	Graduated (29,5%) and 0,5% have no level of education

Most respondents belong to the class of dependent workers (37.3%) and 24.7% of them are currently unemployed. Independent workers, students and pensioners reflect a minority class of the population, encompassing 12% and 10% (approximately) of the respondents (Table 3).

#### 4.2 PART II: Mobility (-based planning)

In this section, we have analyzed travel behaviour (by dealing with mobility patterns) in relation to principal daily travel purpose, transport modes, travel time, waiting time, transfer time and travel cost by each individual's trip. We have to emphasize that the following results are only focused on travel time thresholds concerning daily travel, combining the first choice of activities given by the population by mode of transport used.

The first reason to travel is related to employment (50%) and to educational (44%). Despite these numbers, 34% of individuals (classified as "Other" in the graphic) are traveling for varied reasons for instance, finding a job, providing social actions related to solidarity and going to day occupational centres (for elderly people). This situation shows small groups of people who are currently unemployed and retired as well and who have enough free time to do alternative activities (Fig. 6).

**Figure 6** – First reason to travel

The mode of transport commonly used in daily travel is PT with 36,7%, followed by CAR (28,2%<sup>1</sup>). We may say car differs from other modes of transport almost by "door-to-door" by reaching easily a wide variety of activities losing the least time possible (although this is not always true). The average travel time depends on transport mode and the activity to reach (Table 4).

More than half of the respondents do not do interchanges (or transfers) when using PT. However, others took an average time of 9 minutes approx. doing so depending on mode of transport.

Interestingly, there seems to be a growing trend regarding the use of bicycle (11.7% compared to 38.6% of PT and to 28.2% of car using). Although bicycle is not considered the fastest means of transport, appears to be the most economical (although the respondents have pointed out some vehicle maintenance costs).

Of the results below, monthly spending on PT (56.1%) is revealing higher compared to CAR (29.9%). We have found that each respondent spend an average of 45,5 euros per month in transport expenses (PT = 28.5% and car = 15%). Finally, the main results of Part I (mobility-based planning) are following presented:

- *First Reason to travel:* employment (50%) and school (44%);
- *Transport mode:* PT (metro=15%; bus=22%; train=2%; Car= 28%; Bicycle= 12% and walking= 20%;
- *Average travel time by transport mode:* Car= 25min; Bus+metro= 32min; Bicycle= 27min and walking= 20min;
- *PT average transfer time:* 9 min
- *Monthly expenses:* total of 45,5%

In addition, the average travel time of the second daily-trip vary according to people's need by depending on non-work activities (or work activities), the time of day and/or day weekly or weekend and on modes of transport. The average travel time found on the survey for transport is 23min approx. enhancing car and walking. However, car and walking are related to shopping and leisure activities and PT appears to be less used for a total of 22.7% (adding bus and metro).

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<sup>1</sup> This percentage has very little value compared to total motorized vehicles in circulation (N=5512864) in 2013, at national scale (INE, 2013. Estatísticas dos Transportes e Comunicações, Edição 2014).

**Table 4 – Average travel time by main trip (activity) and transport mode**

<b>Activity</b>	<b>Transport mode</b>	<b>Travel time</b>		<b>N</b>
Education (school, university, etc.)	Metro/Subway	Mean	<b>47,5</b>	4
	Bus (including private operators)	Mean	<b>38,4</b>	25
	Train	Mean	<b>92,0</b>	1
	Car	Mean	<b>19,4</b>	5
	Bicycle	Mean	<b>22,5</b>	4
	On foot	Mean	<b>22,0</b>	4
	Other	Mean	<b>45,0</b>	1
Work / Employment	Metro/Subway	Mean	<b>33,9</b>	23
	Bus (including private operators)	Mean	<b>30,2</b>	22
	Train	Mean	<b>53,0</b>	5
	Car	Mean	<b>22,1</b>	63
	Bicycle	Mean	<b>27,0</b>	27
	On foot	Mean	<b>12,2</b>	13
	Other	Mean	<b>100,0</b>	1
Health	Metro/Subway	Mean	<b>15,8</b>	3
	Bus (including private operators)	Mean	<b>40,0</b>	2
Leisure		Mean	<b>10,0</b>	1
	Metro/Subway	Mean	<b>60,0</b>	2
	Bus (including private operators)	Mean	<b>15,0</b>	1
Shopping	On foot	Mean	<b>46,0</b>	5
	Metro/Subway	Mean	<b>5,0</b>	1
	Bus (including private operators)	Mean	<b>19,2</b>	3
	Car	Mean	<b>17,5</b>	6
	On foot	Mean	<b>12,5</b>	6
Culture	Metro/Subway	Mean	<b>30,0</b>	1
	Bus (including private operators)	Mean	<b>20,0</b>	2
	On foot	Mean	<b>30,0</b>	1
Sports	Bus (including private operators)	Mean	<b>30,0</b>	1
	Car	Mean	<b>10,0</b>	1
	On foot	Mean	<b>12,5</b>	2
Amenities	Car	Mean	<b>12,5</b>	2
	On foot	Mean	<b>30,0</b>	1
Monitoring/Visiting family	Metro/Subway	Mean	<b>19,2</b>	3
	Bus (including private operators)	Mean	<b>18,3</b>	3
	Car	Mean	<b>20,0</b>	8
	Bicycle	Mean	<b>20,0</b>	2
	On foot	Mean	<b>20,7</b>	14
Other	Metro/Subway	Mean	<b>19,2</b>	6
	Bus (including private operators)	Mean	<b>27,8</b>	8
	Car	Mean	<b>90,0</b>	2
	Bicycle	Mean	<b>22,5</b>	2
	On foot	Mean	<b>19,8</b>	10
	Other	Mean	<b>26,3</b>	2

### 4.3 PART III: Accessibility (-based planning)

This section, intends to assess the expectation of the population with regard to local accessibility, according to preferred transport modes and activities by each individual. In fact, potential mobility (considered similar to accessibility concept) is related to the ability of an individual to reach certain activities, in particular travel time and mode of transport. As such, it is important to know the perception of the people for finding useful accessibility thresholds appropriated to their needs. One of the main constraints in calculating accessibility levels is related to waiting time for public transport, thus reflecting frequency parameters (bus = 10,7min approx.; metro = 6 min approx.; train = 12,7min approx. and ferry = 12,6min approx.). The latter mode of transport is unusual in cities because there is only in some Portuguese cities, so the number of responses was much reduced resulting less evident in the final results.

In order to understand these thresholds, we have also divided travel times to several activities by four modes of transport, similarly to what have been done to find mobility patterns. The activities were aggregated into three different groups concerning time duration, such as: 1) very long-term activities, 2) long-term activities and 3) short-term activities. Firstly, the group of very long-term activity has been characterized by higher time duration taking more than 60 minutes to reach different activities such as employment and school, for instance. The second group of activities varies from 20 min to 60 min to get a destination (e.g. weekly shopping, going to a concert, gym, etc.). Finally, the last group covers short time duration activities ranging between 5 min and 20 min of staying (e.g. spot purchases, going to public services, health centres, etc). The following tables 3, 4 and 5 represent the thresholds of travel times found in the survey. In addition, the distance to destination and the transport mode may also influence travel times, differentiated by primary or secondary travel purposes. On the one hand, people do not mind to take longer to get to a destination whose activity is considered long-term duration, i.e. in which a person may stay (at the same place) long time for relaxing and having fun (we have considered activities related to leisure or culture and employment and education). On the other hand, activities which involve little spending time have showed averages travel times below than 20min, with the exception of employment.

In general, we can say that the average expected limits vary between 17 minutes approx. and 23 minutes approx. in Table 5. For long-term activities (Table 6) range from 12.5 min approx. to 18 min approx. and 7 and 12 min approx. for short-term activities (Table 7). Thus, walking and car are considered as extreme limits in each group (maximums and minimums thresholds for aggregated activities). Both PT and bike have similar values within first and second group of activities (perhaps linked to non-work activities). In contrast, short-term activities have travel times varying between 8 (PT) and 9 min approx. (Bicycle). The maximum and minimum travel times for all groups are similar, ranging from 70 min (max.) to 0 min (minimum).

**Table 5 – Very Long-term Activities: travel times (minutes) EXPECTED by transport mode**

	<b>PT</b>	<b>Bicycle</b>	<b>By Foot</b>	<b>Car</b>
Nr of answers	285	211	249	231
Nr of blanks	23	97	59	77
Average	19,6	19,7	23,1	16,9
Median	15	15	20	15
Mode	30	5	30	5
Maximum	70	70	70	70
Minimum	0	0	0	0

**Table 6 – Long-term Activities: travel times (minutes) EXPECTED by transport mode**

	<b>PT</b>	<b>Bicycle</b>	<b>By Foot</b>	<b>Car</b>
Nr of answers	261	205	250	228
Nr of blanks	47	103	58	80
Average	14,2	14,2	18,3	12,5
Median	15	15	15	5
Mode	5	5	5	5
Maximum	70	70	70	70
Minimum	0	0	0	0

**Table 7 – Short-term Activities: travel times (minutes) EXPECTED by transport mode**

	<b>PT</b>	<b>Bicycle</b>	<b>By Foot</b>	<b>Car</b>
Nr of answers	252	209	273	227
Nr of blanks	56	99	35	81
Average	8,0	8,8	12,4	7,3
Median	5	5	5	5
Mode	5	5	5	5
Maximum	70	70	70	70
Minimum	0	0	0	0

Some authors refer to local accessibility as “the catchment area” by including residential areas. In line with this observation (and by taking a closer look at the outcomes concerning the preferences of the population within 10minutes walking or 800 meters distance), the survey has shown 60% of the respondents have Metro station less than 400 meters (or 5 minutes walking); 92% have bus stop Within 400 meters; 91% have no Train station less than 400 meters away and 79% approx. of them have Train station less than 800 meters. With regard to Multimodal station (e.g. bus and underground) station 79% approx. of sampling has access to has access to it within 400 meters (or 5 walking minutes), as opposed to 62% of the people that distance 800 meters from it. In fact, more people seem to enjoy bus stop less than a 5 minute walking from their residential area (N = 285/308).

Residential area is an important urban space and we believe influencing people's quality of life, either by the lack of activity or means of transport. So, concerning people's needs, the most significant activities correspond to Job (N=21/308), Cinema (N=23/308); Food Store or supermarket (N=12/308), City Park (N=18/308), Children Playgrounds (N=8/308), Swimming Pool (N=7/308), Health Centre (N=9/308), Pharmacies (N=6/308), Gymnasiums (N=6/308), University (N=5/308); Gardens (N=4/308), Banks or ATM (N=4/308); Library (N=4/308); Basic Schools (N=3/308). The remaining activities had few occurrence number (less than 1 (inclusive)) thus not being valid for calculating travel times. However, approximately 40% of the population is pleased living in their residential area. The thresholds of accessibility travel time are shown in Figure 7.

	I have all that I need	Job	Basic schools of 2nd and 3rd cycles	Higher Education	Occupational Activity Centre	Small sports grounds	Swimming Pool	Sport halls	Gym	Cinema	Library	Hospital	Health Centre	Pharmacies	Market	Supermarket	Book store	Post office	Banks and ATM	City Park	Gardens	Specific areas: e.g. children playground
Average	1,4	20,5	16,7	20,0	10,0	5,0	12,9	11,7	8,3	12,0	11,3	10,0	11,7	9,2	8,3	8,8	12,5	10,0	4,0	12,5	7,5	6,9
Median	0	20	15	20	10	5	15	10	7,5	10	13	10	10	5	10	5	13	10	3	10	5	7,5
Moda	0	20	15	30		5	20	10	5	5	15		10	5	10	5		10		5	5	10
Standard Deviation	###	8,35	2,89	####	7,07	0,00	6,36	2,89	4,08	6,70	4,79		5,59		2,89	7,11	3,54	0,00	4,55	8,62	5,00	3,72
Amplitude	30	30	5	25	10	0	15	5	10	25	10	20	15	25	5	25	5	0	10	30	10	10
Minimum	0	10	15	5	5	5	5	10	5	5	5	0	5	5	5	5	10	10	0	0	5	0
Maximum	30	40	20	30	15	5	20	15	15	30	15	20	20	30	10	30	15	10	10	30	15	10
Count	125	21	3	5	2	2	7	3	6	23	4	2	9	6	3	12	2	2	4	18	4	8

**Figure 7** – Thresholds of travel times by preferred activity at residential area

Finally, some elements of the physical environment have been analyzed for recognizing which factors influence activities choices, as such, finding if potential mobility has any consequence on people's daily life. Thus, the results indicate the proximity to residence area or home (33.8%) are more important than the proximity to transport network (29.9%). Although the difference is negligible, it is true both outcomes are significant. Also, the cost of travel in relation to distance (or travel time) influence travel behaviour (26.6%) indicating that people to move in a smaller urban area, stressing that the shorter travel time is very important for reaching activities (24.4%). In general, the quality of paths (e.g. public space) is allied to the importance of environmental factors in a city. In a given residential area the mix of activities and its diversity is considered weighty (51.3%) in everyday lives.

## 5 Discussion and main findings on accessibility thresholds

This paper summarizes the main findings of the accessibility survey on the usefulness of accessibility thresholds in operational accessibility measures. It thus provides a discussion in planning practice based on the perception of the population according to their basic needs.

Although accessibility concerns have always been linked to the recognition of integrated land use and transport policies, accessibility measures have gained strong influence in the field of accessibility planning. However, the paradigm shift from mobility-based to accessibility-based planning have afforded a mixture of both concepts (and measures) by instigating the confusion of both concepts regarding the real people's needs (instead of being focused on the infrastructure

system and its performance). There remains the current misunderstanding between potential mobility and real mobility.

The general outcomes and main findings of the survey can offer a particular contribution to the practice of accessibility, promoting the debate on the use of personal perception of accessibility thresholds in accessibility measures. Indeed, finding the appropriate accessibility thresholds in planning is not an easy task. According to previous sections, among the nine accessibility instruments pointed out, there were found four major groups of thresholds related to 1) time travel or distance, 2) cost, 3) transport speed, and those 4) related to land use and transport mode. However, this limits are scarce due to the few references in the literature limiting the accurate calculation of accessibility. In fact, travel times prevails as dominant thresholds in planning instruments, although some of them may add more variables, such as travel cost by transport mode (depending which measures are used). Comparing these quantitative values with those found in the survey, actual mobility is based on origin-destination's travel times, according to modes of transport and specific waiting times and transfers, according to the time of day or day of the week. Thus, by comparing individual perceptions of admissible travel times from the survey outcomes and travel time thresholds used in the reviewed accessibility instruments, we can develop a broader debate on the issue.

**Table 9** – Comparison between average travel times (minutes approx.) according to “real” and “ideal” travel times

	Survey							
	PT		Bicycle		By Foot		Car	
	real	ideal	real	ideal	real	ideal	real	ideal
Very Long-term Activities	49	20	25	20	17	23	21	15
Long-term Activities	27	14	20	14	27	18	15	5
Short-term Activities	13	8	Not found	9	21	12	15	7

With regard to previous findings, this research has revealed essential to clear up numeric thresholds adopted in the implementation of accessibility measures, thus contributing to planning practice. From Table 9, we can conclude a huge difference between both mobility and accessibility thresholds. Indeed, the variation of the thresholds may vary according to each group of “short” and “long” term duration activity” by different transport mode. Curiously, general accessibility limits stand out clearly from mobility measures by presenting lower average travel times. Definitely, accessibility has been calculated according to mobility assumptions only not being suited to people's needs. It is clearly a considerable changing in accessibility practice in urban planning by including further research on these topics.

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# Public space and mobility in historic centres

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The recent 'Alta de Coimbra e Rua da Sofia' area, classified as World Heritage by UNESCO, is a unique opportunity that has activated numerous initiatives, encouraged by the University of Coimbra and the City Council. One of the challenges that arises is the question of mobility, an issue less treated in the classification process (which is mainly focused on buildings). The quality of public space in general and the case of adequate infrastructure for mobility besides mobility management, are not areas set clearly as criteria for classification by the UNESCO.

The main motivation of this work is the need to encourage classification that takes not only buildings but also specific characteristics of public spaces, which include not only infrastructure but also mobility management within smart approaches where inhabitants and visitors are locally guided and supported. Therefore it should also encourage City Councils to implement changes that can cope with new classification demands.

This study suits the thematic area '1 - Physical dimension / Real and virtual boundaries', saying that the structure of the city should invite and encourage "public life", through its public spaces and transport systems. This certainly applies to historic centers and the need to promote new approaches for the rehabilitation and for the use of these areas.

The quality of urban space can be measured by several urban indicators. The issue of mobility (in terms of infrastructure and management) is a key aspect for urban qualification, and can be measured by sustainable mobility indicators. Space Syntax techniques can provide some of these indicators, related with connectivity.

The geographical area comprises all routes serving this area. Several scenarios were tested combining the promotion of soft modes, public transportation and electric mobility. The results should provide guidelines for decision support in sustainable mobility policies or historic centers.

The results include the identification and measurement of the most adequate indicators for classification of public spaces in areas applying for World Heritage. Based on this, a tool for creating several scenarios within a multi-attribute analysis supporting decision was achieved comparing the diagnosis for the 'Alta de Coimbra' with the development of different scenarios for future improvements in the area.

**Keywords:** Cultural Heritage Classification, Public Space Qualification, Sustainable Mobility

## 1 Introduction

### 1.1 Motivation

The main motivation of this work is the fact that World Heritage Classification in historic urban centres does not have specific criteria for public spaces.

Due to the close relation between mobility and quality of urban public space, the improvement in urban space for these areas implies, necessarily, the consideration of a new mobility approaches and vice-versa. Therefore, this work considers that the sustainable mobility policies and incentives act for more qualified public spaces in urban areas classified as heritage, improving the quality of life for residents and attracting more visitors.

### 1.2. Objectives

The main objective of this work is the construction of a methodology that can help city councils to improve the quality of public spaces in candidate areas, using that quality as an added ability of the candidate urban structures, formed by its historic buildings and respective public space. This quality, when existing, can also help in the decision for choosing between two very similar candidate areas or can be used as a guidance to decide which transformations are prior.

### 1.3. Methodology

The methodology consists in selecting a set of Indicators from literature that can be able to measure 'Public Space Quality for Mobility' and that are more adequate to the specific case of World Heritage Urban Areas. The application of a multi-attribute analysis to this set of indicators allow us to identify a total value - the mobility index - for each scenario and therefore, in the end, a comparison between scenarios or alternatives. The establishment of the relative weights of the factors that are composing the index can also be altered accordingly with the way they are valued from place to place. At this stage there are no costs associated with the different alternatives and just their value in terms of 'Public Space Quality for Mobility', as mentioned, is considered.

### 1.4. Paper structure

This paper is structured as follows: first the background on mobility in urban historic centres and its importance (chapter 2), then the main actions that can be taken to improve that mobility at all levels from policies to infrastructure (chapter 3); after these two chapters, a more detailed explanation on the methodology (chapter 4) followed by the analysis procedures and results (chapter 5); finally, a chapter on conclusions (chapter 6).

## 2 Mobility in urban historic centers

### 2.1 General concept of sustainable mobility

Analyzing the evolutionary process of the concept of sustainability, it was found that, originally, its most basic version reflected a concern for the long-term indirect impacts such as environmental issues, including the depletion of natural resources, ecological degradation and climate change (Litman, 2008). However, over the years, the concept and encouraging sustainable development have been expanded to other areas.

*"As the economic, social and environmental activities interact in many ways" many experts argue that sustainability should require the balance between these various fields, reinforcing the idea that planning for sustainable quality should provide guidance to ensure taken individual decisions that enable balance economic, social and environmental objectives, "taking into account the indirect impacts and long-term" (Litman, 2015).*

With regard to the transport sector, it has significant economic, social and environmental impacts, and therefore it has a great concern and importance factor in the evaluation of sustainability. Increasingly transport must be analyzed in terms of mobility (physical movement) and in terms of accessibility (people's ability to obtain the desired goods and services), seeking to solve problems such as congestion, accidents, excessive use of individual vehicles or the degradation of infrastructure and public spaces. Solving these problems goes through planning and management based on mobility criteria and efficient and effective accessibility. Currently, most definitions recognize three main categories of sustainable development issues in transport: economic, social and environmental. However the Centre for Sustainable Transportation (CST, 2005) also advocates the incorporation of other categories such as governance, policy issues and fiscal sustainability.

## 2.2 Mobility in historic centres as a factor of urban quality

Since the construction of the first urban settlements that cities are a reflection of societies evolution. Cities have always been the development poles of the most important economic activities, social, housing, property and civil, having as gravitational axis their historic centres.

François Asher (Asher, 2012) states that "the centre of the city was formerly defined geometrically, the most accessible place for all, better protected and more symbolically rich". However, with economic development, population growth and the consequent need to expand the cities associated with the construction of new and improved road infrastructure and the relocation of various urban activities, services and trade, "the most affordable place in an agglomeration is not the geometrical centre but its peripheral route" (Asher, 2012). The General Directorate of Planning and Urban Development (DGOTDU, 2005), in turn, sets the historical centre of the city as "the core of the cluster origin, which radiate other urban areas ordered by time" and it should be preserved and valued.

Already the author Mara Cavém describes the historic centre as housing and tourist attraction, focusing much of the economic and social potential of cities and that although it has been losing some appeal over the years, is maintained as a symbol and most striking feature of the history of a city. It also describes that the suburbanization phenomenon accompanied by the development of transport sector have fostered separation between workplace and residence, leading to an increase in the number of commuting, to a greater consumption of soil that has become unsustainable and an increase of energy. This activated the abandonment of historical centres, that turned to be degraded and aged (Cavém, 2007).

The excessive use of the car is also seen as a major contributor to the deterioration of historic centres, since these older urban areas of cities "were not prepared or were designed to take in a massive way this new element" (Freire Chico, 2008), leading to a saturation of traffic caused by excessive road traffic and therefore the loss of the space intended for pedestrian use, social activities and the trade itself. One of the main dilemmas of the historical core is therefore linked to its morphology and its urban layout. The continuing problems of accessibility of centres and mobility within it are also linked to other problems such as population flight to the suburbs, abandonment and consequent deterioration of the housing stock, parking and under sizing the very loss of competitiveness of the central areas of conurbations to the emergence and establishment of new services and the skilled trade in peripheral and semi-peripheral locations benefited by modern accessibility.

In the United Nations Conference held in Nairobi in 1976, it was agreed that governments, municipal authorities and the citizens themselves must take responsibility to safeguard and protect the historic core and its irreplaceable asset value by implementing measures and urban policies to preserve them and revitalize them, attracting potential residents and visitors returning them back to urban life that was so characteristic of them. Mobility is therefore one of the action plans that should be reviewed and on which sustainable strategic options should be studied to give back the importance of other times and the urban experience to historical centres.

### 3 Actions for sustainable mobility in historic centers

#### 3.1. Main actions

The concept of mobility associated with the management and planning of historic city centers comprises three fundamental aspects: transport, road and pedestrian access, and parking. Based on these points, the promotion of quality mobility policies requires a study and planning of urban transport systems, knowledge of public transport characteristics, considering the morphology of spaces and road accessibility, regulation and design of parking and consideration of pedestrians.

Many authors identify overuse of individual transport, including private cars, as the main cause of congestion situations and swell of road traffic in urban areas, especially in historic centers because they were designed as long before the appearance of this transport mode. Teresa Salgueiro (Salgueiro, 1999) states that the streets of the historic areas marked by narrow profiles and often without tours make it very difficult balanced coexistence of motorized vehicles and pedestrians.

These problems should be solved by implementing a set of measures primarily aimed at creating an efficient system of public transport, the introduction of soft transport modes and the concept of intermodal, building physical elements or restrictions to private car, acting in accordance with the need to protect the public space making it attractive and appealing to citizens.

The quality of historic centers should also be supported by a good network accessibility or road or pedestrian, decisions should be taken to improve the physical level of the state of conservation and maintenance of the pavement and the functional level through good management that establish and regulate the traffic restrictions and permissions, ensuring effective and quality pedestrian road mobility.

With regard to parking in urban areas with historical significance, this should be the subject of "design and management that benefit the historical centers of the cities" (Sebastião, 2010). Solutions such as increasing the surface and underground parking capacity located in remote areas with affordable links to historical centres and parking spaces guarantee for its residents are part of a set of sustainable mobility support principles that contribute to the increase the attractiveness of these areas. The implementation of paid parking to non-resident population should be viewed as a measure applied towards economic sustainability as a means of self-financing of these areas. Particularly in physical and functional maintenance actions, it is necessary to instill in citizens progressively the idea that the use of public space in central cities is a rare commodity and therefore should be charged to motorists and promoted to pedestrians.

All of these measures to the mobility level are essential to restore and return the importance, status, value and quality of these spaces that carry the symbolism and history of different communities over time, ensuring levels of economic, social and environmental sustainability satisfactory by encouraging the use of public transport or the practice of intermodal behavior. The use of the individual motorized vehicle must be reduced, seeking to also to restrict its accessibility by implementing effective parking management policies and acting at the design level of infrastructure and road access.

### 3.2 Identification of sustainable mobility indicators for historic centres

As already mentioned, the promotion of sustainable mobility in urban areas is a complex process because of the difficulty that the entities responsible for planning and management in urban areas have to understand and interconnect all the actions effectively needed.

To combat this ambiguity, in 1992, the United Nations (UN, 2007) at the Earth Summit conference drew attention to the need to develop indicators and calculation methodologies related to the fields of sustainability in order to facilitate the evaluation and decision process of the actions to be implemented, with a view to more sustainable development.

Sustainability indicators can be interpreted as various origins parameters that condense complex information in a simplified form that can be used in different scientific analysis, political or everyday interactions, as well as, in the decision making process.

Button (2002) states that for planning and more efficient and sustainable management of urban areas it is important to use tools that can identify and quantify the level of sustainability in their different bases: social, economic and environmental. It is in this context that the author defends the use of sustainability indicators, establishing some criteria for their design, such as clarity, objectivity, sensitivity to change and easy to interpret. In addition to these requirements, the author insists on the premise that these indicators should preferably be numerically quantified, as it makes its interpretation easier by the decision-makers and enables their use in different urban areas, making possible a variety of scenarios. These sustainability indicators are so meters that provide status information of a system or of changes in the system in the three segments of this concept: again environment, economy and social aspects (Häkkinen, 2007).

Thanks to the multiplicity of the sustainable development concept and experiences of diversity where the concept of sustainable mobility can be applied, there is a range of indicators associated with these themes and that can be adapted and used in the evaluation and characterization of sustainability levels in different situations or scenarios.

Therefore, due to this plurality of applications, this study elaborates an analysis of the indicators used by different organizations, research groups, government agencies and entities, to realize what criteria and parameters that are best suited to the construction of a characterization index of sustainable mobility applied to the case of historic centers, with the main objective of evaluating the space at the design level of road and pedestrian infrastructure.

The entities analyzed were mainly the United Nations itself that in 1992 built a first compendium of 134 representative indicators of the state of sustainable development in various areas and domains.

The indicators related to sustainable mobility include more targeted questions to the transport sector, such as the modal split of passenger and goods transport, and the intensity of energy, bleaching other aspects that are not so detailed but are equally important to assess urban areas in terms of mobility, such as the state of the road and pedestrian infrastructure or connectivity values between the different streets.

The European Commission developed a methodology to assess the sustainable development of European countries in accordance with the objectives proposed in the European Strategy for Sustainable Development (ESD) to include a set of indicators which are based on

economic assumptions, environmental, social and institutional strategic actions (Eurostat, 2011). On subjects close to the issue of sustainable mobility, twelve indicators were considered linked to sustainable transport, energy consumed, modal split, pollutant emissions, road accidents and transport costs.

Following the European indications, the Portuguese Environment Agency (APA, 2007) as a way to monitor the state of the environment and sustainability, has developed a tool to support the management and evaluation of the country's sustainability. This tool was created to address the need to evaluate the evolution of the country in terms of sustainability and to help in making decisions that promote sustainable development. In a first publication, 2000, the "Proposal for Sustainable Development Indicator System" (APA, 2000) encompassed a platform with 132 indicators, of which 72 environmental, 29 economic, 22 social and 9 institutional. However, in 2007, after a process of literature review and based on the study of other countries and organizations systems, a new edition of "Sustainable Development Indicators System" was released, in which the following indicators could be identified linked directly to the issue of mobility:

- Emission of greenhouse gases;
- Construction of roads and fragmentation of the territory;
- Average age of vehicles on the road;
- Occupation and land use;
- Population exposed to noise outside environment;
- Modal split of transport of passengers and goods;
- Road Accidents;
- Volume of transport of passengers and goods.

These and other indicators and definitions can be found in other authors, such as Lautso et al. (2004), Melo (2004), Muñoz et al. (2007), Litman (2008), Miranda e Silva (2012), Fitzgerald et al. (2012) that developed a method for assessing the impact that policies promoting sustainable development in urban areas which is based on a total of 40 indicators organized into four areas.

These studies were evaluated and compiled in order to identify the indicators that are common to those studies and/or more frequently find. To more classes were added: mobility and transport systems. Those indicators are presented below, in table 1.

However, it is demonstrated that some issues, such as levels of connectivity on the road and pedestrian networks in urban areas, the maintenance condition of the infrastructure, the physical characteristics of streets, and the scale of the parking spaces are rarely included in the batch of indicators used in the methods of analysis and assessment of the sustainability of urban mobility.

**Table 1.** Indicators identified in several studies

Dimension	Indicators
Environmental	Consumption of fossil fuels for transport Energy consumption in transport CO2 emissions Emissions of greenhouse gases Particulate emissions from transport Occupation, use and condition of land degradation Use of renewable and alternative energy in transport Environmental impact studies
Economical	Benefits / profits from the transport sector Expenses / costs relating to urban transport Investment in transport infrastructure Registered maximum values of fine (parking)
Social	Education for sustainable development Daily hours spent in traffic jams Information available to the public Number of accidents per year Number of accidents per hectare Number of parking spaces for people with special needs Number of dead / injured in accidents per year Number of dead / injured in accidents per hectare Exposure to noise Proportion of street intersections with pedestrian crossings Pedestrian crossings adapted for people with special needs User satisfaction Public transportation for people with special needs
Mobility	Accessibility to public spaces Accessibility to public transport (stops, services, equipment) Monthly distance bound for services / work / stations Average duration of trips Bike paths of existence Degree of connectivity Pedestrian accessibility index Number of car parks Number of cyclists by area Number of parking spaces for loading / unloading Total number of parking spaces Mobility plans Urban mobility policies Average travel time by mode of transport Intermodal terminals Average speed of travel Average speed of movement
Transport Systems	Frequency of public urban transport Average age of vehicles on the road Number of cars per km Number of bus stops Number of motor vehicles per capita Travel Number of motor vehicles Travel number of non-motorized vehicles Number of trips by mode of transport

However, it is demonstrated that some issues, such as levels of connectivity on the road and pedestrian networks in urban areas, the maintenance condition of the infrastructure, the physical characteristics of streets, and the scale of the parking spaces are rarely included in the batch of indicators used in the methods of analysis and assessment of the sustainability of urban mobility.

Therefore, and based on the objectives of this study and on the studies analyzed, a methodology was established for evaluating and promoting sustainable mobility in urban historic centres, presented in the next chapter. It considers this literature review but adds new indicators, within a multi-attribute approach to identify the best combination of indicators that best suits a specific urban historic center.

## **4 Methodology**

### **4.1 Introduction**

The methodology consists in selecting a set of Indicators from the literature that can be able to measure 'Public Space Quality for Mobility' and that are more adequate to the specific case of World Heritage Urban Areas. The application of a multi-attribute analysis to this set of indicators allows us to identify a total value - the mobility index - for each scenario and therefore, in the end, a comparison between scenarios or alternatives. The establishment of the relative weights of the factors that are composing the index can also be altered accordingly with the way they are valued from place to place. At this stage there are no costs associated with the different alternatives but just their value in terms of 'Public Space Quality for Mobility' is considered.

#### **4.1 Selected indicators and sustainable mobility index**

By analyzing the literature search results presented in the previous chapter, it was found that most projects aimed at developing sustainable mobility concept of growth are supported by sets of indicators that mostly incorporate social, environmental and economic factors, associated with the transport sector, bleaching often the components that characterize the path of spaces and urban areas to the level of geometric design, planning and management of urban areas, the state of road infrastructure and traffic calming solutions. Given these facts, it generated the need to seek and create new indicators that allow taking into account aspects of the layout and spatial organization of representative historical centres ensuring sustainable mobility. The first step of this process consisted of a combination of several sets of mobility indicators from different literature sources that reflect the contents of the various dimensions of sustainability, resulting in a total of 273 indicators coming from thirteen different authors. Completed this survey (briefly presented in the previous chapter), we proceeded to filter out data, identifying the indicators that were common to the different authors. For the construction of Sustainable Mobility Index proposed in this work, it was decided to check some indicators presented in the previous chapter that were applicable to the case of historic centres and the creation of new parameters related to planning and urban management.

**Table 2.** Indicators selected

		INDICATORS	UNIT
Road infrastructure	Urban Design	1. Share of public space	% total area
		2. Share of green spaces	% public space
		3. Share of space for the motor traffic	% public space
		4. Share of space devoted to parking	% public space
		5. Share of area with traffic calming solutions	% public space
		6. Density of conflict points per crossing??	Number conflict points/crossing
		7. State of conservation of road pavements	Acceptable/Bad/Good
		8. State of conservation of shared rides and spaces	Acceptable/Bad/Good
		9. Connectivity car index	Arcs/nodes
		10. Connectivity (Spatial Syntax)	Unit
		11. Control Value (Spatial Syntax)	Unit
		12. Global Choice (Spatial Syntax)	Unit
		13 Health index (buildings versus open space)	Streets with/total streets
		14. Share of sidewalks below the regulated minimum width	% of total
		15. Share of one-way streets with width of less than 5.65 / 8.15 / 10.65 meters	%
	Parking	16. Share of paid parking in CH	%paid/total
		17. Share of reserved parking spaces for people with reduced mobility	%reserved/total
		18. Share of reserved parking spaces for residents	%residents/total
		19. Share of reserved parking spaces for loans.	%residents/total
		20. Share of reserved parking spaces for electric vehicles	%residents/total
		21. Car parks in the surrounding area to CH	Number
	Traffic	22. Road hierarchy	Acceptable/Bad/Good
		23. Share of road intersections with pedestrian crossings	Pedestrian crossings/intersections
Sustainable Transport Systems	Soft Modes	24. Extension of bicycle routes	m
		25. Bicycle parking areas	Number
	Traffic	26. Frequency of bus pass	Buses/hour
		27. Number of bus stops	Unit
		28. Mean distance between bus stops	m
	Mobility Policies	29. Sustainable mobility plans for CH	Yes/No
		30. Intermodal terminals within 600	Yes/No

Table 2 presents the indicators chosen to integrate Sustainable Mobility Index to historic centres, followed by the respective measurement units.

In addition to the previously mentioned criteria, special attention was paid also to the issue of data and some indicators were obtained using the software and drawing tools and geometric analysis (AutoCAD, Space Syntax, etc.), through information provided by local authorities or through field research.

The indicators considered in the characterization and analysis of the Historical Centre are integrated in three dimensions (Infrastructure, Transport and Mobility) that address matters such as Management and Urban Planning, Traffic Engineering, Parking Sizing, Transport Planning, lying organized and distributed by the following themes: Urban Design; Parking; Traffic; Non-motorized modes; Collective Public Transportation and Mobility of the City Policy.

Thirty (30) indicators were chosen that identify and characterize different aspects of a historical centre, which are shown below.

## 4.2 Multicriteria analysis

Once settled the representative group of indicators that influence and determine the quality and value of an urban area of historical nature in the mobility level, a multi-criteria method is used for the index construction evaluating and comparing different scenarios proposed for the historic district in a study of the real situation.

This is to say, there should not be consider the same index everywhere, but it should be adapted to local characteristics through the evaluation of different scenarios, eventually changing the set of indicators or/and the importance of each one of them within the index.

The multi-criteria methods are methods easy and simple use whose problems are expressed in the matrix form,  $D_{m \times n}$  decision matrix. This matrix is comprised of a set of alternatives  $m$  (in the case of this work scenarios) each with  $n$  criteria (in the case of this work, indicators) and its elements are the performance of each alternative according to each criterion. The provision and organization of the problem allows a first analysis to note the differences between the alternatives for certain criteria. As the evaluation criteria are always the majority of all sizes and natures can be expressed in different units, it is necessary to further proceed with the normalization of these values in order to make possible the comparison between them. Table 3 represents the model of decision matrix that will be adopted for the multi-criteria evaluation.

**Table 3.** Decision matrix between scenarios and indicators

		Indicators				
		1	2	3	...	$n$
Scenarios	A	$X_{1 \times 1}$	$X_{1 \times 2}$	$X_{1 \times 3}$	...	$X_{1 \times n}$
	B	$X_{2 \times 1}$	$X_{2 \times 2}$	$X_{2 \times 3}$	...	$X_{2 \times n}$
	C	$X_{3 \times 1}$	$X_{3 \times 2}$	$X_{3 \times 3}$	...	$X_{3 \times n}$
	...	...	...	...	...	...
	$m$	$X_{m \times 1}$	$X_{m \times 2}$	$X_{m \times 3}$	...	$X_{m \times n}$

The multi-criteria analysis allows the application of different methods depending on how problems are presented. In fact, they can be distinguished two forms of resolution to these problems, namely, multi-objective methods and multi-attribute methods. On the other hand, multi-attribute selection methods allow to obtain the best solution through a comparative analysis between the alternatives under consideration.

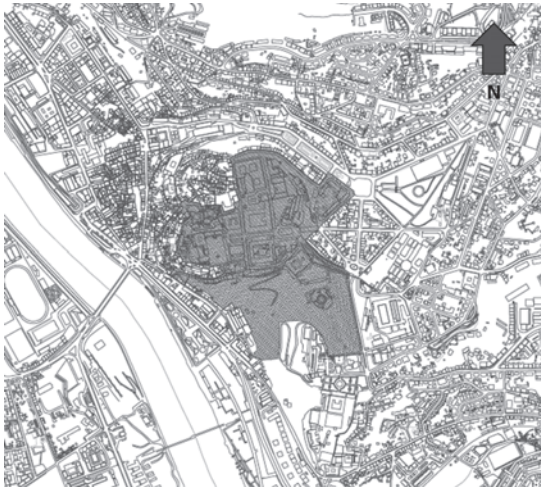
This work is than based on the application of a multi-attribute analysis method for the creation of a Sustainable Mobility Index for assessing different scenarios proposed for the historic centre study in terms of sustainable mobility. This is based on representative indicators of the characteristic features, management and urban planning; it was decided to use a multi-attribute method. For the construction of a sustainability index it is essential to create a set of indicators, the allocation of values to these same indicators and assigning weights to the indicators.

## 4.3 Case study

The case study is part of the Coimbra World Heritage Area 'University of Coimbra Alta and Sofia'<sup>1</sup>. But because we need testing the methodology in an area with homogeneous characteristics, we

<sup>1</sup> <http://worldheritage.uc.pt/pt/>

choose instead only the area of the Alta, indicated in figure 1.



**Figure 1.** Coimbra University World Heritage area called 'Alta'

This area was classified recently as part of World Heritage of UNESCO, based on three main criterias:

1. Witness an exchange of considerable influences over a span of time or within a cultural area, on the development of architecture or technology monumental arts, the planning of cities and landscapes of creation;
2. Offer an exceptional example of a type of building or architectural or technological ensemble or landscape illustrating one or more significant periods of human history;
3. Be directly or tangibly associated with events or living traditions, with ideas, beliefs or artistic and literary works with an exceptional universal significance.

The strong historic nature and exceptional cultural heritage of this space turns it into one of the most visited places in Portugal, besides having a significant and consistent student population. The public space in this area has very specific characteristics, similar to other historic urban centres, due to the urban structure formed by the buildings. Mobility is one of the most important qualities of urbanity to be sustained in this type of place, both because of residents and students but also because of visitors.

The urban mobility policies have not been implemented as it would be desirable by the local city council, namely by limiting the circulation of motorized cars or implementing measures to motivate the use of soft modes or even small changes in pavement that could improve this overall situation through simple changes - adequate to this kind of urban structure - like traffic calming measures.

Therefore, this study identifies the quality of public space in this area, through the methodology adopted and the criteria choosen and then establish some scenarios showing how small changes can change deeply these classifications.

## 5 Analysis

Using the multi-attribute approach the present situation was compared with two different scenarios, showing how apparently small changes in the infrastructure can do a lot for the classification of the quality of the urban space in terms of sustainable mobility in the historic centre of the Alta of Coimbra. Considering the thirty indicators on table 2, and measuring all for the Alta using a set of software and drawing tools including AutoCAD, ArcGis and Space Syntax, and also through information provided by local authorities or through field research, the resulting values are expressed in table 4, for A0. Two more alternatives were considered which values are presented in the table, and which descriptions can be found below in table 3.

For scenario 1, it was intended to provide a solution to the Coimbra Historical Center - Alta that can be implemented in the short term and which carries a financial burden for the municipality not very large, since the proposed changes result mainly from implementation simple measures in terms of management and parking design, introducing new solutions for traffic calming and increasing areas of green space. This first alternative is also intended to demonstrate that it is possible to improve the mobility indices of the Historic City of Coimbra - Alta by improving just some of the 30 indicators proposed in this paper. The indicators changed were:

- Area of green spaces to 21710.5 m<sup>2</sup> by building a garden with an area of 1650.5 m<sup>2</sup>, which corresponds to an increase of the percentage of area for green space of approximately 0.7% regarding the current situation.
- Implementation of traffic calming solutions as the super elevation of the two walkways to existing pedestrians on the sidewalk Martim de Freitas, which provided an increase of 0.2% in the percentage of areas with traffic calming solutions regarding the situation current.
- The conversion of 40 parking spaces, of which 34 have become pay parking, 3 have become parking reserved for people with reduced mobility and the remaining 3 reserved parking for the loading and unloading. This represents an increase of approximately 4%, 0.33% and 0.34% of the indicator values for these parameters. It was also proposed the construction of an underground car park in the surrounding area of Coimbra Historical Center - Alta within a radius equal to or less than 600 meters and 4 bicycle parking areas inside, notably at the university facilities.
- Increase of approximately 10% of the average number of times buses run in the Historic Center (become 32 times instead of 29 times accounted for the current situation) by increasing the number of passes per hour was even proposed in the historic area of the buses 7, 24, 28 and 42T.

**Table 4.** 'Alta' criteria classification in the three alternatives

INDICATORS	UNIT	Weight	B/ C	A 0	A 1	A 2
1. Share of public space	% total area	0,058199	+	71,04	71,04	71,04
2. Share of green spaces	% public space	0,058199	+	62,14	62,87	63,45
3. Share of space for the motor traffic	% public space	0,058199	-	15,17	15,17	12,73
4. Share of space devoted to parking	% public space	0,058199	-	10,59	10,59	5,43
5. Share of area with traffic calming solutions	% public space	0,058199	+	14,47	14,74	34,04
6. Density of conflict points per crossing??	Number conflict points/crossing	0,058199	-	2,53	2,53	2,12
7. State of conservation of road pavements	Acceptable/ Bad/ Good	0,034686	-	1,00	1,00	1,00
8. State of conservation of shared rides and spaces	Acceptable/ Bad/ Good	0,034686	-	1,00	1,00	1,00
9. Connectivity car index	Arcs/nodes	0,058199	-	1,19	1,19	1,14
10. Connectivity (Spatial Syntax)	Unit	0,058199	+	3,22	3,22	3,37
11. Control Value (Spatial Syntax)	Unit	0,058199	+	1,02	1,02	1,01
12. Global Choice (Spatial Syntax)	Unit	0,058199	+	817,11	817,11	818,39
13 Health index (buildings versus open space)	Streets with/ total streets	0,034686	-	55,17	55,17	55,17
14. Share of sidewalks below the regulated minimum width	% of total	0,034686	-	17,14	17,14	12,50
15. Share of one-way streets with width of less than 5.65 / 8.15 / 10.65 meters	%	0,034686	-	41,18	41,18	37,50
16. Share of paid parking in CH	%paid/total	0,020575	+	20,27	24,05	27,60
17. Share of reserved parking spaces for people with reduced mobility	%reserved/total	0,020575	+	0,78	1,11	1,55
18. Share of reserved parking spaces for residents	%residents/total	0,020575	+	1,18	1,18	1,18
19. Share of reserved parking spaces for loans.	%residents/total	0,020575	+	0,56	0,89	1,55
20. Share of reserved parking spaces for electric vehicles	%residents/total	0,020575	+	0,45	0,45	0,62
21. Car parks in the surrounding area to CH	Number	0,020575	+	2,00	3,00	4,00
22. Road hierarchy	Acceptable/ Bad/ Good	0,020575	+	3,00	3,00	3,00
23. Share of road intersections with pedestrian crossings	Pedestrian crossings/ intersections	0,020575	+	57,14	57,14	61,54
24. Extension of bicycle routes	m	0,012594	+	2063,47	2063,47	2287,47
25. Bicycle parking areas	Number	0,012594	+	0,00	4,00	6,00
26. Frequency of bus pass	Buses/hour	0,012594	+	29,00	32,00	29,00
27. Number of bus stops	Unit	0,012594	+	13,00	13,00	13,00
28. Mean distance between bus stops	m	0,012594	+	321,74	321,74	321,74
29. Sustainable mobility plans for CH	Yes/No	0,008508	+	1,00	1,00	1,00
30. Intermodal terminals within 600 m	Yes/No	0,008508	+	1,00	1,00	1,00

For scenario 2 a greater financial effort by the City was considered and that can be implemented in the medium term. This solution is characterized by modifications considered in the scenario 1 at the level of road structure, morphology, urban layout and appearance of the historic

center and also interventions by the parking management level. The changes implemented have caused changings in the parameter values associated with 19 indicators.

- First, it was decided to redesign some parts of the Historical Center, in particular by destroying the private parking lot located next to the School of Architecture converting it to an area of green space by building a green area of 741.70 m<sup>2</sup>. Like the first scenario created also in this one, it was decided to build a garden instead of the schools of the same size (about 1650.5 m<sup>2</sup>). These green areas plus the creation of a "green corridor" along the Walk Martim de Freitas (about 311 m<sup>2</sup>) and the construction of a small garden around the statue of King D. Dinis (about 230.5 m<sup>2</sup>) do raise the percentage of green spaces in the historic area under consideration for the 63.45% (the percentage of green spaces for the current situation is of 62% approximately).
- The roads of the historic center were also changed. The Inácio Duarte streets, Marquês de Pombal Square were cut to traffic making it unique to the pedestrian access. On the other hand, the Walk Martim de Freitas now has only one direction, the downward towards the roundabout João Paulo II, having been eliminated the remaining roads, as well as sites for motor vehicle parking order to construct a bike path in both directions. These changes coupled with changes implemented in the Praça Dom Dinis (no longer possible to bypass it) caused a decrease of approximately 2.5% of the percentage of area dedicated to motor traffic (decreased from 15.2% to 12.7%).
- With regard to parking areas, adding to the elimination of parking spaces on the Walk Martim de Freitas and private park next to the School of Architecture area in addition to the disappearance of parking at the Praça D. Dinis, in the street of the Studies in the Marquês Largo Pombal, in the street Ignácio Duarte and the elimination of some places in the street Carlos Matoso. These changes caused a decrease of almost 50% from the parking area of this historic area, which corresponds to a decrease of approximately 5% in the percentage of parking area compared to the current situation (decreased from 10.6% to 5.4%).
- The redevelopment of the Praça D. Dinis, the Street of the studies and the Largo of the Student Fair making them spaces that enable sharing and free movement of pedestrians and authorized motor vehicles, such as the collective urban transport buses, ambulances support the Institute of Forensic Medicine and a few other exceptions, as well as, the harness Street Lisbon and the construction of a walkway to a raised pedestrian on the sidewalk Martim de Freitas possible to significantly increase the percentage of area with traffic calming solutions, from 14.5% to approximately 34%.
- The restructuring of the road network and the consequent elimination of some traffic flows and crossings has reduced the average number of conflict points to two in this new scenario, and the connectivity index automobile to 1:14 and increased the percentage of intersections road with tickets to pawns to 62% approximately;
- In addition to amendments already mentioned to the urban design level, there was a concern to resize some aspects of the pathways of the historic centre, verifying a decrease in the percentage of tours with widths lower to 1.20 (increased from 17% to 13%

approximately) and a decrease in the percentage of one-way streets with widths below the standard values assumed (decreased from 41% to 38% approximately);

- In order to improve the average rates of connectivity, control value and global choice were created four alternatives for pedestrian paths including by building a staircase that enables direct access between Inácio Duarte street and the street Padre António Vieira and a another staircase, providing a link between Praça D. Dinis and Carlos Matoso street that can be shaped escalator providing an alternative to the Monumental Stairs often painful to climb;
- Parking spaces management level was changed;
- With the elimination of some parking areas, the overall number of parking places (including places of private parks reserved to University Coimbra) reduced 1253 seats to 835 seats, and the total number of parking available at the Old Town visitors reduced 898 645 locations. Apart from these changes, we proceeded to a redistribution of the number of parking spaces in the different types identified. Increased to 10 the number of parking spaces for people with reduced mobility by converting some places located in Largo Fair of Students, and 10 also the number of parking spaces for the loading and unloading through the creation of new places parking in Largo da Sé Velha or in the street Doutor Guilherme Moreira. For this scenario it is also proposed a translation and relocation of four places reserved for electric vehicles that already existed, passing them to the street Padre António Vieira. All these changes have forced a reduction in the number of free parking spaces, from 322 seats (certain value excluding the places that were destroyed by the elimination of the aforementioned parking areas) for 318 places, and equally to a reduction in the number of paid parking, from 182 to 178 posts due to the conversion of 4 places paid on Padre Antonio Vieira street for the construction of places to supply electric vehicles.
- However, not to reduce both the supply of parking and meet demand, it was suggested the construction of two underground car parks located in the area surrounding the historical center within a radius less than or equal to 600 meters, Increasing to four the number of parks parking serving the historic district.
- Finally, and as already mentioned, it was presented this proposal creating a bike path along the sidewalk Martim de Freitas. Although the slope of the street layout (4.93%) is higher than the 4% threshold that has been stipulated, a query to RMUE of Coimbra, paragraph 4 of Annex I referring to Public Space Design of Rules, they are admitted bike lanes route with slopes up to 5 %. It was also suggested the construction of six bicycle parking areas located close to the university facilities.

## 6 Conclusions

The resulting score for the three alternatives was as reported in Table 5, after a process of analysis through TOPSIS and after a conversion for the scale 1-10. These values represent the relative

proximity between the alternatives and the ideal, maximizing all the benefits and minimizing all the costs.

**Table 5.** Score of the 2 alternatives

A0	A1	A2
0,1	2,1	9,8

The changes made in Alternatives A1 and A2, improved significantly the final score. Although not considering cost of each intervention and therefore each alternative, the results show that just with some changes, the quality can improve drastically and therefore high score for the A2 alternative is the result of all the changes proposed.

However, there is still a need to measure more accurately the intensity between changes in each one of the indicators, how impact changes in the final score for each alternative and also to include costs. Moreover, the methodology developed in this paper can be easily adapted to these new developments.

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# Land Use and Public Transport – The role of non-motorized accessibility instruments – Insights from a literature review

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A better integration of transport and land-use planning is believed to be crucial in achieving more sustainable mobility patterns in urban areas. Underlying this is the belief that if the land-use and transport (LUT) systems are reciprocally supportive (the land-use and transport cycle), important benefits of mobility are increased, while negative impacts are reduced. Although the large number of accessibility instruments available in the literature, they are not widely used to support 'real life' urban planning practices and are mostly restricted to motorized modes, to a restricted set of destination activities and have some limitations in the level of desegregation and even interpretations of their outputs.

This paper pretends to unveil the current state of the art on the broader theme of land use and public transport, and the development of an accessibility instrument for non-motorized transport modes (NMT), namely bicycling and walking, also vis-à-vis with the transit network interactions as part of the first and last trench of urban commute (first-to-last distance). This framework intends to find some direction for future development of non-motorized accessibility measures and ideas about their applicability as a planning support system (PSS). Additional developments focus on the fact that PSS shows a continuous mismatch between the characteristics of the developed accessibility tools and characteristics of dominant planning traditions. Considering the stated developments, this paper shows, based on a systematic literature review, how important NMT accessibility measures with public transport interactions can provide planning practitioners with different solutions in opposition to the static traditional approaches on land use and public transport analysis. This literature review founds that this is of paramount importance to grasp the implementation gap of PSS, structured on a dialogue between modellers and planners to develop and use existing LUT information for the support of early planning integration as part of a vast PSS where planners (and later on, citizens) can view and reclaim several aspects of the planning practices when it concerns non-motorized accessibility planning.

**Keywords:** Land-Use and Transport, Non-Motorized Transport modes, Accessibility, Planning Support Systems

## 1 Introduction

The impact of transportation improvements on urban development is perhaps one of the most disputed concerns in urban planning today. Additionally, in the last few years, the rate of work-related trips has decreased considerably with commuting representing less than half of all journeys in many urban regions all over the world. Concerning non-work related activities, leisure and non-working motives are making an important contribution to the increasing complexity of travel patterns, becoming more difficult to predict, therefore difficult to plan and serve by traditional transport planning practices that focus mainly on transport infrastructure (Banister, 2011; Owen and Levinson, 2015; Ferreira, Beukers, and Te Brömmelstroet, 2012). After the global financial crisis of 2008, transport and urban planning (and local authority's budgets) seem to have shifted, from a demanding transport infrastructure based economy paradigm, to optimizing the already existing. This can be translated as a tendency to move from mobility-oriented analysis, which evaluates transport system performance based on quantity of physical travel and infrastructures, to accessibility-based analysis which considers a wider range of impacts and more suitable to respond to LUT planning practices.

Nowadays, this discipline is highly socially aware and its decisions occur in a complex environment where multiple stakeholders, holding different values and having conflicting goals,

interact and make decisions together. These transitions set new requirements: transport planning needs not only different types of knowledge but also new ways of generating and employing knowledge (Handy et al. 2014; Te Brömmelstroet and Bertolini, 2010; Te Brömmelstroet and Bertolini, 2012). According to Te Brömmelstroet and Bertolini (2012) two extreme types of reactions on this gap exists. On one hand, planners argue that they do not need tools and instruments in strategic phases. Intuition and experience are enough. On the other hand, modellers suggest that current models fail to represent much of the complexity of real life and more sophisticated models have to be developed to convince planners to use them. Other authors (see, for example, Banister, 2008; Banister, 2011; Geurs et al., 2010; Willson, 2001) assert that in strategic phases an understanding of the crucial mechanisms of reality is crucial to develop efficient strategies, as these mechanisms can be counterintuitive. However increasing attention for communicative approaches transport planners tend to use more quantitative information concerning e.g. transport flows, levels of service and costs, as they focus more on general theories and computer models and have an engineering background.

Although accessibility has long been used in the academic and planning debate, the translation of such concepts in performance measures that can be usefully employed to improve integration of public transport, NMT and land use planning is still very limited. Transport planning no longer takes place in a relatively simple institutional context where computer models, economic evaluations, and numeric outputs are necessarily central for decision-making. These transitions set new requirements: transport and urban planning needs not only different and more detailed types of knowledge but also new ways of generating and employing knowledge (Te Brömmelstroet and Bertolini, 2011). For that, this paper examines the current debate on the inclusion of NMT accessibility measures, in form of a planning support system (PSS), as a crucial element of urban and transport planning practices.

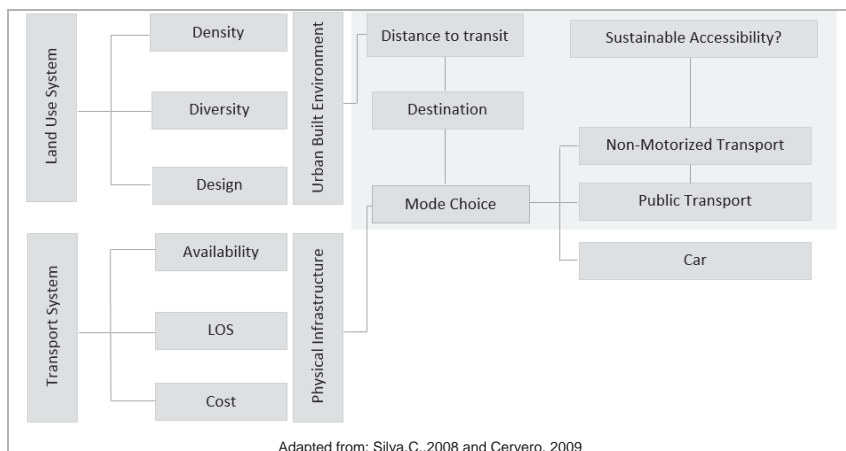
## 2 Research Scope and Objectives

The main objective of the current paper is to establish a good and compressive literature review on land use and public transport and the ability to design a planning support tool for integrated better LUT policies. Following the stated, this paper is also motivated by a belief that these objectives can be challenging on several fronts and can constitute the paper scope as follow: First, as a growing proportion of human activities take place in cities, it becomes increasingly important to understand how the physical environment developments of the city affects, and desirably benefits, the accessibility of its users. Most daily activities of city dwellers are constrained, to a greater or lesser degree, by the configuration of the built environment — the physical pattern of urban and transport infrastructures, the geometry/density of built urban activities, the overall shape of public space and paths that connects them; Second, despite the inadequacy of professional knowledge concerning the ingredients of a 'accessibility city', a layperson's attraction towards urban environments and transport infrastructures, provides testimony to the important role that multimodal transport layout and access plays in shaping approaches towards mobility and city planning; Third, important developments in configurational studies have described cities as problems of 'organized

complexity', which not only contain a large number of variables, but also challenge an 'analyst with countless interrelationships between the variables' (Jacobs, 1961), creating new opportunities for experiential research on urban planning. Among these, the omnipresence of computers, the internet of things (IOT) and the availability of data that describe both static and dynamic components of the city have dramatically improved the analyst's capacity to study complex relationships between built form and its accessibility as never before. Tools like geographic information systems (GIS), computer-aided design (CAD), digital databases (mobile apps), big (open) data standards and statistical software, largely unavailable just a decade ago, have now become widely available to urban planners and citizens. Furthermore, geographically-referenced digital data describing the built, social, and economic environment of the city have become accessible for research during the same period (e.g. geo-referenced social networking); Fourth, literature on planning support systems (PSS) identifies the dichotomy between supply and demand as the main reason for this lack of implementation. Although, not the centre of the current proposal, it is important to recognize that planning practitioners (potential users of PSS) are generally unaware of and inexperienced in the use of PSS, not recognizing their value and potential (resulting in low intention to use them).

Underlying the points stated, several authors such as Handy (2005), Bertolini et al. (2005), Geurs and van Wee (2006), Straatemeier (2006) and Hull, Silva, and Bertolini (2012) believe that accessibility measures provide a useful framework for the design of integrated land use and transport policies. In this sense compact, mixed-use, and walk-friendly urban design, can significantly influence the modes people choose to travel. The characteristics of these places - i.e. their land uses, densities, design features - can affect not only the number of trips generated, but also modes and routes of travel. This idea was first addressed by Cervero and Kockelman (1997). To their highly cited paper titled 'Travel Demand and the 3D: Density, Diversity and Design', that relates density, diversity, and design to the mode choice of users (the 'three Ds' model), other 'Ds' were latter added: distance to transit and destination accessibility. Were the former acknowledging how the presence of a transit services might induce walking and bicycling as a form of access and egress (Ewing and Cervero, 2001).

Considering this long debated framework, and paradoxically the fact there is still little research on this topics, understanding NMT and public transport accessibility is important for encouraging mode shifts to reduce car reliance and increase urban amenities. The current paper pretends to analyze the literature on two measures of public transit access: The first is a combined public transit and NMT accessibility, which measures potential access to destinations via public transit and walking/bicycling modes; The second is a transit frequency measure, which is a measure of transit service level in a specific area or destination. These two measures extend current public transit accessibility measures by including all components of the public transit journey, calculating accessibility in all components of the journey.



**Figure 1.** Research Scope

The previous scheme (Figure 1) pretends to identify the scope of the proposed research that emphasis on the potential of accessibility measures to enable the development of efficient design of a PSS focused on NMT, public transport and the role that they can play for integrated land use and transport policies. The design of a PSS must take into consideration the land use systems (composed by elements of population density, diversified type of activities and street layout and design) and the transport systems (composed by its fiscal infrastructures and performance configurations), were travel behaviour is then reflected on the mode choice that dwellers chose, thus enforcing or not a more sustainable living paradigm.

### 3 Public transport and land use

There as been a growing movement in academia and in real world practices, which seeks to reconnect transport with land use and in particular to establish where higher-density, mixed-use areas built around high-quality transit systems provide a focused urban structure that can help to change the centred automobile mind set. A host of urban design philosophies, such as the 'Smart Growth' and the 'New Urbanism' in the USA, 'Compact City', and the 'A-B-C Location Policy' in Europe, have gained popularity in recent years also in a way of shaping travel demand. All the mentioned philosophies share three common transportation main objectives: reduce the number of motorized trips, what has been called 'trip degeneration'; of trips that are produced, increase the share that are non-motorized; and of the motorized trips that are produced, reduce travel distances and increase vehicle occupancy levels, encourages shorter trips and more travel by transit transport systems.

An expected outcome of degenerating trips and discouraging people from their cars, proponents hope, will be a lessening of the negative consequences of an automobile-oriented society-namely, reductions in air pollution, fossil fuel consumption, and class and social segregation (Banister, 2008; 2011). The dimension being appointed to underline the importance ridership of oriented development for public transport (or transit oriented development - TOD) is their mixed-use, or high-accessibility, attributes. There is also a temporal aspect to be considered, and some land uses, like offices and residences, produce trips during peak hours when trains and buses are

often full. Others, like entertainment complexes, restaurants, and retail shops, generate trips mainly during off-peak hours, helping to embrace efficiencies in the deployment of more costly transit services interchanges (Cervero, 1996; Ewing and Cervero, 2001; Curtis, Renne, and Bertolini, 2009). The first study conducted by Knight and Trygg (1977) titled 'Land use impacts of rapid transit systems', explored the importance of four different factors in influencing the impact of transit on land use: local government land use policies, regional development trends and forces, disposal of developable land, and the physical characteristics of the area. They determined that all these factors influence the likelihood of development. Another important issue raised in this study is the timing of land use impacts: 'substantial land use impacts do not occur until several years after inauguration of transit service'. In other words, transit operators cannot count on the ridership or other profits of station-area development in the early years of the system. The report concluded on the sobering note that transit operators cannot always count on station-area development ever happening: 'It seems from the evidence available that rapid transit improvements can provide an impetus toward generation of new nearby development. However, transit alone seems no longer enough to insure such development, in this day of very high accessibility often only marginally improved by the transit system'. Every study since then has reached almost the same conclusion.

A widely cited study by Cervero (1984) was slightly more optimistic about the potential for light rail transport (LRT) to influence TOD development but still cautionary. The referred study reviewed the experiences of twelve cities with LRT systems and concluded that 'a strong and growing regional economy is an important prerequisite' for station area development. The study also concluded that 'the developability of land and a suitable physical setting around LRT stations are important conditions for positive land use changes' an issue that arises when alignments were chosen to minimize construction costs rather than maximize development potential. Another related lesson is that 'the strongest development potential of LRT is in downtown area' especially when coupled with policies such as restrictions on parking supply and the use of density bonuses as a part of an overall redevelopment effort.

In transport research, such influences have often been named with words beginning with D. The original 'three D's' created by Cervero and Kockelman (1997), are density, diversity, and design, followed later by destination accessibility and distance to transit (Ewing and Cervero, 2001). Demand management, including parking supply and cost, is a sixth D, included in a few studies. While not part of the environment, demographics are the seventh D, controlled as confounding influences in travel studies (Ewing and Cervero, 2010). Density is always measured as the variable of interest per unit of area. The area can be gross or net, and the variable of interest can be population, dwelling units, employment, building floor area, or something else. Population and employment are sometimes summed to compute an overall activity density per areal unit. Diversity measures pertain to the number of different land uses in a given area and the degree to which they are represented in land area, floor area, or employment. Entropy measures of diversity, wherein low values indicate single-use environments and higher values more varied land uses, are widely used in travel transit studies (Ewing and Cervero, 2010; Litman 2015; Banister 2011).

Among these measures, it is possible to cite technological improvements which lead to increased efficiency, modal shift towards collective modes of transport, increased use of virtual

forms of mobility, land use policies which minimize travelling distances (e.g. jobs, housing balance and retail, housing mixing) and transit-oriented development, congestion pricing, new institutional arrangements and policy integration, and the promotion of new cultural understandings (see, for example, Banister et al., 1997; Cervero and Duncan 2003; Cervero, 2006; Ferreira and Batey, 2009; Handy et al., 2002; Handy and Clifton, 2001; Hull and Tricker, 2006; May, 2013; Salon et al., 2012; Vale, 2015). Although several arguments can be put together on behalf of an ideal development strategy in order to address the key problem posed by TOD implementation barriers, it is also necessary to achieve a holistic understanding about what mobility represents to people in it several transport modes.

Despite the multiple definitions of a TOD, it is often described in a purely physical description way: a mixed-use place, with a certain urban density and high-quality walking environment, located within half-mile (800 m), i.e. 10 min walk, of a transit stop. However, the physical characteristics of these places are essential but not sufficient to achieve the extensive goals of TOD, which are not focused in creating physical forms but instead in creating vibrant, rich and liveable urban places (Jacobson and Forsyth, 2008). A new distinction within specialized literature has been proposed that describes the difference between a transit-adjacent development (TAD) and transit-oriented development (TOD) (Belzer and Autler, 2002; Cervero et al., 2002, Dittmar and Ohland, 2004). Both concepts refer to the area within a 10-min walk, or half-mile radius, around major transit station. Indeed, there is a clear distinction between a TOD and a TAD. Transit joint development (TJD) can constitute an important strategy to implement TODs, as the cost-sharing or revenue-sharing agreements between transit operators and private developers that are the base of TJDs, might produce 'win-win' arrangements that will create benefits not only for the public and private sectors but also for the transit user. This approach, where the main focus is physical proximity, with a simple objective of capturing the value of the land adjacent to the transit stop, not necessarily with a pedestrian friendly built environment and a functional connectivity between land uses and the transit stop (Renne, 2009), which will translate into a higher mode share of walking, bicycling and transit (Hale, 2012). Therefore, unlike TADs, TODs are seen as planned, balanced communities, with wider objectives and benefits than simple value capture, as increase transit patronage, increase investment in transit, reduce congestion and sprawl, reduce greenhouse gas emissions, and even health benefits by increasing the amount of active travel and physical activity (Vale, 2015). Uncovering such benefits would go a long way toward assisting planning efforts with the tools they need to make complete decisions with respect to the provision of NMT facilities and their integration with other transport modes, namely public transport.

Other theories empathizes the realization of the potential for physical human interaction at and around public transportation nodes is the essence of the strategy for public transport-oriented development envisaged here. It is important to recognize the node-place theory (Bertolini, 1999) applied to type of accessibility analysis to public transport station. Bertolini notes that while railway stations provide access to the transport network, which he defines as the 'node' element in his model, they also offer a 'place' function. That is the railway station precinct can also be a destination in itself, where land use activities are available to public transport users and others. This second element constitutes an important layer of accessibility, namely accessibility of opportunity,

and takes us beyond simply considering the accessibility of the network (or ease of getting to a place). In this respect, the enhancement and exploitation of the accessibility of the area can provide a unifying principle, on the condition that the term is not interpreted in too narrow a way. In a broader connotation accessibility is not just a feature of a transportation node ('how many destinations, within which time and with which ease can be reached from an area?'), but also of a place of activities ('how many, and how diverse are the activities that can be performed in an area?'). A third important component of accessibility is the user, or the question 'by whom?'. Bertolini then further demonstrates a way of conceiving land use-transport integration by noting that there can be 'balanced' or 'unbalanced' node-places. A balanced node-place benefits from good transport network accessibility and also is accompanied by a good mix of activities (opportunities) to access within the precinct. In this way both the transport network and the place are efficiently used. An unbalanced node suffers from good transport network access but poor place functions, while an unbalanced place will be characterized by good place functions but poor transport network access. Bertolini et al. (2005), suggests that unbalanced nodes and places will experience pressures to return towards a state of equilibrium. For unbalanced nodes, this may occur through densification of land uses around the node (boosting its place function) or through a decline in network accessibility (reducing its node function). For unbalanced places, it is the other way around: either network accessibility is improved over time, or the number or diversity of land uses diminishes. In addition, (Bertolini et al., 2005) distinguishes between node-places under stress, where both node and place functions are exceptionally high, generating pressures such as transport network and interchange congestion, strong market demand for further land use intensification and increasing property values. Conversely, a dependent node-place is a location that has low node and place functions but may be able to enhance either by relying on the accessibility benefits provided by more significant node-places and network elements in the vicinity.

#### **4 Non-motorized transport modes and land use**

Non-motorized transport modes (NMT) such as walking and bicycling have not received considerable attention in transport and urban research in the last decades although the actual panorama in the specialized literature is changing. One reason of these shortcomings in academic research may be that they are not of any interest when one wants to study interaction between supply and demand. A further reason maybe that these modes of transport are considered as unimportant give their modest share in total transport demand. The literature approach in this thematic is usually focused travel behaviour, land use mixes and the influence on NMT. Different travel behaviours, such as trip-making frequency and distance and time travelled, have been studied for a variety of neighbourhood types (Handy et al., 2002; Cervero, 1996; Handy and Xing, 2011); land use patterns (Cervero, 1996; Cervero and Kockelman, 1997; Ewing and Cervero 2010; Waddell, 2011); street networks (Boarnet et al., 2008; Crane and Manville, 2008; Kuzmyak et al., 2011); and streetscape design features (Cervero, 1984; Cervero and Kockelman, 1997; Ewing and Cervero, 2010). These studies are significant because they constitute the theoretical and empirical

foundation upon which policy makers and planners can anticipate the effectiveness of their interventions and base future policy decisions concerning the changes for a more sustainable accessibility approach.

Several researchers have linked the scope of NMT to work to urban density and to mixed land uses (e.g. Cervero, 1996, Stead and Meijers, 2004). High-density residential development results in higher rates of commuting via walking, bicycling or public transportation and less dependence on private cars. A considerable body of research has established that urban densities have a strong influence on mode choice (Cervero, 1984; Cervero, 2002; Kuzmyak et al., 2011). Mixed land uses are thought to yield a number of transportation benefits, especially in suburban areas (Cervero, 1988; Limtanakool and Schwanen, 2006). Despite a number of NMT and build environment investigations, this field of research is not yet conclusively understood (Kuzmyak et al., 2011). One of the more detailed studies is by Cervero and Duncan (2003) using San Francisco Bay Area data to investigate the effect of build environment factors on bicycling and walking. After controlling for various demographic, environmental, and design factors, their discrete-choice model results suggest that built-environment factors have relatively little effect. They conclude that demographic factors and trip conditions are far better predictors of NMT choice than built environment characteristics. Another recent study, by Cervero et al., 2009 takes a close look at Bogotá, Colombia, which boasts an extensive network of bike lanes and is known for its sustainable urban transport system. Their work suggests that bicycling choices are affected more by the configuration, connectivity and density of streets rather than other build environment factors (such as density, land use mix and destination accessibility). Pratt, (2012) extensive review of the NMT effects of system changes concludes that the 'if you build it, they will come' phenomenon mostly exists with bike and walk facilities, particularly if system connectivity is thoughtfully provided. Ewing and Cervero (2010) meta-analysis of the travel-build environment relationship suggests that the extent of walking (measured as either trip frequency, trip length, mode share or vehicle-distance travelled) is mostly affected by intersection density, jobs-housing balance, distances to stores, and transit stop proximity after controlling for demographic attributes. Lee and Moudon (2006) also found that a household distances to neighbourhood destinations (such as grocery stores, retail shops, and restaurants) had a significant effect on walk time per week. Of course, NMT are also affected by climate, topography, darkness, and safety concerns (Te Brömmelstroet and Bertolini, 2010), though these are less commonly controlled for in models in part because they vary by time of day, day of year, and route.

Other factors revealed in the literature that also affect the tendency to cycle, such as employer support (providing showers and lockers) or employer travel plans, safety aspects, gender, infrastructure planning, and incentives for bicycling through increasing the costs of car use. The literature review points to several areas of missing information about bicycling and pedestrian travel, including the characteristics of bicycling trips, the characteristics and preferences of users, and research on safety (Pucher et al., 2010; Plaut, 2005; Agrawal and Schimek, 2007). Pagliara and Biggiero (2014) survey the existing methods for forecasting the numbers of bicycle and pedestrian travellers and conclude that adequate forecasting tools are lacking and that more research is needed into the factors that affect the utilization of these. Recent critiques of the

literature on the relationship between the local physical environment and travel behaviour have highlighted theoretical limitations, such as the lack of a strong behavioural foundation in formulating hypotheses, and empirical limitations reflected in the research design, data collected, and misspecification of the relationships being examined (Heinen, van Wee, and Maat, 2010). Travel mode choice studies are illustrative of key limitations. In these studies, the attractiveness of motorized travel modes, for example, is typically specified as a function of travel time and cost. Seldom are data about the natural and built environments, such as local topography and the availability of sidewalks and shelters, included as affecting the attractiveness of a given mode. More importantly, non-motorized trips are rarely included in transportation mode choice models. This stems in part from incomplete data measuring non-motorized travel for work and non-work trips (Ewing and Cervero, 2001; Cervero et al., 2009; Iacono et al., 2010) and institutional arrangements for regional transportation planning and modelling traditions also contribute to a distinct emphasis on motorized modes.

## **5 Measuring non-motorized transport accessibility**

Given the current policy environment of scientific uncertainty surrounding travel and urban form (Levine et al., 2012), accessibility offers an alternative basis for sustainable accessibility policy regarding the built environment and travel, a policy that can be strengthened provided that detailed, reliable, objective and robust metrics are available. The integration of these modes has become more important for longer trips, in a multimodal perspective, providing access to other transport modes as a wider range of alternatives to private car. Under this approach, modal integration is also known as a major component of any urban mobility strategy.

Over recent years the NMT (namely bicycle commuting) have become increasingly popular in several cities and regions, both as a means of a complementary transport, and as form of transport for the full length of a journey. But when it comes to NMT measures of accessibility, there is a long effort on academic rhetoric but short on practical implementation. One reason is the absence of commonly accepted measures that capture the internal structure of dense and complex urban areas with the regard to NMT critical factors. Recently much has been written about the topic, even concept pieces offering ideas for data to account for (Handy and Clifton, 2001; Cervero and Duncan, 2003; Soria and Talavera, 2013; Schoner and Lindsey, 2014; Vale et al., 2014). Where they have been revealed, the measures are extremely location specific or cover a small geographic area (Schoner and Lindsey, 2014). Uncovering such measures for walking and bicycling would go a long way toward assisting planning efforts with the tools they need to make completer decisions with respect to the provision of NMT facilities and their integration with other modes (Iacono and El-Geneidy, 2010; Mavoa et al., 2012).

One of the reasons that the lack of well-established framework to actually measure NMT travel, has to do with limitations that relate to the representation of NMT modes in travel demand models. With respect to travel impedance, the networks used for modelling vehicular flows are too coarse to represent the route choices typically exercised by pedestrians and bicyclists. Also, the zones of these models are poorly matched to the spatial scale of movement by these modes,

resulting in a considerable number of intra-zonal trips (Handy, 2005). While vehicular travel tends to be most sensitive to travel times and levels of network congestion, NMT route choices tend to include factors that may be more qualitative, experiential or difficult to operationalize, such as facility design and aesthetic treatments that may fall under the broad category of environmental factors (Hunt and Abraham, 2007; Hochmair, 2014). Considerable effort in transport and urban planning research fields during the past 10–15 years has been dedicated to adapting accessibility measures to concepts of space and time geography, thus resulting in the development of person-based accessibility measures. This is a critically important concept in accessibility research, since temporal and individual or household-level constraints can often have a great influence on the level of accessibility a person actually experiences at a given location (Schoner and Levinson, 2014), something that cannot be confirmed using location-based measures. Being able to account for individual-level characteristics or constraints, such as car ownership (or possibly bicycle ownership), gender, household structure and other variables would allow for a more nuanced understanding of the relationship between accessibility and travel behaviour by NMT. On the other hand, the quality and validity of the outcome of any measurement depend on both the validity of the method and the quality and applicability of the digital spatial database. To date, most studies of accessibility and connectivity use street networks in their analyses (e.g. Handy et al., 2002; Schoner and Lindsey, 2014), which may not well represent pedestrian networks. Unlike formal street networks, pedestrian networks can incorporate informal and formal paths, including sidewalks, laneways, pedestrian bridges, and parks paths. Thus, the use of street networks for studying pedestrian movements is questionable if street and pedestrian networks are significantly different. If so, then this could affect the outcomes of analyses, which use the street network only. For example, if the neighbourhood is defined based on street network distance (Iacono and El-Geneidy, 2010), then the area selected for analysis may be incorrect from the outset. And all other measurements for that area will be impacted. Measurements, such as intersection density, pedestrian route directness, linear length distance, link node ratio (Handy et al., 2002; Ewing and Cervero, 2010; Handy and Xing, 2011), and ratios of crow flies and street network distance, would also have different outcomes (Porta et al., 2006).

From a different perspective (coming from healthcare literature) Frank et al., (2006, 2010) developed town indexes to measure pedestrian accessibility, what they have call the 'Walkability' index, or the 'Walk Score' approach. This is a registered methodology that has gained in popularity and has been used or tested since 2010 in several papers. The major difference between these approaches is that Walk Score uses a gravity-based methodology. Opportunities are weighted using a distance decay function, while the 'Walkability' Index is based on a cumulative opportunities measure. In the line of research, some authors such as Lowry and Callister (2012) developed the 'Bikeability' index that is the only methodology exclusively dedicated to bicycle travel.

Authors, such as Hillier (1998), go on to apply Space Syntax measures by way of axial mapping exercises to the surface street networks of entire cities or parts thereof, and draws robust empirical correlations between the spatial integration of network elements in what he terms the 'movement economy' and the locational viability of urban commerce, as well as the intelligibility of

space and the incidence of crime and vandalism. Through a configurational analysis of a street network, the Space Syntax methodology investigates relationships between spatial layout and a range of social, economic and environmental phenomena. These phenomena include patterns of movement, awareness and interaction; land use density, land use mix and land value. Research using the space syntax approach has shown how: movement patterns and flows in cities are powerfully shaped by the street. This relation shapes the evolution of the centres and sub-centres that affects the well-being of people in the city. This approach utilizes graph theory indices of accessibility, which measure spatial separation. The key focus is to describe the spatial impedance factors that separate locations, without considering the nature of the activities separated to measure accessibility from a particular location to either all other locations in the study area or to all other locations that fall within a certain distance from the location under study.

The connection that is intended to be investigated in the current proposal is NMT accessibility that include public transit focus on physical access that is proximity to a transit stop (Biba et al., 2010; Currie, 2010; Furth et al., 2007; Kimpel et al., 2007). Some of these studies measure access from an administrative unit to a transit stop. Using an administrative unit as a proxy for the home of all residents within the unit can lead to errors (Currie, 2010). Attempts to address this problem have included using smaller units (Furth et al., 2007), calculating the ratio of the population within the transit stop service area with different levels of access, and measuring accessibility from dwelling units to bus stops (Biba et al., 2010; Kimpel, 2007). Transit stop service areas have been calculated using both Euclidean buffers/distances and network buffers/distances, and in some instances have included barriers to walking such as rivers, lakes, walls and freeways. There is a consensus that network buffers are preferable because Euclidean buffers overestimate the service area of a stop (El-Geneidy and Levinson, 2006). The current literature review identifies that there is still a lot to be consensualized and no common ground can be accomplished yet when it comes to measure accessibility for non-motorized transport. The following point will address the component of the public transport accessibility.

## **6 Measuring public transport accessibility**

Improving public transit network is linked to a number of factors such as improving service, increasing access and promoting greater safety. Analysis of mode shares with a focus on accessibility has tended to consider primarily the local conditions at the point of origin of trips, in other words, the ease of entering the system. This ease must be contrasted against the ease of reaching attractive destinations, in other words, the accessibility produced by the transit systems (treated in the previews point on measuring NMT accessibility). In this way, while being able to find transit facilities locally is important (i.e. accessibility to transit stop, reflected in the previews point), the places and opportunities that can be reached by transit (i.e. accessibility by transit) is also an important factor that has only recently begun to receive attention in academic research (Lei and Church, 2010).

Studies of access to transit stops are important because getting on public transit is a key component of the public transit journey. However, it is also important to know the places people can

subsequently reach when traveling by public transit. Therefore it is important to focus not only on physical access, but to include the time taken to travel between the origin and destination. This is achieved by accessibility models that use travel time access via public transit to provide a measure of accessibility, and incorporating access to destinations via public transit, as for example in the place based approach to accessibility described in Neutens and Schwanen (2010). They create a transit network and compute the distance between census tracts and opportunities. A measure of bus service levels – bus runs per day between the neighbourhood and the opportunity – is included in the model. An obvious limitation of this approach is the use of a census tract as an origin point. More recent, models have combined distance and travel time measures for one or more transport mode. Yigitcanlar et al., (2007) devised a GIS based Land Use and Public Transport Accessibility Index (LUPTAI). The LUPTAI measures access to common land use destinations using public transit and walking modes. The LUPTAI combines accessibility calculated for walking distances, public transit travel time, and transit service frequencies. Only recently has there been additional work in this area with Benenson et al. (2011) proposing an approach to accessibility using a detailed transportation network in Israel. Their work includes street driving time estimates, bus lines, bus stops and bus departure and arrival times, as well as real world estimates of travel speed reflecting time and location dependent congestion. Cheng and Agrawal (2010) describe an accessibility tool to calculate transit service areas in terms of travel time. In an extension of the approach used in Benenson et al., (2011) and Lei and Church (2010) that proposes a measure of transit accessibility that includes bus service time as an attribute in the GIS.

The above studies measure access to locations via public transit, but do not consider the types of destinations present at these locations. As noted in the definition above about measuring accessibility, access to different activities/opportunities is an important component of overall accessibility. It goes beyond considering just the accessibility of the transportation network – i.e. the ease of getting to a place (Curtis and Scheurer, 2010). This is achieved by building on purely spatial accessibility measures via public transit described above, and incorporating access to destinations via public transit, as for example in the place based approach to accessibility described in Lei and Church (2010). Lei and Church calculate access via transit to urban opportunities – measured by business and industrial land parcels classified into 11 sectors. They create a transit network and compute the distance between census tracts and opportunities. A measure of bus service levels – bus runs per day between the neighbourhood and the opportunity – is included in the model. An obvious limitation of this approach is the use of a census tract as an origin point. Travel time is also used as a measure of access. Salon et al., (2012) create a cost surface to determine the travel cost (time) to supermarkets and fast food outlets. They calculate travel time cost for three different modes: car, bus and walking. The bus travel cost is modelled based on the road type and frequency of buses along the road. Recently Curtis et al. (2012) have described an accessibility model for strategic planning – spatial network analysis for multimodal urban transport systems (SNAMUTS). This tool assesses connectivity and centrality, which is the spatial proximity to a high number and range of activities, of urban public transport networks within the land use context. Unlike other transit accessibility models which use travel time as the 'cost', SNAMUTS used average travel time along a route segment divided by the frequency of service –

departures per hour. This tool assesses connectivity and centrality, which is the spatial proximity to a high number and range of activities, of urban public transport networks within the land use context. Unlike other transit accessibility models, which use travel time as the cost, SNAMUTS used average travel time along a route segment divided by the frequency of service – departures per hour – as the cost measure. Activity nodes are used instead of destinations. The activity nodes are determined by travel survey data as non-home destinations, centres defined in land use plans or strategies, and a measure for the intensity of activities determined by walkable catchment. Service frequency, a critical aspect of accessibility, can vary markedly between peak and non-peak commuting times.

Several studies have included measures of transit service level either as a complement to transit access measures or as an independent measure. There are two general approaches to measuring transit service frequency. The first excludes public transit that does not meet a minimum standard of service. For example an accessibility planning tool developed in Perth Australia by Curtis et al. (2006) adopted a minimum service frequency standard of 30 min or better during weekday inter-peak. The second approach includes all public transit trips when assigning a measure of service frequency. For example Currie (2010) uses the number of trips per week for each stop, whereas Yigitcanlar et al. (2007) categorize transit service frequency by how often a bus/train arrives (e.g. at least every 15 min, at least every 30 min, and 30 min and more). Lovett et al., 2002 uses a combination of service frequency and population size. Bus accessibility is classified based on the percentage of the population with access to a certain number of return bus services per day. For example, they define a moderate level of bus accessibility as at least 50% of residents having one or more return daytime services each weekday. In summary, a comprehensive time-based measure of public transit accessibility needs to take account of the time taken to reach a transit stop, waiting times, the duration of the public transit journey, and the destinations available at the end of a trip. There is less research covering these latter two components of the public transit journey and very few studies take account of all components of the public transit journey. Those that do are often limited by calculating access to aggregated areas such as administrative boundaries. Including public transit service levels in accessibility analysis is rare, even though the number of public transit trips is an important factor in estimating accessibility in a meaningful way.

## **7 Literature review conclusions**

One of the central questions regarding NMT is what makes people walk or use the bicycle in a full trip or in combination with transit, or as seen from an urban/transport planner point of view were questions rise about how to plan and design cities so that people walk and cycle more than usual to satisfy their daily needs. Using accessibility measures as the basis for dialogue and action, transport authorities and community partners are increasingly managing the organizational networks to facilitate access for people, adding a stronger human dimension to transport planning, and complementing well established roles managing physical passenger transport networks. People's modes of daily travel are closely related to accessibility from home to daily destinations must be conveniently accessible by walking or bicycling preferably in conjugation with the transit

modes. Following the presented literature review on this thematic, what seems to be missing is a better understanding on how spatial and accessibility influence NMT movement patterns and how it can be improved concerning the interchange and complementary options with the transit network. This is particularly relevant when dealing with transit network layout and accessibility to and from destinations that should be important for increasing the share use of NMT. According to the literature presented in this paper, this use of full (or carbon less structure) multimodal approach to measurement sustainable accessibility, offers an additional insight into the nature of urban commuting and the spatial distribution of activities in cities, where the understanding of NMT use (independently of the purpose of the trip) is of great importance for urban transport planning practice and further efforts should be explored to obtain better PSS integration in real life planning.

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# Urban Fragmentation and Discontinuity: Paranhos Case Study

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This paper aims to study design and urban planning tools able to create, enhance, transform or rescue the identity and cultural meaning of fragmented and discontinuous central/focal urban spaces. This work uses as a case study, the Paranhos Parish in Porto, former peripheral area that, during the last fifty years has undergone relevant morphological and functional specialization changes. As a result, the region has lost its ability to define a central zone, with strong pulsar dynamic and able to structure the local character, making the territory a fragmented and discontinuous public space. Therewith, the cultural dimension and local meaning decrease significantly, been overshadowed by the heavy metropolitan road system. As it is a study focused on the design and urban planning, its methodology is supported by essays and empirical studies based on available built repertoire and designer cultural references. The narrative begins with a historical analysis, determining the evolution and current characteristics of the territory. Later, a study about the existing cores and the intrinsic urban dynamics developed took place, defining which is the most relevant social and cultural value – ‘heart of the parish’. This step is complemented by a field research – interviews – on the main local agents and how the development of urban dynamics happens. Then, using an empirical analysis, it sets up the main promoters of the fragmentation of space and what their intrinsic characteristics. Finally, it is presented a proposal in public space able to create, enhance, transform or rescue the identity and cultural meaning inside parish focus point.

**Keywords:** urban fragmentation; urban design; local meaning; urban core; liveability; urban pulsar

## 1 Introduction

Urban spatial disruption phenomenon is directly linked with intensive and extensive development of urbanization and agglomeration, mainly occurring during the second half of the twentieth century (Lefebvre 2003). To meet the growing metropolitan demand for mobility and activity/functionality new infrastructure networks were created, specialized urban zones and functional clusters of greater complexity and capacity. Thus, new dedicated areas were settled to fit certain urban functions, such as social housing, technological and university centres, clusters of shopping malls, airports, all been strongly supported by infrastructure networks, such as highways, bridges complex and road intersections, underground rails, train terminals and etc. (Graham & Marvin 2001).

Following to this process, some locations were eventually fragmented, breaking both its physical structure as its social and cultural dynamics. The deployed infrastructure became urban obstacles, creating empty spaces of low or non-use places, requiring the local agent a new reality dynamics and cultural relevance. This gesture shows the ideology of order and rationalism that guided general public power territorialisation policies during the twentieth century. As an example, we can mention the High Line in New York, the ‘Minhocão’ in São Paulo, Porto highway ‘VCI’ and the intense dissemination of specialized zones and functional buildings.

This work uses the case study of Paranhos Parish in Porto. Former peripheral area, where during the last fifty years has undergone significant morphological and functional specialization changes. In contrast to the concept of ‘non-places’ of Augé (2010), it is argued that the intensive road structures and majority of educational mono function surfaces are not the source for a lower sense of community and belonging, but a consequence of urban spatial fragmentation. In this

sense, Paranhos faces a poor capacity to define a central 'pulsar' location with a strong local character, able enough to structure the parish connections. Whilst the actual spatial configuration contribute for the development of a fragmented and discontinuous space.

As this work is focused on urban design, its methodology is supported mainly by empirical studies based on author's repertoire and background and others cultural references. As a design plan, the working structure develops from a 'macro' to 'micro' scale, analyzing first all relations and connections between the local area and the whole Porto municipality. The narrative begins with a historical analysis, determining the evolution and current Paranhos' territory characteristics. Later, actual urban dynamics are studied, trying to comprehend how it developed in the parish, defining its most centralized and cultural value. This step is complemented by a field survey on the main local agents and how to develop local urban dynamics. Then, through an empirical analysis, it is set up the main promoters of the urban fragmentation and what are their intrinsic characteristics. Finally, an intervention proposal is drafted in the public space in order to support the development of a new magnetic centre for Paranhos.

### **1.1 Initial remarks**

As will be shown below, during the intensive urbanization period - a century and a half ago, Paranhos failed to concretely define a focal structuring centre. It is considered that this inability results from a lack of urban appropriation by local community (Villaga 2012). Therefore, it denies that the functional specialization of the territory lead to weaker personal relationships, lack of identity and local memory. Urban infrastructures such as VCI highway, Asprela University Campus and São João Hospital are relevant to Porto's metropolitan area, being able to build links with society (Lynch 1960). Figure 1 shows the highway dedicated 'infrastructure' area on Paranhos intersection near Paranhos Church Square. Then, emerges one question: Whereas the urban spaces are socially produced, and so socially absorbed, which phenomena cause the urban space fragmentation and disruption?

To address this question, we seek to clarify Porto and the Paranhos parish urbanization process. This analysis occurs in double scale – metropolitan and local – as it is impossible to understand the social behaviour inside the 'partial' without the 'complete' area.

As an example, it is cited the urban transformation of Cais da Ribeira – Oporto - during the last two centuries. Initially, Cais da Ribeira social built space was exercised by an intense port activity, being occupied by trading boxes, goods, mules and pack animals, transportation machines and a wide range of workers. When Leixões Port was constructed, in the late nineteenth century assuming the lead role for freight transportation, it became an idle public space in the middle of a highly urbanized environment. Due to the low spatial regulation, the area became occupied by private cars – especially during the second half of the twentieth century, when general workers income got higher and cars became easily affordable. Currently, following new revitalization policies on Porto's central area and adaptation to tourist activities, the site became a supporting area for restaurants and coffee shops terrace in the Ribeira.

Thus, following will be conducted a brief study about Paranhos spatial social production evolution and its intrinsic characteristics and functions.



**Figure 1.** Integrators or shredders? Non-places or fragmented spaces? Source: google earth

## 2 From Porto to Paranhos - development of spatial social production

Still in the early nineteenth century, Porto held an urban structure with pre-industrial characteristics. Urbanized area was restricted to the current historic core, predominantly comprising the parishes of Sé, São Nicolau, Vitoria, Miragaia and Santo Ildefonso. Other urban areas were developed outside the realm of Porto, like Foz, near São João Batista Fortress and the central area of Matosinhos. On the outskirts, still prevailed rural activity, accompanied by an urban settlement scattered along ancient roads.

At that time Paranhos not legally incorporated Porto municipality areas, a fact that would only run in the year 1837. The spatial social production had not been significantly altered, and the functions committed on the territory distinguished between agricultural fields and roads to the northern Portuguese kingdom.

With the advance of industrialization and population growth, urban scenery slowly changed. It is evident here the changing from the "old city" to "industrial city". Initially, the urban expansion took place along the ancient roads, such as: Rua de Monte Burgo (to Vila do Conde), Rua do Amial (to Braga) and Rua Costa Cabral (to Guimarães). For this reason, a greater concentration of buildings with typology similar to the recorded in the central core of Porto –

volume, deployment on the ground and their uses, and the emerging of a nineteenth century urban pattern production developed along those three axis.

As the urbanization process advanced over urban axes - arranged parallel in the municipal territory, the other internal areas still retained its agricultural function, preserving a low occupation density.

Also, new industrial plants were installed, hospitals and health centres, new cemeteries and water distribution in the newly incorporated Porto's areas (especially Campanhã, Paranhos and Massarelos parishes). Paranhos stand out for Arca D'Água water fountain - major source of Porto's public water supply, Paranhos cemetery, the Campo Largo Lindo, 'Nova Empresa Industrial de Curtumes' (1920) - installed in Rua do Amial, Hospital Conde de Ferreira (Rua Costa Cabral) and Quinta do Covelo.

In the late nineteenth century, municipal authority opened the Estrada da Circunvalação - ring road, aiming to overtax all imported goods. One can make an analogy between the old medieval walls and the Ring Road - a new physical separation between Porto and its rural or outside area.

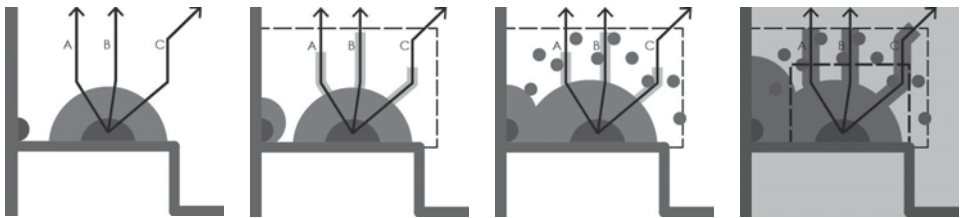
Supported by national and local economic development, the outlying parishes accelerate urbanization process and population density. This process was boosted by the arrival of new industrial workers with low income, seeking for affordable dwellings or empty lands. Already in the first decades of the twentieth century, Porto's suburban landscape was completely different and also well specialized. While Campanhã reported strong industrial development, Paranhos showed ability for public housing and dwellings - initially single family units and later collective blocks. During the so called 'New State' political regime, new 'Economic Districts' were built, namely Azenha, Paranhos, Amial and Amial II, Costa Cabral and Outeiro and Regado. The massive residential buildings construction gave a strong dormitory neighbourhood character. It was possible due to the wide availability of undeveloped land next to the road corridors - connecting the periphery and Porto central area - and the low land value and public property tax due to the lack of public infrastructure on those areas. Thus, Paranhos established itself as a territory with diffuse and dispersed spatial patterns, organized by well-defined radial axes, isolated housing blocks and some remaining farmland.

Spatial social production came to be changed again from the second half of the twentieth century. Powered by Porto industrial activity decline and accelerated suburbanization on outside municipality, Porto became a strong magnetic reference for its metropolitan context. The same socio-economic dynamics recorded internally in Porto during the nineteenth century was reflected in its new metropolitan scale. Thus, municipal urban space scale changed, getting new roads, public and private facilities of greater complexity and capacity and specialization of urban land. This period reports the change from the 'industrial city' to the 'modern city'.

Initially, Paranhos received the Escola Industrial do Porto (1952) facilities - currently ISEP - and the new São João Hospital (1959). During this period all new buildings found themselves isolated and scattered throughout Paranhos territory, with low occupancy rate inside potentially buildable land. During the 60's, it was built the Via de Cintura Interna (VCI), Porto's urban highway, connecting the Arrábida Bridge (Gaia) to Areosa (Av. Fernão Magalhães). Unlike other urban

roads, VCI has technical and physical characteristics similar to the American urban 'Highways'. As opposed to Estrada da Circunvalação, VCI was built 'inside' Porto, creating section and fragmentation on internal urban fabric. Similarly, along the highway a number of road junctions also provide a breakdown in urban structure, separating Porto urban space into two distinct parts: internal and external.

Finally, during the last three decades the new Asprela University Campus took place inside Paranhos. Except for the pre-existence of the Hospital São João and the Medicine Faculty, the 'first' school to settle in Asprela was Porto's Economics School in 1974, initiating the occupation of idle land, still plentiful in the region. One should also refer to the construction of A3 motorway (Porto-Valença) and the Subway D line (Hospital São João – Santo Ovídio). Figure 2 shows a concise four diagram graphic of Porto urbanization process, highlighting the three ancient roads and the two main infrastructure barriers, VCI and Estrada da Circunvalação.



**Figure 2.** Porto spatial social production development over XX century. Source: Authors

### 3 Finding Paranhos central pulsar

Due to Paranhos wide territorial extension, several locations with high potential to assume the condition of 'central pulsar' were identified. Following will be presented the studied areas, a brief description of each individual case and which territory was chosen.

#### 3.1 Urban axes: Monte dos Burgos, Amial e Costa Cabral

The urbanization along the main Paranhos urban axes powered the development of a strong and complex social dynamics. As stated above, Monte dos Burgos, Amial and Costa Cabral streets suffered a relatively similar occupation process that recorded in Porto central area. So, along these routes there's a high density of dwellings, inhabitants, shops and everyday services, as post offices, banks agencies, butchers, bakeries and coffee shops and other shops in general. However, Amial Street stands out for miscegenation between different social classes and age groups, wider road and sidewalks – which allows one side parking, attracting more commuters and promoting local business – and a huge diversity of business and public interest services. Nearby the street, there are private dwellings and collective housing with early nineteenth century typology and other collective 70s typology, forming a diverse and heterogeneous social characteristics population. Likewise, the proximity to ISEP and Asprela University Campus allows the integration among young people, adults and seniors, catalyzing region's social diversification. There are also two high schools – private and public, kindergartens, hotels and churches.

### **3.2 Gardens, squares and public areas: Jardim da Arca D'Água (Praça 9 de Abril), Largo da Igreja de Paranhos**

During the nineteenth century and the early twentieth, Paranhos played an important urban technical infrastructure role: one of the main public water supplying system for fountains. Among the existing sources, Arca D'Água garden stood out for its capacity and water quality. Initially, a new underground storage systems and distribution galleries - Cedofeita region and Boavista were built beneath the site. As urban sprawl approached to the region, its single functional role and geometry were altered. At the beginning of the twentieth century Arca D'Água landscape had several changes, owning a Square status and setting a new order for urban occupation on the surroundings for the following years.

Streets and pathways from Arca D'Água lead to Porto central area (Rua do Vale Formoso), Largo de Campo Lindo (Rua Costa e Almeida) and Paranhos Church Square (Rua Delfim Maia). On the other hand, the other square or gardens also communicate themselves through Rua da Igreja de Paranhos, forming a geographical triangulation. This reference morphological condition recurs in various urban models and is present from smaller scale clusters - religious triangle of São Paulo Paraitinga - to the great monumental perspectives of Versailles, Washington and Buenos Aires.

Paranhos reference triangle is also home of Paranhos Church Square, chosen location to play the role of 'central pulsar'. The similarities between the Square and the parish go far beyond simply sharing the place name. As well as the parish, the location social urban context changed radically over the last century, showing the transition between the 'old town' and the 'modern city'.

For decades, there was low presence of the public power in the region, leaving Paranhos Church Parish acting as a primary social institution in the neighbourhood. For its implementation, it was chosen a high area overlooking Asprela agricultural fields and with good access to Campo Lindo, Arca D'Água and Amial. First, as a result of population growth and Porto urban expansion to the peripheries, the adjacent lands intensified the urbanization, strengthening referential importance of urban space and its centralizing capacity.

However, the VCI prevented physical communication between Jardim da Arca D'Água and Largo de Campo Lindo (also the visual continuity of Rua do Amial axis) and intensified traffic of motor vehicles in Paranhos Church Square. The space, that was formerly occupied by people and community activities, (activities similar to those currently practiced in Jardim da Arca D'Água) was occupied by cars and metropolitan mobility systems.

Unlike Augé 'non-places' concept, this process does not mean a loss of identity and social condition, but rather a change in its urban function and social appropriation of urban space. Similarly, the occupation of idle land of Asprela by a single activity - education - is not an emptying of urban social dynamics, as advocated by Augé.

### **3.3 Metro Stations: Hospital São João, I.P.O. e Polo Universitário**

Paranhos is served by Porto Metro D Line - Santo Ovídio/Hospital São João, and three main stations are located inside demarcated Asprela University Campus. At first glance, it appears that both situations share a wide and plenty public space, with the potential to promote the emergence of new social dynamic. However, while establishing a strong relationship between the town and the

entire Porto metropolitan context, the stations are unable to build a solid narrative enough to play a leading role and urban reference.

Hospital São João Station has a strong metropolitan mobility character, offering a rich urban interface between different modes of public transportation. Apart from the existence of Porto's most important Hospital, it is placed on a wide urban area facing Estrada da Circunvalação and an exclusive bus lane with several stops and feeding lines. This situation breaks any effort to establish a reasonable permeability between the Station and the surroundings and a central focus capacity.

In the case of *Polo Universitário* Station, it is placed beneath a wide-open area with a number of vacant plots and mono functional buildings. This scenario creates a rough visual and physical permeability with no potential to establish any focusing role or pulsar centrality.

Beside the two mentioned before, IPO Station seems to have more potential for leading some centrality. The Station is placed next to a medium size shopping mall, with a supermarket and a low budgeted hotel. Through ISEP and University Portucalense, commuters can reach Azenha collective houses and Rua do Amial. It is remarkable that IPO Station gather the most relevant aspects for being the pulsating Station, but it is insufficient to be defined as the Parrish central pulsar.

#### 4 Design basics

The proposed design plan for Paranhos Church Square has the following strategy: approach the physical and functional components of the built urban space. In this way, we seek to reduce the effects of territorial fragmentation imposed by the VCI and create a space that works the transition between the urban area and the mono functionality educational zone (Asprela University Campus).

First, it is intended to reduce the impact, noise visual and physical, played by the urban express highway. Therefore, it is proposed to channel VCI between Rua Delfim Maia and Rua Faria Guimarães, allowing visual and physical space continuity and creating new urban 'land'. This model is inspired by the Ronda de Dalt in Barcelona. As well as the VCI, the expressway meanders Barcelona urban area alternating between high and low densely urbanized areas. In excerpts with high urban concentration the route goes down and offers some sort of public facility to street level. Running this model allows to 'create' new potentially buildable land, which, from its full employment, reduced sense of visual and functional discontinuity.

Easing the physical impact of the VCI is not enough to revitalize Paranhos Church Square. There's a need to change the function of urban space. Thus, its characteristic of road access to the VCI is disqualified, returning the space taken by streets to pedestrian and community activities. Wherefore, it is proposed that access to VCI and Faria Guimarães Street be shifted to Rua Alfredo Allen axis, relieving the intense flow of vehicles in Paranhos Square. Also it proposes the removal of walls and fences of private alignment of the Church of Paranhos, integrating the building with the 'new' Square that opens, and greater physical permeability between Square, university residence and the public open area of metro station.

These work take no place on discussing the ideal model of occupation on new urban land 'created'. As the spatial social area produced in Paranhos is diverse and dispersed, it is possible to

defend numerous types of occupation, being very personal and with a high degree of technical detail discussion. So, besides the morphology and geometric shape, it was conducted a simple exercise about what kind of use and function the new empty area could develop. Figure 3 and 4 shows the two most relevant options, a 'regular' urbanization and a new public park over VCI area. Regarding that, a stronger relationship between Paranhos Church and Campo Limpo Square and Jardim da Arca D'Água consist a relevant issue, the first option seems to have a better behaviour. As suggested by the graphic composition, filling all voids with urbanization decreases the visual impact played by the emptiness and enhances space continuity. Figure 3 is composed by a compound of some crop images from Matosinhos south area (regular rectangular urbanized pattern – 85 x 180 m) and a crop image from Parque da Cidade. Figure 4 is only composed by Parque da Cidade cropped image.



**Figure 3.** 'Regular' urbanization. Source: Authors



**Figure 4.** New public Park. Source: Authors

Thus, the final proposal should look to 'sew' the spaces between the Paranhos Church Square, Jardim da Arca D'Água, Campo Lindo Square and Asprela University Campus and return the formerly pedestrian urban space and filling all voids that decrease physical and visual connection. The design plan also assumes the need for a more functional and visual approach between the Paranhos Square and Asprela area.

Following, a brief description of the proposed design plan for Paranhos Church Square, some technical drawings and all main structures or measures to be taken.

## 5 Design proposal

The new design proposal that seeks to 'create' and enhance a new pulsar centrality on Paranhos is represented by figure 5 and 6. The master plan – figure 5 – shows the design proposal in a large scale (1:2500) fitting all relevant changes on the chosen area and nearby surroundings. It is also provided three sections (1:500) across the intervention area, providing a concise verification of any technical issue about VCI channelling feasibility, as well as granting needed free heights for

vehicles and proper design scale. As this work aim only to provide some conceptual design basis, there are no further detailing drawing. Some samples and existing references will be used to give a more sharp and precise idea about the detail design proposal and materials to be used.



**Figure 5.** Proposal master plan. Source: Authors

**Legend:**

- 1 New highway intersection.
- 2 Non buildable area. Development of a public park with furniture.
- 3 New plots for urbanization.
- 4 Rua Dr. Manuel Pereira da Silva cars shutdown and floor levelling.
- 5 Opening new paths to enhance internal mobility between Paranhos Church Square and Asprela area.
- 6 Urban pergola. Sun shading and soft cover.
- 7 Small shops (bars, restaurants and shops) beneath the urban pergola and along subway station plaza.
- 8 Parking building.

The new pulsating urban centre of Paranhos Parrish consists of the full extent of Paranhos Church Square till the intersection between Rua Alfredo Allen and the Rua Dr. Manuel Pereira da Silva. Through this proposed design interventions, comprising Paranhos Church Square and some nearby surrounding areas, emerge a chance to increase the local potential and strength site memory, social dynamics and build a meaningful and magnetic spot on the neighbourhood (Parrish).

Following a brief description of all design intervention, structured as well as on the master plan legend sequence.

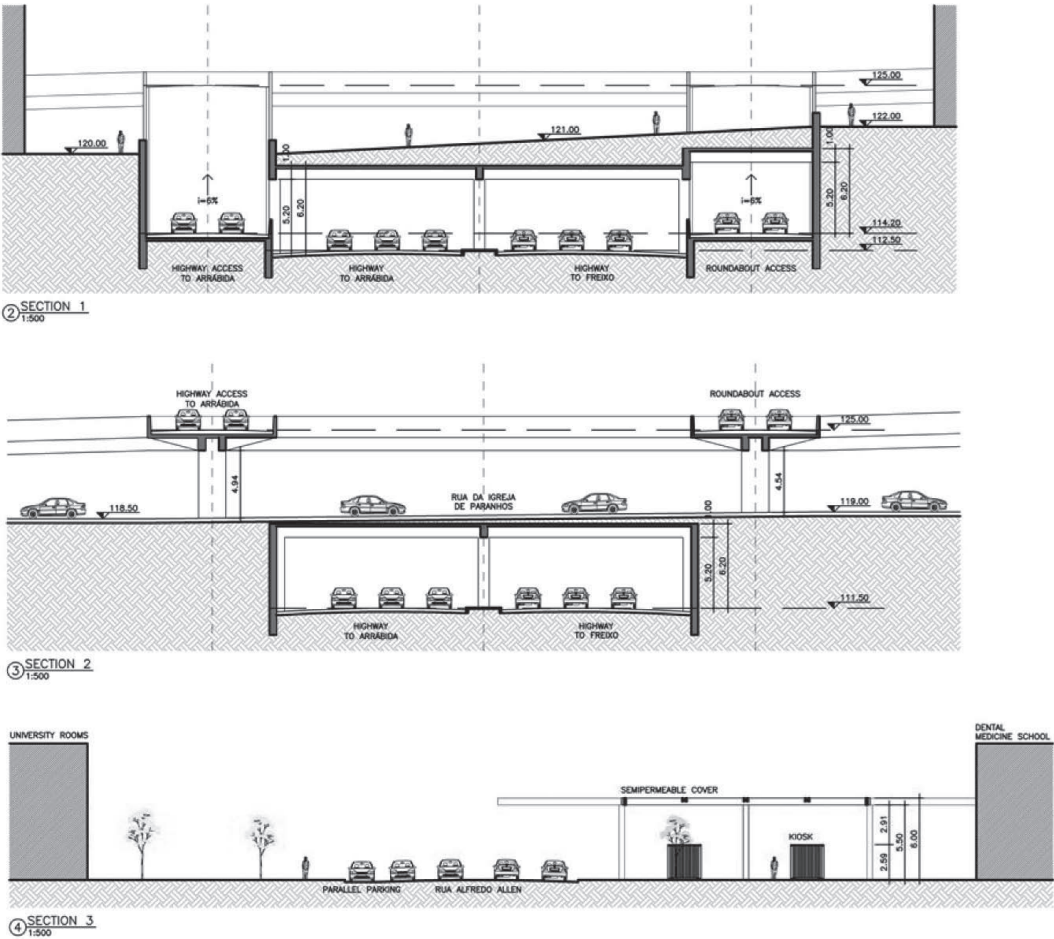


Figure 6. Sections. Source: Authors

5.1 New highway intersection

As stated previously on chapter 4, setting up a new arrangement for the existing traffic management and road infrastructure performs a crucial role on providing fundaments for the development of a new central pulsar for Paranhos. Attempting to reduce the urban highway visual

and physical barriers it is proposed an alternative road intersection structure comprising the VCI highway, Rua Faria Guimarães (way to Porto downtown) and Asprela University Campus major access. The new road intersection will be accomplished through a partial channelling of VCI (between Delfim Maia Bridge and Faria Guimarães Bridge) and a by passing all traffic distribution to a new roundabout. This initiative rearrange and replace the existing road connection of Paranhos intersection, removing a huge amount of roads, tunnels and bridge that support a complex multiple route choice. Thus, this initiative enables to decongest Rua da Igreja de Paranhos, partially Rua Dr. Manuel Pereira da Silva, promote and enhance traffic circulation throughout the area maintaining efficiently the existing multiple route choice and decrease physical and visual barriers.

The roundabout is placed following the intersection of VCI and Rua Faria Guimarães road axis. Composed by three lanes, each one with three meters and a half, a protected area with one meter on each side and an outer radius forty-two and a half meters, a fine traffic circulation is granted inside the new proposed road intersection. Adopting three lanes allows performing one emergency lane, feeding São João Hospital with an express ambulance alternative route.

All highway access to the roundabout have two lanes and 6% slope, while Rua Faria Guimarães have four lanes and 7% of slope, allowing 60 KM/H speed on all routes and access<sup>1</sup>. The new road infrastructure design proceeded to extent Rua Alfredo Allen width in seven meters in western direction without affecting any existing buildings or spoiling private property. This action seeks to provide a total of four traffic lanes - two for each direction – mirroring the same traffic width and existing configuration along Rua Faria Guimarães axis. To ensure these initiatives, a removal of one parallel parking on Rua Alfredo Allen must be considered, counting the loss of 29 public parking spaces.

Adopting this new traffic system and others infrastructure, necessary conditions to remove heavy vehicular traffic from Paranhos Church Square will be created, allowing a deeper design intervention that deals more with social and cultural dynamics.

## 5.2 Public open Park

As a result from VCI channelling and rearranging all roads access, some 'new' land emerge inside the existing urban fabric. Those lands are divided into two categories, non-buildable and buildable. To avoid noise pollution, intensive traffic disturbs, light pollution and even some legislation issues, all land located between the two roundabout access, as well as, a ten meters width strip along those roads will be set as non-buildable land. So, inside this area will be prohibited to develop any kind of building addressing housing, offices, shops and industries. This land will remain under public domain and will give a place for an open public Park, allowing the continuous development of urban fabric and spatial permeability.

The new public Park will be equipped with leisure and physical activities furniture, sports facilities and a landscape design that integrate all functions and the existing building surroundings.

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<sup>1</sup> Following to Portuguese road legislation – Norma de Traçado, revisão de Novembro de 2010 pp 44.

### 5.3 New 'land' with high urban potential

Taking advantage from the brief land occupation exercise on chapter 4 (fig. 3 and 4), it is determined how all remaining land (where 'regular' buildings can occur) should be developed. For this area, it is intended to set a 'regular' urbanization, free market-led development comprising mainly daily urban functions, both social and private housing or student residences, shops and services. By adopting this concept, all lands will be given to private development and there is no concern about any predefined design constrain.

### 5.4 Paranhos Church Square

The follow-up steep to traffic reduction and road infrastructure amenities, structuring land uses and urbanization process is actually to provide an urban design proposal for the chosen area of Paranhos Church Square. As the heavy traffic circulation was removed from Rua Dr. Manuel Pereira da Silva and its intersection with Rua da Igreja de Paranhos, it is proposed to prohibit vehicles traffic along the street's first section. Both sidewalks must be integrated by levelling the road, replacing finishing material to make it homogenous. Oddly from the existing site, this attempt to create a real public space to host Paranhos Church. Also, it is strong enough to boost local development and attract private investment on surroundings.

Another relevant issue is the removal of a small wall that surrounds Paranhos Church. This action promotes a higher physical and visual integration between the Church and the immediate neighbourhood through the 'new' square created, enhancing its initial social value. Such design measures could be found on many others places around Europe, mainly nearby Churches and historical squares. In general, this kind of new urban spaces gives support to perform small events, usually promoted by the local actors or the Parrish organization. Thus, a wide free area is needed and must be ensuring enough space for a huge diversity of events and folk activities. By adopting this concept, new urban furniture, such as benches, bins, public lighting and water fountain, should be placed considering both daily and special events needs and constrains.

It is important to mention that for loading and unload services for restaurants, shops and religious events, it is proposed the installation of anti-parking system, allowing freight vehicles to access buildings and controlling the traffic in the leveled area.

To extend Paranhos Church Square as much as possible in the direction of Asprela University Campus, 'sewing' a strong relation – visually and physically – between both areas, a line of small/medium size trees took place following the existing south sidewalk alignment of Rua Dr. Manuel Pereira da Silva. All trees are set with a regular distance rhythm, about 10 meters, going from the pedestrian section till the traffic open section. This action intends to increase visual and physical permeability between Asprela and Paranhos Church through a continuous spatial element.

### 5.5 Paths and new connections

To enhance visual and physical permeability it is proposed to open a new pedestrian path connecting the backs of Paranhos Church and University Rooms/E-learning café. For so, one vacant and apparently abandoned building should be demolished. This action not only allows a

better mobility within region but also increases local relationship and approximate a well socially diverse population.

Initially, most existing buildings are kept as well as their functions.

### 5.6 Square cover and sun shading

Another measure to enhance and promote visual and physical permeability between Asprela and Paranhos Church Square is a proposal for a cover surface along Rua Alfredo Allen subway station open area, especially between *Polo Universitário* station entrances. The proposed surface will cover a large area, mostly sidewalks, walking areas as described in the master plan drawn. It will be composed of a light steel structure with wooden components regarding to not fully close the ceiling, offering sometimes fully open areas and other partially closed, with some framing for sun shading. An overall free height of seven meters allows the performance of many events, as well as, sheltering some daily activities and new social dynamics.

By adopting this concept, some daily social routines and dynamics from the urbanized Paranhos area are mixed with the mono-functional educational activity from Asprela University Campus, building a place for cultural and social exchange. If supported by some permanent activities, this place can assume an integrative role on the surroundings.

### 5.7 Small shops

To enhance social dynamics and promote the development of a new 'urban' activity in Asprela University Campus, it is proposed to establish simple Kiosks under the covered area in Rua Alfredo Allen. The Kiosks structures should be based on naval container dimensions or may be slightly bigger or smaller depending on usage. This kind of infrastructure is pretty common on some highly dense urban areas, such as Tokyo, Xanghai, New York and others places, providing several layout options and technology to support a big number of activities.

For *Polo Universitário* station, it is proposed a diverse functional occupation, admitting shops, cafes, small restaurants – fast food or any other kind of cooking that don't demand high exhaustion – and any other daily activity. Cafes and small restaurants should be allowed to occupy some nearby areas with tables and chairs, providing a reasonable space to work and receive costumers.

There's no interest in overcrowding the covered station 'plaza', as well as, setting no rules for the Kiosk structure. The number of Kiosks will attempt to ensure a good pedestrian circulation, taking in consideration both shops/restaurants costumers and Asprela Campus, as well as, Metro Station commuters, and the 'public' space occupied by tables and chairs. It will also provide a clear and safe passage to Metro Station stairs and all educational buildings located around. Concerning the Kiosk physical structure and finishing material or individual customizing, a structural template model should be followed to ensure some regularity on Kiosks shape. All other customization and finishing materials must be allowed, giving to all owners the ability to promote their trademark as expected.

### 5.8 Parking Building

Finally, it is proposed to build a new parking garage to replace the existing uncovered parking lot between the Faculty of Psychology and the University Residence, all public parking spaces removed due to Rua Alfredo Allen widening and enhancing site existing capacity. The new building should have a volume with low visual impact and about six meters high, with three working slabs - two indoor and the latest uncovered. Currently, in the area there are two uncovered parking, a formal, with 71 places available and another informal with about 50 places, totaling 121 parking places. Through the new landscaping and implementation of the garage building 345 parking spaces will be created, increasing the current number by 224. This measure seeks to reduce the number of vehicles irregularly parked in the area, offer better conditions for incoming cars and support for Porto subway network and commuters.

If more parking places appear to be necessary, two alternatives emerge as possible solutions. Firstly, an underground parking can be constructed beneath the proposed parking building. So, it is recommended that the structural plan consider this further expansion. Another solution is to occupy the existing open parking lot from Dental Medicine School (actually with 73 parking places). It should consider another low visual impact building with no more than six meters height.

## 6 Conclusion

Based on understanding the pattern of spatial social production and all agents for urban space fragmenting, the final design intervention proposal seeks to define Paranhos Church Square as the central pulsar and a structuring Paranhos player. Using urban design as basis tools, we recommend measures and actions that enhance urban space quality and encourage the development of integrated urban dynamics. However, they also influence the generation of individual impacts on each member of society, causing new identity connections, memory and social ties. It is precisely this dichotomy between urban fragmentations and strengthening of socio-emotional that lies on this work. As recent studies refer (Badland et al. 2014; McCrea & Walters 2012; de Haan et al. 2014): promoting quality of life, encouraging social interaction and reduce the sense of isolation and act as an enabler for spatial social production and dynamic and inclusive of urban spaces.

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## ***Atelier da Rua: a participated street design process***

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Streets are key elements on the city urban structure. Despite the importance of this structural and living urban element, the contemporary Portuguese situation is characterized by the lack of investment in the realization, use and maintenance of many streets. Moreover, it is noted the local authorities difficulties to deal with citizen's everyday life problems within the street and to approach diffuse and weakened civic structures. These are some of the problems encountered in small and local scale architectural projects of the public space of the streets in Portugal. Participated project processes tackle these issues through the understanding of the existing problems and promoting new processes to face them. This paper is done in the scope of the research of *Atelier da Rua* (Street Atelier) that is developed to meet contemporary needs of intervention in the street public space. The methodological hypothesis is to use the strategy of *Atelier da Rua*, a citizen participative process applied to propose effective design projects in order to improve community living and physical spaces. This paper aims to explore the combination of street intervention methodology of *Atelier da Rua* (Pita, 2014 b) and the values presented in the text. A ladder of citizen participation written by Sherry Arnstein (1969), focusing in the particular issue of achieving "partnership" on the *Atelier da Rua* investigation and practice.

**Keywords:** Local; *Atelier da Rua*; Public space; Street; Partnership.

### **1 Introduction**

According to the National Association of City Transportation Officials (Baily, 2013), streets comprise 80% of the public space in the cities. Its importance in the physical structure and everyday life of the city is crucial in physical, environmental quality and sustainability of public space. The street is a privileged civic and societal civic space. Streets are particularly important in the city structure as a cultural, economic and environmental resource. The living experience and transformation of the street is the result of a complex interaction of the various actors involved. Local administrations and decision makers, street users, inhabitants and stakeholders are some of the participants involved on the complex process of street public space intervention. The development of an intervention deals with the combination of diverse elements: existing plan, buildings and constructions, green structures, infrastructures, etc.

The recent financial crisis has underlined the failures of a system of intervention in the public space as dependent on political power and public investment (Bourdin, 2011). In recent years Portugal witnessed a general reduction in resources available for public works. Following a government commissioned demand, University of Minho conducted a study about municipal investment reduction. The level of municipal investment dropped 74% from 2001 to 2014. During this period the largest investment fall occurred before the Portuguese adjustment program of the troika. Between 2010 and 2014, the lowering of investment situated on 39%, but in absolute terms the reduction was sharper in previous years, starting at the beginning of the decade (Esteves, 2015).

The reduction on the available budget has direct repercussions in promoting public works and maintenance of the public space of the streets. This fact leads to situations of stagnation and degradation of environmental quality of public space. On the other hand we are witnessing a growing civic consciousness about the limitations of local government capacity to respond to the

needs and problems that arise in day-to-day citizen life. This awareness is associated with the economic crisis and the dissociation between citizens and the political power. The difficulties of communication and interaction between citizens and political power are accentuated by the ineffectiveness of planning instruments set. At the basis of this problem there is a representation deficit. Citizens do not identify with their decision-makers and decision-makers are unable to establish effective means of sharing or communication their decisions. Considering the municipality of Cascais where participative processes have been successfully implemented it turns out that the number of voting citizens for local elections has consecutively decreased from 2009 on. In the other direction the figures for abstention show an increase tendency (Pordata, 2015).

Looking for solutions to fill the gap of citizen involvement in decisions about the planning of public spaces, local authorities launched initiatives such as the *Orçamento Participado* (Participatory Budget). Referring to the case of the Municipality of Cascais, the focus is placed on the idea of strengthening the participation of citizens in the definition of budget priorities. The total budget available for the program is Eur 1,5 million/year to be applied in projects that do not exceed 300 000 euros (Cascais, 2015a).

This instrument, which has been spread by various municipalities in Portugal, aims to create a proximity scale and stimulate civic participation of citizen. It represents an attempt to overcome the problems of communication and involvement of citizen in local governance decisions. The process comprises a collection of proposals presented by citizens to a municipal working committee. The multidisciplinary committee legitimates and selects the proposals to be submitted to popular vote. The voting process is held by mobile phone application, a large range access technology. Citizens are consulted on the solution to be implemented, but the development of the project rests under the domain of political power. We are facing what Arnstein (1969) classifies as tokenism. Citizens are heard and informed but do not have the power to ensure that their prospect will be fully answered. The level of participation is on the 3rd and 4th level, which corresponds to Informing and Consultation respectively. These levels of participation do not introduce significant changes on the status quo. The participatory process is focused on the consultation of the existing problems and informing of the selected proposals to be implemented. Still, the development of architectural design decisions is still under the control of the local authority. However the popular involvement on the Participatory Budget of Cascais is significant. In 2014, the number of voters for the project proposal selection reached 41 005 votes (Pincha, 2015). Looking at the 2013 municipal election (Cascais, 2015b) there were 65 546 voters of a total of 172 537 registered voters. Considering that the political coalition elected (PPD-PSD / CDS-PP) had 26 455 votes, there is a larger number of voters (plus 14 550) on the Participatory Budget process.

The trigger of this research arises with the creation and participation of *Atelier da Rua* on *Ideias de Origem Portuguesa* (Ideas of Portuguese Origin) an initiative of *Fundação Calouste Gulbenkian*. This competition looked for pertinent projects on social entrepreneurship created by the recent Portuguese emigration. *Atelier da Rua* (Pita, 2014a) was one of the finalists with a working team composed by a three generations group of Portuguese architects, offering multidisciplinary

academic experience along with professional skills<sup>1</sup>.

The research followed addressing the issue of improving the process of street design, gathering better, happier and engaged public spaces for and with the citizen. *Atelier da Rua* arises with the prospective goal to find specific and concrete answers to the following questions:

- What alternatives can be offered to current dominant participation models of intervention on the public space and the street?

The participation of citizens and their representatives on the development of a urban or building design solution gathers an unanimous agreement of all the agents involved (Arnstein, 1969). Although, this foundation stone of a representative democracy frequently derives to other paths and practices that lead to inefficient results concerning the adjustment of the proposal to the users and their expectations. This gap on the fitness between the purpose of a street project and the expected success of the results (Alexander, 1964) is in many situations, in the Portuguese context, related to difficulties on establishing a cooperation process between the various intervenient involved along the process (Bourdin, 2011). In these situations it remains a difficulty to establish a common and comprehensive dialogue between the various stakeholders along the project process and on the use of public space. A dialogue that can gather the different agents - local administrations, technicians and decision makers, street users, inhabitants and stakeholders - in an effective sharing of the decision process and responsibility.

The methodology proposed by *Atelier da Rua* aims to establish a cooperation platform that is able to involve and put in dialogue the citizen, the stakeholders, the design experts and the local political entities. Through this process, it is expected an improvement in the planning and design results concerning the streets public spaces. It is also promoted the empowerment of local communities on the work execution and their involvement in a “partnership” (Arnstein, 1969) relationship. To reach the rung 6 of the “Ladder of Citizen Participation” may seem a reduced ambition assumption. Although for the Portuguese context we identified this step of empowerment of the citizens towards the effective sharing of power decision as a crucial one. *Atelier da Rua* participates on the partnership process as mediator and supplier of technical skills. This enables the real possibility to redistribute the power between citizens and power holders (Arnstein, 1969).

In this paper, it is discussed the participated design methodological approach of *Atelier da Rua*, created in order to develop improvements to conventional design approaches. This article is organized into 3 major parts. Firstly, it is explored a conventional architectural design methodology. The approach is grounded on Giancarlo de Carlo text -“An Architecture of the Participation” – that classifies it as an authoritarian methodology. In the second part, *Atelier da Rua* street design methodology is exposed. This part is subdivided along the three phases that compose the methodology: Phase 1 Participated sketch, Phase 2 Participated project and Phase 3 Participated working site. On the third part, it is presented an implementation process located in Lisbon, *Rua do Salvador*.

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<sup>1</sup> The founding group of *Atelier da Rua* crosses their academic and professional courses at ISCTE - University Institute of Lisbon. Two of the elements are teachers and researchers, the other two were formed in the institution. The professional experience of the group is developed in Lisbon, Paris and Rotterdam, covering different areas and scales in the field of architectural design.

## 2 Authoritarian methodology

Before addressing the methodology proposed by *Atelier da Rua*, it is relevant to go through the methodological processes commonly used for the realization of an architectural project promoted by public entities. This methodology is classified, according to Giancarlo de Carlo, as authoritarian (Carlo, 2010). Design process is defined through different phases of development and implementation of an architectural project. The architectural project is understood, in this article, through a wide scope of view. Urban and built elements, the city structure and its buildings are inseparable universes and part of the whole, which is the city (Rossi, 1977).

"An Architecture of the Participation" is the title of an article that, Giancarlo de Carlo wrote in the *Perspecta: Yale Journal*, in 1980. The article approaches the different phases and procedures of project methodology. In a simple and clear perspective the project methodology is addressed on the distinction between an authoritarian planning and a participative approach. According to Carlo (2010), the project methodology is defined in three main phases. The first phase is focused on the **problem definition**. The second corresponds to the **development of the project**, and the third relates to the **evaluation of results**.

The authoritarian methodology is characterized by a rigid sequence of the different phases. The articulation between the different stages is reduced and at the end of the second phase (design) the project is mostly completed. This type of approach is commonly used in the development of architectural projects. It is characterized by being carried out in separate phases in which the results of each phase little interfere with each other. On the other hand, the design process is highly centralized in the design phase of the project. The designer, the political power and their technicians assume the central role and monopolize the decision process. This way aesthetic and issues about the use are taken for granted and imposed to a wider group of citizens. In a certain way the users and the use associated to the project end up having a reduced influence on the final result (Carlo, 2010). It is a level 3 (Informing) of tokenism (Arnstein, 1969). Citizens are just informed of the result. The decision-making is kept in the sphere of the political power and the designers. It is an authoritarian approach, centered on the design process of the project, focusing on policy-makers (Carlo, 2010) and designers.

It is now necessary to detail each stage of the authoritarian methodology. The **problem definition** phase starts with the order of the project and the subsequent data collection about the context (Alexander, 1977). At this stage the proceedings fall into an intuitive and non-systematic approach of gathering information. The selection of data and the definition of problems are strongly centered on the designer and policy-makers options. The defined goals are taken for granted and the possibility of an expanded discussion with the users is excluded. The issue subject to be discussed is centered on the costs of the operation, technique and aesthetics aspects. The prospect of future users is rarely considered or subjugated to the interests of political power or the designer's idea.

The stage of **project design development** runs since the presentation of the first intervention proposals to the conclusion of the project construction. Throughout this period, the project is regarded as an absolute entity that responds to the principles set out by the designer (technician) and the public developer. The scope for changes is scarce. In case of inadequacy

minor changes are introduced or in extreme cases the solution can be rejected and replaced by another proposal. If the promoter accepts the project, the work will be executed and delivered to their users. Sometimes the users who will use the space are different from those that initiated the project process. However the project keeps unchanged. The users have a small share of influence in the drafting of the project and in the final solution to be built. The knowledge potential of all the involved actors in the process is not fully explored.

The third phase focuses on the **evaluation**. Most often corresponds to a greatly neglected moment. The final work tends to be considered and evaluated exclusively from the aesthetic point of view. The subjective dimension overrides the rational and objective approach. The objective issues accessed focus mainly on financial aspects related to the cost of the work. The overvaluation of the aesthetic and financial components leads to a deterministic perspective. The process as an integrated whole is neglected. The end result is not the result of a broad outlook process, but rather an isolated case that responds to the will of political power and the designer intentions. This corresponds to Giancarlo di Carlo (2010) definition of authoritarian planning.

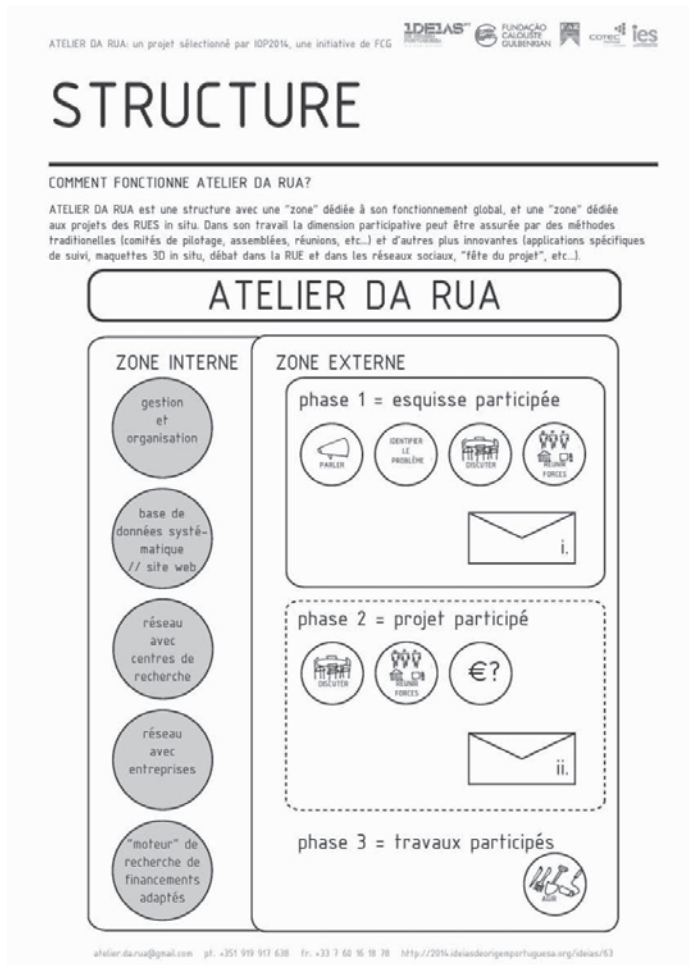
### 3 The *Atelier da Rua* proposed methodology

Reacting to a liberal urbanism which has characterized the last three decades with a lack of place for a scientific approach, multiplication of actors and power holders, generating too complex, unclear and incomprehensible operations and languages (Bourdin, 2010), *Atelier da Rua* aims to establish an operative methodology to be implemented. This methodology responds to the current Portuguese context where economic resources are scarce. It aims to answer to local needs and contribute to citizen empowerment through participated projects of streets public space valorization (Fig.1).

The process is to be triggered by local and dynamic citizens, associations, municipalities, companies, entrepreneurs, and other institutions. Through a collective architectural design project it is possible to implicate design experts, policy-makers, private and public interests on the support of meaningful social and participative process. Through this form of collaboration, it is possible to achieve improvements in the better living on the streets and reach meaningful social changes (Manzini, 2015).

In contrast with the exposed conventional, authoritarian methodology of project, *Atelier da Rua* proposes the overlap between a conventional architectural design methodology with a participatory process (Bourdin, 2011; Slocum, 2003). The intersection of these two components pretends to establish an operative methodology of intervention in the public space of the street. It seeks to establish the foundations of a simple and direct instrument to communicate and implement in specific cases. Issues, such as, programming, architectural design and implementation (Quaroni, 1977) apply and overlap to a bottom-up approach (Mendes, 2014). The proposed methodology develops a blend between a conventional architectural design methodology and a participatory process. The proposed strategy based on the conventional architectural design phases – analysis, architectural design proposal and implementation on building site - and tools – free-hand sketches, plans, sections, detail and axonometric drawings. The working methodology establishes a

systematic perspective for each project. Each project is case-sensitive to a particular context, time and space scale.



**Figure 1.** Pita, M and Marques, P and Mendes, P (2014b) Atelier da Rua, structure and methodology key phases.

The proposed methodology is implemented in **three main phases**. The holistic approach characterizes the development of the project process. The first one is based on a participated sketch (Fig. 2). The second develops a participated project (Fig. 3); and the third focus on a participated working site (Fig. 4). The three phases represent an architectural design tool, able to develop and link local projects to a global dynamic, based on a simplified and accessible language, allowing establishing a comparison between different case studies. A common and global base and approach is able to generate different scenarios, projects and local solutions. The articulation between each phase establishes an interactive relationship. Each moment of the project effects and influences succeeding and preceding phases. Definition of objectives, solutions, uses and evaluation adjust in a reciprocal mode. The project is an open process (Carlo, 2010).

In each project phase, *Atelier da Rua* defends the experience of a participated process, valuing each actor and their skills towards a dynamic of horizontal empowerment and confidence between actors, developing at the same time an accessible and synthetic architectural design process able to represent, objectivize and expose the problems and the proposed solutions to the different actors towards a co-built-work (Alexander, 1977; Bourdin, 2010).

The engagement, responsibility and valuing of the different actors involved in each project phase is crucial. Users, associations, technicians, politicians, entrepreneurs, institutions, outside professionals, but above all citizens with different skills and sensibilities are the key actors of a collective work. To achieve operative contributors it is necessary to valorize actors involved on the creation of a horizontal platform of know-how accumulation and sharing.

The implementation of the methodology of *Atelier da Rua* establishes the foundation stone on the production of architectural design linked to a bottom-up and top-down, global and local process. This way, it is possible to generate efficient, citizen centered public spaces (streets), enabling the public awareness and confidence on the decisions, and generating the sense of belonging to a specific place and community. The apprehension of the specific context (local communities identities, program and resources) along with the effective strengthening of citizen participation on design decision will set the conditions to reach “partnership”, the rung of the ladder where “power is in fact redistributed through negotiation between citizens and power holders” (Arnstein, 1969).

### 3.1 Phase 1 - Participated sketch

This phase corresponds to the starting point of each street design project: an inclusive process of reflection that corresponds to the definition of the foundations and principles of the design project (Fig.2). Within this phase of the **problem definition**, based on a horizontal dialogue and debate between the different implicated actors, the initial context observations, needs, and suggestions are exposed. In this project phase, the various actors work around the problems to solve. This involves facing the management of interests, conflicts and participating on the development of specific project scenarios through a shared decision-making process.

With this phase, it is possible to achieve an approach that reinforces a strong link between involved actors. It implies the establishment of notions of trust and respect of different knowledge areas and points of view, entwined in a constructive dialogue between different skills. It is also the moment to implement the construction of a win-win perspective and engagement; the co-construction of a program; and the development of the sense of belonging and responsibility around a common and collective project and work.

The outputs of this phase materialize on a synthesis folder that defines the current status of this phase. In result of a systematic approach the folder presents: - 1 written note to contextualize the operation and proposed program; - 1 written note about the guidelines of the two proposed design scenarios; - 1 graphic urban analysis allowing the understanding of the integration of the site in a larger urban system and consequent impacts; - 1 base drawing of the current situation (plan, section, axonometric); - 1 drawing of a soft scenario (minimum intervention) - plan, section, axonometric; - 1 drawing of a hard scenario (maximum intervention) - plan, section,

axonometric; - 1 gallery of photos participating to the memory of process; - 1 gallery of references reporting similar situation and parallel solutions in other world contexts; - 1 budget forecast for each proposed scenario; - 1 list about project funding options and models adequate to the context.

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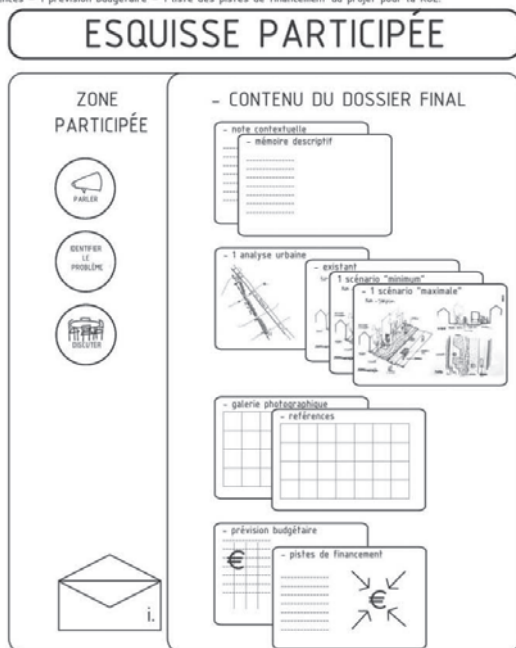
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# PHASE 1

## L'ESQUISSE PARTICIPÉE ET SYSTÉMATIQUE: ZOOM SUR LE DOSSIER FINAL

Cette phase révèle l'expérience du processus participatif, le fort contact entre les acteurs et un dossier de synthèse constitué des planches de référence: - 1 note contextuelle - 1 note descriptive - 1 analyse urbaine - 1 dessin de la situation actuelle - 1 scénario «minimum» - 1 scénario «maximum» - 1 galerie de photos - 1 galerie de références - 1 prévision budgétaire - 1 liste des pistes de financement du projet pour la RUE.



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Figure 2. Pita, M et al (2014b) *Atelier da Rua*. Phase 1, participated sketch.

### 3.2 Phase 2 - Participated project

This phase develops the analysis, discussion and collective decision about the two proposals established in the previous phase 1. The goal is to produce collectively a definition of the architectural design project principles, the program, the funding and planning, moving forward together towards the working site phase (Fig.3).

This phase corresponds to the development of the street design project, based on the collective decisions of the intervenients. In order to achieve a participative process, it should be assured the involvement of all the participating agents on a partnership condition. Decisions are taken on a partnership relation, through equity principles between designers, stakeholders, local

power representatives and citizen. Within this phase, key debate moments based on a horizontal dialogue between the different implicated actors will be promoted, in order to achieve a horizontal understanding and participation on project priorities and key decisions.

The development of the project is not seen as a closed process but rather an open sequence of hypothesis subject to evaluation and debate. Adaptability and flexibility are important issues to be incorporated on the project definition.

The selected project solution is detailed allowing testing its technical feasibility. At the conclusion of this phase drawings and written elements are produced, in order to permit the physical implementation of the project. Technical and legal issues of the project are intensely addressed and developed.

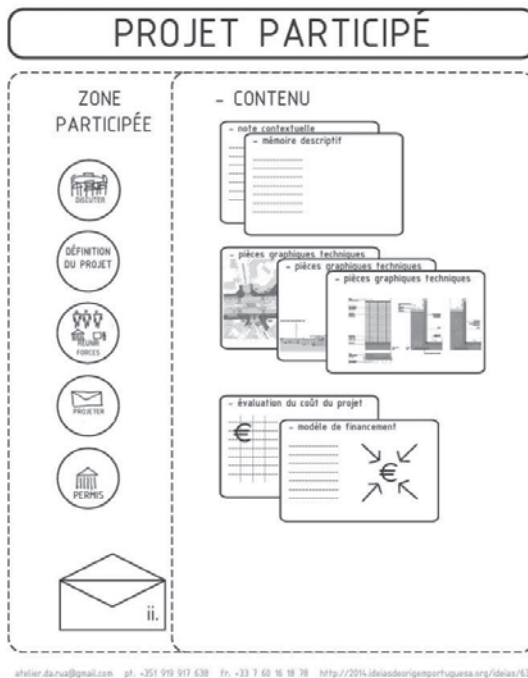
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## PHASE 2

### LE PROJET PARTICIPÉ

La phase 2 de chaque projet encourage l'analyse des propositions issues de la phase 1, permettant de prendre une décision collective en définissant les principes du projet à faire avancer ensemble.



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**Figure 3.** Pita, M et al (2014b) *Atelier da Rua*. Phase 2, participated project.

During this phase, it is promoted and reinforced: a continuous approach and strong contact between actors; the establishment of notions of trust and respect about different knowledge

and points of view; the experience of a participated process; a positive dialogue between different skills; the construction of a win-win perspective and engagement; the co-construction of the architectural design project; and the development of the sense of belonging and responsibility around a common choices and a collective architectural design project.

The outputs of this phase generate a folder constituted by a set of simplified reference boards: - 1 written note to contextualize the operation, previous choices, collective proposed program and architectural design project; - 1 written note about the guide lines concerning the proposed design project; - 1 graphic architectural analysis allowing the understanding of the integration of the site and proposed project in a larger urban system and consequent impacts; - technical drawings of the design project (plans, sections, axonometric); - 1 gallery of photos participating to the memory of process; - 1 gallery of references reporting similar situations and parallel solutions in other world contexts; - 1 budget forecast for the proposed design project; - 1 note about the funding model adopted.

### **3.3 Phase 3 - Participated working site**

Phase 3 consists on the physical implementation of the architectural design project on the site (Fig.4). This step towards achieving the project materialization encourages the involvement of the different actors on the working site. This can be reached either by following or actively participating, if skills are available, on the construction of the architectural design project. The traditional process of surveyed working site is partially replaced by an active participation on the working site. Different actors can take an active role, being able to participate through a direct or indirect input. Due to the technical specificities of this phase, architecture experts guide the development and control of construction work.

Within this phase key debate moments will be promoted based on a horizontal dialogue between the different implicated actors, in order to a horizontal understanding and participation on project key decisions of adjustments to the project solution. As an example situations, such as, the following will be attended: final working drawings validation; need of initial project adjustments due to new evolutions not previewed or lack of information on previous phases; prototypes and materials validation. All the intervenients work together around the problems to solve, and the project to build.

During this phase, it will also be promoted: a continuous approach and strong contact between actors; the establishment of notions of trust and respect about different knowledge and points of view; the experience of a participated process; a positive dialogue between different skills; the construction of a win-win perspective and engagement; the co-construction of the architectural design project; and the development of the sense of belonging and responsibility around common choices and a collective architectural design project.

The construction of the project corresponds to the concretion of the collective design project on site. A registry folder of the process is constituted in order to monitor the whole project. A set of elements integrates this folder: - 1 written note to contextualize the operation, previous choices, collective proposed program, architectural design project and working site decisions; - 1 written note about the guide lines concerning the proposed design project and the final result; - 1



and consequently introduce improvements on the methodology used. At first, it will be analyzed the fit and misfit relation between form and context (Alexander, 1964). The success of the build solution is registered if the absence of misfit relations (between context and form) is reached. Secondly, the same procedure is done for the specificities of contents of the participative process and funding model used. The relation between the predicted and the final cost is also registered. With the outcome of monitor process of different interventions it is possible to present, explore and compare in a systematic way the outputs of each process. The outline of a map of the different projects and themes allows the possibility to establish comparisons in a local and global context.

#### **4 Implementation of *Atelier da Rua*: the case study of *Rua do Salvador***

Over the past year, *Atelier da Rua* has been presented in Portugal and abroad (France, Italy, Luxembourg, Germany and Sweden). On the one hand, several public entities have been addressed: Local authorities, Associations and citizens groups. On the other hand, the project was presented in an academic context at conferences and an International symposium in Venice (Mendes, 2014) and Stockholm. This set of actions intended to identify places for the implementation of a pilot project and validate the relevance of the proposal. The feedback has been positive, which has allowed proceeding with the development of contacts and the search for a site for practical application. However, until now it was not possible to implement in full extend the proposed methodology. The decision-making and response process of the approached entities has proven slow and winding.

The case presented refers to *Rua do Salvador*, located in the historic center of Lisbon, in the Parish of *São Vicente*. *Rua do Salvador* (Fig 5) is characterized by the specificities of its own physical and environmental characteristics. It is a narrow street lined with black basalt stone and no sidewalks. The existence of one of the first traffic signposts in the street gives it a unique status in the tourist itineraries of Lisbon. This stone signpost attracts a significant number of pedestrian visitors and small vehicles such as Tuc - tuc. The street is flanked with a set of partially degraded residential and commercial buildings mostly occupied by a population of aged residents. This dominant group coexists with new economic activities linked to the increase of tourism in the city of Lisbon. Rental apartments or rooms for tourists coexist with traditional grocery store and coffee shop. It is also possible to find a pottery workshop, an engravings atelier and a small objects antiques shop called "Coisas do Alberto". The owner of this shop approached *Atelier da Rua* looking for support to promote improvements in the street conditions, such as pavement leveling and prevent car traffic. Another request points to the creation of a monthly open sky fair with the participation of all residents of the street. This same claim had already been presented to the parish council. In consequence of political changes in the parish council leadership the population claims produced no response to the request.

A working meeting was promoted. The needs and desires of the merchant were presented. It was found that there was no local organization of residents that would allow the development of the process. It was agreed that it would be important to create a group of residents and inhabitants of the street. This group would represent the local community on future

developments of the project. To reach this goal it would be necessary to hold a meeting with residents and street traders. The first meeting would also involve the team members of *Atelier da Rua*, allowing the presentation of the procedures followed. During the preparation period to the community meeting the City Hall of Lisbon starts remodeling works in the south section of the public space of the street.



**Figure 5.** Cruz, T (2014) Case study: street in a consolidated historic urban context. *Rua do Salvador, Lisboa.*

At this time the development of the process is facing difficulties in forming a local group of residents and inhabitants that represents the community. The discredit generated by unfulfilled promises by the Parish and the City Hall of Lisbon thickens the difficulty to create a group of representatives of the street's community. Moreover the feeling among residents that remodeling works are likely to be promoted on the street without the involvement of residents and traders, who are unaware of the intentions of the project to be implemented by the municipality.

*Rua do Salvador* process is not closed or stopped. Nevertheless the reported initial difficulty to constitute a group representing the local population of the street is not allowing the development of the street project. Without an organized power-base in the community the process evolution is at risk. Until now the process is characterized for being slow and with plenty of unexpected difficulties.

## 5 Conclusion

The complexity and effectiveness of design project for public street spaces requires a high level of integration of disciplinary insights, stakeholders, political representatives and citizen perspectives

combined and developed through time constraints and location conditions (context). Therefore, more effective decision supports methodologies, which are able to improve citizen participation on the construction of a better fit between the context and the designed form, are needed. In order to develop an effective methodology that responds to the recent economic Portuguese condition of scarcity and the need of successful project results, it is proposed the methodology of *Atelier da Rua* improved with the principles of partnership - rung 6 of "A ladder of citizen participation" (Arnstein, 1969).

In our view the combination of a conventional project design methodology with a participated one, incremented with the empowerment of citizen leads into a partnership relation. This way, it is possible to reach a higher level of fulfillment of the involved intervenient. From a higher involvement of the intervenient and a careful selection of the relevant variables, architectural project design solutions have more chances to effectively respond to context requirements.

The prospects for *Atelier da Rua* will be focused on two mains aspects. First, the search for a suitable place and their representatives to implement the proposed methodology. Private – organized group of citizens - or public – Associations, County, or City Hall – initiatives are welcome and suitable to be developed. Second, *Atelier da Rua* will continue to develop contacts and partnerships that will add value and different perspectives to the project. Investigation, professional, business companies and associative organizations are seen as potentials partners to join and enrich the whole project.

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## **2. Social Dimension / (Un)successful Mediation**



# Forms of “new” cultural and economic experience of Oporto city centre: the Urban Markets

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The theme of fairs and urban markets and its contribution to the development of cities is understudied. There is a lack at the level of standardization of concepts, a lack of a robust theoretical framework and of an analytical framework that supports comparative studies.

Despite the scarcity of scientific literature on fairs and urban markets, this economic activity is recognized by international institutions and local bodies, as a driver of local economic development and urban experiences and animation.

Fairs and urban markets are part of the history of urban centers. They accompanied the economic development of cities. They were, and they are nowadays, an important economic activity and an important cultural form of merchandise. They are marked by socialization, the experiences and animation that occur simultaneously with purchase and sale of products.

This work is intended to make a contribution to the study of this issue by analyzing the official markets and fairs that exists in Oporto city centre today. We use complementary methodological procedures: research in publications, official websites and social networks pages (like Facebook) and interviews. It is our objective to systematize the following aspects: format, features, partnerships, community involvement, marketing and communication strategies of fairs and urban markets and the impacts in the surrounding area.

**Keywords:** Urban markets; Oporto city centre; Cultural scenes; Economic dynamic; Living spaces

## 1 Introduction

The scientific literature on urban markets is scarce. The subject is approached in a diffuse way in the analysis of economic dynamics of cities. There are not numerous scientific studies that focus on understanding the role that urban markets have today in urban contexts. Consequently, there is a lack of a robust and coherent theoretical framework that support the analysis of case studies and a lack at the level of standardization of concepts. There are also research gaps at the level of a framework to guide the analysis of the factors behind the creation and development of urban markets of different formats or a framework to analyze similar or distinguishing characteristics. On the other hand, we don't know the real impacts and implications of urban markets at community level and, more broadly, at the scale of cities.

Despite the scarcity of academic works, there is consensus that markets bring life to urban places. It is also agreed that these forms of economic activity create synergies with the community and are, often, events with simultaneously an economic and a cultural character and with a playful nature that animate the streets or places where they occur, like “new urban scenes”. They involve many and differentiated local actors, who interact in networks of formal and informal relationships, through institutional partnerships or individual or organizational collaborations. Attract consumers and entrepreneurs and, above all, they generate flows of people who give life and animation to the spaces. In this sense, they are considered as driving forces in terms of living of communities, in

general, and local economic development, in particular. They are unique experiences of shopping and socialization.

In Oporto city centre, in recent years, there has been the emergence and development of several urban markets, which are held in buildings or outdoor, with a fixed or a variable place, which are more or less focused on cultural or recreational experience of spaces. These markets are, in some cases, more modern variants of the street fairs or craft fairs, commercializing national and/or local traditional products. In other cases, they are ways of more innovative micro-enterprises and new entrepreneurs to make themselves known to new consumers and to open new markets.

Using a complementary methodology that consisted of exploration of publications, websites and pages of social networks (like Facebook), the realization of interviews to the responsible for organizing these markets and direct ethnographic observation of them, this work analyzes the urban markets of Oporto city centre. We analyze the formats and general characteristics, the factors that give rise to fairs and markets, the motivations of those who are in charge of their organization, the difficulties and obstacles to their achievement. We point common features and the aspects that distinguish them. The issue of partnerships, institutional support, financing mechanisms and the communication and marketing strategies is addressed. It is also analyzed the involvement of the markets with the community and, in particular, with the local economic activity. Finally, and based on opinion of those responsible for organizing, we seek to systematize the main impacts of urban markets in the city centre of Oporto.

In terms of organization of this document, we start with a brief theoretical approach about the role and importance of urban fairs and markets as drivers of economic, cultural and social development of cities; then we analyze the importance of fairs and markets in Oporto city centre nowadays. Finally, we present some conclusions of this work.

## **2 The Urban Fairs and Markets as drivers of economic, cultural and social development of cities**

The scientific literature on fairs and urban markets is scarce. The subject is approached in a dispersed form and, generally, framed in the broader context of studies about economic and cultural dynamics of cities. There is a lack of specific approaches to these traditional forms of economic activity and social living that, nowadays, in many cases assume new forms, with new features and new experiences involving spaces. There are gaps in the definition and standardization of concepts, in the existence of a theoretical framework of reference and an analytical framework that supports comparisons in terms of formats, characteristics, causes and implications. On the other hand, we don't really know the role and the real impact of these forms of economic activity and cultural, social and recreational experiences, today, in urban contexts.

Retail markets have a long tradition in Europe. They are at the origin and they follow the development of many cities (DCLG, September 2010a; ENPI/CBCMED, Sem data; URBACT, Março de 2015).

Fairs and markets had always been an important economic, social and cultural function for cities and for their citizens. They are commerce sites or forms of purchase and sale of provisions

and daily diaries or other goods. They are associated with festivals, social relations in the community and flows of people and information. The markets are employment opportunities, complement local commercial offer and make the community more commercially attractive. For some segments of residents, particularly the elderly and groups with weak social relations, the fairs and markets may represent a crucial way not only to access to goods as well as maintaining human relations and friendship. More or less specialized, taking place inside buildings (indoor markets) or occupying one or more streets or squares, fairs and markets commercialized a wide range of products and have a great social and cultural value. Nevertheless, its economic and social impact has often been undervalued (URBACT, Março de 2015; WUWM, 16 February 2011).

The markets with historical symbolism have been of great significance for the revitalization and economic and social development of cities, forming an urban animation element. In many urban centers, they are places of modernization and innovation, representing unique character of trade centers and simultaneously a very important historical heritage and a rich cultural life (ENPI/CBCMED, Sem data).

Recognizing the importance of this commercial activity in the economic, social and cultural domains of cities there are several international projects that focus on the enhancement of fairs and markets.

At the European level, under the URBACT Markets project, a number of European cities have joined forces in the sharing of knowledge on this issue. Recognizing the important role urban markets play in economic, social and cultural development, these cities developed action plans to boost local markets. The project led by Barcelona (Spain) has as partners the cities of Turin (Italy), Attica (Greece), Suceava (Romania), Pécs (Hungary), Wrocław (Poland), London (United Kingdom), Dublin (Ireland) and Toulouse (France).

Using a participatory approach, involving a wide variety of agents, each city, in a process of learning by networking with other cities, has built its own local action plan, tailored to its specific territorial characteristics and its own management models and cultural approach of markets (URBACT, Março de 2015).

Also at European level, the project Marakanda aims to enhance historical Mediterranean markets by identifying good practices and transfer knowledge between partners. The project is coordinated by the city of Florence (Italy) and has as partners the municipality and the Genoa University (Italy), the Regional Union of Municipalities of Eastern Macedonia and Thrace (Macedonia and Greece), the city of Limassol (Cyprus), the Municipal Institute of Barcelona Markets (Spain), the municipality of Favara (Italy), the Souk El Tayeb Association (Lebanon), the National Centre for Research of Egypt and PLUR - Centre for European Studies.

Many European markets are authentic tourist attractions (for example, Sant Antoni and Santa Caterina Markets and La Boqueria Market in Barcelona; the Borough Market, the Camden Lock, the Portobello Market and the Brick Lane in London, the Saint John Market in Wrocław, the Saint-Cyprien in Toulouse and the famous flea markets of Paris – Saint-Ouen, Montreuil and Aligre). Their tourist attractiveness hangs up in the fact of giving a concentrated perspective of local traditional products and, through them, a vision of typical local life, habits and social and cultural values. The biggest influx of usual consumers plus visitors and tourists can increased market sales

volume and can be even positive to the surrounding trade, because people visit market and see the surrounding establishments of commerce. This way, those markets contribute to local economic growth.

The holding of markets and fairs can be a stimulus for the rehabilitation of historic buildings, leveraging the rehabilitation of the surrounding areas in many cases. It can also leverage the rehabilitation of public spaces. With the appropriate conditions, provided with facilities and inviting to fruition the renovated public spaces can be used by citizens beyond the opening hours of the fairs or markets, thus providing spaces for socialization, for animation and for different urban experiences (URBACT, Março de 2015; WUWM, 16 February 2011).

In relation to concepts, there are not a consensual and unique definition of fair and market. The National Association of British Market Authorities (NABMA) provides definitions for different markets. According to this association, there are the "Generalist Markets", which are not specialized in any product in special and are open to all types of sellers; the "Local Production Markets" which are focused on local products (like traditional food, handicraft, among others) and the "Specialized Markets," which consist of a mixture of the two types described above. The latter category is described by the fact that they have an associated subject (market of art, handicraft market, traditional food market, vintage products market and so on) (NABMA, Sem data).

With particular respect to the present work, the understanding of the Oporto City Hall is that the fair is a "trade retail activity not sedentary, made by people selling on public or private premises prepared specifically to the occurrence of fairs" and the market is a "retail trade activity, indoors (shop) or in an immovable structure (banking) for primarily the sale of food and other widespread everyday consumer products" (Municipality of Oporto – Balcão Virtual, consulted at June 19, 2015).

Markets can be permanent. Generally, in this case, they have a fixed location and structure. Or they can be mobile, performing outdoors, on the streets or squares, or taking advantage of various utility buildings. With respect to the occurrence frequency, they can be permanent (in the case of fixed markets), periodic or sporadic. There are markets where there is a diverse range of products and others that assume a specialized character. In the latter, we have the antique fairs, agricultural products market, fish markets, flowers market, crafts market or flea markets (URBACT, Março de 2015).

One of the key aspects for the viability and success of markets is the way they are managed. There are different forms of management (DCLG, September 2010b).

The main models of management of European fairs and markets are:

- » Public Sector Authorities: this model has the advantage of direct account of fairs and markets on local strategic objectives, recognizing the public good they represent; in terms of disadvantages can be surrounded by too much bureaucracy, financial resources may be scarce and the response time to challenges and problems may be higher comparatively with other models.
- » Private sector: in this model, fairs or markets can be private or in the case of public initiatives, their management can be delegated to private sector. The advantages of this model relate primarily to reduce bureaucracy needed to interventions, to a high focus on core business, and as well to a

more ability to invest financial capital directly. The disadvantages can be related to reduced social responsibility and to a lesser protection of vendors.

» Public-private partnerships: this model can take various formats and durations; it is useful especially when lack to the local authorities the capacity for effective and efficient management of the market and when lacks financial investment. The reconciliation of public interests and private interests, however, can be challenging.

» Partnerships between the public sector: this model it is a variation of public-private partnerships, but in this case involving different public bodies.

» Community or charity associations, cooperatives or companies with social purposes: since the focuses of these organizations are social issues, the advantage of this model is the commitment to an ethical management of business activity, generating social value and / or environmental benefits. Also there may be a closer relationship with the community compared to other models. Access to alternative investments can be enhanced through the knowledge and connections of the management organization with other agents. As a main disadvantage, there may be a lack of experience in market management.

» Vendors / Merchants: the main advantage is the greater involvement in the success of the market and the sense of belonging and ownership of it, as well as the relative reduced bureaucracy; as disadvantages, the financial resources to invest may be scarce, there may be gaps in business management skills and could be conflicts of interest which if not resolved could jeopardize the common goal of success of the market.

» Volunteer: some markets, usually focused on the community, with infrequent intervals and relative small size, are run by volunteers, with the advantages of creating a sense of belonging to the community and reduced operating costs. As disadvantages, it can be point the limited frequency of occurrence, the lack of investment capacity and the possibility of gaps in the management of markets (DCLG, September 2010b; ENPI/CBCMED, Sem data; URBACT, Março de 2015).

### **3 Fairs and Urban Markets in city centre of Oporto: their importance nowadays**

Fairs and markets have a long history in Oporto. They were in the origins of the city and they accompanied the enlargement and economic growth of the city and particularly of the city centre.

They were just not an economic activity but also a method of socialization and promotion of urban living.

The records of fairs and markets in Oporto back since the fifteenth century. Then, they played an important role in the daily supply of goods for the population, at a time when there were problems with food conservation (Silva, Janeiro de 2015). In particular, since the seventeenth century that occurs an increase in this form of sell and purchase products. They assumed an ephemeral character or continuous in time but with location change. There were fair and markets with several frequencies (annual, bi-annual, monthly, weekly and daily). They represented not just a commercial event for vendors and consumers, but also a social habit, a way of living and

socialization for inhabitants in the city or for all those who went periodically to Oporto to "go to the fair". In economic terms, they contributed to strengthen the city's role as the central hub for trade, at a time when the fixed establishments still had little representation (Fernandes, 1989/90).

Over time, and given the growing importance of fixed business establishments and new retail formats, the fairs and markets lose vitality and relevance. At present, there are still fairs and markets with traditional character, inherited from a long time ago. At the same time, in recent years (five or six to be more precise), start to occur new formats of fairs and markets, who pretend not only the commercial practice but also the animation and the cultural and social life of the urban spaces.

In this context, it is our objective to characterize and understand the diversity of markets and fairs that exist in city centre of Oporto nowadays, framing them in time and space and analyzing differences and similarities.

In terms of methodological procedures, it was consulted and explored literature about markets and fairs in Europe and in the city of Oporto, in order to have a framework of this activity in time and space. For the analysis of formats, of similar characteristics and distinctive aspects of fairs and markets at the present time, we used direct observation of the phenomena, as well as the exploitation and analysis of institutional websites (like the Oporto City Council website and the website of tourism developed by municipality) and websites and pages of social networks (namely, the Facebook pages) of markets and fairs, when available. We also analyzed recently published news about this activity in the city. We made Interviews to the organization of markets and fairs with an innovative character in order to understand the motivations of the organization's members and the difficulties or obstacles they deal with. These interviews were also important to address issues like the involvement with community, the partnerships, the institutional support, the financing mechanisms, the marketing and communication strategies as well as the impacts of urban markets and fairs in the city centre.

### **3.1 City centre of Oporto: frontiers of a symbolic reference**

Oporto has increased visibility at national and international level. This is due to its landscape, its architectural and cultural heritage, the international projection of emblematic equipments (such as the House of Music or the Serralves Foundation), the cultural and leisure events and the evening entertainment (the "movida") that city offers, in addition to the large number of individuals who live, work or visit (consumers) Oporto and, in particular its city centre, contributing to the increased flow of people and the consequent notorious living of the central space.

The growing international reputation of the city is also due largely to the increase in tourism related activities. The proximity of the Francisco Sá Carneiro Airport and the largest number of low-cost flights in recent years have generated a greater influx of foreign tourists to the city and especially to the city centre.

The centre of Oporto is an emblematic area for its role in the history of the city. There is no defined and agreed limit of the centre of Oporto.

As references, we have the limit of Historic centre of Oporto (classified World Heritage by UNESCO since 1996) and the limit of Urban Rehabilitation Areas defined by the municipality

(Figure 1). City centre is commonly considered broader than the Historic centre but not as extensive as the limit of Urban Rehabilitation Areas. In the work we will take as reference the broader extent.

Traditionally an important economic hub, currently the center of political and institutional decision of the city, the centre is well known for its landscape and its architectural and cultural heritage (Quatenaire, 2000).

In the early twenty-first century, the economy of the city centre was heavily focused on trade, coexisting different formats: the traditional commercial formats like the shopping street or the markets (Mercado do Bolhão, for example); less structured formats like peddling; and newer formats such as shopping centers and galleries. However, recent years are marked by the development of new economic and cultural dynamics: the strengthening and enhancement of the coffee shops and restaurants; the commercial qualification and diversification; the promotion of urban markets and handicraft fairs, the increased and diversification of leisure and cultural events and the proliferation and diversification of the hotel establishments (that hostels are the best example). City centre has a greater use, marked by the intensification of tourists and visitors and for a stronger utilization by different social groups of Oporto and the nearby (such as students or workers) at different times of the day. Consequently, there is a greater influx of people of different ages and with different interests that contribute to the living of central space.

### 3.2 Fairs and Markets in city centre

Currently, Oporto has 24 fairs and markets that occur officially. Of these 24, 13 are located in central part of the city (Figure 1 and Table 1).



**Figure 1**, Fairs and Markets located in city centre of Oporto

In city centre coexist fairs and markets with a more traditional nature with fairs and markets more modern in terms of format. The more traditional are also older and, generally speaking, made part of history of the city centre. Fairs and markets with a modern character are innovative, at least in the city centre, because they present new ways to buy and sell traditional products and because they bring new dynamics to spaces through the entertainment events associated with them. These markets and fairs are more selective about the products, the businesses or brands exposed, both selected based on specific criteria in line with the objectives of each fair or market. On the other hand, it is also their goal to publicize these products and promote microbusinesses or works of craftsmen, opening new markets and giving them to meet new consumers. In general, these markets and fairs, compared with the older ones, are more widespread in the electronic media, through specific web pages and especially through Facebook pages.

In terms of management responsibility, 7 fairs or markets are managed by municipality of Oporto, 1 fair is managed by municipality in coordination with a municipal enterprise, 2 modern markets are managed by private sector, 1 modern market is managed by particular citizens, 1 market are managed by an association and the last, a market with a modern character, is managed through a partnership between an institution of higher education and an association (Mercado Cedofeita Viva). In relation to marketed products, they are diversified depending on the objective of fair or market. In Mercado do Bolhão, a market with strong symbolism in the city in general and in city centre in particular, are sold mainly perishable foodstuffs and flowers. In other fairs and markets, we can find handcraft, traditional (local or regional) food and author pieces (jewellery, painting, among others).

In older fairs we can also find antiques, used products and collectible pieces. There are also very traditional and specific fairs, with a well-defined theme and where are commercialized according products. We talk concretely of Feira dos Passarinhos (birds and related products) and Feira das Plantas e Flores (flowers and plants in general).

With respect to the frequency of occurrence the situations are diverse. We have markets and fairs that occur every or almost every day (Mercado do Bolhão, Mercado da Ribeira and Feira de Artesanato de Santa Catarina); others that occur at weekends (Feira da Vandoma, Feira de Numismática, Filatelia e Colecionismo, Feira das Plantas e Flores, Feira dos Passarinhos, Mercadinho dos Clérigos and Mercado Porto Belo); some are variable in terms of occurrence, because don't have a defined periodicity, occurring on dates that are being advertised (Mostra de Artesanato e Afins in Douro, Mercado Cedofeita Viva and Urban Market) and, finally, there is an annual fair (Feira do Livro).

**Table 1**, Characterization of Fairs and Markets in city centre of Oporto

Name	Management	Products
Mercado do Bolhão	CMP/DMF/DMFAIVP	Fresh products: fish, meat, vegetables, flowers.
Mercado da Ribeira	CMP/DMF/DMFAIVP	Handicraft mainly.
Feira da Vandoma	CMP/DMF/DMFAIVP	Many used objects: gold and silver articles, ivory products, tableware, decorative items, pieces of furniture, paintings, sculptures, antique prints and publications.
Feira de Artesanato de Santa Catarina	CMP/DMF/DMFAIVP	Handicraft.
Feira de Numismática, Filatelia e Colecionismo	CMP/DMF/DMFAIVP	Coins, medals and seals.
Feira das Plantas e Flores	CMP/DMF/DMFAIVP	Flowers and plants.
Feira dos Passarinhos	CMP/DMF/DMFAIVP	Birds, food for birds, cages and other related products.
Mostra de Artesanato e Afins in Douro	Associação de Bares da Zona Histórica do Porto	Handicraft mainly.
Mercadinho dos Clérigos	Plano B (Bar)	Handicraft, books, organic products, antiques, among others.
Mercado Porto Belo	Inês Magalhães e Gustavo Magalhães	Vintage clothing and accessories, vinyl records, old cameras, stamps and coins, illustrations, design pieces and biological products.
Mercado Cedofeita Viva	Cedofeita Viva Project)	Crafts, items used or vintage (clothing, footwear, toys, books, disks), food (usually traditional).
Urban Market	Portugal Lovers, Marketing & Comunicação	Products related to fashion design, furniture, jewellery and selected handicraft.
Feira do Livro do Porto	Câmara Municipal do Porto e Porto Lazer	Books.

### 3.3 What responsible markets think: motivations, problems and perceptions

The semi-structured interviews were made to responsible for markets with a more modern character, because it is our objective to understand better the factors behind this new form of economic and cultural activity and this recent dynamic that occur in Oporto city centre.

The so-called urban markets, with modern and innovative characteristics, which differ from traditional fairs and markets because mainly of products marketed and because their objectives are the promotion of microbusinesses and brands, the animation of places and streets and bring more people and experiences to urban spaces. These modern markets started to arise in Oporto in 2009. Their achievement arises from the awareness that there was a lack in Oporto city centre of similar initiatives to those seen in other European cities.

The realization of three semi-structured interviews between January and March 2015 to the members of the organization of urban markets allowed the assessment of aspects that will be explained below.

The main objective behind the organization effort of markets relates generally to the dynamism of urban areas, the revitalization of more or less forgotten areas and recreational and cultural activities of locations or streets, generating flows of people - residents, visitors and tourists -

and attracting new consumers, new businesses and more urban living. Porto Lazer (a subsidiary company of the Municipality of Porto) is an institutional key partner. This entity support lies primarily with technical issues (sound and power) and bureaucratic, with the granting of licenses for the use of the spaces, as well as the dissemination of the markets. Other partnerships are established promptly with companies, diversified organizations or individuals (musicians, actors, painters, dancers and other performers) with the objective of animation of a certain event in a certain date. These informal and / or occasional collaborations serve to make markets and fairs diversified and bring something new each time an event occurs. They are animation modes but also cultural and artistic performances. The result is a mix of functions (economic, social, cultural and artistic) that give life to urban spaces.

The connection with the surrounding community and, in particular, with other commercial establishments in the area, is a constant concern in order to generate mutual gains. Bring traders to the street or place of the market and contribute to the revitalization of its stores through its involvement in the market itself is a challenge held in high regard by the market organization. Despite the fact that the impacts that market has in city centre are understudied, respondents, by their experience and by what they learn through the organization and during the events, point out some visible impacts of its realization. First, put the streets or places in the "city map". That is to say those markets make certain places and streets best known of visitors and tourists. They generate greater movement of people in the streets or spaces, which can, in the opinion of respondents, generate greater influx of customers to commercial establishments in the surrounding or, otherwise, make these establishments known to a greater amount of people. This effect is considered prevalent to any complaints from merchants that sell in the days of the markets are not so much because people buy in the markets and not in fixed establishments. On the other hand, respondents point out that there is a greater adherence over time by sellers (there are already waiting lists) and consumers. People start to know the markets and come to visit them occasionally or occasionally or purposely. The establishment of social relations between sellers, between them and consumers or even among people who visit the events, is considered a real and positive impact of the markets. It is their objective to promote contact between people and business, to create conditions for the establishment of personal and professional networks that could result in future business connections and also to create a creative environment, favoring the creation of new ideas, new projects, new ways to boost the city centre of Oporto in economic, social and cultural terms.

Regarding the dissemination strategies for the markets, webpages and Facebook pages are preferred forms of marketing by its exponential reach. The mention of the markets in tourist magazines or interviews made by journals to the organization contributes to the greater visibility of the events. Also, some respondents say that use press releases to the media and flyers and posters in strategic locations throughout the city (tourist offices, travel agencies, hotels, restaurants or coffee shops, among others).

Respondents report that in implementing its initiative they experienced difficulties in terms of obtaining the necessary licenses, considered a very bureaucratic process. Nowadays, the weather conditions are a problem for carrying out outdoor markets and is not always easy to find

appropriate locations - either because they are private and the owners have no interest in letting them occupy the space, or because the spaces are small or, moreover, in the case of public spaces, the municipality is not always in accordance with the chosen locations. Respondents refer the lack of financial support as an obstacle in improving the conditions of the markets for either sellers and to consumers or visitors. Finally, they refer also the lack of an effective and efficient public strategy to boost urban markets, a strategy to coordinate the interests of various existing markets and coordinate their interests with public interests, and a strategy to bring together the different actors in the common goal of stimulating this form of economic activity and cultural animation of city centre of Oporto.

#### 4 Conclusions

The literature on fairs and urban markets is scarce, existing gaps in the definition and standardization of concepts, a lack of a theoretical body of reference and a lack of an analytical framework to support comparative studies. However, international and local organizations agreed that fairs and markets had throughout history and have nowadays a major role in economic, social and cultural spheres in city centers. They were and are also a symbolic reference, particularly the more traditional fairs and markets.

This paper aims to present a contribution to the study of this question by analyzing the fairs and markets in Oporto city centre today. It is our aim to characterize and analyze this economic, social and cultural activity through a grid of analysis and semi-structured interviews.

Currently, coexist in the city centre of Oporto more traditional fairs and markets with more innovative formats, either by selectivity of the products or the concern to promote microbusinesses, giving them to know new and diversified consumers. The revitalization of urban spaces, the animation of places and streets, the cultural activities, the creation of an environment favorable to urban experiences and urban living are concerns of these fairs and markets. They also aim the involvement with the surrounding commercial establishments to create mutual gains.

Institutional partnerships or collaborations with private sector and other organizations are essential to the realization of the majority of fairs and markets. In some cases this partnership or collaboration is decisive for the achievement of events. On the other hand, informal collaborations and links are very important both for the realization of events and for the creation of knowledge between people and businesses, which may result in future collaborations. As challenges, the respondents of interviews point, mainly, the bureaucratic process underlying the implementation of fairs and markets and the lack of financial support.

Finally, the definition of an integrated strategy for boosting the fairs and markets is, on the one hand, a challenge to the local authorities, in view of coordination of public and private interests in the same goal - the development of economic, social and cultural activity in the city centre. On the other hand, the consideration of fairs and markets in the general strategy of development of Oporto's city is both a challenge and an opportunity for more effective and efficient results in this matter.

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# Promotion of “Generative Places” based on Municipal economic and financial sustainability

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The research reported in this article aims at assessing how territorial management instruments applied at the municipal level can allocate, for the social interest, the land unearned increments that stem from public decisions concerning the implementation of territorial plans and/or changes in land uses or land use intensities.

If, on the one hand, the characteristics of the physical spaces – that result from public, private and/or community decisions – set the conditions for local peoples’ everyday life, the municipality shall vest economic and financial sustainability conditions that are able to support peoples’ quality of life, on the other. Thus, territorial management instruments applied at the local level shall be able to manage the physical, social and cultural spaces in a balanced way. And to pursue this goal, these instruments shall be designed to recover the land unearned increments engendered by public decisions that, instead of finishing at private landowners hands, should better go back to that municipality’s population.

So, the new territorial management instrument, herein proposed, consists in charging landowners/promoters a 20% fee on land surplus values that result from the assignment by urban plans of specific building capacities to certain urban interventions. The proposed methodology is applied to the Urban Development Plan of the Planning Unit 11 of the municipality of Lagoa, located in the Algarve, Portugal.

This new territorial management instrument may be easily applied to other municipalities, within the scope of the application of different kinds of urban plans. It ensures that the surplus values they engender are pointed to social purposes. And it further supports municipal economic and financial sustainability based on a strategic and integrated planning perspective.

**Keywords:** land social function; land value capture; territorial management instruments; municipal economic and financial sustainability

## 1 Theoretical background

Land prices rise as a result of public interventions and planning decisions, namely concerning territorial planning development and/or implementation, or changes in urban land uses or land use intensity parameters (Alterman 2011; Walters, 2012).

Historically the literature has asserted the idea of land social function: the increase in land value that results from public decisions should be recaptured and reassigned to the social welfare (Netzer, 1998; Smolka and Amborski, 2003, 2007; Ingram and Hong, 2007; Rebelo, 2009, 2012). This concept is called Land Value Capture (LVC), it enables a decrease in real prices and speculation, is economically efficient, and has allowed the implementation and improvement of land-based taxes. But the territorial management instruments that render this concept operational (surplus values capture instruments) are still underdeveloped around the world.

Within the scope of economic and financial environmental crisis, municipal decision makers (especially in the United States of America and in some European countries) have become increasingly concerned about land value capture as a mean to surmount and complement income shortcomings due to local traditional taxes (Ingram and Hong, 2012; <http://blog.tstc.org/2013/08/19/>, 2014).

Land value capture may be pursued through taxes, contributions or regulations (Smolka and Amborski, 2003). Fiscal measures shape urban development (Correia, 1993), impair land

markets and land uses and, as a result, condition planning goals achievement. Their efficiency may be accessed through the consequences they exert on urban funding and development (DGOTDU, 2011). Land surplus values taxation, on the one hand, ensures an income source for public administration (like other taxes), and return land value increases that accrue from planning public decisions to the social welfare, on the other.

Territorial planning legislation is currently under review in Portugal, linked together with the revision of municipal master plans and respective regulations, other legislation that falls on territory, and the new Cadastral Law. The new Land, Territorial Ordinance and Urbanism Act is already enforced<sup>1</sup>, as well as the new Juridical Regime of Urbanization and Edification<sup>2</sup>, and the new Juridical Regime of Territorial Management Instruments<sup>3</sup>. A deep reflection has been pursued, and a new paradigm has emerged on the economic and financial sustainability of urban development processes, and technical studies are now being required for plans' approval.

As the current crisis framework strongly impacts on municipal finance, this research aims at contributing to endow municipalities with financing-efficient instruments, thus reinforcing their ability to fight for the interests of their populations in a sustained way, namely in what concerns the provision of high standards of life quality.

The proposal herein presented describes in detail a new land policy fiscal instrument - applied at the Municipal level - aimed at capturing, at least, part of the land surplus values engendered by plans concerning the allocation of concrete building capacities, objectively computed from the parameters settled in the Municipal Master Plan, Urban Development Plans, Detail Plans, parcelling out procedures, or other instruments of territorial management.

## 2 Methodological steps

The methodology pursued in the current research consists in the computation of the building capacity/m<sup>2</sup>, of the surplus values and of the corresponding 20% fee that accrues from the assignment by plans of concrete building capacity/m<sup>2</sup> to specific urban interventions, to be charged to promoters and builders, in order to recover part of their unearned increments (Figure 1).

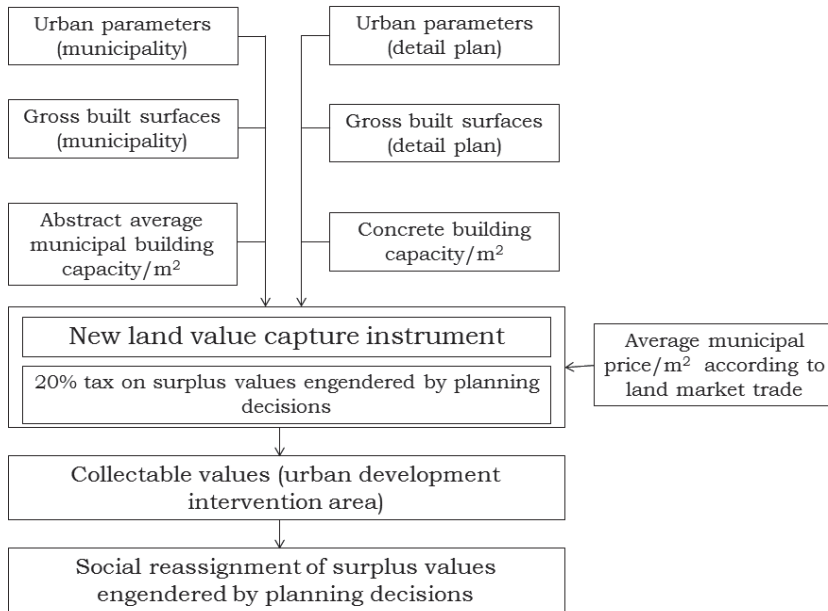
The concrete building capacity/m<sup>2</sup> of a certain execution unit or intervention area is first computed through the quotient between the product of total licensed gross built surfaces (in m<sup>2</sup>) assigned to different kinds of uses and respective occupation and use indexes, weighted by corresponding percentages, and the total surface of the execution unit or intervention area (according to enforced ordering plan).

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<sup>1</sup> Lei nº 31/2014

<sup>2</sup> DL nº 136/2014

<sup>3</sup> DL nº 80/2015



**Figure 1.** Methodological steps pursued in this research.

The land price/m<sup>2</sup> according to market trade is estimated by the difference between the municipal price/m<sup>2</sup> in the municipality under analysis (according to market trade data) net of the average costs/m<sup>2</sup> with urban infrastructures' execution, maintenance and reinforcement and the average building costs/m<sup>2</sup>. An approach to the surplus values/m<sup>2</sup> is reckoned through the difference between this land price/m<sup>2</sup> for each kind of use and the corresponding tributary patrimonial value of buildable land/m<sup>2</sup> according to the enforced Real Estate Municipal Tax Code<sup>4</sup>.

The product between this surplus value/m<sup>2</sup> and the concrete building capacities of the execution unit or intervention area under analysis for each kind of use, summed to the whole plots of the urban intervention, for all the anticipated uses, finally gives the estimated total amount of surplus values.

Finally, the potential surplus-value capture amounts to 20% the sum total of the previous value. Reflections are pursued concerning the social reassignment of surplus values engendered by the applied urban plans.

### 3 Case study

#### 3.1 The Urban Development Plan of the Planning Unit UP 11 in Lagoa

Lagoa is a Municipality that locates in Faro district (Portugal) (Figure 2). It has a surface of 88,3 km<sup>2</sup> and holds a population of 22 791 inhabitants. The tertiary sector is responsible for

4 DL nº 287/2003, de 12 de novembro

84,8% of employment in this municipality, slightly higher than the homologous employment in the Algarve region (82,5%), and in continental Portugal (65,3%))(INE, 2012).



**Figure 2.** Lagoa Municipality (Algarve).

In Lagoa Municipality, there are enforced the Municipal Master Plan of Lagoa<sup>5</sup>; the Urban Development Plan of the Planning Unit 1 – UP 1 from Ferragudo to Calvário<sup>6</sup>; the Urban Development Plan of the Touristic Capacity Area of the Planning Unit 12 - UP 12<sup>7</sup>; the Urban Development Plan of the Planning Unit 11 - UP 11<sup>8</sup>; the Urban Development Plan of the Town of Lagoa<sup>9</sup>; the Ordering Plan of the seashore of Burgau-Vilamoura<sup>10</sup>; the Regional Plan of Territorial Ordering PROT - Algarve<sup>11</sup>; the Plan of the Hydrological Basin of the Algarve Streams<sup>12</sup>; the Regional Plan of Forest Ordering (PROF) of Algarve<sup>13</sup>; the Natura 2000 Network<sup>14</sup>; the Partial suspension of the Regional Forest Ordering Plan (PROF) of Algarve<sup>15</sup>; and the Management Plan of the Hydrological Basins that take part in the Hydrological Basin 8 (RH8) – PGBH of the Algarve Streams<sup>16</sup>.

The Municipal Master Plan of Lagoa aims at implementing a territorial ordering that assures a balanced socio-economic development, stating rules for a rational use of spaces, and promoting a resource and heritage management to raise population's life quality.

The built-up areas locate in the urban developed and developable zones of Lagoa, Estômbar, Porches, Aldeia de Luís Francisco, Ferragudo, Corgos, Bela Vista, Parchal, Mexilhoeira da Carregação, Pateiro, Calvário, Carvoeiro, Poço Partido, Sobral and Torrinha. The planning and management operational units UP 1, UP 2, UP 3, UP 4, UP 8, and UP 9 may undergo changes.

The surfaces occupied by touristic uses (duly approved by public entities) and the interstitial adjacent areas make up the touristic occupation areas, that are identified in the Municipal Master Plan by planning units UP 7, UP 10, and UP 13.

<sup>5</sup> RCM n° 29/94; Aviso n° 26197/2008; Aviso n° 3872/2012

6 RCM n° 126/99; Edital 613/2009

7 Declaração nº 56/2008

8 Aviso nº 44845/2008

9 Aviso n°11622/2008

10 RCM n° 33/99

11 RCM n° 102/2007; RCM n° 188/2007

12 DR 12/2002

13 DR n° 17/2006

14 RCM n° 115-A/2008

15 Portaria n° 78/2013

16 RCM n° 16-E/2013

The identified Touristic Capacity Areas, by their turn, include the Touristic Development Nuclei in the planning and management operational units UP 5, UP 6, UP 11 and UP 12. Until the approval of the Touristic Development Nuclei – assigned to 25% of the Touristic Capacity Areas, these areas should adopt the regime of land use, occupation and transformation stated in the ordering plans, in the constricting plan, and in the Municipal Master Plan of Lagoa.

According to the Municipal Master Plan, the Touristic Development Nuclei mustn't embrace natural reserves or parks, the touristic developments should be solely targeted to touristic uses (excluding incompatible occupations) and conform with high quality standards, providing leisure facilities, support internal infrastructure costs and share municipal infrastructure costs. Each Touristic Development Nucleus may embrace several touristic undertakings, but these should be served by an infrastructure network, and the occupied land plots should belong to the same Touristic Capacity Area.

The Urban Development Plan of the Planning Unit 11 (UP 11) is a Touristic Capacity Area (AAT) that can support one or more Touristic Development Nuclei (NDT). Its intervention area – the whole operational unit – locates between Marinha beach and Cabo Carvoeiro, and takes up 401,6 hectares in the parishes of Lagoa and Carvoeiro, in the municipality of Lagoa.

This Urban Development Plan sets land occupation, use and transformation (and correspondent urban parameters) in its intervention areas.

The settled specific goals of the Touristic Capacity Area of UP 11 consist in the implementation – through correspondent execution units – of two Touristic Development Nuclei (NDT), East NDT and West NDT. Both should respect the ecological structure, and the landscape natural and cultural values. The total surfaces assigned to both Touristic Development Nuclei ( $997\,737\text{ m}^2$ ) mustn't exceed 25% of the whole surface of UP 11 settled in the Municipal Master Plan of Lagoa ( $4\,016\,158\text{ m}^2$ ): East NDT has a surface of  $741\,890\text{ m}^2$  and West NDT has surface to  $255\,847\text{ m}^2$ .

The intervention area of UP 11 encompasses both urban land (developed land and land which urban development may be programed) and rural land. Developed urban land includes the urban areas outside the Touristic Development Nuclei settled in the Municipal Master Plan: the consolidated urban area of Benagil, the touristic-urban area at Carvalho beach's north (Clube Atlântico), and two touristic-urban areas located near Alfanzina. Their building regime should conform to respective building license where parcelling out operations are enforced. Land, where urban development may be programed, includes the new touristic areas inside both East NDT and West NDT. Land, where urban development may be programed, mustn't surpass 30% of the total surface of the Touristic Development Nuclei, the East Touristic Development Nucleus structures into N1 and N2 planning and management operational sub-units; and the West Touristic Development Nucleus structures into P1 and P2 planning and management operational sub-units.

All the touristic undertakings in each programed urban development land Touristic Development Nucleus must conform to four-star or higher category. A maximum of 1 279 beds are assigned to the East Touristic Development Nuclei, whereas a maximum of 441 beds are assigned to the West Touristic Development Nuclei, adding up 1 720 beds.

Only hotels and/or further touristic facilities are allowed in programed urban development land where the Ordering Plan of the seashore of Burgau-Vilamoura is enforced<sup>17</sup>. Land, where urban development may be programed in Touristic Development Nuclei, should observe the building regime of respective planning and management operational sub-units, according to the classifications licensed in touristic undertakings.

### 3.2 Application of the new land value capture instrument to the Planning Unit 11 in Lagoa

The estimation of the annual average gross built surface in the municipality of Lagoa resorted to statistical data collected for a four-year period, in order to avoid fluctuations of situation. The average gross built surface (for developed and developable urban land) (6) is given by the product between each year's finished buildings<sup>18</sup> (1), the average number of storeys per building (2), the average number of dwellings per storey (3), the average number of compartments per dwelling (4), and the average liveable surface per compartment (5) ( $m^2$ ), divided by 0,65 (as the liveable surface represents around 65% of the gross built surface) (INE, 2009, 2010, 2011, 2012) (Table 1).

**Table 1.** Estimation of the annual gross built surface in the Municipality of Lagoa for 2008, 2009, 2010 and 2011, and corresponding annual average value.

	2008	2009	2010	2011	Total	Average
Total number of finished buildings (1)	228	137	114	64	543	136
Average number of storeys per building (2)	2,7	2,5	2,4	2,2	9,8	2,5
Average number of dwellings per storey (3)	1,2	1,6	0,7	0,5	4,0	1,0
Average number of compartments per building (4)	4,3	4,4	5,5	5,8	20,0	5,0
Average liveable surface per compartment ( $m^2$ ) (5)	17,3	17,5	19,8	21,6	76,2	19,0
Total gross built surface ( $m^2$ ) (6)=(1)x(2)x(3)x(4)x(5)/0,65	82.539,8	64.916,9	32.087,0	13.568,8	193.112	48.278

The average annual costs with infrastructures' execution, maintenance and reinforcement was computed resorting to the data of the municipal amortization and provision maps respecting the assets within the public domain – other construction and urban infrastructure, for 2009, 2010, 2011 and 2012. The annual average investment amounted to 34 044 069 € (Câmara Municipal de Lagoa, 2009, 2010, 2011, 2012), thus it leads to an estimation of 705,2 €/m<sup>2</sup> average annual infrastructure cost (Table 2).

**Table 2.** Average investment/m<sup>2</sup> in urban infrastructures' execution, maintenance and reinforcement in Lagoa Municipality.

Investments in urban infrastructures' execution, maintenance and reinforcement	2009	2010	2011	2012
Annual amortization of urban infrastructure (€)	26.399.063	31.439.028	36.570.644	41.767.542
Annual average investment (€)	34.044.069			
Annual average gross built surface ( $m^2$ )	48.278			
Infrastructure's cost (€/m <sup>2</sup> )	705,2			

For each year, the transaction value/m<sup>2</sup> (€/m<sup>2</sup>) in Lagoa Municipality (3) is computed through the quotient between respective value of land property transactions (1) (INE, 2009, 2010,

<sup>17</sup> Except in the "nonaedificandi" area depicted in the zoning plan in the East NDT (where buildings are forbidden).

<sup>18</sup> It corresponds to the sum of new buildings, and buildings' enlargement, changes and/or reconstruction.

2011, 2012) and the total gross built surface (2) (Table 3). Buildable land price per  $m^2$  according to market trade (6) is given the difference between the transaction value/ $m^2$  (3) and the average construction costs/ $m^2$ <sup>19</sup> (4) and the average urban infrastructures' execution, maintenance and reinforcement costs/ $m^2$  (5).

**Table 3.** Price of buildable land/ $m^2$  in the municipality of Lagoa, in 2008, 2009, 2010 and 2011

	2008	2009	2010	2011
Total value of town property trade (€) (1)	101.687.923	92.541.438	93.778.000	103.169.000
Gross built surface ( $m^2$ ) (2)	82.539,8	64.916,9	32.087,0	13.568,8
Transaction value/ $m^2$ (€/m <sup>2</sup> ) (3)=(1)/(2)	1.232,0	1.425,5	2.922,6	7.603,4
Construction costs/ $m^2$ (4)	482,4			
Urban infrastructure costs/ $m^2$ (5)	705,2			
Price of buildable land/ $m^2$ of construction (€/m <sup>2</sup> ) (6)=(3)-(4)-(5)	44,4	237,9	1.735,0	6.415,8

The average municipal land price of buildable land/ $m^2$  based on town property trade is computed through the sum of the different land prices/ $m^2$  for each planning and management sub-operational unit and for each type of use within the Planning Unit 11, assuming that the respective contribution for this price is proportional to the licensed gross built surface for profitable uses. So, the gross built surface assigned to profitable uses ( $m^2$ ) was identified in each area of Lagoa Municipality (where apply different planning instruments and urban parameters). The product between the price of buildable land/ $m^2$  and respective net land use index/ $m^2$  of land was next computed. The share of each area in the average land price/ $m^2$  each year is given by the product of the previous value and respective percentage in relation to the maximum gross built surface licensed in the total urban developed and developable municipal areas. These parcels are, then, summed up for all the areas, each year, what leads to 721,9 euros/ $m^2$  for municipal land price, on average, per year.

The application of the parameters and formula settled in the Real Estate Municipal Tax Code in each area within Lagoa Municipality lead to an average annual tributary patrimonial value of 56,1 euros/ $m^2$  of buildable land (based on corresponding values for 2008, 2009, 2010 and 2011).

The surplus values ascribable to each planning and management operational sub-unit and to each kind of land touristic profitable use was, then reckoned through the product between the homologous licensed gross build surface and the difference between the annual land price/ $m^2$  based on market trade (721,9 €/m<sup>2</sup>) and the corresponding price based on the application of the Real Estate Municipal Tax Code to Lagoa municipality (56,1 €/m<sup>2</sup>) (Table 4). The proposed 20% tax aimed at social purposes is, then, applied to the intervention area of this Development Plan, amounting to 12 764 718 € as the potential collectable value (Table 4).

<sup>19</sup> These costs are issued in the governmental orders that render applicable the article 39<sup>th</sup> of the Real Estate Municipal Tax Code enforced in 2008, 2009, 2010 and 2011 (Portaria nº 16-A/2008; Portaria nº 1545/2008; Portaria nº 1456/2009; and Portaria nº 1330/2010, respectively.)

**Table 4.** Average surplus values and corresponding 20% tax on these surplus values for all the planning and management operational sub-units and respective profitable touristic uses in the Planning Unit 11 of Lagoa.

Touristic undertakings			Land surface (m <sup>2</sup> )	Gross built surface (m <sup>2</sup> ) (1)	Surplus values (€) (2)=(1)*665,8	20% of surplus values (€) (3)=0,2x(2)
Planning and management operational sub-units		Classification				
Planning and management operational sub-unit East NDT	N.1	Lodging establishments (Hotels)	30.000	15.000	9.987.000	1.997.400
	N.2	Lodging establishments (Hotels, Serviced Flats ou Inns)	191.050	56.210	37.424.618	7.484.924
		Lodging complementary means (Holiday Villages)				
			Total (East NDT)	221.050	71.210	47.411.618
Planning and management operational sub-unit West NDT	P.1	Lodging establishments (Hotels)	10.000	5.000	3.329.000	665.800
	P.2	Lodging establishments (Hotels, Serviced Flats ou Inns)	66.754	19.650	13.082.970	2.616.594
		Lodging complementary means (Holiday Villages)				
			Total (West NDT)	76.754	24.650	16.411.970
Total values in the Planning Unit 11 ( UP 11)			297.804	95.860	63.823.588	12.764.718

#### 4 Conclusions and final reflections

This article clearly states – and justifies from an economic and financial standpoint - the computation of the amount the municipalities are able to recover from the application of this proposed innovative territorial management instrument that consists in the collection of a 20% fee on surplus values accrued by plans and planning decisions (Rebelo, 2013). It applies to the development Plan of The Planning Unit 11, in Lagoa (Portugal).

Through the objective quantification of the concrete surplus values that derive from urban operations and from municipal planning decisions this new instrument reinforces municipal economic and financial sustainability, based on a clear identification of urban development funds' origins and applications. It, thus, ensures a more balanced distribution of urban development costs and benefits among the whole population, private stakeholders and municipal authorities (Smolka and Amborski, 2003) – through publicly-engendered surplus values recovery – not involving a fiscal aggravation for most population, nor an increase in building costs (Smolka and Amborski, 2007; Hong, 1998), and ensures that the unearned increments (surplus values) engendered by plans are pointed to social purposes and not to specific private interests. It seeks, above all, a fair equity among the whole population living in a certain Municipality, in what concerns the distribution of costs and benefits that accrue from urban development operations.

This new territorial management tool takes on a general character, and can be further applied to other municipalities and intervention areas of Municipal Master Plans, Urban Development Plans or Detail Plans, as it grounds on data and methodologies that support inter-municipal comparisons. Thus, "generative places" can be promoted and supported at the municipal level, considering the funding achievable through this innovative territorial management instrument.

To sum up, it can be concluded that this new instrument – within the scope and goals of the new planning and territorial management paradigm, namely in what concerns the economic and

financial sustainability and the promotion of equity and social cohesion - will substantially support the urban development and enhance populations' quality of life

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# The role of local knowledge in spatial policies: contextualizing community engagement within existing discourses

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Harnessing local knowledge in order to inform spatial policies is a complex task that needs investment of resources, due to the fact that only local people possess local knowledge and it is impossible to access it without them. Its role in the context of current spatial policies is also unclear, since they are informed by a myriad of concepts and normative positions that get tangled and often seem at odds. Nevertheless, the interest on the various forms of local knowledge keeps growing, as well as the perception of its legitimacy as part of current complex knowledge systems.

This paper is based on a document research from multiple sources, which seeks to clarify the position of local knowledge concerning different discourses that inform spatial policies. The analysis focuses both on theory-centred publications and case studies of collaborative initiatives to harness local knowledge.

In order to better support collaboration, boost social learning and capacity development, assert the local identity or preserve cultural diversity, amongst other functions, it is argued that it is advantageous to include local knowledge in current spatial policies for intervention, development or management. In this work, the main normative and conceptual discourses that shape spatial policies are juxtaposed to the themes surrounding local knowledge, in an effort to draw parallels and evidence both the successes and difficulties of its integration. Such themes include space as a multidisciplinary and aggregative dimension, the importance of 'place', the recognition of complex modes of knowledge production, participation and community engagement, auto-determination and the role of local communities in governance, amongst others.

**Keywords:** local knowledge; spatial policies; community engagement

## 1 Introduction

Local knowledge, as a type of spatial knowledge, is of marked importance to activities that are subordinated to space and place. FAO (2004) identifies local knowledge, a place-based type of knowledge, as a basic component of the knowledge system of a territory and a key resource in development initiatives, which often seek to build human capacity and improve the resilience and sustainability of local communities. Local knowledge has been defined in contrasting ways, depending on the purpose of the definition. Broadly, it can be said that local knowledge is the human capital that people in a given community have developed, and continue to develop, in relation to their surroundings over time, in order to solve problems, achieve goals, and maintain or improve their livelihood. It comprises skills, experiences and insights related to the place they inhabit, acquired through constant efforts to seek information (FAO, 2004). It derives mostly from memory, intuition, and the senses, resulting of a mix of experiential and transmitted knowledge, although it can also stem from structured data, such as, recorded measurements obtained by local people with formal training (Raymond et al., 2010).

Local knowledge possesses especial relevance to any policies and strategies related not only to sustainability, but also to the concepts of 'vulnerability', 'capacity' and 'resilience', and to the areas of adaptive, environmental and resources management, risk assessment and disaster response. It can also be a relevant factor in the debate about civil rights, social, environmental and

spatial justice, recognition and identity politics - especially in urban settings - power dynamics, equality and distribution of resources. Its most direct uses are informing spatial planning and decision-making as part of complex knowledge systems, and helping the implementation of policies, cooperation building and the coordination between local and external actors, playing an important role in participatory governance processes.

There are arguments for an increasing inclusion and legitimization of local knowledge in spatial policies, as well as criticism of such inclusion or the way it is conducted. But there is also a wider set of trends implying that such inclusion has been inevitable for some time, since it has a strong connection to some policies and themes that have been on the rise. This means that, in current policy making, it is important to recognize and learn how to work alongside local knowledge, independently of whether one might champion its cause. In what concerns the literature review of the role of local knowledge in spatial policies, this situation translates into local knowledge either being purposefully mentioned in policies or contexts that consider the outcomes of its harnessing and use desirable (although previously that might not have been the common practice), or appearing as a by-product of certain contexts and being regarded as inevitability.

### **1.1 Methodology**

This paper is a literature review, based on a document research from multiple sources. It seeks to clarify the position of local knowledge concerning different discourses that inform spatial policies. The analysis focuses both on theory-centred publications and case studies of collaborative initiatives to harness local knowledge.

It must be stressed that planning and governance theory seldom addresses local knowledge specifically. For this reason, beyond the concept of local knowledge itself, other associated themes were sought in the literature review, in particular mentions to community engagement, participatory practices, and Mode II of knowledge production. Mode II of knowledge production involves the acceptance of sources and types of knowledge beyond scientific sources (Gibbons et al., 1994; Rip, 2001), which includes lay actors - such as community-based ones - and tacit knowledge – such as local knowledge.

Several reasons justify this choice of keywords. Firstly, while spatial data collection and codification for further use are demanding activities in themselves, the difficulty is increased tenfold by the fact that the only people who possess local knowledge are local people, and accessing it is impossible without them. Therefore, participatory practices are indivisible from activities for harnessing local knowledge. Secondly, and reinforcing this, any work towards community engagement implies recognition of the impact that a community can have on its own quality of life, worldview, and the spaces it inhabits. As stated before, local knowledge is a primary vehicle, intrinsically connected to cultural practices, for an individual or a community to act over their own environment and improve their quality of life; encouraging the contributions of a community implies an acceptance that local knowledge will be involved in the process. Finally, subjects and processes related to Mode II of knowledge production indicate some degree of acceptance of alternative, non-expert sources, types of knowledge and actors, signalling a discourse that might be favourable to local knowledge.

Therefore, even though the entry point into existing literature is not always local knowledge, community engagement is ever-present – to study the role of local knowledge in spatial policies, it is necessary to look through the prism of community engagement because it is not always possible to talk specifically about local knowledge, hence the title of this paper.

## **2 Local knowledge in spatial policies**

This work takes a look at the role of community engagement, generally, and local knowledge, specifically, in the context of differing trends, interests, agents, frameworks and paradigms within spatial planning and governance. The objective of this work is to connect concepts related to the actuality of spatial planning and governance to the main applications and areas of use of local knowledge, in order to evidence intersections and highlight the different ways in which local knowledge is of importance to spatial policy making. It must be pointed out that, even though these issues are compartmentalized into four sections – related, respectively, to the structural realities of planning and governance, to the shift towards governance, to the theme of justice and desirable outcomes, and to new challenges, - they are nevertheless interconnected.

### **2.1 The connection to structural realities**

In discourses connected to structural realities, there are several main themes for which local knowledge is an important concept: the role of local knowledge, and participation itself, in top-down processes (especially within process-based planning theory); the clash between modes of knowledge production; the problematic of scale, particularly upscaling and glocalization; and the improvement of transparency and accountability.

#### *Participation in top-down processes*

Harnessing local knowledge has been promoted in the context of communicative planning, through citizen participation, and process-based planning in general. However, it is also important to outcome-based schools of thought due to the way it evidences power conflicts. Therefore, there are two important parts in this section: the importance of local knowledge in process-based planning theory and the problem of uncertain outcomes.

'Joint fact-finding' (Innes & Booher, 2010) has been advocated as a central component of collaboration and emphasizes the importance of using the knowledge of local actors closest to an issue, especially in environmental planning and management decisions (Taylor & de Loë, 2012). It follows that collaborative theory can be receptive to the integration of local knowledge into decision-making, in a broader context of collaborative processes. It is thought that it can help local actors feel empowered and more likely to view all process and its outcomes as legitimate and fair, since there is a sharing of power and responsibility among state and non-state actors in decision-making (Carlsson & Berkes, 2005).

In the context of critical pragmatist planning, Albrechts' (2013) reframing of strategic spatial planning from a coproduction perspective also calls for active civil society involvement in the contextual, contentious, creative, and continuous process of agenda setting, in problem formulation,

and in the shaping and implementation of policy, plans, and projects. In this way, it not only seeks to counter power, material interests and narrow thinking in urban governance, but also tries to build engaged, strong, resilient, mutually supportive communities, capable of meeting their own needs (Song, 2014). By emphasizing the human characteristics of space and place, both natural and urban, this model implies an activist mode of planning, open to local knowledge and all citizens, using coproduction as a political strategy for planners working in or out of the system. In strategic planning, conceived as a co-production process, citizens are looked upon by the state, planners and fellow citizens as valuable agents in joint learning, invention, and problem solving (Albrechts, 2013).

Pfeffer, Martinez, Baud, and Sridharan (2011) enumerate several examples of how spatial knowledge (local knowledge being necessarily included in this category) can be included in policy making and governance: through mapping, community-based or institutionally-led; through transect walks and discussion groups; and through the use of geolCT. They defend that inclusion and production of spatial knowledge is tied to processes of participation and negotiation, and “depends particularly on the extent to which urban local governance has made the turn to more participatory processes” (Pfeffer et al., 2011, p. 237).

Other schools of thought have different views. According to the ‘Just City’ model, for example, institutionalized citizen participation increases the information available to policy makers by providing local knowledge, and allows decision-making to become democratic and open. However, it is not necessarily more equitable; it can lead to parochialism and corruption; it is rarely transformative, but it provides a training ground for developing leadership skills and a path of upward political mobility (Fainstein, 2011). Therefore, local knowledge is accepted as part of participation, but authors defend that its presence will not necessarily guarantee a positive outcome, leading instead towards an uncertain one – in the just city model, outcomes trump communicative norms should the two conflict (Fainstein, 2009).

This attempt at mitigation of uncertain outcomes seems at odds with the body of theory that, in planning for new challenges, embraces complexity and uncertainty in today's world. However, if lack of good implementation can undermine types of governance that promote participation and power sharing, it is understandable that attempting to control outcomes is presented as a safer position. This subject is furthered below, in the context of power relations and just outcomes.

#### *The clash between modes of knowledge production*

There are still several challenges when working with and towards local knowledge. In the context of spatial policies, one of the most important is the reluctance of scientists, government officials and other professionals to consider local sources of knowledge in different environmental governance contexts. Local knowledge held by community groups is often mistrusted by professionals, who not only tend to favour positivist knowledge over local knowledge, and scientific expertise over common sense, but who also stand outside the community and have trouble grasping its views (Curry, 2012). In fact, there is still disagreement in academia over which forms of knowledge, including local knowledge, are valid, despite the support demonstrated for complex

knowledge systems. Moreover, the views of local actors regarding their own knowledge and participation are unclear, except for sporadic examples in which research aimed at clarifying their position (Taylor & de Loë, 2012).

This is mainly due to the critical relationship between knowledge and power in collaborative processes, which leads to 'epistemological anxiety' (Innes & Booher, 2010) and the rejection of local knowledge by professionals. This rejection is connected to four main complaints of professionals concerning community action: firstly, that it is not necessary, as public services are provided through democratic processes; secondly, that the community is not qualified to take appropriate decisions about complex issues; thirdly, that it is impracticable to consider the views of all members of the community; and finally, that the predominant values of the public may vary in meaning. Professionals are often apprehensive about citizen involvement, perceiving community participation as time-consuming, costly, unmanageable and unproductive (Curry, 2012). To compound the situation, the digital divide – the differing access to technology and information depending on the geographic area and economic situation of the user – presents policy makers with uneven support depending on the location of implementation, increasing uncertainty.

Finally, epistemological anxiety might also be related to scientific knowledge having lost part of its cognitive authority in recent years. There is some amount of tension in the effort to connect science with policy and practice, despite contemporary efforts to include diversified knowledge across all scales. As Wyborn (2015, p. 59) explains, "science, while fundamental (...), represents rather than mirrors reality, making scientific knowledge a space for contested claims of truth and power".

Due to all of this, various authors have made an effort to show that the possession, manipulation and use of knowledge by communities allows them to make an informed contribution to spatial policies, influence the quality of their decisions and the official process of decision making, and bring about change (Curry, 2012). These positive points are highlighted while keeping in mind the reservations about and pitfalls of the process, expressed throughout this work. To overcome epistemological anxiety, the encouragement of open dialogue and sharing of knowledge and expertise between all actors involved in the implementation of both top-down and bottom-up actions is recommended (Gaillard & Mercer, 2013). After all, as Curry (2012) defends, knowledge that is negotiated between lay people and professionals might be superior to scientific knowledge when it comes to finding solutions adapted to local circumstances.

#### *The problematic of scale*

Coenen, Benneworth, and Truffer (2012) defines a geographical scale as a territorial level at which significant relationships, with a distinct dynamic resulting from repeated interactions, exist between actors. Many spatial policies are currently cross-sectorial and cross-scalar. In particular, the scaling down of planning, decision-making and forms of government is a recent tendency, as well as the formation of grey areas of governance due to the scalar changes of decision-making frameworks. The use of local knowledge might be seen as being in line with calls for devolution and localism; however, the influence it can have at a larger scale is actually a more discussed topic concerning the role of local knowledge in spatial policies. Therefore, there are two main issues at

hand: firstly, the capacity of the local to influence the global; and secondly, the difficulty in 'scaling up' local knowledge.

A decade ago, Roy (2005) claimed that globalization was being regarded as disempowering, and communities were being considered as a force for change instead. The author saw a false dichotomy between global and local scales, defending that they were not mutually exclusive and that decision-making had the possibility of engaging in 'scale jumping'. This 'glocal' perspective is a consequence of geographical reality being increasingly interconnected. According to it, understanding global networks and local nodes can clarify how governance unfolds, which stakeholders are involved and how much control they have over their own decisions. This idea is explored by Coenen et al. (2012, p. 972), who write that "characteristics of the locality have different impacts on the processes at all scales, so even processes operating at a global geographical scale are influenced by differences in localities".

Citizens are increasingly aware of their ability to contribute to decision-making processes, and cooperation between institutions and citizens is increasingly sought, recognition of local knowledge included. In fact, projects for harnessing local knowledge and seek change at community level have taken off worldwide. But the use of local knowledge in spatial policies is conditioned by issues of scale dynamics and by its own specificity and diversity: local knowledge is not only itself produced at different scale levels, it also lacks the same coherence at all scales (Beilin & Wilkinson, 2015; Pfeffer, Baud, Denis, Scott, & Sydenstricker-Neto, 2013), and local practices can be both context and time specific (Dekens, 2007).

Nevertheless, Gaillard and Mercer (2013) defend that using both local and scientific knowledge is the only way to achieve large-scale results in spatial policies, particularly in those related to risk reduction - as Dekens (2007) explains, risks are multi-scale, so spatial policies should avoid managing each scale level in isolation and employ cross-scale analysis instead. It should also be pointed out that time is a factor that goes hand in hand with scale, and that there is often a need to combine immediate and longer term measures. Scalar and temporal mismatches can both undermine policy implementation.

Opportunities for scaling up results are limited because good practices regarding complex knowledge systems have not yet been institutionalized worldwide (Gaillard & Mercer, 2013). Pfeffer et al. (2013, p. 265) agree, stating that initiatives to harness local knowledge "remain local and lack the upscaling to either city level or national level, which could make them comparable and possibly provide consistency across scale levels". The best way to achieve a wide integration of local knowledge would thus be through governmental mandates and legal frameworks. According to both sources, NGOs and community volunteers are important in supporting such initiatives, but changes in national policies can have a much greater impact. Coenen et al. (2012, p. 977) also insist that "trans-local and trans-national network relations and institutional interdependencies need be acknowledged by policy-makers and 'transition managers' even though they may extend beyond their sphere of influence."

*"It is clear that there are potential tools to linking communities with associated stakeholders or clear, practical frameworks to integrate both sets of knowledge. However, without the incorporation of such tools and approaches within national development policy, thereby*

*simultaneously reaffirming the role of the state and giving voice to those most at risk, we are in danger of under-utilizing the wealth of local knowledge available and engaging in unproductive DRR strategies which contribute to enhancing vulnerability rather than reducing it" (Gaillard & Mercer, 2013, p. 106).*

Pfeffer et al. (2013) are more cautious, stating that it is unclear how initiatives at community level can be scaled up and supported at city level – and especially, how the knowledge acquired can be used to change outcomes and influence decision-making. Digital tools, usually pointed out as facilitators for the integration of local knowledge, are not available worldwide to all citizens and there are institutional gaps in access to digital resources, factors that pose problems at larger scales. It is also difficult to promote cross-scale analysis and the use of complex knowledge systems due to their higher data requirements and variability in the theory applicable to each level (Dekens, 2007). But this author warns that the problem is not always a lack of resources, rather a problem of “entitlements such as access, control, and management of assets” (Dekens, 2007, p. 36).

#### *Accountability and transparency*

The harnessing of local knowledge has the potential to inform spatial policies, raise awareness of local issues, enhance a sense of citizenship, and contribute to transparency in governance. However, positive outcomes depend on good implementation, and unexpected or undesirable outcomes might appear when taking an informal, ill-informed or not properly defined strategic path. For instance, Beilin and Wilkinson (2015) describe how guidelines that pursue ‘good’ governance, under the form of inclusiveness, flexibility or other ideals, may maximize vulnerability. Processes that harness local knowledge are deeply embedded in this debate of unintended (or worse, intended) consequences.

A lack of acceptance of local knowledge can thus express a variety of concerns that have little to do with local knowledge itself, such as, apprehension over power inequalities, accentuated by the digital divide, and clashes between modes of knowledge production. But criticism might also reflect concerns with the negative impact of assuming that upscaling and implementation are possible at all times, and especially with lack of accountability and transparency. There is a paradox at work: mechanisms to harness local knowledge and include it in spatial policies have the potential to open up dialogue between institutions and citizens, as well as promote wider acceptance of a policy by the people directly affected by it (White, Kingston, & Barker, 2010) and, in this way, promote transparency and what Wilkinson (2012) calls ‘downward accountability’ (policy-makers being made accountable to local communities); however, the reverse is also true, as the co-existence of a great diversity of actors and projects muddies the attribution of responsibility and the perception of what is really happening (Allmendinger & Haughton, 2012).

This same concern has been expressed about public participation in general, which can suffer from ‘NIMBYism’, lack of accountability regarding community representatives and also susceptibility to demagoguery (Fainstein, 1999). Therefore, the situation can only be characterized as complex. There is, at the same time, the presence of successful case studies revolving around community mapping and participatory governance projects that promote transparency in

governance, and a feeling that new forms of spatial governance are resulting in limited transparency as well as questionable democratic accountability, explained in depth below:

*"The building of such semi-formal or informal networks is celebrated by many practitioners and some academics as potent methods of circumscribing and avoiding 'administrative clutter' and a way of really 'getting things done' (...). Still, if someone wishes to challenge decisions made within these networks, what court of appeal can she turn to, when it is sometimes even difficult to figure out who are responsible for the decision, or if any decision formally even has been made or if some loose consensus to 'go ahead in a certain direction' just appears to have taken form and taken on a life of its own, within this emerging truly Kafkaesque landscape of planning and spatial policy development?" (Metzger, 2011, p. 4)*

It can be inferred that collaborative, informal and grassroots governance, the incorporation of 'alternative', lay-based knowledge in decision making, and participatory processes in general, all lend themselves to working around unwieldy processes and acting in proximity with the needs of local communities. At the same time, networks and collaborations that seek to solve public problems in governance and implement public policy, often in 'soft spaces', have an almost chaotic character, "driven by the interplay of collaboration processes and structures, the tensions or paradoxes embedded in collaborations, and an external environment of shifting politics, policy fields and institutional relationships" (Cornforth & Brown, 2014, p. 12). They often rely on indirect democratic links and consultative processes instead of democratic politics to achieve legitimacy (Allmendinger & Haughton, 2012).

A common criticism, that the use local knowledge and the promotion of community governance or emancipation need to be institutionalized in order to have full effect, resonates with this argument. It might be possible for a community project, with a well-defined strategy and boundaries, to easily succeed in promoting transparency and accountability in governance even if it is a grassroots-only endeavour, as its geographical limitations confer to it a certain degree of formality. The same might not be true for complex and commonplace informal governance processes that seek to respond to immediate needs and problems. Brokering informal agreements around soft spaces and informal governance processes is easier, but those agreements also dissolve easily under stress. These agreements might also survive with an unexpected tenacity, making their way into formal plans, possibly at other scales, while lacking further scrutiny (Allmendinger & Haughton, 2012).

The building of accountability within collaborative settings is considered the domain of collaborative planning and adaptive governance (Wyborn, 2015), and each has mechanisms to ensure and evaluate accountability. For example, Graham, Amos, and Plumptre (2003), in Figure 1.6, make an in-depth description of what constitutes proper accountability in governance. Proactive accountability mechanisms, usually seen as the role of the institution that is intervening in a given setting, are essential to planning and governance theories, as they build trust, excellence and legitimacy; on the other hand, lack of supervision, clear direction and proper management can lead to corruptive practices (Blokland, Alaerts, Kaspersma, & Hare, 2009). Therefore, any work directed at harnessing local knowledge and engaging with local communities can take advantage of these already existing mechanisms to ensure accountability.

## 2.2 The contribution to grassroots governance

When talking about grassroots governance, community engagement is usually a component of already undergoing processes, and local knowledge is strongly connected to the themes of community governance, social learning, capacity building, and the construction of citizenship in general – in other words, processes that lead towards self-organization and emancipation. On one hand, it is seen as a way to make communities and minorities heard, to help them achieve a stronger degree of engagement. On the other, it is associated to resistance and confrontation, grassroots movements, and a way for communities to take the power of decision and control for themselves, away from top-down processes.

Even though the focus of this section is on grassroots governance, collaborative governance with a strong grassroots presence is not excluded; it should be kept in mind that what is being mentioned are bottom up processes in general. It should also be noted that, despite all the sources available related to participation, capacity building in governance is a theme, which nowadays has close associations to climate change, resilience, and emergency planning in general. Therefore, it is of importance to several themes and disciplines beyond bottom-up action, in particular in what concerns the answers of planning and governance to new challenges.

### *Community governance*

At the base of community focused or community-led participation and governance with a strong grassroots component, there is disenchantment with formal, institutional development programs, which are accused of yielding limited benefits. There is also a belief that development can be built with local knowledge and direct participation as bases, occurring (mostly) outside the sphere of the state (Harley, 2009).

A lot can happen within community governance, regarding the use of local knowledge. For example, grassroots groups can and have developed their own spatial data resources, thus also taking a place as stakeholders in local spatial data development (Elwood, 2008). Therefore, it is possible for communities themselves to harness existing local knowledge, but also to produce data that can contribute towards the evolution of such knowledge. This points towards a degree of capacity for autonomy, especially in contexts in which government data and support are not readily available. Local knowledge is, likewise, at the heart of governance issues directly related to space, such as spatial claims and disputes, which must be mediated between a range of actors, including grassroots ones. And, in a more collaborative perspective, the deployment of strategic projects as part of community governance can integrate issues of memory, identity and other aspects related to local knowledge and community engagement, all the while keeping in mind wider interests (Bafarasat, 2015).

### *Capacity building*

Another aspect in which local knowledge is relevant to grassroots governance is in its role to help build capacity. Capacity building is a development concept that takes the definition of capacity, “the ability to do something” (applicable to individual, collective and systemic competencies), and seeks to extend and broaden it so that a given entity can endure change and

perform over time. Although a lot of its application was born from organizational environments, training for capacity building can be deployed hand in hand with community engagement by institutional stakeholders, in order to encourage greater resilience and reduce vulnerability; it can also be championed by grassroots entities. Either way, it is a way of strengthening communities and institutions useful to them, a way, which draws from ideals of empowerment, identity, collective action and self-organization (Baser, 2009). It is also, first and foremost, a process of creation of public value and change which seeks to help people avoid disruptions to their lives. And as it is based on complex systems thinking, it has, once more, local knowledge at its centre (Baser, 2009; Sinclair & Walker, 1999).

Originally, initiatives geared towards capacity building focused on training, skill development and technical assistance, but it was soon verified that capacity is seldom improved by measures such the injection of supply-driven training programs or technical assistance alone. Acting over a complex reality is difficult, and capacity-building initiatives must take into account the complex systems within countries and organizations, demand-side pressures and the political economy of reform while at the same time taking into account. Blokland et al. (2009, p. 343) add that “the international development community has consistently overestimated its ability to build capacity in the absence of national commitment, local ownership and reasonably good governance.” Nowadays, capacity building has become a multi-faceted process that acts over the enabling environment and the norms and values affecting behaviours. Improved institutions, laws, incentives, transparency and leadership are also expected to elevate performance and governance to a higher level (Blokland et al., 2009). At the community level, there is greater engagement of key stakeholders and a strengthening of the ownership of activities (Baser, 2009).

In capacity building, knowledge, understanding and skills are acquired and developed through education and training. Tacit knowledge, of which local knowledge is part, is considered the most important type of knowledge for shaping skills and attitudes, and “can best be transferred [in a capacity building process] through one-on-one interaction between junior and senior, apprentice and teacher” (Blokland et al., 2009, p. 18). Networks also play an important role in improving existing knowledge and capacity, which means that information technology can be a powerful support.

### *Social learning*

Social learning, one more concept which relies on complex knowledge systems and also on local knowledge specifically, is a theme found in participation and adaptation research. Social learning in groups is currently “central to debates on tensions between sustainable development, democracy and free market ideology” (Leys & Vanclay, 2011, p. 574). Its relevance stems from the inclusion of complexity, uncertainty and diversification of agents and sources of knowledge in debates related to participation, as well as the recognition that in some cases there is “little existing agreement on either the nature of the situation or the response” (Collins & Ison, 2009, p. 359). This translates into an erosion of the more conventional policy approaches (including participatory ones), mediated in terms of power. Therefore, the roles, responsibilities and purposes of actors involved in

adaptive processes are being re-conceptualized, and more 'traditional' forms of participation supplanted by processes of social learning.

The concept of social learning "has arisen in response to a growing recognition that our understanding of learning has moved away from an educational emphasis, with its focus on individual learning, to one where learning occurs through some kind of situated and collective engagement with others" (Collins & Ison, 2009, p. 364). Social learning seeks an understanding of the nature of an issue, and of how it might be processed. It is also a central tenet of adaptive governance, which promotes collaborative learning and forms of concerted action, such as collaborative co-management. Although the concept of social learning does not have a completely established definition, its main characteristics include: a convergence of goals, criteria and knowledge that builds awareness of mutual expectations and relational capital; a process of collaborative creation of knowledge, conducted with the objective of learning the nature of a situation and possible ways of transforming it through concerted action; a change of human behaviour and action, achieved by understanding the nature of the issue through action, which also leads to concerted action; and finally, the overarching capability to transform a situation (Collins & Ison, 2009; Wyborn, 2015).

Ultimately, processes of social learning seek to build normative deliberations on local socio-environmental issues through the members of local communities (Ipiranga, Moreira, Lopes, Frota, & Coimbra, 2014). More than making use of existing local knowledge, these processes integrate local and scientific knowledge and build on such integration, while at the same time fostering attitudinal, behavioural and normative changes within society (Leys & Vanclay, 2011). These last authors nevertheless issue a warning against the same power imbalances and issues of representation that can occur in participatory processes, as well as in the access to local knowledge itself. It is also important to keep in mind that the implementation of a social learning process requires funding, long term monitoring, and an understanding of learning strategies and the different needs of participants, in order to successfully promote community engagement and learning, reduce power differentials, and avoid bias and the manipulation of agendas.

#### *Resistance and confrontation*

Resistance and confrontation is a theme that primarily draws from grassroots attitudes against official and formal entities, thus differing from the previous ones. Its interest for this work stems from the fact that it contextualizes a very specific form of harnessing local knowledge, namely counter-mapping. There are many instances in which local knowledge is a cause or a tool of attitudes of resistance, which appear either in the context of grey areas, of informal governance, or in the outright clash between different interests, stakeholders and levels of governance.

A disinterest in or trivialization of local knowledge by formal entities, for instance, can be seen as a power play by local communities, since knowledge and power are intricately connected. In such cases, the conflict might render all science-based knowledge hostile at the eyes of a community, since it is used to inform policies that do not represent local interests and understandings of place (Van Assche, Duineveld, Beunen, & Teampau, 2011). This attitude on the part of governmental and other formal entities is taken as a sign of ill will, especially when

considering that local knowledge, despite its multiple and competing perspectives, can be and has been incorporated in spatial policies, such as in the case of land reforms (Kwaku Kyem, 2004).

The reverse of the coin is that local knowledge holds power, and it has been used to defend the rights and identity of communities against governmental entities. Counter-mapping is one of the approaches to achieve this at the grassroots level. Another, more dissimulated means of contestation is simply a concerted effort on the part of community to substitute services that should be provided by formal entities, either due to the failure or inadequacy of those services. As Blokland et al. (2009) explain, making better use of local knowledge and capacity can be compelling when official assistance decreases; however, when such use is proposed by official entities, public scrutiny should ensure that it is the best option available, not merely a shirking of responsibilities on the part of the state.

Processes geared towards awareness raising and learning, such as social learning, can also have the transforming consequence of creating practices that question norms, policies and objectives (Collins & Ison, 2009), a questioning for which the superior local knowledge of the local community is an asset. Should that questioning prove unwelcome, however, it is the rigidity of formal entities that will determine the magnitude of the clash.

Finally, one last issue in processes for harnessing of local knowledge that might place communities and government at odds is 'intellectual robbery', the taking of local knowledge without providing a benefit to the community in return. The direct consequence of this is a loss of trust, on the part of the community, in the engagement process. The issue can be kept at bay through a constant evaluation of whether the objectives and outputs of the process reflect the needs of the participants (Raymond et al., 2010).

### **2.3 Promoting recognition, equity and justice**

According to justice theory, local knowledge and regional awareness can encourage larger-scale perspectives, linking local movements not only to state and federal levels, but to the global justice movement and the revival of struggles over the right to the city (Soja, 2010). There is also a 'glocal' perspective expressing that, through all the local inputs of knowledge, it might be possible to achieve a more equitable global equilibrium, at economic, political, and cultural levels, and build a support framework for policy implementation.

Another viewpoint is that of the potential of traditional or indigenous types of local knowledge to integrate policies concerning environmental conservation and biodiversity preservation. This potential not only helps in verifying the state of local resources, filling knowledge gaps and environmental monitoring, it also promotes recognition of knowledge holders and the legitimization of their identity and places of existence. Local people are pointed as the ones both better positioned to carry out these tasks, provided they have proper training, and as having the most to lose due to negative outcomes.

Local knowledge, in the context of promoting recognition, equity and justice within spatial policies, is also presented under three specific dimensions in literature: the debate around 'just outcomes', power and equity dynamics, and the theme of identity.

### *Just outcomes*

Local knowledge is a means of control and response to one's own environment and surroundings. It is thus often implied that, with the right tools and support, local communities can take it one step further and obtain access, when it is lacking, to the resources they need, while at the same time achieving recognition in the process. Just outcomes are desirable, but the processes by themselves are valuable, independently of whether the process is a grassroots one or collaborative. However, processes and outcomes, as well as communicative and normative theory, can complement each other, as shown by examples provided by Pfeffer et al. (2011): spatial knowledge, acquired through participatory processes, has been used to represent the distribution of deprivation and spatial inequality, and local knowledge, specifically (in this case referred to as civic science and lay knowledge), has provided forms of pressuring state and capital towards a better quality of life.

Involving local knowledge and local communities in adaptive governance can also be a way of working towards a better management of common landscapes, spaces and heritage. Devolution, delegation of responsibilities aside, would ideally return the land to 'its' people for a more just distribution of resources and goods and a more conscious form of management – possibly meeting both the egalitarian redistributive claims and recognition claims of social justice, as described by Nancy Fraser (Harley, 2009). In reality, planning is likely to resort to tokenism – through token public participation or the indiscriminate deployment of the concepts of sustainability and resilience, for example, – and answer to economic concerns and growth policies, instead of placing justice at the forefront of concerns. Susan Fainstein (Centre for Liveable Cities, 2013) defends that participatory processes for the harnessing of local knowledge do not necessarily promote more equitable or just outcomes, since such processes can be dominated by the most articulate and educated, and suffer from deterioration due to routine, corruption, lack of engagement and an interest in maintaining (or at least lack of interest in changing) the status quo.

Assuming that one is not simply resorting to 'tokenism', it is still necessary to be mindful of power relationships within (and around) processes, decisions and policies that work with local knowledge. According to Fainstein (2015, p. 166), "planners can contribute to a more just city by using the information at their disposal to show clearly what are the stakes in any particular decision regarding environmental protection or economic development and advocate for policies that are more equitable." This is pointed as the path towards desirable outcomes.

### *Power and equity*

Local knowledge plays a role in power politics and inequality dynamics, something which ends up being more important than its role in participation for the normative planning theory school (Fainstein, 2011). In general, themes to which local knowledge is strongly associated can often be more relevant to normative planning theory than critical planning theory because they address matters of power and conflict, while providing frames of reference for problem-setting and problem-solving; such is the case of social-ecological resilience (Beilin & Wilkinson, 2015).

Any theme related to adaptive governance, such as social learning and collaborative co-management, involves "power-sharing between local communities and government to provide

community benefits through decentralized decision-making" (Wyborn, 2015, p. 57). Processes for harnessing local knowledge, when occurring within these contexts, allow for the same type of power sharing, as do other contexts related to cultures of resistance and the negotiation of formal and informal rules within governance. On the other hand, a more equitable distribution of power can be hindered due to the specificity and hierarchy of knowledge holding within a community.

Political and social theorists have identified inseparability between what one knows and how one chooses to act in the world, and thus knowledge is indivisible from power. At the same time, the power of knowledge is embedded – while knowledge can be harnessed and yielded, the same is not true for power, because information does not create power on its own. According to McCall and Dunn (2012), the potential of harnessed knowledge, at the institutional level, for influencing existing power relations is still unclear. Such a process might have both valuable and detrimental consequences, for both institutions and local communities, especially in controversial cases such as converting vague boundaries on the ground into clear ones on a map.

It is important to stress that, when using the term 'power politics' or 'power inequality', institutional stakeholders are often the strongest players. As mentioned by Wyborn (2015, p. 58), "institutions exist in a constant state of flux, shaped by power relations and conflicting interests". According to the author, deploying a model of governance implies an understanding of power, negotiation and contestation across all scales, as well as a certain disillusionment with the possibility of institutions emerging from their context and reforming themselves for the better. Perhaps for that reason, McCall and Dunn (2012) refer specifically to 'equity in community control and accountability' as a central principle of good governance, and to the specificities of equity amongst 'governed' and 'governing'. Mapping socio-environmental equity and power, particularly when exposing hazards for people living near pollution sources and representing local conceptualizations of inequalities, is an example of an activity that can promote equity and to which local knowledge can be important.

One last topic pertains to the choice of tools and methods for harnessing local knowledge, particularly if these demand digital literacy. The 'digital divide' can influence participatory processes for decision-making and further inequalities, which means it must always be taken into account.

#### *Place, memory and identity*

Local knowledge, by definition, pertains both to a physical 'space' and a social 'place', while at the same time it is a repository of collective memory (Dekens, 2007). Therefore, it is strongly associated to the recognition claims within the social justice movement, particularly those pertaining to ethnic minorities. Recognition of local knowledge is one step towards the recognition of the distinctive characteristics of communities whose culture has, up until now, been devalued in relation to mainstream culture (Harley, 2009, p. 78).

Memory can be a part of the social imaginary, subject to shifts, recalibrations and idealizations concerning past experiences, but it is also useful to spatial policy-making in that it is essential to transfer local knowledge to a map, in this way legitimizing a landscape or habitat. It is the mapping process that "provides 'certainty' to the developers that boundaries exist and that they

can depend on government to maintain agreements as realised from the maps" (Beilin & Wilkinson, 2015, p. 1211).

The distribution of local knowledge within a community can also denote specific cultural traditions, pertaining to a people's identity. In Blewitt (2015), amongst other examples, it is explained that Inuit women of Northern Canada hold a better understanding of weather conditions than their male counterparts, because the responsibility of evaluating conditions for hunting has traditionally been theirs. Recognition of hierarchy, as well as occupational, age and gender divisions in the access to local knowledge might not only inform spatial policies, but also provide a better understanding of such communities by decision-makers, as well as reinforce social justice movements.

## 2.4 Adapting to new challenges

Local knowledge is often presented an important element of capacity building and risk mitigation, but it is also of importance to adaptive governance, mainly through complex knowledge systems and complex thinking. These are major approaches, in the context of sustainable development and resilience thinking, to the new challenges faced in governance and planning. Since capacity building, and the role of local knowledge in it, have already been presented, this section focuses instead solely on the themes of risk mitigation and adaptive governance.

### *Risk mitigation*

Approaches such as community governance, capacity building and social learning have a dual importance to communities: the improvement of quality of life and social cohesion, on one hand, and the strengthening against stressors by pursuing adaptation to change. This last effect is directly related to resilience thinking and risk mitigation, which means local knowledge often appears in sustainable development, climate change, and hazard and adaptation literature.

Disaster risk reduction is, per definition, a conceptual framework that encompasses elements considered to have "the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development" (Dekens, 2007, p. ix). Natural hazards are just one type of the many stresses communities face, with mundane issues often being perceived as more pressing threats, such as those related to livelihood insecurity. Dekens (2007) presents, as an example, the existence of settlements in steep slopes, risking infrequent landslide hazards, in a trade-off for reserving flat land for cultivation. There is also often more local knowledge associated to recurrent shocks that lead to gradually increased vulnerability, than local knowledge pertaining to exceptional hazards which need exceptional coping strategies and external support. While it cannot be assumed that scientific or local knowledge, on their own, will be able to provide answers to community development challenges (Gaillard & Mercer, 2013), the incorporation of both local knowledge and the catalytic force of memory it brings forth can assist efforts to enact change (Beilin & Wilkinson, 2015).

The central point to understanding the role of local knowledge in risk mitigation is recognising that "local people are the primary actors by default when a disaster strikes", as they

accumulate considerable experience due to living in disaster-prone areas and have a good understanding of perceived risk variation over time (Dekens, 2007). Therefore, the coping mechanisms that local people establish can help create adequate measures for reducing risk and decreasing vulnerability (Peters-Guarin, McCall, & van Westen, 2012). Of course, bridge institutions need to understand these coping mechanisms nevertheless, because communities see disasters and hazards through a cultural lens and there is the risk that, during disaster responses, there might be different perceptions and ways of communicate the same concepts at play, a situation which creates obstacles to the collaboration between the community and external entities (Dekens, 2007).

Practitioners have long been advocating for increased involvement of affected communities in spatial policies geared towards risk reduction. For that inclusion to happen, governmental entities first need to recognize the value of local knowledge as a resource and the fact that local communities are not helpless when facing natural hazards. In this context, in the last two decades, concepts such as community-based disaster risk reduction, participatory hazard mapping, and community-based hazard identification and mitigation have gained traction (Dekens, 2007; Gaillard & Mercer, 2013). However, there is still a strong lack of integration between local and scientific knowledge in many parts of the world. Gaillard and Mercer (2013) claims that the field of disaster risk reduction is a 'battlefield' of knowledge and action, which often increases the vulnerability of disadvantaged communities. The local and the global are still largely disconnected, a situation which is evidenced by "the dominant top-down, homogenizing DRR strategies utilizing global scientific knowledge on hazards and vulnerability, on the one hand, and the context-specific nature of local knowledge and community-based actions on the other hand" (Gaillard & Mercer, 2013, p. 94).

This situation is worrisome as authors defend that there has been an increase in the incidence of disasters and the toll they take, due, firstly, to shifts in the allocation of resources between different demographics; and, secondly, to the undertaking of development processes that force displaced people to settle in risk-prone areas, lack development themselves (Dekens, 2007). It is accepted that scientific knowledge saves lives, and Gaillard and Mercer (2013) add that the same has been demonstrated by local knowledge. It is therefore important that different types of knowledge are integrated, presenting in this way the possibility of a particular context always being able to access the most beneficial forms of knowledge in a given moment and situation. Besides, the authors argue that local knowledge can provide improvements in disaster risk mitigation in a manner that is cost-effective, participatory and sustainable. Tragically, in some cases, constantly imposing scientific knowledge in a way that is not necessarily appropriate to the context has led to a local rejection of local knowledge and to its permanent loss, as it came to be seen as 'inferior' by local communities although that might not be the case.

#### *Adaptive governance*

Currently, there is a set of trends towards environmentally mindful, low carbon policies, which seek to respect planetary boundaries (Steffen et al., 2015). One such trend is adaptive governance, suggested as an alternative to traditional governance for providing answers to

complex problems, such as natural resources management, disaster risk reduction and the construction of resilient systems. The dissemination of the concept of adaptive governance is a sign of rapidly changing times, in which dynamism and self-organisation in socio-ecological systems have become widely accepted. Adaptive governance is “a form of governance that recognises the importance of (...) engagement and interaction with change, complexity and uncertainty. (...) This type of governance system must enable the capacity to cope and adapt, the conservation of sources of innovation and renewal and ultimately resilience” (Griffith, Davidson, & Lockwood, 2009, p. 12). Another definition simplifies it down to a pattern of practices that “include the adaptation of policy decisions to real people” (Brunner et al., 2005, p. 19).

Adaptive governance includes, and values, a series of features that are relevant when working with local knowledge. The first of such features is that it is centred on the diversification of knowledge and agents, as it is a multi-disciplinary, multi-scalar and decentralized form of governance that relies primarily on collaborative mechanisms, and has social learning and co-management as foundations. It also focuses strongly on networking people, ideas and knowledge, and provides opportunities for actors to interact. In fact, drawing otherwise isolated people into partnerships is important to resilience thinking (Wyborn, 2015).

Adaptive governance draws from collaborative planning in that it recognizes the importance of incorporating voices other than expert ones and diversified knowledge. But, most importantly, it uses knowledge focused on system dynamics, instead of detailed knowledge about parts of the system (or linear understandings of cause and effect); in other words, it employs complex knowledge systems, of which local knowledge is part (Wyborn, 2015). This can be explained by the fact that, in many situations, local governance and monitoring are better capable of matching the diverse social and ecological contexts and dynamics of different locations, as local knowledge can inform place-specific action in a way that centralized systems cannot (Lebel et al., 2006).

### 3 Some conclusions

Pinpointing the myriad of roles local knowledge can have in spatial policies is not an easy endeavour. First of all, there is a certain degree of obscurity to planning and governance theory, which no one describes better than Allmendinger and Haughton (2012, p. 90): “planning theory has evolved over the past 30 years, growing into a major academic enterprise (...), albeit one that to the professional planner looks mostly impenetrable, written by a ‘small tribe of experts speaking to each other in strange tongues’”. This is not, however, the greatest problem pertaining to a contextualization of local knowledge. Instead, the diversity and interdisciplinary of the themes associated to it – in particular participation, community engagement, complexity theory or the fast changes in society and the world during the past few decades - present themselves as the great culprits.

Proponents of local knowledge are usually positioned within certain normative approaches, such as communicative planning, or rely on frameworks such as complex adaptive systems. But, whether arguments are for or against, the use of local knowledge is already

undertaken on a daily basis by policies that seek and value the involvement of local communities. In this work, such involvement is not only seen as necessary and inevitable, but also as something should be encouraged as a form of building autonomy, social cohesion and quality of life, and also, if possible, improved on.

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# Overcoming distance in design and planning methodologies and thinking in order to support climate change adaptation strategies and projects to become local

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This paper reflects on barriers in architectural and planning thinking and methodologies that prevent us from seeing and understanding site specific resources in design and planning processes.

The reflection takes its point of departure in the use of generic thinking and methodologies in planning and urban design and the impact on our ability to understand and work with site specific resources, and to incorporate these in planning and design.

Generic understandings and thinking colors the way, we as professionals, understand and interpret site information. As a result, hereof, we may overlook important information provided by the site and the users but not articulated or visible - for us.

The reflection takes its point of departure in two sources; the critique by Hajer and Reijndorp (2001) on the similarities of taste and preference among deciding parties in urban design.

The other, a PhD study that contributes to develop mapping methods of urban space by using smartphones in tracking people and identifying the urban spaces they spend most and less time in. The study argue that by using GPS tracking, we may gather information on people's preferred slow, e.g. good, urban spaces.

This argument raises questions on how the information is gathered, processed and interpret.

Addressing these questions seems essential if we want to support and implement site characteristics and users in planning and design, especially regarding climate change adaptation measurements that will be:

1. Adapted to site specific conditions
2. Locally anchored and accepted

**Keywords:** urban space; generic; barriers; participation

## 1 Introduction

'What are the characteristics of 'good' public space?' (Hajer & Reijndorp 2001)

Following Henri Lefebvre (1974/1991) space is produced in a kind of feedback loop between the space, and the user's perception of the space. Accordingly, good planning and design of public space, undertaken by planners and architects, is in itself not enough to produce a 'good' public space - the users, and the users perception of the space, also take part in the production.

A similar understanding of the production of space may be recognized in the call for the conference (Citta 8th 2015),

'(...) places (are) here understood as 'generative places', where the emergence of local initiatives based on knowledge-based creativity and interactive learning occur. In other words, places should demonstrate their capacity to flourish and reinvent themselves – hopefully revealing their true genius loci, meaning the location's unique character – most of the time through spontaneous processes based on community action and groups of individuals' initiatives.' (Citta 8th 2015)

- locals and local initiatives are thus understood as the primary agents in revealing and generating genius loci of a place.

Both understandings indicate processes of participation. Setting participation as a guiding perspective in the production of space, suggest, among other things, a closer look on processes and methods within the fields of planning and urban design. In the conference call (Citta 8th 2015)

the participatory processes are suggested initiated by spontaneous processes based on community action and groups of individuals' initiatives, other forms and methods of citizen involvement may also be relevant and productive. Whether the citizens are involved by taking active part in the design process or, more passively, by providing data for analysis, the idea is that by involving the citizens, the construction of meaningful spaces are more likely to happen. Hence, the users experience of the public space, as pointed out by Hajer and Reinjndorp in their discussion of the concept of public domain, becomes a pivoting point in characterizing what a 'good' public space is.

It is further suggested in the conference call (Citta 8th 2015) that the use of technological or smart driven approaches in planning processes may facilitate participation processes and strengthen the links between authorities and citizens, and to better respond to peoples needs and qualify citizens life.

The following discussion on user participation in the production of public space takes it point of departure in a reading of Hajer and Reijndorp's idea on Public Domain (2011) as a guiding perspective on analysing and producing 'good' urban public spaces. The concept of public domain concerns the user's experience of urban public space, and thus represents the user's perspective and interest in this reflection.

In relation hereto, I will discuss the importance of carefully and critically considering and orchestrating the use of references, tools, methods - technological driven approaches – in mapping of people data in relation to urban public space analysis.

The discussion is exemplified by referring to a recent PhD study combining tracking methods (user data), and 'generic' references from urban space planning and design discourse. The content, the purpose, and the outcome, of the thesis were the design of a mapping method that combined smartphone data (people's movements) with open source geographic data (place data) and linked them to underlying urban characteristics (site characteristics).

The thesis is a clever attempt to contribute to the development of mapping methods using smartphone tracking of people moving in public urban space in Copenhagen, Denmark.

The study claims that by using smartphone data in tracking people moving in urban public space, the users are involved to a greater extent, and in a more passive and neutral manner, than seen in traditional registration and observation study methods.

It is further claimed that by using smartphones in tracking people, it is possible to overcome imbedded expert's preferences and habits in selecting sites for observation studies, and hence to better involve the user and obtain information on the use of urban public space in a more objective manner.

The study is, thus, one example on involving the users in an urban design method and study, and may be seen as an attempt to support and stimulate the production of generative urban public spaces as suggested in the conference call.

The study also raises a number of questions on how we obtain, involve and process such people data, and what the forces and weaknesses hereof may be. It is discussed whether barriers within urban design and planning thinking and methodologies prevent us from seeing and understanding site specific resources in design and planning processes, and thus the data provided by tracking people (with new technology) may end up as paying lip service to ideals regarding

citizen participation and democratic processes. In addition hereto, the question on what we are to understand by the concept of local is touched.

In concluding, a perspective on climate change adaptation is added, arguing that climate changes are to be considered as an equal agent parallel to the users in the production of (generative) urban public places.

But first some focus points in the recent development within urban planning and design discourse are highlighted to establish a framework for the reflection.

## **2 Urban space planning and design discourse**

Urban planning has during the last decades in general developed from top-down and expert led planning to a planning praxis that increasingly tries to involve the users in the planning process. Concepts and terms such as participation, democratization, user driven development and human capital are omnipresent in both planning discourse and in official strategies and policy papers, and these terms and concepts are especially present in the discourse on public urban space and in urban space strategies and projects.

In Danish planning legislation the involvement of the users has been mandatory since the beginning of the 1970'ies. The character of the involvement may be public hearings but also workshops and the like.

It is assumed that by involving users in urban transformation strategies and in refurbishment of public urban spaces, the results will be more successful not just economically and functionally – they will become 'good' public space – meaning that the users will appropriate and identify with and ascribe meaning to the sites.

This may indeed very well be the case, and looking into some of the newly refurbished and new urban public spaces in Copenhagen, where users have been involved at different levels in the planning and design process, it seems to be the case.

Urban public spaces as, Noerrebro Park, Havneparken and Amager Strandpark, all situated in Copenhagen, are examples that might illuminate and support this assumption.

In the three examples the users have to some extent, and in different manners, been involved in the planning and design processes. In the case of Noerrebro park the users took part in developing the strategy for the renewal of the whole Noerrebro city district. The users were also participating in the process of the architectural competition that led to the final park design, and at the moment a group of users have designed, and are taking care of an area in the park. Noerrebro Park now has obtained an almost symbolic status as a well functioning public space, and has become the image and brand of Noerrebro city district.

Regarding Havneparken, the users also played an important role with their critique of the transformation of the inner harbor areas in Copenhagen dominated by office buildings and privatization of the harbor front, and arguing for a new public park in the area. Havneparken has become one of the most successful urban public spaces in Copenhagen and it has, like the two other examples, also become a destination to go to and hang out in from other parts of the city. The same holds true for Amager Strandpark, which was initiated by a group of locals, The Riviera

Committee, arguing for almost 30 years for a public park at the site (SSF#3, 2015). All three examples are some of the best functioning urban public spaces in Copenhagen, and some of the best functioning public domains. Common for these three examples is, that the users are coming from all over Copenhagen localizing specific activities and atmospheres they want take part in, experience and be associated with. The urban spaces may thus both be local seen from one perspective but regional seen from another perspective; this raises a question on what to understand by the concept of local. I will come back to this question in the discussion.

The three parks also exemplifies a shift from overarching and comprehensive urban planning, focusing on and combining different initiatives, such as, infrastructure, recreational spaces and dwellings on an urban district scale, to individual spearhead projects that none the less their minor scale have a strategic and an transformative impact on the district level as well (Bryson 1988/2011; Kvorning 2007).

All three examples were part of and have initiated further transformations and renewal on the urban district level. Due to their minor size and singularity, they may be easier to relate to, and therefor more accessible and more meaningful for non-professional than traditional comprehensive and long time urban planning strategies, and as argued due to their character as public spaces and spearhead projects they have facilitate other, not so public accessible and interesting urban transformation and renewal projects in their city district contexts.

Another characteristic of the development that urban planning has undertaken in recent years, is the focus on urban public life and culture (Bille & Schultze 2006) as a powerful instrument in cities mutual competition and assessments, and hence the cities ability to attract investments and human capital, and to brand themselves on a regional and global scale (Jessop 1997). The stronger focus on public life, suggest a shift towards a more anthropological approach (Korff 2003) in urban planning and design than seen previously. The anthropological approach is now being further stressed by the increasingly stronger emphasis on the user's claimed decisive role in defining and revealing urban space character. Accordingly hereto, the local project scale seems to be preferred.

### **3 Public domain – a perspective**

In relation to the described development in urban planning it seems relevant for this reflection to focus on the concept of Public Domain, as discussed by Hajer and Reijndorp (2001). On the basis of an analysis of the cultural geography of the network city Hajer and Reijndorp propose a new perspective of cultural exchange as an urban quality. They argue that in recent years society, the structure of time, work and families, and the city it self has changed from the traditional understanding and use of the city into a network city, and accordingly hereto also urban public life has changed.

But, it is argued, these societal and spatial changes are not yet met by architects and planners in their planning thinking and design of urban public spaces, resulting in an asymmetry between the social and spatial organization of everyday life and the thinking on urban public space among the deciding parties, e.g. architects and planners.

Hajer and Reijndorp sets out by analysing current urban public spaces through the lens of public domain, defining public domain as those places where an exchange between different social groups is possible and also actually occurs. They argue that public domain requires more than just free accessibility to urban spaces to everyone; it requires, '(...) diversity in the spaces that people from different backgrounds, and with different interests, all can attach a positive value to the shared experience that can take place in the spaces' (2001).

In their analysis Hajer and Reijndorp (2001) argues that the discussion on public space is too one-sidedly focused on traditional urban space, and on a traditional definition of the city, causing a lack of vision in contemporary urban public spaces

They point out three reasons for this lack of vision:

- Common themes and attitudes of involved parties/'players': e.g. an emphasis on clean up, aesthetics, and design;
- Fear of violence and lack of safety;
- An aversion against non-places, e.g. spaces that are not socially or historically anchored (referring to Marc Augé 1992).

Hajer and Reijndorp concludes, and answer the question quoted at the beginning of this reflection themselves, that the problem is, that many public spaces do not function as public domains, and they, thus, propose the concept of public domain as a guiding perspective in defining what a good public space is.

The distinction between public space and public domain is important; the first concerns the physical space, and the latter the users experience and encounter with the so-called 'stranger', and 'other' behavior, other ideas and other preferences. Hence a 'good' public space also functions as a public domain, and it is, '(...) a domain of surprise and reflection', (Hajer and Reijndorp 2001). Hajer and Reijndorp thus illuminate the above-mentioned shift in urban planning from overarching complex planning to a stronger focus on the user and the users experience and interests, and from large scale planning to the scale and projects of public urban spaces.

On the basis of their analysis Hajer and Reijndorp (2001) suggests a set of instruments to take into consideration when planning and designing urban public spaces that also strives at becoming public domains.

A potential toolbox, according to Hajer and Reijndorp, should include the following strategies and interventions.

The strategies:

1. Theming – refers to the creation of spaces, or spheres, that are meaningful for specific groups and not just as an architectural device
2. Compressing – bringing elements that have meaning for specific groups into close proximity with one another in order to generate public domain as experience
3. Connecting – concerns the methods that address the relation of different places to one another and can be confrontational as well as seductive.

The interventions:

1. Framing that creates a visibly available demarcation of territory rather than trying to encourage exchange between non-homogeneous groups.

2. Connections – between private and public that are mutually observed and exhibited – the notion of spectacle and stage – active use of circulation space for this.
3. Liminal spaces – the transitional, overlap space in between homogeneous and specified enclaves which is difficult to support but that provides exchange in the organization of heterotopias
4. More friction – currently friction-less space – spaces in which there is no conflict – are strived for results and boredom becomes the dominant result
5. Mobility and marginality – points to a need to re-think the car in the notion of urbanity, as part of the urban spectacle and to re-think marginalized groups, e.g. the homeless, as a part of contemporary urban society that needs to be included in our picture of urbanity.

Worth noticing is that they suggest strategies and design interventions that support confrontations (strategy #3), framing and demarcation and exchange between non-homogeneous groups (intervention #1) and friction (interventions #4), and as such tries to encourage heterogeneous spaces used by heterogeneous groups and individuals, and thus places with potentially conflictive atmospheres.

It may also be noticed that Hajer and Reijndorp do not describe or suggest how to involve the user in the planning and design process in their proposal for a toolbox. They emphasize that different kinds of use and users, and their needs and perceptions of urban public spaces should be taken into consideration and play a major role, when developing urban space strategies and interventions, and as such they focus on and address the 'traditional' deciding parties, planners and architects, and their planning thinking and design methods.

#### **4 Using new technology in mapping urban public space and urban life – an example**

In his thesis Scharnhorst (2015) document and interpret human movement as a way of identifying slow sites in the city, and he tries to develop a mapping method using smartphones positions in place and time in urban spaces. The identified slow sites are linked to and discussed according to specific 'good' urban public space characteristics drawn from urban design discourse.

The concept of Slowness is positioned in the thesis as a leverage point for human, city, economics and environmental health, and as a quality parameter for urban life. Slowness is defined as sites, open public spaces, where people walk, go by bike or dwell. The study area is in Copenhagen, Denmark.

The thesis is an example of using new technology to involve the users and provide user data in mapping urban life and spaces. The study discuss and questions the traditional way of selecting sites for observation (Gehl 1971/2011; 2010; 2013), and aims to overcome what in the thesis is defined as a problem, namely the way that the experiences and preferences of the experts in selecting sites for observation often are biased. Hence, Scharnhorst study may be seen as example of an approach that tries to overcome the limitations of what Hajer and Reijndorp describes as, common themes and attitudes of involved parties (2001), e.g. mainstream and habitual thinking and projects proposals in urban public space discourse and practice.

The theoretical framework in Scharnhorst thesis is established by drawing on texts, analysis and recommendations from J. Jacobs, J. Gehl, Active Living Researchers, and The Nordic Studies.

From here twelve theoretical points and the accordingly site character aspects are listed (Scharnhorst 2015).

- Connectivity – short blocks
- Vibrancy – high population density
- Opportunity for different building uses - diverse building sizes
- Opportunity for different building uses - diverse building ages
- Mixing in time and space – diverse mixture of primary uses
- Public Health benefits and increase in active transportation – safety
- Opportunity for talking and hearing people – noise
- Comfort – microclimate/climate
- Access to 'everyday' activities – home location
- Access to active transportation commuting options – work/school location
- Opportunity for everyday activities – location of shopping
- Safety and opportunity for everyday activities – viewsheds

It is assumed that these twelve aspects produces and support slowness.

The aspects are linked with the place data (maps) and with people data (GPS tracking of people). The three parts - site characteristics, place data and people data are the components in the design of the slowness mapping method.

The theoretical framework used in Scharnhorst thesis represents one, and perhaps the most dominant, line of thinking within the urban design discourse stemming from Jane Jacob critique of urban planning and her activism for creating better cities for people.

Many research projects and researchers within the field of urban planning and design all over the world refers to this line of urban space discourse despite whatever geographical position, and despite whatever cultural context and urban typology the research is undertaken in relation to – and as such these references made be described as 'generic'.

This is not critical or a problem as such, but it may impact the studies in a problematic manner if the researcher isn't critical towards the generic aspects of such references, or, as Hajer and Reijndorp (2001;15) puts it:

'Sometimes we approach a problem with the wrong concepts (...) Take, for example, the idea that public domain has been understood in terms of the 'bourgeois' public spaces of the Paris of the 18th century or Vienna at the end of the 19th century. (...) Might we not be focusing too closely on those examples, instead of looking at the ways in which processes of exchange and mutual interest arise, and how they can be facilitated right now?'

Scharnhorst's study revealed a general picture of where in the study area different speeds occurred; fast GPS points covered more land area than the clustered slow sites, and there appears to be an overlap between some slow and fast peaks. Viewsheds identify some locations where these two types of movement collide.

The slow locations had about twice the block density, twice the population density and number of residences in view, almost ten-times as many shops in view, and over two and a half times as many addresses in view than the top 20 fast locations. There was little difference between the building footprint sizes and of building ages between slow and fast peaks. The ratio of non-residential to all uses was slightly higher for the slow peaks than for the fast peaks. The median estimated noise level was the same for both the fast and slow locations.

Some of the twelve aspects were not mappable, and some findings, which displayed other urban characteristics than the listed twelve aspects, were left unnoticed and thus not discussed, emphasizing the site un-sensitiveness of generic approaches and references, and illuminating the problem in approaching a problem, and a site, with the wrong concepts.

## 5 Discussion

This reflection take its point of departure in referring to Henri Lefebvre and his thinking on the production of space as a kind of feedback loop between the space, and the user's perception of the space, emphasizing the interplay between the space and the user, and the user's perception, in the production of the space.

It is argued that a similar understanding may be seen in the conference call (Citta 8th), where the concept of place is understood as 'generative places', meaning places initiated by local initiatives, and where the demonstration of their capacity to flourish and reinvent themselves is set as a success criteria. In this understanding local initiatives, and local users, are seen as the most important agents in the production of space. This notion is emphasized by the claim that by demonstrating their capacity to flourish and reinvent themselves, the true *genius loci* of a place may be revealed.

This claim could be interpret as the revealing of *genius loci* of a place depends on the locals, and may thus support what I described as an increasingly stronger focus on the importance of public life, e.g. on people, in recent urban design discourse. This anthropological approach downplays and consequently redefines the role of architecture, and of the urban planner and architect, by proposing the users and their actions and initiatives as the driving force in the production of space. This suggests that the object and purpose of planning and design is shifting towards orchestrating, designing and supporting such social actions and initiatives.

Christian Norberg-Schulz (1971) argued a bit different, in his thinking on *genius loci*, for an architecture that takes into account the place, the surroundings, including its history and cultural practices.

According to Norberg-Schultz place identity involves what we walk on, what is above, and what we are aware of around us. Secondly, Norberg-Schultz emphasized the importance of the built structure, the organizational pattern of buildings in relationship to the surrounding landscape, the composite form of built elements, and interior organization. He pointed out that, ideally, a settlement and its built parts are to be visible as clearly defined units in the landscape. This formal clarity contributes to the settlement's being perceived as a thing for human beings.

And further, that we must also recognize ourselves in the surroundings, meaning that one has to be 'friend' with the place, identifying with its, non-human, qualities, for example the climatic conditions and character,

'(...) One cannot stay in Norway without being friends with the snow, without liking walking on snow that squeaks under the feet, without feeling the snow pricking the skin.' (Nordberg-Schultz 1971)

Hence the physical and spatial elements structures, shape and strengthen place character, which is influenced by many environmental dimensions, including qualities of light and the composition and colors of terrestrial surfaces. Individually and together these aspect contributes to how one experiences a place.

Norberg-Schultz definition of *genius loci* thus comprised the physical, the natural and the built environment, and the users experience of this environment.

One could say that the revealing of *genius loci*, in Norberg-Schultz's understanding, is depending both on the architect's interpretation and organization of the natural and built environment and their interdependencies, and how the design is experienced as objects (things) and appropriated by the user. Norberg-Schultz thus balanced the notion of *genius loci* between the architecture and the user as a resulting process of analysis, interpretation and appropriation through experience.

The understanding of the importance of the user in urban space production is supported by the discussion by Hajer and Reijndorp on the concept of public domain, and taken a step further in linking public urban space with the concept of public domain, defining public domain as those places where an exchange between different social groups is possible and also actually occurs. Exchange concerns the experience and the encounter with the so-called 'stranger', and 'other' behaviour, other ideas and other preferences. Exchange is thus understood both as physical, visual, and spiritual and cognitive.

It is argued here, that the focus on the user as an agent and on the importance of user's perception in the production of space is parallel to the development in urban planning, where a shift from top-down overarching large scale urban planning to a planning praxis emphasizing the involvement of the user is characterizing. Also characterizing for this development is that projects in a smaller scale, such as individual urban public spaces, are used as strategic spearhead projects in facilitating more comprehensive development and transformation plans on urban district level.

Further, that societal, spatial and technological changes in recent years have impacted urban life and questions the focus on the importance of local urban public spaces (Bryson 1988/2011; Kvorning 2007).

Urban life is now also characterized by the users increasingly choosing and negotiating in which public spaces and activities they want to be part of, and with whom they want to be with, and thus the localization of spaces and activities among certain groups of users gains importance over the idea of the importance of local spaces. (Bille and Schultze 2006; Bryson 1988/2011; Kvorning 2007)

This development suggests that the individual urban public space should be seen as part of an urban landscape, where the accessibility and connectivity in a network of public spaces, and

the diversity of spaces and activities, are equally important as the notion of local space and local users.

But what does local mean?

'(...) It seems as if, as a legacy from the classical period (in Anthropology), it is assumed that everybody knows what local is and thus there is no need for further elaboration. This can be taken as one reason why the current literature dealing with 'local', is not at all explicit about what is meant by it. Implicitly local is linked to spaces socially and culturally integrated in specific ways. (...) Global denotes an abstraction from space in terms of flows, ideas, virtual realities and images, while local in contrast refers to real spaces. '(...) Localities are not isolated from each other. If there is one feature of the global age that can definitely not be doubted, it is the global networks of communication and media. Thus between localities which used to be far apart, now regular interactions take place. (...) Social interaction is always spatially bound and never covering all space. Selections and classifications of interaction – space linkages are constantly made and places perceived as favorite, less favored and avoided. These classifications are internalized through routine and taken for granted. In other words, an accommodation takes place' (Korff 2013).

So, how to define the borders of a local space, and how far stretches the reach of a local culture and local knowledge? According to Korff space linkages are fluid and negotiable, suggesting that the borders of local space is rather dynamic, which also the local users therefor must be. To elderly people and children the local, e.g. the nearest, urban spaces still are important and as such may be defined as local and the users as locals. But to other groups of users, ranging from teenagers to people in their 60'ies and 70'ies, the nearest public space may not be their first choice. This suggests that, in observing and understanding what local may mean and for whom, the different groups of users and their patterns of choices of urban spaces and activities, smart driven approaches and new technology may be very useful in exploring and documenting how far the reach of a local culture stretches in physical space. Further, smart driven approaches and new technology may also be very useful in documenting where, and in which types of public urban space different local groups meet, and what characterize such meetings and spaces. Just concentrating on, and documenting a singular local group and their specific activities and experience of one public space, would be an opportunity missed, as it is the exchange and encounter between individuals and groups in public spaces that will determine whether the spaces analyzed also may be characterized as public domains.

In order for the urban planner and architect to understand these complex exchange processes between users and spaces, huge amounts of data on both people and the spaces they use, is required and have to be processed, and this is exactly the force of much new IT technology and software, which may thus have a huge qualifying impact on traditional observational study methods within urban planning and design, and thus may support involvement of the user in the planning and design processes and the development of generative spaces and methods in urban design.

A weakness in Scharnhorst's study (2015) was that the gathered information only represented the participants, and the non-participants were not represented. The participants were mainly younger people that had volunteered and the major part hereof, were students, which often

live a different life, and use the city and the public urban spaces in a different manner, than a family with small children or elderly people does.

This suggests that in order to avoid biased and limited participants, and thus obtain representative data, the rules for participating in such studies obviously have to be addressed - no matter using new technology or smart driven approaches or not.

The used tracking method in Scharnhorst study was designed to be more automatic and passive than more traditional observational study techniques. The participants did not have the chance to annotate the maps produced or to explain what was happening, how they felt, or what was interesting about a certain part of the city.

The passivity, or remoteness, of the digital approach meant, that the maps were created at a distance from the spaces and people being mapped. Further, the pointing out of sites as it was done in Scharnhorst study was not in it's own a way to analyze a site, or to document other activities or mix of activities going on at the site.

The use of new technology in this specific example did thus not provide information on whether the spaces found also functioned public domains, in order to do so, one must ensure that different groups with different interests actually participate in the study. And it suggests a combination of approaches and qualitative and quantitative methods to be used; for example a combination of traditional observation studies, questionnaires and new technology based tracking.

The degree of user involvement was in Scharnhorst study rather limited and the remoteness of the digital approach in it self may even create an additional distance between the users and the planners and architects, and thus seen as an objectification and an alienation of the users.

Eventually, the distance and the objectification may be perceived by the users as a substitute for dialogue, and as paying lip service to ideals and expectations of involvement, participation and democratization, and hence not facilitate or support the production of generative spaces.

The strength of using smartphones to gather information on urban space and its users in the way it was done in Scharnhorst's study, was that it was not limited by the experiences and preferences of the experts, which may be the case in more traditional observational methods and studies. This may be explained by the fact that by following a discourse, also often implies following it's implicit and un-articulated framework of understandings and 'rules', and thus ending up with analysis, strategies and project proposals characterized by 'common themes and attitudes of involved parties/'players' (Hajer and Reijndorp, 2001).

An advantage about generic thinking and methodologies is that they provide a common ground, and a commonly accepted ground. A disadvantage is that in order to be generic they also tend to become insensitive towards site and time specifics.

A result hereof may be, that we as architects and planners overlook site specifics potentials, challenges and resources, because we uncritically follow a discourse and its imbedded framework of rules, and thus our thinking on public urban space itself becomes a barrier.

This problem is exemplified in this reflection with Scharnhorst study. The findings in Scharnhorst study were in line with some, not all, of the highlighted theoretical points drawn from

one particular line of urban design discourse. Some of the findings were rather interesting, but due to their site characteristics – mainly landscape characteristics - they were outside the range of the listed 12 aspects. This illuminates a barrier in the architectural thinking on urban public space in this particular study, related to following a discourse and its imbedded rules uncritically. The barrier prevented seeing the site characteristics and potentials and thus displayed an example of site insensitivity in generic urban design thinking and theory that is counter-productive to the production of generative urban public spaces.

Like Jacobs, Zukin (2010) looked at what gives neighborhoods a sense of place, but Zukin argues and points out that over time, the emphasis on neighbourhood distinctiveness has become a tool of economic elites to drive up real estate values and effectively force out the neighbourhood 'characters', that Jacobs so evocatively idealized. Zukin thus shows that for followers of Jane Jacobs, this transformation is a perversion of what was supposed to happen.

As described above, societal and spatial changes have an impact on urban life and the way urban public spaces are used and chosen by the user in relation to preferences of activities, atmospheres, and other people, resulting in a shift from seeking and using the nearest public space to localizing sites and activities that seems attractive now and here.

This suggests that public spaces and urban life are increasingly becoming subject to negotiation, and the question on what constitutes a 'good' urban space is becoming increasingly dependent on how the spaces are perceived by the users and when.

This pushes the balance and interaction between space and user, towards the user and their perception of space as suggested in the notion of production of generative spaces (Citta 8th.), towards an anthropological approach and understanding of the production of space, depending on, '(...) spontaneous processes based on community action and groups of individuals' initiatives.' But, according to Korff (2013), '(...) From an anthropological point of view, space does not have a dynamic of itself in structuring social relations. It is not space that gives rise to specific cultures, but the other way round: cultures and social relations give meaning to space and construct "landscapes".' Following this, urban space thinking and methodologies within urban planning and design are challenged; from being a concern of the architect and planner – a professional concern - methods in planning and urban design seem more and more to become of public concern, and the participatory process becomes the design project in itself, downplaying the organization of space and spatial qualities, and downplaying the understanding of space production as an exchange between space and the users.

Involving the users and processing user data generally aims at meeting and emphasizing the local and site specifics and local cultural practices, which are not, and cannot be taken into consideration in a generic framework as illustrated with the example of some of the interesting but unnoticed findings in Scharnhorst's study - as a result hereof we as planners and architects may overlook what might be obvious, but not articulated by the user, or overlooked by our selves in the analysis due to the theoretical framework's insensitivity. This questions the use of generic references, their general authority, recommendations and the imbedded methodological approaches.

Or as Korff (2013) puts it in his discussion of local enclosures of globalization,

'(...) If locality is not taken per se as linked to a unified space, but can have the form of clusters of places, several aspects often perceived as belonging to the global, like migrant communities, cosmopolitan life styles, etc. could be re-constructed as a basically local context. The difference to other localities is only that it consists of different, but nevertheless linked places spread over the globe. This raises the question in how far expert-knowledge, discourses of universality (even if these refer to relativism!) etc. can be re-constructed as local knowledge?'

Following Hajer and Reijndorp's notion of public domain also implies following their suggestion on strategies and design interventions that support confrontations (strategy #3), framing and demarcation and exchange between non-homogeneous groups (intervention #1) and friction (interventions #4). This underlines the site sensitivity required in observing and analyzing site characteristics and people data, which may or may not be supported by the use of smart driven approaches and new technology, but basically is more depending on carefully orchestrated gathering of data and sensitive analysis than the tools used.

## **6 In conclusion - a further perspective in relation to climate change adaptation**

Finally in concluding, I will add a further perspective in relation to climate adaptation to the discussion; climate changes may push and question the anthropological approach in current urban design thinking towards a much more site specific approach and focus in planning and designing urban public space, where climate becomes a 'silent' but determining agent in the production of space. Due to the impacts of changing climate on the built environment an interest in understanding relationships and interdependencies between cities and their natural environment is needed. Understandings hereof are essential in developing adequate climate change adaptation measurements.

The individual factors in climate changes processes, such as modified wind and precipitation patterns, and the increasing temperature and a rising sea level, often act together, why Paskal (2009) suggests that climate changes leads to 'environmental changes'. She illustrates this by referring to damages on buildings, roads and energy delivery systems in permafrost areas, which now no longer are permanently frozen, and thus no longer provides stable bases. This also means that a standard impact assessment methodology, Assessments of Environmental Impact (EIA) is no longer sufficient - the effects of the environment on a given system or object now also have to be evaluated. Hence climate change processes cannot be considered and handled isolated or locally. Climate changes impact our understandings and notions of not only climate but of nature per se, and therefor climate changes also have an impact on man's interaction with nature and natural phenomena, and therefor also on the built environment and urban public spaces.

Hence the phenomenon of climatic changes may be understood as a hyperobject (Morton 2013), an entity of such vast temporal and spatial dimensions that it defeats the traditional idea about what an object is. According to Morton. 'Hyperobjects seem to force something on us, something that affects some core ideas of what it means to exist, what earth is, what society is.'

Morton seems here to be in line with the concept of genius loci as discussed by Norberg-Schultz, emphasizing the impact of the environment on our ideas, society, and eventually also on our notion of what constitutes a 'good' public space, because a majority of adaptation initiatives and

projects will take place in public urban spaces, but cannot be isolated in individual, local, urban spaces.

In this understanding climate change is an un-escapable and omnipresent condition. Hence climate changes are to be understood as an equal and parallel agent in the production of space, parallel to both the space itself and the users.

This may shift the balance between space, user and the user's perception in the production of space again; from the development from an expert led and top-down approach to an increasingly larger focus on the user, and from the idea of generative places based on spontaneous processes by community action and groups of individuals' initiatives - the anthropological approach - to an approach where activities in and wishes to urban spaces must adapt and subordinate to conditions originating from climate changes, which will have priority.

This could suggest the need for a reintroduction of a more comprehensive urban planning approach and on a larger scale again, and a planning methodology that involve experts from the natural sciences in a larger scale than normally seen. This may in itself produce confrontation and friction, but due to the nature of climate changes, it is a different sort of confrontation and friction discussed previously. Our needs and likings in relation to urban space and urban life are to be discussed and coordinated with 'silent' climate changes and a framework of conditions originating from here.

Following a stronger focus on climate conditions, points towards a stronger site-sensitiveness approach in urban planning and design thinking and methodology. And here new technology may certainly come in very handy in observing and gathering data on effects, dynamics and other aspects of climate changes, and in communicating and discussing the information, strategies and proposals to the public, in order for them, and us, to appropriate and become 'friends' with climate changes.

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# Becoming local at Parque das Nações: the urban political economy of a planned neighbourhood in Lisbon

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The Lisbon World Exhibition of 1998 was an official celebration of a modern and cosmopolitan Portugal, as well as, of the country's historical maritime achievements. The event encompassed the renovation of Lisbon's Eastern waterfront, emerging as an opportunity to symbolically redefine its metropolitan development and to redraw its image as a contemporary and international city.

The aim was to create a new urban centrality, through the regeneration of an area that was until then occupied with port, industrial and storage facilities, along with working-class family housing.

Renamed Parque das Nações and promoted as the 'Imagined City', after the conclusion of the exhibition, the site became an emblematic space for the Lisbon metropolis due to the lasting symbolic association with the event. It also grew as a residential area for the urban middle classes and as the location of numerous enterprises, as well as commercial, cultural and leisure venues.

The main objective of this paper is to describe and interpret the implementation of a specific modality of 'urban political economy' in Parque das Nações (Lisbon), between 1998 and 2012.

The paper relates to the conference theme (session 3) in the sense that it focuses on a local process of place building that involves policies and urban management principles and instruments, but also community action, and everyday practices. It really is about new ways of becoming local in contemporary, globalizing cities.

**Keywords:** Urban political economy; place building; urban management; Lisbon; *Freguesia* do Parque das Nações.

## 1 Introduction

The Lisbon World Exhibition of 1998 was an official celebration of a modern and cosmopolitan Portugal, as well as of the country's historical maritime achievements. The event encompassed the renovation of Lisbon's Eastern waterfront, emerging as an opportunity to symbolically redefine its metropolitan development and to redraw its image as a contemporary and international city.

The aim was to create a new urban centrality, through the regeneration of an area that was until then occupied with port, industrial and storage facilities, along with working-class family housing. The project included the dismantlement of the existing infrastructures, the displacement of residents, the building of the Expo's precinct and of a planned new neighbourhood around it.

This configured a socially uneven process of new-build gentrification, as defined by Loretta Lees and Mark Davidson (Davidson & Lees, 2005), one of the recent developments of gentrification, featuring the following characteristics: direct or indirect displacement of low-income groups who are replaced by incoming high-income groups, landscape alteration and reinvestment of capital in a disinvested area. In this type of gentrification, instead of a reconversion of old buildings, we witness their demolition and the construction of new ones.

Renamed Parque das Nações and promoted as the "Imagined City", after the conclusion of the exhibition, the site became an emblematic space for the Lisbon metropolis due to the lasting symbolic association with the event. It also became a residential area for the urban middle classes and the location of numerous enterprises, as well as commercial, cultural and leisure venues. The existence of a transport interface with local, metropolitan, national and international connections strongly enhanced the relevance of Parque das Nações in the urban and metropolitan context, by

placing it at the centre of several mobility networks. Finally, the public spaces and the vast and well cared for green areas, while becoming attractive leisure spaces for different kinds of urban populations, were and are used as instruments of real-estate valorization.

Until December 2012, Parque das Nações was an exceptional case in the Portuguese context: urban management was not under the responsibility of the two municipalities the neighbourhood belonged to (Lisbon and Loures), but of Parque Expo, the public capital firm created to infrastructure the area and build and manage Expo'98. The firm's revenue originated mainly from the public budget, bank loans and from selling the land to private developers that ultimately built the edifices and sold them at market prices.

During the fourteen years Parque Expo managed Parque das Nações, public spaces were cleaner than the rest of the city and provided with more public and private security mechanisms, aimed at collective and individual behaviours.

In August 2011, the Government decided to gradually extinguish the firm due to its debts. By the end of 2012, as dictated by the national parliament, the whole area became a new *Freguesia* (smallest local administrative unit in Portugal) of Lisbon and was subsumed under the management of this municipality and the new executive of the *Junta de Freguesia*, elected in 2013. In September 2013, a movement composed by members of the residents association, with no party affiliation, won the local elections. In April 2015, the executive, claiming difficulties in managing the large territory with no party support, affiliated to the Portuguese Socialist Party – in power at the city council. For most residents, this process was a success of local based bottom-up political action. Recently, urban management problems and conflicts inside and outside the executive started to rise.

The main objective of this paper is to describe and interpret the implementation of a specific modality of 'urban political economy', between 1998 and 2012, and the alterations it suffered since 2013. The main idea behind the notion of 'urban political economy', inspired by Yankel Fijalkow (Fijalkow, 2009), is that a city is, among other things, a political object resulting from the implementation of urban policies, rationalization and bureaucratisation processes that are supported by legal instruments. But at the same time, it is also based on implicit rules of collective action, on negotiations between the elected, the technicians and the users/residents/city dwellers. And this authorizes a sociological analysis of the 'government of the city'. This notion also integrates processes of adjustment and control of frontiers and of social and spatial distances within the territory.

In this case study, I decompose the 'urban political economy' of Parque das Nações in three main dimensions: discourses and practices of urban management; border management; and neighbouring actions. In the three dimensions, I will seek to describe the negotiations, the cooperation and the conflicts between the different actors at play.

The discourses and practices of urban management suffered a great transformation from 2013 on, since Parque das Nações is no longer a showcase for the urban planning work of Parque Expo.

The paper relates to the conference theme (session 3) in the sense that it focuses on a local process of place building that involves policies and urban management principles and

instruments, but also neighbouring actions, and everyday practices. It really is about new ways of becoming local in contemporary, globalizing cities.

The data and analysis presented in the paper are the outcome of a PhD research in Urban Sociology completed in 2013 (Pereira, 2013) and of a more recent follow up on the issues related to the new *Freguesia* do Parque das Nações. Participant observation, in-depth interviews and documental research were the main instruments used to face the complexity of the issues in focus.

## 2 The urban management of Parque das Nações: an exceptional situation

In a 1997 article, Castro, Lucas and Ferreira (Castro, Lucas, & Ferreira, 1997) presented the economic and financial strategy established for Expo '98, a project decomposed in two parts: the exhibition and the urban renovation program. With regard to the first part, Parque Expo had as objectives to design, to build, to implement and to dismantle Expo '98. For the second part, its function was initially to provide infra-structured land with already defined uses and buildable capabilities in order to mobilize investors and economic agents. Afterword, it was extended to urban management.

To make the realization of Expo'98 possible according to the model conceived at the time, the whole area became property of Parque Expo. Based on the assumptions that Expo'98 project did not end on September 30 1998 and that, ultimately, its success was only possible "with a very rigorous preparation and management of the post-Expo phase", the Presidency of the Council of Ministers set "to ensure, to the intervention area, an urban and environmental quality of excellence" and "to ensure the rapid development of urban activities in the area, minimizing the transition period" as two of the three strategic objectives of Parque Expo. Objectives to be achieved through a number of actions, including the definition of a "legal framework of urban management, in cooperation with the Municipalities of Lisbon and Loures" (Resolution of the Council of Ministers 68/98 of 19 May), taking into account that the territory in question was divided into three *Freguesias* (parishes) of the two municipalities: Santa Maria dos Olivais in the municipality of Lisbon; Sacavém and Moscavide in the municipality of Loures (see map 1).

**Map 1** Parque das Nações: once a divided territory



(Source: elaborated by the author, based on a map property of Parque Expo.)

Immediately after the end of the Expo, in September 24, 1998, Parque Expo and the two municipalities signed an agreement to establish the principles for the joint development of a legal, institutional and financial model of urban management of the zone of Expo '98, for a transition phase until the full integration of the area in the municipal management under local authorities. It was only in 2001 that this agreement was translated into legislation: the 165/2001 Law Decree defined the legal model to ensure the continuity of management of that urban space, through the creation of a company established by Parque Expo and the two municipalities. But this company was never created and the situation remained unchanged until July 2008, when Parque Expo Urban Management Company was created. It was a subsidiary company with no concrete participation of the municipalities. The objective of the company was to ensure "the maintenance of the Parque das Nações territory, continuing the pattern of urban quality, inherited from the Lisbon World Exhibition 1998" so that it functioned as a showcase of modern Lisbon, fulfilling the role that it had been allocated in the context of interurban competitiveness: "to enhance the economic and social development, the modernity and the international affirmation of the metropolitan area of Lisbon as a European centrality." (165/2001 Law Decree).

After Expo '98, Parque Expo adapted its corporate object to a new role, starting to carry out other "projects of planning and urban regeneration, with an emphasis on urban and environmental rehabilitation and rehabilitation of degraded areas anywhere in the world." ([www.parqueexpo.pt](http://www.parqueexpo.pt)). Among the projects carried out by the company in Portugal since 2005 are the implementation of the POLIS program in several cities (Cacém, Albufeira, Leiria, etc.). Internationally, the company developed various kinds of projects in Morocco, Algeria, Angola, Cape Verde, among others. In this context, the Parque das Nações functioned as a showcase of the company itself, that is, as an example of what the company could achieve. Another motivation was the investment in the aforementioned urban quality.

Most residents and certainly the Association of Residents and Traders of Parque das Nações (AMCPN) were not oblivious to this fact. The speeches came out somewhat ambiguous: on the one hand, the acknowledgment of the lack of transparency and less democratic quality of such urban management and, on the other hand, a praise of the quality of public service provided by the company and fear that this would not hold with a municipalized management. The AMCPN was aware that many of its members and other residents considered it would be better, from the point of view of quality of life in the area, that the Parque Expo continue to manage the territory instead of it being put under the jurisdiction of the municipalities.

The urban management of Parque Expo was organized in order to maintain, in this new showcase of Lisbon, a certain special, social and symbolic order that should result in a secure and peaceful urban ambience, with no disruptions of any kind.

This points to phenomena of "domestication" (Zukin, 1995) of the new public spaces in order to meet the expectations of urban elites and the middle classes in terms of safety and aesthetics. Investment in stylization of public spaces is a trend identified in central public spaces of contemporary cities (Zukin, 1995), urban waterfronts (Sieber, 1993) and urban areas that are regenerated to be used as locales of mega events (C. Ferreira, 2005). The distinction of these new landscapes is guaranteed by the mobilization of renowned architects and designers.

If, on one hand, these public spaces that were formerly "hidden" from view become accessible to the general public, on the other hand, these new landscapes of consumption (Ritzer, 2005) and power (Zukin, 1993) may also emerge as landscapes of exclusion, if not by force then by other types of power associated to the implementation of specific ambient qualities (Allen, 2006), to symbolic codes, to taste and income (Chang & Huang, 2010).

The operations of transformation of port and waterfront areas are, in fact, elaborated and complex strategies of seduction (Rodrigues-Malta, 2004, p. 100) by means of which an image of a cosmopolitan and attractive city is built. Attractive for middle class people and investments (Bruttomesso, 1993; Shaw, 2001; Shubert, 2008), the waterfront becomes a "showcase" (Rodrigues-Malta, 2004) of the city, its most visible face, to where many public and private investments are channeled, taking them away from other parts of the city. That's where a unique and singular identity of the city is staged, with, simultaneously, a strong global resonance (Rodrigues-Malta, 2004).

The cultural meanings and references that local authorities, planners, designers and urban managers associate with these public spaces contribute to the emergence of a visual aesthetic and a particular atmosphere, a sensitive landscape that defines power relations in the spatial organization of these spaces (Degen, 2003, p. 867). According to Sharon Zukin, "the look and feel of cities reflect decisions about what – and who – should be visible and what should not, on concepts of order and disorder, and on uses of aesthetic power" (Zukin, 1995, p. 7). The seductive "ambient power" (Allen, 2006) may be more effective than security, surveillance or fences to control places, people and activities.

Culture is used as a means to visually and symbolically frame space. In this logic, public spaces become visually consumable products. In this context, private and commercial interests have increasing influence in the configuration of public spaces, that are used as marketing tools of the reinvented city and its real estate (Degen, 2008, pp 31–33). The emphasis on the image of the city and on urban marketing is, along with the stylization of public space, one of the strongest trends that mark urban regeneration processes associated with mega events (C. Ferreira, 2005, p 451).

The association to the theme park is strong in these new public spaces. To appeal to a mostly white, middle class and suburban audience, Disney created in their parks a simulation of the world that is both idealized and devoid of risks, conflicts or disputes (Hannigan, 1998). The adaptation of this Disney version of theme park to neighbourhoods of real cities changed our understanding of urban life forever. According to Hannigan (1998), architects, developers and planners, in the creation of new urban destinations of entertainment and leisure, refined the two key strategies of the Disney parks: an elaborate but inconspicuous strategy of control and surveillance and an architectural style designed to create an aura fantasy, delight and well-being.

Going back to the case study of Parque das Nações, we can say that Parque Expo, in the conception and management of Parque das Nações mobilized such a strategy. In October 1999, Antonio Mega Ferreira (Expo'98 Commissioner and President of the Parque Expo's Board of Directors from 1999 to 2002) has stated the following to the newspaper *Diário de Notícias*:

"Regarding safety, a clear choice should be made: we do not advocate private militias. We will work so that all safety condition conditions are met, but we shall never create a private police. This is the principle of the gated community, which is exactly the opposite of what we want for this space" (Rocha & Ferro, 1999).

Despite that, the fact is that Parque Expo had for several years a private surveillance team, in order to better control the space.

"We have a security company, not security, but vigilance. Because it really makes a difference. They make rounds, but they don't intervene. In Portugal, security companies cannot intervene, they call the police. Obviously, this increases security. But, for instance it doesn't stop a pickpocket [...] because pickpockets don't work when the policeman is next to them. [...] They give us faster feedback of what is happening in what area and maybe the subsequent police intervention prevents, let's say, the situation from escalating. [...] It is a general security enhancement that obviously, maybe, discourages criminals from acting in front of them" (R., Parque Expo Management Company employee, 2010).

In addition to this security reinforcement, some public spaces close overnight, a practice that the representative of the management company, I interviewed, justified as follows:

"Because there is lots of nocturnal activity in public parks, of all kinds. From people who sleep there, parties that cause havoc ... In almost all cities, public spaces are closed, because of prostitution ... All this range of activities... to avoid problems. And the public gets nothing from having this park [cabeço das rolas] open overnight. You have to think, you have to see where the advantages and disadvantages are." (R., Parque Expo Management Company employee, 2010)

Cleanliness and tranquillity are other of the preoccupations of the manager. I transcribe below a particularly clarifying answer by another employee to the question: "What kind of urban ambiance do you want in Parque das Nações?"

"I said reasonable because it was being very diplomatic. We want a super ambiance! In every aspect you can imagine. [...] Everything, even the bad smell, concerns us. [...] It's the security, which can go from the burglar who steals a wallet to [the presence] of a homeless person who does not make people fear for their safety, but also gives them no sense of well-being and comfort. It's the cleaning; I think it's pretty successful. [...] The moment someone sees graffiti, I immediately write a letter to ask people to paint over the graffiti [...]. It's an accident happening and the bollards being brought down and half an hour later a team is replacing the bollards. You do not see fallen things like you see in other city areas. We are not better than others, we are a much more circumscribed territory. [...] When I say environmental quality: it's everything! [...] I think it has to have the ideal ambiance. [...] The ideal is to have air quality, the sound... [...] The June celebrations leaving the smell of sardines: it disturbs residents. "One person is enough", I used to tell people: "I do not need a petition, just one person telling me that the smell is disturbing", I say: "Church, be patient, this year you have to do it back there, so as not to disturb others." [An area with environmental quality is] a space that has no papers on the floor, that has pruned trees, that has no leaves on the ground, where people go to play, and they

don't shout. [...] So, looking that the ambiance here, it's as if it's your home or your garden, and you are careful with your garden and your home. And there everything is spotless" (M.C., Parque Expo Management Company employee, 2012).

The analogy with the private garden reveals the rationale behind the management project. The public atmosphere that is pursued through this management is a peaceful environment that does not offend the senses. There is a clear concern for the residents and, by extension, to all who seek the Parque for the same reasons as residents. A homogenous population looking for a peaceful and orderly leisure, which does not dirty, who does not make noise or cause bad smell. This concern translates into a tight monitoring and signalling, all activities that do not fit with that image, the authorities may prohibit.

Another strategy of manipulation of the urban ambiance is the theming of urban landscapes - one of the defining characteristics of Hannigan's Fantasy City (Hannigan, 1998). It is useful at this point to recall the great "cultural issues" which, according to Sieber, usually guide the redevelopment of urban waterfronts, framing them visually and symbolically, creating new visions and meanings for cities: environmentalism, historic preservation and tourism and leisure (Sieber, 1999).

In the case of Parque das Nações, the theme chosen to frame the built environment is associated to the Expo theme itself: "Oceans: a heritage for the future." We can identify the theme of the oceans woven into the built and symbolic reality of the Parque, declined these three forms: cleaning of land and water plans and implementation of educational structures associated to the preservation of the oceans (environmentalism); episodes and historical figures associated to the Discoveries (historic preservation) and the visual imagery and materials associated with sea travel (tourism and leisure).

It is easy enough to recognize this maritime/naval theme when walking around paying attention to the names of streets, gardens and buildings. Many commercial venues, the Centro Comercial Vasco da Gama, for instance, also adopted the theme.

In August 2011, the Government decided to gradually extinguish Parque Expo and by the end of 2012, the whole area became the new *Freguesia do Parque das Nações*, integrally part of the Lisbon municipality, in the context of the city wide administrative reform. In December 2012, the Lisbon City Council took over the responsibilities of urban management that included spending about 500,000 euros a month in acquisition of services to external providers.

Many changes are visible in the territory, since Parque Expo no longer manages it. The realization of the music festival Super Bock Super Rock in the central area of the Parque, which would never be allowed by Parque Expo, and the less well taken care of green spaces are the most evident.

In the short term, many critiques have risen from residents in the social media - having already passed on to the regular media - about the negligence, or even incapacity, of the new *Junta de Freguesia* and of the City Council regarding public space maintenance.

The interesting question here is: what will, in the medium and long-term, the consequences of a reduction of control over the public space be? Will it become a better public space in the sense that it can foster political interaction, conflict and disagreement (Degen, 2003,

2008; Leite, 2001, 2002; Mitchell, 1995, 2003)? In a good public space - a space where demand for the right to the city can be seen and heard - there's always room for struggle and contestation (Degen, 2008, p. 198).

### **3 Border management: the process of creation of the new *Freguesia do Parque das Nações***

The quality resulting of the urban management and the legitimacy for its conduct has always been a major concern of the residents' association, one of the key actors, in conjunction with the Parque Expo, of the political economy in the Parque das Nações. The association, established in mid-1999, had in 2010 about 100 families or individuals associated. Its objectives are to: 1) strive for the integrated and unified management of the Parque das Nações; 2) work for the defence, conservation and enhancement of local heritage; 3) defend, preserve and strive for improvement of environmental conditions and quality of life; 4) participate in the management of public spaces and equipment of common interest; 5) coordinate with the building administrations to defend their interests; 6) promote the participation of the population in the discussion of problems that, directly or indirectly, concern them and 7) promote sport, culture and leisure among its members (Associação de Moradores e Comerciantes do Parque das Nações, 2009).

The purposes, activities and collaborations of this local association are diverse, however, there are few doubts that it was the pursuit of objectives 1) and 3) that brought increased visibility to the AMCPN. For the association's representatives, these two objectives were tightly linked. Their pursuit corresponded to all activities undertaken towards the establishment of the *Freguesia* and the integration of the entire territory in the municipality of Lisbon. This objective was achieved at the end of 2012. In December of that year, Lisbon's City Council took upon itself the responsibility for urban management and in February 2012 the Municipal Assembly of Lisbon indicated the president of AMCPN as a representative of the residents in the Installation Committee of the new *Freguesia*. Subsequently, an independent citizens' movement, with the former President of the Association as its leader, won the local elections. In 2015, the local executive joined the Socialist Party, claiming managerial difficulties, ceasing to be independent.

Gentrified areas, as most urban areas, are always contested territories, *enjeux* of social, spatial and symbolic struggles that can take different forms (Tissot, 2009). The struggle we are focusing on was about an administrative division and a specific vision of quality of life, undertaken by a group of citizens trying (and succeeding) to reinforce the social and symbolic limits of Parque das Nações. This created an additional barrier to the adjacent areas and an objective tie to the more prestigious territorial entity: the city of Lisbon (when compared to the other one: Loures).

The Resolution of the Council of Ministers 68/98 of May 19 and Decree 165/2001, of May 23 established early on, as a fact, the assumption that to ensure the continuation of an elevated level of urban quality in the Parque - so it could remain both a showcase of Lisbon and showcase the of the work of Parque Expo - the best solution was a unified management under the responsibility of an entity in which the company participated with the local authorities of Lisbon and Loures. Despite the fact that this entity was never created, these laws legitimized and gave institutional strength to the main objective of the residents association: the creation of a new *Freguesia* to maintain a unified and integrated urban management.

The actions undertaken by the association during more than a decade were many and varied: five petitions to the National Parliament; several awareness campaigns for residents and businesses in order to sign and appeal to the signing of the petitions; presence in the Parliamentary Commission to appreciate the petitions in question; presence and in official discussion forums, including meetings of the boards and of the municipal assemblies of Lisbon and Loures; conversations and meetings with local elected officials, party representatives and Members of Parliament; presence in traditional media (local and national) through interviews; and presence on the internet through the association's website, the association's newsletter, social networks, especially Facebook, and a blog fed by a member of the association. Having no power of decision, the AMCPN acted mainly in order to keep the issue on different agendas and to persuade the different parliamentary groups and local authorities of the legitimacy and advantages of their claim.

The main arguments mobilized were: 1) the Parque das Nações is a territory planned as a whole 2) with common infrastructure 3) where a sense of cohesion and belonging to a community with specific problems (transport, schools, health centre, traffic, parking and overbuilding) has been growing. The petitions organized by the association also refer that the *Freguesia* should be established in Lisbon since most of the territory belongs to this municipality and most public facilities that serve the area are from their departments in the Lisbon City Council (Petition 66 / IX, received at the Parliament on 3 February 2004). Of course all these arguments can be thwarted, and were many times by people and local elects from Loures.

The local Red Cross, the Marina Association and some local businesses were also associated with this movement and committed to the creation of the *Freguesia*. As was the newspaper Notícias do Parque. The paper has closely followed the whole process with reports and interviews. The position of its director regarding the issue was quite clear in some editorials:

"As much as some municipal responsables say that it is not through the creation of a *Freguesia* that the problems will be solved, it is known that it is the municipal representatives who have a role in representing and defending a community "(Menezes, 2004).

The positions that Parque Expo and the Municipalities of Lisbon and Loures have taken on the issue are factors to take into account in the analysis of the process. Parque Expo has never had official position on the subject. The *Freguesias* of Moscavide and Sacavém, as well as the municipality of Loures, to which they belong, were always contrary to this idea. Taking a negative initial position, the municipality of Lisbon and the *Freguesia* of Santa Maria dos Olivais began, from 2010 onwards, to show inclination for the creation of the *Freguesia* of Parque das Nações if integrated in a wider administrative reform of Lisbon. But they never overtly favoured the integration of the part belonging to Loures in the municipality of Lisbon, saying that it was not their decision to make.

During the final discussion in Parliament, most political parties were in favour of creating the *Freguesia*, declaring it a will of the people from the area. However, the Communist Party, considered that there was not enough public discussion about the issue and that it should not be done without the assent of the people of Loures, from whom a parcel of territory was going to be taken away.

**Table 1** Chronology of the creation of *Freguesia do Parque das Nações*

16/10/1998	Opening of <i>Parque das Nações</i> after Expo'98.
27/08/1999	Creation of AMCPN.
23/05/2001	Publication of Law Decree 165/2001, establishing the concession of urban management to a society with three partners: City Councils of Lisbon and Loures and Parque Expo.
3/02/2004	The AMCPN delivers at the Parliament the petition 66/IX for the creation of a new <i>Freguesia</i> , with 3000 signatures.
17/05/2004	MP's of PSD e CDS submit Law Project 449/IX/2 to Parliament, proposing the creation of <i>Freguesia do Oriente</i>
12/10/2004	The Parliamentary Commission of Local Government, Environment and Spatial Planning appreciates Petition 66/IX
11/2004	The Municipal Assemblies of Lisbon and Loures and the <i>Freguesia</i> Assemblies of Sacavém, Moscavide e Santa Maria dos Olivais give a negative appreciation of the proposal for the creation of the new <i>Freguesia</i>
01/06/2005	MP Rui Gomes da Silva (PSD) submits to Parliament the Law Project 100/X/1 proposing the creation of <i>Freguesia do Oriente</i>
11/2005	AMCPN launches a petition for the approval of Law Project 100/X/1
21/12/2005	Submission to Parliament of the petition 100/X/1 asking the approval of Law Project 100/X/1
19/07/2006	The Parliamentary Commission of Local Government, Environment and Spatial Planning appreciates and archives petition 100/X/1 <sup>a</sup> , because it did not have the 4000 signatures necessary to make its discussion mandatory and because the Government was at that moment equating a more general administrative reform
07/2008	Creation of the Parque Expo Urban Management Company
14/10/2009	Law project 100/X expires without having been discussed by Parliament, after having been discussed by the Commission of Local Government, Environment and Spatial Planning
09/2009	AMCPN launches new petition.
15/01/2010	AMCPN submits petition 16/XI, with an annex of a law project for the creation of the <i>Freguesia do Parque das Nações</i>
24/04/2010	Parliamentary debate of petition 16/XI
27/04/2010	The Lisbon Municipal Assembly approves a motion to support and incentive the creation of the new <i>Freguesia</i> , presented by PSD
21/01/2011	District structures of PS and PSD celebrate an agreement for the administrative reform of Lisbon
15/03/2011	Public debate promoted by the Municipal Assembly of Lisbon about the reform
08/2011	Government announces extinction of Parque Expo.
11/2011	Decentralized meeting of Lisbon's City Council at Parque das Nações, where the issue of the <i>Freguesia</i> was discussed
01/03/2012	Joint parliamentary debate of several law projects related to Lisbon's administrative reform.
3/04/2012	Lisbon Municipal Assembly approved by majority, an assent to PS and PSD's law project about the administrative reform of the capital
26/04/2012	Lisbon's City Council approved an assent to the law project 183/XII that creates the <i>Freguesia</i> of Parque das Nações in the municipality of Lisbon.
05/2012	Loures's City Council states its intention of assuming the urban management of its share of Parque das Nações
01/06/2012	Parliament approves the Law Project 120/12 (Lisbon's administrative reform), including the creation of one new <i>Freguesia</i> (Parque das Nações) and changing the limits of Lisbon and Loures (inclusion of all the territory of the Parque in the Municipality of Lisbon)
22/06/2012	AMCPN e J.F. Olivais filed an injunction to prevent Parque Expo from ceasing urban management, which was accepted by the court in July
13/11/2012	The Law 56/2012 (Lisbon's administrative reform) went into effect.
01/12/2012	Lisbon's City Council assumes the urban management and all the contracts it entails and opens a Municipal Desk in Parque das Nações

The final layout of the *Freguesia do Parque das Nações* comprised the parcel previously belonging to Loures, but also the integration of a parcel of territory that is outside the perimeter of Parque das Nações as designed for the Expo'98: an area between the railroad and Avenida Infante

D. Henrique, including two social housing neighbourhoods. This layout, although it was not overtly criticized by the association, was not welcomed by many of its members.

## NÃO DIVIDAM O PARQUE DAS NAÇÕES



**Figure 1** Leaflet of AMCPN campaign for an undivided Parque das Nações in the context of the administrative reform of Lisbon

(Source: [www.amcpn.com](http://www.amcpn.com) 27/05/2012 entry, visualized on 28/05/2012)

### 4 Neighbouring actions

The movement to create the *Freguesia*, headed by the residents association, seemed to correspond to the will of a group of residents of a middle class neighbourhood to live in a homogeneous and self-contained area, associated with a given population type, clearly (visually, materially, socially and symbolically) distinct and distinguishable from the surrounding neighbourhoods and their populations.

"I think [the creation of the *Freguesia*] will have a positive impact in the sense of trying that people in Parque das Nações keep having the same kinds of problems, all together. The idea is not to divide a community that still barely exists. And if it is divided into three, then it becomes more complicated to come into existence, I think. I personally have nothing against going to Moscavide, to the Moscavide Health Centre, although I know, I am not exactly naive in that sense, that there are many people at Parque das Nações who also want to create the [...] *Freguesia* because they dislike being mixed with other areas which they are not so fond of. But it also turns out to be relatively legitimate on their part, as it is also legitimate on the part of other people feel this is an island of rich people" (M., member of the direction of the association, 2010).

The existence of the association appears to be based on the idea that there is a community of the Parque das Nações and that the work carried out by the association contributes to the strengthening of this still incipient community. So, the observation and the analysis of interviews and documents shows an association that aims to promote a sense of community or neighbourhood attachment in this new area of the metropolis of Lisbon. The modality of

engagement with the neighbourhood, and with the association itself and the affirmation of social status seem to be inextricably intertwined, in a very similar way to the one described by Tissot in her work about a gentrified neighbourhood in Boston:

“Dans l'esprit et la pratique de ces résidents, la *community* et la *diversity* évoquent au moins autant la présence de groupes sociaux différents que la richesse d'une vie sociale qui correspond généralement à des usages du quartier reposant sur un très fort entre-soi” (Tissot, 2009).

The notion of “community” mobilized in this paper does not correspond to a scientifically defined concept, but as a social configuration of local basis that a group of residents seems to assume exists at the Parque das Nações. It is an emic concept. It is anchored in the existence of borders, a certain social homogeneity, an indeterminate degree of local sociability and local institutions. This corresponds in a way to a defense of “*l'entre-soi*” (Tissot 2009), the creation of community inside the frontiers that limit and contain a privileged and socially homogenous territory, distinguishing it from its surroundings.

In the pursuit of its activity, AMCPN was, and still seems to be, associated with other local level institutions through sharing of resources and members, joint organization of activities, militancy in the same cause, mutual presence of representatives in each other's events and dissemination of their activities. The institutions closer to the association were, at the time of the research, the paper Notícias do Parque, the Association of the Marina and the Red Cross. With Parque Expo and the local police, the relationship is of another kind, more functional, but also relatively strong: the association counts on these institutions to improve the quality of life for residents and these institutions use AMCPN as a means of receiving echo of the resident population and some times of disseminating information. The School Vasco da Gama and the Lisbon Casino are also part of this community-building nucleus, participating and providing space for some activities. Furthermore, the casino has sponsored competitions of photography and writing organized by the association.

Notícias do Parque is an important piece of the neighbouring activities. It's a free paper that makes its gains mainly by selling local publicity. It is run by a resident and has a strong presence in the Parque, being distributed in mailboxes and local shops. It is also online in full. According to its director, it is a newspaper dedicated to local events. The interview excerpt below shows that his aim is that the newspaper also contributes to the creation or strengthening of a community in the Parque das Nações.

“The editorial line is proximity. An informal line, the type of writing is informal writing. [...] That is, if we talk about economy, I do not want to be technical, I want it to be read by everybody in the household. [...] The very design of the newspaper [...] I really want people to feel that the newspaper is theirs [...]. That is the summary of our editorial line. We have much collaboration from people... from the Priest, from the Deputy Commissioner here at the station, the President of the Association. [...] In a national circulation newspaper we read news about Socrates [the prime minister at the time of the interview], about politicians, people who you do not see in your daily life and these people you see everyday. I really want the newspaper to live of that, of this proximity of people who write

the present and the future of the Parque das Nações, so that they can be present and close between them, so that the community can be a close community. One of the rubrics that much define our editorial line is "Faces". In all numbers there is a person who tells a story of her life, serious or sad, then writes about how she builds the city, her favourite place ... The idea is that people are recognized when they go to the grocery store. When a new "Faces" comes out, people comment: "It's fun because I became known." And that does not happen, it is impossible to happen in a national circulation newspaper. That is our bet." (F., Director of the paper Notícias do Parque, 2009)

The AMCPN, the local police and the church have regular columns in the paper's pages. The director who is also the photographer is present at many of the activities and events in the Parque was also one of the means Parque Expo used to communicate with residents.

## 5 Some final remarks

Focusing on a local process of place building that involves policies and urban management principles and instruments, but also community action, and everyday practices, this paper tried to show how a new area of Lisbon is coming into existence from a social relations perspective.

I used the concept of 'urban political economy' to convey the idea that there are different public and private, collective actors implicated in that process and that they work together, or against each other at times, to create a social space that corresponds to the physical space of Parque das Nações. They implement and negotiate the collective management of Parque das Nações, trying to make their own conceptions of what this territory and its management should be prevail.

Under extraordinary circumstances, Parque Expo managed the area during more than a decade, organizing it in order to maintain - in this new showcase of Lisbon and of Parque Expo's work - a certain special, social and symbolic order that kept the aura of uniqueness gained with being the site of the Expo'98, a celebration of national achievements.

In this context, the idea of a community in Parque das Nações emerges among a group of residents as a comforting notion of neighbourhood attachment in this new environment and also as a militant argument for the creation of the new *Freguesia*.

The attempts to create a "community" of Parque das Nações are mainly led by the residents association whose key objective was the creation of the *Freguesia*. Their actions to reinforce place attachment in a new neighbourhood and the idea of a "community" contained within the borders of Parque das Nações, simultaneously contributed to strengthening the borders that separate it from its surroundings and that separates them from other less affluent population groups living in those surroundings. In their search for a community with a strong local identity, attachment to place and a socially homogeneous local base, they managed also to further objectify, in an administrative division, the physical boundaries and the social distance that separates Parque das Nações from nearby places.

This article really is about new ways of becoming local in contemporary, globalizing cities, and how this process can be conflictual and reflect the uneven nature of contemporary urbanism.

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# Becoming Local: the dynamic process of urban policy transfer of the “Land Regularisation Programme – Brazil”

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This paper discusses the urban policy transfer of the “Land Regularisation Programme of São Bernardo do Campo – Brazil”, bearing in mind the dynamic process of transformation of policies and territories. The intent is to understand the dynamic process that connects stakeholders, places and scales shaping the form of production of contemporary urban spaces.

In this respect, it presents a relational methodology developed with theoretical and methodological elements of the policy transfer and other complementary concepts. It aims to explore the complementary relationship between the different themes to address the gaps of the research and produce more complete analysis of policy transfer processes.

The application of the relational methodology provides a complete visualization of the policy transfer and its results, understanding the various actors and structures involved, the (social) production of the urban spaces and the policies transformation “in motion”.

**Keywords:** Urban Policy Transfer, Relational Methodology, Land Regularisation, Brazil.

## 1 Introduction

The contemporary urban policy is characterized by changes in space, scales and policies. Space is understood as a social product created from a mix of legal, political, economic, and social practices and structures (Lefebvre, 1991 cited in Martin et al., 2003). The *reterritorialisation* of space is expressed through multiple superimposed spatial scales (Brenner, 2010). These scales are involved in a very specific reconfiguration: the reconfiguration of scales.

The *reconfiguration* of scales implies the transfer of authority and responsibility before concentrated in the national level, to other scales of government. In this configuration, it stands out the smaller scale of urban policy - the local. It is in this scale that social, political and economic spheres are manifested in locally delimited spaces (Martin et al., 2003) through which the policy is (re) produced (McCann and Ward, 2012).

The new forms of urban governance reorganizes the locations of power between state institutions and civil society (McCann, 2003). Swyngedouw (1992) attributes to this phenomenon the term “glocalisation” – a combination of globalisation and local-territorial reconfiguration. Thus, the decision-making process is extended to external groups, such as public-private partnerships, organizations, consultants, social movements, among others. This means that urban policy-making processes need to articulate different actors and locations according to the opportunities and limitations (McCann, 2003). And “make policy” becomes a complex and uncertain process.

Policy-makers seek in policy landscape “ready solutions” of policies and best practices that can be applied locally. As Healey (2010) stated:

“Planning ideas and practices are not just diffusing from the ‘West to the rest’, or from the ‘developed’ to the ‘developing’ world, or the ‘global North’ to the ‘South’. There are all kinds of cross-movements” (p.7).

In this environment, the policy transfer stands out as an analytical tool of the complex practices of policy-making, guided in the knowledge transfer among diverse actors in multiple scales spatial and temporal. However, the concept has some gaps in the study of policy transfer that suggests the need to consider complementary perspectives.

Thus, this study aims to analyze the urban policy transfer process of the *Land Regularisation Programme of São Bernardo do Campo - Brazil*, bearing in mind the policies “in motion” (Peck and Theodore, 2010: 170) and hence the transformation of the territories in which they are implemented. The intent is to understand the dynamic process that connects stakeholders, places and scales shaping the form of production of contemporary urban spaces.

The analysis of program is through a relational methodology based on policy transfer, but also with elements extracted of complementarity perspectives identified in other themes (lesson-drawing, policy diffusion, policy convergence and urban policy mobilities). It aims to explore the complementary relationship between the different themes to address the gaps of the research and produce more complete analysis of policy transfer processes.

This paper is organized in three sections: (i) characterization of the policy transfer and its gaps; (ii) presentation of the relational methodology; (iii) development of the case study: process tracing and discussion of some results.

## 2 Characteristics and gaps of the Policy Transfer

The policy transfer was originated in the study of comparative politics. It presented strong growth between 1990s and 2000s with research by many scholars, in particular, Dolowitz e Marsh (1996; 2000), Mossberger e Wolman (2003), Benson e Jordan (2011), Evans (2009a; 2009b), Stone (1999; 2001; 2004; 2012), among others.

Applied in the development of theories, introducing arguments in empirical research and to guide and stimulate policy innovation (Benson and Jordan, 2011), policy transfer can be defined as “process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system” (Dolowitz e Marsh, 2000: 5). Pojani and Stead (2014) argue that the need to combine various spatial scales and different actors in the current studies resulted in the resurgence of interest in the concept. This situation highlights the policy transfer by the ability to adapt in multiple levels and disciplinary perspectives.

The concept has a long history of theorizing – *description*, how policy transfer is made; *explanation*, why policy transfer occurs; and *prescription*, how policy transfer should be made (Evans, 2009a). It is observed that scholars are concerned to characterize and systematize the policy transfer to (i) understand the motivation of policy-makers; (ii) identify transfer objects; (iii) define the degree of transfer; and (iv) analyze the policy “failure”.

Importantly, the various theoretical and empirical studies show that the approaches to policy transfer are broad. Currently, there are five approaches to the study: process-centred approaches, ideational approaches, practice-based approaches, comparative approaches and multi-level

approaches (Evans, 2009b; Pojani and Stead, 2014). Regardless of the approach used to study the policy transfer is composed of political and technical processes (Prince, 2010).

Technical systems are forms of knowledge (e.g. statistical techniques and calculation) "that define, delineate, codify, and measure particular policy objects, rendering them available for comparison, evaluation, and policy formation. The technical is differentiated from the political because it is set up to be impartial and neutral, while the latter describes intentional action for a particular interest " (Prince, 2010: 172). Technical and political systems are needed to develop a "policy assemblage" consistent.

The policy assemblage is a term increasingly common in geography and urban studies (McFarlane, 2009 cited McCann, 2011b) and designates the political and territories actors govern composed of local and extra local elements. A composition of parts of the near and far, fixed and mobile, technical knowledge, regulations, institutional capacity, among others, together in a specific form for private interests (McCann and Ward, 2012).

As quoted by Dolowitz (2003), anyone can learn something done elsewhere and use that information. There is not a limited number of items that can be transferred and there is not a limit of individuals who can participate in a policy transfer process. Literature presents a consensus that urban policy should not be negotiated only among local politicians, officers, national/international politicians, bureaucrats, consultants, and researchers. On the contrary, citizens and their representatives, social movements and organizations should participate in this process (Clarke, 2012).

The relational geography of urban policy recognizes this and considers not only the relationships of these groups and organizations, but also the relations between local officials and their constituents (Clarke, 2012). It is necessary due to the existence of different agents, identify and specify the role and the nature of the transfer analysis (Evans and Davies, 1999). The opportunities for policy transfer arise during the job functions "regular", through a search on the Internet, in discussions at conferences or interactions in a political network, for example (Dolowitz, 2003).

However, despite the evolution of the concept, the literature identifies *gaps* in research that make the analysis of the policy transfer incomplete. The gaps are related with elements in the analysis of policy transfer processes give little attention, or otherwise, excessive attention. Five gaps are identified:

- i. Little attention to the balance between the *description* of transfer agents and the *analysis* of the processes and practices involved (McCann, 2011a; McCann and Ward, 2012).
- ii. Tendency to focus the analysis on the *national scale* regarding the *local and urban scale* (McCann, 2011a; McCann and Ward, 2012).
- iii. *Notion rigid* the concept of policy transfer (McCann, 2011a; McCann and Ward, 2012).
- iv. Absence of a discussion of the relationship between the *process* and the *result* of the transfer (Page, 2000; Marsh and Sharman, 2009).
- v. Emphasis on *agency* and little attention to the *structure* (Marsh and Sharman, 2009).

Therefore, the policy transfer to continue its evolution as a concept needs to include other theoretical and empirical perspectives in the analysis (Benson e Jordan, 2011), in order to produce

more complete and consistent studies. It is understood that associate other perspectives (methods, descriptions, approaches, etc.) can be a viable way to address the existing gaps.

### 3 The relational methodology of the Policy Transfer

A relational approach presupposes connect different themes, but complementary. The policy transfer, as cited, is developed in a very specific scenario of contemporary urban policy. However, this scenario is not unique to policy transfer, on the contrary, is also the background for other concepts, as lesson-drawing, policy diffusion, policy convergence and urban policy mobilities. These themes have common aspects with the transfer and results in a *complementary relationship* between them.

The complementary relationship, search in each theme, elements compatible with the policy transfer to broaden the spectrum of analysis in the empirical research. Thus, the gaps are resolved and facilitates the production of clear studies and new perceptions on issues, such as the formulation of urban policies, territories and spatiality, production of the cities, policies "in motion", among others.

The *relational methodology* (Figure 1) is developed from the complementary relationship. It consists in the *process tracing* (Bennett; 2010; Collier, 2011) to identify key situations and events in the formulation of the Land Regularisation Programme. It is organized in three stages: (i) definition of tracing phases; (ii) process tracing in phases and (iii) making a timeline. The phases of process tracing are: *identifying* of exporters – level macro/meso/micro, *characterization* of the importer jurisdiction, *implementation* in the importer jurisdiction and *results* in the importer jurisdiction. The aim is to expand the spectrum of analysis to study various angles of the process, addressing the different stakeholders involved, practices and structures.

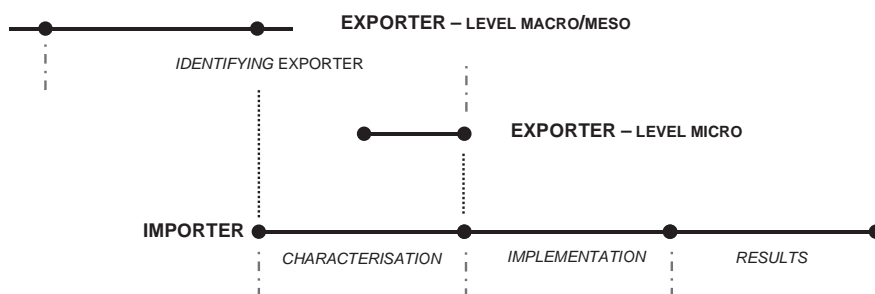


Figure 1. Relational Methodology (adapted Serrano, 2015: 62)

*Identifying of exporters – level macro/meso/micro* is a means to evaluate the external influences on the product formulation. It is understood the initial objectives, the design, the structural characteristics of origin to verify the compatibility levels between exporter and importer, although the exporter is not characterized as a specific jurisdiction.

*Characterization of the importer jurisdiction* presents the importer. The elaboration of a product is subject to its pre-existing context with specific structural characteristics (resources, legislation social/political and ideological aspects) and a set of actors in action (civil servants, NGOs, councils, civil society, among others).

*Implementation in the importer jurisdiction* analyses the implementation period of the product. Exposes the initial period between the finalization of preparation of the product (conclusion of the policy transfer) and its application. This phase is important to understand how different actors are organized, established relationships and partnerships.

*Results in the importer jurisdiction* examine the product results: innovations, problems/failures, learning processes that result from the transfer. This analysis is not only restricted the policy itself, but also the impact of the product for the production of the city, approaching the processes and social practices.

#### **4 Land Regularisation Programme of São Bernardo do Campo – Brazil**

São Bernardo do Campo is a municipality located in the Metropolitan Region of São Paulo, Brazil. It has a population of approximately 750,000 inhabitants and is recognized by the high concentration of automotive and chemical industries that caused intense population growth. The urbanization, in part disordered, occurs through numerous slums and illegal lots, accentuating the context of social exclusion, spatial segregation and accumulation of poverty (São Bernardo do Campo, 2012).

The *Land Regularisation Programme* arises in this context and is characterized as an important local instrument to solve a national problem – the urban land irregularity. The selection of this program is justified by the interesting process of urban policy transfer, which is due.

Each phase of the relational methodology is applied in the analysis of the Land Regularisation Programme. It is collected various information for each phase through the process tracing that allow us to understand the influence of these events and situations in the developed programme.

This section is divided in two parts. The first provides some information collected during the process tracing. The second shows the main results of the application of the methodology and its discussion considering the literature studied.

##### **4.1 Application of the Relational Methodology: process tracing**

The first phase of tracing, identifying of the exporter – national level (i.e. figure 1 – identifying of the exporters level macro/meso), it reveals an interesting process, still under development, called *Urban Reform* in Brazil. The Urban Reform is characterized by national restructuring through various actions, as creation of laws and public agencies, councils and social movements, definition of programmes, among other activities that made the “land regularization” a central theme of urban policies at the national level. This restructuring supports the municipalities in the implementation of land regularization programmes in response to the problem of urban irregularity.

The next phase, characterization in the importer jurisdiction (i.e. figure 1 – characterization), exposes a *second step of restructuring*, however, at the municipal level. São

Bernardo do Campo to enable the creation and implementation of Land Regularisation Programme, executes various local actions. The actions consist in administrative reform and providing specific coaching staff, preparation of updated legislation and made compatible with the newer urban instruments at the national level, creation of participatory agencies, the housing demand mapping and allocation of own resources. Such actions are essential, not only for the implementation of the regularization programme, but also for the development of a Municipal Housing Policy appropriate and feasible.

The identifying of exporter – local level (i.e. figure 1 – identifying of exporters level micro) focuses on the analysis of the work done by the various actors in the elaboration of the product – the Land Regularisation Programme. Identifies, along the program design, the performance of three different groups: (i) *consultancy* responsible for incorporating the new ideas and good-practice in the programme; (ii) *working groups* composed of municipal staff from different areas in order to bring the other programme visions; (iii) *deliberative forums* in order to ensure public participation and implement a local participation culture. It is understood that the Land Regularisation Programme of São Bernardo do Campo is the result of the interaction of different agents along the formulation process.

After formulation the program begins the next phase, implementation in the importer jurisdiction (i.e. figure 1 – implementation). This phase describes the various actors responsible for the implementation of the steps and products (10 steps and 20 products) of the Land Regularisation Programme. The *actors (public, private and civil society)* work together to complete the steps/products or sometimes separate, according to the many activities. The different levels of action (local and state) influence the execution periods and alter the time required for the regularization is complete.

Finally, results in the importer jurisdiction (i.e. figure 1 – results) shows the actions that complement and support the Land Regularisation Programme of São Bernardo do Campo, as well as the innovations and results in numbers and the urban environment. The results for the urban space as the *property valuation*, the *inclusion in the regular city* and the *revitalization of the local economy* are more difficult to measure because the numerical results of the program are recent. There are few studies on the impact of land regularization in the production of cities.

#### 4.2 Summary of results

The identifying of exporter – national level exposes an interesting situation – *a diffusion process of the theme "land regularization" in Brazil*. It is observed successive adoption of policies, plans and programmes related to land regularization in the practice of municipalities across the country and an increasing amount of technical materials, seminars, conferences, and other documents with the purpose of disseminating the theme. This context is accentuated by the action of many actors within the Urban Reform which operates at all levels of government to encourage "acceptance" of land regularization and its importance to the cities. It is emphasized that an important result of the action of these actors are the legal changes that structure the Brazilian urban planning with new paradigms and tools in the land regularization.

The characterization in the importer jurisdiction expresses the *relationship between agency and structure*. It is considered that the structures provide the context for the actions of agencies – facilitates or constrains the actions of agents. The agents interpreting and modifying those structures to allow transfer (Stone, 1999). São Bernardo do Campo, through several agents (mayor, secretaries, councilors, technicians, consultants) starts a general restructuring (creating laws, councils and maps, provision of financial and technical resources) to make possible the preparation and implementation of land regularization programme and create a Municipal Housing Policy consistent and feasible. Thus, it highlights the importance of integrating the agents and structures in the urban policy-making through policy transfer.

The next phase, identifying of the exporter – local level, presents the motivation of policy-makers in formulation of the regularization programme and a more detailed analysis of the "product". In the formulation of land regularization programme there are different political motivations that resulted in the policy transfer. The first is an *indirect coercive transfer* – there is not direct imposition to implement a land regularization program, but there is a *top-down induction* (national → local) to solve this problem. This induction begins at national level through the adoption of specific legislation and the municipal responsibility for execution of actions related to land regularization. Subsequently, the process progresses to a *voluntary transfer* where policy-makers seek "lessons" at various locations for the development of the programme.

The *transferred product* is the Land Regularisation Programme of São Bernardo do Campo. However, the programme is not the result of a copy of "jurisdiction A" to "jurisdiction B", but a *combination* of several "parts". Thus, it is recognized that the circulation of ideas, techniques and practices implies establishing connections between different actors and locals in policy-making. The various transfer agents during the meetings of the working groups, consultancy and deliberative forums, the various actors contributed their "parts of knowledge" (Campbell, 1987; Hull, 1988 cited in Jong and Edelenbos, 2007) acquired through the experiences with the aim of consensus and result in a final product – the land regularization programme. This assertion confirms that the policies rarely traveling in complete "packages", but as policies "in motion" (Peck and Theodore, 2010: 170).

In the implementation in the importer jurisdiction there is a detailed description of the actors and their functions in the implementation of land regularization programme. This phase shows two points. First, presents a *learning process* that occurs with the adaptation of the product transferred along the elaboration and subsequently in its implementation. Second, it identifies the use of *other techniques* to understand the relationship of the actors and the performance levels. The tables and graphs are used to present the complexity of relations, composed of many steps, interspersed with actors (nine actors) in different performance levels (local and state).

The results in the importer jurisdiction show that the result in numbers is fastest to visualize than the result for the territory because it is subject to *temporal dimension* (Drussauge-Laguna, 2012). Consider this dimension in the analysis of transfer processes is to understand that certain results take time to show its effects. Therefore, is necessary to broaden the *time frame* (that is the period of time covered by a study) to make a correct evaluation of the consequences for the city, understanding that these results are in consolidation.

Another consideration is the understanding that the *formulation and transformation of urban policies are processes (socially) constructed and intensely local and territorial* (McCann, 2011a: 111). It identifies that the theme "regularization" is disseminated in all national territory, but in the analysis of the details of each transfer is possible to see the process of adapting the object in the local that make up "processes (socially) constructed".

The formulation of the land regularization programme has features that are intensely local. The formulation of the product though influenced by the transfer agents, national and local, is inevitable that adaptations make this process "socially" constructed by the specificities of the territory, the people, the rulers and ideologies. Adjust the object transferred observing the social, economic, political and ideological context is a "good" way to a successful policy transfer and minimize the policies "failure".

Finally, beyond the specific results for each phase, the methodology has some interesting features. The connection of phases in the complete scheme of the process tracing (Figure 1), shows:

- Relational methodology is mobile and flexible to incorporate various structures of case study;
- Compatible with the use of various complementary techniques and methods.
- The presentation of the policy-making process is more complete and allows us to understand the relationships and links between the phases.
- Different actors and structures that restrict and facilitate policy transfer process are identified to understand the operation scale and function.
- It identifies the different actors and structures that restrict and facilitate the policy transfer process and understand the performance scale and function.
- Discusses the concept of policy transfer in a broader vision of the policy-making process.
- It understands that the policies are changed during movement and transform the "new" places where are inserted.

## 5 Conclusions and Recommendations

The urban policy-making had intense transformations in the mode of action of policy-makers to the need to search other models and best practices around the world. McCann and Ward (2010: 175) understand that the "political world" is under constant pressure to "get a move on". Thus, the study of urban policies is challenged to identify the key elements of this change to develop ways and solutions applicable to different urban contexts, spatiality and territories (Martin et al., 2003).

There is a specific dynamics resulting from the application of different concepts that shapes a new form of policy-making. The urban policy transfer is characterized as a dynamic process of "make policy".

This paper presents some important conclusions. First, it exposes the need to complement the urban policy transfer with other perspectives to solve the gaps and make the analysis of the transfer processes more complete and explanatory. Second, it shows that the relational methodology is effective to expand the spectrum of analysis of the policy transfer processes. Third, it confirms that policy-making is not a static and linear process, on the contrary, is a process of

multiple actors and structures working in different spheres for a common purpose. Fourth, study the process of policy-making through the transfer is essential to understand the dynamics and influences for the policy itself and hence for the "production" of the territory.

Finally, it is recommended to expand the vision for the territory "produced" through these practices and to understand that the urban policy transfer is a concept commonly used in the practice of policy-makers to accelerate these processes. As stated Dolowitz (2003: 102) "each individual can be learn how something is done elsewhere (whether overseas or simply in the next town) and use this information". Therefore, the research should evolve to minimize the policies "failures" and optimize results. The analysis and comprehension of the details of policy transfer is a way to improve processes and create new support tools for policy-makers in the use of this concept.

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# Improved and Extended Public Participation by City Information Systems: A Quasi-3D Example of Kayseri, Turkey

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The ways of involving public / stakeholders in urban planning practices and processes became one of the challenging concerns of today's urban researchers. Nevertheless there are significant obstacles to putting the 'empowerment' in practice, participatory GIS aims to empower the public with new knowledge and to assist the public for articulating their needs and demands using computer- and network-based technologies. Studies on participatory GIS show that on-line public participation technology extends the scope for decision-making and policy support. Although, it is not yet widespread even in European countries, it is being developed for example in Turkey. In this study, we analyzed Kayseri 3D City Information System, fosters the implementation of public participation in urban planning processes? The preliminary findings of this research show that GIS alone cannot solve all the problems in a planning process, but their integration with other participatory tools seems to offer the digital infrastructure for developing a new kind of decision- process in the age of Internet. For successful IT-support of the decision-making processes, a complex knowledge on the underlying cooperative elements, especially the communication between the concerned stakeholders, is needed.

**Keywords:** Participatory Planning; Public Participation; Participatory GIS; Web-based GIS

## 1 Introduction

Public participation opens the door of pluralistic concerns and increases the applicability and reliability of the any urban related management decision, through adding concerns, as well as knowledge of diversified groups. Since the 1950s, the role of public participation in planning practices has become larger and expanding; and after the communicative turn it has become one of the influential topics of planning. While public participation has become one of the common topics in research and development agenda of contemporary societies; it is still a blurred concept to explore. Studies on public involvement / participation fortify that the term 'participation' can only be understood perfectly through considering the two broad recognitions: (1) public participation as a method and (2) public participation as a goal. In this study, we have seen public participation as one of the main goals of planning process, not as a tool itself. This conceptualization is the starting point of this study and formulated the main research question: what are the best ways to involve public in urban planning practices?

Participatory planning and decision-making processes require availability of a combination of spatial data and software tools (namely GIS) to utilize for public / stakeholders. As participatory GIS focuses on the "who, what, why, where and when questions of participation - rather than having precise maps of land use – it is more likely to better enhance local knowledge to be employed in urban planning. Here, the question is "how" and "when". There are significant obstacles to putting the 'empowerment' in practice, participatory GIS aims to empower the public with new knowledge and to assist the public for articulating their needs and demands using computer and network-based technologies. In a similar vein, on-line public participation technology

extends the scope for decision-making and policy support. This study raises the questions for exploring the rationality of these assumptions.

In the light of the brief discussion above, we try to answer this main question, namely, “how the implementation of public participation in urban planning processes is fostered” in the case of Kayseri 3D City Information System, Turkey. To answer this broad question needs supplemental questions:

- Have this software been an example of good practice?
- How does it enhances and supports public participation in data collection and planning?
- Does this software help in terms of creating more reliable data outputs, and encourage local knowledge enhancement, and address local stakeholders' underlying interests?
- Who is participating? Who controls the process? Who uses the outputs?
- How do the GIS tools behave in terms of the purposes and intensives of participation?
- Is local knowledge applied to urban planning practice?

This paper consists of five sections. First, the concept of participation and participatory planning approaches are explored. In the following section, participatory GIS and their implications in planning are examined in detail. In the third section, the case study is discussed in the context of participatory GIS techniques. Then the paper concludes by making an overview and identifying the key concerns of public participation in urban planning and participatory GIS in the contemporary urban planning practices.

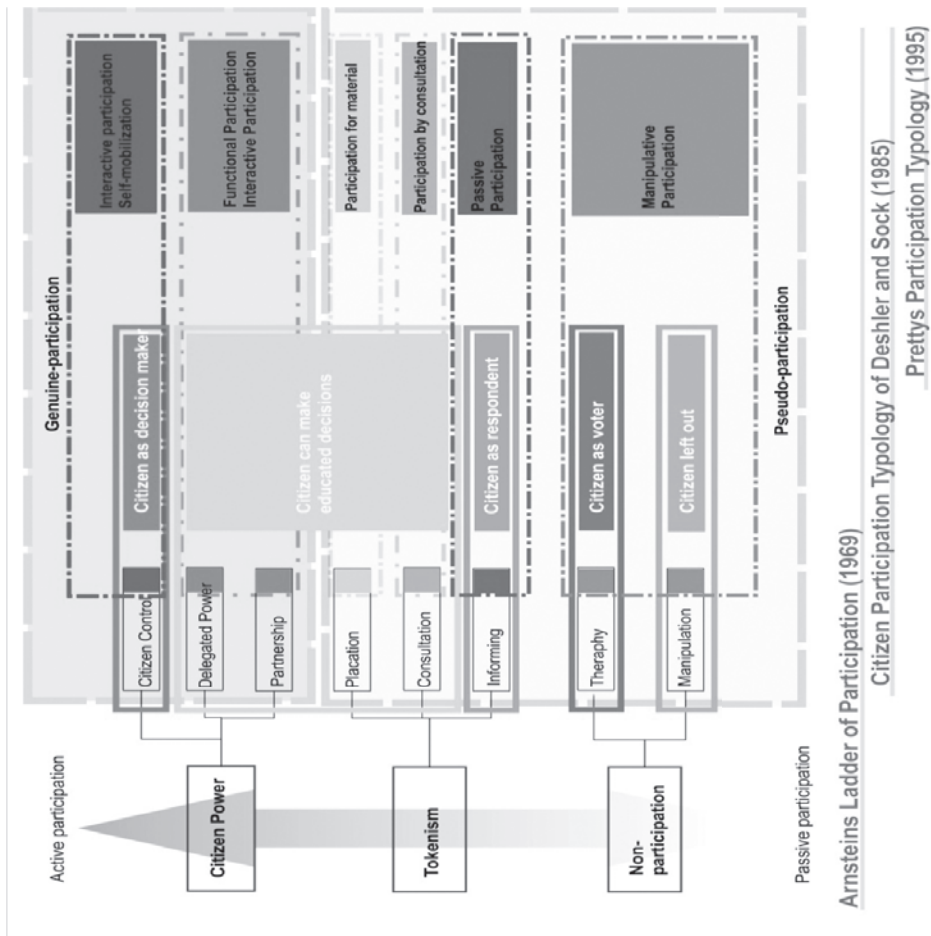
## **2 Public Participation and Participatory Planning**

In *Du Contrat Social* (1762) – where Jean-Jacques Rousseau originated a political philosophy based on the ideal community – Rousseau argues “the individual participation of each citizen in political decision-making is essential and vitally important to the functioning of the state laid the foundation for theories on the role of participation in modern democracies”. Here, public participation being more expressive includes either voting or the other aspects of participatory democracy. Such an approach implies participation as a process that values deliberation among individuals about what to do but just voting.

Public participation became one of the common topics in research and development agenda of contemporary societies, nevertheless it still is a blurred concept to explore (Kamaci, 2014). The literature on participation reveals a chaotic nature (Kweit and Kweit, 1981; Doy, 1997; Maier, 2001; Lane, 2005). For example, even participation concept is named as different terms, such as, citizen participation (Augur, 1945; Arnstein, 1969; Brody, Godschalk and Burby, 2003; Maier, 2001; Irvin and Staybury, 2004), public participation (Alfasi, 2003; Brabham, 2009; Carp, 2004; Creighton, 2005), community involvement (Burby, 2003), public and stakeholder involvement (Brody, 2003; Chambell and Marshall, 2000), and etc.

In her well-known article, Arnstein (1969) defines participation as “...the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future”. In contrast with Arnstein's (1969) categorical term for “power”, Becker (1977) defines participation as “a process that includes information

exchange, resolving conflicts, and supplementing design and planning” and Glass (1979) defines citizen participation as “...providing citizens with opportunities to take in governmental decision or planning process...” To refine this definition, Glass (1979) put forward the well-known components of participation as follows: informational exchange, education, supports building, supplemental decision-making, and representative inputs (Kamaci, 2014). It is clear that public participation has a different meaning for different people and even a different meaning for the same people according to the situation (Barley and French, 2007).



**Figure 1.** The synthesis of the three main participation approaches and typologies (Kamaci, 2014)

Randolph (2003) argues that “theoretically, the more the public is involved in the decision-making process (in our case in the planning process), the more implementation of planning decisions will be; and the appropriate level of public participation may vary from one case to another, depending on projects aims, goals, available resources”. The empirical findings of the studies on public participation fortify these arguments, participation is a context depended process so participation varies in type, level of intensity, extent, and frequency. In figure 1, the three well-

known participation approaches – Arnstein (1969), Deshler and Sock (1985), Pretty (1995) – are synthesis.

In urban planning field, public participation is seen as a relatively new development of the last 50 years or so (Ribot, 2003; Redcliff, 2005; Shrestha and McManus, 2008). However, there is a significant body of literature on public participation urban planning to provide intensely understanding what the goals are, what the changing roles and positions are. This growing body of studies on participatory urban planning reveal that when varied groups of community are actively engaged in planning and implementation processes, plans are likely to be more closely matched with stakeholders' needs, interests and expectations (Healey, 1998; Shrestha and McManus, 2005; Sarker et al., 2008); knowledge and skills from various stakeholders in a way that improve the outcomes (Margerum, 2002) and generate agreement over solutions and increase support for implementation (Healey, 1997).

Lane (2005) claims "...the role of citizen participation in urban planning is largely determined by the nature of the planning enterprise being undertaken, the definition of the planning problem, the kinds of knowledge used in planning practice, the conceptualization of the planning and decision-making...". In the table below (Table 1), urban planning approaches are examined regarding political, societal and citizen participation contexts.

As can be seen in the table above, the final product of Blueprint and Rational Comprehensive Planning Approaches (in other words, classical or traditional planning approaches) is end-state plans (Hall, 1983; Weber, 1983) with certain objectives (Faludi, 1973), the planners' of those were omniscient ruler (Hall, 1992) who decide the ends by themselves only (Hall, 1983; Weber, 1983). Master Plan or Blueprint approaches to urban planning focused on transforming towns. Ideas of urban existence were consolidated into principles of urban structure and form, and from these into rules to govern proposals for development projects. Debates were confined to principles of urban form and conducted primarily within a narrow expert group (architects and engineers) legitimized by paternalist notions of "planning for people" (Kamaci, 2014).

Rational Comprehensive Planning oriented with holistic society image - in which there are pluralistic distribution of power and interest (Friedmann, 1973) - and unitary public interest: a large number of interest was more important than a single interest. Along with this planning approach, in most cases professional experts employed by government were charged with recognizing a comprehensive range of problems and developing broad solutions based on rational planning thought and expert knowledge with little or no public input (Lane, 2005). In this rationalist conception, public contributed to the process, but only by "feeding in" their rationalized goals - public participation operates only to validate and legitimize the goals of planning (Lane, 2005) - rather than by debating the understandings through which they had come to have their goals (Kamaci, 2014). The role of public participation is limited on the legalization and legitimization of the pre-determined aims of planning, uncritically. As Sandercock (1998) states "consultation" has been used as a public participation type to gather information from the public in such planning approaches.

**Table 1.** Urban planning approaches' political, societal and participatory characteristics (Kamaci, 2014)

	Non-participatory Planning Approaches		Participatory Planning Approach			
	Blueprint Planning	Racial Comprehensive Planning	Advocacy Planning	Transactive Planning	Collaborative Planning	Strategic Planning
Political Profile	Autocracy	Technocracy	Democracy	Democracy	Democracy/Citizenship	Democracy/citizenship
Society Profile	Holistic	Holistic	Atomistic	Atomistic	Atomistic	Atomistic
Public Interest	Unified	Unified	Pluralist	Pluralist	Pluralist	Pluralist
Typology of Rationality	Bounded	Bounded	Communicative	Communicative	Communicative	Communicative
Planning School	Blueprint	Synoptic	Pluralism	Pluralism	Pluralism	Pluralism
Scientific Justification	Positivist	Positivist	Post-positivist	Post-positivist	Post-positivist	Post-positivist
Nature of Planning	Top-down End-matter	Top-down End-matter	Bottom-up Process-matter	Bottom-up Process-matter	Bottom-up Process-matter	Bottom-up Process-matter
Nature of knowledge	Expert-driven	Expert-driven	Expert-dependent	Mutual learning	Socially-constructed	Socially-constructed
Participation Type	Manipulation, Therapy, Information	Information, Consultation	Citizen control Delegated power Partnership	Citizen control Delegated power Partnership	Citizen control Delegated power Partnership	Partnership, Citizen Control
Role of Planners	Expert	Expert, provide technical leadership	Advocate	Intermediary	Negotiator, intermediary	Negotiator, intermediary stakeholder
Role of Citizens	Educated elite	Educated elite	Disadvantaged groups	Client groups	Stakeholder	Stakeholder

Blueprint and rational comprehensive planning approaches are criticized as being not democratic enough; the integrated representations of different sectors of the society were ignored (Forester, 1999; Healey, 1997; Sandercock, 1998). In contemporary era, society is assumed to be an atomistic; the interests of individual actors to be varied, competing, and even contradictory. The planning approaches centered on this society perception, focus on the “process” instead of “end/goal” (Hall, 1996). In compatible with this shift, from goal to process, the government bodies conducted the “consultation” that led by professional planners in the development of the goals and objectives (ends) of the planning process (Faludi, 1973). As Hall (1983) states this is the great restructuring in the role of planning and its interconnection with the public.

Involvement of citizen in planning practices has been one of the challenging themes in modern urban planning thought (Hall, 1983; Lane, 2005). As mentioned above, till the 60s, citizen

participation in planning was limited with manipulation and therapy. Social movements of 1960s and 70s in planning called for democratic participation in planning to decrease the inequality (Fainstein, 2005). Paul Davidoff's advocacy planning model rejected the traditional planning practices and advocated the right of poor citizens and developed participatory planning methods. In his well-known book, *Advocacy and Pluralistic Planning* (1965), he claims, "... if planning process is to encourage democratic urban government then it must operate so as to include rather than exclude citizens from participation in the process".

Since civil society is particularly active in urban settings (Friedmann, 1998, p. 29), access to planning issues, such as the location of housing, workplaces, public services and infrastructures, is of particular interest in these areas. Whereas participation was previously considered a decision-making adjunct, all schools of the contemporary era view participation as a fundamental element of planning and decision-making. Strategic planning, "the vision", is oriented more toward action, results, and implementation; it promotes broader and more diverse participation in the planning process. It broadens the basis of participation in planning. Denhardt (1985) is an example of a strategic planning proponent who suggests that the constituency for planning is too narrow. Again, as in the above discussion, Denhardt (1985), Eadie (1983), and others seem unaware of the many calls for broadening participation in planning from planning academics (Burke 1968; Friedmann 1973; Rosener 1978) and planning practitioners (AICP Code of Ethics 1981). Advocate and progressive planners, in particular, stress the need to bring people into the planning process who, by design or practice, have not participated (Davidoff 1965; Arnstein 1969; Goodman 1971; Clavel 1983). Like proponents of corporate strategic planning, all these authors argue that diverse participation will lead to more insightful and responsive planning.

In sum, in the contemporary era, after the 1990s, citizen participation is key for planning to develop appropriate solutions to planning problems regarding equality, diversity and democracy concepts. The traditional gap between planner and community in planning process can be bridged when the problem is recognised and its nature is redefined regarding pluralistic concerns. The main benefits of citizen participation in urban planning process are to inform the public, to enhance citizens' capacity to develop strong commitment and decision-making environment, to increase satisfaction level of users, and to build the trust in the society (Craig, 1998; Sanoff, 2000). Located within the context described above, in the following section, participatory geographic information systems have been developed regarding fostering participatory approaches in planning processes.

### **3 Participatory Geographic Information Systems (PGIS)**

GIS, in a sense, is a combined body of data, hardware, software and liveware (individuals and institutions) to collect, store, manipulate, analyse, and demonstrate information about spatial phenomena to collect and achieve and to make decision as well as solve problem (Nyerges, 1993). While traditional users of GIS were public (local and/or national) and private sectors, the traditional usages of GIS, mostly, limited with natural resource management, infrastructure, transportation and land use issues.

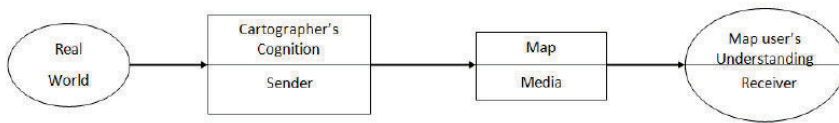
Since the 90s, a novel role or practice of GIS has been identified: using GIS as a tool for enhancing public participation in decision-making processes to help people realize the spatial characteristics as well as consequences of alternative plans and evaluate them (Jankowski and Stasik, 1997). The main trigger of recalling GIS as a tool of participatory democracy (in our case participatory planning) is the empowerment of traditionally excluded groups in the society and democratization of decision-making processes (Harris et al., 1995); the need to revive traditional methods of participation – such as citizen panels- during decision-making processes, specifically in the cases of public and natural resources' use (Jankowski, 2009; Sieber, 2006). Participatory GIS (here after PGIS), is a tool as well as approach to realize and increase public participation in decision-making process, so contains scientific, local and institutional knowledge. Here, PGIS is interpreted as the body where traditional participatory approaches –face-to-face methods-, online methods –web, Internet, etc- and geographic information technology (for example. visualize tools (commercially available, open source GIS and free software such as Google Earth); communication and decision analysis tools) are mutually integrated (Jankowski, 2009; Jankowski and Nyerges, 2001).

In the light of the discussions above, it is right to state that designing the efficient PGIS depends on three major issues: (1) intended participation level (Jankowski, 2009), (2) the characteristics as well as composition of targeted groups (Schlossberg and Shuford, 2005), and (3) the context and definition of the problem. Owing to the nature of participation phenomena, the intended level of participation closely linked with the characteristics of targeted groups and the problem.

Most of the studies reveal that the success of PGIS increases with the level of participation: the higher the more successful. Arnstein's ladder of participation (1969) has been commonly accepted as the base of this assessment. For example, PGIS with lower level of participation (manipulation, informing, therapy, consultation steps in Arnstein's ladder) operates through informational tools such as maps, satellite images, virtual globes and interactive Web sites for public comments; while PGIS with higher participation level entails both informational, communication tools and analytical tools (Jankowski, 2009).

The utilization areas of the 3D city models could be roughly listed as Urban Planning and Architecture, Navigation systems, Spatial Data Infrastructures (SDIs), GIS, Emergency Management, Spatial Analysis, Geo-design, Gaming, Cultural Heritage, City Information Systems, Property Management, Intelligent Transportation Systems, Augmented Reality. This paper's main evaluation context of the 3D city model usage is the decision-making processes for urban planning purposes. Even just the visualization capability of information could add value and ease participation. Visualization could be defined as the graphical presentation of information, in which the main aim is to improve the user's perception. In all phases of the spatial planning processes, decision makers come across huge data sets with spatio-temporal content. It is hard to deal with these sets in order to find answers to the main question of "How can we come up with the liveable environments?", which is at the core of the planning concept. To furnish this aim, spatial information has to be transparent and clearly stated to the public and decision makers at all levels.

The visualization of the spatial data is the most basic task in the field of GIS. Thanks to data visualization, human eye can recognize the patterns and relationships, which are inherently stored in the data. Spatial information is the most important tool for the human cognition to recognize the real world processes (figure 2). Therefore, with communication capability of the visualization, a spatial phenomenon is more efficient and easy to understand.



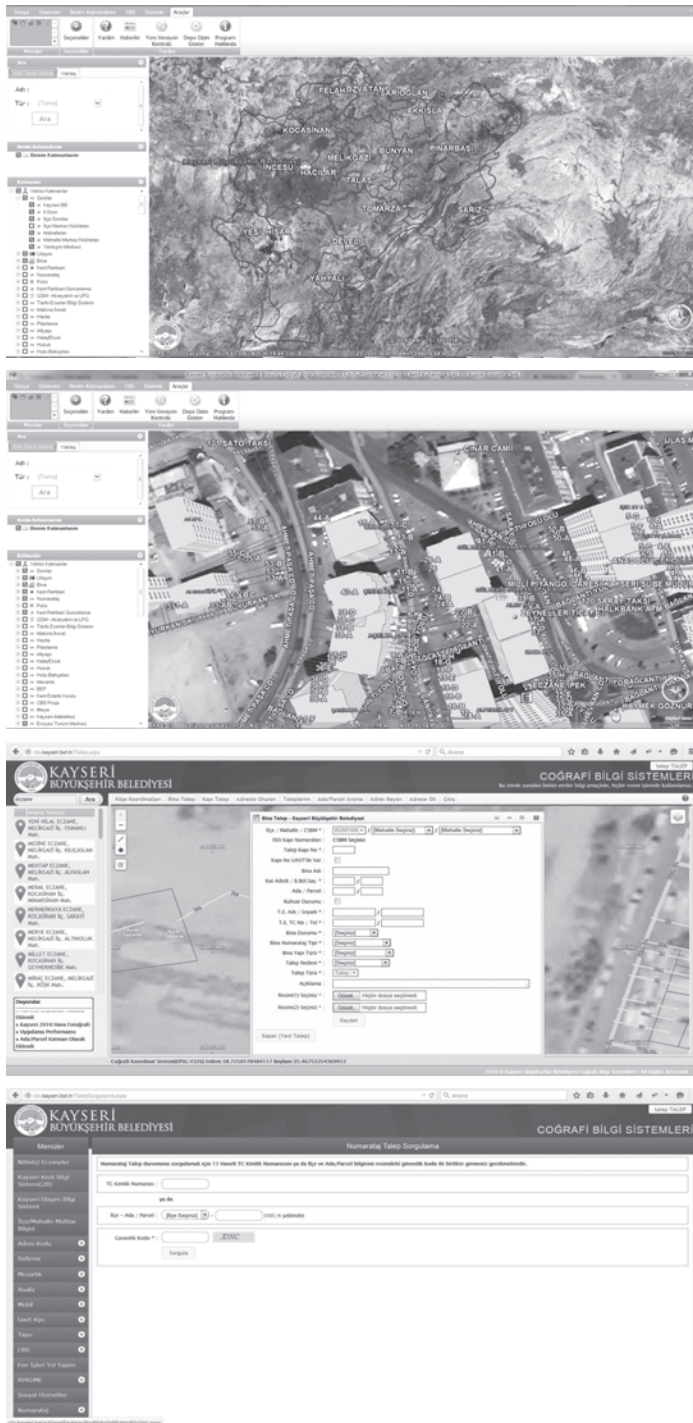
**Figure 2.** The transmission model of cartographic information (Lin and Zhu, 2005)

#### 4 The Case: Kayseri 3D City Information System

CitySurf, development began in 2006 by Pirireis ICT, is a family of OGC compliant GML 2.0, adopted as the new model in cartography presentation and interaction with end users Geographical Information System software. CitySurf is offering 3D view for rich raster and vector GIS data like Google Earth. CitySurf family consists of CitySurf, City Server, CitySurf Globe and Globe Server applications. CitySurf, is an application that allows you to make geospatial data analysis and 3D visualization on the Internet (figure 3). High resolution satellite imagery, Digital Elevation Model and buildings belonging to the city, road, and such kind of vector data like land parcels are visualized in 3D environment that enables the sharing of this data over the Internet or local networks. If desired end-users can be interact with geographic data to edit.

CitySurf supports the ERmapper ECW format as the remote sensing imagery base; images are available in the geographically geocoded status. Geographical Projections of the Images should be based on the WGS84 datum. And it supports a variety of data sets in different resolutions like Landsat, Ikonos and Quickbird satellite images and aerial photographs are also supported in 10 cm accuracy. In addition to the satellite images, supported file formats for terrain models are; GeoTIFF (\*.tif), Digital Elevation Model (\*.dem), City Surf Height File (\*.csh). Finally, supported vector data types are; Mapinfo Tab, Esri Shape, Netcad Ncz, Oracle SDO, PostgreSQL PostGIS.

According to the programmer staff, CitySurf's Kayseri 3D Urban Information System, now Citizens can be not only a spectator but also the participants of all municipal processes. As mentioned above parts, in this case, general public participation in planning is the focus, rather than targeted participation. Any participation techniques such as hearings, workshops or public committees did not employ simultaneously with PGIS techniques as well.



**Figure 3.** Print screens taken from the some 2D / 3D spatial queries, layer operations and visualization CitySurf Kayseri 3D Urban Information System

## 5 Conclusions

In this case, as mentioned above, participation is defined in terms of specific actions public took during the urban planning process. However, having active role such as discuss plans visions or strategies or alternative plans are not on the agenda. The public participation, regarding Arnstein's ladder of participation, is "manipulation and "informing" rather than "consultation" or "engagement".

Turkey's top-down planning approach restricted public involvement during planning process. In many cases, Turkey's planning legislative system made it difficult to implement participation programs since the process of making, implementing and monitoring of plans are thoroughly specified at the state level in most cases.

In our case, spatial and non-spatial data are processed by traditional GIS approaches and prepared thematic maps in selected scales. The most significant finding is the importance of high-skilled experts who could be mediate the use of GIS technology in such participatory problems.

Lastly, as it given in the body part of the paper, it is right to state that designing the efficient PGIS depends on three major issues: 1- intended participation level, 2- the characteristics as well as composition of targeted groups, and 3- the context and definition of the problem. Because of the nature of participation in spatial planning, the intended level of participation closely linked with the characteristics of targeted groups and the problem, on the other hand the definition of the intended level of participation define remaining two issues. So the analyzed system has lots of supporting tools for participation if it is openly aimed.

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# Employing CAS Theory and New Digital Platforms to Promote Emergent Participatory Growth in Empty Urban Spaces

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The underutilization of empty urban spaces in European cities makes for fragmented and scarred urban fabrics. Many of these spaces have sat empty for decades, often the result of wartime devastation; their very nature makes them intensely culturally, socially, and politically charged, and therefore their development presents additional challenges. Top-down development strategies, including modernist master plans in England, France, and elsewhere have historically proven inadequate and unsuccessful in the long term. These outdated top-down approaches are unjust to the sensitive nature of the spaces, generally leaving citizens feeling powerless and disappointed over time. Participatory urbanism, and in particular digital platforms for citizen engagement, can be seen as a bottom-up alternative for development. This alternative would encourage steady, citizen-driven development for these spaces, promoting solutions that can both emerge and be sustained over time. These approaches put the decision-making power directly into the hands of the local citizens - no longer subject to the shortcomings of well-intentioned master planners and politicians. This paper argues that Complex adaptive systems (CAS) theory provides unique tools with which to meaningfully inform the development of participatory digital platforms.

**Keywords:** participatory urbanism; urban planning; complex adaptive systems theory; digital tools

## 1 Introduction

Large plots of empty space exist in urban environments all over the world. These spaces are often the result of wartime destruction, overzealous speculation, and post-industrialization. Their very nature makes them difficult to develop because they are often charged with exceptional political, social, or economic undertones. For many years the common development strategy for spaces like these was master planning; it seemed that the only accepted answer to a mega-scale problem was a mega-scale solution. Planners, designers, and architects crafted large, audacious plans to develop many acres in one fell swoop. Their plans usually catered to the desires of those with the money or the political clout, since these were the 'clients' in a sense.

Two examples of the failings of European post-war urban renewal projects are Bijlmer in Amsterdam and Stalinallee (now Karl-Marx-Allee) in East Berlin. Both were mixed use, top-down projects sponsored by eager political regimes with something to prove, operating in a rapidly changing post-war world. Both were also built on a massive scale, at a massive cost, and both failed to live up to expectations over the decades, thus casting them into a perpetual cycle of regeneration and rebranding (Boudewijn 2007; Ladd 1998).

The first example, Bijlmer, is perhaps the best realized execution of Le Corbusier's modernist ideals for the 'radiant city' – a place divided into zones based on living, working, travelling, and recreating. In the early 1960s Bijlmer was being developed and promoted as a utopia for futuristic living that would make residents' lives healthier and easier. Like many modernist public housing projects of the time, it consisted of large, concrete apartment blocks set within manmade picturesque green spaces, promising the separation of pedestrian and vehicle traffic for increased residential safety. The project sounded promising in theory, and citizens were initially optimistic and

supportive during the planning stages, prior to seeing any actual designs. However, once construction started and people began to realize the sheer, inhuman scale of the buildings paired with their austere, sterile material palette, civic approval of the project quickly turned to disapproval. As Dave Wendt of the Architecture Centre of Amsterdam (ARCAM) states: "...by the end of the 1960s the demand for housing indicated popular preference for smaller scale housing projects and less uniform neighbourhoods. The taste of the Dutch middleclass, for which the Bijlmer was developed, had completely turned around" (Wendt 2007). Due to very low initial move-in rates, Bijlmer became a popular place for low-income immigrants and refugees to live which, when paired with the functionally flawed architecture, ultimately led to skyrocketing crime rates and unsafe living conditions (Boudewijn 2007).

The second example, Stalinallee, (Karl-Marx-Allee since 1961), is a massive boulevard in the heart of East Berlin, Germany. It remains a perfect representation of top-down civic planning at a colossal scale that has been plagued with dissatisfied residents over its lifetime. For East Germany it represented the strength and capacity of a determined central regime; for actual residents it represented an underwhelming socialist reality. The monumental architecture of the apartment blocks and the quality of the finishes and materials left much to be desired. The diversity of programming and availability of various goods and services was overpromised and underdelivered. This did not stop some Western Postmodernists from viewing the project at a distance and heralding it as a success. Philip Johnson described it as 'true city planning on the grand scale', while Aldo Rossi called it 'Europe's last great street' (Ladd 1998). Many people would argue that they were wrong. However, placing all of the blame of its failure solely on the project itself wouldn't be fair; after all it represents an isolated cog in the wheel of the larger, flawed Communist machine. There is irony, though in knowing that one of the largest and most violent worker uprisings in modern history happened on this very street in 1953, very shortly after its inception. Despite all the promises of shared prosperity and quality of life for the residents, in reality Stalinallee represents the pinnacle of civic disengagement and detachment from any policy-making and planning decisions.

It didn't take long for local citizens to begin speaking out about the shortcomings of these, and other master plans. For one, citizens sometimes felt marginalized or excluded from the decision-making process. Whether on purpose or not, this generally worked in favor of the planners and policy-makers. By removing multiple civic voices, planners and developers could sidestep potential roadblocks in the development process. Thus, though the plans were promoted as being truly 'for the city' and 'for the people' this wasn't necessarily the case and ulterior motives often came to light subsequently. Further, master plans were incapable of dealing with the shifting realities of day-to-day life. Specifically, they exhibited a disconnect between the notion of a rigid framework, and of the generally fluid and evolving nature of the plan's occupants.

More often than not master plans proved incapable of meeting people's needs and desires over the course of time (Krivý 2013). The well-intentioned inflexibility of master plans led to places that were stagnant and increasingly dated from their inception, both architecturally, and culturally.

Arguably, if citizens were included in, or ideally, in charge of project decision-making from an early stage then these schemes could have been successful, long-lasting, and at the very least

not a disappointing shock to the populations they aimed to attract. The simple fact in these examples is that by leaving citizens powerless and in the dark through the development of major civic and infrastructural projects, well-intentioned authorities are in fact acting detrimentally for the longevity and prosperity of their own cities.

## 2 Participatory Turn

The alternative that has steadily been gaining popularity over the past few decades is citizen-driven development, or participatory urbanism (Healey 2006). At its root participatory urbanism and its corollary, communicative action aim to engage local citizens and stakeholders so their voices are the ones that are leading development decisions in their own neighborhoods. Short-term goals are geared toward enabling citizens and showing them the potential of their own collective creativity, as well as establishing a vision for the continued development of the site or neighborhood in the future. Long-term goals include the physical manifestation of the citizen-driven developments, as well as creating stronger, safer, and more economically stable communities, and establishing lasting working relationships between citizens, designers, and civic entities that may potentially serve as a new model for urban planning at the global level.

In order to achieve all of this, cities and planners need to embrace participatory urbanism and the notion that they will ultimately not be in charge of making many of the development decisions. Relinquishing this control goes entirely against the historic Modernist paradigm, wherein the designer *always* knew best. Planners still have a role, however in *establishing and managing the framework* within which the citizens are allowed to operate as de facto planners and handle decision-making at the individual project-level. This implies a subtle shift that moves away from planners designing the site to instead designing the framework that allows citizens to participate in the design of the site – a shift in conceiving strategies from the top-down to the bottom-up.

Today, the increasing consensus of many planners in the developed world is that extensive civic engagement from project inception onwards truly does lead to more robust and sustainable urban growth and development: better responding to the ever-changing needs of citizens over the course time (Krivý 2013; Bond 2007). Integral to any participatory model of urban planning is ensuring fair, equal access to all citizens who wish to take part. This is typically attempted through ‘town hall’ style meetings, focus groups, or surveys. However, each of these engagement strategies has its drawbacks and civic involvement generally proves to be mediocre at best. Sadly, for some planners and designers, this is perceived as beneficial, as many still typically appreciate less input from ‘outsiders’: thereby maintaining a sense of control over the process (Boonstra and Boelens 2011). But therein lies the problem; in order for urban development to be successful in both the short and long term, civic voice must be driving the design decision making process, and not seen as an ‘outside’ influence. Sadly, participatory strategies have too often failed to live up to their promise, bogged down by lengthy processes, inequality of voices, and lack of clarity on how to implement weakly conceived plans (Fainstein 2000). Clearly, while alternatives to top-down strategies need to be found, cities and planners need to look beyond surveys, focus groups, and town meetings to find new vehicles for robust civic engagement.

One such emerging mechanism is the use of digital platforms to facilitate bottom-up planning discourse. Within the last decade alone the ease of access to information and the ability to instantaneously connect people has increased exponentially in developed countries due to the proliferation of smart mobile devices, laptops, and tablets. These devices provide the perfect platform for hosting and accessing new digital tools to empower and engage all citizens in urban planning processes (Horelli 2010). But while digital platforms as tools for participatory planning clearly show promise, how should these platforms be designed? What is the framework for such platforms that ensures the best access, the most nimble interface, the most adaptive solutions, and the potential for good ideas to percolate, gain support and emerge as the best solution? Complex Systems theory, to which we now turn, can be employed as a theoretical framework to help answer these questions.

### 3 Cities As Complex Systems

Planners are beginning to look at neighborhoods, cities, and populations as complex adaptive systems and see the potential of using the built-in characteristics of these systems to increase efficiency, productivity, and sustainability within the overall planning process (Healey 2007; Portugali et al. 2012; de Roo and Rauws 2012). Complex adaptive systems theory can provide the framework within which digital tools can be created and implemented: ultimately promoting sustained emergent growth in cities across Europe (and elsewhere) that far outperforms the marginal success of the master plans of old.

A complex adaptive system is a network of connected individual elements, or *agents*, that interact with each other to achieve some common goal for the betterment of the collective group. These interactions, which link *resources*, create a body of information relying on feedback mechanisms, or *tags*, that can be observed and used by agents to inform and influence future decisions that they make. As agents continually interact, an overall 'shape' of the system gradually emerges to reflect the respective efficiencies of the agents' coordinated behaviors. CAS systems are able to explore a variety of configurations and gradually reinforce more 'fit' scenarios as it self-organizes around agents and resources (Axelrod 2001). This ever-evolving size and shape of this system is referred to as a *phase space* - a concept used to discuss the conceptual realm of possibility that any given result or decision of an agent can exist within (Wohl 2015). As agents interact in the absence of top-down control, an initially neutral phase space is gradually differentiated such that a 'fit' configuration of this phase space is discovered. These fit configurations are described as 'peaks' within the space of possibilities (also referred to as a fitness landscape) and CAS systems will gradually be attracted to these peaks.

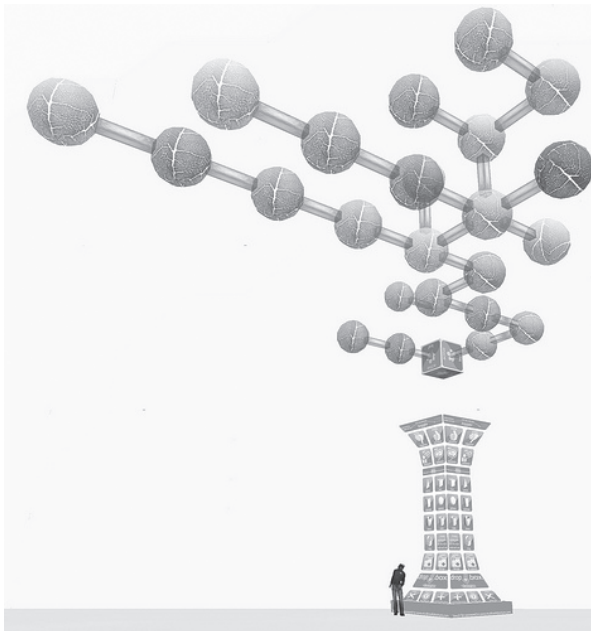
Complexity Dynamics thus lead systems to self organize efficiently in the absence of top-down control (a classic example being that of ants in a colony being able to discover pathways to food). They would therefore seem to be an ideal framework to think about systems that: start off within a loosely differentiated space of possibility (such as empty brownfields); are subject to a variety of inputs from different stakeholders (the agents within the system) each with different priorities; and ultimately need to be effectively defined so as to not only meet user needs, but also create synergies between them (find fitness peaks).

While there has been a recent surge of interest in digital interfaces, there has been little that employs these principles of CAS when considering the design features of these platforms. How can a digital platform operate like a complex adaptive system? What are ways in which the agents (or users) populating this system interact? How can better configurations be marked and reinforced over time? What are ways in which optimal synergies or groupings of distinct features emerge?

#### 4 Precedents

This pairing of CAS theory characteristics with new urban planning models is not an entirely new idea. There are some examples to draw upon including the work of Studio Wikitecture, and “Play the City” that prove the future potential of this way of thinking.

Studio Wikitecture is an online-hosted, open source platform “composed of a diverse range of individuals from varying disciplines, interested in exploring the application of an open-source paradigm to the design and production of both real and virtual architecture and urban planning” (from <https://studiowikitecture.wordpress.com/>). The project promotes open-source design generation, and contains a number of design features that resonate strongly with CAS theory.



**Figure 1.** Diagram of the Wiki-Tree, from Studio Wikitecture.

One of the most popular ideas to be hosted on the site, pertaining to CAS dynamics is known as the Wiki-Tree. Dubbed a “tree” due to the project’s diagrammatic resemblance to a large, tree-like form with elements branching and leafing out from a central core. Tagging capabilities were integrated so users could not only propose and edit projects, but also provide positive and

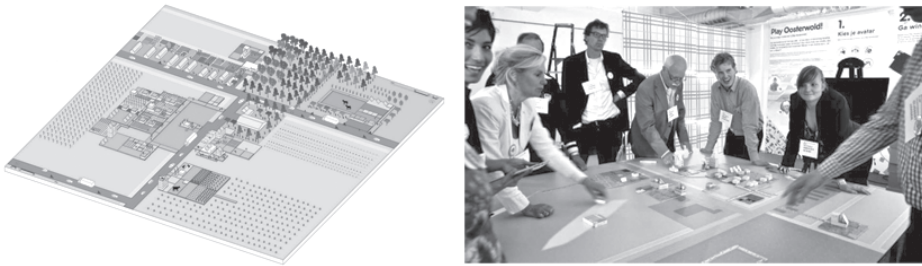
negative feedback to projects proposed by others. Over time, the size and shape of the virtual tree changes to represent the inputs and feedback from users. For example, designs and derivatives that were similar to one another would display as individual leaves in close proximity, while dissimilar ideas would be far apart on separate “branches”. The color of each leaf represented the level of support from the collective group, with greener shades being good and redder shades being poor. Users can access the entire tree via the “trunk”, which is an interactive interface geared toward universal ease of use. This interface and feedback structure allows users to very easily spot emerging trends and popularity, which will likely influence the way they choose to interact with the tree. In time various branches and projects that become stronger attractors will be more successful and therefore predominantly green and “healthy” while unpopular ideas result in red branches that slowly die out.

Another interesting experiment in participatory urbanism is happening in countries across the world but originating in the Netherlands, (ironically the home of the aforementioned Bijlmer project). “Play the City” is an approach to 21<sup>st</sup> century planning that incorporates aspects of both CAS and serious gaming, giving citizens the ability to shape their cities in fun, engaging ways. The essential idea is that citizens become players within a simulation of development in a specific location, where the end goal is to cheaply and easily introduce possible solutions to seemingly large, complex real-world issues. These games are inherently nimble and quick, often able to produce large amounts of information and solutions with relatively little effort or financial investment upfront. This ability to prototype myriad combinations of development makes these games desirable to authorities, citizens, and designers alike.

An example of this is Play Oosterwold, “a behaviour simulation game built to test design and finance rules of a Do-It-Yourself MasterPlan in Almere, the Netherlands” (Tan 2015). Play Oosterwold looks at a 4,500-hectare empty plot of land and gives citizens the ability to decide how to develop it into a fully functioning community. Local community members are the ones playing the game and claiming portions of land to be developed. The community members are not responsible for creating the game or its rules and regulations; this was left up to local authorities and designers, including the architecture and urban design firm MVRDV from Rotterdam. Simulations have been running since 2012, with participation reaching over 1000 unique participants from a wide variety of backgrounds and interests. This diversity amongst players allows organizers to observe “behaviours of investors and residents for an urban growth plan before market release” and according to Ekim Tan, one of the game’s creators, “players started forming groups to deal with issues of water management, the street network or energy generation. In the game simulation environment, organizing *collectivity emerged naturally* and flawlessly around the game table” (Tan 2015 emphasis added).

Part of the premise of the Play the City is that solutions can emerge from the bottom up through natural interactions, as in a Complex Adaptive System. These ‘natural’ solutions, an outcome of the process of interaction, therefore should, in theory, be more ‘fit’ than solutions that are imposed from the top-down. While theoretically highly engaging, the simulations have been only moderately successful in producing buildable solutions at Oosterwold, with physical development itself being minimal. Though participation has been relatively strong and steady, Tan states that

organizers “foresaw a completely different group of participants, namely entrepreneurs of various scales, to activate the plan.”



**Figure 2.** Seeing the results in digital space, after playing the game in real space. Images from Play the City.

Perhaps the biggest drawback to Play the City examples, including Play Oosterwold is that they tend to require a fair amount of instruction and supervision from planners and designers in order for participants to fully understand how to engage. This means that participation is primarily in-person, which relies on being at a certain place at a certain time, instead of having total freedom by being able to participate online. Perhaps this may be part of the problem of user engagement that Tan refers to. While for those with enough free time participation probably isn't an issue, but for a large portion of the local population (and the desired entrepreneurs), this may be enough to deter them from participating, resulting in unintended exclusion. The game places a heavy cognitive load on users at the outset, being laden with information and rules, the learning of which demands time, energy, and presence.

Alternately, if we decrease the level of cognitive load upfront and allow users to participate online, it might make the exercise more accessible to a wider audience. By establishing a straightforward interface up front, easing entry for those less familiar with digital programming, gaming, and planning, we might be able to encourage participation with minimum resistance. As people are drawn into the platform, more information and subtleties and refinements can be added into later stages of the process – ensuring that successful solutions are fully resolved before any physical development begins.

## 5 Application

To explain this further, let's consider a thought experiment of participatory urbanism in Europe developed as an academic exercise in early 2015<sup>1</sup>. “Tempelhof 2020”, attempts to engage and empower citizens in south-central Berlin to drive the development of a massive, 230-hectare empty space in their own neighborhood. The Tempelhof airport was established in 1923 and served as a major transportation artery for Berlin until 2008. It has a rich and somewhat unsettling past and it currently sits empty having been authorized as park space by city planning authorities in 2009.

<sup>1</sup> Initially presented as an academic poster at *The Design, Social Media and Technology to Foster Civic Self-Organisation Conference* in Hasselt, Belgium in May 2015. The project was born out of research done in the first half of 2015 as part of an academic course on CAS systems and architecture.

Although it is occasionally used to host festivals, insufficient investment has led many to condemn the overgrown airfield and empty Nazi-era terminal building (D.P.A. 2009). Today, Berliners have a unique opportunity to do something useful at Tempelhof.

Tempelhof 2020 proposes the development of a digital platform to provoke citizen-led design for the project. While there has been a recent surge of interest in the potential of digital interfaces, Tempelhof is distinct in that it employs principles of CAS when considering the design features of its operational interface. The concept for the platform's design considers fundamental questions about the way new digital platforms can operate like complex adaptive systems. What are ways in which the agents (or users) populating this system interact? How can better configurations be marked and reinforced over time? What are ways in which optimal synergies or groupings of distinct features emerge? Can a move toward exclusively online use result in increased participation, decreased exclusion, and ultimately better fitness of solutions? While Tempelhof 2020 incorporates some of the same CAS characteristics as Play Oosterwold, it differs in some essential ways that potentially boost its viability. By streamlining and simplifying the required efforts from citizens, and by offering greatly increased access to participation online, Tempelhof 2020 eliminates the biggest shortcomings of the Play the City examples. Furthermore, the platform rewards the creation of synergies between users, designers, and authorities by utilizing the strengths of each at optimal points within the overall scheme.

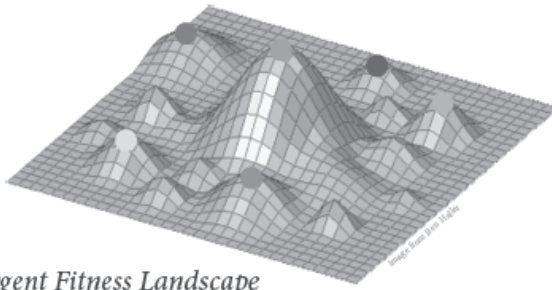
## 6 How It Works

A digital platform is established that allows citizens to create user profiles within the system. Users (agents) are allowed to propose project ideas that would be built within the Tempelhof site such as shops, schools, fitness centers, transportation hubs, green energy initiatives, etc. The energy that fuels the system is the collective creativity of the agents. Without engaged, ambitious, and creative users, a digital participatory platform cannot succeed in producing viable, equitable solutions to any urban issue (Horelli 2010). There is no inherent hierarchy of power or influence built into the agent population. They act, and interact with the system independently, but together they create a collective group. As agents propose and vote on ideas that ultimately garner favour, they gain a higher individual rating, and ultimately are considered more 'trustworthy' in the eyes of other users. Further, agents are given additional credit for inviting other agents to join the community (bringing more creative resources and energy to the system).

For fit designs to emerge, there needs to be information about the relative success or failure of each proposition. Feedback is the information that helps steer successive innovation. Within this platform it is the agents' votes, or tags that offer feedback signals to other agents, thereby influencing voting patterns or subsequent project proposals. This in turn shapes the form of the overall solution space - a digital fitness landscape that evolves over time (see Figure 3).

Each of the proposed ideas is an individual attractor point that becomes 'weighted' or reinforced to some degree based on the amount of votes or support it garners from users. Unpopular and unsupported ideas will fade into obscurity as the favored ones climb to the top of the list that users see each time they log in. This methodology is similar to that which is used in

Wikipedia in order to ensure that the best modifications to articles are reinforced, while weak modifications are removed<sup>2</sup>.



### *Emergent Fitness Landscape*

**Figure 3:** Emergent Fitness Landscape showing emergent favored sites for various projects.



### *User Interface*

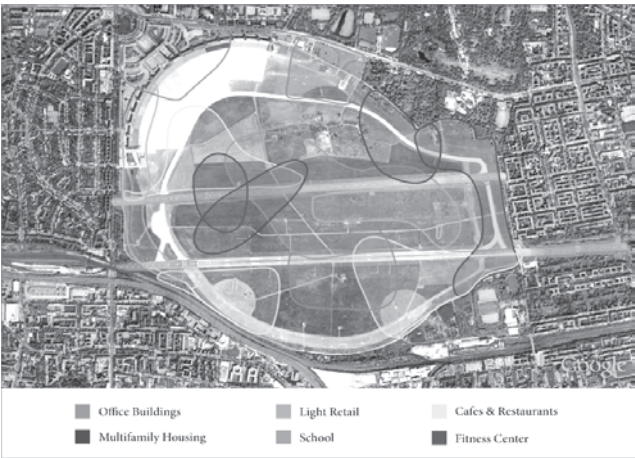
**Figure 4.** Example user interface across platforms. Image by Jeff Givens.

Viable parameters for the solution space are established through the use of slider bars, which help to determine the amount of flexibility inherent in any solution based on user feedback (see Figure 4). Thus, when voting in favor of a proposal, each user will have to answer a couple basic questions such as “How far are you willing to travel from your home to get to X?”, “What is your preferred mode of transport to get to X?”, and “How many times per week will you visit?”. These questions do not effect the weighting of the attractors within the emergent digital ‘fitness landscape’ but they will help spatially situate each proposal within the potential physical development of Tempelhof. For example if citizens from various neighborhoods all around the site vote for a new school and are all willing to drive up to fifteen minutes to get there, the potential area that the school could be built may drift toward the center of the park and include ample automobile parking. Mutations in proposals may occur frequently if many agents from locations around the park all support similar projects, but are unwilling to travel far to get there. This may require multiple versions, or mutations, of the same project to be proposed at different locations, adapting to the

<sup>2</sup> A similar scheme for an architecture platform was developed as part of the European 9 competition. “Wikitecture” (by Wohl, Radulovic, and Hurme, 2007)

specific needs of the nearest agents. So, a food market may exist on both sides of the park but, catering to different neighborhoods, may be differently sized and stock different foods. Niches then develop within the fitness landscape to reflect higher levels of resolution as the solutions emerge.

Users (agents) are given a finite number of votes to use per day, or per week (to discourage an artificial weighting of votes), but there may be incentives such as bonus votes or a boost in user rating offered for continued participation, or for referring other users to sign up. These incentives ultimately increase the amount of input from the agent population. This is important as a certain level of critical mass is required in order to effectively draw from the “wisdom of crowds”. In the absence of significant usage, this platform would prove no more successful in engaging the public than a town hall style meeting, where often only the loudest of voices are heard. With increased input there is an expected correlation between and the amount of site differentiation and refinement within the scheme. This, in turn, should lead to higher levels of fitness amongst the favored project proposals.



**Figure 5.** Possible locations of citizen-proposed projects, based on feedback. Image by Jeff Givens.

While this digital platform remains a thought experiment, it is nonetheless useful in considering how an understanding CAS dynamics might lead to improved design characteristics of participatory interfaces. The various components of the platform, and their relationship to CAS dynamics are summarized in Table 1 below:

**Table 1:** CAS dynamics informing the digital platform design.

CAS component	Manifestation in Tempelhof 2020
Agents	Local citizens
Linkages	User Interface
Feedback Mechanisms	Voting patterns/Thumbs up or down
Attractors	Projects receiving lots of positive votes
Energy	Creativity of lots of citizens
Phase Space	All possible configurations of projects
Parameter Bar Ranges	Limits of configurations within phase space

## 7 Discussion

There are several advantages over this solution to engaging community participation: the proposed interface is intuitive (easing cognitive load and barriers to entry); different stakeholders can engage at different points of the process according to their level of expertise (much like in Wikipedia where users weigh in on topics of focused concern); and finally, the use of CAS theory as a guide for the interface design helps ensure that successful information transfer can occur – resulting in the best solutions rising to the top. Current methods of participation lack a strong theoretical underpinning as to how interactions can be managed, monitored and maintained.

As can be seen in the table above, the final product of Blueprint and Rational Comprehensive Planning Approaches (in other words, classical or traditional planning approaches) is end-state plans (Hall, 1983; Weber, 1983) with certain objectives (Faludi, 1973), the planners' of those were omniscient ruler (Hall, 1992) who decide the ends by themselves only (Hall, 1983; Weber, 1983). Master Plan or Blueprint approaches to urban planning focused on transforming towns. Ideas of urban existence were consolidated into principles of urban structure and form, and from these into rules to govern proposals for development projects. Debates were confined to principles of urban form and conducted primarily within a narrow expert group (architects and engineers) legitimized by paternalist notions of “planning for people” (Kamaci, 2014).

Rational Comprehensive Planning oriented with holistic society image - in which there are pluralistic distribution of power and interest (Friedmann, 1973) - and unitary public interest: a large number of interest was more important than a single interest. Along with this planning approach, in most cases professional experts employed by government were charged with recognizing a comprehensive range of problems and developing broad solutions based on rational planning thought and expert knowledge with little or no public input (Lane, 2005). In this rationalist conception, public contributed to the process, but only by “feeding in” their rationalized goals - public participation operates only to validate and legitimize the goals of planning (Lane, 2005) - rather than by debating the understandings through which they had come to have their goals (Kamaci, 2014). The role of public participation is limited on the legalization and legitimization of the pre-determined aims of planning, uncritically. As Sandercock (1998) states “consultation” has been used as a public participation type to gather information from the public in such planning approaches.

### 7.1 Intuitive:

The design of the user interface is intuitive enough to promote participation at all levels. Agents do not need to understand the behind-the-scenes workings of the platform; they simply need to use it. Streamlining should aid in ensuring a positive user experience, which begets further participation. Relying on a simplified digital platform negates the need to participate in-person, which can be a major contributor to exclusion. Instead, users have access across platforms – desktops, laptops, tablets, and smartphones – which allows them the freedom to participate when and where they want. This platform ultimately attempts to bridge the gap between new “high-tech” and the general public pertaining to development and decision-making by removing barriers to e-inclusion and the risks of disproportionately favoring one demographic over another.

### ***7.2 Drawing from Expertise:***

Another notable advantage is the ability to leverage the expertise of various stakeholders at appropriate stages within the overall process. Designers and authorities are charged with creating the platform and setting initial conditions and rules. Citizens are charged with using the platform and generating meaningful proposals and feedback to drive up efficiency and fitness. When successfully fit solutions are identified, planners, designers, authorities, and citizens can come together to develop those proposals into buildable solutions. This partnership promotes equality among the stakeholders and should ease existing apprehensions within the traditional planning hierarchies, where citizen opinions are potentially seen as dangerous influences when making decisions.

### ***7.3 Theorized through CAS dynamics:***

CAS theory serves as a guide to the effective design of the platform. Naturally occurring Complex Adaptive Systems have been shown to have an ability to discover fit solutions in the absence of top-down control. It therefore makes sense to understand these systems when trying to reproduce successful bottom-up dynamics in man-made systems. Through understanding the requirements of a successful complex system, we can better decide which features to include within the digital platform. Features such as rewards for encouraging friends to join (thereby increasing the resource flow into the system), ensuring that there are means to 'weight' effective solutions (such as thumbs up/thumbs down), and to constrain the system behavior (such as the slider bars for the solution space) are seen as each being a coherent part of the overall system dynamics. If part of the system does not work as intended to generate the desired dynamics, then new features can be incorporated into the system design.

The advantages of this type of digital platform are not without some potential risks. As with any participatory model, weak participation could lead to a lack of diversity in resources, swaying outcomes greatly in one linear direction instead of determining best-fit outcomes through a robust process of distillation across many agents. Additionally, high levels of homogeneity within groups of participants may also lead to a lack of resource diversity and ultimately a homogenous built environment that disproportionately caters to the needs of a specific population subset. Monitoring the diversity within the agent population may help predict and avoid these potential problems.

## **8 Conclusions**

In order to successfully promote inclusion in today's hyper-connected Western world, planners and civic authorities need to not only embrace the 'latest and greatest' in digital tools, but also ensure that they are easy to access and use. Digital participatory platforms have the potential to engage a wide audience, growing that engagement over time. This engagement is critical in order to avoid defaulting to a one-size-fits-all solution based on the voices of a select few.

One of the biggest hurdles in participatory processes is trying to guarantee as much inclusion as possible, but if enough care is not taken, attempts to include more people can actually

cause exclusion. This is particularly true when employing digital or cyber tools. E-inclusion can quickly become e-exclusion if the tools are too difficult to understand, too complicated or time consuming to use, or cater disproportionately to certain demographics. This all can be avoided through effective design, testing, and revision of digital software interfaces that harness the inherent advantages of CAS. Platforms can include apps, programs, websites, forums, blogs, e-surveys, peer-to-peer platforms, virtual meeting hubs, and games. These frameworks help promote sustained, efficient growth that can develop over time, ensuring that the ongoing needs of citizens will be addressed and met at each stage, while municipal costs will be spread out and kept at manageable levels. The legacy of this new type of emergent planning will center on cities made up of more cohesive neighborhoods that are filled with happier, healthier citizens who have embraced their new role as “in-situ urban developers”.

Tempelhof 2020 provides a conceptual prototype for a kind of participatory platform that is better informed by theory: a platform that could actually meet the growing desire for true citizen engagement. This would be welcomed after years of lip-service, failed consultancies, divided communities, and frustrated developments. Perhaps then, it helps us begin to imagine effective means of creating long-lasting partnerships between local citizens and local authorities, co-planning and envisioning the city, resulting in better urban spaces for all.

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## Contact-REACT: How the design of a new public space can be an urban answer to the social problems of Fontainhas's Neighbourhood

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The city of Oporto enjoys a reciprocal relationship with the Douro River, providing the city with a functional scenic character bursting with high aesthetic value. Urban development in the last centuries helped transform a sloping topography into a landscape of irregular but organized buildings, which have been recognized as UNESCO World Heritage since 1996.

The presented case study focuses itself on the analysis of Fontainhas's Scarp, a sloping terrain on Douro's border that was once a "housing cascade", where it's contact with the neighborhoods of Tapada and Maria Vitorina is the main key to this project. This group of small houses emblematically portray the Ilha's nineteenth century architectonic typology, where the central corridor assumes itself as the everyday collective connector of each parceled house.

The terrain of this scarp suffered several landslides in the past decade, where the most dangerous even destroyed a large part of Tapada's neighborhood. Leaving the local population heart-broken, the authority always preferred to relocate the injured to the outskirts, taking them away from all the privileges the center offered them: job opportunities, education, health care, transports and recreation. Once in the outskirts, the inhabitants ceased to be part of the urban ecosystem that surrounded them and that ancestry imposed them with, confining themselves to a living situation established on an architectonic "recipe" deprived of any identity value.

The project Contact-REACT suggests the design of a public space that brings together the high part of the city with the essence of the Fontainhas's Ilhas, defending a democratization of the *polis* related to the population's right to the center of the city. To do so methodologies like the contact with the local population through out interviews, recordings and conversation were used, not only to synthesize the project ideals but to promote the preservation of the essence of place and the happiness of the present and future inhabitants as well.

**Keywords:** Ilhas of Oporto; Collective Space Solution; City Memory; Participatory Design; Social Dimension.



Figure 1. D.Maria and Diogo Fernandes, two dwellers of Tapada's Neighbourhood.

## 1 From the Oporto's Ilhas to the Right to the Center

The perception of the idea of a city as a source of opportunities in deterioration of the periphery is one of the visible elements in the genesis of the actual urban design of Oporto. This desire of centrality as conjuncture of comforts was something that began to arise in the XIX century by the influence of the revolutionary industry where, with the exodus of the rural population to the center, the city's population was duplicated between 1864 and 1900, increasing the housing demand (Pereira, 1994). As the future workers didn't have money to rent a house in the city center, they were forced to be subdued to a system developed by the medium bourgeois class, where the renting of the terrain on the backside of the houses, were the only way for the workers to live near their workplace. These terrains, now occupied, were called "Ilhas" (meaning: Islands), due to their character of isolation when confronted with the rest of the city, being "almost invisibles to the façade of the street, situation that also corresponds to the interiority and invisibility of the Ilhas in the mind of the bourgeoisie" (Teixeira, 2004).

Usually the location of the Ilhas matched areas that were no longer attractive to the bourgeoisie, in most cases due to the implementation of weaving industries in their proximities. Once that surpassed the urban limits of the old fernandin wall, it revealed in their inhabitants a kind of urban agoraphobia, the city began to explode populationally from the inside, allowing for a major part of the population to live in terrible conditions.

Nowadays, affronting the municipal surveys of 2012, it's possible to verify a totality of 957 populational nucleuses characterized as Ilhas or with a similar typology, encompassing a total of almost 10,500 habitants, disposed on 4,900 occupied dwellings (Breda-Vázquez; Conceição, 2015). These are very distinct numbers from 1950, where 60,000 people lived in 1,153 ilhas (Teixeira, 2004).

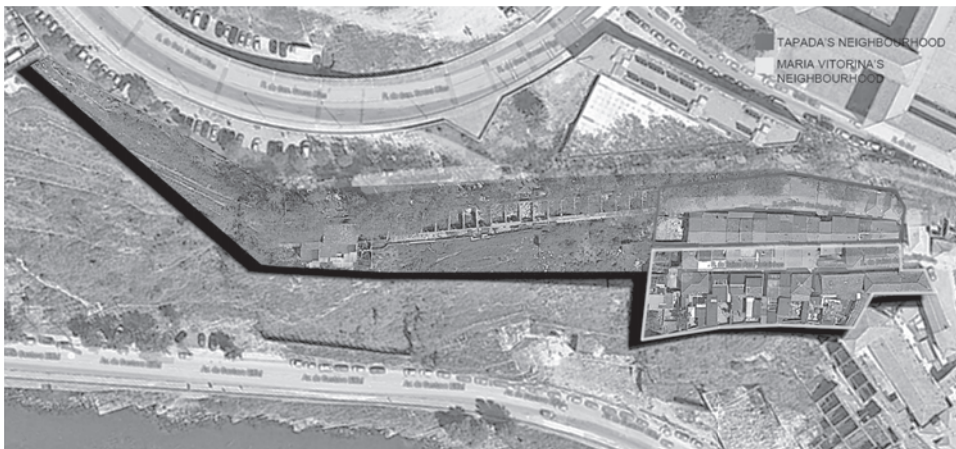


**Figure 2.** Location of the project area.

Normally, the *ilhas* are made up of two groups of parceled houses that compose a straight line, having a central hallway responsible for the circulation of people. Considering the perpendicular disposition of the hallway to the street, there are some typological variations of this urban morphology of the *Ilha*, as the two *Ilhas* studied in this work. Therefore, in contrast to the more current type existent in Oporto, neither the neighborhood of Tapada or Maria Vitorina are perpendicular to the nearest street, nor are they based on the back of a house that faces the street. In this case study, both are parallels to the river's bank, exporting that same parallelism to the nearest public zone, the Fontainhas's promenade. However, They are also not based on the ground of a manorial house or a rich bourgeois, which doesn't prevent them from being located near a ceramic factory, where a lot of the ancestors of the actual residents worked.

In the twentieth century and even nowadays, as a way to rid the city of its hygiene problems provoked by the *ilhas* in an urban context, many of the *ilhas'* families were transposed into a peripheral territory. In these areas, in addition to losing the whole "sacralized dimension" that the memories of their past home provided them with, they also had enormous difficulties finding employment, transportation or any kind of personal relationships, being all worsening by the fact that all neighborhoods had one PIDE inspector until the April's 25 of 1974 (Fernandez, 2015).

"... The distribution of households by the families were made up according to a precise criteria: quitting revolt states, disposing of complicity and control solidarity, even if based on a simple family relationship! (...) Having an apartment in a council neighborhood was not so, neither a right nor the result of a free choice" (Correia Fernandes, 2004).



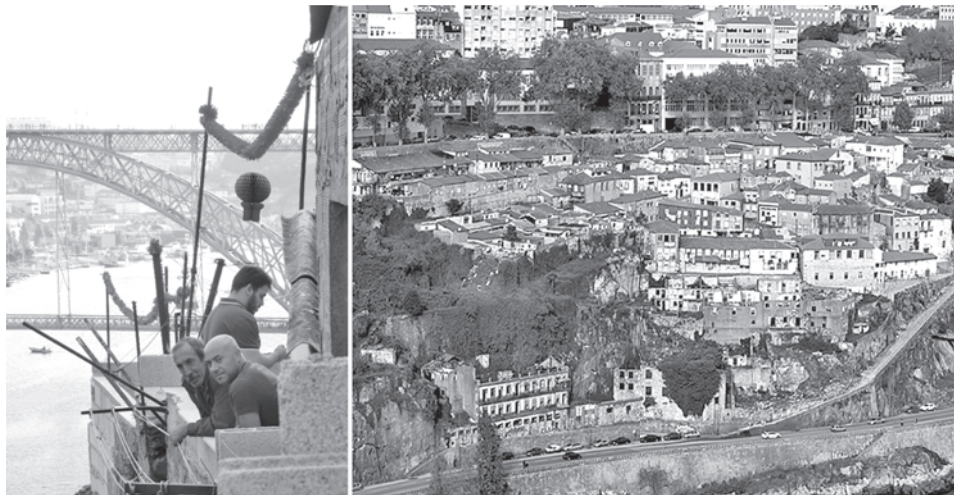
**Figure 3.** In red, the Tapada's Neighbourhood, In yellow, the Maria's Vitorina Neighbourhood.

Keeping the population of Fontainhas in a place that has always been destined for them and that somehow was "conquered" by their ancestors is one of the objectives of this project, where a public place design will provide a better flow between the different social levels present and a greater opening of the city to the way of life practiced in the Oporto's *ilhas*. This is a subject extremely related to the protection of the centrality as a right, a matter also evidenced in the "SAAL Norte" operations between 1974 and 1976. Organized in various projects, the purpose of each

"operation" was that each one would correspond to "an anthropological place, identity filled, relational and historical" (Alves Costa 2014; Augé, 1995). Unlike South American precedents, where the architect was responsible for building a strong baseline that later would be handled by the construction of the inhabitants, in this case the entire building was in charge of the architectural team, and the opinions and wishes of the residents were considered during the project design.

Since a lot of the residents involved in the process associated their collective memories to the city center, the premise of respecting the right to the center of it has become one of the conditions of this project. An additional advantage of keeping people at the center is the closeness that they keep to their workplace and recreational activities, "a purely residential environment is so anemic as a built environment purely for business, entertainment, recreation or cultural activities as an absolute isolated space" (Van Eyck, 1962).

Continuing the analysis of the "SAAL Norte", the participation of the local population was found essential and desirable, not only in the definition of the place, as in all programmatic matters which could go from the discussion on typologies, building systems or appropriate materials, management of future clusters and funding processes. "SAAL Norte" was crucial to the definition of place, since moving the residents to the periphery has always been ideologically refused.



**Figure 4.** Dwellers from Maria Vitorina's Neighbourhood; Part of the Fountainha's Parish.

Once South American practices, such as "Proyecto Experimental de Vivienda" pioneered the issue of participatory oriented architecture, several reflections on them were carried out in this project also taking into account the participatory design studio ELEMENTAL. This Chilean studio, exposed by the MOMA in 2010, underlines the role of the social dimension in architecture, through a participatory approach in its construction. Summing up the 2004 project for the Quinta Monroy (in northern Chile), since the first sketches that the dwellers were made aware of how their new homes would look like and where they would live. They were even invited to draw and build in the paper the façade of their dream house. Later on there will be put to practice building workshops of their

own homes, where the construction of the most constructively complex areas (kitchens and bathrooms) were left in charge of ELEMENTAL, as well as all the urban plan.

Returning to the case study of this paper, there are several reasons for the focus on the permanence of the people in Fontainhas, rather than the moving them to a neighborhood with apparently more favorable conditions in the urban periphery. In addition to the importance of the collective memory that unites the people to the place. In both Tapada and Maria Vitorina, the neighborhoods' spirit is fruitful to a sense of community with a future. Thus, although not all residents are satisfied, more than half the population has the desire to live in Fontainhas "forever". Maintaining the spirit of the place and involvement in the project are the working assumptions of this project.

## **2 From memory to the possessive character of place**

Relatively to the presented case study, an initial motivation to analyze a unique place prevailed, consequence of the geography that is implicit to it. This interest derived from a fascination about the exteriorization of the possessive concept of "my home", counterpointing the mass construction where that concept is majorly visible only in the interior of the dwellings. If the human necessity to decorate the interior of the houses exists, originating a personalization that turns the houses into a possessive concept, "their" personal comfort is expressed on the objects presented on it and in the way the walls are adorned. Through this appropriation of space, the called "own space" is converted into a space defined by possession, a space that belongs to the man, but also capable of possessing him. In the space of the "Ilha", the hallway is the common zone and each house has its own individual façade. However, despising the existence of a regular order, these houses individualize themselves by their color, material, door modifications, or plants that suit mainly as decoration. The memory is not only present in the interior objects, but also in the collective exterior, publicly shared.

The limits of the private-public realm seem initially very difficult to define, however the sense of microcosms that each Ilha emanates is no exception in the Tapada's and Maria Vitorina's Neighborhoods. The way the everyday clothes are hanging on the common corridor, overflows a sensation of communitarian life, where the livingness from the interior of the houses passes beyond the door. Interjections and sometimes swearwords (on a friendly tone, a thing that distinguish the North of the country) are yelled from window to window, sometimes exceeding the decibels of the formal context. Thereby, in Fontainhas the ambience is very familiar, tending to a collective soul, a character observed through the different visits to the place between December of 2014 and July of 2015.

On this particular Ilha, the inhabitants talk about it as "their" neighborhood, as something that follows them since they were born, a public place with a spiritual and collective sense of belonging that translates itself on a quotidian collaborative practice. If once that livingness had a superabundance of people made difficult the welfare of the place, nowadays the abandonment of the Ilhas is more frequent every day. Nevertheless, the fact that an extremely majority number of the population already has bathrooms and washing machine, transforming the communitarian spirit

in a less strong characteristic. The collective washtubs and the communitarian toilets were aggregators of the collective sense that in some cases begins to disappear.

Part of the process of the desertification of the Ilhas is the result of the lack of salubriousness presented, allied to a bourgeois spirit that wishes to live in a big familiar house on the periphery. This attitude, connected to a way of ostentation that is legit to it, is not very prosperous relatively to the preservation of the place's spirit. In this cases, the Human-being ceases to be part of the urban ecosystem that surrounds him and that was imposed to him through heredity (a lot of the inhabitants of the Ilhas have as reference their grandparents, that already lived in their same houses), and passes to take part of a dwelling mode established on an architectonic "recipe" that can be repeated on any outskirts of a big city. The project Contact-REACT uses the memories of the dwellers as projectual constraint, as aspirations to the future that they desire to live.



**Figure 5.** Dwellers being interviewed in Maria Vitorina; S.João Celebrations in Tapada.

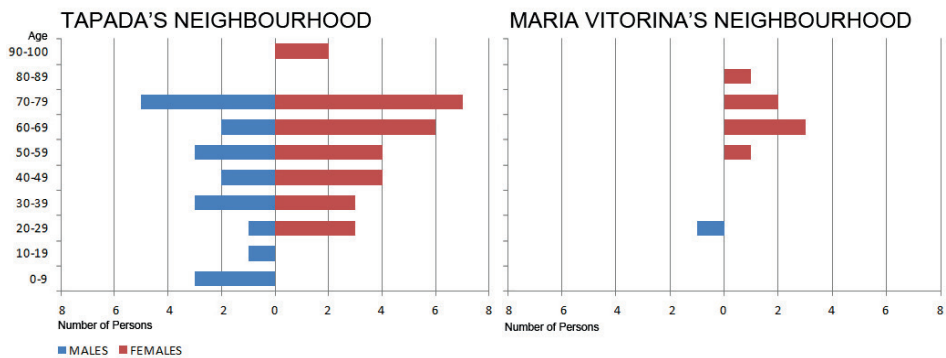
### **3 From the contact with the dwellers to the projectual reaction.**

In order to understand some of the inherent history of Fontainhas's neighborhood, the present work was in contact with the ASZF, (Solidarity Association of Fontainhas's Zone). Until ten years ago this association was a Resident's Cooperative. Today, however, this association is manifested by a group of people whose main purpose is the educational attainment of 60 children, all of them residents of the area concerned. It should be noted an important interest and willingness to assist the realization of this project by the association.

In a meeting with the current ASZF's President José Alcarva, the active role of the Association has developed a good education of its younger population, leaning often in the traditions of the city. By the time the festivities of S. João, a contest is organized where models made by students are presented representing the "cascade" of Fontainhas, where usually a model made with card and moss is adorned with the traditional houses of the parish. On the other hand,

annual activities are held with the children where the profession of the “Carquejeira” is explained and honored. This profession of the last century was wield by women responsible for carrying on their shoulders the “carqueja”, by the start of the Walk of Corticeira to varying highest points of the city. The “carqueja” is a plant of the north and center of Portugal, whose branches were (until the twentieth century) widely used as fuel for stoves and fireplaces in private homes. After a few more traditionalist exemplifications, it was perceived a concern of the association to preserve the essence of the place, which coincided exactly with what was intended to carry out this work.

The preservation of the old by the association is also distinguished through the newspaper clippings file with news related to the Fontainhas, whose consult was authorized. That archive has press clippings dated between 1998 and 2003. An article from 1999 surnames the Fontainhas as “the great narcomarket of Oporto”, a situation where intense anti-drug police actions in the Historic Center, pushed the main Oporto’s narcomarket to this area, leaving the residents worried and frightened by the “diabolical” panorama with which they were confronted daily. There was trafficking and consumption of drugs all day and the thieving was multiplied. In other news, the former president of the Cooperative Residents of Fontainhas, Adelino Silva, nicknamed the Fontainhas.



**Figure 6.** Demographic relation between age and gender of the population on both neighborhoods.

“Sé’s neighborhood dustbin”, criticizing the location change of the Vandoma’s Fair for the area near the Fontainhas’s ilhas. On a visit to the Tapada’s Neighborhood, such fair continues today to be criticized, as was heard from some residents. The vendors began to mark place at midnight, making a lot of noise until the next day’s noon, the time at which the fair ends.

A large percentage of articles also refer to the feeling of revolt caused by construction of the Infant’s bridge. In 1998, 54 families had to be relocated, being defended by an association of residents who at all costs tried to prevent the move to the outskirts. According to the association, there were council terrains in the area of Fontainhas house where new housing could have been built.

By the year 2000, most of the archived news allude to the collapse that occurred on the Guindais’s escarpment, causing the destruction of part of Tapada’s neighbourhood. In an excerpt from “Jornal de Notícias”, it’s possible to read about “worrisome cracks” in Maria Vitorina’s neighborhood. It is interesting to notice the attachment to the place by the locals, in phrases like “I

will only move if the City Hall tells me that it is impossible to live here safely. Otherwise, I prefer to die where I always lived ". Studies in granite massif that forms the escarpment revealed the existence of three families of diaclasses (spacing of rock compartments), which affect its stability (...). The fracturing of the massif has been identified as the dominant factor and the controller of the dynamic driver of the cliff (...). The water penetrating into the rock mass, and changing the mineralogical composition of granite, also leads to the opening of diaclasses, while induce tensions that act to decrease the internal resistance of the rock mass (Borges; Cooper, 2003).



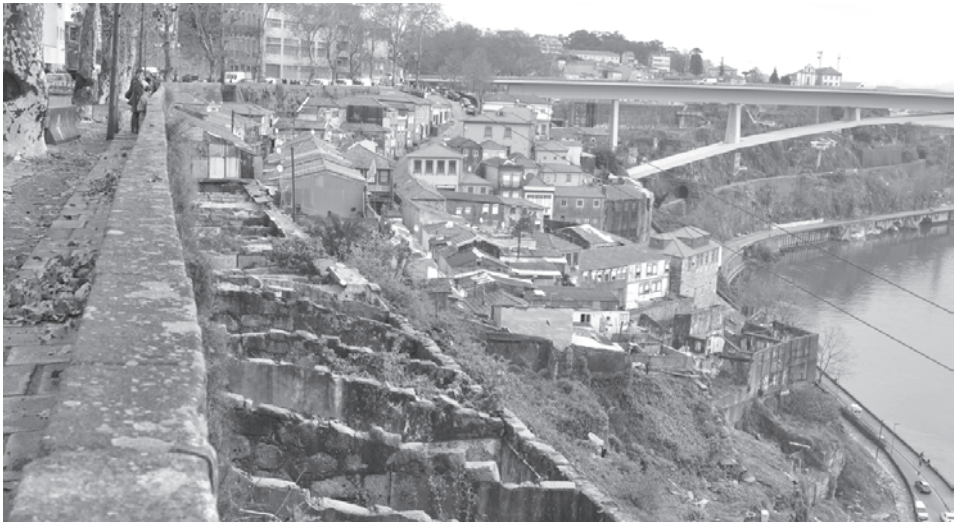
**Figure 7.** Part of the destroyed area from Tapada.

#### **4 The Fontainhas's Escarpment**

The land of this project comprises the area corresponding to the north of the Escarpment of Fontainhas. This escarpment, an iconic landscape of the city area along with the Douro River, represents a slope with a difference of 60 meters high, between Fontainhas's promenade, where the Vandoma's Fair is performed, and the road along the river, which is 10m above it. The project chooses just to remodel the high ground of the escarpment as it focuses on getting solutions to the relationship of the city with the Ilhas of the northern part of the neighborhood, choosing not to disfigure the escarpment entirely but rather enhance its highest area.

In this way, Contact-REACT aims to create the relationship between various spaces on an incline of 20m, which extends constantly throughout the studied area. The current visual panorama consists of a massive granite rock that is also responsible for nicknaming Oporto of "the gray city", despite being increasingly covered by a green layer of lichen and weeds. Given its steep slope, locomotion in these spaces is currently impossible, with the exception of the long set of ruins belonging to the ancient Tapada neighborhood of houses that are no longer inhabited since 2005. We are therefore faced with a wide ravaged and a little vandalized landscape, where 17 rectangles (formerly housing) without coverage and doorways and the voids of windows facing the river rhythmically abandoned.

The organic system of community life and shared existence in Tapada's neighborhood, characterized by a mixture of various colors, secured by the warm orange of roofs, faces here part of its past skeleton, a vague and unknown territory. The structural rhythm punctuated by the drying clothes and popular exclamations from one house to the other advances into the Ilha, between roars of "It's on the table!" and end of day greetings, to an area where there is only the primordial matter from the past. Defeated by the ivy time brought, the ruins of the cliff increasingly rub shoulders with quietly inhabited areas of the same, but without the people ever forgetting that the future of their neighborhood may have the same tragic end.



**Figure 8.** The view from Fontainhas parkway.

Despite the cascade having a strong imagistic character in regard to the definition of the city landscape, the area of the ruins has become over time a kind of undefined concept, with some similarities to a "terrain-vague" (Sola-Morales, 2002). The area in question has become an "area simply uninhabited, unsafe, unproductive," a strange place to the urban system, a mental exterior to the physical inner city, which appears as counter-image of it. To Franco Purini, this constant ruin of heritage buildings (not that this Ilha is an emblematic building, but gains its deep significance for the symbolism that it embodies), it is seen as a metaphorical suicide heritage before a culture where "the historical values, cognitive, aesthetic and emotional historical heritage are deleted by the media consumption" (Purini, 2000). The metaphor consists in the allegory that, once hopeless, the only way that the heritage has to draw the attention of city dwellers that once reigned is destroying itself slowly, proving the need for urgent action.

The inhabitant of Oporto thus becomes a stranger to this part of town, a stranger of its essence, confronted with a land forgotten by the speed with which the world around him changes. The future of these ruins is uncertain, "vague ". A place where apparently forgotten seems to predominate the memory of the past in the present," the term "vacant" also acquires its character of "available", turning to ruin a source of future project opportunities.

## 5 About public place

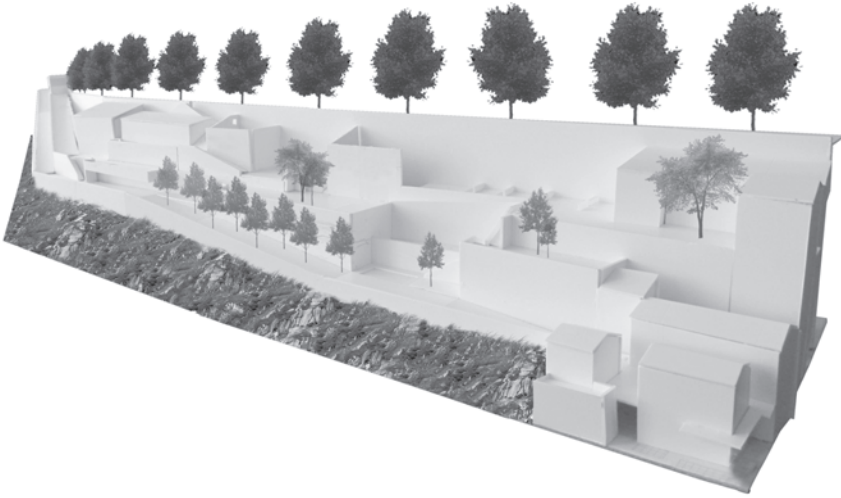
Once explained the feeling of ownership and sacredness that the inhabitants of Fontainhas experience towards their neighborhood, either through the contact acquired along with the inhabitants or from their reactions registered in the studied newspapers, it is time to understand that this place is more than just a coordinate in the map, that it has intrinsic anthropologic value.

For authors like Marc Augé, the definition of an anthropologic place is inherent to three characteristics: to have identity, to be relational and historical (Augé, 1995). Therefore, the identity aspect of it is fundamental in the definition of place, since "each place is a sheltered space filled with identity which we recognize and can describe. In this case, identity is synonymous for individuality. In this way, spaces, like people are individual, unique in relation to the universe" (Marti Aris, 2008).

Fontainhas is full of unique cultural identity, reinforced by its sloped topography and by the regular contact with the Douro River. To live in Fontainhas is to belong to a downtown Porto identity and to know the parents and grandparents' life histories, growing a feeling of a collective belonging. This feeling is also related with the historical character that defines "space", since most of the current inhabitants' parents and grandparents' jobs were associated with the activities that the "space" offered, like the ceramics factory or the walk the women selling gorse had to walk. Therefore, "the environment it is an essential part of primitive cultures; people work, create and play in full harmony with the landscape. Most of the time, they feel completely connected with it and don't want to leave; it symbolizes the continuity and stability of an unknown world" (Lynch, 1960). Even though in the contemporary culture men spends less time of their life working the same job or living in the same place, it is not unusual for each human to have a place he considers his own.

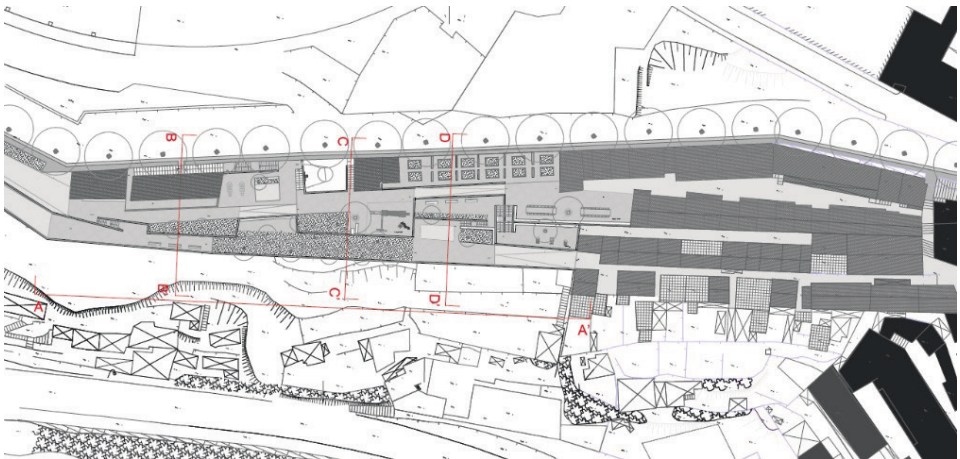
In this way, even though men have become more attached to electronics and technology, that accompanies him wherever he goes, two of the fundamental characteristics for him to feel safe spatially are orientation and identification. Consequently, the importance of belonging to a place becomes directly related with the social value in itself. "The identified environment, known by all, provides tools for common memories and common symbols, which connect a group and allow intercommunication. The landscape works as a vast system of memories and symbols, that enables the group to retained their ideas and history" (Lynch, 1960). In modern society, yet, the focus has been mostly directed to the "practical" function of orientation, and the identification it has left behind. In result, the true habitation, in a psychological sense, was replaced by a certain alienation", which will most certainly not be beneficial to the well-being of men. Designing a "place" presupposes creating a space, which is able to build roots and future history (Noberg-Schulz, 1980).

The objective to be achieved with the intervention proposed in this project is completely contrary to the artificiality of the old or to a standstill of heritage zones. It is also contrary to an advertising policy of a tour mode based on the exploitation of the poor life of the dwellers, as so often happens in South American cities like Rio de Janeiro. In this way, a solid gentrification of the residents and users of the studied area is also not intended. This would be a methodology that would create a new specialization (cultural, touristic and commercial) of this urban center, but who would yearn for moving the current inhabitants of Fontainhas to another location.



**Figure 9.** The Contact-REACT Project Model.

Contact-REACT aspires to be a project, which builds history and stories, adaptable to the relations of those who want to adopt it. Stability is also a keyword for its architectural philosophy, since "in order to become a convention, a place needs temporal stability and recognizable physical characteristics which suggest particular sociocultural experiences" (Frampton, 1974). It is argued that an architectural form that refers to the "idea of the place" and not just to the aesthetic principles, utilities, geometric or constructive rules. In this way, the idea inherent is that the place must respect its surroundings, since the decay of the city begins at the very moment that it is not able to reconcile its existence with the preservation and commitment on the value of nature in which it is inscribed (Martí Áris, 2001).



**Figure 10.** Part of the Contact-REACT project plan.

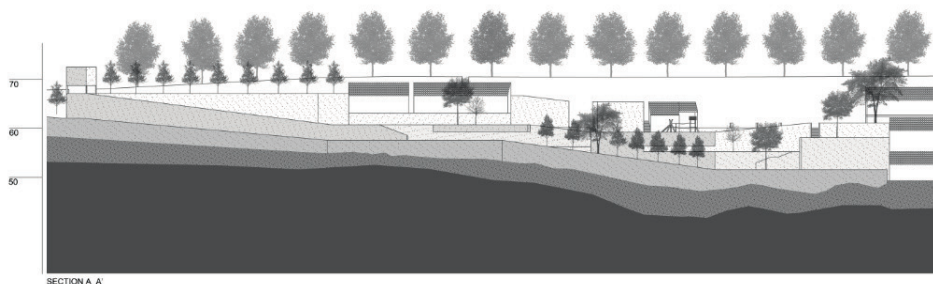
A way to measure the urban quality of a city is by evaluating the value and wealth of public places that compose it. So the intention of this project is the design of a collective place where the contact and communication between social and cultural representations of different social levels are an added value for citizens of the city.

When this sociopolitical democratization focus on the old city center, this cannot be based on an ideology of rupture with the past, since "... the old town should not appear as a foreign object encrusted in the body of the modern city, but as a constituent part of a whole enriched by the dialogue between the new and the old. For this dialogue to be possible is essential to maintain the continuity of urban life between both sectors" (Waisman, 1997).

## 6 The Contact-REACT Project

The cultural role of the collective memory of a city has an extremely important influence on its habitants when it comes to the construction of new building sites in the urban center. Facing the studied city, the citizens of Oporto often reveal a critical reaction when faced with the design of new public spaces. If, on the one hand, all the restorations in the main squares of Porto's 2001 projects provided a wide range of traffic solutions, an abundance of safe places to walk and the opportunity to host a big variety of public events, on the other, popular opinion seems to emphasize the absence of consideration of the past essence of these public spaces. Consequently, we know that what defines this "essence" is a succession, sometimes discontinuous, of transformations, a complex network of interventions in the time that will slowly consolidating or building a unique and identifiable urban landscape.

There currently approaches a construction of a hotel in the downtown escarpment area, and with it an uncertainty about whether the speculation will further abandon these representatives of the spirit of the city. It is thus time to germinate a project opportunity where a dialogue between the old and the new is affront to one of the most fruitful ways to prosper the identity of a place.



**Figure 11.** Facade A\_A'.

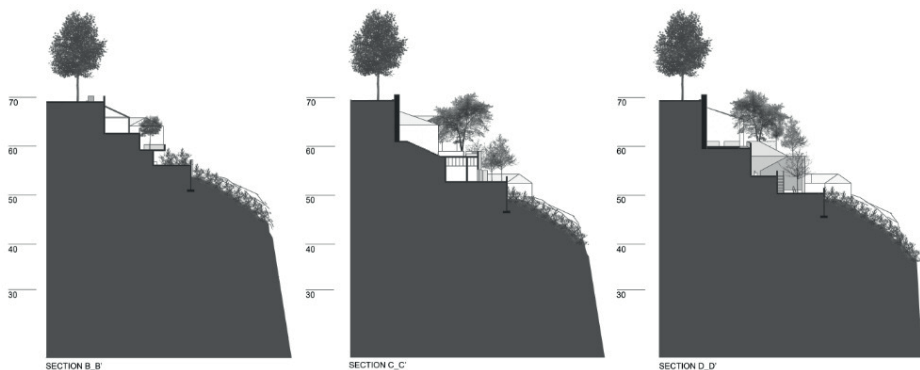
This project aspires to be a different way of re-thinking the contemporary public space paradigm, based on a methodology where the people are the protagonists of their neighborhood.

In this case, the population analyzed consists of 57 persons displayed in a set of traditional families with children and elders (some of them living as a couple), but mostly lonely widows, many of them facing daily locomotion difficulties.

The age of the residents is presented as one of the obstacles to the development of this area, as the fact that the old neighborhood association has become an after-school recreation centre of the parish. The social resident while being part of a collective no longer has the same strength as in the time of the April Revolution, time in which prevailed SAAL's project. In addition to an extensive contact with the President of the Solidarity Association of Fontainhas's area and their residents, Contact-REACT focuses on a study about the importance of the right to the center and how architecture can contribute as so access exists for all.

This project shows the design of a public place, in response to an improvement in access and experiences on the escarpment of Fontainhas. The *genius loci* of the project environment will be respected, aiming for an anthropological place, capable of being relational and of writing memory and promoting the future time. For this, the residents of the surrounding neighborhoods were asked to discuss what kinds of private, collective and public outdoor spaces should be designed in this heritage area, using at the same time a constructive method that would prohibit future landslides.

Once interviewed, part of the families showed dissatisfaction regarding the lack of playgrounds and a Coffeshop where the locals could meet in the evening. The noise caused by the Vandoma's fair was also another welfare obstacle. Whereas most of the population lived all their life in this space, most residents wanted to spend the rest of their lives at this location. So, their past memories are the bond that unites this escarpment, where they constantly enjoy the view of the Douro River. Moreover, in order to avoid future landslides, it is proposed shoring and sealing all supporting walls, injecting concrete in the foundations on nesting level. The use of concrete and gray granite on the walls translates as an attempt to enforce the gray color of the city.



**Figure 12.** Section B\_B'; Section C\_C'; Section D\_D';

So, how can a projected collective public space contribute to the resolution of the sociocultural problematic of this neighborhood?

While communicating with the locals, the project was designed in an attempt to match all generative solutions to the problems of the population. The West part of the neighborhood (destroyed by the landslide) would be completely redesigned. A system of paths and viewpoints would be created, providing extensive leisure facilities: a playground, sports-camp, a picnic area, gardens, a Coffeshop to discuss future events of this public place.

One of the main questions that arise around the preexisting one relates to the remodel of the ruins of the destroyed Tapada's zone, without destroying their memories, but at the same time being put to use. Thus, the presented solution chooses to keep the metric walls perpendicular to the mall, in a way to arrange the idealized space. While some of the modules will be used to build larger and more similar structures to the pre-existent such as the zone for the Coffeshop, the metric of the ruins next to Tapada neighborhood would be to organize de community gardens. Each of the ruins' walls would be cut a little bit, not to shade the vegetable cultivation, while defining the garden on each food and the feeling of the pre-existent.

The Fontainhas will retain their natural spirit, having a social interest, where, through the farming of some subsistence products, the sense of community will grow in a healthy practice that will bring together young people and adults. The importance of a free space to celebrate the holiday of S. João is also not forgotten, giving the community a sense of union and belonging to their city. This would be one of the largest spaces of the entire collective complex, not leaving behind however the "family nest" feel created, do to the central location it occupies the large scale.

During the contact with the locals, one of the required spaces was a Playground, which would then be built in front of the Coffeshop as a way to generate a whole sequence of leisure and enjoyment of the Porto view. It should be noted that there is no playground in the parish of Fontainhas nor in the parish of Sé, an extremely ironic thing since these are probably the areas where the youngest children are more likely to walk by. In addition to a prefabricated playground design, there would still be a "floor games zone" (i.e."hopscotch") next to an area more isolated with a small water mirror. All the trees of the project are also another of the constants of this public place, as a way to infuse a spirit of rural life that makes its users distress from the hustle and bustle of the city life.

As a way to gather even more of that neighborhood spirit so wholesome to the community, the Coffeshop is assumed as one of the key points of the entire solution, privileging a magnificent view which will hardly lack in customers. Next to its location will also be a sports field, so important for the proliferation of sport. A public health area will be adjacent to these sites, near the basketball area, a sport very practiced in the city.

Due to the elder age of the residents of these neighborhoods, one of the biggest challenges of the project is related to the design of a circulation process optimized for older people. Through interviews, many of the residents aspire to live in a place with fewer stairs, and solutions for this are also studied here. Interestingly, the President of ASZF, afraid of losing the essence of the place, quickly rejected the design of public elevators, proposing the challenge of solving the problem otherwise. Thus, although this project is filled with stairs, these are merely one of the options of the several possible paths when performing any particular route. The stairs are not the only option, and, where they exist, there're equipped with handrails optimized for the use of people

with reduced mobility. The design of several flat spaces, in an area with a slope of 45°, is done by using a combination of ramps to provide better circulation. Though not a rule, several of the leisure and living spaces are covered, in order to remain feasible in a city with reasonable rainfall levels.

Inviting the people to discuss a better way to build a relationship between their homes, the view of the Douro's river and the surrounding areas of the city is one of the main goals of this project. In an area where cultural history embraces a powerful social character, the frontiers between public and private space challenge themselves, aspiring to an urban transformation where a democratic methodology improves the inclusive atmosphere of the city.

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# Digi-Tel – A Personalized, Interest and Location-based City for You

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The article will describe unique technology developed and innovated by the city of Tel Aviv Municipality, Israel. The project is called Digi-Tel, which is a combination of the words – Digit and Tel Aviv. It aims to engage, involve and to connect the city residents directly to municipal departments, and to enable them to benefit from the efficient use of Information Communication Technologies. It delivers updated information in a variety of domains, providing municipal services, encouraging residents engagement, transparency and mobility to improve their quality of life.

Digi-Tel innovation has created a prominent ICT revolution among the residents of Tel Aviv, which was an important deciding factor in winning the Smart City Award in the Barcelona World Smart Cities Expo last November 2014.

Digi-Tel is composed of three basic elements – the first is the people (citizens, residents and visitors), and the second is a friendly city (quality of life) and the third is data (technology). These elements are essential and integral parts of the city's vision to create a city for all residents, to implement resident-oriented government, to maintain an appealing urban environment and to advance city's status as a financial and cultural center.

Digi-Tel operates as a two-way street. The local municipality harbours a policy of transparency of the information provided to the general public, enabling residents to access the municipal database on one hand. This also encourages residents to proactively engage the municipality, while additionally reporting on events, activities and concerns on the other hand. It holds variety of components divided into three main classifications – applications, logistical infrastructure and physical infrastructure.

The Digi-Tel Residents Club is a personalized web and mobile communication platform that provides residents with individually tailored location– information specific with services. Over 100,000 residents of Tel Aviv out of a potential of 250,000 residents (starting at age 13) are members of the Digi-Tel Club.

This raises two main questions: (1) what is new and original with this endeavor in comparison to past and present endeavors and (2) what are the actual impacts in terms of effective involvement of ordinary citizens in knowledge production and creation processes.

**Keywords:** Civic engagement; Urban Innovation; Resident-Led Government; Open Data; Public Participation in Decision Making Policy.

## 1 The beginning

The Digi-Tel innovation was born about three years ago as a result of the local municipality understanding that there was a need. The need was to establish personal contact with the residents of the city, and to inform citizens on the activities that take place in the city by means of information communication technologies (ICT). Like in most cities around the globe, residents criticize their city hall for not paying enough attention to their daily needs and problems. In most cases, the relationships between the two entities – city and residents – are forged through tax collection or parking ticket, legislation and de-legislation, or top-down influence of policy decision. In other words, a kind of dissonance exists between what the citizens think about the city and what they really think about the local municipality's managerial level. This internal insight encouraged city hall of Tel Aviv to change its attitude toward citizen-led participatory policy, aiming to re-structuring the approach of building sustainable processes of decision-making, where residents will be important partners.

The question raised was: How the local municipality is able to activate a change, which was never before implemented?' To reach this unprecedented and fundamental point, the local

municipality began to invite citizens from mixed neighborhoods and regions, different peer-groups and stakeholders, to participate in focus groups discussions. These groups were to discuss different issues that bother them in their continuing daily agenda, and their relationships with the city. The main purposes of that activity were to discuss and understand the sources of conflicts exist in the relationships between city hall departments and the residents, aiming to improve them. This process has lasted about a year, and at the end of the day, a new idea that seemed like an imaginary, unfeasible, start-up concept began to develop through business-like thinking.

There is no duplicate start-up in existence elsewhere in the world like this one. Thus, this innovation is considered an original in its aspirations and its conceptualization in order to change old policy and perceptions of the relationships between the city and its residents and to cause a significant change.

The solution was shaped from a concept derived from business. It is as follows: The citizens will become clients of the city with open and free access to its multiple services. Each one of the residents will become a member of a unique and inclusive club, which provides personal information, benefits, and offer advance and innovative e-services. Close relationships on a personal basis will be established between the city's residents and the municipality. A municipality that actually has a monopoly on providing services to its residents does not maintain a conservative approach. It adopts tools from the commercial world to establish a cohesive city that enables its subjects to enjoy and benefit from the large variety of the municipality's personalized services and products.

The municipality has initiated a key marketing process in the city. The fact that nearly 40 per cent of Tel Aviv's eligible population registered (as of May 2015) to join the club is the most important proof of its effectiveness as a useful tool. It emphasizes the strong will of both sides – the municipality and the residents – to share a mutual goal and to bring a real, positive change in their relationship.

## **2 How does it operate?**

The very first step to join Digi-Tel Club is to fill a registration form personal questionnaire including details such as ID, postal and e-mail addresses, necessary to identify that he/she is a resident of Tel Aviv. All Tel Aviv residents, eligibility of ages 13 and up, can come to one of the many registration locations centers in the city such as: community centers, daycare centers, social services and education departments, city libraries, or sport centers. All are located in the neighborhoods and can be easily accessed. Each applicant is asked about his/her priorities and domain of interests according to the list of services and benefits the municipality offers him/her. The resident receives the Digi-Tel City Card and can use it to enjoy benefits at places outside of the city's services domain, including cafes, shops, museums, restaurants and more. The personalized information for every citizen is available in a "personalized area" on the city's official website. The municipality can use this personalization data for its app to actively notify, the resident cardholder of events and promotions through posts, e-mails, text messages. For example, Digi-Tel professionals and technical staff will inform Danny that the bridge he normally travels on is closed, suggesting

that he take an alternative route to reach his destination on time; Digi-Tel will inform Shany that the deadline for registering her child for kindergarten is approaching and she can easily register online; Digi-Tel will keep Jonathan, who loves music, posted about discounted tickets for tonight's performance. The above examples are a few among many of how the network operates, based on the unique profile of each Digi-Tel Club member.

There are several principles that are important when activating Digi-Tel program:

1. Delivery information and services are specific to the requests and demands of each resident.
2. Direct and active notifications apply to the resident according to his / her personalize profile.
3. Active and proactive attitude towards Tel Aviv residents.
4. Openness, transparency and information-participatory.

Digi-Tel is using the platform of cultural organization change, the central and most important result of establishing focus groups discussions. One of the most significant outcomes is the service revolution among all municipal departments that deliver information to the residents. This crucial change is executed through improving service centres, where residents come for assistance on anything from consultancy on issues like child enrollment to educational institutions, improving physical infrastructure in their neighborhood, or for updates on community events and public works in their street.

The second one is an improvement in the efficiency of working processes that emphasize the motto "with the face to the community and the residents" by means of the ICT tools. This change is expressed in making service appointment more time efficiency, and answering calls and handling application processes better. A collective organizational language that works toward improving services began to take hold in the municipality's personnel on all infrastructural levels, something that is a vital first step in overall improvement (Figure 1).

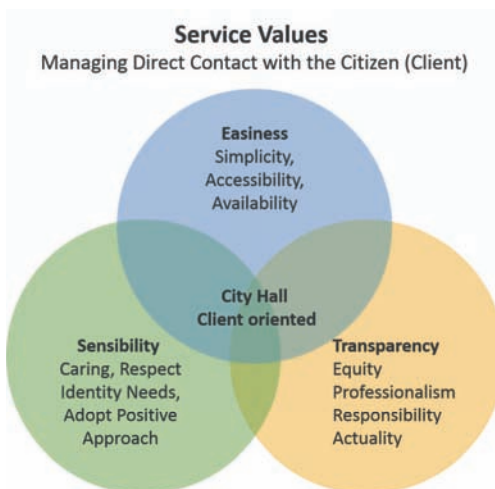


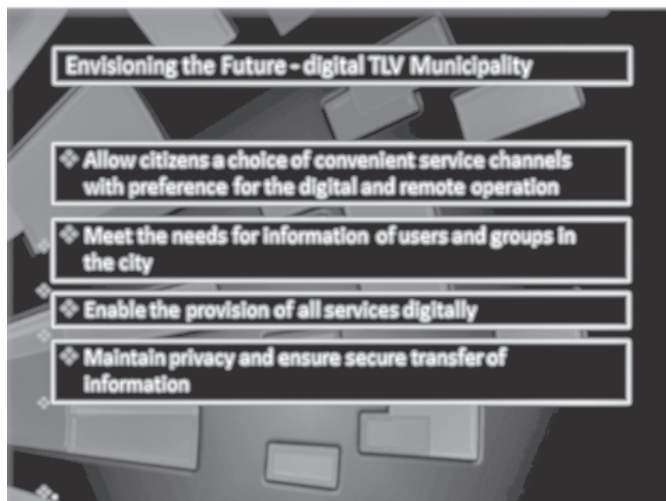
Figure 1

All municipality employees have gone through special workshops to achieve the optimal levels of attitude when dealing with the residents. The Venn diagram of service values presented in figure 1 became ingrained into each employee on all levels of the city's administration and bureaucracy. Adopting these service values is the new approach, inevitably leading toward more citizen engagement and close participation in a more bottom-up process.

The other factor which led to the implementation of Digi-Tel Club was data and information management among the managerial ranks and employees in other municipal departments. In this process, they learned how to document information and deliver it to others by means of internal information management and communication tools.

The result of these processes was a paradigm transformation from "knowledge is power" to "participation is the power". City Hall supported it and guided the organizational culture change from reactive to proactive, by providing the resident with information, services and benefits suited to the individual's lifestyle.

### 3 The Digi-Tel Vision



The Digi-Tel vision is adjacent to the designation of Tel Aviv as the Smart City. Tel Aviv, the "Nonstop City", considers engagement a key value in implementing Smart City principles. It actively involves residents in the urban experience and urban development, while emphasizing engagement in decision making processes in the modern era.

Digi-Tel, the technological and social tool available to the city's residents, conducts better use of communication and ICT to streamline the management of existing resources and assets in the city. This is expected to enhance the quality of life. The target criteria for making Tel Aviv-Yafo to be a city for all demographics of residents through the Digi-Tel program are as follows: An appealing city to live in; a city for lifetime; quality and egalitarian education; equal opportunity and

bridging social gaps between north and south parts of the city; strengthening the sense of community; and fostering pluralism.

#### 4 The Digi-Tel Concept

Tel Aviv Municipality has begun a unique urban course called Digi-Tel. Its aim was to strengthen the contacts, sense of participation and satisfaction of the city's residents.

Figure (2) presents the many projects that combine the Digi-Tel approach divided into three sections of applications, logical infrastructure and physical infrastructure.

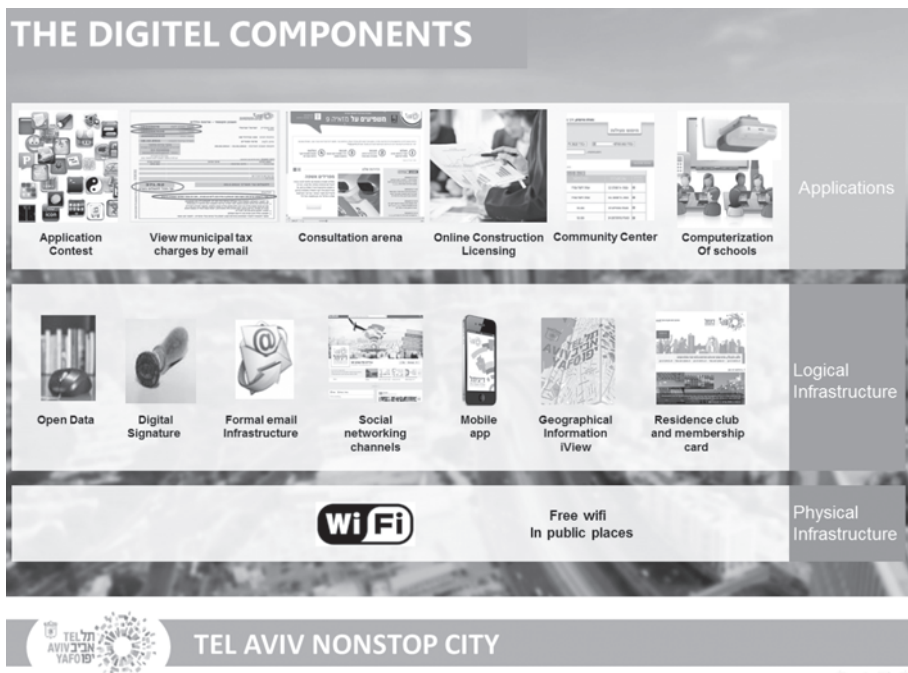


Figure 2

**The network, or physical layer,** aims just to connect people to the Internet, like the **WIFI** project, which aims to cover all the main public area's in the city; all the beaches, the boulevards, and the public squares.

Eighty zones of WIFI were established around the city. Reports already have shown that there are approximately 50,000 unique users per month on average.

There is no need to register for the service. Each user is redirected to a landing page, which displays the main current events that are taking place in the city.

**The logical layer contains infrastructure app's** like the **City App**, which offers location-based information about the city; leisure, culture and art (outdoor community events, arts); traffic and parking (bicycle stations & availability, closed roads, parking lots); and so on.

Another tool is the geographic information system (GIS), the **iView**, which makes spatial information available to the public in a variety of areas: engineering, transportation, community, tourism, education, art, and more.

As a resident of the city, one can view all the geographic information relevant to his/her neighborhood: preschools, schools, public parks, pharmacies, community centers, outdoor sculptures, etc.

Engineers can find blocs, parcels, electricity and water infrastructures, and view a particular zoning plan and its accompanying documents.

As part of the city's policy to promote the accessibility and transparency of the information provided to the general public, the municipality allows **direct access to municipal databases and archives** that are not of a confidential nature. For example, the building archive is open online to the public, free of charge. The archive includes planning information about all the housing in the city. The Open Data environment enables the public and application developers to make use of the information in municipal databases that deal with community affairs, culture, public health, budgets, statistical data and security.

The **Application layer** contains applications and systems that aim to address a specific task/need. The latter includes, for instance, management and exportation of the information about community centers. Community centers are an important link in the connection between residents and city management. Tel Aviv resident can view the list of classes offered at the local community center online and general information about a particular class, such as cost, the instructor, etc. Digital registration and online payment for the classes will be available in the near future, meaning that every resident will be able to perform all the tasks associated with class registration in a simple and effortless manner.

Upcoming projects include computerization of schools and online requests for construction and building.

The variety of innovative and advanced services has a direct influence on the relationship between the municipality and its residents.

One of the most important tools of Digi-Tel is the enhancement and empowerment of the public participation. Public participation has been part of Tel Aviv municipality's organizational culture for decades since the 1980s. It began with Project Renewal's bottom-up principle to share decision making policies with local residents, creating an even playing field. Over the past two years, this process has also been carried out through the Digi-Tel program. For example:

- Including residents in conducting a dialog with them about the design of the beach strip
- Involving the public in a municipal master plan for young adults
- The municipality allocating funds to improve quality of life in particular neighborhood (participatory budget). Its residents are engaged in deciding how to allocate the designated funds, whether on renovation of public institutions, development of public spaces, planting trees or sidewalks repairs, or something else.

After two years of Digi-Tel operation, a report was published in March of 2015 to analyze different aspects of using this network. The following figures demonstrate the success of this modern innovation.

Figure 3 describes the distribution of the main domains chosen by the residents as the most beneficial services for them, using the Digi—Tel technology communication network. The three important priorities for the residents are: environmental efficiency (green-ness); leisure culture, art and education; and parenthood.

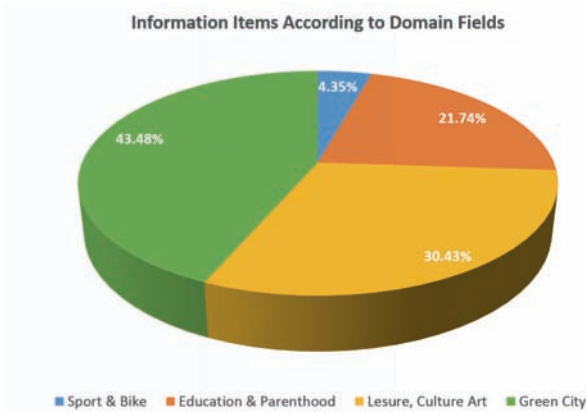


Figure 3

Figure 4 describes the distribution of Digi-Tel age demographics. The most prominent demographic belongs to the age group of 31-40. They comprise 27 per cent of the total eligible population and are characterized as the leading strata of young residents in Tel Aviv, many of whom work in the Hi-Tec industry. They strongly influence the nature of the city's performances in the leisure, culture, and art domains.

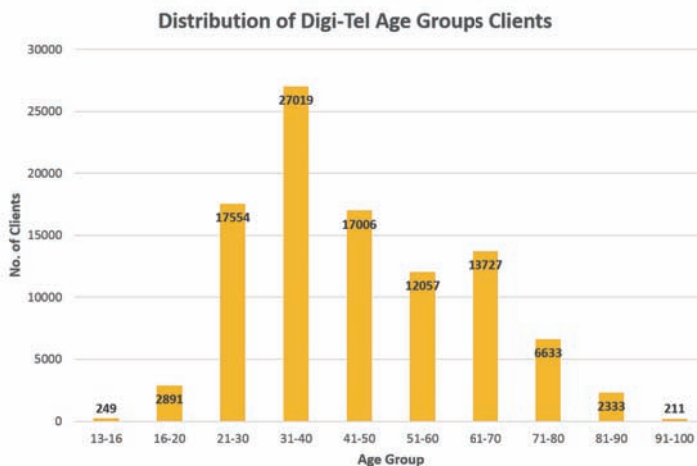
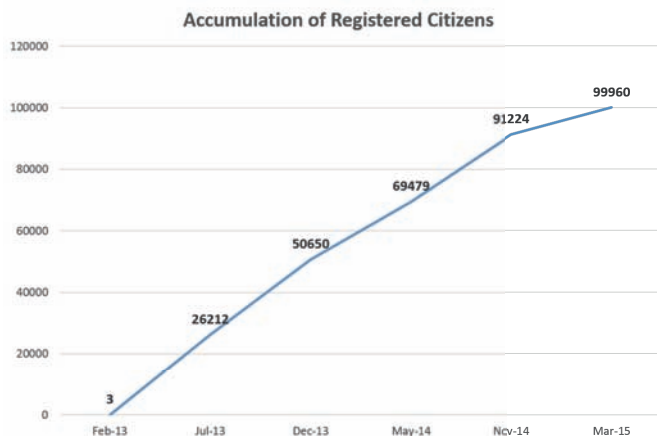


Figure 4

Figure 5 shows the dramatic growth of residents that registered for the Digi-Tel direct communication. The applications from the citizen are most surprising, considering the relatively short period the program has existed. It is expected that the numbers will climax in less than a two-year period.



**Figure 5**

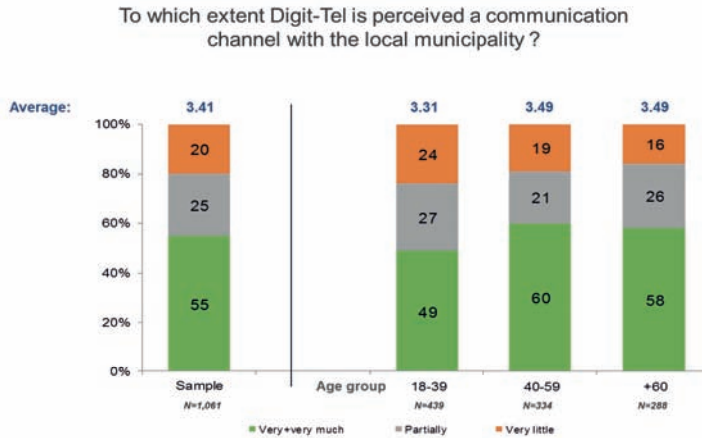
The Center for Economic and Social Research Unit of the local municipality conducted a feedback survey, in January 2015, to analyze the residents' habits using the Digi-Tel card and their level of satisfaction with the services they received. A questionnaire was digitally sent to 6,550 participants, who registered during the period of March 2013 and November 2014. Seventeen per cent of residents replied, which geographically covered the nine boroughs of Tel Aviv.

The statistical analysis team concluded the following:

- The profiles of the residents showed that greater numbers of people aged 40+ used the Digi-Tel Card as a communication tool with the local municipality's different departments.
- Couples with children, or families in general, were much more satisfied with the services offered in regard to their personalized orientation compared to couples without children. This is believed to be due to the abundance of services, benefits and activities aimed at young children and their convenient use.
- Nearly 80 per cent perceived Digi-Tel as an effective communication channel between residents and local municipality departments.
- Adults people aged group of 40 to 59 (69%) and 60+ (74%) are more satisfied with Digi-Tel benefits compared to younger people (only 60%). It is due to the fact that elderly people who have retired have more free time and better reason to benefit from cultural and community events.
- As a whole, young adults ranked lower than middle-aged adults in the extent of Digi-Tel platform use (2.79 and 3.49 respectively).

Following the feedback survey, the Center for Economic and Social Research recommended several improvements to be considered: (1) Using suitable and uniform terminology, which will differentiate it from other services; (2) To empower the added value of Digi-Tel as a citizen card, and update its relevancy; (3) To develop new digit services specially for under-served populations; (4) To strengthen the personalized feature online through content development and broaden the consumer awareness on the available options of using it.

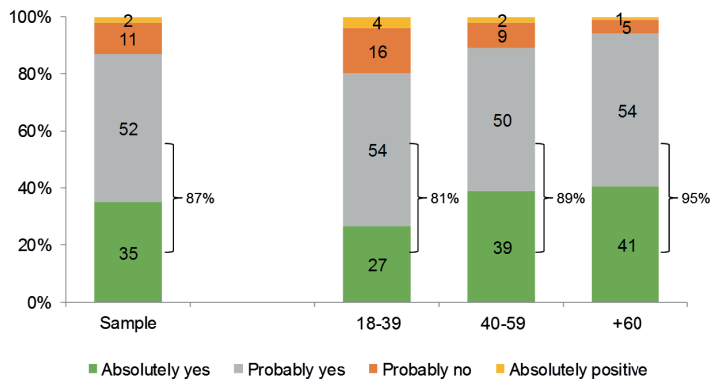
The following two figures - figure 6 and figure 7 – are further evidences that the Digi-Tel platform is perceived to be an effective and useful tool by the majority of the card-holders. Also, an overwhelmingly apparent intention to join Digi-Tel platform will become a reality with over 100,000 residents already being registered. More citizens are expected to join in near future.



source: City of Tel Aviv Center for Economic and Social Research

**Figure 6**

Would you recommend your family / friends to join Digi-Tel?



**Figure 7**

Source: City of Tel Aviv center for economic and social research

The Digi-Tel platform was developed by the City IT branch. This department developed all the applications that residents utilize. The nature of the solution is extremely complex and requires integration of different tools like CRM (Customer Relationship Management), campaign tools, distribution tool, Mobile Platform, GIS Platform, and Information Security tools to create an integrated platform. The in-house development was an important factor in the ability to create a complex solution in a very short time (the base capabilities were developed in only a year). It

enables the city of Tel Aviv to create the technology to make the Digi-Tel a reality, and likely faster than if the process were to be outsourced.

## 5 Discussion and Conclusions

The discussion will relate to the paper's posed two questions regarding the originality of the Digi-Tel experience, and the actual impacts. Impacts are in dictated terms of effective involvement of ordinary citizens in information production and exchange processes.

This paper describes the most original innovation; an innovation of local government-to-citizen engagement in the process of decision-making for their city, by means of technology-driven tools. In the last three years, the city of Tel Aviv underwent a digital revolution, providing its residents with the unique Digi-Tel platform. It allows them to access services and information via mail, text message, or personalized web address that can be customized according to location, preferences, marital status and more. As a leading technology hub, Tel Aviv has developed advanced solutions for urban administration and, more importantly, civic engagement.

In smart Tel Aviv, engagement is a key value in implementing smart city principles, while the goal is to create a city for all its residents, and a resident-oriented government. The city actively involves residents in the urban experience and urban development. It enables them to help determine how the use of funds the local government has allocated will be prioritized on projects improving quality of life in different neighborhoods.

Digi-Tel platform facilitates a direct and holistic connection between the city and the residents, whether it is alerting residents of neighborhood construction, informing them of the nearest bicycle-sharing station, sending specific reminders for school registration, or cultural events taking place in the city. Digi-Tel encourages residents to proactively engage with the municipality as well. Residents can find cultural events and activities as well as report communal hazards or concerns, and follow their review.

As part of the effort to increase accessibility and transparency of information along with civic engagement, municipal databases were opened to the public, followed by a competition in which residents developed mobile apps for public use based on the open databases. The city actively employs social media as a platform for involving the public in municipal decision-making and community improvement initiatives. The IView system renders geo-spatial information readily available and easily useable for all. All these initiatives are facilitated by a free city-wide WiFi in public places. This is the best system, compared to other cities in Israel, which charge for use of their WiFi. As is well known, public spheres create a platform for people to communicate, to share common interests, to discuss daily issues aimed at improving all residents' quality of life.

The Digi-Tel initiative improves municipal services, enhances residents' quality of life, and forges the conditions for sustainable urban development. Above all, it exemplifies the city's active and intelligent role in employing technology to strengthen civic engagement and ensure that the city is accessible and responsive to all concerns.

To summarize, we can label Digi-Tel platform as an ambitious program that succeeded to fully realize itself and to fulfill its vision: "Afford citizens the option of convenient service channels;

meet the needs of users and different demographics in the city; form provisions of all services digitally and maintain privacy and ensure secure transfer of information".

The greatest proof of Digi-Tel's successful government-oriented, citizen program is the enrollment numbers, which already exceeded 100,000 (107,000 as for May 2015) inhabitants out of 250,000 eligible in a matter of two years. It proves that residents recognize the importance and significance of being connected to the local government's multi-service products available through ICT digital tools.

Information Communicate Technologies are rapidly developing. The future holds new digital tools to improve Digi-Tel platform, in order to achieve better engagement between the municipality of Tel Aviv-Yafo and its residents.

Tel Aviv Digi-Tel platform conceptualizes explicitly and clearly the EU-COST Action "People Friendly City in a Data Rich World". Digi-Tel's originality shows how technology generates positive results in building partnerships between residents and their local government to improve quality of life.

Digi-Tel is a successful story and an innovative people-centered solution in urban planning, citizen participation and city management. It empowers citizen to create a more attractive, healthier, entrepreneurial and inclusive city. It encourages cultural dialogues, integrated smart systems into citizens' lives in a meaningful and easily accessible way. Thus, Digi-Tel is the most suitable example of a program, which combines people-friendly city and rich data in one of the world's most livable cities.

**Links for additional information:**

[Smart City Tel-Aviv](#)

[This is Digi-Tel](#)

[http://www.cost.eu/COST\\_Actions](http://www.cost.eu/COST_Actions) TU 1204

[DigiTel - Tel Aviv Digital revolution - Part A](#)

[DigiTel - Tel Aviv Digital revolution - Part B](#)



# Intelligent cities and intelligent plans: how to foster self-organization?

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Intelligent Plans are viewed, for the time being, as a possible planning tool that can be used by intelligent cities to promote collective intelligence and exploit the expanding world of information and communication technologies in urban environments. This new plan format, based on an Information and Communication Technology platform or portal, offering special ability of visioning, preservation of memory and communication, intends to promote the relationship between urban planners, local authority managers and urban actors. The article reflects about the evolution of plan forms and their evolving functions in Portugal at the local level and about the future attributes and mechanisms of the intelligent plan in order to foster emergence of self-organizing initiatives. The process of self-organization can be promoted by the planning process and governance when launching challenges to motivate local actors as may be the case concerning open procedures related to new urban developments. Self-organization is viewed as a collective expression of different rearrangements of values and interests, enhanced by this particular digital format of spatial plan, which may shape properly its future functions towards more intelligent cities.

**Keywords:** smart cities, intelligent plans, collective intelligence, self-organization, open procedures, urban procurement.

## 1 Introduction

Virtual city, digital city, informational city, wired city, telecity, knowledge-based city, electronic communities, flexicity, teletopia, cyberville, U-city, among others, cover a wide range of electronic and digital applications related to digital spaces of communities and cities. *Smart city* currently seems to be the winning concept. Every city wants to be *smart* using this label in its own strategies. In part this is due to the industry that saw the concept as an opportunity to push technological innovation and a way to improve new systems and devices taking advantage of Information and Communication Technologies (ICT).

*Smart city* literature and research seem to put more emphasis on embedded systems (Steventon and Wright, 2006), sensors and interactive media, while the concept of *intelligent cities* rely more on collective / collaborative intelligence, innovation systems, and web-based collaborative spaces (Kominos, 2009). In literature the concepts of *smart* and *intelligent* tend to overlap and try to integrate the three dimensions of urban space (physical, social, and digital), thus having strong similarities. The relevant efforts of VUT (2007) to address the concept is based on smart economy, smart mobility, smart environment, smart people, smart living and, finally, smart governance. But some authors sustain that *smart city* is still quite a fuzzy concept (Caragliu et al, 2011) and there is an apparent lack in the literature about smart cities concerning the physical side addressing urbanism and planning functions. Hollands (2008) reports some problems: the splintering urbanism (fragmentation and polarization, economically and socially); growing contrast between creative classes and IT illiterate sections of the population; social inequality and urban gentrification; conflict between environment sustainability and economic growth. Hollands argues for a more progressive

smart city that might use ICT to enhance democratic debates about the kind of city it wants to be and the kind of city people want to live in – a type of virtual ‘public culture’.

The debate is going on and will make its way in different fields of knowledge (see, for instance, the guest editorial of Deakin and Al Waer (2011)). Intelligence is a human attribute and many dimensions and different types of intelligence are widely recognized in the psychological and behavioral sciences. For the purpose of this article, we will consider the definition of *Collective Intelligence* given by the Center for Collective Intelligence in its wiki handbook “Groups of Individuals doing things collectively that seem intelligent”. Following this, *Intelligent City* will be a city with a strong collective intelligence in such a way that the city *thinks* and *acts* as a whole. Within this assertion there is, of course, the need to investigate and clarify many issues: what is needed to think collectively (particularly the ICT infrastructure, the information, culture and individual capacity, motivation and personal engagement in collective thinking); the process of thinking (communication and participation); what is bad and good collective thinking (evaluation); how to act coherently (planning and governance); how to decide (decision process); the behavior of an intelligent city (the actions of being intelligent and substantive judgments about that). It is not our intention to discuss here the complex subject of *collective intelligence* where abundant research is being made considering, for example, internet development and its systemic impacts (Malone, 2010; Tovey, 2008) but to accept its challenging significance.

As we pointed out elsewhere (Silva et al., 2012) there are some attributes that can make a city more intelligent which were inspired by the human qualities of the collective and complex whole that make our cities:

- Knowledge, education and learning
- Communication
- Relational capability
- Creativity and innovation
- Healthy growth
- Self-organization and wise management
- Intentionality
- Finality / Purpose

The first two are, nowadays, linked to the common goal of a Knowledge Society and also with the OECD initiative *Educating Cities* and the UNESCO movement of *lifelong learning cities*. *Communication* and *Relational capability* are related to the systemic notion of networks and the ability of cities to interact with other cities and regions and develop internal linkages among its main components and subsystems (Batty, 2008). *Creativity* and *innovation* are common topics in smart cities literature (Florida, 2002; Komninou, 2009) and are viewed as important driving forces. *Healthy growth* relates with the concept of *smart growth* and also with the qualitative processes and models of growing adopted by cities (Krier, 1998). *Self-organization* will be discussed later. Lastly, *intentionality* is intrinsically linked to action, in terms of the ability to develop common understandings about values and collective consciousness in different fields, in order to prepare future intentions and policies, to take action and progress for a sustainable well being (long term planning). *Finality* is related with the purposes pursuit by any system and is the most risky issue.

We defend the good purpose of creating citizens and developing citizenship, which allows collective thinking about their city, its future and how can that future be achieved, and the development of common strategies to get there. Each of those main attributes may have a corresponding answer by the intelligent plan (IP) – the plan used by an intelligent city that serves its purposes. To have those abilities (or functions) the IP cannot be a traditional urban plan due to its strong need of interaction (to consider namely the sense of communal values) and cannot be made in the same way using traditional formats, even considering its move towards more dematerialized (or digital) forms made available for all through the web. Accepting those challenging plan's functions, what will be its form?

## **2 Does form follow the function of the plan? – a brief Portuguese picture**

The dictum “form follows function” was the battle-cry of modernist architects and designers after the 1930s and is generally accepted as the expression of functionalist theories that stress the simple idea of safeguarding the user's interests in the course of the design process (Michl, 1995). It is not our intention to discuss the validity of its generalization into the field of planning but just using it to summarize what happened in Portugal in the last one hundred years which, in our view, was not much different from what happened in other European countries.

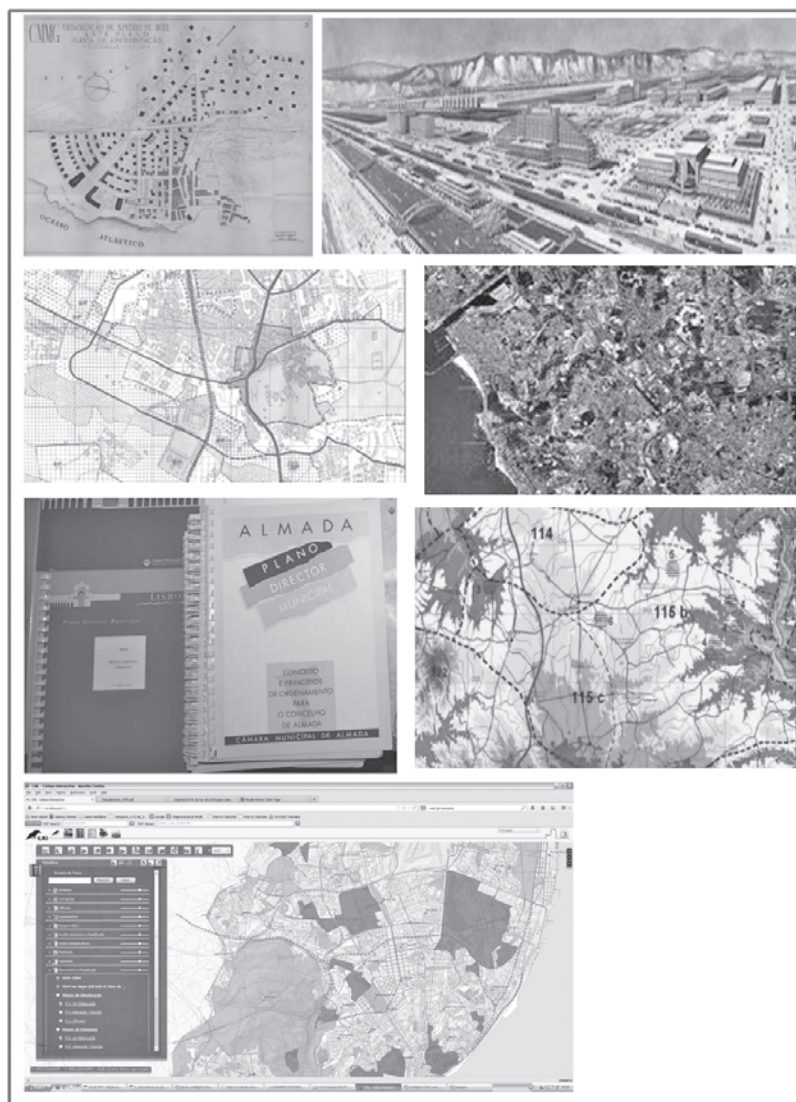
In late 30s and 40s of the XX century it was common to see planners (at that time working for central administration) using paper and pencils to express their ideas for the future development of cities and small towns and sometimes using 3D physical models (mockups) to support geomorphologic analysis for testing and evaluating their future design. Some of these beautiful drawings, many of them water colored, are still available in museums to be appreciated and are the maximum expression of the blueprint plan concept. The main function of this type of plans was to set a given layout to the future of urban agglomerations during the dictatorial period which took 50 years until the establishment of democracy, in 1974, in Portugal. Data topographic acquisition, aerial photography (70s), and later satellite imagery (80s) and ortophotomaps allowed the full visualization of land use maps and urban occupation.

Nevertheless, few local plans were approved at the end of the 80s. Only four municipalities had a master plan approved. After Portugal became a member of the EEC in 1986, the economic development and urbanization rate increased along with the urban expansion of cities. In 1990, the making of municipal master plans for all the 308 municipalities became mandatory by the new planning law, otherwise there would be no access to European funds by local administrations which represented also a new function of plans.

Planning products became accessible to all not only because the access to the content of plans was a citizen's right (at this time the access to planning information became mandatory in the Portuguese planning laws) but also due to the increasing development of photocopying machinery which was not expensive and made accessible for all.

In the beginning of the 90s plans were still produced in paper, as extensive reports, and sometimes printed and published in the form of books. At that time, plan making already included an extensive consultation process to local citizens, which generally occurred at the final stage of

plan making. One of the most innovative actions taken by a municipality was the initiative of the Municipality of Lisbon that decided, in 1994, to put in all the mailboxes of all buildings a printed copy of the planned Land Use Map that was part of the Plano Director Municipal (PDM or municipal land use master plan), which had been recently approved at that time and covered all the city. The function of plans had evolved and more intentions were added: control of private initiative; programming public action; multilevel coordination; spreading a common idea of urban structure; extending the information field and wide consultation. The geographical information systems arose at that time and started to give the first steps. Internet and its usage started to expand as well as the information and communication technologies.



**Figure1** – Evolution of formal supports in planning, from analogical to digital (handmade, watercolored, topographic maps, ortophotomaps, published in paper, GIS and Web-Gis).

At the end of the 90s many municipalities developed Internet web pages to make available information and data concerning its most important plan, the PDM. Some municipalities imposed format specifications in the terms of reference of open procedures particularly, the supply of data in digital format and the preparation of websites for specific disclosure. Other municipalities (few) were offering municipal WebGIS to make geographic data and different layers of information available, including data concerning land use plans. The function of public participation and engagement in plan making is fully accepted and promoted and remains mandatory by law.

Nowadays, the use of GIS is very common among the planning teams. Geographical infrastructure had a huge development at central and local levels, in both public and private sectors. In a recent national survey to the 308 municipalities, it was found that 76% use and produce geographical information (Santos et al, 2012). But many municipalities do not have their plans on-line and those best equipped with information systems still see Internet as a means to make information available, from administration to citizens, during plan making, as was the case of Lisbon (the biggest city). The WebGIS and the website created to disclose its recent revised PDM approved and published in 2012 has already some interactive functions related to land use, green infrastructure, street network and urban activities and started to offer some services linked to urban management activities like the availability of administrative forms related to certification, approval of requirements, building permits and many other bureaucratic issues. Commonly, communication through the web is mostly done in a single direction.

At the national level, many important projects were developed by the national authority for spatial planning. This recent General Directorate for Territory (DGT) replaced the former institution DGOTDU. Presently it is the national authority responsible for the management and registration of national, regional, local, sector and special plans and it is also responsible for geographic information standards at the national level. The SNIT<sup>1</sup> (National System for Territorial Information) is a repository for all the official version of plans (old versions are available at a digital historical archive) for cities, municipalities and regions that were made available through the web. The most regulatory land use documents and images of land use maps are, in general, available, such as the map of spatial organization of planned land use classes and the map of constraints to certain uses or activities. The project is evolving to an electronic platform in order to facilitate the automatic (and digital) submission of local plans (mandatory after 1/7/2011) to be registered and stored by the DGT.

SNIT is the dematerialized version of the national archive of official plans (in paper format) and is having a strong impact (that still may increase) on the culture of planning. Any citizen can see, analyze spatial statements and consult legal norms concerning spatial planning for all types of plans (and they are many, see Table 1), made by municipalities or central administration, in a given place.

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<sup>1</sup> <http://www.dgotdu.pt/channel.aspx?channelID=144EE72D-18A4-4CCA-9ABA-7303CDEAA0C6>.

**Table 1** – Quantity of plans in SNIT by type of plans

Type of Plan	% of national coverage	Quantity in SNIT
<b>Local plans</b>		
All kind of plans (detailed, for cities and municipalities, including versions, corrections, alterations, partial suppressions)	Integral (only for PDM)	~2000
<b>Central plans</b>		
National spatial plan (PNPOT)	Integral	1
Regional spatial plans	Integral	6
Inter-municipal plans (sub-regional)	Partial	2
Spatial plans for the surrounding area of dams	Partial	40
Spatial plans for natural reserves, protected landscapes, national parks	Partial	25
Spatial plans for coastal areas	Partial	9
<b>Digital historical archive</b>		
(Plans, urban studies and their variants/alterations 1930-2000)	Partial	~1500
Note: <i>Integral</i> means that the sum of this type of plans covers all the country. <i>PDM</i> is the (land use) master plan for municipalities. This counting was made in March 2013.		

The Portuguese planning law also states the intention to set up a national observatory for spatial planning (not yet implemented) and local observatories to monitor land use changes that should, in principle, complement the mandatory *spatial planning state report* for all the municipalities every 2 years. Considering the recent history of planning in Portugal we can state the clear movement from paper format to dematerialization, following e-government efforts and many cases of success in the Portuguese public administration - Portugal is the only country in Europe where public procurement is compulsory dematerialized (since 2009) and ranks first in the European tables for the sophistication and availability of its online public services (EC, 2010). In some cases municipalities prefer internal dematerialization, others follow web-dematerialization developing WebGIS websites and some e-planning services. Planning products (plan documents) are, in general, digital but non-dynamical.

Through this short summary about the evolution of plan format, we can easily conclude the following:

- Strong movement to digital world and use/production of geographic information in planning;
  - Genuine preoccupation at central level with the preservation of old official plans and the public availability of new ones exploring web tools and e-government services;
  - Monitoring is giving the first steps at both levels (central and local);
- But we can also state that:
- Plan revisions are still considered *new plans* harming the continuous character of planning;

- This revision process is rarely viewed as an opportunity to promote changes in the information system, in the organization or in the planning process;
- New plans are still attached to a 2D (paper) view of the world, influencing plan making and the participative process, without 3D simulation/ visualization tools concerning planning proposals (except detailed plans, at scales 1/2000 or higher);
- There is still a lack of public interaction during plan making, without a better use of ICT tools available to facilitate interaction and participation.

The communicative function of planning (viewed in the strict sense of making available geographical information concerning the approved plan and promoting consultation) is pushing plans to digital and web forms. However, this form of plans is just a simple dematerialized way of presenting more or less the same paper content. A certain lag between plan representation and planning process remains. To accomplish a true communicative planning function (Healey, 1992) towards more participatory governance, a new form is needed for the plan.

### 3 What can be an Intelligent Plan?

We have to admit, at least in developed countries, that cities are no more intrinsically spontaneous. Through planning and local governments they acquire abilities of organizing their evolution considering the external system and define their own intents and finalities within an uncertain world. The intelligent plan (IP) of an intelligent city (IC) will be a plan capable of favoring its intelligent qualities, of accommodating and organizing the product of internal interaction and respond to initiatives, needs and aspirations in a rational way. IP is then viewed as a tool to nourish the qualities envisaged for the intelligent city and, in short, to feed citizenship. The essential qualities here proposed that an IP should have are:

- Memory
- Vision
- Interaction capability
- Self-explanatory power
- Reasoning

*Memory* and *vision* are qualities that make the IP able to meet the demands of time. *Memory* is viewed as a structured repository of planning data, information and old plans which, according to the theory of path dependence, seem essential to enable a 'way of understanding the temporal dimension in comparison' (Booth, 2011) and also the causality of urban dynamics. *Vision* relates with the visualization of futures for the city - the future planned and expressed in the IP, the future trends or even simulations. *Interaction capability* and *self-explanatory power* are qualities that make the IP understandable and available to all the citizens, institutions, stakeholders and civil organizations that are external to the planning authority. *Reasoning* means something between artificial intelligence tools embedded in IP (including some sort of automation when useful and proved) and the knowledge, norms and determinations derived from planning and governance level – the testing of new projects or the representation and visualization of buildings submitted to be

permitted are just examples of that. But it relates also with reason, especially with arguments to form conclusions, inferences, or judgments.

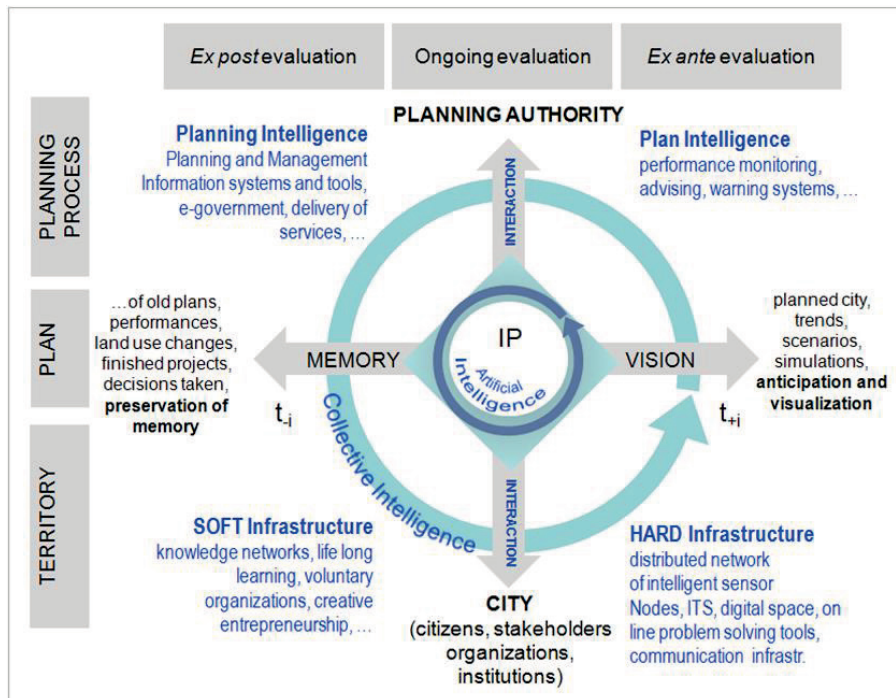


Figure 2 – The main components of an intelligent plan considering time and hierarchy.

Considering the urban planning context, ‘intelligence’ is derived from ‘information’ and ‘planning intelligence’ is ‘the strategic decision-support information that enables the planner and the community to identify, understand, and deal with new and trying situations’ (Kaiser et al, 1995, 89). Its foundation is an information system, which rapidly evolved with computers and GIS to what is known as Planning Support Systems (PSS) (Geertman and Stillwell, 2003; Batty, 2007). It is the ‘particular goal of supporting informed forward-looking action that differentiates PSS from GIS, organizing information to support routine management tasks and decision support systems (DSS) that facilitate executive decision making within an organization’ (Geertman and Stillwell, 2009). PSS and its variations - Spatial Planning and Decision Support Systems (SPDSS) and Public Participation Planning Support Systems (PP-PSS) –, in spite of being still considered academic prototypes or ‘one-off’ professional applications, as those authors also recognize, they have strong potential to assist the *vision* component and support participatory decision making.

The massive use of GIS and Web-oriented ICT has had also an outstanding development. Google Earth and systems alike boosted the ‘virtual city’ concept. Visualization and web-based contexts are viewed as the future driving forces for PSS (Batty, 2007). Participatory planning is giving rise to different web-based tools and interfaces and even the volunteered geographic information is being considered, which will certainly have potential implications for planning and governance (Al-Kodmany, 2003; Adams, 2012).

Systems of Monitoring Indicators have had also a huge improvement in last two decades to monitor urban change and assess policies, planning and plans (Innes and Booher, 2000; Hoernig and Seasons, 2004; Wong, 2006) improving access to data and to their meaning and to better urban knowledge. As mentioned by Santinha and Anselmo Castro (2010:82), 'if knowledge is the engine and information the fuel of economic development, ICT can be seen as driving the innovation process'. Dashboards can be useful, not in the common sense of a command-and-control device, but as an informative tool open to the community showing the present performances achieved by the city.

Our argument is that an IP should take advantage of the flow of ICT ongoing innovation. To accomplish the main functions of an intelligent city, the IP should use a web format in the form of a technological platform, a *portal*. Klessman (2010) defines Portal as 'a system providing access to information, applications, processes and persons available within the attached systems. Such a system should grant safe adaptable and easy access. It can be used through different media and access channels'. Different tools can be used like wikis, chats, blogs and news groups. Service centers can also offer direct participation through different methods and tools. Klessman (2010, 263) argues that Portals can play an important role in fostering public participation, especially electronic participation. These kinds of information systems have usually back office and front office services that can cluster different types of tools and informational components. In this case, the front office processes are clearly related to the interaction with citizens and their collective organizations and the back office processes can be more oriented to assist the planning service and local organization.

Accepting this, the IP cannot be thought as an ended product that does not consider its continuous nature, especially in the communication and interaction field. An IP as a portal deals with soft and hard infrastructures (Fig. 2) and has to support a continuous process of interaction, giving support to the analysis of the past and present situation of territory (the present state of the city) and changes that are transforming it and, simultaneously, offering a visioning window over the future – the planned future displayed by the plan under implementation and the trends influenced by urban transformations that continuously are being approved by local administration.

#### **4 Fostering self-organization in planning**

The term *self-organisation* is used frequently, but a generally accepted meaning has not emerged. The list is growing and its understanding depends on the viewpoint of different sciences, which makes it increasingly difficult to decide whether these phenomena are all based on the same process, or whether the same label has been applied to several different processes. Despite its intuitive simplicity as a concept, self-organization has proven notoriously difficult to describe and define formally or mathematically. As mentioned by Portugali (2000:359) "is not a single solid theory, but rather a general umbrella for several theoretical approaches".

We will adopt here the first approach.

Those two keywords need, however, to make part of any tentative definition: *self* (philosophical dimension) and *organization* (universal dimension).

*Self* puts the accent on internal dynamics of the urban system. Nowadays and somehow the city can be already considered a self-organizing system explained by their evolutionary forms and related theories (Portugali, 1997:376). But the critics against the imperfections of traditional local governments, even in democratic systems, gave raise to the virtues of bottom up dynamics that have led to enhance participation in planning and the use of collaborative planning practices as a means to reinforce the self-organization and self-adaptation power of cities. Alfasi and Portugali (2007) go far beyond and suggest that a true self-organized city can even be a self-planned city that requires a more qualitative planning system, centred on substantive urban design rules that may require a different structure of planning and new planning authorities – a three-layer system based on legislative, judiciary and the executive. We emphasize here their idea of detaching the general normative component (qualitative laws) of a plan for a city, which should be discussed and established by the community and managed independently of the new plan and their producers. Although the self-organized city is still an image, a future perspective for a new intelligent behaviour, this seems reinforcing the need for a dynamic format for the IP to allow continuous validation by the community (for instance the confrontation between urban form and qualitative standards that support it), interaction ability and even some form of ex ante experimentation.

Regarding *organization*, Ashby (1962) stated a long time ago that its opposite concept was *independence*. By other words *organization* means some sort of *conditionality* between parts and parts will be organized when *communication* occurs between them. *Communication* in a general sense can lead to all sorts of relationships between urban actors in all social, economic, ecologic, institutional and physical fields that can contribute to any kind of commitment among them. Furthermore, Simon (1996:216) stressed the importance of hierarchies to the evolution of systems, 'complex systems will evolve from simple systems much more rapidly if there are stable intermediate forms than if there are not. The resulting complex forms in the former case will be hierarchic' or, by other words, 'Among possible complex forms, hierarchies are the ones that have the time to evolve' (Simon, 1996:197). *Hierarchy* is 'a system that is composed of interrelated subsystems, each of the latter being in turn hierarchic in structure until we reach some lowest level of elementary subsystem' (Simon, 1996:184).

Fostering self-organization, then, can be to facilitate the emergence (internal to the urban community) of hierarchies of interests/values in the spatial planning field that may arise during the development of a new plan for a city (or the revision of an existing plan) and during its ongoing management stage, throughout the implementation period. The IP, formalized on an ICT platform or portal, can provide the necessary infrastructure to cluster those interests and motivations, to promote communication among independent parts and communication between those self-organized interest groups and the local administration.

#### 4.1 Motivation and power

In our point of view, the self-organization of individuals (that runs in parallel with the present political democratic system) depends largely on the degree of motivation to interact and on the perceived

benefits and individual gains derived from that interaction and implication. Agger (2012) argues for different types of motivations according to different types of citizens in participatory governance arguing for different strategies of mobilization. The research made at the Center for Collective Intelligence at MIT (Malone et al, 2010:23) about the building blocks that are at the heart of collective intelligence systems, have also clearly identified the *incentives* as an important *Why? gene* that can cover the high-level motivations which lead people to participate in collective intelligence systems, i.e., ‘money, love and glory’.

Obviously, this perception will also be affected by the power to influence, decide or simply acting which is given to the community by the institutionalized power and local planning process. Table 2 lists a set of possible interactions that can motivate individuals, feed the self-grouping of interests and values or even instilling some sort of stigmergic initiatives in the spatial planning field, considering the potential use of ICT as multiple functionalities embedded in the concept of an IP described above.

**Table 2** – Possible interaction areas made available by the IP concept that potentially will foster self-organization of interests and values.

	<b>Past states (memory and past performance)</b>	<b>Present state (changes on course and present performance)</b>	<b>Future states (trends and vision)</b>
<b>Planning process and governance</b>	Complaints about planning and management process	Participative budgeting; Prioritization of public projects	Ideas competition;
	Complaints about old plans	Open procedures; Requests for cooperation; Delivery of planning services.	Suggestions, needs, aspirations about plan revision
<b>Plan</b>	Past strategies, objectives, goals, rules, achievements (...)	Present Strategies, Objectives, Goals, Rules, Structuring urban elements, constraints. Access to plan's dashboard.	Visualization about the planned city
	Access to past performances	Participatory monitoring and warning systems	Expected impacts concerning projects
<b>Territory</b>	Memory of old city; Chronological ruler of urban transformation and finished projects	Visual identification of land use changes (urban developments and new buildings in course of approval; scheduling of public works)	Perception of trends; Visualization of latent urban changes (authorizations and approvals being processed)
	Data and past performance;	Performance indicators (benchmarks); Volunteered data.	Possible experimental simulations.
		On-going participation and implication in collective issues	New strategies, goals, projects, rules and future urban scenarios/ landscapes set in equation for future plan revision

The IP concept can be then a permanent platform of interaction between top and bottom level, and also between local and central administrative levels, where the approved plan should be self-explained and offer full representation. Three windows should be always open, to the past, the present being transformed and to the future planned city. The IP includes, in practice, an embedded observatory for spatial planning that monitors plan performance and territory performance using embedded dashboards. Planning process and governance system (the top contributor and manager of IP) will have the important role of instilling challenges for the community by open competitions or open procedures in different areas of interest and, also, of opening time/space windows of interaction/decision with society fostering the self-organization of interests and values. Facilitating and organizing voting systems and referendums among residents and organizations on topics of local interest or dilemmas, made available in the IP portal, would be challenging and informative in order to feel the pulse of the city and to take supportive decisions.

#### 4.2 Open procedures and challenges

To foster self-organization means then to develop challenges and create opportunities for the emergence of organized hierarchies (among individuals) of interests or values, opening spaces of intervention and (in some controlled subjects) spaces of decision. This is similar to the concept of attractor in the theory of complexity that influences positive alignments of interests among individuals and groups, stimulating the system in the right direction.

The concept of *open procedure* has been basically used by local and central administration to acquire goods and services, in line with European directives and national legislation – as is the case of the Portuguese *Code of Public Contracting*. Not discussing the economy of this option (in some cases it may be cheaper to develop an internal response by public services, when possible, instead of buying it in the market), it is, in fact, a very transparent procedure that increases equity and market dynamics.

The process of urban development in Portugal usually comprises the division of property in small parcels, to provide infrastructure or services and (although not always) the residential occupation – this is the usual process of expanding cities. Before the 70s it was a State prerogative. Progressively, this process has been opened to the free initiative which increased at the same rate as the state was losing investment capacity to make new urban spaces or provide social housing, as it also happened in other European countries (Needham, 2000; Carter et al, 2001; Alterman, 2011). Nowadays, with few exceptions, this urbanization process is entirely commanded and dependent on private initiative although strongly regulated by administrative authorization given by municipalities. Despite being common in developing detailed plans for planning new urban occupations, municipalities are strongly attached to the free will of private owners covered by those plans – the elaboration of a detailed plan does not guarantee its physical accomplishment (it is possible that the different parts become committed by a contract, although this is little used).

The concept of contracting or procurement through open procedures can be applied in many areas of concern and may be even central to the planning activity (Lai, 2010). Extending this concept to new urban developments in some areas, where needed, could be a very interesting initiative to foster self organization and self arrangement among different entities that act in the real

estate market – owners, developers, companies, urban promoters or real estate mediators. Other situations may be envisaged for its implementation:

- New areas of urban expansion;
- Construction of buildings of a given type or due to its unique allowed function in the area in question;
- Construction of certain public facilities necessary for the area, not requiring public acquisition or operation by municipality;
- Construction of rental housing with controlled prices (which is very important to promote social diversity of housing supply in consolidated urban areas, requiring strong engagement of local administration in land acquisition).

As far as launching open procedures are concerned as regards new urban expanding areas, we can foresee some positive advantages:

- Prioritize new directions for city expansion would become much clearer and would imply, of course, their justification by planning services;
- The transparency of the process would increase and also the responsive sense, requiring a proactive attitude of local administration;
- It would be a proactive measure, promoting the self-organization of interests, values and entrepreneurial initiatives to be framed by the terms of the open procedure itself.

If the intention is not to block completely the free initiative of urban promoters, wishing to present their urban development projects fulfilling the existing planning regulation, then there it is necessary to add one important complement. Planned urban growth through *open procedures* would need positive differentiation measures or incentives, like some sort of exemptions or much lower taxes. On the contrary, those who prefer to make investments outside the planned areas should have a negative differentiation.

Citizens and organizations may have the ability to discuss and highlight fundamental needs and to participate in the evaluation of some dimensions (Fig.3), particularly those issues more related to potential neighbourhood conflicts. The winning proposal could then be developed and registered in the IP as a new urban area under development with different impacts on monitoring indicators and on the performance dashboard and displayed as a latent urban occupation.

Launching different types of challenges and open procedures may be read, in the light of complexity theories, as creating attractors that can guide initiatives and causing a form of self-organization among individuals and groups.

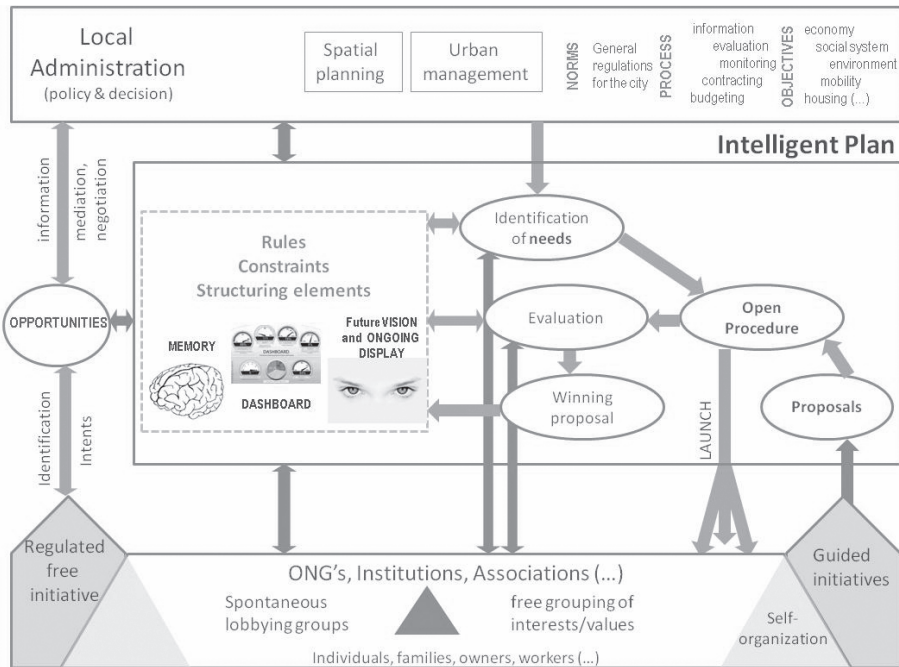


Figure 3 – Open procedures concerning urban development as triggers of self-organization

## 5 Conclusions

We have developed within this article the *Intelligent Plan* concept, which can be viewed as an Internet *Portal*, taking advantage of ICT and web that are feeding the Intelligent City. The *Intelligent City* will continue needing plans. Recently Alexander, Mazza and Moroni (2012) explained very well why we still need rules, and consequently, why we still need plans. Portugali (2011) also stated that the notions of complexity and self-organization are not in opposition, as apparently they seem to be, with the notions of planning and urban design, highlighting the importance of spatial cognition where planning can be at once a cognitive capability of humans as individuals and collectivities. Although the practice of planning shows that plans have been evolving towards more dematerialized formats, the IP needs to have a shape best suited to smart city functioning, its intents and finality. This is particularly relevant in the interface between individuality and collective aims.

Social capital and Internet usage are strongly and positively related (Nunes, 2012). However, in the present state of the evolution of smart cities, some doubts still remain concerning the capacity of the Internet to assure a proper and equal access to all dimensions of planning process and their main products. We feel for now, as a conviction that needs to be experienced, that self-organization of interests and values can be fostered by such IP. Through it administration can promote some sort of planning culture and a shared view of the urban transformation. Instilling self-organization means to facilitate connectivity between interests and, thus, the emergence of hierarchies. This seems possible if the local administration accepts: a high level of transparency in information sharing regarding city evolution and planning; to share some decision capacity with

those self-organized groups of interests. One special way to instill bottom-up self-organization may be to challenge urban actors for participation and engagement in planning issues. Launching open procedures embedded in the IP seems to be just a good motivation towards self-organization of relevant actors in the urban fabric. This process needs robust web tools that promote communication and commitment among local interests, giving them past and present information concerning planning and plans, displaying vision about the future of the city and interaction ability. The IP as an ICT platform or portal may shape properly the future functions of urban plans towards more intelligent cities. A digital format for intelligent plans does not replace human contacts in the everyday activities of the planning process, and they are many. It can be just a mean to increase connectivity between citizens and their city and to improve planning culture.

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### **3. Cultural Dimension / Local Identities and Meanings**



# Urban space and rural heritage: the case of Vila Franca de Xira

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The urban space is often the scene from demonstrations of rurality of its surroundings.

The intangible cultural heritage of rural areas tends to disappear when the territory is urbanized and lifestyles changed, reducing the daily activities that justified them.

The cultural heritage of some rural areas, particularly where cattle ranching is more representative, maintains its visibility in small and medium towns in periodic events, even when integrated in a metropolitan area, such as the Lisbon one, and probably influences the evolution of urban public spaces.

The happenings that mark the places and promote the identity are the events. It is important for the city to have events of various types and which create reasons of common interest for locals and tourists. Some events are the result of ancient traditions and others like the leisure ones, sports, festivities or cultural are created to promote places.

In the late twentieth century, the urban and commercial feature of the town of Vila Franca de Xira has become a communications and service center, without losing its roots of simplicity, hosting and maintenance by the Tagus, the Lezírias (a tract of marshy land alongside of the river Tejo) or Bullfighting, power-up testimony to the surrounding rural territory.

This paper examines an urban area, its evolution and morphology, in the town of Vila Franca de Xira, and his relationship with the "Red Waistcoat / Colete Encarnado" event, tradition that has existed since 1932, party tribute to "campino", held in its central area, this activity is considered as part of the intangible heritage of the region and a land mark.

**Keywords:** Urban space, intangible heritage, Vila Franca de Xira, Red Waistcoat /Colete encarnado

## 1 Introduction

Urban space is the stage of several cultural expressions, permanent or periodic that set practices with most urban or most rural character, according to the dimension of the agglomeration and to the strength that those traditions have as a mark of a certain way of living.

Rural society organizes, traditionally, its festivities with expressions of dexterity similar to the daily activities, with the objective of valuating its members. Some of these activities are presented in the urban centres that polarize them and that, despite being presently completely urbanized, maintain with its rural surroundings strong cultural ties, as part of its population has its roots in the near rural areas, as it is quite frequent in the process of urban development in the last decades.

The researched activities can be considered as Cultural Heritage, as: "every property that, being a witness with value of civilization or of culture, that carry relevant cultural interest, must be object of a special protection e appreciation" and all the "intangible goods that constitute structuring parts of the Portuguese identity and of its collective memory"<sup>1</sup>.

In this sense, the identity of a place is very often associated with the heritage and this concept includes the idea of "inheritance", but in the case of the city it applies to the idea of "cultural good".

And the heritage plays an important role in the formation of our collective memory, as by being kept and preserved it enhances the underlying story (Couceiro, 1998).

<sup>1</sup> Art. 2º, Lei 107/01, 8 de Setembro (Lei de Património Cultural)

These cultural goods are used as a reference, allowing them to belong to the strategies within processes of development of the cities. Cities promote themselves, in order to appeal and attract resident population from the surroundings areas and visitors, and with that purpose they count with a set of attributes, that potentially generate an identification and an interest. Each space, be it marked by architectonical elements or destined to events, constitutes a reference point. Cultural goods work as marking spaces, distinguishing cities, and are fundamental to promote the perception and the orientation in the city (Lamas, 2004).

These cultural practices, that don't have a material component, are integrated in what is named as intangible cultural heritage that was defined according to UNESCO as " the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity" (UNESCO, 2006, pág.1)

When it was published, the "Convention for the Safeguarding of Intangible Cultural Heritage" had the purposes:

- to safeguard the intangible cultural heritage;
- to ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned;
- to raise awareness at the local, national and international levels of the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof;
- to provide for international cooperation and assistance.

In the beginning of the XXI century the Intangible Cultural Heritage is formally recognized as an important factor of cohesion and valorization of the communities and social groups, with special relevance when these, because they're located in territories of low qualification, or in a certain way unknown, have no other areas that put them closer and with a sense of group, more importance it becomes.

The characteristics of the urban spaces, namely public spaces as streets and squares evolve in a way that maintains the qualities adequate to the festivities of the city, allowing to keep an intangible cultural heritage of the region, that has as a complement, an important economic role with the tourism of the city.

In this paper, we analyze the morphologic characteristics of public spaces, mainly in the roads where occur a type of periodic festivities framed within the activities of grazing and cattle breeding as the running of bulls, that we find in Portugal, mainly in Ribatejo and in Alentejo. We shall focus in the case of Vila Franca de Xira. At the same time we pretend to identify and analyze the identity elements, associated with events that differentiate Vila Franca de Xira from the other cities within Lisbon Metropolitan Area.

## 2 Identities and festivities

The identity of a city is difficult to define in a valid and consensual way, because of its scope and coverage, despite being able to name and describe the elements that belong to it. The different players may have completely divergent definitions according to their vision and to their interests. In the case of the “users” identity is something that allows its connection with the experience of the places; to the “managers” it is an element of attraction that must be used to increase the interest to the city; in the case of the “experts” that project spaces, it is something that allows the existence of guidelines so that the projects meet the commercial or regulatory ambitions (Trigueiros, 2012).

Nevertheless, the coverage of the thematic discussion should widen involving and relating the physical elements of the identity, as the most intangible elements. The events are the happenings that mark the places and promote the identity. It is important to the city that exist different types of events and that are created motives of common interest. Some events are the outcome of old traditions or of the homage to people or to other relevant happenings, and other are created to promote places, as leisure, sport, festive and cultural events.

Periodic festivities of rural character are from two types: religious or secular; the secular ones can be more related to agricultural traditions where markets pay an important role, forestry traditions where games with lumber are common or related to grazing and cattle breeding traditions where animal display and the skills related to its control are dominating. Therefore, in the case of a territory surrounding a city, that maintains a relationship with specific and essential meanings, the activities of its population (from rural, industrial fishing or mining culture among others) frame elements connected to the identity considered as “naturals”, despite being possible to consider them in a certain way as “exteriors”.

Such events are remembered in the space of the city where they take place and/or that are of common use – the Public Space. This relationship, between parts of the identity (public space, events, territory) and the elements that mean or represent them physically or immaterially, will be determining in different contexts, that are shown ahead, illustrating the forms of cultivate and operationalize practices, from Public Space.

With globalization the cities present, mostly, identical services and characteristics. A differentiating factor of the image of the city, transmitted to its population, visitors or investors, may contemplate gains and positive perceptions, that are already in place and that turn that place into unique and special. The growing competition between cities boosted competitive strategies through marketing plans. These plans are generally composed by several elements as the creation of a brand or the realization of events and afterwards the propagation of all those initiatives. In general, we confirm the gradual arising of these initiatives, being felt the importance of the marking of the identity of the cities. In another measure, in “nascent” or “peripheral” cities, the strategy of the identity may aim its promotion to a level of regional visibility. In this sense, we present the case of Vila Franca de Xira that illustrates the present problematic.

## 3 Vila Franca de Xira: a case study

The city of Vila Franca de Xira is the head of the municipality with the same name. It belongs to

Great Lisbon and it is one of the eighteen municipalities that form the Metropolitan Area of Lisbon. It is located in the right bank of the river.



**Figure 1** Localization of the city and the parishes in the municipality of V.F. Xira  
Source: [http://www.snipview.com/q/Vila\\_Franca\\_de\\_Xira\\_\(freguesia\)](http://www.snipview.com/q/Vila_Franca_de_Xira_(freguesia))

A brief outline of the characteristics of the historic evolution of the city of Vila Franca de Xira shows that it has its origins in the Paleolithic Inferior. Then from the Neolithic were formed agricultural and cattle breeding communities that occupied the highs of the Tejo. In the bronze and iron ages, for matters of protection, were built small towns on top of the hills. Due to its extremely favourable location with the hydrographic basin of the Tejo, this area didn't go unnoticed during the roman period, with several traces of this occupation. Besides, Vila Franca de Xira was crossed by the main terrestrial road accessing Lisbon, where products went in and out. There are also some traces of this commercial activity as amphorae that were used to the transportation and conservation of goods. Nobility owned great farms in this region and agriculture was the main occupation in Vila Franca de Xira. In the context of a human activity centred in agriculture, the lowlands, producing wheat, barley, corn and vegetables and with much game animals and cattle, flowed labourers and tenants from the other bank. Plenty of windmills, watermills and olive oil presses completed this traditional economic system. Fishing, that was abundant in the Tejo River, was as well an important local activity, originating its commerce. In those days there were markets, namely the Vila Franca de Xira one, where goods were exchanged that lasted for three days,

starting of the first Sunday of October. This market is still held in the same date, showing its origin and geographic importance, outside Lisbon (CMVFX, 1998).

The arrival of the train in 1856, in the scope of the opening of the first railway in the country, from Lisbon to Carregado, marked the beginning of a new period of development in the region. Along this strongly commercial structure, in the final of the XIX century, started to appear industries. With the implementation of industry in the municipality of Vila Franca de Xira, there came a gradual and progressive demographic and socio cultural repercussion, with the settlement of the working class.

Vila Franca de Xira was appointed as city in 28 of June of 1984. In the end of the XX century, the urban and commercial shape of the city was transformed into a centre of communications and services, keeping its roots of welcoming visitors, relating to the Tejo, to the Lezírias (lowlands), to bullfights, all witnesses of the relationship with the rural territory.



**Figure 2.** General View of the city  
Source: <http://www.cm-vfxira.pt>

The history of the region and the diverse cultural influence from the rural and fishing areas is reflected in the type of festivities. We present and analyze some of the main events that occur in the city of Vila Franca de Xira.



**Figure 3.** Festa do Campo, da Lezíria e do Cavalo  
Source: <http://www.cm-vfxira.pt>

The “Festa do Campo, da Lezíria e do Cavalo” (Figure 3) takes place annually in May, between the city and the end of the lowlands and occurs in several places of the city, the river and the Lezíria. It starts on a Friday and last until Sunday, consisting of a set of initiatives that aim the praise of a cultural heritage connected to Vila Franca de Xira.

During the three days several activities take place that include: technic-scientific journeys of veterinary medicine, pilgrimage of N. Senhora de Alcamé that includes the boarding of the statue of Nossa Senhora de Alcamé on the “varino” boat (river boat) “Liberdade”, contests of foals, training of “forcados”, cows starts, lessons of bullfighting in the Escola de Toureiro José Falcão and a bullfight “corrida” in the Praça de Touros Palha Blanco.



**Figure 4.** Festival of “colete encarnado”  
Source: <http://www.cm-vfxira.pt>

The “Colete Encarnado” festival (figure 4) takes place annually in the first weekend of July, across the city, with special feature of the Bullfights Plaza, and of the streets where take place the starts. It is the main festivity that occurs in Vila Franca de Xira, since 1932, where the city pays its homage to the “campinos”. The main attractions of the festivity are the bull starts, the concerts, the “tertúlias” (gatherings) and the bullfights. The solemn moment of the festivity is the “Homenagem ao campino” (homage to the “campino”), in the Afonso de Albuquerque Square, facing the building of the Town Council.

The “Semana da Cultura Tauromáquica” (The Bullfighting Culture Week) is held annually in the week before the “Colete Encarnado” and is located in several places trough the city, in the Praça de Touros, in the “lezíria” and in the “Escola de Toureiro José Falcão”. It is an initiative of the Municipality and of the Clube Taurino Vilafranquense and consists of several activities around the theme “defense and exaltation of the bullfighting art”. The program includes exhibitions, seminars, practical demonstrations and ends with a musical performance.



**Figure 5.** Praça de Touros Palha Blanco  
Source: <http://www.cm-vfxira.pt>

Another event are *bullfights* that occur from March till October and take place in Praça de Touros Palha Blanco. The bullfight culture attracts thousands of “aficionados”.



**Figure 6.** Bull Starts  
Source: <http://www.cm-vfxira.pt>

The first historic references to the Feira de Outubro (October Festivities), in Vila Franca de Xira, date back to the XVII century. It occurs annually in the first week of October in the Urban Park and in the Pavilion and in the streets where take place the bull starts. This fair is much connected to the bullfighting tradition of the city, and was until the start of the Colete Encarnado the biggest festivity in Vila Franca de Xira. The main elements are the bull starts and the bullfights, the merry-go-rounds, the liveliness and the tents of the fair.

The bull starts take place twice a year, during the Colete Encarnado festivities and during the Feira de Outubro (October Fair), in the main streets of the city: Rua Joaquim Pedro Monteiro / Rua Curado / Rua Serpa Pinto / Rua 1º de Dezembro. The streets are closed with timber, the windows and doors protected and sand is scattered on the ground.

The bulls are “started” on the streets of Vila Franca de Xira so that the “aficionados” and the visitors can show their bravery. Although it is not an independent event, it is an important attractive of the city.



**Figure 7.** Posicionamento da Identidade e eventos na cidade de Vila Franca de Xira  
Source: Trigueiros (2012, pág. 68)

In figure 7 we can identify some elements of the identity and of the events that mark the city. We highlight the urban morphology and its topographic relation with the Tejo River. The infrastructures compress the city longitudinally (the highway and the railway) and mark the urban configuration. The positioning of the components of the identity, that are concentrated and the highlight of the public space where take place the main events presented.

#### 4 Conclusion

It can be defined the identity of a city through a set of components that allow that a particular city can be differentiated from others, through elements of the relationship between its symbolism and public space. In this case study we verified that the identity comes first connected to the territory and to its relationship with the activities, traditions and uses of Vila Franca de Xira. That is why its identity is only enhanced by the strategies used, being considered components of the identity, the events. We verified that this component allows the differentiation of Vila Franca de Xira, being recurrent its relationship with the territory, namely the elements connected to agriculture, bullfights, but as well to local history. The festivities analyzed are concentrated during spring - summer between May and July and in October, important times in the rural world.

In the case study, the place in public space of the identified elements, is concentrated in a relatively small area and mostly in spaces with strong centrality as the avenue that structures the

city, from the Praça de Touros till the Station and the Bridge, spaces where occur events and other identifying references, gathering a symbolism connected to the identifying themes of the city.

The identifying theme contents of Vila Franca de Xira are connected cultural and socially to the field, to the “lezírias” and to the river. Despite the evolution through time, in a context of globalization, the “campino” and the “avieiro” (fisherman) are occupations that still exist, that are important and characteristic of Vila Franca de Xira.

The elements that are firstly identified with Vila Franca de Xira are: the Praça de Touros Palha Blanco, the Tejo River, the Campinos, the Bridge, the Festa do Colete Encarnado and the bull starts. These elements, as we saw before are interconnected, and are symbols of the identity of the city, showing a strong territorial and experiential relationship, allowing the differentiation of Vila Franca de Xira from the other cities of the Lisbon Metropolitan Area.

Another aspect that can be analyzed in future studies is related to the toponymy of the city, and its constant reference to important elements presented in the events, which shows in public space the importance of certain elements even intangible.

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# From the Philharmonics to a Cultural policy in an urban regeneration area

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This paper studies the importance of cultural activities, like philharmonics, especially those, that are developed in the framework of cultural and recreational associations, how they emerged, developed and organized in the industrial city, in order to address the needs of the population, namely the occupation of their free times and in leisure activities or in adaptation activities to urban life for migrants, from rural areas who came to live in the new industrial centers of the nineteenth century.

The cultural dimension of a city is a factor of social cohesion and, therefore, very important for the local territorial identity. This paper analyzes the impact that the cultural dimension can have on urban space.

Studying the evolution of the characteristics of a set of cultural associations, from those with philharmonics to those with theatre and urban performance that have for many decades, an important cultural promotion instrument in the industrial cities on the outskirts of Lisbon, particularly in the municipality of Almada in the southern part of the Lisbon Metropolitan Area.

Cultural and recreational associations according to the time of its creation are studied, its initial activity, the respective built heritage, if exist, and the relationship with their performance in urban life.

In the study that we are developing, it is analyzed the activities of cultural associations to its importance in the urban space and the potential that seems to transform the surrounding territory, in an important cultural center in partnership with the local authority.

It demonstrates the potential that cultural associations have in the qualification of urban space and its role as urban regeneration partners, as well as, their difficulties in a cultural policy in the city.

The importance that cultural activities has had, in recent years, as tools of urban renewal policies in low-cost strategies compared to tools used in the rehabilitation of buildings and public spaces at local level.

**Keywords:** Urban regeneration, cultural and recreational associations, post-industrial cities, social cohesion, local cultural policy

*"During the last twenty years cultural policy has become as increasingly significant component of economic and physical regeneration strategies in many European cities." (Bianchini et al. 1993:1)*

## 1 Introduction

This paper is developed within the scope of a research to study the significance of culture as a tool of urban requalification of inner areas.

Urban policies that have as objective, the maintenance or the increase of the quality of life and the occupation of inner areas in the cities, were for several decades focused on the physical requalification of urban space, assuming that the improvement of the conditions of the buildings and the surrounding public spaces, were the adequate instrument to implement the intended changes.

In the last decade, and after evaluating the impact upon the cities of these process, it was found that it was necessary to work, in an innovating way, with the population looking for an increase of the social cohesion within these areas, using the appreciation of the outstanding cultural aspects of this population, being able to consider them as an intangible heritage that must be valued and preserved.

Within the most prominent cultural activities in the cities with industrial background, the philharmonic bands have played a relevant role that has been kept till our days despite a few changes.

Industrial cities, namely those that are integrated in the Metropolitan Area of Lisbon, as Almada or Barreiro, have grown from populations that migrated from rural areas and that found in the practice of music, in the philharmonic bands, a cultural activity of social integration and where they occupy their leisure time.

Currently the importance of these groups, very often organized within cultural and leisure associations, has been recognized as faithful depositaries of an intangible heritage of great importance at a local level.

## 2 Importance and characterization of local associations

The Associations are formed by the organization of groups of persons around some interest that can be cultural or leisure (according to current legislation) and are quite often, in Portugal, a place where is kept alive the intangible cultural heritage of the group associated and their families. The intangible heritage of the industrial cities is made in part from the knowledge coming from the original rural areas of workers transformed in urban knowledge and organized and maintained in local associations.

Most of the intangible cultural heritage has been preserved, for many decades by local associations that have therefore an important role in local communities. Their characteristics in the industrial phase of the urban agglomeration, and the role of its location as a qualifying element of the centrality in urban space must be evaluated.

How the transition from an industrial city to a post-industrial city has been made to their centrality and the evolution of the functions of cultural associations, in this process must be studied.

The classification of the associations in the Metropolitan Area of Lisbon is done according to their objectives in: **Cultural** associations with vocation of cultural production and promotion, **Cultural and leisure** associations promoting compatibility between culture and leisure or recreation and **Sport** associations developed towards the practice of sport.

In this paper was analyzed the cultural and leisure associations, because of the importance of musical activities as players and formation schools and other cultural activities in the qualification of the neighborhood.

## 3 Almada and the Metropolitan Area of Lisbon

The study of the importance of local associations has been developed in Almada, that is a Municipality in the Metropolitan Area of Lisbon, in the Setubal Peninsula in front of Lisbon, but it is also the name of the city and the central parish of the city.

The parish is the area where the agglomeration began and it is still possible to find some ruins from the Arabs, but most of the buildings were destroyed by the big earthquake of 1755.

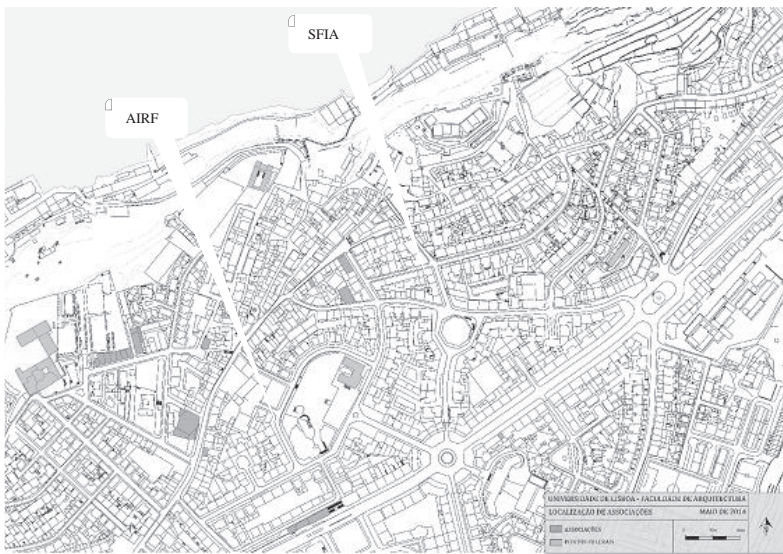
During the XIX century the process of industrialization develops and the town change the characteristics of his population from a small rural center into an industrial area receiving migrants to work the industries created in the banks of the river Tagus. It was in those times and following

the organization of a group of small musical bands, that were formed the two local Associations that will create the philharmonic bands that persisted till our days (Correia, 1995).

The importance of the formation of the philharmonic bands, at the time of its foundation, is related with its participation in religious services, as processions, on one hand, and Sunday leisure practices, as dancing balls, on the other.

### 3.1 Location of the associations

These old associations have the mission, expressed in their names, (organizing activities that help to surpass needs) to fulfill the times of leisure in a period when mobility was reduced and the technology of sound and image non existing so creating philharmonics was a priority and at the same time were built the places where to perform. All this area has an organic morphology, organized by the topographic curves in narrow streets.



**Figure 1**, Location of the associations

The associations are located in the main street of the inner part of Almada in Rua Capitão Leitão, where is also located the City Council and the Old Hospital. The "Sociedade Filarmónica Incrível Almadense" (SFIA)(fig.2) started in 1848 (Almeida 2010), created the first philharmonic, the first theatre and the first cinema in town; it also built a party hall of big dimensions where are still performed different shows, near the City Council The "Academia de Instrução e Recreio Familiar Almadense" (AIRFA) (Fig.3) founded in 1895, (Correia 1995) as a philharmonic also, a theatre, dance teaching and a library. They built a big hall for shows, and cinema, being the biggest in the municipality with conditions to present a diversified number of shows, but not very used nowadays.



**Figure 2** Sociedade Filarmónica Incrível Almadense (SFIA)



**Figure 3** Academia de Instrução e Recreio Familiar Almadense (AIRFA)

Lately, some theatre companies and performance groups have emerged, without own premises that maintain the tradition of cultural activities in the city that use lent spaces to rehearse.

### 3.2 Urban Regeneration Tool

The city of Almada has grown significantly, from its primitive nucleus, towards the river and in the interior towards the 25 de Abril bridge, migrating the commercial and services centre towards the avenues that were opened from the 60's of the last century, in search of a better accessibility (Fig.4).



**Figure 4** Accessibility to Rua Capitão Leitão

The industrial city that had developed during the XIX century until the 70's of last century, went through a process of marked deindustrialization, with changes of the resident population (Moreira, 2002).

The formation of Lisbon Metropolitan Area started from a functional point of view in the 60's of the last century and in the 90's gets an institutional significance, with its municipalities marking its characteristics in a process of territorial competitiveness.

In the post-industrial Almada municipal services moved to new premises, remaining in the older area only the building of city council. The hospital also changed its location. All these changes aggravated a progressive abandon of the inner area.

In the 80's of the last century, with the ageing and the diminution of the population residing in this parish, the local administration started a set of programs of physical rehabilitation of the area, that didn't altered significantly the social situation in the parish.

This area remained the centre of cultural activities; the association whose premises allowed the practice of theatre and of cinema were located there, as well as the activities connected to music, although the attractiveness still continued to decrease.



**Figure 5** New Museum of Philharmonic Music

In last years, local administration has developed a program of regeneration of the activities in the area with the creation of a museum (Fig.5), an interpretative centre and the creation of a co-work centre connect to the arts with the objective of qualifying this territory as a pole of creative activities.

#### 4 Conclusion

Cultural and leisure associations with its philharmonic bands are the flag of this territory. These social and cultural actors must be valued because they are recognized by the population and they have been a factor of social cohesion when in its activities cooperate people from different groups of age and different economic groups

Cultural activities are the bet of local administration for the requalification of this area trying to give it a character that makes the difference in the municipality. In the Metropolitan Area of Lisbon, municipal cultural policies may help to individualize the territories.

The city of Almada holds a theatre festival that was originated in the work of the associations that is an important publicity for the city.

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# The lost identity of the city: The case of Damascus

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In contemporary urban planning literature, a significant concern is being paid towards the concept of "urban identity" after the loss of characters, essence, soul, individuality and distinctiveness of many cities, especially those with a heritage, cultural, and historical significance.

As long as the city is a space for living, it is in a permanent attempt to cope and adapt to serve the human needs and development. That imposes multiple temporary identities in the city, which in many cases, especially in Arab cities, led to distortion or losing of their original inclusive identity that supposed to be felt and sensed out, so we can feel the timeline that brings us inside the wall of time to remind us of how the city was formed as a result of the accumulation of events.

The contemporary Arab cities are living under a lot of urban pressures and in a case of constant loss for many of their civilizational and cultural gains. Many defects in the temporal-spatial structure of the city are happening, and the distorted situation is becoming prevalent. This drives them into more deformity and loss of their aesthetic and historical values.

In this paper, I will study the loss of identity subject in Arab historical cities taking Damascus as a study case. I will give detailed information about the unique qualities and characteristics of Damascus, then define the start of the change in the physical and social combination of the city and its role in the loss of the identity by studying the proposed general plans in the early 20th century, the role of slum areas, and the effect of urban growth and globalization on the urban environment and identity.

**Keywords:** Urban Identity; Urban transformation; Cultural Identity; Spirit of place; Urban heritage.

## Introduction

Cities were formed as an expression of spiritual, material, social and political conditions. The changes in these conditions from one city to another make each one a unique unrepeatable phenomenon. Since the city is a humanitarian situation, it is in a constant state of change, as the communities and their circumstances are changing through time. "Cities reflect as well as shape their inhabitant's values and outlooks in various ways" (Bell & Shalit, 2011). Each of these changes constitutes a time layer represented by a material reality in the physical structure of the city. Each layer is supposed to be built on the basis of the previous layer, enrich and add to it not abolish and erase it. This turns the city into a group of nested and accumulated loops that are difficult to disband, and broadcast the sense of time intensively to us. "The city is a cumulative reality in space and time" (Mumford, 1937). Understanding these layers and their relationship to each other is a crucial factor in understanding the city and sensing its identity. Problems start when something goes wrong in this temporal, spatial structure of the city and the distorted situation becomes the prevailing, which causes loss of the city properties and adversely affect its identity and could lead to losing it.

This is experienced by the Arab cities as they began to lose their historic stockpiles, and many parts of their old centres faded spiritually and materially. Distinguishing characteristics of these cities became absent and mysterious because of attempts to save those old parts of the city physically like a museum without paying attention to the time track of its formation. "...Accordingly the design is oriented towards creating a monotonous, standard, "any place" image rather than enhancing a sense of heritage and tradition..." (Oktay, 1998).

This led to the loss of the urban environment, its ability to deliver a sense of viewing, and it fell into a circle of chaos, which brings us to inquire whether there is still a real presence to the Arab

identity of the city, as it was pre-existing, under the urban pressures that are facing the contemporary Arab cities.

## 1 The concept of city identity

*"Only once have I been made mute. It was when a man asked me, 'Who are you?'"*

(Khalil Gibran, a writer and philosopher)

How do we define something? How do we identify ourselves? Can we abbreviate who we are in a word or a sentence? The issue of identity has been a subject of study and observation for long periods, not only in urban context, but also in Philosophy, literature, anthropology, and sociology which is represented in the various definitions of this issue. In the Urban context, the issue of the city and place identities received a great interest from many architects and urban planners, who put hundreds of definitions from different points of view.

*"Identity is a case where an object is unique."* (Lynch, 1960). *"The main characteristics which form spatial identity are the physical structure forming the space, the facilities it embodies, and the meanings created by users."* (Relph, 1976). *"Environmental factors are one of the most important factors impacting the identity an urban area adopts, and the people living in that environment add their own culture and lifestyles to that urban area in time, thus they allow the urban area to stick in minds."* (Norberg-Schulz, 1979). *"Urban identity, architectural identity and the urban images about them are sometimes formed by very different components in a long period in urban space."* (Yaldiz, Aydın, & Sıramkaya, 2013).

Obviously, there are a large number of views in the concept of identity of the city, and every writer has identified it depending on different items. Some depended on the built physical structure of the city, while others involved the social life and people, and others looked at the emotional aspects and memory like Prohansky, Fabian, and Kaminoff or admitted the natural factors and climate as intervening factors in the identity of the city such as Charles Correa. See figure1.

In my opinion, linking all the above factors is an essential point in understanding the identity of the city, but that is not all. We have to stop thinking about the city as a physical three-dimensional object and expand our horizons to include the fourth dimension, which is time. As long as the city is a humanitarian situation, and the man is in a process of continuous change over time according to all the factors mentioned earlier, the city has a three-dimensional memory that dives into the future as into the past and reflects permanently the present reality in a unique form and character, that makes this timeline of events tangible and understandable through the architectural, social, and physical form of the city. This makes the formation of the city's identity, a process that is mainly and directly linked to the factor of time. *"Identity is not a 'found object' but a process. We develop our identity by reacting to our problems and our circumstances"* (Correa, 1980).

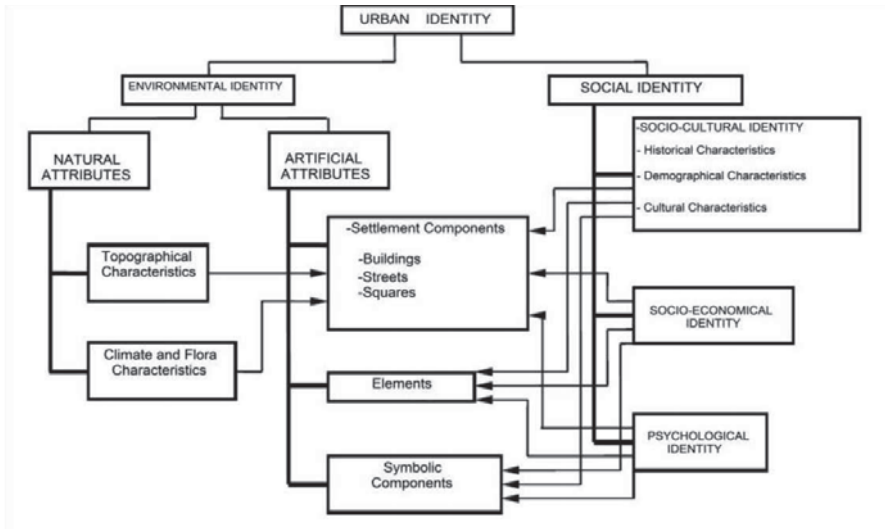


Figure 1. Formation of urban identity. (ÖKESLİ & Gürçınar, 2012).

In this context, we must distinguish between the concept of identity of the city and a number of other related concepts that are commonly mistaken to mean the same thing. *“Urban identity, architectural identity and the urban images about them are sometimes formed by very different components in a long period in urban space.”* (Yaldız, Aydın, & Sıramkaya, 2013).

### 1.1 Collective identity

Refers to the general characteristics, such as clothing and language, of a large community that comprises some other different small societies, which differ in other things that are less inclusive. For example, when we meet someone from East Asia, we can easily tell that this person is from there according to different general characteristics. This is called the collective identity, but at the same time we may not be able to tell whether this person is Japanese or Chinese.

### 1.2 National identity

Refers to the particular characteristics that make an individual unique from others. It is the individual's sense of self as a national and refers to a feeling of belonging to a nation. According to the work of (Al Ani, 2013), there are five essential elements that compose this identity:

- Psychological: consciousness of forming a community.
- Cultural: sharing a common culture.
- Territorial: attachment to a clearly demarcated territory.
- Historical: possessing a common past.
- Political: claiming the right to rule itself.

### 1.3 City Image

The most important work addressing this concept was the book “The image of the city” by Lynch, in 1960, where he studied the idea of the city's image. He clarified that the image of the city is the

people's perception of the elements in the built environment and the way that they adapt and interact with the city by creating mental maps based on five elements; Paths, edges, districts, nodes, and landmark.

In other words, the image is not only a physical or visual element, but is also a mental analysis of all the components of the city, which reflects in the way we use and access our cities. In order to get an image, we would usually need a scene, a camera, and a processing of the image. By projecting these concepts on the city, we find that the scene is the physical and social urban environment of the city, and the camera is the people and the users of this environment, and the process of taking a picture is to live in the city, while the production and processing of the image is the mental process of formation the impressions and mechanisms of interaction and overlap with this environment. This is stored in the users' memories and is different from one to another, whereas identity is to recognize what is the reality of something and cannot vary from one person to another as it is determined by the identified object itself and the characteristics it owns, and is not based on a personal impression. *"Urban identity is the whole qualifications, which allows urban areas to be read or to become meaningful for humans, becoming separated from the others"* (Lynch, 1981).

#### 1.4 City symbols

When we say that the identity of the city is the components and characteristics of its reality that make it different from other cities, people tend to simplify this concept and identify cities by single objects or monuments. For example, they identify London by Big Ben-Westminster; Paris by Eiffel Tower; Sydney by the Sydney Opera, and Damascus by the Umayyad mosque. In addition, the municipalities are marketing these cities through logos that designed on this basis, which increases the confusion in understanding the identity of the city. These logos are static and have a fixed visual expression, trying to promote the city through a single visual form. This is what might be called the city symbol, but does not amount to be called an identity. The identity of the city is not the image that we see and can represent in a symbolic and optical way. We can go to a city and buy a souvenir that symbolizes it, but we cannot buy anything that expresses its identity. Identity is the essence of the city and has tangible aspects and other aspects that are linked to the time, and the Intangibles events and circumstances, which can be observed and felt through the city combination. The perception of the identity requires experiencing the city and having friction with it, and this cannot be transferred outside its borders.

#### 1.5 City impression

*"City impression represents an overall feeling retained as a consequence of experiencing inherent characteristics and temperaments of a city. When this overall feeling is widely accepted by the majority of the society, city impression has become the historical and cultural component meaning of the city. Hence, the impression becomes a symbol. To residents, city impression is a soulful attachment about the place they live. To visitors, city impression means a kind of attractive newness and mystery"* (Chen, 2009). There might be a similarity between the city impression and the city image, but from this definition we can see that the concept of the city impression is wider than the city image, where the impression is not only about how the city looks but also about the

contribution of the people and their lifestyles in projecting the overall city images. The city impression comes into contact with the concept of identity of the city and can affect it positively or negatively. If we misunderstood this concept, it would lead to a deformity and loss of the identity of the city.

As a conclusion for the notion of city identity, we can say that it is a very complex idea that interferes with many other concepts but differs from them. It is the totalitarian state that expresses the city and distincts it from other cities. This cannot be exported outside the city limits, therefore cannot be realized without the experience of living in the city. Although it is impossible for someone who has never lived in a city to accommodate its identity but he can have a mental perception of it, and link it to one of its symbols in a simple way. For example, when I think about Damascus, I don't think about the Umayyad mosque or the old Damascene houses. Damascus for me is that place where I never feel thirsty as there is a public water tab in each corner, the children who play football in those narrow streets, the smell of jasmine and wet soil and wood in a narrow alley shaded with houses lying on each other, and my beautiful neighbour putting out her washing on the roof of her house in front of my room's window. whereas a foreigner would probably buy souvenirs with visual symbols of Damascus and consider them representative of its identity. This doesn't mean that the identity is something not related to the image, symbols, and impression of the city, on contrary, they are the primary factors in understanding and feeling the urban identity as it is the ultimate and overall outcome of these factors and other ones clarified previously.

## **2 The identity of Arab cities**

I clarified the concept of city's identity, and the different elements and factors that shape it through time. I spoke about the Collective identity and national identity. In this part, I will clarify the collective identity of Arab cities in general and then move into the core of the paper, which is the national identity of Damascus city.

When we talk about the concept of the Arab city, theoretically, we are talking about 24 countries comprising hundreds of cities that share a number of traits and general features. The question here is, does the word Arab has the capacity to represent a collective urban identity of these cities? Are there for real what are called Arab cities, or there are only different, scattered and dispersant cities that have nothing in common?

Most of the people will say that the concept of Arab cities does exist, and that these cities have similar geographical, cultural, religious, and social characteristics, which gives them a collective identity. In fact, these common characteristics had been spread in what is known now as the Arabic world at the hands of Muslims, where the Arabic language was also spread by Muslims. Before the Islamic empire, there were different civilizations with different physical, psychological, moral and social qualities, where the identity of Egyptian civilizations differed greatly from those of Levant and Mesopotamia. Therefore, the word Islamic is more capable of giving a collective identity to these cities but alone would not be true. The right collective identification to the reality of this group of cities is "Islamic Arab cities", as we have many other cities where Islam is the main religion

but Arab cultural inventory, stemmed from the Arabic language and its speakers, was not inherited to these cities, and only spiritual values of the Islamic religion were spread.

We must note that, some of the Islamic Arab cities have older cultural and architectural legacy than the Islamic one but, unfortunately, most of them totally lost it after the Islamic spread or still only have some monuments in a physical architectural style without any spiritual value. This era was the start of losing national identities of the cities in favor of the collective Islamic Arab identity, and led to a weakness and loss of the identity that the cities show nowadays. *"The city continues its existence carrying the traces of each period because of the changing society culture in time as well as it is an expression of a historical accumulation"* (Cetin, 2010).

## 2.1 Arab-Islamic city urban standards

Some orientalist claimed that, the Arab-Islamic cities did not depend on an urban basis or standards, but they were rather random cities, where the only effect of the Islamic religion was in the designing of residential houses that are closed to the outside and open to inside spaces. In fact, the Arab-Islamic cities have unique characteristics that differ from the western cities, *"Historic Arab cities show a variety of origins and growth patterns, they were nonetheless established by a common set of social, geographic, and religious factors leading to similar morphological principles developing the urban fabric"* (Kiet, 2011), where the streets and roads have a big importance in terms of classifications and the organic relation with the surrounding traditional urbanism, and that is also different from the concept of roads in the modern city planning.

Arab-Islamic cities were built for many reasons (military, administrative, capitals, and religious). Other Arab-Islamic cities were formed long ago before the Islamic period so they had a number of cultures, traditions, ideas, and urban forms that were different from the Islamic ones. As a result of the Islamic expansion in these cities, they were affected profoundly by the Islamic concepts in terms of functional organization and the urban form and streets network such as Damascus city. Sometimes this effect erased the old character as if it never existed. *"The Arab City can be seen as an integration of multiple cultures and eras as they came into contact with the Islamic culture, eventually leading to the urban structures and morphological form common in Arab cities today"* (Kiet, 2011).

### 2.1.1 The main components in the urban planning of the old Arab-Islamic cities

The grand mosque: the mosque played the role of the heart in the city, as it was the religious, scientific, and social center, and all the other public buildings were located around it.

Small mosques: served the residential areas.

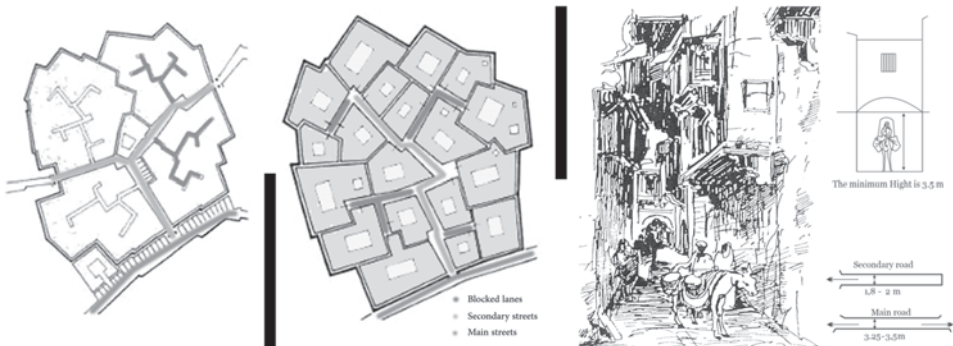
Markets: were typically located around the grand mosque, each one having its own kind of merchandise, and distributed very carefully in terms of place, size, activity, and craft as were found:

- Main markets: located directly around the grand mosque
- Covered commercial streets: located on the main roads that connect the different parts of the city.
- Small markets: served a residential neighborhood and the daily needs of the inhabitants.

The roads in the Arab-Islamic city connected all the activities but not in the same way as the western cities do. The roads in Arab-Islamic city were narrow and crooked and took into consideration the human dimension physically and socially as the priority in designing was to distinguish between the internal spaces being public or residential, and they are in harmony with the urban fabric.

Thus, we can see that the Arab-Islamic city has a unique urban character stemmed from the religious, traditions, and other factors. For example, privacy was an important principle of the Arab social life and Islamic spiritual principles. This was reflected in the urban fabric, where the houses were closed to the outside and opened to the interior spaces, as well as architectural elements in interfaces, which helped to achieve privacy. On the street level, the gradual principle from the public to the private was very clear. The main streets linking the commercial and public events was divided by a secondary road network connecting residential areas to each other, and then narrow blocked-end lanes that served a number of houses. "Figure 2."

These properties in the urban environment of the Arab city were not only a result of the above factors but also was a solution to cope with the warm climate and other external factors which makes this type of urbanization a very good one.



**Figure 2.** Arab-Islamic city urbanization. Source: (Bianca, 2000). Edited by the author.

## 2.2 Transformation of Arab-Islamic cities into their current form

Throughout history, the Arab-Islamic cities represented a genuine reflection of the diversity of the Arab Culture and a clear expression of the cultural transitions of their different communities. At the same time, they highlighted their identity in which formed their environmental and social characteristics, their historical and artistic components, in addition to their ideological and religious principles, spiritual values and memory. Assembled within the framework of a collective, consistent and cultural unity. However, if we looked at the current situation of these cities, we realize that their process of growth and development after the independence of their countries at the beginning of the twentieth century, led to the loss of their identity and ability to continue as a collective, contemporary, cultural, and social phenomenon. The urban fabric of these cities became a jungle of cement blocks distributed randomly without any rhythm or pattern that is able to reflect the cultural or social appearance. *"The transformation of Arab city until the end of 20th century can be*

*summarized by a gradual shift from an urban texture of pedestrian scale and formal homogeneity of the physical environment into a fabric of vehicular scale and formal fragmentation of the physical environment, thus, from a social order based on total harmony and integration into a social order based on economical & technological dominance and social segregation & disintegration” (Cetin, 2010).*

As an attempt to mitigate the harshness of this reality, Arab planners and architects tried to resort to confront it with naive attempts to save the old parts of these cities in its current shape and only in a visual form, which made these parts look like a museum without any spirit or life. Outside the walls of old areas, some attempts to accommodate the urban growth were found by copying the west cities and their images, which makes the crisis of the identity in Arab-Islamic cities deeper and more complicated. Recently, the Arab awareness to the problem of identity started to pay off, and many studies have emerged on how to find a contemporary urban Arab-Islamic character in the face of the foreign global urban currents, especially from the West with its unparalleled views and different schools. The search began for the innovation of a contemporary Arab-Islamic urban style that doesn't comply with the forms or architectural elements invented by ancestors, but carries the same social or environmental implications that are commensurate with the Arab societies and combined with the continued progress and technological development in the world.

### **3 The case of Damascus**

Damascus is considered one of the most important cities in the Arabic world, and is regarded in many references as the oldest inhabited capital in the world. Its old part has been listed as a world heritage site since 1979.

The importance of Damascus city in the topic of identity comes from the rich history, high number of civilizations, and the urban, social, and cultural patterns that passed through it. “Damascus measures time not by days and months and years, but by the empires she has seen rise and prosper and crumble to ruin. She is a type of immortality. Damascus has seen all that has ever occurred on earth, and still she lives” (Mark Twain, *Innocents Abroad*, 1911). Also, Damascus is one of the few rare Arab-Islamic cities that have maintained some traces of the civilization that was older than the Islamic one, as for example, the old Roman Market and the columns of the temple of Jupiter. Damascus is suffering as most, or all, of the Arab-Islamic cities from the danger of losing its identity as a response to the change of its historical, cultural, social, and urban components.

The change in the city's urban structure and identity started during the French mandate and after the independence. All of these changes will be discussed in details but to understand the structure of the city I feel that it is important to give a brief history of its formation.

#### **3.1 Formation of Damascus city**

As the oldest trace of ancient civilization that exists in the built structure of Damascus city -not inside the walls of its national museum- dates back to the Greek period, then I will start my

historical preview from that period and I will not talk about the older ones as they have no major influence in the city nowadays.

### 3.1.1 Greek Period

The Greeks arrived in Damascus in 333 BC and applied their planning methods in the city and mixed them with the existing Aramean city. The general planning methods of Greek cities at that period was based on the ideas of the planner Hippodamus of Miletus where the city was composed of a perpendicular straight streets network intersecting with each other, and included two main perpendicular streets where the center of the city, or what was called “Agora”, was located at the intersection of these town streets. Dwellings are arranged in a network of consistent lines and equal streets lines. In Damascus, these principles were applied, and the streets width was equal to the half-width of the houses and the “Agora” dimensions where 45x100 meters (figure 3).

### 3.1.2 Roman Period

The peace and economic prosperity, obtained by Damascus in the Roman and Byzantine period led to a doubling of the population and a state of urban development, that required the expansion of the city and creation of a new organization. Therefore, the city extended and built on the foundations and principles of Roman urban planning. New neighbourhoods were constructed and enclosed by a fenced area of 105 hectares in the form of rectangular dimensions of 1,500 meters \* 750 meters and had a wall of seven gates, three in the northern facade and two in the southern facade and one in the east and one in the west and those two were the most important because they were located on the main road (Djerkomanus), which ran through the city from east to west and currently it is known as “Medhat Pasha” market. Also, there was the rebuilding of the Temple of the City in accordance with the Roman style of architecture called the Temple of Jupiter, and the expansion of the city was on the same Greek system Ctranji. In the Byzantine era, no change occurred to the layout of the city, but the Temple of Jupiter was converted into the Church of Saint John and new markets were created (Figure 4).



Figure 3. Greek plan of Damascus.

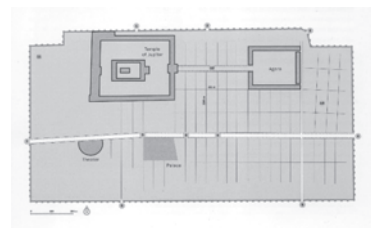
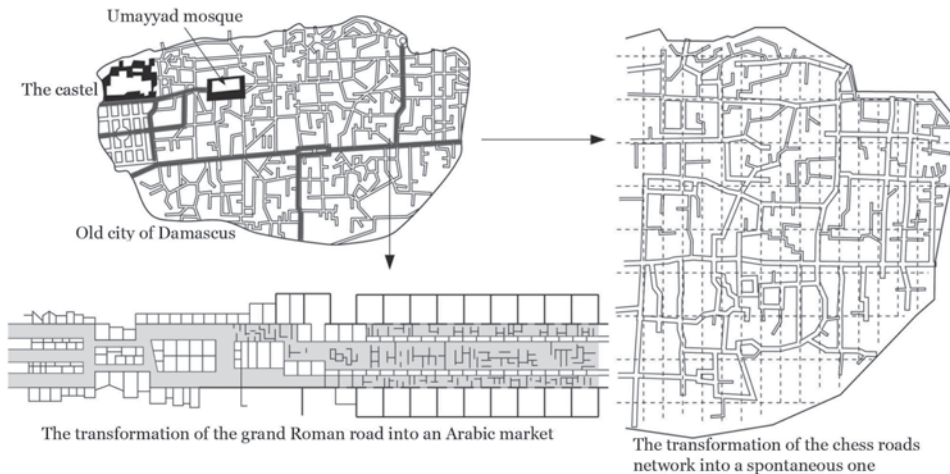


Figure 4. The Roman Plan of Damascus

### 3.1.3 Islamic Period

The Islamic period in Damascus could be divided into four main periods (Umayyad, Abbasid, Ayyubid, and Mamluk) where Damascus became one of the most important cities in the world after the Umayyad claimed it as the capital of the Islamic state and the building of the Grand Umayyad mosque that until now represents the center of gravity of the old city. Afterwards, the Abbasid period that was full of wars and political struggles started, and Damascus was not the capital of the

Islamic state anymore. Many fires happened in the city and one of them arrived at the Umayyad mosque, which led to the transformation of the city's layout. In the Ayyubid period prosperity in Damascus rebounded again and in this period the Damscus castle, which is now one of the the most famous buildings in the old city of Damascus, was built. After that, and in the sixteenth century under the rule of Mamluks, Damascus reached the peak of its prosperity and was described by travelers as the best and most beautiful city in the world. It was also in this period where the expansion of the city began outside the Roman wall (Figure 5).



**Figure 5:** the Islamic Plan of Damascus

#### 3.1.4 Ottoman Period

The Ottoman period started in 1516 and lasted until 1918 and was divided into two periods; "Early and late periods". In the early period, there were no big changes in the city. Some Khans, which do the function of hotels nowadays, were built, in addition to some schools, important markets, and the lavish palace named Azem Palace, which now exists in the form of a museum of folklore. In this era the expansion outside the city increased and by the end of the Ottoman period the expansion in the southeast reached three kilometers. Two important neighborhoods were created (Qanawat and Medan) and are now considered as historic neighborhoods and are classified as world human heritage by the UNESCO.

#### 3.2 General notices on the change in the Old City

Conserving the historic urban environment became an urgent and important priority in the last century around the world, because of the threats that appeared as a result of the rapid urban growth and development and the urban transformation in the cities. The most important factors that affect the changes in urban environment are the globalization, quick and uncontrolled development, demographic changes, and the economic pressure as in front of all these challenges the success of the conservation of historic centers is determined by the success of their management. We need to understand that the cities are living environments, and their change is a normal thing as we can't

keep the city as a museum without any modifications. The importance and the midpoint between the success and fail of these mentioned changes lies in the management of the change. According to the report of (Getty Conservation Institute), the successful change management demands some main principles such as:

- A strong governance and legislative framework.
- Policies that provide guidance and trigger actions that implement the legislative framework.
- Economic instruments and tools that address market failures and secure conservation actions where these occur.
- Education, communication, and mechanisms for public engagement to inform people about the values of heritage sites, how to care for them, and how to provide for the public's active involvement in the process.

### 3.2.1 Changes that happen in the historic centers:

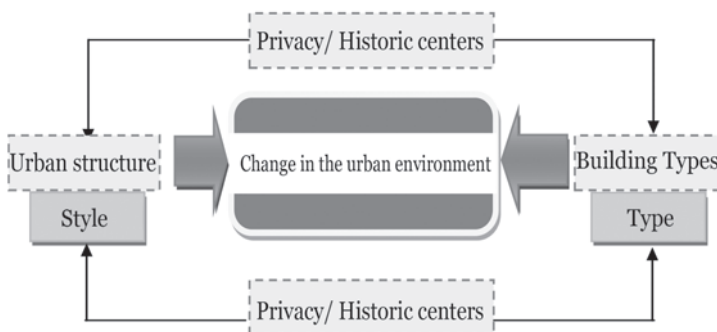
We can define three levels of change in the historic city center, which are:

The level of the overall structure: which affect the function of these centers, the land use distribution in it, and its social divisions and economic ingredients that affect its general urban form.

The level of historic elements: like the roads network, markets, public spaces, the central and public buildings and the open spaces.

The level of architectural elements: like the elements that distinguish the architectural types from structure materials.

There are different kinds of changes related to the cause of change, and we can find three trends of change associated with its degree of effectiveness (Active change, Passive or relative change, and Counter change). However, we can also distinguish three other types of change related to the way or the style that the change process happened according to (Accidental change, Unwilling change, and Intended change) (Figure 6).



**Figure 6.** The relations of changes in the urban environment. Source: (Jawad, 2011).

In Damascus city, we can say that there is a transformation but not a change. The change happened many years ago when the urban fabric changed from the Roman principles -in creating the city based on a perpendicular and intersecting street network- to the Islamic urban fabric after

the fire during the Abbasid period. Many changes happened in the social, economic, and demographic aspects of the city, which led to a massive shift in the urban environment, on both physical and social dimensions. Then in the Ottoman period another change happened because of the rise in the population where the city grew outside the Roman wall and new functions in the city such as the schools and a high number of markets were created. However, nowadays we cannot say that there are changes in the urban fabric of the city after it was considered as a human culture world heritage. There is a transformation caused by the social life change inside the city where the people who inhabited it left their houses and went to live outside in new modern houses. This happened because the type of the old houses inside the historic centers demanded a frequent maintenance; the materials that these houses had been built from are organic materials that don't last long besides being expensive and unaffordable. Moreover, the strict rules of the renovation in these area, which implied having every element renovated in the exact same shape without any contribution from the government in the process, led to the migration of the people outside the city and selling their homes to rich people. Those new owners changed the functions of these houses to hotels and restaurants or warehouses to their shops, and this led to a new social and traffic flood modes in the city, which in its turn affected the urban environment. (Figure 7). *"Old Damascus restaurants are popular among some Damascenes, who see them as a way to preserve old houses without forfeiting the comforts of modernity. While many Syrians enjoy leisure hours in the old city, and some are profiting from the restaurant trade, few show any interest in reviving old houses for other purposes"* (Salamandra, 2004).

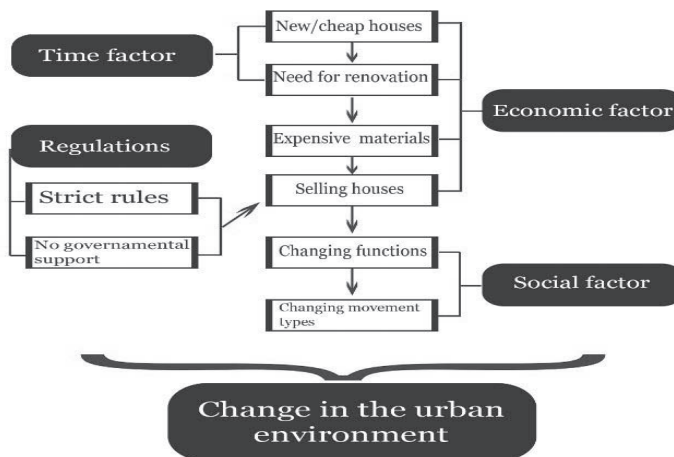


Figure 7. The change in Damascus historic center. Source: the author.

### 3.3 Factors affected the Identity of Damascus

If the built environment is the best expression of the identity of the city, in my opinion that the novel and literature are unique ways to describe this environment. Writers and poets have a high level of ability to observe things in details and sense their spirituality. The description of Damascus in the works of poets, writers and travellers until the beginning of the 20<sup>th</sup> century, had always been done

through the tripartite of Barada River, Mount Qassioun and Al-Ghouta which is the green area surrounding the city from all sides.

Now, Barada River is going dry and has been filled with waste, Al-Gota has become a forest of slums, and Qassioun Mountain has lost his real charm. The truth now, with no sugarcoating, is that the resident of Damascus can no longer feel that he is enjoying the beauty of his city or connecting with it. This sense of intimacy, spirituality and affinity with the contents of the city ended at the borders of the old city wall, as if this wall is protecting the rest of the identity of the city. All what exist outside the city wall driving to tension and discomfort where the city turned in its expansion to the functional purpose to provide housing and workplace, and the people became like "employees", who do not feel the city and it doesn't feel them.

Despite that this case of losing the identity has started to enter into the heart of old Damascus, Old City is still capable in some of its details to deliver a sense of watching and take us through time to understand and realize the identity which is in the danger of loss as the time is passing. This seems evident in the difference between the descriptions of the poet Mahmoud Darwish in the sixties of the last century when he said about Damascus: *"In Damascus, The sky walks on the old roads barefooted. What is the need of poets for inspiration and rhyme? In Damascus the stranger sleeps standing in his own shadow, such as a minaret in the bed of eternity, without feeling nostalgic towards a country or anybody"* and in the descriptions of the poet Naseer Assaf in 2014 where he said: *"These poor houses studded with satellites are similar as the wrinkles in sailors faces. I throw my dilapidated view on them and prepare myself to a new defeat. In the Taxi, all people look similar, the poet, the orphan, the quince seller and the taxi driver. We all exchange glances silently and hastily. I think of my small home, how this small one dirty room with its roof could be called a home. I will make fire to a guest who will never come, and buy you a bouquet of Narcissus with ten pounds."* (Figure8).



**Figure 8.** The change between the old city and the expansion of the new city of Damascus.

This dramatic change in observing the city and the feeling that it gives to the people have happened because of many factors explained in the following.

### 3.3.1 Demographic and social changes

The high rise in population is one of the most important factors that affected the city's structure and Identity, as it was the primary reason for losing control of the city growth. This created a strange

urban fabric and new traditions and way of living. *“Damascus has experienced a steady and significant population increase throughout the twentieth century. Between 1890 and 1945 the city’s population nearly doubled, reaching almost 300000. During the post-world War II, post-independence period it fourfold, rising to 1347000 in the early 1980s. Census figures from the mid-1990s place the number at 3.5 million”* (Salamandra, 2004).

**Table 1.** The population increase in Damascus city.

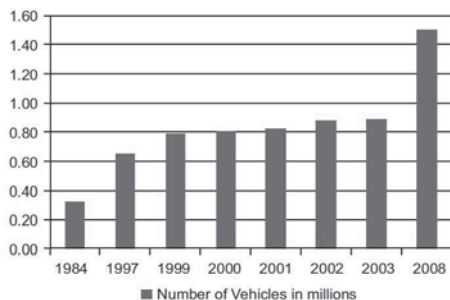
Year	1884	1913	1976	2004	2007	2010
Population	160000	300000	1000000	4 millions	4.15 millions	4.5 millions

This population growth happened for various reasons including the natural increase and internal migration. Moreover, in the years 1948 and 1967, about half a million Palestinians sought asylum in Damascus and settled there, followed by around 900000 Iraqis in 2003 after the American invasion of Iraq. This growth had many social consequences; the internal migration along with immigration brought to Damascus different new lifestyles, religious groups, and ethnic groups such as the Palestinians and Iraqis. These groups found it difficult at first to integrate into the social and even urban fabric of the city as there were no planning policies able to accommodate this significant increase in the population. This had them establishing random settlements outside Damascus’s borders which consequently had an adverse impact on the city and its identity. That effect could have been avoided had these groups been included as a part of the Damascene community rather than letting intolerance and division taking over the situation. The Syrians may try to make it look like they are in perfect harmony, but for someone who lived in Damascus as I did, the sectarian tension and social marginalization would seem pretty evident.

### 3.3.2 Environmental change (pollution)

The main problem that is causing the pollution inside the city of Damascus is the traffic. The most affected part is the old one, as the expansion of the city demands new modes of transportation.

About 49% of all vehicles registered in Syria are concentrated in the province of Damascus and its countryside, and about 23% of the taxis’ fleet in the country. The percentage of cars that are powered by gasoline in Syria is 80% and of those operating on diesel is 20% (Figure 9).



**Figure 9.** Increase in the number of cars

This increase in the number of cars had its effect on the whole city of Damascus and its historic center. Regarding the historic center, the urban environment of the old city was quiet and calm and the roads network were designed carefully in proportion to human dimensions; without attention to the accommodation of cars which weren't invented when the urban form of the city was completed as it is now. Nowadays, many cars are trying to cross the historic center through these roads for many causes, some for the inhabitants, some for the commercial activities inside the city, while others for tourism purposes as many Pilgrims visit the religious sites. These road networks were designed for people not for such kind of traffic, which led to a massive congestion inside the old city and around it. This in turn caused a rise in air pollution and the vibration and noise levels, which directly affected the urban environment of the city and changed it as the roads lost their original social life and function. In addition, as the city roads design was not based on accommodating cars, it was normal not to find parking lots, which made the people take advantage of each yard or open space in the city as a parking lot, and left its negative influence on the city's urban form and environment.

### **3.3.3 The changes on the plan of the city and the urban policies**

*"The first scheme for the city of Damascus was developed during the French mandate period in 1937, and its first building system was issued in 1938. With the economic growth in the 1950s and the expanding of the urbanization, there was a need to a new scheme. The first try was with an Austrian company in 1957, then the second was with the French planner Michael Ecochard in 1963 and there was a contract with him to develop the second scheme of the city in 1968" (Jabbour, 2001).*

In 1936 the community to organize the French colony of Syria started working on Danger Master Plan for Damascus city, the master plan started by incision new road separating the organic urban form famous in Damascus, transforming the city into a modern international city resulting in destroying the city's rich history carved in its ancient alleys. By 1968 the authorities of Damascus started its project of developing Damascus planning process by introducing the Ecochard Master Plan, the new master plan started its establishment by demolishing large number of the city iconic heritage buildings like the famous municipality building of Damascus and the Yalbuga historic mosque. The master plan also suggested demolishing Al-Hijaz station and replacing it with large concretes masses, which would have contracted with the historical surrounding.

The plan introduced several proposals that come in the context of the cities' globalization, by erasing the historical memory and weakening the cultural connection of the urban forms.

After labeling the old city of Damascus as world heritage, most of the Ecochard proposals for the old city have been suspended, but establishing the proposal for expanding the city and developing the existed neighborhoods caused a cultural shock for most of the city's residents, which led to erasing their cultural connection with their thousands of years inherited city. Perhaps the illusion of contemporaneity justifies the globalization of the cities, but it is certain that this kind of behavior can cause harsh damages to any city's urban form.

### 3.3.4 The Slums areas and their effect

Illegal settlements are one of the most complicated problems that face the city's urban planning, and the economic and social development of Damascus. Where the absence of an effective urban planning policies and disability of providing the residential needs of the people led to the emergence of communities originated against the laws in places that are not originally prepared for building uses. This resulted in occupying lands that were specified for agriculture and other purposes uses or it could be located in areas which are specified for building uses but cannot be licensed because they don't achieve the standard requirements for buildings from many sides or it does not have the required documents.

The area of Damascus and its rural is about 12500 hectares and the slums area estimated to be about 60% of it but in case of the administrative borders of the city of Damascus without taking in consideration it's rural the percentage decrease to about 40% " there is no new official statistics, so the numbers are approximate". In terms of the number of people who live in these areas, the city of Damascus and it's rural is inhabited by about 4.5 million people about 2 million persons are living in the slums which make 40% of the population.

#### 3.3.4.1 The reasons of the emergence of slums

##### *Political reasons*

Israeli occupation of Palestine led to the immigration of huge numbers of refugees to Syria in 1947 and 1967 where they made some temporary settlements around the main cities, especially Damascus and by the time this temporary settlements raised and became Permanent communities (such as Yarmouk camp - Palestine camp...), then shifted over time to a random housing areas and collective irregularities areas.

In 2003 after American invasion of Iraq around million Iraqi refugees settled in Syria and that also led to an emergence of new illegal houses

##### *Social and economic reasons:*

This is mainly about the immigration from rural areas to the main cities looking for jobs, which happened because of the unbalanced development between cities and the countryside. Which led to the small level of public activities in the rural areas such as educational, cultural, health, and entertainment activities, and high birth rate and increasing population growth rate in rural areas, while there are no jobs opportunities. All main events of economic, educational, cultural and tourism activities, and various work opportunities that follow them were centered in the cities.

##### *Regulatory reasons (legislative and technical)*

There are many laws related to housing strategies but they were not effective or were not developed with the time, and the delay in completion the organizational charts and detailed plans for the areas of urban expansion led to not provide the real need of the land which is prepared for construction.

### 3.3.4.2 Characteristics of slums areas

#### *Physical*

In the illegal settlements areas, there are no urban planning principles. This makes the area a bad place for living, where the conditions of health housing are in the minimum degree and the services like electricity and water supply exist but not in the right way. Besides the incredible density in these areas could reach 1200 people per hectare. Also, overlapping legal and real estate conditions of the properties, and the absence of mortgage documentation.

On the house scale, the safety aspects in buildings are bad because people are building without having experts and engineers, which lead to unsuitable buildings and distort the identity and architectural character of the city

#### *Social*

These settlements form closed communities with the identity and character of the origins of the people who lives there and we can say that they are also closed communities from sectarian and religious point of view, which is a very adverse impact on the social fabric of the city and the level of interaction between population.

The families that live in this illegal settlements are not only from the poor class there are many people from the middle class live there because the houses there are more cheap and after the expansion of the city these areas are now considered to be an extension of the city and they interfere with it, so they are not suburbs far from the urban center of the city.

The formation of families in these areas from Gender, age, number of family members, and celibacy aspects is similar to other areas in all Syria, but regarding unemployment in these areas we find that there are low unemployment rates for the old people, and this is rational because one of the main reasons for emergence of illegal settlements is the people who got jobs in the city but when we look to the young people in these areas we find that the unemployment rates are very high comparing to other parts in Syria which indicates clearly to the problem of large increasingly unemployment began to appear among the second-generation families in illegal settlements.

### 3.3.5 Globalization effect

Theoretically, globalization is a modern system that hired science, economy, and technology for its benefit, to decrease the distances separating human communities, and facilitate the exchange of merchandise, people, information, and ideas between them. However, globalization in reality only led to export the western ideology all over the world and westernize different aspects of other civilization. In Syria's case I believe the effect of this phenomenon came from the media, as Syria was boycotted by the West due to its political positions at the time, which kept it at a big distance from globalization. However, the ideal image of the western society in the media did a real damage to the social, economic, and urban Syrian structure, and imitation of the west became a sign of civilization and advancement, which led to abandoning and forgetting our cultural and historical heritage which directly reflected on the environmental and urban identity of the Syrian city, especially Damascus being a capital. The high glass buildings became the evidence of urban development and progression although it contradicted with the social and even climatic Syrian requirements; the hot dry weather in Syria made the glass buildings turn into a very uncomfortable

heat reservoirs. This effect was not limited to the urban physical aspect but also to the social aspects. Imitating the western lifestyle was the ambition of the Arabic person as he thinks that development could only be achieved through this way and that any difference from that typical western media drawn image was regarded as retardation and staying in the past. It is worth noting that the Arabic cultural, historical, social, and urban heritage is pretty flexible and changeable in a very modern and developed contexts while preserving its true soul and identity which distinct it from other civilizations. This makes the world richer?? So what is wrong in turning the world into a small village filled and coloured with different ideas and civilizations that exchange their experience in a beneficial way to everyone, rather than imposing a single pattern on different contexts and circumstances that might not be consistent with it?

For example, Instead of imitating the West in its modern buildings, we can draw patterns and modern urban buildings from the old traditional architectural vocabulary in the Arab city. This has been done in the Arab World Institute building in Paris, where the architect modified the idea of the mashrabiyya, which is a traditional Arabic architectural element was used to achieve privacy and alleviate the light inside the Space. This component was modulating and developed to be utilized in the southern elevation of the building (Figure 10). This shows that the Arab culture has enormous ability to cope with the requirements of the era, and we do not need to copy and imitate the elements of Western architecture. So, we must define and adopt a clear thought linked to our civilization and Arab culture, in order to produce cities that have Arab identity by recognizing the characteristics of the elements of this thought and their relation to our culture. Then understanding the relation of these civilizational, cultural and local elements with the same elements of other nations and communities, in order to achieve the interaction between the language of the urban identity of Arab-Islamic cities and the global ones.



**Figure 10.** Design of Arab world institution

#### 4 Conclusion

*"Do you know what it means to live in human perfume bottle? Our house was that bottle. I am not trying to bribe you with an eloquent metaphor, but trust me, with this metaphor, I am not being justice towards my home. Those who lived in Damascus and penetrated in the narrow alleys and lanes, know how the paradise opens its arms for them without waiting. A small wooden gate opens,*

*and the journey starts between the green, and red, and lilac roses, and a symphony of light and shadow and marble starts"* (Nizar Qabbani, Syrian poet).

It is clear that the Islamic Arab city lacks characteristics under these different physical, social, cultural and political pressures, which makes it in an urgent need to stick to its identity, not only in the form and image, but rather a sense and interdependence between man and the city. The loss of this connection appears clearly in the young Arab generations, as they are the most affected by these factors. The dream of a young Arab is to get out of his city and his surrounding and orientation towards the West. While the spiritual link appears between the city and its elderly inhabitants, if you ask an old Damascene about his opinion to leave Damascus, his natural reaction will be "It is impossible, if I go far from Damascus I will choke and die".

Damascus is a city that can deliver its spirit and charm to its inhabitant until now, but hardly. The only part where you can feel this spirit is the old part. Despite its loss of character, it is not dead yet, and we have to save it and revive its identity.

This cannot happen by the attraction toward "history," and the restoration of the historical figure only, but the idea is to be "a renewed identity" not a standard fixed identity performed in the past only. The identity is a kind of "speech" and "dialogue" that should be created in the city's space and centered on the pressing urban issues that are forming the personalities of population and even shaping their face's impressions.

By understanding the problem and its reasons, we will be able to put a plan to avoid the danger of losing our cities identities and be more connected to our rich and impressive culture. Moreover, this is what should be done.

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# Theoretical Premises of Cityscape Identity Evaluation

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Sustainable urban planning and design is a process for which not only environmental, economic, but also sociocultural and aesthetic aspects of urban environment are important. There are already many ways how to build environmental-friendly urban structures and how to do that at the lowest costs. However, it is still not clear how to measure the identity of cityscape, which is not so explicit, though nonetheless important. Therefore, the main aim of the paper is to propose methodological framework (hypothetical model) for the complex qualitative and quantitative structural evaluation of holistic cityscape identity. In order to achieve this result, the concepts of cityscape identity were defined and dimensions with attributes were distinguished for these concepts. Then the methods to evaluate the dimensions and attributes were indicated by overviewing the related scientific literature and research, where various methodological systems for the measurement of identity (both objective and subjective) were created, tested or applied. The most relevant, comprehensive and clear theories, covering all established dimensions and attributes, were chosen as a basis for the hypothetical model of holistic cityscape identity evaluation.

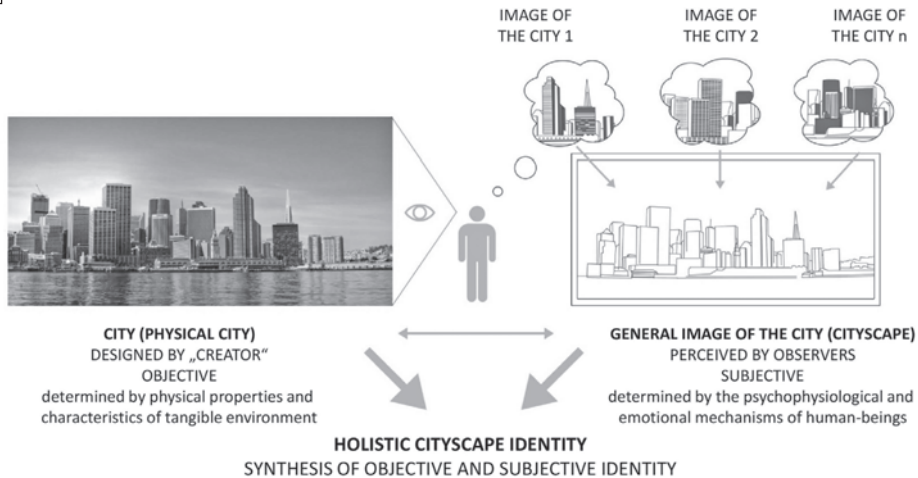
**Keywords:** city identity; cityscape; qualitative and quantitative evaluation.

## 1 Introduction

Sustainable urban planning and design is a process for which not only environmental, economic, but also sociocultural and aesthetic aspects of urban environment are important (Commission of the European Communities, 2004; Council of European Union, 2006; Leipzig Charter 2007). One of the main aims of this activity is to create aesthetic, distinctive, healthy living environment strengthening a sense of identity and sociality, to protect and enrich cultural heritage. According to the environment psychology, it is a creation of “preferred environment”. Formants of city identity are ones of the most important components of the preferred environment (concept of environmental psychology), which are expressed differently in different urban areas due to natural, historical, political, social and economic factors. Different expression of identity formants is primarily perceived visually observing the cityscape because “there is no inherent identity to places: this is constructed by human behavior in reaction to places” (Osborne, 2001), i.e. reaction comes after visual-aesthetic-semantic perception. The scientific literature distinguishes between existential (place), spatial, personal, and cultural dimensions of landscape/cityscape identity concept (Stobbelaar and Pedrolí, 2011) important to overall understanding and evaluation of landscape identity. These dimensions are related with individual landscape sites, their properties; landscape features for which time factor is important, and they separate landscape of one place from another; landmarks, roads, boundaries and etc., which play an important role in people's perception of the living environment.

In this paper, we define cityscape identity – as the holistic identity – the synthesis of objective identity (determined by physical properties and characteristics of tangible environment) and subjective identity (determined by the psychophysiological and emotional mechanisms of human-beings) (see Figure 1).

□



**Figure 1.** “City”, “image of the city”, “cityscape” and “holistic cityscape identity” definitions and their interrelation.

There are many methods of cityscape identity evaluation in the scientific literature. Some of them are qualitative and the others are quantitative. Both of them are used to evaluate subjective and objective aspects of holistic identity. Some authors (e.g. Shamai, 1991; Lalli, 1992) use terms “non-positivistic view” or “phenomenological approach” for qualitative research, because there are strong statements made about general concept of place-based identity, however, empirical guidelines for assessment or evaluation are lacking. These qualitative research on identity can be grouped into *philosophically oriented*, where the most important aim is the philosophical explanation of the concept of place (Relph, 1976; Tuan, 1977, 1979; Canter, 1977; Norberg-Schulz, 1980) or identity (Proshansky, 1978; Lewis, 1979; Proshansky et al, 1983; Datel and Digemans, 1984; Peterson and Saarinen, 1986; Smith et al, 1998 and etc.) and *descriptive attempts* to catch the identity or sense of the place (Lynch, 1960; Solomon, 1966; Lowenthal, 1975; Buttmer, 1980; Godkin, 1980; Krupat, 1983; Sarbin, 1983; Shumaker and Taylor, 1983; Breakwell, 1983, 1986; Rivlin, 1987; Korpela, 1989; Feldman, 1990; Hull et al, 1994 and etc.). These works and studies are significant as they laid the foundations for the Place-Identity theory and encouraged further research on this field. Still, while the qualitative analysis of place-related identity is quite common, quantitative (positivistic) approaches (especially analysis of objective identity) are rare. The reason of that might be a debatable validity of currently applicable criteria, indicators and their significance at ranking procedure in order to convert results of empirical observations into mathematical expressions. There are a lot of discussions and doubts what should be measured, how and why, that the place-based identity would be appropriately revealed. In urban planning and design the research of objective identity i.e., analysis of urban structure itself, its’ characteristics or features, is very important. Thus, there are some studies attempting to reveal the character of urban place or identity by analyzing the urban fabric. Mostly they are related with analysis of separate cityscape components as identity formants: building height, building density (Daunora et al, 2004); some authors (Petrušonis, 2004) establish stability coefficient (the stability coefficient of a feature of a concrete territorial unit shows how evenly the feature is spread over the entire territory of a locality

and whether it is exclusive for that part of the locality). However, there is no research known for us, which specifically would be concerned with combining the results of research on subjective identity with the indicators of objective identity. Such comprehensive qualitative and quantitative structural evaluation would be very useful for designating zones of urban environment with different semantic load but overall quantitative identity index could be very effective for modelling of cityscape identity in urban zones where there is a lack of identity formants. Therefore, the main aim of the paper is to propose methodological framework (hypothetical model) for the complex (both qualitative and quantitative) structural evaluation of holistic cityscape identity. In order to achieve this result, the concepts of cityscape identity were defined and dimensions with attributes were distinguished for these concepts. Then the methods to evaluate the dimensions and attributes were indicated by overviewing the related scientific literature and research, where various methodological systems for the measurement of identity (both objective and subjective) were created, tested or applied. The most relevant, comprehensive and clear theories, covering all established dimensions and attributes, were chosen as a basis for the hypothetical model of holistic cityscape identity evaluation.

## 2 Concepts of holistic cityscape identity and their dimensions

Our definition of *holistic cityscape identity* as the combination of subjective and objective identities already implies the complexity of the phenomenon. Undoubtedly, *place-based identity* and its assessment is an interdisciplinary issue, analyzed by scientists, theorists and practitioners from various fields. Each of them pays attention to the same phenomenon of *place-based identity*, however by looking through the prism of their interest (e.g., environmental psychologists analyze the influence of the place on self-identity (Proshansky, 1978; Stokols and Shumaker, 1981; Korpela, 1989 and etc.); social psychologists define place as a symbol reflecting identity of society (Mead, 1934; Turner et al, 1974; Tajfel, 1978 and etc.); geographers focus on the experience and perception of the place (Norberg-Schulz, 1980; Tuan, 1977 and etc.); meanwhile, architects and urban planners try to find out the physical characteristics of the preferred and recognizable environment (Lynch, 1960; Thwaites and Simkins, 2006; Daunora et al, 2004; Petrušonis, 2004 and etc.)). It is even more confusing, that each discipline has its own definitions for the *place-based identity*, such as *place cognition* or *legibility*, *place attachment* or *sense of place*, *place individuality* or *place uniqueness* and etc. The borders between these terms are vague; there are many common features within them and the real risk appears to get lost among so many different points of view, definitions and approaches. Therefore, we decided to define five main concepts, which reflect the most common approaches noticed in the scientific literature related to the assessment of cityscape identity. They are as follows: *Sense of the place*, *Meaning of the place*, *Separate elements*, *Pattern of elements* and *Overall structure* (see Table 1). The main difference among all these concepts is the different points of focus.

**Table 1.** Concepts of holistic cityscape identity and their dimensions

	HOLISTIC IDENTITY OF CITYSCAPE																		
	SUBJECTIVE									OBJECTIVE									
CONCEPTS	SENSE OF THE PLACE							MEANING OF THE PLACE		SEPARATE ELEMENTS		PATTERN OF ELEMENTS			OVERALL STRUCTURE				
	ANALYSIS OF PEOPLE'S FEELINGS TOWARD PLACE							ANALYSIS OF CITY AS A TEXT, SYSTEM OF SYMBOLS		ANALYSIS OF OUTSTANDING ELEMENTS OF THE CITY		ANALYSIS OF CITY AS A SUM OF ELEMENTS			ANALYSIS OF CITY AS TOTALITY				
DIMENSIONS/ ATTRIBUTES	NEGATIVE FEELINGS							COGNITION/ MEANING OF SIGNS		HIERARCHY		OPENNESS/ ENCLOSURE			DIVERSITY/ VARIETY/ RICHNESS				
	NEUTRAL PHASE																		
	POSITIVE FEELINGS:																		
	1. BELONGING TO PLACE																		
	2. PLACE ATTACHMENT:																		
	2.1. PLACE IDENTITY																		
	2.2. PLACE DEPENDENCE																		
	3. PLACE COMMITMENT																		
	CONTINUITY/ HISTORICITY																		
	LEGIBILITY / INFORMATIVE																		
IMAGEABILITY																			
UNIQUENESS							Landmarks, iconic objects, visual spaces, open spaces		Patterns of streets, plots, buildings, open spaces, green spaces, water bodies and etc.			Streetscape, panoramic views (cityscape) and etc.							
SIGNIFICANCE																			
NATURALNESS																			
DENSITY																			
INTENSITY																			
INTEGRATION																			
CONFIGURATION OF PATTERN																			
HARMONY/ COMFORT/ ORDER																			
COMPLEXITY																			
INTEREST																			
FOCUS TO ...	People							People and semantic objects		Landmarks, iconic objects, visual spaces, open spaces		Patterns of streets, plots, buildings, open spaces, green spaces, water bodies and etc.			Streetscape, panoramic views (cityscape) and etc.				

The concept ***Sense of the place*** brings people in the limelight and whole palette of their feelings toward place is analyzed. There are plenty of similar terms, defining people's reaction to the environment, in the scientific literature. However, we have chosen *Sense of the place* as the most general umbrella term that covers all other notions, because this concept reflects not only positive people's relation with the place (as *place attachment*, for example) but any kind of emotions toward a particular place. Since, various moods, attitudes and opinions of individuals have a significant influence in such kind of research, the concept *Sense of the Place* reveals subjective component of holistic identity. According to the analyzed literature, we identified several levels of the *Sense of the Place*, which can be defined as dimensions or attributes:

- *Negative feelings* – the most of the overviewed studies ignore this dimension. However, certainly, some places can evoke negative emotions and sometimes these feelings are too important to be ignored (Shamai and Ilatov, 2005).
- *Neutral phase* - is when the place does not cause any feelings. Some authors define this phase as "not having any sense of the place" (Shamai, 1991; Shamai and Ilatov, 2005), others as "homelessness" or "not belonging to place" (Relph, 1976). However the latter terms have a slightly negative implication. Therefore, we choose the one, which is more neutral.
- *Positive feelings* – the content and hierarchical structure of this dimension vary among the theories. Different authors suggest different methodological systems. Therefore, sometimes the same attribute might not have the same meaning in different methodological models. For example, Relph (1976) described positive feelings toward place as "belonging to place" or "deep identity with

the place"; Proshansky (1978) used a term of "place identity" to define the emotional attachment to the place; while Stokols and Shumaker (1981) defined functional attachment to the place as "place dependence". Later on, several academicians (William and Roggenbuck, 1989; Altman and Low, 1992; Williams et al, 1995; Vaske and Kobrin, 2001; Williams and Vaske, 2003 and etc.) used "place attachment" as more general term that covers both "place identity" and "place dependence". However, the use of this term also might be confusing, because we can find the attribute of "attachment" as one of five components of Lalli's (1992) Urban Identity Scale. It becomes not clear if the place attachment is a component of place identity or vice versa. Therefore, we have chosen Shamai's (1991) model of "sense of the place", which integrates all attributes into one clear hierarchical system, as a foundation for distinguishing attributes of positive feelings:

1. *Belonging to place* – the lowest level of positive feelings toward place. There is not strong or intense affection still. However, according Shamai (1991), there is knowledge of being located in place and the feeling of belonging.
2. *Place attachment* – is higher level of positive feelings, because emotions intensify and the place starts to influence people's behavior in certain ways. People feel attached to place and identify themselves with place goals (Shamai, 1991). We also accept that this dimension consists of:
  - 2.1. *Place identity* – emotional attachment (Proshansky, 1978)
  - 2.2. *Place dependence* – functional attachment (Stokols and Shumaker, 1981)
3. *Place commitment* – the highest level of positive feelings toward a place. Full involvement to a place and even sacrifice for a place (Shamai, 1991).

***Meaning of the place*** is another concept of holistic cityscape's identity. This concept is mainly based on the urban semioticians' notion that urban structures become recognizable because, despite their functional significance, they contain another important feature – symbolical meaning. Therefore not only people but also semantic objects of the urban structure are in the center of attention. The city is analyzed as a text or system of symbols. However, text and even more its interpretation can be both objective and subjective. It depends on observers' level of grammar knowledge and their familiarity with the context. The same is with *Meaning of the place* concept. It can reflect some subjective facets, as well as some objective facets of holistic cityscape identity.

Based on related literature review, we distinguished four dimensions for the *Meaning of the Place* concept. They are as follows:

- *Cognition/ Meaning of signs* – reflects the mental abilities related with people's expertise or knowledge about place. Some authors use term "the degree of familiarity" (Lalli, 1992) to describe how well people know the environment around them. Human beings develop their cognition during the processes of socialization and the higher degree of familiarity quite often determines the stronger self-identification with the place. Cognition provides people with the knowledge how to behave within the towns because they can interpret physical environment. Besides, elements of material culture conform to a grammar (O'Keeffe, 1999). *Cognition* can also be explained as the semantic load carried by the environment (V. Petrušonis, 2004).

- *Continuity/ Historicity* – the significance of this dimension has been highlighted by several academicians. Social psychologist G. M. Breakwell (1986) distinguished two types of continuity over time and situation: place-referent continuity (maintenance of places with specific characteristics which can evoke positive emotions) and place-congruent continuity (places which allow continuity of self as a specific type of person). Lalli (1992) claimed, that the extent to which the environment provides people with continuity of their personal experiences was related to general identification with a place. However, landscape architects, urban designers and planners describe *Continuity* and *Historicity* as the degree of historical continuity and richness (Ode et al, 2008). That degree is influenced by historical significance and content (Nasar, 1997). According to the theories of semiotics and of cultural-historical artifacts (Cole, 1998; Zaleckis et al, 2013), cultural symbols formed through the history of the city that are readable today should remain active in the future. Therefore, the preservation of the cultural and natural heritage is very important for the continuity.

- *Legibility/ Informative* – the quality of being clear. K. Lynch (1960) distinguished this attribute as one of the high quality environment's characteristics. He argued that "a legible city would be one whose districts or landmarks or pathways are easily identifiable and are easily grouped into an over-all pattern." There are similarities noticed with the Gestalt psychology, where it is claimed, that people unconsciously combine all visually perceived separate objects into certain groups or patterns. N. A. Salingeros (2006) has developed the methodology of assessment of information optimality of visual perceived structures. Information optimality means that there is a sufficient amount of information; the environment is homogenous and enough variable to catch the interest of observer. Dimension of *Legibility/ Informative* also seems closely related with the physiological comfort of observer (V. A. Filin, 1998). Literature review shows, the *Legibility* or amount of information can be analyzed in different scales (streetscape views, panoramic views and etc.).

- *Imageability* – reflects the ability to create strong visual image for the observer, to cause the powerful impression and to make the place memorable. According to K. Lynch (1960), such strong impact, when some objects become not only simply visible but are displayed sharply and intensively, can occur due to their distinguishing shape, color or volume. Landscape Aesthetic Theory (Ode et al, 2008) distinguishes two aspects of *Imageability*. They are analysis of viewpoints and analysis of spectacular, unique or iconic elements. And this approach is like a connecting link to our next concept of cityscape identity.

The next concept we entitled ***Separate elements***, as it was noticed previously, the cityscape identity is quite often explored throughout the analysis of single outstanding elements of the city. These elements can be landmarks (towers, churches, city halls and etc.), iconic objects (manors, theatres, shops and etc.) or the other significant elements of urban structure (e.g., river, lake, hill and etc.). Such objects considerably influence the physical expression of the city and analysis of these *Separate elements* can help us to reveal the objective identity of cityscape. The overview of related research led us to the distinguishing of four main dimensions of *Separate elements*:

- *Hierarchy* – shows the hierarchical relation and order among the elements. It is determined by the types of rhythm and the amount of hierarchical levels. Different authors suggest the different classification and give different definitions. One of urban elements analyzed by K. Lynch (1960) was landmarks and he defined two types of landmarks – distant (which can be visible from far away and from various places) and local (which are visible only in the certain area or from the certain viewpoint). J. Bučas (2001) indicated three types of exhibitors: dominants (single exhibitors, visual impact zones of such elements do not join), accents (exhibitors with connected visual impact zones) and subdominants (exhibitors with overlapping visual impact zones). A. Bružas (2014) pointed out the hierarchical structure of the contemporary landmarks: iconic buildings or local icons (an exclusive architectural object), the dominants of city's spatial structure (buildings distinguished by the height and/or massiveness of their volume) and the distinguishing signs (various architectural structures which are exceptional by the shape, color, style and etc.). The three-level hierarchy also is found in the field of semiotics (Chandler, 2007): symbol, icon and index. Though, how many hierarchical levels should be distinguished depends on research scale and particularity, the type of analyzed object and the complexity of the environment.

- *Uniqueness* – is the embodiment of unique characteristics. The frequency counts are quite common in the urban research as they reflect the typical features (Purvinas, 1983; Bučas, 2001; Daunora et al, 2004; Rice and Urban, 2006 and etc.). However, as noticed V. Petrušonis (2004), sometimes frequency or stability coefficient can be reversed in order to reveal the level of uniqueness. This dimension is closely related with dimension of Imageability, because it is easier to memorize the unique elements. Starting with K. Lynch (1960), the importance of unique elements for identity was stressed by several researchers (Hull et al, 1994; Daunora et al, 2004 and etc.).

- *Significance* – is the quality of having notable worth or influence. Separate elements might be significant due to: the maturity of their form, authenticity (Daunora et al, 2004). Also the meeting of functional needs might increase the level of significance.

- *Naturalness* – describes the closeness to nature. Ch. Alexander (Alexander et al, 1977) wrote that “the need that people have for the water is vital and profound”. Based on the review of more research, it seems that this need is essential not only for water, but man has a biological need to affiliate with the nature in general (Ode et al, 2008). Such level of *Naturalness*, where the nature dominates against the anthropogenic elements, is defined as positive indicator of environmental quality (Nasar, 1997; Purvinas, 1983 and etc.). The percentage of naturalness and the level of its quality allow the more precise evaluation of general place's character.

The following concept ***Patterns of elements*** also focuses on elements of the urban structure. However, in such type of research, elements are not analyzed as single point objects like it was in the previous concept. *Pattern of elements* means, that the certain group of elements is analyzed as a network (i.e. sum/system of elements vs individual elements). There are a lot of cases when patterns of streets, plots, buildings, open spaces, green spaces, water bodies and etc. are explored in order to determine the objective identity of cityscape. Based on the results of the literature analysis, we determined five dimensions for the Pattern of elements category:

- *Openness/ Enclosure* – building up or vegetation has a quality to form the spaces, which can be simple, complex or continuous and open or closed. Traditional analysis of urban morphology usually is focused to the calculations of proportions and sizes of open spaces. M. Purvinas (1983) introduced with the degree of enclosure and also distinguished types of vertical and horizontal enclosures. J. L. Nasar (1997) emphasized the importance of well-defined place. It is important to mention, that this dimension of *Openness/ Enclosure* highly influences people emotions toward particular place. There is a prospect-refuge theory (Appleton, 1975) which highlights people's need for the environment which provides the ability to get overview without being noticed. Therefore, *Openness/ Enclosure* is not left aside in the other theories related with people's experience in the city as well (Lynch, 1960; Thwaites and Simkins, 2006; Carmona et al, 2010 and etc.).

- *Density* – the amount of certain elements (e.g., building up, vegetation, water bodies and so on) in a given area. This dimension also comes from the traditional analysis of urban morphology and it is common in the scientific literature where the spatial issues are analyzed as an important component of urban structure's character (Daunora et al, 2004; Thwaites and Simkins, 2006 and etc.). The density of certain elements can be calculated not only from the planar sources, but also from the streetscape views, panoramas or silhouettes. J. Bučas (2001) employed the *compactness* term, which reflects the intensity of compositional elements' concentration (amount) in the conciseness of background surface (visible area).

- *Intensity* – is the characteristic of building-up. Intensity of building-up reflects relation of gross floor area (of the above-ground levels) with the plot's area. Therefore, this dimension allows to evaluate not only coverage of the area, but the height of the buildings as well. *Intensity* is a widely spread dimension in the theory and practice of urban design or planning (Form-based Code Institute (FBCI); Daunora et al, 2004 and etc.)

- *Integration* – the dimension of being combined into the integral whole. When we are talking about Patterns of Elements, firstly we have in mind the integration of transition networks (motorways, roads, paths and other channels for movement), because here *Integration* is essential to ensure the uninterrupted and convenient flows. However, the design of integral networks requires a lot of difficult calculations and time, especially if the more complex cases are analyzed. Therefore, for a while, it had been designed more based on intuition. It changed with the innovations of computer sciences. The possibilities to store and calculate huge amounts of data led to the development of such theories as Space syntax (where integration, connectivity or choice are analyzed) or Fractal analysis (where integration is describes the vitality as well). Moreover, the software developed based on these theories allows performing of very accurate calculations fast and easily.

- *Configuration of patterns* – reflects geometrical shape of pattern. This dimension comes from the analysis of traditional urban morphology. M. Purvinas (1983) indicated that character of spatial structure depends on its' size and configuration. The Lithuanian standards of Territorial Planning (2014) distinguish the following types of building-up: homesteads, attached single unit housing, perimeteric building-up, unrestrained planning; single standing objects and building-up of industrial areas. *Configuration of patterns* also covers the types of streets grid. For example, there are certain

types of settlements' streets networks found in Lithuania: scattered, linear, radial, rectangular and mixed (Miškinis, 1974; Povilaitienė and Mačiukėnaitė, 2014; Dringelis et al, 2015).

The last of our defined concept of holistic cityscape identity is **Overall structure**. The main difference with the previous concept is that the analysis of *Overall structure* means analysis of the city's urban structure as the totality (i.e. the whole vs sum/system of elements). There is not any need to separate certain elements into different layers. All different groups of elements and patterns are analyzed at the same time. Usually, streetscape or panoramic views, air photos or ortho-photos are used as research sources in order to reveal the features of *Overall Structure*, which at the same time are the features of the objective cityscape's identity.

According to the analyzed literature we revealed four characteristics of the Overall structure, which can be defined as dimensions or attributes. They are:

- *Diversity/ Variety/ Richness* – is the amount of different elements and their configuration (Purvinas, 1983). J. Bučas (2001) defined diversity of the special structure's elements as an indicator of complexity. Also several studies revealed that the diversity influence how people feel in the certain environment. According to the Breakwell's identity theory (1983), the first principle of identity is the desire to maintain personal distinctiveness. M. Lalli (1992) points out that people differentiate themselves from the residents of other parts of town by the urban environment. Other research revealed not only psychological, but also biological importance of diversity. For example, theory of videoecology (Filin, 1998) proved that the amount of diversity influence the observer's comfort. N. A. Salingaros (2006) established indicator of "temperature" which indicates the level of variety and influences the psychological-informative acceptability.

- *Harmony/ Comfort/ Order* – in general, it is the aesthetic and biological quality of the view or "sense of order and care <...> reflecting active and careful management" (Ode et al, 2008). Nasar (1997) named this dimension "upkeep/ civilities" as it reflects a good maintenance of the environment. However some authors analyze harmony of composition, and in such case the *Harmony* shows the correlation between compositional objects and the level of symmetrical expression (Salingaros, 2006). Similar definition of *Harmony* was formulated by J. Bučas (2001) as optimality of compositional elements' relation, i.e. when the size of visual activity zone corresponds to the geometrical parameters of background elements. A synonymous term "coherence" is used by the environment psychologists. They describe it as the sense that all parts of (conceptually) perceived environment make one unit; it is easy to organize or structure such environment. According to V. A. Filin (1998), comfortable visual environment is in the middle between homogenous visual fields and aggressive visual fields. Homogenous visual environment is characterized by the lack of visual elements, while aggressive visual fields consist of a large number of repetitive elements.

- *Complexity* – means high level of complication and a big amount of connections. J. Bučas (2001) defined Complexity as the abundant variety of compositional elements which are linked together with complicated relationships. The complexity of landscape is explained as the diversity and richness of landscape elements and features and the interspersed patterns in landscape (Ode et

al, 2008). According to the theories of “preferred environment” and urban semiotics, the environment is complex if it contains enough variety to make it worth to learn about and keep one occupied. Fractal Analysis is the one of the theories, which actually allows the mathematical calculation of complexity. There have been done several studies where Fractal Method was employed in the analysis of complexity for the different purposes: to compare the morphology of urban patterns (Frankhauser, 2004), to analyze the potential of urban fabric (Zaleckis and Kamičaitytė- Virbašienė, 2011); to apply fractal analysis in urban patterns design (Jevrič et al., 2014), to assess and suggest the improvements for environmental quality (Wang et al., 2011) and etc. Moreover, the Fractal Method is not only used for the planar analysis but for the analysis of streetscapes or panoramic views as well.

- *Interest* – is the quality of environment, which evokes the desire to explore it. Mysteriousness is one of the basic qualities of “preferred environment”. It is described as the prospect of gaining more information about the environment. The existence of terra incognita and specific symbols (e.g. mythological, sacral and etc.) can increase the mysteriousness of the urban environment. As G. Cullen (1971) wrote, the city is successful only when its elements can create the drama in the environment. For the same reason, he analyzed concepts of Serial Vision (change of existing and emerging views), Place (here and there) and Content (this and that). Analysis of these elements should help urban designers to avoid the creation of dull, uninteresting and soulless cities.

All these distinguished dimensions and attributes are very important, because they specifically indicate what should be taken into account in order to comprehensively evaluate the holistic identity of cityscape.

### 3 Theories and methods

While having the clearly defined five concepts with their dimensions and attributes, our next step was identification of the methods, which could be applicable to evaluate each of the distinguished dimensions. Therefore, we overviewed scientific literature and research, where various methodological systems for the measurement of identity (both objective and subjective) were created, tested or applied.

- *Identification with Place Scale*. One of the earliest attempts to reveal the connections between individuals and their residential area quantitatively was made by Burdge and Ludtke (1972). They employed the scale for the questionnaire survey to measure affective place attachment and identity. Therefore, this scale can be used to evaluate a part of our distinguished dimensions of Sense of the Place concept.

- *Scale of Identity*. E. Relph (1976) introduced with a scale, whereby feelings toward places were ranked by seven levels (starting from the lowest one, which is “not belonging to place” or “homelessness” and going up to the highest level, which is “belonging to place” or deep identity with

the place"). This approach is important for our methodological framework, because not only positive feelings but also neutral phase are analyzed in this scale.

- *Measurement of Place Attachment.* We have already mentioned that Place Attachment is a widely analyzed phenomenon (William and Roggenbuck, 1989; Altman and Low, 1992; Williams et al, 1995; Vaske and Kobrin, 2001; Williams and Vaske, 2003 and etc.). The sociological methods as interviews, questionnaire surveys or behavior observations are usually employed to carry out the measurement of Place Attachment. We could add further, that not only attachment to constant environment can be explored. Here is an example of study by Speller and Twigger-Ross (2009), where they analyzed how cultural and social identity is transforming depending on the changes in physical environment and how much place attachment to the usual conditions influences process of adaptation to the totally new or strongly modified environment. Another nearly related case study was done by Bernardo and Palma (2005). These latter two studies revealed one interesting and quite unpredictable notice that strong attachment to the place does not always depend on the good quality of the environment.

- *Scale of sense of the place.* S. Shamai (1991) developed the scale, which consists of one neutral and three active phases. Each of these active phases has two levels, so totally there are seven levels of Sense of Place. They are as follows: neutral phase - not having any sense of place (1), belonging to a place: knowledge of being located in place (2) and belonging to a place (3), place attachment: attachment to a place (4) and identifying with the place goals (5), place commitment: involvement to a place (6) and sacrifice for a place (7). Based on this scale majority of our distinguished dimensions of Sense of the Place can be evaluated quantitatively.

- *Measuring of Sense of Place.* The previously described approach did not concern about important dimension of Sense of the Place i.e. Negative emotions. Therefore it seems logical that the later research of the same author (Shamai and Ilatov, 2005) was supplemented with analysis of negative attitudes as well. The research emphasized that "negative feelings may be more important, particularly when dealing with immigrants". Since today more people live mobile and international lifestyle (some of them even become global nomads), we believe that it is very important not to ignore the possible negative reaction to the certain place.

- *Breakwell's Identity Model.* G. M. Breakwell (1986) was not satisfied with existing social identity theory; therefore she developed a model of identity process. The model is based on four principles: distinctiveness (individual strives to be not the same as others, however just slightly, not totally different), continuity (people seek the continuity of self-concept over time and situation), self-esteem (human-beings seek to achieve and maintain the positive evaluation of themselves or the group to which they belong) and self-efficacy (individuals need to believe that they are able to function in a certain environment). This model has been quite often used in the research on place-based identity (Bernardo and Palma, 2005; Speller and Twigger-Ross, 2009 and etc.).

- *Urban Identity Scale.* M. Lalli (1992) presented Urban Identity Scale as a measuring instrument to evaluate urban-related identity. According to this scale, urban identity consists of five dimensions: external evaluation, continuity with personal past, general attachment, perception of familiarity and

commitment. This approach was also successfully accepted by academic community and there are several quantitative research carried out based on this Urban Identity Scale (e.g. Jorgensen and Stedman, 2001; Iossifova, 2010 and etc.). For us it is important as the tool to measure some dimensions of Sense of the Place and Meaning of the Place.

- *Preferred Environment/ Landscape Perception Theories*. There are a lot of researchers working on issues related with creation of "preferred environment". They distinguish different characteristics of cityscape which could evoke the positive psychological reaction. Still it is possible to find out the most common characteristics of preferred environment. They are: the absence of visual stress, legibility, complexity, coherence and mysteriousness (Zaleckis 2003; Carmona et al, 2010; Rosenbaum, 2013 and etc.). Both qualitative and quantitative methods can be applied to reveal these characteristics.

- *Urban semiotics*. Cities are as plural "texts" from the perspective of urban semioticians. Therefore, cognition, legibility, complexity and interest are the most important dimensions in the analysis of Urban Semiotics. Place is recognized, interpreted and perceived not only as physical construct but also as the semantic mirror, reflecting the deeper symbolical meaning.

- *Cultural-Historic Artefacts Theory (CHAT)*. This theory helps to understand relation between people actions and their thoughts and feelings. According to M. Cole (1998), cityscape is the totality of immaterial and material artefacts. Therefore, dimensions of cognition, continuity and legibility could be better understood during behavior observations with reference to CHAT.

- *Experiential Landscape*. It is technique developed by K. Thwaites and I. M. Simkins (2006) for the evaluation of people's daily life experiences in usual environment. Based on observations, they distinguished four elements of Experiential Landscape: center, direction, transition and area. This theoretical framework is important for us as an attempt to reveal the relation between the experiences (sense of home, preferred locations or orientation) and the spatial issues (openness/enclosures, density, integration and so on).

- *Image of the City*. K. Lynch (1960) introduced with a very innovative (by that time) approach to the urban environment, that city should be analyzed not as separate physical object, but in relation with its observers. He defined four characteristics, which determine the quality of environment: legibility, building the image, identity and imageability. The analysis of the elements of Image of the City (paths, edges, districts, nodes and landmarks) can reflect some of important aspects of city view (concentration of separate elements, the lack of certain elements and etc.).

- *Evaluative Image of the City*. In principle, this theoretical framework (Nasar, 1997) continues theory of K. Lynch. The main difference is that instead of analysis of separate elements, Nasar suggests the overall qualitative assessment of cityscape. The high-quality cityscape, defined as "likable", should have certain attributes (naturalness, upkeep/civilities, openness and defined space, historical significance/content and order). These attributes are also very important in the evaluation of holistic cityscape identity.

- *Model of Locus' Cultural Identity*. V. Petrušonis (2004) claimed that cultural identity is usually reflected via physical environment and the common language is needed in order to understand and to maintain that local identity. Dynamic Thesaurus semantic dictionary has been chosen as an analogy of the model of the cultural identity. There are two elements of Thesaurus – concept and sign. It is possible to evaluate changes in locus' cultural identity by calculating frequency counts, stability or uniqueness coefficients for the concepts and signs.
- *Space Syntax*. It is a set of theories and techniques conceived by B. Hillier and J. Hanson (1984) and based on graph theory. The research object is usually open urban spaces. The main idea of the method is that spaces are broken down in separate components, which later are analyzed as the networks of choices. The control, integration and connectivity of the networks and the depth distance of space can be estimated by employing the analysis of space syntax.
- *Fractal analysis*. Fractal structure often found in the natural environment is characteristic of the city as well. All the cities, as well as the natural structures, have a certain level of irregularity and chaos; can be characterized by an abundance of scales and self-similarity in different scales, and, no matter how thick they become, cannot completely fill the allocated space (porosity feature). For this reason, urban structure is more and more often analyzed as a fractal (Batty and Longley, 1994; Salingeros, 2005 and etc.). The display of fractal characteristics in the structure of the city can reveal such dimensions as the naturalness, complexity and vitality (level of integration). Well-developed software of Fractal Analysis allows precise quantitative evaluation of very complex data.
- *Assessment of Landscape Spatial Structures*. M. Purvinas (1983) developed both qualitative and quantitative methodology for assessment of visual spaces. Originally it was created as basis for the evaluation of environment quality and overall psychological and aesthetical potential. However, it can also quite well reveal some dimensions of cityscape identity, because such issues as character of spatial structure, naturalness and variety are considered.
- *Analysis of Landscape Visual Characteristics*. This theoretical model was created by J. Bučas (2001) to evaluate the composition of landscape. The optimal landscape composition should possess compactness, hierarchy, proportions and complexity. All these elements are also very important to define the objective character or identity of the place. Therefore, the methods of this theory (like graphical analysis, geometry calculations or frequency counts) can also be applied in the assessment of holistic identity of cityscape.
- *Videoecology*. The interest of the environment lies in its complexity. However too neat cityscape can become too boring for the observer. Therefore, V. A. Filin (1998) developed ecological assessment of visual environment in order to find out homogenous, comfortable and aggressive environments. This theory could also be applied to define the relation between people's attachment to the place and the amount of information that place provides.
- *Attractiveness and Cognition of Aesthetic-Informational-Emotional Patterns*. This methodology was formulated by N. Salingeros (2006) and is closely related with the previous one. The main similarities are that the environmental impact on humans is also explored by the estimation of the

amount of visual information and by defining how that information is organized. Salingaros distinguished two characteristics of complex structures: temperature (shows the level of complexity, diversity and information (T)) and harmony (reflects the correlation among compositional objects (H)). These characteristics allow calculating of the indicators for the comparison of optimality of visually perceived objects: the interest of structure (L) and the inner complexity (C). The importance of this methodology for our research is that it reveals some relations between legibility dimension and dimensions of the overall structure (diversity, harmony, complexity and interest).

- *Visual identity of the city.* This methodology is based on a case study of Vilnius city (Daunora et al, 2004). There is suggested a system of indicators, which should be regulated in order to preserve the visual identity of city. The system includes: social, economic, cultural, political, juridical, proprietary indicators (morphotype of building-up), physical indicators of building up (projected height of background) and creative-artistic criteria (territorial distribution of high-rise building and the character of building up). This methodology combines analysis of graphical sources, mapping techniques, geometry calculations and other qualitative and quantitative methods.









































- *Traditional Analysis of Urban Morphology.* Urban structure consists of natural determinants and human made determinants. These determinants are the research objects of traditional urban morphology. The analysis of street, plot and building patterns are done by identifying their density, intensity, height, character and shape of the patterns.

How all of the discussed theories interact with our distinguished concepts and their dimensions are visible in the Table 2.

One of our tasks also was to find out types of methods which are used to evaluate objective or subjective cityscape identity and to check if we could combine some of them together. Methods can be classified into *qualitative* (descriptive analysis or qualitative comparative analysis) and *quantitative* (structural comparative analysis and structural computational analysis). *Descriptive analysis* – is simple information collection without any clear structure; describing of main features. *Qualitative comparative analysis* – is listing and counting all the combinations of variables observed in the collected data. *Structural comparative analysis* – data is collected and analyzed by the pre-planned procedure. *Structural computation analysis* - analysis are carried out on the basis of numerical values. The previously discussed theories and their methods are displayed in Table 3.

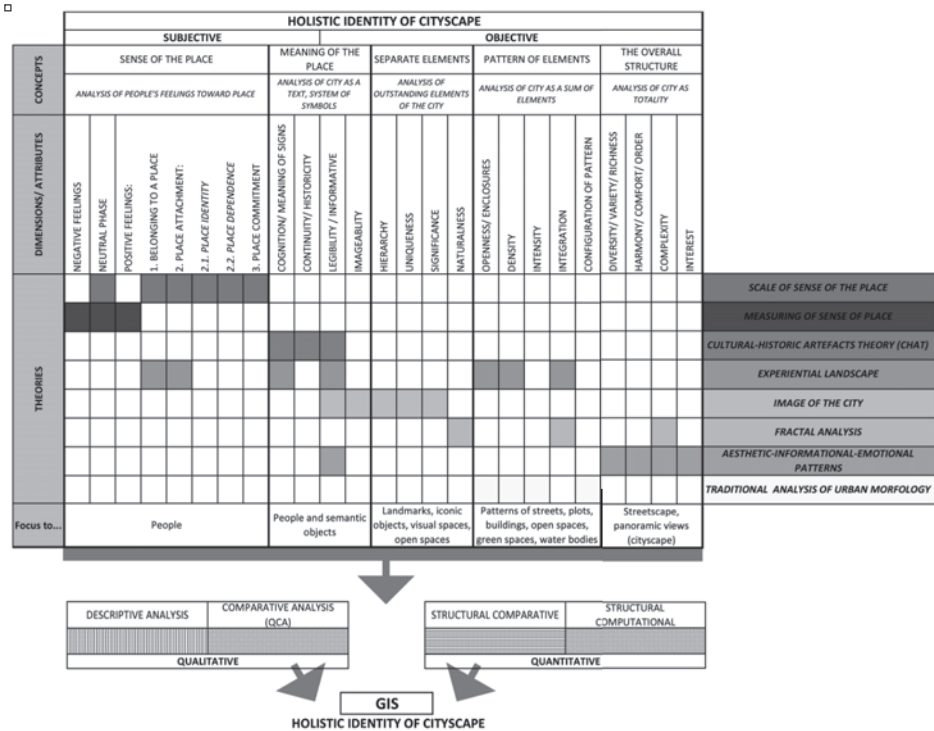


Table 3. Analyzed theories and research methods

THEORIES \ RESEARCH METHODS		DESCRIPTION OF SITUATION	INTERVIEW: 1. EXPERT OPINION (EO); 2. PUBLIC OPINION.	QUESTIONNAIRE SURVEY	BEHAVIOR OBSERVATION: 1. NATURALISTIC OBSERVATION; 2. CONTROLLED OBSERVATION.	INTROSPECTION	GRAPHICAL ANALYSIS PHOTOS, MAPS, VIDEO AND ETC.	MAPPING	NETWORK ANALYSIS GRAPH THEORY	GEOMETRY CALCULATIONS	FREQUENCY COUNTS
IDENTIFICATION WITH PLACE SCALE				4							
SCALE OF IDENTITY			3	4							
MEASUREMENT OF PLACE ATTACHMENT			3	4	3, 4						
SCALE OF SENSE OF THE PLACE			3	4							
MEASURING OF SENSE OF PLACE			3	4							
BREAKWELL'S IDENTITY MODEL			2, 3	4	2, 3, 4						
URBAN IDENTITY SCALE			2, 3	4	2, 3, 4						
PREFERRED ENVIRONMENT/ LANDSCAPE PERCEPTION		1	2, 3	4	2, 3, 4	2, 3, 4	2				
URBAN SEMIOTICS		1	1, 2, 3			1, 2, 3					
CULTURAL-HISTORIC ARTEFACTS THEORY (CHAT)		1	1, 2, 3		1, 2, 3	1, 2, 3					
EXPERIENTIAL LANDSCAPE			2, 3		2, 3	2, 3	2	2			
IMAGE OF THE CITY		1	1, 2, 3		1, 2, 3	1, 2, 3		2, 3			
EVALUATIVE IMAGE OF THE CITY			2, 3			2, 3		2, 3			
MODEL OF LOCUS' CULTURAL IDENTITY			3 (EO)				2	2, 3			4
SPACE SYNTAX								3	4		
FRACTAL ANALYSIS										3, 4	
ASSESSMENT OF LANDSCAPE SPATIAL STRUCTURES							2	3		3, 4	4
ANALYSIS OF LANDSCAPE VISUAL CHARACTERISTICS							2	3		3, 4	4
VIDEOECOLOGY							2			3, 4	4
AESTHETIC-INFORMATIONAL-EMOTIONAL PATTERNS							2			3, 4	4
VISUAL IDENTITY OF CITY							1, 2	2, 3		3, 4	4
VISUAL CHARACTER OF LANDSCAPE							1, 2			3, 4	4
TRADITIONAL ANALYSIS OF URBAN MORPHOLOGY		1	2, 3 (EO)				1, 2	2, 3		3, 4	
QUALITATIVE	1-DESCRIPTIVE ANALYSIS										
	2-COMPARATIVE ANALYSIS										
QUANTITATIVE	3-STRUCTURAL COMPARATIVE										
	4-STRUCTURAL COMPUTATIONAL										

4 Hypothetical model of evaluation of holistic cityscape identity

After an overview of related theories and methods, we decided to select just the most relevant, comprehensive and clear theories, covering all established dimensions and attributes, as a basis for the hypothetical model of holistic cityscape identity evaluation (see Figure 2).



Methodological approaches *Scale of Sense of the Place* (Shamai, 1991) and *Measuring of Sense of the Place* (Shamai and Ilatov, 2005) were chosen because all dimensions of Sense of the Place can be revealed quantitatively by integrating these two scales in the questionnaire surveys. The methodology of *Experiential Landscape* was chosen as complementary approach, which combines dimensions of both objective and subjective identity. Also the methods used here are complex: sociological surveys and mapping. Meanwhile, *Cultural – Historic Artefacts Theory (CHAT)* (Cole, 1998) was selected as the main theory concerning our concept Meaning of the Place and having the clearest substantiation for both qualitative and quantitative assessment. The theory, profound for assessment of Separate Elements of the cityscape, is *Image of the City* (Lynch, 1960) therefore it was selected as well. Fractal Analysis was chosen for the model in order to reveal dimensions of complexity and naturalness quantitatively. Feasible quantitative evaluation of dimensions of The Overall Structure led to the selection of the methodology of Aesthetic-Informational- Emotional patterns (Salingaros, 2006). Finally, we decided to apply Traditional Analysis of Urban Morphology in order to reveal physical characteristics of Pattern of Elements. Results of all these theories can be stored as values of attributes in GIS and then it is possible to perform different types of analysis (e.g. spatial distribution studies, statistical analysis, data overlay and etc.).

## 5 Conclusion

The aim of this paper was to propose theoretical framework for the complex evaluation of cityscape identity, which could reveal both objective and subjective facets of holistic identity. We noticed that there are a lot of different approaches concerning phenomenon of identity in scientific literature. Therefore we have distinguished the main concepts of cityscape identity and defined dimensions with attributes for each of these concepts. Then we overviewed the theories and methods, which are related with our distinguished dimensions. Finally, we selected the most relevant, comprehensive and clear theories and methods (the results of which can be stored, integrated, displayed and analyzed using GIS) for our hypothetical model of evaluation of cityscape identity.

We believe that further research, employing our suggested theoretical model, could not only reveal comprehensive identity of cityscape, but also determine the relationships among the different dimensions more precisely (e. g., which dimensions of objective identity with what certain values and how significantly influence the dimensions of subjective identity of cityscape?). Such establishment of coefficients for each dimension could be very effective not only for assessment of existing identity of cityscape but for its development as well. As Tung (2001) noticed, both the preservation of present peculiarities and the further development of the city are equally important issues of urban design. Despite that there is stillroom for improvement; we believe that this theoretical model for evaluation of holistic cityscape identity is a reasonable starting point for the future.

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# Affect and Intimacy in Generative Places

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Inspired by technoscientific insights from Karen Barad, Donna Haraway and Gilles Deleuze, this paper will discuss affect and intimacy and how they fuel generative places. The paper starts off through a short story about a series of events around a square in Europe. The events taking place at the square serve as input to discuss (digital) media in terms of effects and affects. Our short story recurs throughout the text, providing real-life examples in our discussion.

By introducing landing sites (Arakawa & Gins, 2002, pp. 5) and happy objects (Ahmed, 2010), we present an alternative on how to understand what happens when (digital) media is made part of our everyday lives. This is in contrast to how (digital) media traditionally have been studied as something separate from the natural and the real, and as artifacts aimed to solve predefined problems with ready-made affects and effects.

The paper wraps up by combining landing sites and happy objects in an attempt to create a theoretical foundation to a design framework for a recently started research cooperation with a regional museum. The framework emphasize on understandings of affect and intimacy in generative places.

**Keywords:** landing sites; happy objects; intra-action; affect; intimacy.

## 1 Background

We were standing at a bus stop at a square in central Berlin. There is a public work of art nearby. The artwork represent three human(ish) figures trying to peak through holes in a wall - and it was quite clear that the wall is supposed to be the Berlin wall.

There were a lot of people stopping by, interested in something on the other side of the wall. They crouched by the wall looking for something in the bushes. As it happened, the three art figures came to look down on the people crouching on the other side - a peculiar sight.



Figure 1. Public artwork in Berlin.

We were puzzled. What were they doing? They did not seem even remotely interested in the artwork, with their full attention directed toward something in the bushes. We were watching the whole scenario from across the street. After a while, when we had seen several groups of people stopping by the artwork, poking around in the bushes, we finally got the point. The artwork was a location (geocache) for geocaching<sup>1</sup>. The geocache was probably chosen because of the work of art, but the people engaged in geocaching did not seem to be interested in the art, only in the location as a geocache.

Inspired by post-humanistic insights from Karen Barad, Donna Haraway and Gilles Deleuze, this paper will discuss affect and intimacy and how they fuel generative places. The short story presented will be used as an example. We will specifically use the concept of landing sites by Madeline Gins and Shusaku Arakawa (2002, p. 5 ff) and the concept of happy objects by Sara Ahmed (2010).

The paper starts by questioning how (digital) media traditionally have been studied as something separate from the natural and the real, and as artifacts aimed to solve predefined problems with ready-made affects and effects. This is apparent even in how we denote some things as virtual reality, augmented reality, etc. The paper then introduce landing sites and happy objects to present an alternative view on how to understand what happens when (digital) media is made part of our everyday lives.

As all events in our short story unfolded at a square, let us start by contemplating: “what is a town square supposed to generate?” It’s not that easy to give a straightforward answer to the question or to come up with a definition on what makes a town square. The similar question: “what is a museum or a learning environment supposed to generate” is more obvious although it may encompass as much complexity. A museum thought upon as a learning environment has an overall purpose to generate learning for a lot of different individuals. But what would be the equivalent of a town square? Each time we try to answer the question we end up with it depends on who, what, when, and so on.

From a European perspective, the town square is a place with strong public connotation, a manifestation of the public sphere. The public sphere as a place may be thought upon as a place that is supposed to generate meetings between people “in which strangers, comrades, friends and acquaintances can talk about issues of concerns to themselves and the wider community, grants individuals the opportunity to reflect upon the world, their relationships with others in it, and possible solutions to perceived ills” (J, Roberts, 2008). Could the town square and it’s open purposes give us inspiration to a place that opens up for different individuals with different experiences to meet and generate knowledge?

First let us start by elaborating on media technologies in terms of affect and effect.

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<sup>1</sup> Geocaching shares similarities with orienteering but is often considered a game instead of a sport. It is an outdoor activity where people navigate using the Global Positioning System (GPS) to find hidden urban or rural “caches”. A typical cache is a small waterproof container containing a logbook in which the geocachers enter their name and date of discovery.

### 1.1 Media as intentional effects

The development of digital media has traditionally been practiced with a linear approach. Design precedes use and the designed artifacts are thought upon as a result of solving problems with predetermined objectives or intended effects (see eg. Ehn, 2008, 2011). These processes are based on a Cartesian causality idiom where cause precedes effect, often with sharp distinctions between concepts such as fact and fiction, body and mind, and nature and culture. In terms of digital media this is made distinct in the way processes are organized in a design-implementation-use chain. Pre-production precedes production that precedes post-production, which in the end are supposed to culminate in specific intended effects in use.

By looking closer into the concept of effect we find that it is widely used interrelated to affect. A general use of effect is as a measurable result based on a predetermined objective. Another use is found in medical contexts, i.e. drug effects or side effects. In (digital) media effect often refers to how technology can be used to reinforce media expressions, i.e. special effects, sound effects and light effects. It is also interesting to note how personal effects denote a person's belongings.

Affect on the other hand is contemporary mostly used to describe a person's mood, often also in relation to strong and short-term emotional expressions. Affect is also a more general way to denote how something influence something else, although this something else in most occasions is a person or group of persons, which can be compared with the use of effect as in drug effects.

In sum, although the two are mixed in everyday use, effect is in most situations a noun whereas affect is a verb. Thus, affect is a transitional verb describing some kind of change of state and effect is the resulting change of properties or capacities in the new state.

It is tempting to think about the distinction of the two in a modernistic way with a Cartesian approach to cause and effect. In this view affects are tied to intrinsic properties or capacities in objects leading way to specific predetermined effects. Thus, affects can be implemented into objects through a linear process of design that ends up in specific predetermined measurable effects at use time. However, with a technoscientific point of departure using Karan Barad's agential realism (Barad, 2007), a linear approach to design becomes obsolete.

### 1.2 Media as material-discursive practices

Karen Barad has presented us with agential realism, an onto-epistemological philosophy that change the way we understand the world in its becoming (Barad, 2003). Originating from Niels Bohr's physics and several technoscientific insights, agential realism is a direct challenge to representational metaphysics, instead promoting a performative metaphysics. Essentially, agential realism shifts the primary epistemological unit from (independent) object to phenomena. This has a profound effect on understandings of epistemology, ontology and, for this paper more importantly, it provides a path away from linear approaches to design and (digital) media. Barad introduce material-discursive practices in which we intra-act in ongoing enactments.

In summary, the universe is agential intra-activity in its becoming. The primary ontological units are not "things" but phenomena—dynamic topological reconfigurings/entanglements/relationalities/(re)articulations [...] This dynamism *is* agency. Agency is not an attribute but

the ongoing reconfigurings of the world - Karen Barad, 2003, p. 818 (the author's own emphasis)

Note specifically how Barad switch terminology from interaction to intra-action. This means that actions are not transacted between distinct independent entities. Actions are enacted as internal arrangements in context. With material-discursive practices we do not obtain knowledge by observing properties and characteristics of independent entities. Knowledge is (re)enacted in the practices where it become meaningful. Instead of using interaction between distinct entities to understand causality, Barad keeps within ongoing phenomena.

[T]he agential cut enacts a local causal structure among "components" of a phenomenon in the marking of the "measuring agencies" ("effect") by the "measured object" ("cause").

Hence, *the notion of intra-actions constitutes a reworking of the traditional notion of causality*.- Barad, 2003, s. 815 (the author's own emphasis)

Unlike a Cartesian cut where an immanent distinction between subject and object, an agential cut is an enactment that define relata (what is related to one another) and relations within phenomena. Thus, relata are not meaningful before (and without) its relations. Both the relations and relata are (re)enacted in material-discursive practices that produce and set boundaries for knowledge.

Neither affects nor effects are predetermined and built into media artifacts. What is made meaningful as an effect, the affecting subject/object, and the affected subject/object is enacted in each situation. This does not mean that we can't presume certain affects and effects. Of course we should expect a lot of recurrent situations in which we properly enough can anticipate affects and effects. Situations, which we are familiar with, will most probably enact affects and effects in much the same way. As an example, with sounds we can make most people feel discomfort or make them jump in scare. The important point here is not to ascribe this recurrence as static relations between distinct subjects/objects.

In media studies this means that knowledge about the affects and effects of media is not a quest for collecting evidence to general definitions on intrinsic properties or characteristics of media artifacts. Using the public artwork as an example, instead of thinking about it as having different properties built in that affect people, the subjects/objects, affects and effects (i.e. geocaching, tourists, art, etc.) are (re)enacted based on how they intra-act. If it is a work of art or a geocaching location, a tourist or a geocacher, is made meaningful based on their relations with one another, and with guidebooks and smart phones. Nothing would rule out a tourist from geocaching, but what is he/she then? A geocacher or a tourist or both? It's not predetermined, it's all enacted in place which also (re)enacts the public work of art as a geocache or tourist attraction.

To understand what drives these different enactments, some of which seems to be bound to artifacts in some way and recur frequently, we will bring in landing sites (Arakawa & Gins, 2002) and Sara Ahmed's happy objects (Ahmed, 2010).

## 2 Landing sites and happy objects

Landing sites is a concept introduced by Madeline Gins and Arakawa (2002). We find landing sites to be a suitable way to talk about media studies and design when we assume Barad's agential realism as our (onto)epistemological foundation. Like Barad, Arakawa and Gins does not make a pre-existing separation between subjects and objects or causes and effects. As architects, Arakawa and Gins inevitably deals with persons which is one reason why their concept is fitting to media studies which of course also deals with persons.

A person to Arakawa and Gins is always determined together with its surroundings. What Barad would call the world's becoming in ongoing intra-activity, Arakawa and Gins presents as co-originating landing sites. Let us return to the square. The events taking place around the public artwork are all examples of landing sites. During the short time of the events, the site inhabits a multitude of landings. Landing sites emerge through and within other landing sites. Depending on what is perceived a landing site may be taken as complete or as part of a larger landing site. For each landing site there are multiple lines of attention and affect. Attention and affect is the fuel that vehicles a particular landing of a site. Landing sites are temporary, although they vary greatly in space-time extent. Understood through the complex procedure of landing a site, (digital) media need not appear as separate layers or objects.

When comparing tourists and geocachers, they are involved in both the same and different landing sites. The tourists as well as the geocachers form landing sites with the artwork as an object of attention. They are however are vehicled by different lines of attention as they are in arrangement with either city guidebooks or smart phones (with geocaching applications). Put In other words, "the world one finds in place lends itself to being mapped by means of a multiple, complex siting process or procedure" (Gins & Arakawa, 2002, p. 7). It is through these complex-siting procedures we find ourselves affected by some things rather than others. We are close to some things and we are familiar with some. This is all part of the landing sites. As Sara Ahmed notes, "To be affected by something is to evaluate that thing. Evaluations are expressed in how bodies turn toward things. To give value to things is to shape what is near us" (Ahmed, 2010).

But being close to is not just a physical quantity. When we are close to, in touch with, or being touched by something, we are being affected by that something which puts us into an intimate relationship. At the square, attention is partly directed due to the presence of different objects. The work of art, city guidebooks and smart phones are examples of this, exemplifying how objects can affect in contingent and contagious ways. Being affected by an object can also make its surroundings affective. Places where we encounter happy objects can become familiar and we remember being happily affected. As such, affects can spread in contagious ways.

A short distance away from the statue, next to a water fountain, a young girl is eating an ice cream. The ice cream forms a landing site together with her hand and mouth. In the time from the forming of the landing site until the ice cream is eaten, the site inhabits a multitude of landings. There is the girl's father who cannot keep his attention away from the hand-ice cream-mouth site, because he is prepared to wipe clean the girl's clothes in case of an accidental spill of ice cream. There are also other children forming landing sites with their attention on the ice cream jumping in expectation for their own.

The ice cream can be thought upon as a happy object in the sense of Sara Ahmed. It can serve as fuel for attention and affect. It is an object that affects, capturing the attention of people nearby. All generative places are transversed by landing sites creating affects and effects through happy objects. What is important to note here is that where there are happy objects, there can also be unhappy objects. The children at the square who do not get an ice cream of their own will still be affected, but most likely in awe. This awe will then generate thoughts about why that girl got ice cream and not me. People with diabetes might also not be affected by the ice cream as a happy object. To become intimate with an object or place we have to be directed towards it and be able to experience it as being pleasurable or good. If we do not manage this we become alienated.

The gap between the affective value of an object and how we experience an object can involve a range of affects, which are directed by the modes of explanation we offer to fill this gap. If we are disappointed by something that we expected would make us happy, then we generate explanations of why that thing is disappointing [...], which can lead to a rage directed toward those that promised us happiness through the elevation of this or that object as being good. We become strangers, or affect aliens, in such moments. – Sara Ahmed, 2010, p. 37

Thus, (un)happy objects are able to capture attention and generate a range of affects, which also spread in contagious ways and can become vested in a place. But it is not the feeling of (un)happiness that is passed around, it “would simply mean you would share an orientation toward those objects as being good.” (Ahmed, 2010, pp. 37-38). Each person will still be part of its own and shared landing sites in which they interpret and thus creates their world.

### **3 Affect and intimacy - the start of a design framework**

The main aim of this paper has been to lay the foundation to a design framework using theories for affect and intimacy. What can we make of these theories? Coming back to the question posed earlier: “what is the purpose of a museum?” we now have a few building blocks to start with.

In our recently started cooperation with a region we are going to set up several projects. Some will study existing objects, events and activities at the museum, and others will aim to design new things. With the theories presented we need to deviate from a typical linear understanding of design. For this we find inspiration from two practices. The first is the practices of Arakawa and Gins where they, starting from landing sites, quest for an architectural body. The second is the research and practice of Pelle Ehn in which he for decades have been elaborating on participatory design.

In their practices there is no predetermined boundary between design and use or designer and user. This is different from traditional design practices where the designer is the one creating the object of design which is later passed on into use for the user.

We can note from Sara Ahmed that objects, although designed to be happy ones, if the user is not able to traverse the gap between affective value and the experience of it, the user can start to self-doubt or even turn in rage (Ahmed, p. 37). So instead of thinking about a design project

in a fixed linear way with subsequent phases in which the object of design is an artifact to be produced, we “might rather look for the performative ‘staging’ of it” (Tellier, 2011).

A question that remains is then how we should go about to “stage” an initial object of design, how do we get design going? We find part of the answer from Arakawa and Gins, and Ehn.

In Pelle Ehs own words, “At project time the object of design is to produce a public thing open for controversies from which new objects of design can emerge in use. [A] public thing which potentially by the meaning making of its users can make its way into their life-worlds and already existing ecology of devices” (Ehn, 2008, pp. 13, 15).

In Arakawa and Gins own words, “Tactically posed surrounds should be designed for the purpose of making landing-site dispersal (disposition/placement of sited awareness) readily noticeable”. Tactically posed surrounds should be designed for the purpose of altering the proportions in which different types of landing sites are dispersed.” (Arakawa & Gins, 2002, p. 99).

For all of them, the main purpose of an architecture<sup>2</sup> or of design is not a predetermined goal, as if solving problems. Instead, the purpose is for the architecture or design is to present participants with an environment in which they themselves can experience existing and imagine new affects and happy objects with which they can become intimate.

This will be the starting point of our continuing research and design activities together with the museum. As a continuation of the started framework we will look deeper into Deleuze’s theory of intimacy (Deleuze, 1994), especially to elaborate on his ideas on how intimacy can be transformative in extensive and intensive ways. It is of course very difficult so say that something has a greater level of intimacy than something else, but somewhere in this zone of gradual intimacy there is a transformation from something that changes only to a degree, to something that changes in kind (altogether).

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<sup>2</sup> Or architectural body as they call it since persons are part of it and vice versa



# Social reuse of Camorra confiscated properties: civic activation and collective goods

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The aim of this paper is to discuss the social activation strategies within the context of urban regeneration processes. In so doing, the research focuses on territories managed by criminal organizations such as “mafia” and “camorra”, where the planning process needs to deal with a complex system of interests, constraints and risks that compromises transparency and effective procedures of social self-promotion. In these areas, communities are challenged by criminal activities, also suffering the inadequacy of the public sector in guarantying basic social services and accessible public spaces. In order to deal with this issue, the research focuses on civic practices activated in properties - such as buildings, farms and companies - confiscated to camorra. The Italian law system on organized crime states that the residential and productive buildings seized from organized crime should be reused for beneficial purposes and for social services managed by NGOs with social scope. The aim of this approach is twofold: on the one hand, it should respond to the demand of services and public spaces for segregated communities, on the other hand it could support an emancipatory process from territorial control of organized crime clans.

This issue, even if specific, could contribute to the discussion on commons by giving a new perspective and moving forward traditional dichotomies as top down/bottom up, community led/market led and private/public.

An excursus of the scenario in the Region of Campania and a focus on Naples have been developed in order to start the narratives.

**Keywords:** social inclusion; urban regeneration; confiscated goods; organized crime; Naples (IT).

## 1 Contested areas and social activation: elements for discussion

In literature and practice, frequently social activation experiences play the role of drivers for urban regeneration processes compatible with instances expressed by local communities. Considering the economic crisis scenario and the attacks to social guarantees system, a revision of *modus operandi* about collective goods and public places is very relevant – especially the role of bottom up initiatives with social purpose. In order to understand and explain this scenario, the CNR-IRISS research group has started a listening campaign for identifying, developing and sharing themes related to community building, civic activation, participatory processes, social initiatives related to commons (Carta, 2004; Esposito De Vita & Ragozino, 2013; Lepore, 2007; Habermas, 1991; Rodotà, 1978) and other expressions of bottom up regeneration processes of public places or places for public uses. The investigation has been oriented at collecting needs of local stakeholders and decision makers as well as the demand of public services and places by local communities in terms of accessibility, quality, fruition and interaction (Bonnes, Bonaiuto, Nenci, & Carrus, 2011; Esposito De Vita, Trillo, & Martinez-Perez, 2012). Furthermore, community engagement can be oriented not only at listening, interpreting and sharing but also at creating the humus for nourishing bottom up initiatives by supporting communities in investing energy, creativity and resources in spaces and public facilities of the area (Jacobs, 1961).

Within the context of mature experiences of social activation and participation in regeneration processes, the research group has focused on approaches and tools developed by

local communities in order to promote sense of belonging to places and the desire of being active subject in the transformation of the neighbourhood.

This paper deals with the topic of social activation for creation and management of collective goods from a different perspective: by investigating the process of reuse for social purposes of properties confiscated to the organized crime based in Southern Italy. This specific perspective is helpful to capture the role of social initiatives in forcing the criminal control of the territory and to understand how to support emancipatory processes in these deprived areas by developing dedicated policies and practices.

A novel approach to this topic need to deal with gaps related to the peculiar productive system threatened by crime syndicates, to the abandonment and decay of the cultural heritage, to the high unemployment rate, to the lack of accessible public places and services as well as a widespread mistrust of local communities in institutions and political establishment.

These gaps are associated with opportunities and resources, such as, the natural and cultural environment, the high population density and the high young rate, a rich context of social enterprises and other social initiatives and a strong local tradition in food and wine production. In this context, the reuse of public properties confiscated to the organized crime could play a pivotal role in enhancing the quality and accessibility of public places and services, in favouring the expulsion of crime activities, in encouraging the emancipation of local communities as well as in rebuilding the image of well known "crime zones".

The confiscated properties consist of financial patrimonies, buildings and areas with residential and productive use resulting from criminal activities. After the seizure, the economic activities including sectors such as industry, agriculture, hotel industry, restaurant and catering services starts being administered by the courts during the judicial process. After this process, each property need to be redeveloped for public services (i.e. schools, public offices, police stations, ambulatories) or dedicated to social initiatives, according to the local needs and the resources to be invested.

This procedure needs to be carefully managed due both to the risk of mafia infiltration of the reuse process and to the necessity of guaranteeing the survival of economic activities in areas challenged by the lack of job opportunities.

Another important aspect to be considered is the symbolic meaning of transforming a former mafia property in a place dedicated to public services and/or social initiatives: a sort of moral compensation for checkmated communities. The main challenge is to contribute fighting against the organized crime by involving local communities in alternative proposals.

The first part of the research has been conducted within the framework of the EU 7FP funded project Besecure, oriented at developing an early warning system for urban security based on preventive and proactive initiatives. By investigating practices and policies directly or indirectly dedicated to managing security and preventing crime, the CNR unit has selected the management of confiscated goods as pivotal policy to be analyzed in order to capture gaps and opportunities of promoting and supporting community-led initiatives and social enterprises in a complex emancipatory (from the mob's control) process. The dialogue with key stakeholders, security operators, local authorities, representatives of social enterprises and other non-profit subjects

involved in the management of these goods, as well as communities and end-users, forms part of the second step of the research process. The resulting picture of societal relationships, funding opportunities, social impacts and reclaimed areas will be implemented within a pilot proposal for enhancing local empowerment policies and emancipatory planning strategies<sup>1</sup>.

In order to start the narrative, in the first part of the paper the issue was matched with the legal and procedural scenario of the Italian Anti-Mafia Law System with a focus on the region of Campania context.

In the second part of the paper, the fieldwork has been dedicated to frame dimension and composition of the phenomenon of confiscated goods. It has been analyzed by addressing the following aspects:

- typologies of confiscated goods,
- management models,
- source of funding,
- stakeholders roles,
- activities developed,
- community involvement, and
- urban regeneration opportunities and effects.

By combining these aspects, the main categories of initiatives for producing public places and services by reusing confiscated assets have been identified and discussed in the third part dedicated to the Campania scenario.

The conclusions will discuss how the resulting scheme has been implemented in the incremental procedure for recasting the guidelines for emancipatory policies and practices in contested areas to be regenerated.

## **2 Fighting against organized crime in Southern Italy by enhancing community-led initiatives**

The reuse of confiscated goods, even if very specific, could contribute to the debate on public spaces by offering a different perspective on cooperative public-private initiatives for local regeneration.

Fist of all, we need to frame the context of the matter. In the European planning scenario, (real and perceived) urban security is one of the central topics for transnational, national and local policies and strategies oriented at promoting virtuous urban regeneration processes (Osservatorio Europeo sulla sicurezza, 2013). Many European cities are dealing with an increase in crime and instability problems fuelled by the worldwide economic collapse, the geopolitical and religious conflicts, the increasing of organized crime activities as well as the globalization phenomena (Sassen, 2001). As a result of increasing inequalities, social deprivation, illegal migrations, unemployment rates and other societal challenges, public awareness of social vulnerability to the

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<sup>1</sup> The first two phases of the fieldwork have been developed in the framework of the European project Besecure. The results of this empirical phase have been implemented in the Inspirational platform: a repository of practices and experiences for urban security in Europe; the third phase of the research, specifically related with the confiscated goods, is still ongoing.

crime organizations has increased and the public is putting more priority on addressing these problems with integrated approaches and competencies (Acierno, 2012; Shaftoe, 2008).

Traditionally, in order to deal with phenomena related to organized crime, such as predatory crime, drug trafficking, human trafficking and prostitution and other illegal businesses, different profiles of command and control approaches have been applied (Bauman, 2005; Patalano, 2006). More recently, security strategies have been oriented to promote integrated approaches and practices for prevention, perception and control (Caneppele & Calderoni, 2014). In this framework, the experience of Naples in Southern Italy, offers a wide range of themes for the discussion about crime and its impact on the everyday life, on the social and economic environment.

Starting with the consolidated literature on urban security issues within the framework of urban planning processes, an integrated approach has been applied in order to capture the complex web of relationships among urban patterns, crime profiles and social-economic scenarios.

The specific context of Southern Italy and its issues related to organized crime - the so-called Camorra - need to be investigated by integrating different issues, approaches, tools and policies (Brancaccio, 2009). The research protocol has been adapted to the specificity of the Italian context in order to offer a specific perspective of consolidated phenomena to be shared with other European contexts, in which the same phenomena are at an early stage. According to these premises, the case study area in region of Campania has been selected by overlapping physical boundary conditions related to build environment factors, administrative conditions as well as legal, political and societal boundaries related to strategies and policies, finance and investments, and best practices.

This approach has allowed us to define the case study area; in Southern Italy, the security strategies are related to the safety demand of local communities in everyday life and to the legal demands of entrepreneurship systems whose activities are threatened by criminal organizations such as camorra, mafia and 'ndrangheta (Di Gennaro & Ferracuti, 1987). In this framework, the main security issues recognized as priorities to be dealt with from the cultural and operational point of view are related to organized crime and its impacts on the local economic system and the everyday life: drugs trafficking, racketeering, arsons, riots and homicides due to organized crime.

Beyond the violence in the streets, there is also the presence of camorra in managing economic activities for money laundering, bid rigging in public procurement and, in general, for controlling territory and communities who live there.

However, the main issues that affect the security scenario are the different expression of organized crime with changing patterns, designed to strengthen the local roots combined with a high capacity of camouflage in order to infiltrate into the business and financial system. The recent expression of those criminal organizations is twofold: an armed force for controlling the streets and the illegal trafficking activities locally, and an international company organization for money laundering and legal and illegal business investment spread around the world.

The city of Naples (Napoli) is located in Southern Italy (Campania Region), is the third-largest city in Italy and can be considered the urban core of a three-million-inhabitant metropolitan area. Its port is one of the most important ports in Italy and in the Mediterranean basin in terms of goods and passenger traffic, and is becoming the most important one for cruise traffic. Naples has

one of the highest percentages of young population (under 15 years) in Europe, representing a fundamental source for the economy of the city. The presence of five universities, the increasing of civic initiatives, the presence of social networks and the resilience of people in adapting behaviors and attitudes to the contexts are the added values of the social scenario in Naples.

Alternatively, the high population density produces congestion and decay along with other problems such as the high rate of unemployment; the poor status of the labor market directly links to the lack of private activities as well as the high rate of people with low levels of education and job specialization. The 'hidden' economy, represented by illegal or borderline commercial activities, can be considered a grey area in which organized crime can play a role in money laundering or racketeering. The issues related to the peripheries are multiple: the typical questions of each peripheral social housing project are coupled with the issues related to organized crime's territorial control. In neighborhoods such as Scampia, fortified areas have been established by transforming public spaces and common areas of some housing settlements for control purposes, in order to protect a retail-level drug market (Esposito De Vita, 2014).

According to the results of the fieldwork, the organized crime scenario in the Region of Campania requires a complex system of policies and strategies built on the integration of control activities, repression of crimes, prevention and education. All the official documents, laws and policies developed in Campania have been oriented to deal with the crime issues not only with command & control initiatives, but also by intervening in the education system, the territorial development and the urban livability and quality of life.

In this context, integrated urban security policies are based on complex networks of institutional actors whose cooperation converges on a multi-faceted project. The priorities of the law system are related to the cultural, social and economic context in which criminal organizations and deviant individuals operate and recruit new workforces (crime soldiers). Civic activation, community engagement, enhancement of quality of life, public safety, job creation, social cohesion and education on legality are considered preconditions for fighting crime. Furthermore, widespread social deprivation, unemployment and urban decay are credited with fueling the rise of cartels and other organized criminal syndicates as incentives for recruitment of young affiliates ('affiliati').

Frequently, young people in these deprived areas start perpetrating predatory crimes in order to be selected as 'soldiers', drug sellers or weapon trader within the context of a Camorra clan. The organizational models of the prominent Camorra clans have been compared to the typical entrepreneurial structure in the contemporary economic system: the system network (Direzione Nazionale Antimafia, Annual Report, p. 106).

The impact of Camorra-type activities on the local community and society is hard to calculate. The issues with the highest priority are: bid rigging in public procurement managed by organized crime; drug trafficking; extortion ('pizzo') and usury; human trafficking for prostitution and sexual exploitation purposes; violent crimes such as street killings, feuding among clans, and bombing.

Regarding policies, practices, programmes and other types of initiatives to fight crime, three emerging categories of approaches can be identified:

- Approaches oriented at enhancing the effectiveness of investigations and trials on the illegal activities of Camorra clans: big-data management, integration of resources, efficiency of the bureaucracy;
- Approaches oriented at preventing predatory crimes on the streets by combining territorial control, proximity with people and supporting the victims;
- Approaches oriented at cultivating and spreading a 'legality' culture and the awareness about the negative impacts of the organized crime on society.

The latter is interesting because of its relationships with the main definitions of emancipatory planning processes. In this framework, one of the pillars in the fighting against Camorra businesses at the regional level is the Pol.i.s. Foundation Integrated Policies for Security.

The project aims at protecting and supporting the innocent victims of crime as well as managing the illegal assets of the Camorra affiliates, confiscated by the Ministry of Internal Affairs, to be allocated for social uses benefitting the community. The management of confiscated assets is an important strategy against Camorra due to the symbolic meaning in affecting its economic interests and giving to challenged communities the opportunity to access services or spaces for developing social enterprises. This approach and the issues addressed, even if locally based and related to the historical presence of organized crime, could be interesting at the international level due to both the globalization of those phenomena and the resilience of the subjects involved.

### **3 Confiscated goods: gaps and opportunities for producing public places and services**

The Italian Law system about organized crime prevention states the seizure of properties of the members or affiliates of crime organizations. At the end of the trial, the financial assets flow into a special fund of the Ministry of Justice and the residential real estate and other buildings and properties are donated to local authorities. Local authorities may assign these assets to non-profit organizations which present a project of reuse for social purposes (ANBSC, 2012).

The seizure process is becoming one of the main tools for combating crime organizations: statistics demonstrate the «increasing in number of procedures for prevention related to patrimonies and the increasing of the amount of seizures and confiscated goods»<sup>2</sup> (ANBSC, 2012: 3).

The first attempt in this direction within the law system dates back to the 80s (Law 646/1982); after the mafia massacres in the 90s the Law Decree 399/1994 was adopted in order to enhance the possibilities of seizure of goods with illegal origin, also impeding criminals to access money and properties to sidetrack the investigation. The so-called "extended confiscation" introduced in 1994 allows the Court to subtract the illegal assets of which the convicted is unable to prove the legal origin. These assets thus begin to be remarkably large and require new regulations of use; by introducing the Law 109/1996, the legislator provides specific rules to regulate the process of social re-use, leading the confiscation to produce a sort of benefit for the deprived communities.

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<sup>2</sup> Original text «incremento del numero delle procedure relative alle misure di prevenzione patrimoniali e il crescente ammontare del valore dei sequestri e delle confische».

In a short time, the phenomenon is increasing in terms of number and variety of confiscated goods, suggesting the legislator to establish a specialized subject that deals exclusively with the management of the assets subject to seizure and confiscation for issues related to mafia (Law Decree 4/2010; Law 50/2010): the National Agency for the Administration and Allocation of Anti-mafia Confiscated Assets (ANBSC).

More recently, a new law (228/2012) deals with the complex matter of re-using confiscated assets by introducing tax benefits and procedural acceleration towards a greater effectiveness of the process.

During the empirical research, by interviewing key stakeholders and scholars in the field, some critical nodes emerged:

- The process from the confiscation to the permanent seizure takes a long time, it is complex and presents a number of obstacles and uncertainties due to the risk of mafia infiltrations;
- The costs for the refurbishment of the confiscated buildings need to be affordable for small local authorities and non-profit association;
- The confiscated business, such as farms, industries, restaurants and hotels, frequently collapse for both the bureaucratic difficulties in the transition to public ownership and for the necessity of converting to an activity legal and transparent.

Regarding the first question, the ANBSC supports all the subjects involved in the transition of the assets to public property, trying to protect the collective interest. Judges, judicial administrators, tax consultants and municipal officials shall follow the *iter*, guaranteeing the assets are not returned in the hands of criminals in disguise. The difficult and lengthy procedure, full of redundancies, is made necessary by the need to prevent mafia infiltration that would frustrate the intent of removing the asset to the crime for returning it to communities.

Regarding the second question, the confiscated moveable property (financial resources, jewelry, gold, money) comes directly to the Unified Fund for Justice (FUG) instead the real estate (houses, villas, industries, farms, and other buildings) are transferred to local authorities. Unfortunately, after the long process, abandonment and frequently vandalism by criminals, the buildings are often deteriorated and inadequate to new uses. The needs for refurbishment and for redevelopment are still a problem in deprived and poor contexts, with the lack of public and private investment.

**Table 1.** Goods, properties, company goods and their management.

Typology	Description and management models
Goods	Cash and cheques, liquid assets and stocks, personal credits (bills of exchange, bearer's bankbooks and so on), motor vehicles, boats and goods not included into company assets. As a rule, money confiscated or obtained from a sale are assigned to the management of others confiscated goods.
Properties	Apartments, villas, building and farm sites. The State can decide to use these properties for "purpose of justice, public order and civil protection" or transferring them to the fund of local government. The local institution can manage directly or assign them for free to associations, communities and volunteers. Properties confiscated for drug crimes, generally, are assigned to associations and rehabilitation centres for drug-addicted.
Company goods	Main sources of money recycled obtained by illegal affairs. Seizures and confiscations regard: building industries, agricultural and food industries, restaurants and pizza houses, nightclubs and commercial centres.

Source: Libera Associazioni Nomi e Numeri contro le mafie.

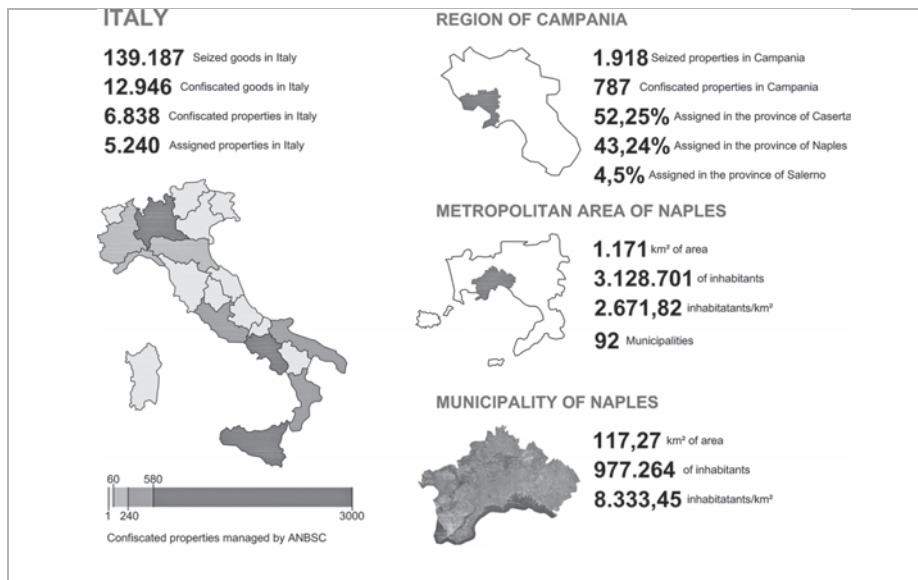
The third question is still a critical node; competitiveness and transparency in private business and in public procurements are challenging in territory controlled by camorra. The protection procedures could represents obstacles in promoting economic activities. For this purpose, an action for supporting the municipalities involved in the management of confiscated assets has been launched, funded by the National Operational Programme Governance and System Actions 2007-2013 (ESF).

This action has been assigned to the NGO Libera Associazioni Nomi e Numeri contro le Mafie, an association involved in activities against mafias ([www.libera.it](http://www.libera.it)), promoter of the project 'Action to support the municipalities involved in the management of confiscated assets'.

Regarding the categories of confiscated assets, there is a specific discipline (Tab. I); real estate properties are prevalently allocated as follows:

- Maintained as property of the State, for public purposes;
- Maintained as property of the State to be used by the ANBSC, for economic purposes;
- Transferred to the municipality where the building lies, for social and institutional purposes; the municipality can choose whether use it directly or give it as gratuitous concession to non-profit organizations for social uses;
- Offered for sale or reallocation on the market, particularly for companies and businesses.

Alongside the institutional activities managed directly by the courts there are the activities of support and facilitation of NGOs working in the area, assisting local actors in this complex process of reuse. Support and empowerment activities have been oriented at accompanying non-profit organizations, social enterprises and other local subjects operating in the third sector alongside the process of reuse.



**Figure 1.** Screenshot of National, regional and local framework

Source: National Agency for managing and destination of seized and confiscated goods to organize crime. Data updated to 28/02/2015.

The increasing amount of assets required, in 2009, an ICT tool for cataloguing, managing and monitoring data about confiscated assets, the so called SIPPI (Sistema Informativo delle Procure e Prefetture dell'Italia). Data about the last monitoring (28<sup>th</sup> February 2015) are reported in figure 1.

#### 4 The experience of Campania region

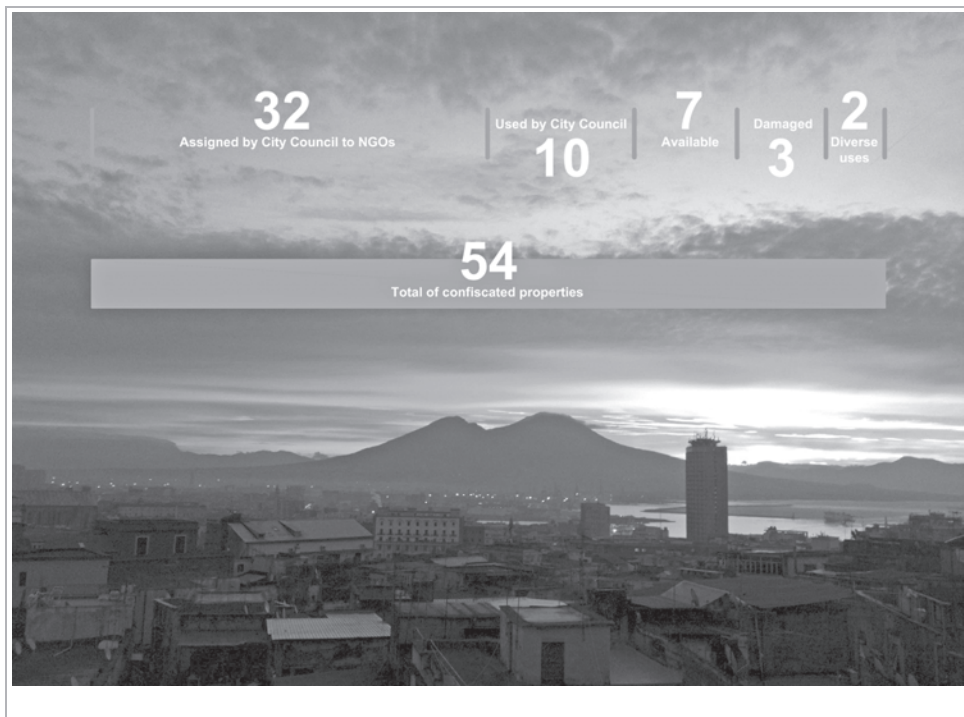
As we seen, the confiscated assets issue is relevant for the amount of the patrimony but also for the distribution of these goods in strategic territories for struggling against the organized crime and for activating civic reactions from the ground, involving people in a civic battle for legality in the everyday life. Nevertheless, risks and obstacles lie under the reuse processes, challenging the potential systemic impact of these actions. In order to capture gaps and opportunities, a fieldwork has been developed in Campania, one of the main regions in Southern Italy for organized crime presence on the one hand and for promoting reuse policies on the other.

Meeting lawyers, criminologists and urban planner, representatives of the law and order system, as well as representatives of local authorities, the research group has identified initiatives to be investigated and subjects to be interviewed, in order to understand gaps to be filled and success factors to be addressed. In the first phase of interactions, the researchers administered semi structured interviews to selected key stakeholders from the judicial and public security system as well as policy makers and local authorities. The results of the screening have been tested by interacting with the scholars in the field and the activists and social workers involved in the management of the confiscated properties.

The shared philosophy of each reuse initiatives analyzed is the awareness about the importance in fighting against camorra by addressing economic and financial aspects. The seizure of criminal assets has a twofold role: affect the economic power of crime bosses on the one hand and undermine the social consensus that these bosses receive in the territories they control, on the other. Both these aims help reducing the impact of camorra in the areas, in particular affecting their capacity in recruiting young "soldiers". The symbolic meaning of sharing with communities the former patrimony of criminals has been considered strong and valuable by the interviewees: it could be helpful in preventing illegal behaviors and restraining the camorra syndicate local activities.

During the survey of policies and practices of reuse of confiscated properties at urban level have been selected and extensively analyzed, focusing on proactive initiatives and results already consolidated. During this phase of the fieldwork an initiative emerged as one of the main experience in the field: the Pol.I.S. Foundation "Politiche Integrate di Sicurezza per le Vittime Innocenti della Criminalità e per i Beni Confiscati ([fondazionepolis.regione.campania.it](http://fondazionepolis.regione.campania.it)). The Foundation is the branch of the Region of Campania dedicated to the protection of innocent victims of crime as well as to the support and promotion di initiatives for the reuse of confiscated buildings (Fondazione Pol.i.s., 2008). The erection, the mission and the funding scheme of the Foundation have been established according to three regional laws: RL n. 12 (13<sup>th</sup> June 2003); RL n. 23 (12<sup>th</sup> December 2003); RL n. 11 (9<sup>th</sup> December 2004). The Foundation is both an institutional initiative funded by the Region and an association of NGOs active in fighting against crime; representatives

of associations, scholars in the field, representatives of the Lawyer Association and the Association of Psychologists, relatives of the innocent victims compose its governing body and support activities. In so doing, the Foundation plays both a role of territorial presidio of the institutions and a role of facilitators of interactions among stakeholders. The empowerment process of damaged communities' stems on technical support for the bureaucratic procedures and on communication initiatives.



**Figure 2.** Confiscated properties former Law 575/65 in the municipality of Naples  
Source: City Council of Naples, data updated to 16/01/2015.

The entourage and the broad range of participants in the activities of the Foundation guided the snowball process: meeting people, activists, and members of local associations and promoters of social enterprises involved in the main initiatives in the field.

In Campania different typologies of initiatives based upon the reuse of confiscated goods by combining civic activism and civic entrepreneurial effort can be recognized. Three macro-categories have been classified as follows:

1. Initiatives promoted by local authorities individually or in consortium
2. Initiatives promoted by non-profit associations by accessing public funds
3. Initiatives promoted by non-profit associations by investing private funds.

The first group includes experiences of different nature in which the local authority acts as a promoter and / or manager directly or through agreements with partners involved in non-profit social activities.



**Figure 3.** Confiscated property to camorra managed by Fondazione Pol.i.s., Villa Schiavone, Casal di Principe - Caserta (IT).

The Agency for innovation, development and homeland security Agrorinasce ([www.agrorinasce.org](http://www.agrorinasce.org)) belongs to this category. It is a consortium company constituted by Municipalities of San Cipriano d'Aversa, Casal di Principe, Casapesenna, S. Marcellino, S. Maria la Fossa and Villa Literno and created in order to cope with the economic and bureaucratic commitment of reuse initiatives. In the middle of the Ager Campanus, in an area that evokes echoes of crimes against the environment and of camorra feuds, the Operational Programme Security and Development in the South (Measure 1.3: Improving the systems Local Social) has triggered a process of empowerment called 'Terra di Lavoro: legality and Development' in order to stimulate local initiatives to promote and disseminate the culture of legality. These projects include libraries, community centers and information points in the partner municipalities that aim to compensate the shortcomings of historical spaces of youth aggregation, sports facilities and services for families. The job-creation initiatives converge towards the objective of proposing alternative models of life to those proposed by the Camorra clan and thwart, then, the recruitment strategies of criminals.



**Figure 4.** Murales by Italian artists painted in the "Circolo I Galantuomini" Sport Centre confiscated to camorra, Casapesenna – Caserta (IT).

The use for this purpose of confiscated properties is, in the opinion of all the parties consulted, a sort of compensation towards communities deprived by incumbent presence of the

clan that impede healthy life cycles of activities and at the same time a signal that an alternative is possible.

The initiatives enumerated in the second group are linked by typology of the promoter and / or manager and the financial procedures related to public tenders, to European funds and regional programming. One of the most active associations in these areas for the promotion of the social reuse of assets confiscated from the mafia is the association Libera ([www.libera.it](http://www.libera.it)). While not directly managing the confiscated properties, it has been held since 1995 in order to provide territorial animation and promotion of assets reuse. It also acts as mediator and guarantor of complex processes in which persons outside the criminal milieu receive assets and wealth of illicit origin and return them to citizenship, through services, promotional activities and social work. Another relevant aspect, which form objects of a Libera project, is the presence within the confiscated assets of cultural heritage: buildings of artistic value or artworks confiscated to organized crime which may become instruments of redemption and education regarding beauty.

The initiatives in this sense promoted by the Ministry of Cultural Heritage and Tourism and the Association Libera, in collaboration with the ANBSC, call for a reinstatement in the circuit of culture, art, tourism and education of confiscated property and sites marked by the violence of the Mafia. It may give new awareness to citizens and offer visitors from around the world an image of those places better suited to the realities of healthy and cultured territories.



**Figure 5.** Community participation to the event promoted by the National Association Libera.

In addition to these initiatives promoted by institutions, often on EU funds, and projects carried out by NGOs at the national level with a strong role of facilitating the community

empowerment, there are small size place-based initiatives with a strong local impact that belong to the third category.

One of these initiatives is the Multipurpose Community Centre La Gloriette, managed by the cooperative Orsa Maggiore in Naples in the property confiscated from the mafia. It aims to build pathways of autonomy for 'fragile' subjects included in a social and public health programme and to promote a culture of legality ([www.gloriette.it](http://www.gloriette.it)). The location of the center in a densely populated neighborhood of Naples and with high quality of the landscape is important for the promotion of virtuous cycle of reuse of confiscated goods.



**Figure 6.** La Gloriette Multipurpose Centre, Naples (IT).

The villa that hosts the center was built by Michele Zaza, the famous 'boss' of Neapolitan organized crime. It features a sumptuous, heavy and provocative style, typical of the camorra subculture with a stone mosaic depicting violent scenes and criminal symbols and a terrace overlooking the Gulf of Naples, surrounded by Vesuvius and Capri. This building, the gardens and the annexes small rural area are part of the huge amount of Zaza's properties confiscated in Naples, Rome and Milan. Following the seizure, the camorra clan managed by Zaza tried to access the property by using dummies; after the failure of these attempts, criminals have damaged and vandalized the building. During the refurbishment process by the social workers, many obstacles occurs: administrative illicit perpetrated by the original owner on the one hand, threats and intimidation by members of the Camorra family on the other.

The Social Centre has been activated thanks to a funding project of the Foundation "con il Sud" for valorizing and promoting self-sustainability of confiscated properties (2010) and is now

developing its activities with donations and self-promotion initiatives. The Orsa Maggiore is a social enterprise created since 1995 by women for social and educational purposes. In the Centre La Gloriette they have established in the former fortified villa a sort of “urban piazza” for encouraging young people with disabilities and their families to work together for emancipation. These three typologies of initiatives briefly described, represent as many lines of action for the effective re-use of confiscated property. In each of them, despite the diversity of sites, localizations, managing entities, funding sources and hosted activities, it is possible to identify a significant common thread. The leitmotif of the ongoing initiatives rests in their contribution to a process of emancipation of local communities against the various forms of territorial control perpetrated by organized crime.

### **5 Experiences of social reuse of confiscated assets: possible emancipatory processes**

As in Campania the organized crime is weaving a web for imprisoning the territory and capturing resources and energies, the civil society is trying to weave a web of human relationships and initiatives for reacting to this trend. The huge number of confiscated goods is the core of this process by supporting the creations of the critical mass of people, ideas, places and resources for promoting an emancipatory process by challenged communities.

In the intentions of the legislator, the gated enclaves that belonged to members of organized crime, will be returned to the community, and destined to give answer to the needs of the communities disadvantaged by the presence of mafia clans.

In territorial contexts in which illegal interests, threats, gaps and risks compromise transparent and effective process of social activism and community engagement, the planning system also is challenged.

Communities in these areas need to fight against the presence of widespread illegal behaviors, frequently without any support from the authorities. In Southern Italy, up to million people lives areas without any elementary social service, accessible public spaces, legal job opportunities and healthy environment. Discussing about social activation and community engagement in these contexts should be both complex and fruitful: the experiences analyzed testify the existence of a sort of laboratory for sharing, promoting and managing community-led social and economic initiatives.

In order to develop this argument, the research has been focused on the civic practices hosted within former “bunkers” of camorra affiliated which provide an alternative use, opening gates and sharing spaces with local inhabitants. These experiences, by reclaiming spaces and producing social values, could be considered a paradigmatic expression of emancipation in contested areas. The mentioned cases of social economy as antidotes to the criminal economy are particularly interesting because in a context of severe discomfort are a shining example of emancipation that can inspire the review of policies and practices of urban regeneration. As we seen, the opening of those gated properties to the people provides services and opportunities to the straight and healthy part of society that expresses a desire for redemption, stimulating virtuous processes of emulation with possible impact on the urban system as a whole.

The next step of the research will be the assessment of the impact of these reuse experiences by applying a purposely selected set of social, cultural, economic indicators, in order to extract elements for maximizing the emancipatory effects of the process. According to these results, a decision support system for policy makers is expected to be implemented at regional level.

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# Shared Worlds in Nicosia's Public Space

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The existence of transient people in cities has resulted in an intense flow of people and cultures leading to social and cultural diversity, challenging people's sense of identity and social relationships (Philips, 2007). These changes entail a respective transformation of public space where the everyday life of a number of the different and diverse users unfolds. Things get more complex in the case of Nicosia in Cyprus where the ethnic demography of the city is subject to a changing population dynamic precipitated by net in-migration, both from EU and Third World countries. The historic center has recently experienced yet another transformation of uses and users, as a result of gentrification projects while accommodating a diversity of ethnic groups that co-exist and share the public realm with those viewed as "indigenous" population. Furthermore, numerous activists' led urban movements have been taking place in the area under study. The understanding of the processes and conflicts that such contested spaces go through in relation to the construction of local identities and meanings lies at the heart of this paper. The mechanisms involved in the ways people perceive and use the public space of the urban center, the interface (or lack of it) between them and emergent cultural transformations are of interest to this study. Building on existing empirical research, the paper focuses on public spaces in the urban centre which, despite their small size and the absence of any clearly defined boundaries, form a physically continuous spatial entity that is either distinctly divided among different users spatially and many times temporally or is "shared" among different local groups. Such discussions bring forth the difficulty and the inherent complexity in any attempt to map shared worlds, cultural practices and dynamics in a comprehensive way. New variables and consequently methods of analysis - spatial, social and temporal - are deemed necessary to take account of the physical and social context bringing together both qualitative and quantitative viewpoints. The study suggests that one could look at urban places as dynamic processes where boundaries between localities are being raised, bridged and evaporated through time.

**Keywords:** shared worlds, public space, Nicosia.

## 1 Introduction

Cities are complex entities, which constantly experience transformations in terms of their social and demographic make-up, their built form, street network and public spaces, as well as, the ways in which they are used, lived and experienced by their population (Charalambous and Geddes 2014). The existence of transient people as a result of economic globalization and migration has resulted in an intense flow of people and cultures leading to 'social and cultural diversity, challenging people's sense of identity and social relationships' (Philips, 2007). These changes entail a respective transformation of public space where the everyday life of a number of the different and diverse users unfolds. The role of public space in the spatial and social structure of the city is essential being an arena of social gathering, a necessary part of an open society, "a space that everyone is able to enter and participate in some collective experience" (Madanipour, 2010).

Co-presence in public space as part of everyday routines may foster fundamental social relationships: "the routines of day-to-day life are said to be fundamental to even the most elaborate forms of societal organization and it is in the course of their daily activities, when individuals encounter each other in situated contexts of interaction, that interactions happen among people who are physically co-present" (Marcus and Legeby, 8074:4). It may also result in the creation of spatial boundaries, 'locales where people, activities and ideas come into contact with each other' and where 'the contrast maintains the distinction' (Noussia and Lyons, 2009). In some cases, Noussia and Lyons argue, intensive use of space by some groups excludes others, resulting in the colonization of urban space by dominant groups (Ibid.). This sense of exclusion may turn public

space into a place of fragmentation with a direct influence on the interface between diverse social and/or ethnic groups (Madanipour, 2004).

If space in the city is by definition continuous, artificially constructed boundaries will be reflected in the way people will experience it and social inequalities will potentially be reflected in the spaces they occupy (Hillier, 2005). If such inequalities in the use of public space influence movement flows, co-presence and the nature of activities, then spatial exclusion has a direct influence on people's everyday lives and the interface between the various groups (Legeby, 2009).

Things get more complex in the case of the walled city of Nicosia in Cyprus where the ethnic demographic of the city, historically inhabited by a number of transient ethnic groups, is subject to a changing population dynamic precipitated by net in-migration, both from EU and Third World countries. Population movements have many times resulted in the creation of large ethnic clusters in the city. The historic center has recently experienced yet another transformation of uses and users as a result of gentrification projects while accommodating a diversity of ethnic groups that co-exist and share the public realm with those viewed as "indigenous" population. Furthermore, numerous activists' led urban movements have been taking place in the public space of the area under study<sup>1</sup>.

Understanding the processes at work in the way different users of public space in the city relate to it and to each other and in the ways "locality" is understood or defined is quite complex and difficult. The difficulty may be because 'community membership can shift in time and space, so that an individual can express different solidarities throughout the course of a day or week' (Hanson, 2000). It could also be because the notion of place, understood as a process, is continuously redefined in terms of social interactions which are dynamic processes. Since places do not have boundaries in the sense of divisions that frame enclosures, they do not have static identities and are instead full of internal conflicts, a mixture of global and local social relations (Massey, 1994).

The mechanisms involved in the ways people perceive and use the public space of the urban center, the interface (or lack of it) between them and emergent cultural transformations are of interest to this study. The presentation focuses on a ring of continuous public spaces in the urban center, which form a physically continuous spatial entity that is either distinctly divided among different users spatially and many times temporally or is "shared" among different groups. Lines of segregation are observed and are found to be different in different parts of the public space; in some cases they are found to be distinct and persistent through time while in others they are blurred and continuously modified.

Such observations bring forth the difficulty and the inherent complexity in any attempt to map shared worlds, cultural practices and dynamics in a comprehensive way. The study of public space, as a shared resource, requires the capability to link different and diverse elements (such as spatial, social, historical) and relate them to each other in a meaningful way, so as to draw inferences as to the nature of changes in each element and how these interact spatially over time.

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<sup>1</sup> The relevance of the challenge addressed in this paper and the value of Nicosia as a case study is related to wider contemporary urban development issues around fast growth and public space transformations, in particular in cities of the Mediterranean area; for example the redevelopment of port areas and warehouses as well as the Ladadika quarter in Thessaloniki, the Solidere Project in Beirut and modern development projects in the former port areas of the Golden Horn and the Bosphorus in Istanbul, to name just a few.

Researchers have approached the understanding of “shared” public space from various viewpoints, by bringing the social context to the foreground, by focusing on urban forms, on policies or by linking the built form with social phenomena. Many of these approaches focus on the social and economic dimensions with little attention given to the effect of space on the issues in question. Without seeking to undermine such approaches this study is concerned with social phenomena in urban space whilst taking into consideration the discourse concerning the implications that are embedded in or are generated from spatial patterns. Such an approach treats cities as socio-spatial entities, as ‘highly relational systems’ with complex organization that are driven by evolutionary processes that might generate, reproduce and transform urban phenomena over time (Hillier and Vaughan 2007). The focus of this study is therefore the application of a suitable methodology to address the spatial and temporal dimensions of ethnic and/or social exclusion in the use of public space. New variables and consequently methods of analysis -spatial, social and temporal- are deemed necessary to take account of the physical and social context bringing together both qualitative and quantitative viewpoints (spatial analysis, field observations, snapshots, mental maps and questionnaires).

The study suggests that such a theoretical and methodological framework facilitates the understanding of urban public spaces as dynamic processes where “boundaries are continuously being raised, bridged and evaporated along different social lines” (Franzen 2009).

## **2 The Use of Public Space in the Walled City of Nicosia**

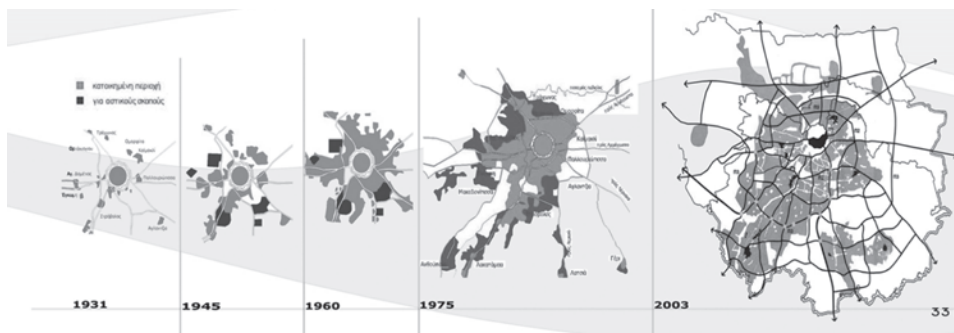
### **2.1 Historical background**

The study focuses on the walled city of Nicosia on the island of Cyprus (figure 1). In 1567 the Venetians built defensive walls around the then city thus creating the circular form of today’s walled city and a boundary which today separates the old part of the city from new developments. The town during the period of the Ottoman rule presented an urban pattern which accommodated a society composed of different ethnic groups: the Turkish Moslem community, the Greek Orthodox community and some other smaller ethnic minorities, mainly the Latin and the Armenian. The Ottoman conquest and subsequent rule of Cyprus is of central importance in the evolution of Cypriot society, as it introduced a number of fundamental changes, which had respective ethnic and spatial consequences. The walled city grew around two ‘foci’, which reflected the ‘dual administration’ in Cyprus. Spatial arrangements during this period were found to be related to a number of social groups, differentiated according to ethnic, occupational and economic status (Charalambous and Peristianis, 2001; Charalambous, 2007).



**Figure 1** - Walled City of Nicosia, aerial photograph, 1957  
(Source: Cyprus Press and Information Office).

Early on in their rule, the British administrators, who succeeded the Ottomans, placed their offices as well as some residences, south and southwest of the walled city (presumably for health reasons, as this area was slightly higher up and away from malarial swamps, but possibly also in order to separate themselves from the natives). By the 1930s some wealthy Greek Cypriots had followed the example of the British, moving southwards, out of the walled city and separating themselves from poorer Greek Cypriots and ethnic minorities. This process was accentuated after the post-World War II with economic growth and the increasing use of the walled city for commercial purposes. This meant that many residences in the inner city were converted into shops and commercial offices (Attalides, 1981). Gradually this development expanded out of the walled city and a new commercial area grew, in a south and southeast direction. Effectively there are now two main commercial areas: the older one, within the walled city and the newer one, starting outwards from the walls (Figure 2).



**Figure 2** - Development of Nicosia 1930-2003. (Source: Department of house planning and housing)

These developments brought more changes in the walled city. Firstly, because of the increasing congestion, most wealthy and middle-class families moved to new areas of Nicosia, leaving behind the poorer families and the elderly. Secondly, increasing numbers of immigrants and other foreign nationals (such as unskilled manual workers, housemaids and students in local colleges) moved to the area, since the rent for these, mostly old flats and houses, was much lower than elsewhere in Nicosia. During its recent history, especially after the formation of the buffer zone which cuts Nicosia literally in two, the walled city according to the perception of the indigenous population gradually became an 'urban ghetto', accommodating ethnic minority and lower social and occupational class groups. Thirdly, some parts of the walled city have acquired a new importance as cultural centres as parts of the city's heritage. In most cases this latter use involved restoration work by the Nicosia municipality or the national government. This brought about a fourth trend, relating to commercial restoration of old houses, restaurants, pubs, galleries, and so on, aiming at exploiting the higher values bestowed on the return of culture and tradition in the area.

The historic city centre is currently characterized by a diversity of users, uses and activities. The impact of these transformations on the nature of public space as a shared resource is of interest to this paper. The urban challenge at hand is the application of a suitable methodology that can be applied to urban design processes and can address the complex, multi-scalar and multidimensional relationship of spatiality and sociability.

## **2.2 Methodological framework**

The mapping of socioeconomic and spatial data is useful if not necessary in addressing the spatial and temporal dimensions of ethnic and/or social exclusion in the use of public space. Yet, in most relevant research there is no unified analytical framework since urban designers many times tend to focus on the street layout while social scientists are concerned with the social and economic issues. This paper proposes the development of an integrated methodology that allows for the analysis of a particular urban form, the structure of the streets and the layout of buildings, in combination with information about the people who live and use the area under study; a methodology which treats an urban entity as a whole and offers the possibility of studying the relationship between the spatial characteristics of a city and various phenomena such as pedestrian movement, commercial success and social inclusion. The area under study is analyzed through three approaches which, together with the assessment of the results form the paper's methodology: a spatial analysis which examines the physical characteristics of the area; questionnaires and drawing of mental maps which deal with the perception of public space by the users as a "place"; and observation-based surveys which reveal the actual use of public space. The analytical approach proposed is a spatial one, it directly links spaces with actual use and daily patterns of living, it has the ability to scale up and down from the particular to the general and vice versa and allows the investigation of a system as a whole or in its parts through the layering of both quantitative and qualitative research tools with the use of space syntax (both a set of theories linking space to society and a set of tools for analyzing space configuration) and GIS technologies.

Space syntax methodology was used focusing on the measures of connectivity, global integration and local integration of the city as a whole<sup>2</sup>. The connectivity measures can give an indication of how accessible and intelligible the city is, global integration values can give a picture of how the city functions as a whole, how different areas are accessible on a global scale, thus representing how cars, as well as pedestrians who are visitors to the city are likely to navigate the system. Local integration on the other hand, can reveal how accessible specific areas are at the local scale, thus representing how pedestrians, in particular residents and those who have knowledge of the city, make use of the new developments and the historical centre as a whole. Both measures are important in understanding the city and the impact of recent transformations since Nicosia's urban centre is used by both residents and pedestrians. Analytical observations (through gate counts<sup>3</sup>, static snapshots<sup>4</sup> and digital photography) were also carried out in order to account for the actual use of public space through time and people's everyday routines. Furthermore, a questionnaire survey which included the drawing of mental maps was carried out to the actual users of the walled city of Nicosia in order to both understand their profile and their perception of the area in relation to the concept of "place". Both quantitative and qualitative methods are employed to explore whether the spatial organization of the public realm may have an effect on the use by the various groups.

### 2.3 Empirical study of the use of public space in the walled city

The study of the use of public space within the walled city has been the topic of a number of recent empirical studies (Aknar 2009, Parpa 2010). This paper builds and expands on these studies.

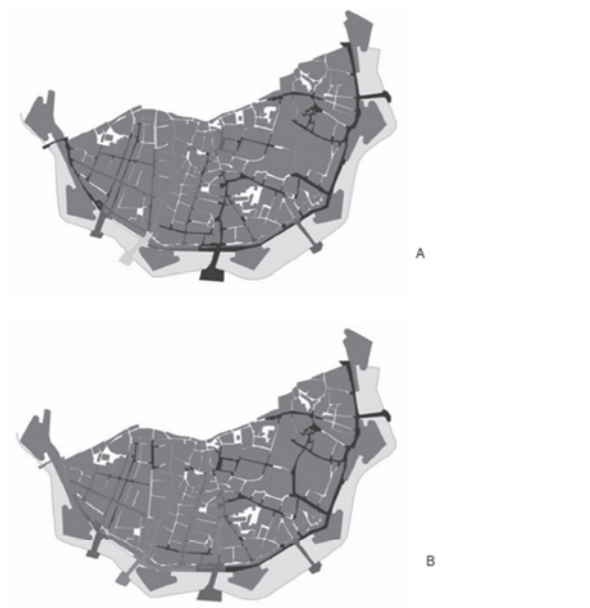
Parpa (2010) suggests that the city within the walls 'presents a complex mosaic of different places, ethnically divided at a number of levels and forms'. Parpa's ethnographic observations, using counts of flows and recording of snapshots of activity in public spaces shows that the use of public space tends to happen in fragmented ways, and cross-ethnic interactions are in general rare and poor: in some cases the use of public space is clearly partitioned according to ethnicity, while in only a few cases, ethnic groups co-exist temporally and spatially (figure 3). Figure 3 is a representation of the average distribution of pedestrian flow in the walled city according to ethnicity<sup>5</sup>.

<sup>2</sup> Syntactical analysis is commonly based on the axial map, the set of fewest and longest lines of sight passing through every public space in a city's street network. The map shows the relation of each line to the network of the whole city ('global' relations) or the relation of each line to the immediate surroundings ('local' relations). The main measures are 'integration', which quantifies relative depth from any space to all other spaces, modelling movement to spaces and 'control', which quantifies the potential for any space to form part of a path between any pair of spaces within a given distance, modelling movement through spaces. Maps are colored in a scale from red to blue, or black to white in a grayscale map, to indicate the high-to-low range of values. See Vaughan and Geddes (2009) for a detailed explanation of space syntax methods.

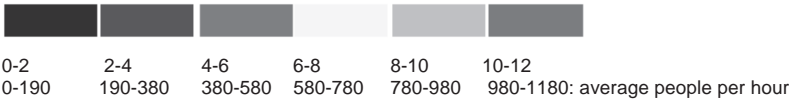
<sup>3</sup> Gate counts were considered necessary to account for the different distribution of various groups in the city and identify diversity in the use of public spaces. Gate Count Method is a space syntax technique that records large numbers of individuals by the rate at which they pass an observer and cross an imaginary line intersecting a street (Vaughan 2001).

<sup>4</sup> Static Snapshots is a space syntax technique applied to record the stationary or moving activities and patterns of use in a space. (Vaughan 2001).

<sup>5</sup> A basic distinction that needs to be made regarding the use of the walled city by Cypriots and immigrants is the fact that Cypriots rarely reach the historical center on foot but from are the pedestrian exits from parking places scattered within the walled city and in the moat surrounding it. Having better accessibility to private transportation, Cypriots' social inclusiveness does not depend on the local area. In fact, they are able to reach their destinations without passing through most of the public spaces in the city center. On the other hand, the



**Figure 3** - Average distribution of ethnic groups in the walled city – A) Cypriots, B) Ethnic minorities  
Colour guide:



Based on the survey results the area is a destination for most of the Cypriots during the weekdays, either for business or work, while for a number of retired people, it is a destination for leisure. The immigrant population, on the other hand, is working during weekdays. For most of the immigrants, the area is a destination for leisure activities during the weekends or after work. In response to questions related to the users' perceptions of public spaces and their sense of place, (such as how well they know the area, where they feel most/least like home) Cypriots state that they feel like they know the area very well and in their majority feel comfortable and at home while pointing at places/names of the past<sup>6</sup>. A significantly smaller proportion of immigrants state that they know the area well or feel at home in the public squares of the urban centre. In a relevant question to suggest possible changes in the area under study a significant proportion of immigrants stated that would not consider any changes which may reflect the transient character of their stay (Madanipour, 2004). Immigrants were able to point at landmarks as well, but regularly faced trouble to name them.

majority of immigrants infiltrate the public space on the ground from a number of different points of residence throughout the city center.

<sup>6</sup> This observation may reveal the temporal dimension as necessary for a space to become part of everyday patterns of life and thus place (Relph 1976) emerging from an interaction of social, cultural and natural settings that a group of people experiences" (Massey 1994, p120).

Overall, the results suggest that different ethnic groups and locals either maintain distinct artificially constructed spatial boundaries within overlapping areas or access distinct spaces through temporal negotiations. The interface between ethnic groups in the public realm of the city centre is found to be delineated according to social – rather than spatial – differences and the degree of place sharing also seems to shift across time. Immigrants mainly use areas abandoned by Cypriots that are in integrated locations, yet marginal in relation to the city and can be considered as the inhabitants of the area. They are found to be distributed in bigger proportions around the city and pedestrian movement of the group generally follows the global integration pattern of the city (Parpa 2010). Cypriots as inhabitants remain unnoticed in locations that are more segregated (such as the east part of the walled city) and mostly use the main commercial streets and public squares indicating that they are visitors to the area.

However, results in the present study reveal that there are spaces where ethnic groups co-exist in space and time (see also Charalambous et al 2011). Such spatial sharing is observed in the two main squares of the walled city, Eleftheria and Faneromeni Squares, which are also the most ethnically and socially diverse in the area<sup>7</sup> (figure 4 and 5). The two squares lie at either end of an axis: from the southern entrance to the walled city, to the northern edge of the buffer zone. In other words, we can observe two different types of edge conditions at either end of the axis: a highly integrated, well connected to the rest of the city and easily accessible edge in the south and a relatively segregated and poorly connected to the rest of the city edge towards the north.



**Figure 4** - Nicosia's main public spaces movement potential (source: Parpa)



**Figure 5** - Measure combining global through and to

Eleftheria Square, which is well integrated spatially, contains a diverse population in terms of age, ethnicity and gender. Snapshots reveal that many younger and middle age male foreigners (not tourists), younger Asian females and older Cypriot males sit in this square. A mixture of both foreigners (including tourists) and Cypriots pass continuously through the square. Most activities seem to be more of an individual nature, like sitting, reading a newspaper, eating; ethnic clustering

<sup>7</sup> Franzen (2009) has referred to 'blurred spaces'. These are areas in the city where the lines of segregation are getting blurred. He finds that such spaces are of interest since they have the potential for greater integration over time. He suggests that the outcome – either greater social integration or greater hostility – depends on the stakes involved in maintaining group differences.

is less frequently observed in this square and when it happens is found to shift in time between the different groups.

Faneromeni square, not very well integrated locally and globally, is also characterized by a diverse population. However, in this case ethnic but also social clustering is observed more frequently. The nature of interaction between the various ethnic groups in this part of the walled city was studied by Evzona who suggested that the degree of interaction between ethnic and/or social groups in the public space of the walled city in general and of the square under study in particular, is rather weak and confined to commerce and labour exchange (Evzona 2010). Snapshots reveal that the square is used by younger ethnic groups from the High School nearby and by Cypriot young street musicians, skaters and/or graffiti artists. Usage patterns also differed according to age groups; younger people tended to prefer the relatively segregated spaces and older people tended to occupy spaces where there is an important flow of through movement and higher visibility like in Eleftheria Square. Various spontaneous activities such as street performances, informal concerts or demonstrations were observed to shift in time according to the groups that claimed and negotiated ownership of the space.

Public spaces such as Eleftheria and Faneromeni Squares could be seen as fields of maximal encounter between the maximum number of potential individuals; the more a space is integrated and diverse, the more potential it offers for inter-group connections; the more a space is segregated and uniform, the more limited and specific are the possibilities of connecting to a member of a contrasting group. In both cases, such diverse and 'blurred' public spaces in terms of both uses and users, may well have integrative social functions, of either an individual or collective initiative.

Historical patterns of living and time also seem to play an important role in the relationship between Eleftheria Square and the area, which lies adjacent to it. The latter has long been, and still is, the main red light district of Nicosia. While other areas have changed since the island's Independence, this area remained the same, with numerous bars and nightclubs and the use of public space typical of such areas. The persistence of the same patterns of use and the same user profile through time, suggests there might be a spatial context, which facilitates this particular use of space.

### **3 Discussion and conclusions**

The previous section has shown that possible interpretations of spatial phenomena need to take into account additional information that is not readily available through a configurational analysis alone. It is obvious from the empirical evidence presented that urban form does play a vital role in the difference in spatial advantages or disadvantages each place affords. As Legeby (2009) suggests, this has a direct influence on people's everyday lives and the ways public space is socially and physically accessed and used. However, although patterns of ethnic co-presence in public space are explained by spatial analysis, it is evident that the old city of Nicosia does not follow a spatial logic alone. Both quantitative and qualitative methods need to be employed in order to explore the ways in which the spatial organization of the public realm may have an effect on the

use by the various groups. Various factors play a role in the ways public space is shared and user profiles shift from one segment to the next in the walled city of Nicosia. The dimension of time, the relationship between history and spatial adjacency, the emergence of social phenomena from the attempts of individuals to 'make-do' and the difference between individuals who may appear to form clusters based on common ethnic origin from consolidated social entities, ethnic or other are just some of these factors<sup>8</sup>.

These discussions bring forth once again the difficulty and the inherent complexity in any attempt to map urban segregation in a comprehensive way. The lines of segregation are different in different parts of the public space; in some cases they are distinct and persistent through time while in others they are blurred and continuously modified. Although not thoroughly explored, this observation suggests that needs to look at urban segregation in the public spaces of city centres through its temporal dimension, as a dynamic process 'where boundaries are continuously being raised, bridged and evaporated along different social lines' (Franzen, 2009).

The use of space syntax methodology with qualitative methodologies proves a valuable tool in addressing the spatial and temporal dimensions of ethnic and/or social exclusion in public space and in informing both planning and policy decisions; potentially not just in this specific case study but in all cases when fast transformations of urban centres is occurring at different scales and time with an impact on the nature of public space as a shared resource. Analytical models that are sufficiently complex to be strategically useful are often too abstract to directly inform design, policy and planning at the scale at which people experience their environment (the building and street scale). The result is that the complexity of the interrelationship between these scales that is the essence of urban systems, is broken down into distinct levels of analysis that tend to be insulated from each other, working in silos within their own specialist knowledge domain; this may consequently limit the ability of local places to adapt to broader socio-economic, environmental, technological and cultural change (Kochan, 2007) and schemes designed to improve the built environment may, in fact, perpetuate existing problems by making interventions at one policy level that have detrimental effects at another. These problems require urgent solutions particularly in the Cypriot context, which requires evidence-based guidance to deal with the complexity of the spatial and social context. The methodology used in this paper is an initial step, which gives valuable insights into the spatial patterns of segregation in public space, taking into consideration each place in relation to the whole city, users' perceptions as well as the actual use of space.

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<sup>8</sup> De Certeau's (1984) distinction between strategies and tactics may help in understanding such a phenomenon better. According to De Certeau, bodies of authority and power can use 'strategies' to create space while individuals use tactics in order to use such spaces so as to create their own private and usually short lived utopias and "make do". Strategies are here seen as controlling or producing space while tactics are seen as using the dimension of time. Strategies define a proper space and can thus be located above it, while tactics operate immersed in such a space without gaining the right or ability to have a panoramic and thus controlling relative position to it.

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# More than just a Cup of Tea - Coffeehouses as Alternative Institutions of Local Culture: Case study of Eastern Azerbaijan in Iran

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Albeit the fact that Iranian theocratic administration has systematically limited rights of the ethnic and linguistic minorities to practice their culture and language, those minorities experience a new era of cultural and artistic bloom. Such thrive is partially ascribed to a process of appropriation of the informal urban institutions to assume new roles and functions. A prime instance of such institutions is traditional coffeehouses (*Ghahve kaneh*), which while maintaining its traditional functions as “third places”, have also adopted new functions within the realm of art and culture. This, however, met the resentment of the formal establishment in Iran and resulted in a series of policies and practices to divert and/or restrict such activities. Nevertheless, coffeehouses have gradually turned into the alternative venues for preserving and promoting cultural, artistic and linguistic heritage and form a high degree of place attachment and sense of community.

In a crossroad of local values and global discourses, where the real world meets the virtual, coffeehouses become communities of ethno-cultural Azeri identity (re-) construction in Iran. This study is a scholarly endeavor to enhance understanding and decipher counter-hegemonic processes of identity building through coffeehouses as informal institutions of cultural practices in the context of post-revolutionary Iran.

Based on findings of an extensive empirical cross-disciplinary research between social sciences and urban planning, analyses of data collected through critical ethnography, based on in-depth interviews and intensive observations reveal a multi-fold taxonomy of coffeehouses with different socio-cultural self-assumed functions to extend and promote the local culture.

**Keywords:** Coffeehouses, Third places, Place attachments, Local informal institutions (common spaces), Cultural practices

## 1 Introduction

Coffeehouse, an enterprise recognized as a meeting place and a venue for spending leisure time wherein tea, coffee, snack and meals are prepared and served is also acknowledged for its functions as a site for social interactions. Inspired by the local culture and affected by the social structure of its surroundings, coffeehouses appear in different sizes and forms with a wide range of beverages, activities and cuisine. As the name suggests, coffeehouses mainly created to serve coffee, a popular hot beverage across the world and gradually with appropriation to the local cultures, added various activities and served different products. Coffeehouses have also played a significant role in preserving and promoting local culture, art and language especially in the context that the formal discourse of power endeavors to marginalize them. This paper is using the term coffeehouse, for traditional tea or coffeehouse to distinguish it from café, which is a more recent phenomenon in Iran. Hence, whereas the term teahouse (*chai-khaneh*) was used interchangeably in many instances, this paper will use coffeehouse to indicate the institution in its temporal context.

The present study is part of an extensive cross-disciplinary project between urban planning and urban sociology on the changing functions of traditional teahouses. While maintain their function as venues of “third space” (leisure and socialization), coffeehouses have assumed the role of conservation of the cultural values and linguistic heritage in the Eastern Azerbaijan province in Iran. The analyses of data collected through ethnographical methods have revealed a multi-fold

taxonomy of coffeehouses with different socio-cultural functions. The study provides an in-depth analysis on the in-flux functions of informal social institutions to adapt to rapidly changing Iranian society. Through those dynamic processes of adaptations, teahouses (like many other traditional informal institutions) provide means for the survival of the language and culture, which otherwise under the hegemonic and somehow hostile formal forces of the dominant culture will gradually weaken and vanish. The changes within the coffeehouses are not solely targeting the social functions of the coffeehouses, but also visible in its form, interior and the architecture. While the study addresses different aspects of the coffeehouses in terms of their physical, functional, social and temporal dimensions in the light of various social and urban theories, this paper endeavors to address coffeehouses as the third spaces.

## **2 Coffeehouse (*Qahva-khāneh*) in Iran: A brief historical account**

Coffee as a drink began to prevail the world in the sixteenth century Yemen, originally introduced through Ethiopia and spread to the countries nearest to southwest Arabia and the rest of the world (Toussaint-Samat, 2009a: 532). According to Louis Figuier (1867) coffee seems to have been drunk in Persia since the ninth century. The great physician and scholar Avicenna, was already acquainted with coffee around the year 1000, and called it *bunc*, the name by which it is still known in Abyssinia (Toussaint-Samat, 2009c). It was in early 16<sup>th</sup> century and in the city of Mecca which coffeehouses became popular. However, as a result of religious disapproval coffeehouses were closed in 1511. The ban, however, did not last long (Falsafī, 1954, p. 260). Pilgrims returning from Mecca introduced the idea of coffeehouses in Egypt and Syria. The first coffeehouse at Istanbul was opened in 1555. It was frequently visited by so many dignitaries, writers, and poets that it became known as the “academy of scholars” (*madrasat al-‘ulamā*) (Arendonk, 2010: 451). Others followed, and a coffee department (also called *qahva-kāna*) was established at the Ottoman court under the supervision of a *qahvači-bāšī* (Falsafi 1954: 260).

Dawood (Iranica) argues that, it is probable that in Persia the first coffeehouses appeared during the long reign of Shah Ṭahmāsb (1524-76). During the reign of Shah ‘Abbās I (1577-1629), several coffeehouses were opened in Qazvīn, Isfahan, and other cities. The rise of the *qahva-kāna* in Persia, as elsewhere, was probably partly owing to increasing urbanization (Hattox, 1985). It was also during the Safavids when coffeehouses became popular spaces for social gatherings of political significance. Kasravi (Kasravī, 1962: 84-85) argues that, “before Safavids convents and monasteries were the most common place of gathering for elites and intellectuals, since the religious groups were mostly in mosques. And mosques were a place for resolving political and social issues. Under the Safavids the relative political stability and absence of religious discord, the growth of the population, and the improvement of roads were important factors contributing to the spread of the new beverage throughout the country”.

Matthee (2005) suggests that, as well as being regarded as a drink with medicinal qualities, coffee in late Safavid Iran was considered what it has universally become: a tasty beverage consumed in a social setting. Coffee consumption in Safavid Iran involved a wide range of the social spectrum, beginning with the royal court. Coffee was a standard beverage in governing

circles outside the royal court as well. Raphael du Mans, a longtime resident of Isfahan in the mid-seventeenth century, claimed that, after tobacco, coffee was the second item offered to guests (Du Mans, 1969: 100-101). The Englishman John Fryer, who was in Iran in 1677, is one more witness to the fact that coffee was a favorite drink, offered by government officials to their guests at audiences and receptions.

Indeed, coffee had an institutionalized place in the shah's very household, for a member of

Despite its popularity, coffee was not confined to state banquets and official receptions, but was also enjoyed in the public sphere. The German traveler Adam Olearius (Olearius & Wicquefort, 1719: 298) also testified to the spread of coffeehouses in the Safavid capital when he wrote: "The *ghahwa khane* (coffeehouses) are those places where they take tobacco, and drink of a certain black water, which they call *ghahwa*. All available sources refer to the coffeehouses along the city's principal square as meeting places for scholars, poets, musicians, and Sufis.

Coffee may have had its most spectacular growth in Isfahan and the people of Isfahan may have consumed more coffee than those of other Safavid cities, but the existence of coffeehouses was by no means restricted to the capital. Coffee quite possibly spread beyond the ranks of the wealthy and the parameters of the capital city in the seventeenth century as a result of greater availability and lower prices following a growing supply via the seaborne trade. Reference has already been made to the lively trade in coffee in Tabriz. Chardin (Chardin, 1811: 2970) confirmed the existence of "cabarets à café" in the same city, Chardin, pp. 2970, 322) as did the Italian traveler Gemelli Careri (Gemelli Careri, II. 42) a generation after him. There are a number of references to the coffeehouses across the country, from Azerbaijan (Shamxi) to Khorasan and Shiraz.

From all the information provided by foreign observers coffee emerges as a drink that was enjoyed by the upper and middle class of late Safavid urban society. According to Tavernier, every Persian with leisure time repaired daily to the coffeehouse. "The seats are placed as in so many Amphitheaters, and in the midst of every one stands a large vessel full of running Water, where with their Pipes be cleansed when they are over foul" (Fryer & Crooke, 1909: III-34). From time to time the shah himself came in and chatted with customers, sometimes bringing European residents or visitors with him; occasionally he even held official receptions for foreign ambassadors at these places. At such times the coffeehouses were adorned with mirrors and lamps (*cheraghani*).

As in the contemporary Ottoman Empire, in Safavid Iran coffeehouses appear to have been an entirely new phenomenon. They were the first public places other than mosques where respectable urbanites could interact in a leisurely manner (Hattox, 1985). Unlike the mosque, however, the coffeehouses offered an opportunity to socialize under the enjoyment of stimulants such as coffee and tobacco. The coffeehouse thus caused a happy balance between the mosque, which was a public space but lacked worldly entertainment, and the ubiquitous taverns and gambling houses, which were to be avoided by upstanding citizens as they served alcohol and provided disreputable entertainment for the lower classes (Hattox, 1985: 122-125). The social function of coffeehouses, places where people gathered to exchange news and gossip, is brought out in the following description of activities by Chardin: "People engage in conversation, for it is there that news is communicated and where those interested in politics criticize the government in

all freedom and without being fearful, since the government does not heed what the people say. Innocent games [...] resembling checkers, hopscotch, and chess, are played. In addition, *mollas*, dervishes, and poets take turns telling stories in verse or in prose. The narrations by the *mollas* and the dervishes are moral lessons, like our sermons, but it is not considered scandalous not to pay attention to them. No one is forced to give up his game or his conversation because of it. A *molla* will stand up, in the middle, or at one end of the *qahveh-khaneh*, and begin to preach in a loud voice, or a dervish enters all of a sudden, and chastises the assembled on the vanity of the world and its material goods. It often happens that two or three people talk at the same time, one on one side, the other on the opposite, and sometimes one will be a preacher and the other a storyteller" (Chardin, 1811: IV-68).

The connection between coffee and religion is also discussed in many sources. The Turks, for instance, believe that "the first cup of coffee in history was given by the archangel Gabriel to the prophet Mohammed when he was weary with his pious watching (Toussaint-Samat, 2009b). The location of coffeehouses in the vicinity of schools (*madrasas*), noted by Kaempfer (1721), is also argued as yet another indication of a connection between coffee and faith. And there are numerous allusions to Sufism in both Gemelli Careri's and Chardin's descriptions (Rudi Matthee, 1994a). Kathryn Babayan (1993: 159) explains how the epic romances they narrated subverted the official Safavid ideology. In the later seventeenth century, the clientele of coffeehouses seems to have consisted for the most part of the learned and the literate, people in search of contemplation and discussion (Rudi Matthee, 1994a: 460). Nāsrābādī (Naṣrābādī, 1938) calls coffeehouses place where men of letters and learning congregated.

Spread of coffee and coffeehouses embarked an anti-coffee measures to limit the social function of the coffeehouses. As Matthee argues (1994a) anti-coffee measures were not only an issue of the Muslim world. In early modern Europe coffee variously met with opposition by beer brewers, clergymen, and bureaucrats. In Restoration England, for instance, coffeehouses were the object of suspicion on the part of state officials, who saw in them "nurseries of idleness and pragmatism". A 1675 government proclamation ordered the closure of these public places. The implementation of the decree was only averted following a storm of public protest (Ellis, 1956: 94-97). Such prohibitive measures tended to follow the accession of a new ruler and served a clear ideological purpose, symbolizing as they did the "exorcist" nature of the change of power and, more concretely, the need to establish divine legitimacy through a show of religious zeal. Governments furthermore felt threatened by the emergence of public places such as coffeehouses, which constituted a challenge to the public order as, prescribed and upheld by the state.

With the move of capital from Isfahan to Tehran as a result of Qajar's empowerment, Tehran became the heart of the urban life. Coffeehouses were started to spread across the country, however, not in cities but in caravansaries, at road stations, and clustered around city gates. In the Qajar era new coffeehouses were opened on several streets in Tehran (Garakānī, 1960: 72). With further expansion of the cities, however, gradually coffeehouses appeared around the central bazaars, at the vicinity of the assembled guilds, local markets and near public bathhouses. By time, they could be found everywhere in the city: around the transportation hubs, hotels and industrial places. Along with the process of popularization, the coffeehouses lost their grandeur. They were

not ornate coffeehouses of the Safavid era anymore; rather they turned into simple structures with simple refreshments around any corner.

With the rise of Constitutional Revolution of 1911, Tehran and Tabriz became centers of resistance and eyes of the storm. Azerbaijan strategically located at the route to Ottoman Empire, Russia and Europe. City of Tabriz was the prince consort city and was called the second capital of the Iran and played a significant role in political changes of the time. Various informal institutions lent themselves to various social functions in Tabriz. Familial and friendly circles, mosques, *zoorkhaneh* (traditional Iranian gymnasium), coffeehouses, bazaar all were popular gathering places of social networking and exchange of news and ideas. Along with their traditional functions as places to gather, chat and drinking soft beverages, coffeehouses were used as venues for public reading for newspapers. Rival to capital Tehran, Tabriz was the intellectual hub and is recorded as the second place after Tehran in publication and circulation of newspapers, as a result of which the newly established investigated journalism became a popular genre among youth and educated classes, which used coffeehouses to disseminate information. Nahidi Azar (Zamani, 2013a), elaborates the function of the coffeehouses in this era as, "the coffeehouses were not only used as venues to disseminate the news and learn about the latest decisions made by the leaders of the revolution in their secret meetings. They functioned as news hub of the emerging revolution".

Despite the consensus of the scholars that the coffeehouses have been male-dominated institutions, there are instances of women who used them for social and political purposes. Zeinab Pasha, a prominent political figure at the Tobacco Protest (December 1891) used a coffeehouse in her hometown Tabriz -among other public places- to mobilize people against the monopoly of the British Tobacco Company.

Nahidi Azar in an interview on the social function of the coffeehouses argues, "before the Iranian revolution of 1979, there were still some coffeehouses in Tabriz famous for their special characters. For instance Ashiqlar kâfesi in Gajil Square was a gathering place for Ashiqs and Azeri improvisational music. Or another coffeehouse in the old Bazaar known as Eshekler kâfesi (Donkeys' Coffeehouse) was famous for its black humor and criticism of the government and people in political satire. The name Donkeys' Coffeehouse -where donkey serves as a symbol of idiocy in Iranian culture- was used to suggest the humoristic nature of the place and to cover the real political intention of the coffeehouse. It was also to avoid falling in trouble with government. Many contemporary belle letters, artists and retired statesmen and high-ranking army officers were among the visitors to Donkeys' Coffeehouse and there are numerous recorded stories about famous writers and intellectuals such as Gholamhossein Saedi, Samad Behrangi and Jalal Ale-Ahmad and their visiting to the Donkeys' Coffeehouse.

Despite the transition from coffee to tea, as the national beverage, some time during *Qajar* era (1796 to 1925) coffeehouses continued to function as centers where people could gather to exchange the latest news, play chess and other games and listen to music or religious and literary recitations. At the end of the Qajar period Bird (Bird, 1921: 383-86) the American writer described coffeehouses as, "the coffeehouse has functioned as the democratic Persian's political and social club, a splendid institution for which we have no adequate equivalent in America. Such places were especially popular among intellectuals, who met to discuss cultural, social, and political

matters".

After the introduction of radio broadcasting in Persia in 1940 the character of coffeehouses began to change. Customers were more interested in hearing news of the world, particularly World War II, than in listening to stories or poems, with the result that reciters soon began to disappear. The popularity of television after 1958 hit the profession even harder (Khosravi, 1962: 89-90). Furthermore, under Western influence, most former patrons of the coffeehouses preferred to spend leisure time in modern cafes or restaurants. Today the few remaining old coffeehouses are frequented mainly by the lower socio-economic classes, manual laborers, and elderly men and are located in poor districts (Garakānī, 1960: 75).

Until the revolution of 1979 the coffeehouses of Tehran were subject to special rules and regulation. The revolution weakened the coffeehouses as institution. The spread of the western values and modern lifestyles in Iran marginalized coffeehouses and turned them into a venue for those disadvantaged and in lower socio-economic status. As a result Iranian government's forced Islamization, along with systematic denial of minority rights to practice cultures and languages, the coffeehouses started to appear as alternative institutions for social and cultural activism. The main aim of the present paper is to trace those changes and discuss the process of appropriation, both in form and function, in the context of a minority culture. The idea is to enhance understanding of how coffeehouses use their function as third spaces assume new functions and accommodate changes to meet the development in the society and respond to social and temporal realities.

### **3 Coffeehouses as third spaces**

Rapid urbanization, use of technology and thereof decreasing human interactions has turned to a serious concern among the social scientists and urban planners alike. The high pace of urban everyday life and limited access to the recreational facilities, whether due to the lack of time or resources, have encouraged urban theorists to bestow efforts to enhance understanding about the problem and provide solutions. In a scholarly endeavor Oldenburg (1989) addresses the absence of informal spaces in cities and suggests a solution widely recognized as "The Third Place" (first place being home with those that one lives with; and second place, the workplace) where people may actually spend most of their leisure time. Third places, then, are perceived as "anchors" of the community life to facilitate and foster broader and more creative interaction. Informal meeting places are organic parts of every society. What is new in modern society is the intentionality of seeking them out as vital to current societal needs. Each society has its own physically separated and distinct places; each with its measure of autonomy from the others. Summarizing the theory, Oldenburg (1989) suggests the following hallmarks of a "third place". They are:

- Free or inexpensive
- Food and drink, while not essential, are important
- Highly accessible: proximate for many (in a walking distance)
- Involve regulars – those who habitually congregate there
- Welcoming and comfortable
- Both new friends and old should be found there.

Hence, the Third Place is an inclusive place for everyone, which is not provided for only well-dressed, middle-class crowd who is welcomed at today's shopping malls. Third place, as suggested by Oldenburg used to signify "the core settings of informal public life". A generic designation for a great variety of public places that host the regular, voluntary, informal and happily anticipated gatherings of individuals beyond the realms of home and work.

Oldenburg argues that, "Where third places remain vital in the lives of people today, it is far more because that are prolific than prominent. The geographic expansion of the cities and their growing diversity of quarters, or distinct neighborhoods, necessitated the shift. The proliferation of smaller establishments kept them at the human scale and available to all in the face of increasing urbanization. One may encounter a group of women in a laundromat, socializing while doing the laundry chores. One encounters parents who have assumed the expense of adding a room to the house or converting the garage to a recreation room so that, within neighborhoods that offer them nothing, their children might have a decent place to spend time with their friends." (Oldenburg, 1989)

Given that the distinction of third places differs in various cultural setting and different historical eras, the functional resemblance of the third place, dominates the variations in its external appearance. The nature of the space is the same regardless of the differences in cultural attitudes towards the typical gathering places of informal public life. Oldenburg (2001) suggests that beer gardens, main streets, pubs, cafes, coffeehouses, post offices, and other "third places" are the heart of a community's social vitality and the foundation of a functioning democracy. They promote social equality by leveling the status of guests, provide a setting for grassroots politics, create habits of public association, and offer psychological support to individuals and communities.

Historically Middle Eastern cities enjoyed informal spaces in various forms and functions to foster social needs, and socio-psychological ties. Reviewing related literature on the topic, the authors noticed that the patterns for creating venues of socialization are organically developed from. Among the elements in the context of Iranian vernacular urban planning, "coffeehouses" presented flexibility to survive as the venues of socialization and gatherings. Such flexibility gave the ground for coffeehouses to resist various urbanization and gentrification processes in the contemporary Iranian history. The following part examines the coffeehouses in the city of Tabriz in the light of the Third Place theory.

### **3.1 A third space is a neutral ground**

People may have some friends, a rich variety among them, and would like to engage in daily connection with them only if people do not get uncomfortably tangled in one another's lives. Individuals need to easily join and depart one another's company. We need a good deal of immunity from those whose company we like best. Richard Sennett addresses, "people can be sociable only when they have some protection from each other" (Oldenburg, 1989:22).

Also Jane Jakob in a book showing how to bring life back to the American cities, stresses the contradiction surrounding most friendships and the consequent need to provide places for them. Cities, she observed, are full of people with whom contact is important, valuable, and enjoyable, but "you don't want them in your hair and they don't want you in theirs either." If friendships and other

informal acquaintances are limited to those suitable for private life, she says, the city becomes stultified. So, one might add, does the social life of the individual (Oldenburg, 1989:22).

Oldenburg expresses that in order for the city and its neighborhoods to offer the rich and varied association, there must be neutral ground upon which people may meet. He emphasizes on places where people may enter and exit, as they desire. No one plays host and everyone feels at home and comfortable. Neutral ground makes informal, intimate, relations possible outside of the home.

Coffeehouses in Azerbaijan accommodate different people with different socio-economical background who are there for different purposes. Coffeehouses bring people together in an intimate and private social fashion- people who would not otherwise meet in that way. They are public and neutral, and are important to the concord of neighborhoods, cities and societies. For users coffeehouse is a place to get rid of daily routines of work and home. It is a pause place for them, to socialize, meet, talk, get updated and also spend time with themselves.

(30)

"The main things that attracts me is the people who sit there and the environment, there is coffeehouse called Tamasha I go there only because of the people I know otherwise it is not a high quality coffeehouse. I think even if the coffeehouse won't be accessible enough (locating on top of the mountain) if you enjoy the place you will go and find it."

(62)

"I do my readings at home, since the libraries are not silent and comfortable places, then I come here, I talk to people, listen to the news, doing crosswords, we don't have other places to spend time, I only have two places; book stores, coffeehouses. Here is also close to my house, it is only 10 min by walking. I have some friends that I have got to know them in the coffeehouse, so they are another reason of being in this place."

(33)

"People who come here, have different interests to spend their time. It can be because of smoking hookah, or having some social connections and meetings or to scape from the daily atmosphere, which they have at home or work. People are so eager to talk, about every single thing, some people prefer to have a specific one to talk but others are open to every one, to public and sometimes they are silent, just sit and listen or watch to others. Sometimes two people start to talk and even shout from one side of the room to the other side, so automatically other people get involved in that conversation and randomly a big group of people collectively start to talk."

Those who are not eager to start a conversation most likely enjoying of being among the crowd but feeling comfortable enough to be passively engaged. Passive engagement with the environment could lead to the sense of relaxation, and includes 'the need for an encounter with the setting, but without becoming actively involved' (Carr, 1992:103). Perhaps the prime form of passive engagement is people watching other people.

The most popular and used sitting places are those, which provide opportunity to watch the pedestrian flow and people while avoiding eye contact. The open cafes of European cities, especially in France, are good example of how people are engaged in watching pedestrian traffic while enjoying refreshments.

There is also another practice in passive engagement which is the way that ordinary people watch younger people or artists with modern technologies, such as tablets, laptops, cameras, etc. Despite the fact that new technologies are not accepted by everyone and some people find it not in harmony with the spirit of traditional coffeehouses, it is widely spreading.

(48)

"For me and people with a profession like mine, laptop is an essential tool. When using my laptop at the coffeehouse, people watching me. They sometimes ask questions to learn more about it. Next step is buying one and get connected. As much as they are curious and approach me to ask questions, they also remain distant. Although you feel that they are always watching you and all you are doing with extreme curiosity. The distance is one out of respect. They are just careful not to disturb you".

(62)

"I do my readings at home, since the libraries are not silent and comfortable places, then I come here, I talk to people, listen to the news, doing crosswords, we don't have other places to spend time, I only have two places; book stores, coffeehouses. Here is also close to my house, it is only 10 min by walking. I have some friends that I have got to know them in the coffeehouse, so they are another reason of being in this place."

### 3.2 It functions as a leveler

According to Oldenberg 's theory, a leveler place is, by its nature, an inclusive place, which is accessible to the public and does not set formal criteria of affiliation and exclusion. Individuals may choose their fellows, friends, and associations, as they are pleased. Within third places, irrespective of one's situation in life, the social abilities to make link with others, is what counts. Here the great joy and relief is one's charm and favors, no matter even if one has not accomplished or popular image in his own career or business, even better to say despite their "failings" they are accepted.

(62)

"We all are friends in coffeehouses, no matter if close friend or just knowing each other, but we support each other. Although we respect elderly and they have their own fixed table and even hookah, but youngsters also can join them and listen to them. Another good thing is that the behavior and being a nice person matters here not your occupation outside of the coffeehouse. But sometimes people prefer to communicate only with their own guild, which is understandable."

"We have a place sitting at the middle of the room while watching football, and people who are sitting around us, try to ask lots of questions about the game and the result to make us confused and then laughing and having fun! Sometimes we answer sometime no! Some gets mad at them and ask not to bother" (70- 713\_0018).

### 3.3 Conversation is the main activity in a third place

The main activity in third places is conversation as Oldenberg claims. "Nothing more clearly indicates a third place than that the talk there is good; that it is lively, scintillating, colorful and engaging. Smiles and twinkling eyes may initially mark the joys of association in third places, by hand-shaking and back-slapping, but they proceed and are maintained in pleasurable and entering

conversations.” (Oldenberg, 1998) A comparison of cultures radically reveals that the popularity of conversation in a society is closely related to the popularity of third places. In 1970s, the economist Tibor Scitovsky introduced statistical data conforming what others had observed casually (12, Chapter2, Oldenburg). He goes on to report that “socializing rather than drinking is clearly most people’s, main occupation.”

Emerson, in his essay on “table Talk”, focused on Paris, which for so long influenced the whole of Europe, called the city “social center of the world,” he concluded that its “supreme merit is that it is the city of conversation and cafe’s.” There is this indication that third places might emerge around the activities that invite people to have conversations. Third places may transform and reshape to offer this opportunity better to the users.

(49)

“We don't have other place to go! Even though if I am bored or not in good mood, after hearing 2-3 funny stories I forget all of those problems and feel much better. Another example here many people know about my job and when they need it they come to me. People here can find whatever help they need! So every time there is someone that can find a solution for his problems.”

(62)

“I do my readings at home, since the libraries are not silent and comfortable places, then I come here, I talk to people, listen to the news, doing crosswords, we don't have other places to spend time, I only have two places; book stores, coffeehouses. Here is also close to my house, it is only 10 min by walking. I have some friends that I have got to know them in the coffeehouse, so they are another reason of being in this place.” Also “Evenings are the most crowded time to meet different people and enjoy the talks and late evening about 10 is also good time to have appointments.”

(50)

“It is not only about the hookah, I have a hookah at home but rarely I use it, sitting all together here and talking while smoking is the main joy of the coffeehouse. Here every one is a friend for me, when we sit together we start to talk and get to know each other, I don't need to bring other friends with myself. In coffeehouses everyone knows each other.”

### **3.4 It is accessible and accommodating**

Third places is a place that one can use it almost any time of the day or evening with assurance that friends, bodies will be there or even being alone there. According to Oldenberg a good company can help to relief from the pressures and frustrations of the day. “A community life exists,” says the sociologist Philip Slater, “when one can go daily to a given location and see many of the people he knows.

“Access to them must be easy if they are to survive and serve, and the ease with which one may visit a third place is matter of both time and location” (Oldenberg, 1998). Third places must accommodate peoples' need for sociability and relaxation before, between, and after their mandatory tasks. But the activities that occur in third places are mostly unplanned, unscheduled, unorganized, and unstructured.

(33)

"If I will go to concentrate I will go alone, but if I am going to have fun then I am with friends."

"I come and easily start to work with my laptop without any problem, sometimes has happened that some off days I set for eight hours and work, cause I have all the facilities here the same I have at home, even I can eat my lunch here since they serve food every time." (48-713\_0017)

(48)

"We know that the world is going through interdisciplinary knowledge, so in this issue we don't have accessibility to the other professions unless in "teahouses", so if I need to meet and talk to some of these intellectuals which I need in my work, I should go to his home which is not possible. But when I think about meeting the first place that I think it can be possible is teahouses."

(43)

"Teahouses are accessible, in every old neighborhood you can find one teahouses so easily, of course some of the young people would like to go to some specific teahouses. Also teahouses can be a place to have appointments or to meet people, and time and cost are not a big deal in teahouses, if I would go to coffee shops everyday they will cost a lot. These are unique things can happen."

### 3.5. The Regulars

The regulars, the right people are the major elements to make third places lively and dynamic. "It is the regulars who give the place its character and who assure that on any given visit some of the gang will be there" (Oldenberg, 1998).

"Third places are dominated by their regulars but not necessarily in a numerical sense. It is the regulars whose mood and manner provide the infectious and contagious style of interaction and whose acceptance of new faces is crucial. The host's welcome, though important, is not the one that really matters; the welcome and acceptance extended on the other side of the bar-counter invites the newcomer to the world of third place association" (Oldenberg, 1998).

Every regular was once a newcomer, and every newcomer needs the acceptance, which is essential to the sustained life of the third place. Acceptance into the circle is not tiring, but it is not automatic either, it happens in a process and it is the element of trust that commands the strength of the welcome.

"If I could have an extra time, which I don't have, I will have more verbal communication, even though with strangers and those who I do not know them. The relations here are like a talkative (natiq) book; you can get loads of information while talking to people. This is my favorite thing to do. But I can not do that, there is official (edari) obligation, professional obligation, I like to come and sit here, then show my photos, to write about them, or here I am a book deliver role, I lend the books or the pdf files to those who need" (48).

### 3.6 The mood in a third place is playful

"The persistent mood of the third place is a playful one. Those who would keep conversation

serious for more than a minute are almost certainly doomed to failure. Sometimes the playful spirit is obvious, as when the group is laughing and boisterous; other times it will be subtle.” (Oldenberg, 1998)

Here joy and acceptance become the element that melts the insider and prompts the outsider that he or she is not part of the magic circle, even though seated but a few feet away. When the regulars are at play, the outsider may certainly recognize neither the characters nor the rules. In coffeehouses if you are an insider, you are familiar with the expressions and jokes and you may follow the flow, otherwise as an outsider there is no chance to be part of the game.

“I prefer to talk to those who I know. Unless some special thing in that person attract me or encourage me to know more about him, it can be the way that he talks or what he talks about, the way he dresses or even his voice... Yeah sometimes when I go alone, if I am in good mood with high sense of humor, I try to listen to the others and try to make joke of them.” (33)

“I should say that some of the friends sitting around are not interested in political issues, but social topics are very popular and includes 90% of our discussions, even we could find our friends among those discussions, sometimes with those friends who are university students we read a book, or translate a book together, I indebted my master thesis to the teahouse, because the ideas that I had in my mind could be developed in teahouses. Although it is mostly about critical serious issues but among all those we have waggery and joking sessions.” (43)

### **3.7 A third place is a home away from home**

“In fact third places compete with the home on many of its own terms and often emerge the winner. One suspects that it is the similarity that a third place bears to a comfortable home and not its differences that poses the greater threat. The third place is often more homelike than home” (Oldenberg, 1998). The third place is what the home is not.

“I often hold my meetings here at the coffeehouse. I usually meet someone outside, and ask him to go in and sit down in the coffeehouse. We can sit there as long as we wish. It doesn't cost much. And the atmosphere helps concentrate on the topic of the discussion”. (55)

“Some people are going to the coffeehouses for 60 years, they know the coffeehouse as a second home, which they can't spend their time without going to the coffeehouse. Many people can sit home and make their own hookah, but it is a closed place, it has some limits, but the coffeehouse is a social space and public, which while smoking people start to talk to each other, even share their private issues, their problems, so in that case the feeling of being with some one else's and not alone, cause to feel better.” (48)

“It is not only about the hookah, I have a hookah at home but I rarely use it, sitting all together here and talking while smoking is the main joy of the coffeehouse. Here familiarity and fondness and attachment happens, older and youngers find that intimacy so we feel good.” (50)

“I can provide the bath facilities at home but not the coffeehouses. I don't have time and patience to make a hookah at home, so I prefer to go to the coffeehouse. Sometimes you just want to smoke hookah no matter where you are, so it can be even at home, but if I miss the coffeehouses (means everything there) so I cannot provide it at home, then I go to the coffeehouse.” (33)

#### 4 Environmental perception

The value of this dimension of urban design is the stress on people and how they perceive, value, draw meaning from, and add meaning to, the urban environment. We affect the environment and are affected by it. For this interaction to happen we must perceive - that is, be stimulated by sight, sound, smell or touch that offer clues about the world around us (Bell 1990: 27). Perception involves the gathering, organizing and making sense of information about the environment. A distinction is generally made between two processes that gather and interpret environmental stimuli- 'sensation' and 'perception'.

Differences in environmental perception depend on factors such as age, gender, ethnicity, lifestyle, length of residence in an area, and on the physical, social and cultural environment in which a person lives and was raised. Despite everyone effectively living in their 'own world', similarities in socialization, past experience and the present urban environment mean that certain aspects of imagery will be held in common by large groups of people (Knox and Pinch, 2000: 295). Mental 'maps' and images of places and

Environments, particularly shared images, are central to studies of environmental perception in urban design.

Sense of place is often discussed in terms of the Latin concept of 'genius loci', which suggests that people experience something beyond the physical or sensory properties of places, and can feel an attachment to a spirit of place (Jackson, 1994: 157).

Concepts of 'place' often emphasize the importance of a sense of 'belonging', of emotional attachment to place. Place can be considered in terms of 'rootedness' and a conscious sense of association or identity with a particular place. Rootedness refers to a generally unconscious sense of place: Arefi (1999: 184) suggests it is 'the most natural, pristine, unmediated kind of people-place tie'. For Relph (1976: 38) it meant having 'a secure point from which to look out on the world, a firm grasp of one's own position in the order of things, and a significant spiritual and psychological attachment to somewhere in particular'. It is often argued that people need a sense of identity, of belonging to a specific territory and/or group. Crang (1998: 103) suggested that 'places provide an anchor of shared experiences between people and continuity over time'. Individuals need to express a sense of belonging to a collective entity or place, and of individual identity, which may be achieved by physical separation or distinctiveness, and/or a sense of entering into a particular area. Design strategies can emphasize these themes. Norberg-Schulz (1971: 25) argued that 'to be inside' was 'the primary intention behind the place concept'. Similarly, Relph (1976: 111-12) the 'essence of place' lay in the, occasionally unconscious, experience of an 'inside' as distinct from an 'outside'. He distinguished types of place-identity based on notions of 'insiders' and 'outsiders'.

#### 5 Place attachment

Every individual has a unique experience in relating him/herself to the place. Attachment to the place is a series of feelings that emotionally and psychologically binds people to a particular place. Due to attachments people give meanings to the physical environment and are able to make a relationship to places. Likewise such relationships are a critical aspect of people's involvement in

their local community. "Places root us—to the earth, to our own history and memories, to our families and larger community" (Cooper-Marcus & Frances, 1998, p. xi).

When relationships grow between people and places, the result is often a feeling of place attachment. Altman and Low (1992) define place attachment as an affective bond between people and places. It includes different actors, social relationships, and places of varying scale. Additionally Low (1992) argues that, "place attachment is the symbolic relationship formed by people giving culturally shared emotional and affective meanings to a particular space or piece of land that provides the basis for the individual's and group's understanding of and relation to the environment"(p. 165). Proshansky, Fabian, and Kaminoff (1983) explained place attachment as relating the interaction of emotions, knowledge, beliefs, and behaviors in reference to a place.

Place attachment refers to the idea that people develop special bonds with certain settings that hold deep meaning to the individual (Low & Altman, 1992). The word "attachment" refers to affect while the word "place" refers to the "environmental settings to which people are emotionally and culturally attached" (Low & Altman, 1992, p. 5). Affect, emotion, and feeling are essential to the concept of place attachment and appear consistently in studies on this topic. Relph (1976) assumed that to be inside a place is to belong and identify with it. Tuan (1980) suggested the existence of a state of rootedness in which one's personality merges with one's place. He wrote that the major function of place is to provoke a sense of belonging and attachment. The notion of rootedness (Vitek and Jackson 1996) and furthermore the value of community places (Cobb 1996; Hummon 1992) have also been explored in rich detail.

Given that traditional definitions of place attachment assess it as an outcome, as feeling of being attached (Tuan, 1974), environmental psychology research has indicated place attachment to be a dynamic and dialectic process that includes both a positive and a "shadow" side, as attachments can also capture or create territorial conflicts (Chawla 1992). Harris, Brown, and Werner (1996) also underscored place attachment as both the feeling of being attached and the process of becoming attached, which include reasons for the attachment.

The assessment of the existing setting, as well as the assessment of the relative quality of alternative settings shapes the attachment to the place (Stokols & Shumaker, 1981). Higher quality environmental settings are those that support the goals and activities of the person (Stokols and Shumaker, (1982). In Stokols and Shumaker (1982) suggested model of place attachment the main components of place attachments are neighborhood, physical features, individual and household characteristics, and social networks. They explain that these components may relate to place attachment by influencing need, or how the environments meets needs, such as neighborhood networks that satisfy a need for social support.

Gustafson (2001) provides a three-pole self-other-environment theoretical framework to highlight different feelings of attachments. The "self" pole suggests some places are associated with highly personal meanings related to life path, emotion, activity and self-identification. The "other" pole suggests characteristics of the inhabitants influence place attachment. The "environmental" pole on the other hand, reflects the role of the physical environment in developing place attachment.

Recent studies have developed psychometric scales for measuring individuals' attachments to place based upon their interactions with both the community and the natural environment. Brehm, Eisenhauer, and Krannich (2006) examined the connection between two dimensions of community attachment named social and natural environment. Social attachment and natural environment were separate and distinct dimensions of place attachment and they had significant associations with environmental concern. Also Williams & Vaske overlooked to how the physical social and physical dimensions of a place interact with the highly personalized attachments related to place identity and place dependence (see Williams et al., 1992; Williams & Vaske, 20013).

The integrated model which consider the interactions between place as a physical and social setting and how the setting supports one's self-identity or functional goals.

According the interviews most of the users of the coffeehouses express their multi-propose aim of using the coffeehouses that indicates the high potentials of these places in accommodating and offering different possibilities in place-use. This is how the users define their different feelings of attachment. While meeting friends and communication is important for a bunch of people, for others being there and watching people is the major joy and others are there just to smoke and rest.

(30)

"I am socially attached to coffeehouses, for me meeting my friends are more important than smoking hookah, because we are having fun here. Truly the only place to have fun and joy is here, we have no other choices. Sometimes happens that I miss the owner of this coffeehouse." And later he resumes:

"The location of the place is not that important for me, the main things that attract me are the people who sit there and the environment. There is another coffeehouse called Tamasha, which I go there only because of the people I know else it is not a high characteristic coffeehouse. I think if someone enjoys a place, would go and find it, even if the coffeehouse wouldn't be accessible (locating on top of the mountain)."

(36)

"For me it took a while to get used to sitting in a coffeehouse, at the beginning I was bored after ten minutes, but now I can sit for hours and feeling fresh, I never notice how time flies. I can say it was a process for me, I couldn't relate myself to the place, but gradually I could find my own group of people to communicate and I became part of the community. Nowadays, I always watch Traxtor games here, with other people as a group; it makes sense to watch all together. Although I have a bigger TV set at home but I prefer to watch football games here, it has been a habit for me. "

The social relationships that occur in places may enrich the activity of people-place bonding (Chawla, 1992). The social involvement of family, friends, community, and culture may be equally, or more important, than the place alone (Cooper-Marcus, 1992). The importance of people in interpersonal, community, cultural, and social relationships that are essential to place experiences has highlighted by Altman and Low (1992). Place a mental construction that seizes and directs the human relationship to the world also reinforce social relationships and collective community action. This may happen when the emotional ties to *places* occur.

Crumpacker (1993) studied an elementary school that, after having served several generations, was to be torn down and replaced. The purpose of her research was to better understand what made the school successful for so long. She found that the school provided much more than an education to students. It provided a place to share folklore, establish relationships, provide support, and served as a repository of memories for the community. Students and teachers reported a sense of belonging, of being known to others, and of ownership.

People and their culture can be affected by place attachment. Place attachment has the potential to offer changes in a daily routine, a place to relax from the more formal roles of life, and the possibility for control in various parts of life (Low & Altman, 1992). It also provides the opportunity to link with friends and community in a visible and concrete way. It turns to a solid place, a physical structure that function as a container to include all those social inter-relations.

The connection to history and to culture may occur through place or through symbols that are associated with places. Place then becomes part of the lived experience, an interwoven component of life experiences, and is indivisible from them (Low & Altman, 1992).

Riza 33:

"Coffeehouses are the best spot to interact with elderlies. One of my greatest joys is sitting with them and listening to their stories about past. They have very unique experiences which are interesting for me." He also continues:

"Coffeehouses act as a transforming places, transferring the information, the culture, the folklore and music. They could have a great role in preserving the culture. For instance in *ashiqlar qehvesi*, is a gathering place for these traditional *Saaz* players. That coffeehouse is one of the preserved places for those musicians in this city. Also it has been a working place for them, for other people who like their music can visit them in that specific coffeehouse and have a free entertainment and live music. Also those who would like to have that type of music in their wedding parties can collect the players easily there, so it works as an office for them."

(62)

"I would like to meet elderlies here and talk to them. Several of them are really old, and they know a lot about the contemporary history of this city. I would like to claim that if you want to know Tabriz 's culture you must go to the coffeehouses, not any other places. Here is the greatest source of ethnography and anthropology. Coffeehouses have a big role in people's life, they function as a community in our culture. Everyone can find his own interest or get support from here (emotionally, financially, socially). The only informal public spaces which are working for 400 years are coffeehouses."

Coffeehouses have transformed from homogeneous places to heterogeneous ones. If there were the same generation of people in nearly same education in coffeehouses, today different groups in various ages with various class and education are shaping the body of these places, which bring different dynamics. Therefore coffeehouses have distinctive pace in flow and dynamic. The flow and dynamic varies by day hours, season and occasions. The types of groups that come to the coffeehouses during the day are different; there is a quite crowd before noon, a big crowd after lunch and then the largest crowd happen in the evenings. So users schedule their occupation according to this dynamic and this is the way they find the meaning and it creates attachment not

only toward the place but also about the other users.

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# Architecture for revitalization: The local wisdom and practice of a Swiss vernacular architect in the reconstruction of cultural and economic identity in Vrin

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In the middle of last century, the reflection of industrialization and modernization, brought countryside into peoples' attention. In architecture field, the interest on vernacular architecture has developed to the discussion on contemporary agriculture patterns in vernacular settlements.

This paper takes the practice of Gion A. Caminada in Vrin (Switzerland), as an example to study the architectural strategy for the periphery in urbanization. Vrin, a village that was dying, both in terms of population and economy, started to thrive again since Caminada set about providing infrastructure and then focused a major part of his lifelong effort on. Initially trained as a carpenter and cabinet-maker, the architect has designed a series of houses aimed at combining traditional constructions with modern detailing. The strategy is examined from the overall location to the architectural space of 4 selected works, in relation to the village' evolution in geographical and historical context. Detailed history research combined with site investigation and oral interviews are made to clearly understand the process.

This paper unveils the architect's understanding of the local life, the response to our times and the reflection on the nature of architecture, during his design and construction for the periphery. Further, it explores the role of his works as the reconstruction of local identity, the regeneration of traditional culture, and the re-organization of economics and politics. It adds to the broader social, cultural, economic and architectural discourses about the periphery in urbanization, as well as building practices in rural localities with rich cultural traditions.

**Keywords:** Local Practice in Swiss Countryside; Gion A. Caminada's Works in Vrin; Learn from the Tradition; Building is Everyday Life; Re-organization of Economics and Politics.

## 1 Vrin: The death and life of Alpine fallow lands

### 1.1 The abandoned region

The Alps are one of the largest tourism regions in the world, which attract 11% tourists every year. However, about 80% of the surface in the Alps is not used directly for tourism. In Graubünden, tourism is identified as a growth industry. One element in the selling-oriented strategy of "Graubünden Ferien (Graubünden Holiday)" – the marketing organization for tourism – is a concentration of advertising for tourist destination in five main regions: Flims - Laax, Arosa - Lenzerheide, Davos - Klosters, Scuol - Samnaun and St. Moritz - Engadine. These economically powerful regions are attracting international investors for building large-scale tourism infrastructure and hotels. Architects respond in their work to both tendencies with unique solutions (Walser, 2007).

The political decision of focusing and concentration follows a larger tendency of cutting government subsidy in economically less powerful regions, especially farming. According to the research undertaken by ETH Studio Basel (2005), most underdeveloped regions in Alps (Vrin, a small village in the valley, for example), over several generations, have lost inhabitants and economic opportunities. It is no longer farming, but subsidy of urban areas, that finance the infrastructure that makes Alpine living possible. These researchers argued that the state should focus economically on the more urbanized zones and cut investment in "Alpine fallow lands." These

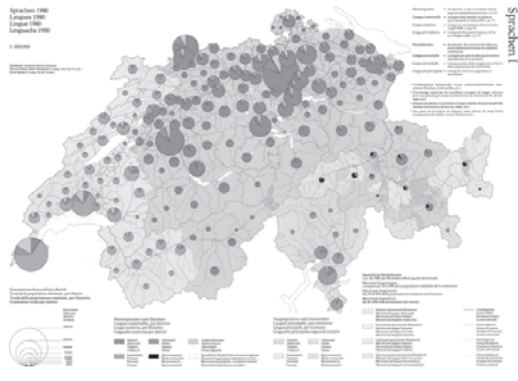
cultivated lands ought to be given up and are lost for living and working (Figure 1. Switzerland's Urban Portrait).

1.2 Dying Vrin

Vrin, located in the valley of Southern Alps, was a commune belonging to Val Lumnezia in Graubünden. In the January of 2013, it combined with Cumbel, Degen, Lumbrein, Morissen, Suraua, Vignogn and Vella as “Lumnezia”. Vrin, at an altitude of 1459 meters, covers an area of 71.2 square kilometers, of which 0.5% is construction land, 39.3% is agricultural land, 7.3% is covered by forests and 52.9% is non-productive land occupied by rivers, glaciers and mountains. Vrin is one of few existing Romanish region in Switzerland. 95.6% of local people mainly speak Romanish (Figure 2. Language distribution in Switzerland). 97.2% are Catholic.



**Figure 1.** Switzerland's Urban Portrait. Source: Diener R, ETH Studio Basel (2006) Switzerland - an urban portrait, Birkhäuser, Basel.



**Figure 2.** Language distribution in Switzerland. Source: The internet.

Since 1950s, there has been a dramatically decrease in both the population and economical income in Vrin. The reducing government's investments also accelerated the pace of its decline. In 1970s, Vrin came to a crucial moment in which the inefficient manual production should be replaced by the large-scale mechanized production. Some villagers could not find a new means of livelihood, and had to leave their homes, which also exacerbated the poor condition in Vrin (Table 1. Population in Vrin since 1850).

**Table 1.** Population in Vrin since 1850. Source: Statistical Atlas of Switzerland: Regional-portraits-2012-Communes.

1850	1900	1950	1960	1970	1980	1990	2000
466	366	441	393	333	266	251	249

1.3. The small but attractive solutions conversed from the economic difficulties

1.3.1 The beginning of change: The foundation of “Stiftung Pro Vrin”

In 1979, “Stiftung Pro Vrin” was founded "to ensure and advance the living and the commercial circumstances and to conserve the architectonic substance" of Vrin. It was decided to discuss and

develop a specific economic model together with the people of Vrin. At the beginning, the major concern was to improve the agricultural production capacity of each farm by improving the efficiency of the agricultural area. To support these aims, under the advocating of Caminada, a completely new building law that respected and strengthened the existing architectural qualities of the Vrin was established (Walser, 2007). The terms and regulations include: Any new project is required for a prior consultation with the local construction consultant, and the proposals of some specific projects need to be submitted in advance; If an existing building is renovated, its original scale should be consistent; it's forbidden to block the lands, except at some certain parts for the purpose of preventing livestock's trampling; It's forbidden to destruct the existing architectural and landscape qualities of Vrin; Hedges are not allowed; Pavements on the roads and the squares should be harmony with the surroundings, and the ones between public and private places should meet the demand of both; Geometry pavements are not allowed.

### **1.3.2 From decline to revitalization: The intervention of Caminada**

In the 1980s, the residents of the village purchased all the free construction land to prevent land speculation and resultant price increases. The local architect, Gion A. Caminada, was hired to oversee construction. In the past 30 years, Caminada rooted in the village, and has devoted almost all his lifelong efforts on the construction for his hometown. As to him, social, economic and aesthetic issues must be considered very carefully, and architecture always plays an important role in them. After discussing with the villagers, in addition to the above-mentioned regulations, Caminada also developed a strategy to improve the living standards and economic incomes, including:

- Clear the meadows and build a slaughterhouse, a cooperative and barns, to bring in new industries;

- Construct modern, large-scale, more efficient agricultural buildings, to increase agricultural productivity;

- Construct a new community centre, to complete the village's functions;

- By using local materials and construction methods, architects can employ a large number of local labours in their own projects, which will promote the economic development of Vrin in turn.

It seems today that Caminada's strategy is essential for the survival of Vrin. Vrin, a village that was dying, both in terms of population and economy, started to change in a number of respects. People stopped moving away, and a number of communal and private buildings, as well as modern farming constructions enabling a contemporary manner of cultivating land, were built. All of this was achieved without a conflict with the traditional nature of the village. Traditions and the cultural heritage were linked with new, up-to-date needs. Another proof of the well-chosen way is that Vrin was the first village to be awarded the Wakker Prize of the Swiss Heritage Society. Caminada provides an example for the design and construction of the periphery in urbanization (Figure 3. Vrin).



Figure 3. Vrin. Source: Shiyu Wei, 2015.

## 2 Caminada: The admiration and practice of local architecture

"The aspect of my architecture that I am interested in is the discussion with the local tradition. I pose a question to myself what those old architectural systems may give us. Where is the substance of those constructions? How can they be transformed for the new kinds use to meet the requirements of the present time? It is always the matter of discussion and a new development. I believe that it is the core of tradition of the entire village." Gion A. Caminada (Figure 4. Caminada's works in Vrin).



Figure 4. Caminada's works in Vrin. Source: "Den Eigenen Qualitäten Raum Geben" TEC21 Dossier 2007(01).

### 2.1 An architect starting from micro-architecture

Born in 1957, Gion A. Caminada was initially trained as a carpenter and cabinet-maker. He undertook his undergraduate study at Kunstgewerbeschule in Zurich, and then got his master

degree at ETH Zurich. After he graduated in the end of the 1970s, he went back to Vrin and started his practice as an architect there. In 1998, he began his teaching career in ETH Zurich.

Caminada's first project is a public telephone booth (Telefonzelle) in Vrin. In the age of telephone's increasing popularity, the Swisscom decided to build a telephone booth for the benefit of the villagers in the village. This caused an intense discussion at that time: on one hand, telephone was considered as a useful device; on the other hand, due to the aim of avoiding noise, most telephone booths had stereotyped forms, which would seriously damage the traditional style of Vrin under its protective regulations. Caminada, together with the mobile company, eventually proposed a solution: this public telephone booth would be constructed in the traditional "Strickbau" methods in order to keep harmony with the existing architectural qualities.

The telephone booth is located in one of several small squares in the village, close to the mini-bus parking lot and the church, connected with other "Strickbau" houses and barns through Vrin's typical unpaved roads (Figure 5. The telephone booth in Vrin). In this project, Caminada cut the original logs into rectangular beams and planed smoothly. Then he stacked the wooden beams in modular principle to make them act as the load-bearing walls, with wooden beams knitting at four corners. In the perspectives of some architectural critics, this building can even be called as "the wooden shrine constructed for a public telephone": it's placed on a concrete plinth; when people go out, they will find themselves being in a pulpit and preaching to the sheep on the road.



**Figure 5.** The telephone booth in Vrin. (Source: Shiyu Wei, 2015).



**Figure 6.** Traditional Strickbau in Vrin. (Source: Shiyu Wei, 2015).

## 2.2 Learn from the tradition

### 2.2.1 The Strickbau

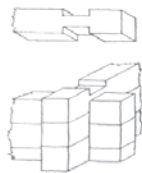
Traditional wooden construction in Vrin is called "Strickbau", in which the walls are stacked by layers of beams with medium diameter and length. The logs are knitted with each other at four

corners, with the ends crossed and exceeded respectively, to strengthen the stability, which is similar to the "Mortise-tenon Joint". The purlins are lapped on the gables to withstand the slope roof stacked by natural flaked stones. Due to the large amount of woods required in the construction of "Strickbau", these buildings are usually uneconomical. Besides, woods are easily deformed and bring in structural problems. Limited by the usable length of woods themselves, "Strickbau" can not be a large-scale: it's usually a single or two layers house, with the span of 3-4 meters, which certainly limits the layout of plan (Figure 6. Traditional Strickbau in Vrin).

### 2.2.2 Inheritance and Innovation of the construction tradition

Early experience as a carpenter makes a solid foundation for Caminada to design new houses in Vrin. His work is always revolving around two parts: the inheritance of tradition, and the innovation adapting to modern requirements.

"Local materials and proper construction methods are the basis of typical wooden architecture in all regions. In the past, the design and construction of wooden architecture depended entirely on the access to the raw materials and the practical experience of the carpenters. Construction and life were combined together ... The local carpenters know in advance what the house should look like when it's completed: it will have a flat, stretching and big roof covering the living space underneath. What the house owner needs to do is simply telling the carpenter how many rooms he wants. Logs horizontally stack the walls, with the ends knitted with each other. The various nodes are carved out by the carpenter with his tools." (Wietersheim, 2005)



Traditionelle Eckverbindungen im Strickbau. Aus: Wasmuth's Lexikon der Baukunst. 1. Bd., Stichwort: Blockwand, Berlin 1931, S. 553.

Traditional corner joints in Strickbau. From: Wasmuth's Lexikon der Baukunst. 1. vol., keyword: Blockwand, Berlin 1931, p. 553.



Ecke eines Stalles in Vrin/Corner of a stable in Vrin



Gion Caminada, Stall in Duvin/Stable in Duvin, 1995

**Figure 7.** Caminada's preliminary exploration of corners in the design of a school in Duvin. Source: Schlörhauser B, Degonda L, Caminada G, Arte M (2006) Cul zuffel e l'aura dado - Gion A. Caminada, Quart, Luzern.

On the basis of an in-depth study on "Strickbau", Caminada explores the new methods processing the corners of wooden structure in residential buildings. He develops some constructing methods that have similar appearance with stacked layers, crossed and exceeded ends, but are more adaptable to modern building procedures. In the design of a school in Duvin (1995), Caminada replaces the traditional small logs with precast girders, and applies the insulation material on the surface (Figure 7. Caminada's preliminary exploration of corners in the design of a school in

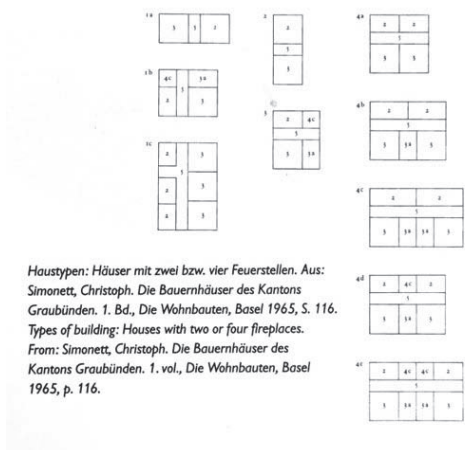
Duvin). In a subsequent series of residential design, Caminada has conducted a number of experiments, and develops various constructing methods based on "Strickbau" (Figure 8. Various explorations on corners in the series of Caminada's residential design).



**Figure 8.** Various explorations on corners in the series of Caminada's residential design. Source: Schlorhauser B, Degonda L, Caminada G, Arte M (2006) *Cul zuffel e l'aura dado* - Gion A. Caminada, Quart, Luzern.

### 2.2.3 Exploration on open space

After summarizing the traditional architectural space, Caminada keeps creating open space in his series of residential design, trying to meet the modern life's demands on spacial openness and flexibility (Figure 9. Caminada's summary of traditional architectural space in Vrin).

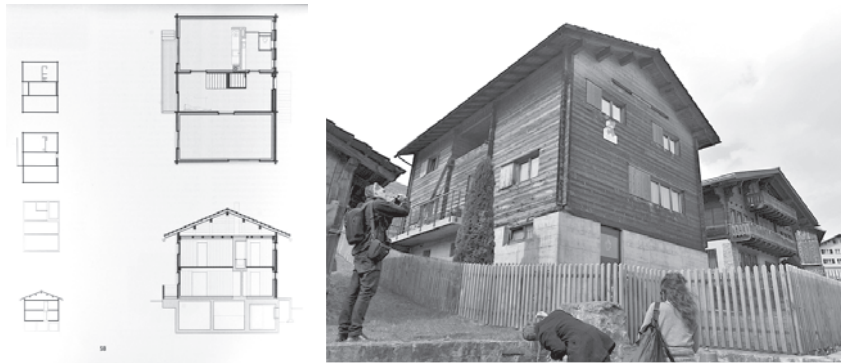


**Figure 9.** Caminada's summary of traditional architectural space in Vrin. Source: Schlorhauser B, Degonda L, Caminada G, Arte M (2006) *Cul zuffel e l'aura dado* - Gion A. Caminada, Quart, Luzern.

His first private residential project: House Caviezel (1995), integrating seamlessly with the local architecture. This harmony does not come from intercepting traditional elements and then restoring the image of local buildings, which is often mentioned in Regionalism or Traditionalism, but through the inheritance of constructing methods and architectural typology. He kept the three-part division in plan: a corridor separates the kitchen and the living room, at the same time acts as a public lobby.

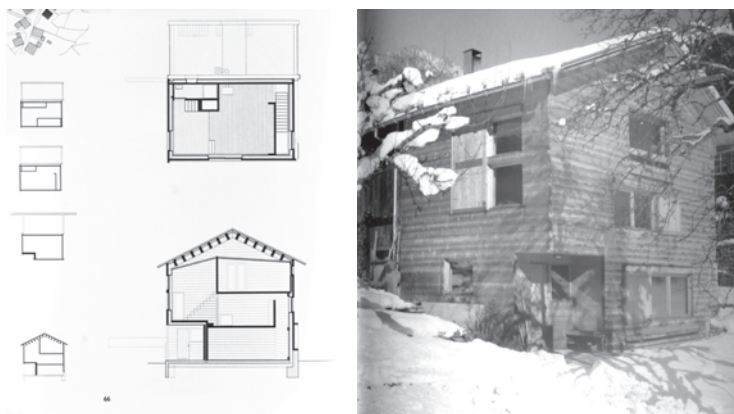
In the house, there is only one fireplace enclosed by concrete structures, for central heating, cooking and showering, just as what happens in a traditional house. However, the windows on

different floors are arranged according to the requirements of different rooms, instead of being in the same position. This design also allows the house to be separated from traditional images, with the characteristics of modernity (Figure 10. House Caviezel).

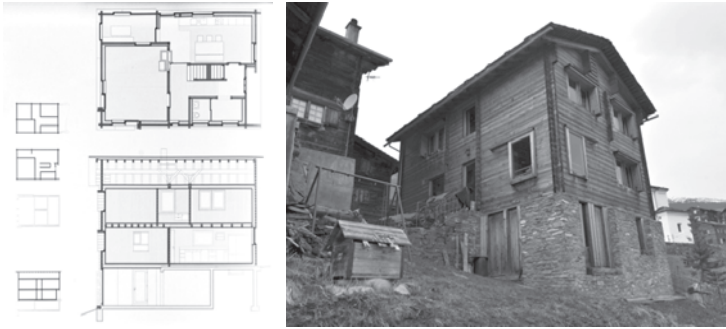


**Figure 10.** House Caviezel. Source: Shiyu Wei, 2015; Schlorhauser B, Degonda L, Caminada G, Arte M (2006) *Cul zuffel e l'aura dado* - Gion A. Caminada, Quart, Luzern.

In the residential projects since the end of the 1990s, Caminada proposed that building structure should be combined with the enclosure system – insulation layer in the middle of the double laminated timber walls, in order to free the interior space. In the House Kruker-Meier in Duvin, an open space flowing throughout three stories becomes the core of the house, and the functional rooms are demoted to secondary importance or open to the void (Figure 11. House Kruker-Meierp). In the House Caminada (2000), the plan breaks away from traditional three-division, and is arranged freely. The details of windows make them integrate perfectly with the double walls (Figure 12. House Caminada). In Caminada's opinions, the pleasure of architecture comes from charming solutions to the conflicts between the traditional and the modern, as well as new features that fit a certain kind of lifestyle.



**Figure 11.** House Kruker-Meierp. Source: Schlorhauser B, Degonda L, Caminada G, Arte M (2006) *Cul zuffel e l'aura dado* - Gion A. Caminada, Quart, Luzern.

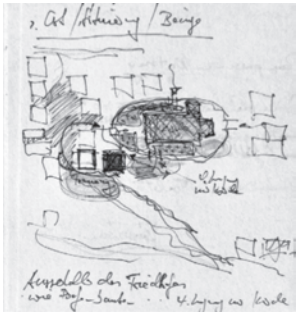


**Figure 12.** House Caminada. Source: Shiyu Wei, 2015; Schlorhauser B, Degonda L, Caminada G, Arte M (2006) *Cul zuffel e l'aura dado* - Gion A. Caminada, Quart, Luzern.

### 2.3 Building is life

Caminada believes that architecture needs to be a reflection of the villagers' lives, and plays an important social role in it. The Chamber of the Dead (*Stiva da morts*, 2002), which provides a contemporary memorial place for the villagers to bid farewell to the dead, is a good example. Traditionally, after someone passed away, the body would be laid-out in his house for 3 days. During that time, all the villagers would come and show their respects. This collective ritual helped the bereaved to overcome the tragedy of the death. After that, the body would be sent to the church for the funeral. Nowadays, keeping the body at home becomes a taboo among the villagers. Therefore, at the downhill between the church cemetery and the villagers' everyday living place, Caminada built a chamber for the dead (Figure 13. Caminada's sketch for the location of the chamber). Downstairs is the room for the body, with direct access to the village. Upstairs is a small kitchen and dining room, where family members can cook, get together, and share their memories about the dead, with direct access to the church and the cemetery. Caminada hopes the family members will appreciate the connection between everyday life and the divine religion, as well as rethink the meaning of life and death, in this chamber.

This building is totally constructed with the local traditional wooden construction, "Strickbau", but the white paint is clearly connected to the church (Figure 14. The chamber with the church behind). Four corners of the walls are knitted at the ends as in traditional houses, but the details are more simple and reminiscent of the church's pilasters (Figure 15. The details of the corners and the windows). The construction of the slope roof follows the traditional method of stacking flaked stones. The interior looks more like a sculpture space rather than a normal room, expressing a certain deepness and intimacy. The inside of the building is also refined with beeswax, exuding a warm glow (Figure 16. The interior). The irregular windows make full use of the space between the double walls. From these windows, people can overlook the valley, the village, as well as the church cemetery, and have a dialogue with the nature. In this case, architecture has the power of spiritual enlightenment.



**Figure 13.** Caminada's sketch for the location of the chamber. Source: Schlorhauser B, Degonda L, Caminada G. Arte M (2006) Cul



**Figure 14.** The chamber with the church behind. Source: Shiyu Wei, 2015.



**Figure 15.** The details of the corners and the window. Source: Shiyu Wei, 2015.



**Figure 16.** The interior. Source: Shiyu Wei,

## 2.4 Beyond the identity of architecture

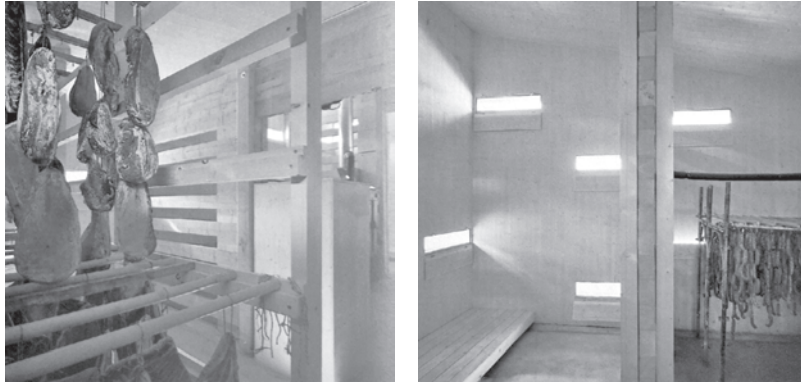
When we talk about architecture, what on earth are we talking about? The answer given by Caminada is more than architecture itself, and also includes economic and even politics – all the aspects that architects should consider comprehensively and then solve a certain problem through construction. When the individual workshops were too small, and the long winter break made the villagers couldn't survive only by traditional farming or husbandry, Peter Rieder, the president of "Stiftung Pro Vrin", together with Caminada, found a new way out. As they suggested, the villagers keep all the 3400 narrow meadows and are responsible for mowing respectively; 25 farmers cultivate 610 productive meadows with modern machines; a butcher settles down to help the villagers process their cattle, make and store meat products; a slaughterhouse (Stallgrupper mit Metzgerei) has been built; the livestock owners have established a cooperative selling their sausage and milk products by themselves, in which way they bring in 100,000 francs per year; Caminada designed a workshop (Schreinerei Anbau) for the local carpenters and locksmiths, with whom he usually collaborates in his projects and then establishes their own brand "Vrin Model".



**Figure 17.** The slaughterhouse. Source: Shiyu Wei, 2015.

On the slopes at the edge of Vrin, Caminada built three commercial buildings: two of them are barns; the third one is a complex of a slaughterhouse and a butcher's shop. These three buildings are slightly larger than the ones nearby, so the roofs are designed to incline towards the valley in order to reduce their visual volume. The storage space at the bottom of the buildings is concrete structure, while the air-dried space at the upper level is wooden structure. The upper facade is composed of two parts: the inside is made of wooden planks; the outside is rectangular

laminated wood arranged at intervals. These two parts are knitted to generate a rhythmic graphic effect (Figure 17. The slaughterhouse). From the horizontal gaps, fresh air flows in, which meets the physical environmental demand of indoor production (Figure 18. The interior). The difference between the barns and the slaughterhouse is that the base of the latter is constructed of a rough material called "Lesesteine". It is a kind of local stone, and is used for enclosing the meadows in the Alps in summer.



**Figure 18.** The interior. Source: Shiyu Wei, 2015.

## 2.5 Postscript

When I left Vrin, the villagers' Romanish chatting, mixed with the smell of the livestock blows against my face. I cannot help imaging that I was standing in the Utopia described by a famous Chinese poet in his work "The Peach Colony": "He saw before his eyes a wide, level valley, with houses and fields and farms. There were bamboos and mulberries; farmers were working and dogs and chickens were running about. The dresses of the men and women were like those of the outside world, and the old men and children appeared very happy and contented." (Tao, 421) We cannot interpret or critic Caminada's works simply from the perspective of architecture. In my opinion, his design and construction for the periphery reflect an architect's mission in the reconstruction of local identity, the regeneration of traditional culture, the re-organization of economics and politics in the development of human civilization, as well as the deep understanding of local life.

## 3 The career as a vernacular architect: A personal interview with Gion A. Caminada

**Wei:** What kind of opportunity made you directly go back to Vrin after your graduation? What's the condition of Vrin at that time?

**Caminada:** 30 years ago, when I graduated from ETH Zurich, Vrin was just at the beginning of agricultural mechanization, and a number of infrastructures were in demand. Besides, the government offered considerable economic subsidies to the preserved villages. As a result, many new residential houses, as well as public buildings such as the multi-purpose hall, will be built in Vrin.

**W:** In many traditional villages in China, natural environment is the driving force of settlements' structure, in Longji Zhuang Ethnic Village, for example, the special structure perpendicular to the contour lines and the architectural prototype of Ganlan, is driven by the mountainous landscape and the resultant terraced rice production. As to the villages like Vrin, what do you think is the driving force behind its physical form?

**C:** In Vrin, only 40 percent of the population is living on farming, a small number are engaged in handicrafts or tourism, and most of them are depending on husbandry. The ecological structure of Vrin is called "Stufenlandwirtschaft (Vertical Stratification)": The villagers are living at the foot of the mountain; every autumn, the straw piled on the hill is dry, and the pastoralists go to higher mountainside for grazing; at the higher elevation of mountainside, every three to four pastoralists share a stable, in which they store their dry straw; when all the dry straw is eaten up at the end of winter, the pastoralists will drive their livestock back to the village in early spring. Hence, there is a vertical stratification based on the activities of human and animals in different seasons. It's different from what happens in Chinese villages: you organize the activities of human, architecture and agriculture horizontally along the contour lines, while we do it in the vertical direction.

Specifically to the aspect of a single building, Zumthor once did a detailed analysis of the spatial structure in Vrin, and he found that the overall layout of the village is a combination of the units of courtyard. The three elements of a courtyard unit are: a residential house, a stable and a garden. He also found that the spatial connection between the residential house and the stable is more based on the functional consideration, such as the approach of people moving from the house to the garden, instead of natural landscape. Of course, natural environment also has some effects on Vrin's structure: the buildings are never sited along a linear direction, but straggled in the mountain. The main facades of traditional houses usually face the south. This is a typical architectural prototype in Vrin.

**W:** Next question is about the adaptability of architecture responding to the environmental changes. When the Swiss government reduced the subsidies, Vrin brought in a new type of architecture, a slaughterhouse, in order to adapt to the re-organization of economic. Are there any other examples of architecture's adaptability to the environmental changes?

**C:** There are two main factors leading to the changes in Vrin. The first factor is the change of the homestead scale. In the past, the land was divided into small-scale parts in accordance with the population and the traditional agricultural methods. Nowadays, the villagers prefer to harvest by using modern machines, so they require for the consolidation of agricultural lands and a massive reclamation in order to improve economic outputs. As a result, the lands with larger area are up for sale.

The second factor is the formation of the streets. The expansion of homestead scale and the gradually mechanized agricultural methods resulted in a demand of more efficient and wider streets. At the same time, with the development of husbandry, the original stables on the mountainside were no longer enough for the increasing number of livestock. So the pastoralists purchased larger lands for constructing new stables on foot of the mountain, and moved the straw back to the village through the new streets. In the consideration of hygiene, the new stables were away from the existing village from a distance. After this, besides the slaughterhouse that is located

at the edge of the village, the pastoralists constructed a larger goat shed and a small cheese-making factory on the mountainside.

**W:** Is there any natural disaster or war that ever happened in the history of Vrin? What's their influence?

**C:** Vrin is a small village in the valley. There have not been many natural disasters. But the wars have an indirect impact on the population in the village. During the wars, the villagers were more willing to stay in this quiet village, so the population was expanded in these periods. After the wars, many villagers would move out, 'cause the village is too small and the soil feeding it is not so fertile. In 1950, the population of Vrin was about 500, and there were six to seven children per household. Today, there are only two to three children per household, and the village's population reduces to about 280.

**W:** Is there any period of morphological mutation in Vrin's history? For example, you mentioned the wars have influenced the village's population significantly. Or the village is always in the process of gradually evolving?

**C:** The development of Vrin has always been relatively continuous. There has no any obvious mutation occurred in history. A relatively big change is the decreasing of population, which leads to the depression of the village. No matter in which country, it's a common phenomenon that young people are willing to move to the cities. In a family with three children, only one may stay in the village.

**W:** What are the effects do you have when you work as an architect in Vrin?

**C:** For me personally, every single village in the world is very different. The force, which makes the world of diversity, is great. So I hope to strengthen this crucial force to maintain diversity among different things. This is my basic position. I have 5 different topics in my ETH studio, to train the students on how to strengthen these distinctions between different objects. This process is not arbitrary, but requires for patience, understanding, and the attempts to figure out why the object presents such an appearance. You just introduced a traditional Chinese village to me, which presents the appearance of terraces in the environment. If we can realize the law behind this phenomenon, and then integrate the law into our creative work, it would be a great and patient study. Besides, although the tradition is precious, the contemporary methods of maintaining the diversity and creating a place of identity is of equal importance. We should not avoid the development in our time.

**W:** In Switzerland, the average educational level of the population is relatively high, so as the degree of urbanization, in addition with the government's subsidies, the people living in villages still have a good quality of life. On the contrary, the material and living conditions in Chinese villages are relatively poor and unsatisfying. Thus, the architects' intention to preserve diverse villages and the villagers' desire to improve the quality of life will be in conflict. How will you solve this contradiction?

**C:** It's the same situation in Switzerland. Young people always believe that the outside world is much better than the one they are living in. They are more curious about new things and eager to move out from their familiar circumstances. I think, after thirty or forty years, people will realize the charm of their familiar world. Of course, the economic conditions in Switzerland are better, and with

the government's benefits and subsidies, the villagers don't have to worry about their survival - you can imagine that the situation will be quite different if there are no supports from the government.

Today, in the competition game between economic desires and culture conservation, the importance of the latter is increasingly weakened. So I think China needs more architects like you, to help the local people realize the power of their familiar hometown.

**W:** During the design and construction of a new house, how do you and the villagers divide the labor? Will the villagers participate in the construction?

**C:** In the past, the villagers were involved in the house construction, because everyone was good at handwork. But now, the house construction is contracted to engineering companies, and every single detail is assigned to the professional. So, the villagers can't take the role of builders any more.

**W:** You described building as a lifestyle in an interview. Would you explain it more specifically?

**C:** In that interview, I want to criticize those architects who consider architecture as an object. They make the object itself become the focus of a place. However, what I want to do is to integrate the architecture into a certain place, and then create diversity. This process is not arbitrary. It requires architects to understand the whole generating process hidden behind the diversity. This is what I want to pass on to the students: not to create an object, but to create the loci. There are buildings of high quality everywhere in Switzerland, but the architects seem to have no ability to design a place with a strong sense of identity. The abundance of a place can be easily achieved by superimposing disparate objects, but it doesn't simply mean that the place has the power of diversity. The power is also generated based on the connection between different objects.

**W:** Many professors in ETH Zurich have their own positions for the tradition, such as Professor Sik's "Analogy Architecture". What's the role of "tradition" in your architecture practice?

**C:** Tradition, of course, is very important. For example, I always want to know the basic architectural typology and how it evolves synchronously in the development of a village. But to me, not equal to the images, tradition is more relevant with real life. When you get involved in a place and intend to create the diversity, you need an appropriate idea to activate the initiative - not just an analogy to a simple image - because the tradition is alive. Architecture itself cannot isolate from the images that are the appearance of objects, but should be more relevant with the contents behind them.

**W:** What do you think is the core of tradition? Or in your practice, what elements are defamiliarized or re-interpreted, and what are remained intact?

**C:** It's very simple. If the building is still in a good condition, for example, the main part is still working, the materials have not yet been over-consumed, or the space is still enough for the functional requirements, I won't make any change. Conversely, if the wooden material is being corroded or moldy because of humidity, we should do something. When I make some changes, I will consider more from the aspects of functions rather than aesthetic.

**W:** Do you encourage students to return to their hometowns after they finish their studies? Do you think architects should undertake the cultural, the economic and the political responsibilities for the society?

**C:** If an architect wants to do something in the regeneration of culture, it will help a lot if he returns to his hometown: He is more familiar with the local customs, and has a better understanding of the inhabitants. So from this point of view, back to hometown is benefit. However, if I build a house in China, I will unload the so-called cultural responsibility, and try to understand the ideas of local people, because this land is completely unfamiliar to me.

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## (Re)Introducing water to public spaces: The blue-green network of Lahijan, Iran

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Water is and has always been the vital element of life. The history of urbanization is tied to the sources of water and it contributes to the higher quality of a space in many different ways. While water and waterscapes have been considered a great asset to the cities for centuries, the growing problem of pollution of water resources and its risk to public health made the waterscape unpleasant to people, and resulted in elimination, and later disappearance of water from urban spaces. Moreover, the modernist urban planning and design of the cities contributed to less use and weakened presence of water as a visual pleasure and aesthetic quality in urban spaces. The emergence of urban water system, albeit solving a series of problems and facilitating access to clean water, was yet another reason to domesticate water and to decrease aesthetic, social and cultural significance of waterscapes in the cities. Lahijan, a small city in northern Iran is used as an example to study the multi-dimensional role of water in life of the city of the past. The paper argues how the traditional techniques can act as guiding lines to (re)define the role of water in functional structure of the city, and to (re)introduce waterscape to its public spaces. Through studying the history of Lahijan pond and its role in urban water system, the paper seeks to introduce smart techniques based on traditions to contribute to creating of generative places, and improving the wellbeing of the community and aesthetic qualities of the city.

**Keywords:** urban water systems, rainwater, farm pond, generative places, Lahijan

### 1 Introduction: the weakened presence of water in public spaces

Water is and has always been the vital element of life. The history of civilization and urbanization are tied to the sources of water and it contributes to the higher quality of a space in many different ways. From ancient times to the current era, water has been considered a source of aesthetic and visual pleasure, desired comfort and therapeutic value and leisure and recreation. While water and waterscapes have been considered great assets of the cities for centuries, some trends within recent centuries have dramatically affected the world of water and resulted in water-related issues in cities. Among others, the growing problem of pollution of water resources and its risk to public health, rapid urbanization under modernist approaches as well as emergence of urban water networks are the main reasons of less appreciation, and weakened presence of water in urban spaces. In current Iranian urban environment, water has lost its various capacities and multi-dimensional role; it has become highly domesticated and is becoming just a commodity to serve the urban population; while its otherwise aesthetic, social and cultural capacities are about to be forgotten.

Lahijan, a small city in northern Iran is used as an example to study the multi-dimensional role of water features in the past life of the city. The authors, however, are well aware that traditional practices are not able to solve all water-related issues of the current time; through historical investigations, the paper aims to identify the traditional practices of water management in northern Iran to recall the strong role of water in city of the past. The paper seeks to identify how such traditional techniques can act as guiding lines to (re)define the role of water in functional structure of the city while emphasizing its aesthetic, social and cultural capacities through (re)introducing water to public spaces.

## 2 Urban water throughout time

### 2.1 The past: “water; the generator of the place”

Throughout the history the most important and the most obvious function of water for the cities was to sustain the urban life, and the further development and existence of any city were dependent to the availability of adequate water supply to respond the needs of its residents. Accordingly, having easy access to water and living next to the sources of water were considered great assets for centuries. Studying the condition of old cities shows the multi-dimensional role of water within the cities and the emergence of various water features throughout the history. Moughtin *et al.* in the book “Urban Design: Ornament and Decoration” highlight the dual role of water in the cities; water as the essential element for life and as the decorative feature of the space. The book argues, “Water has an elemental quality which gives it great symbolic meaning when used as a decorative feature in the city. Water together with trees and the canopy of the sky above reminds us of the wildness of nature. Since the origin of cities, man has used water not only for essential purposes but also for display” (1999, p.122). Thus, water is almost a necessity in any artistic urban setting; there are not many examples of famous streets, squares and parks in cities without the use of water in design of such spaces. Water can be used in different ways to create different moods and represent various impressions. Cities of the past contain great examples of use of water not only to respond the needs of their inhabitants but also to display: quiet still pools and lakes, energetic and dynamic fountains and waterfalls, running water of canals and rivers are examples of water features to decorate the streets and squares of cities.

The emergence of fountains within the cities however was due to respond a functional role in urban water distribution systems; the value of water as a vital and sacred element designated fountains as important places in cities. As the source of fresh water and the symbol of life fountains turned into focal points and generative places where people gather, settle and establish their communities. Before the advent of modern plumbing, fountains and their networks of aqueducts and cisterns were essential systems in towns or cities. To emphasize their importance, people since ancient times have decorated their civic wells and fountains with symbols of their town's history or the mythology associated with the water source (Moore & Lidz, 1994, p.42). Currently, however, due to the emergence of modern urban water systems, the fountains lost their functionality as the source of water supply of the city; they are still considered important elements and focal points which contribute to the aesthetic quality of given spaces.

The linear form of water in cities presents another typology of water features; as the elements of connection and communication, watercourses run through cities in form of rivers, canals or streams. While such linear elements in cities or neighborhoods were usually used to distribute water for houses and the gardens they were contributing to the higher quality of the living environment.

In contrast with dynamic and energetic character of fountains and running waters, quiet still waters such as lakes, pools and ponds are other water features to represent a different typology of water features within the city: the water surface. According to Moore & Lidz, lakes embody notion of collection and reflection... Lakes and ponds have thus always been an important

ingredient in the Romantic landscape gardener's recipe, forming a horizontal sheen within gardens that pacify the psyche and become repositories of dreams (1994, pp.21-22).

Time and again, such examples highlight the dual role of water in the past; water as the essential element to generate and sustain life of the cities, and as the decorative element to improve the aesthetic qualities and beautification of the space.

## **2.2 The Contemporary City: "Water; a Commodity to Serve the City"**

While water and waterscapes have been considered a great asset to the cities for centuries, and water had a strong presence in various forms of water sculptures, watercourses and water surfaces in cities, the growing problem of pollution of water resources made the waterscape unpleasant to people. Rural-urban migration and expansion of the cities along with the industrial revolution and more use of fossil fuels are among the trends within the 19th century to cause dramatic water pollution. As Novotny *et al.* (2010, p.15) argues, "urban water bodies served both for water supply and wastewater disposal, sewage cross-connection and contamination of wells and potable water sources caused widespread epidemics of waterborne diseases." The problem of pollution and its risk to public health resulted in weakened presence, and later disappearance of water from urban spaces.

Apart from industrial revolution, rapid urbanization and their water-related consequences, the modernist urban planning and design of the cities also contributed to less use and weakened presence of water in urban spaces. The urban planning and design of the cities in this period was mainly composed of a set of rigid street systems that lacks the beauty and grace of the architecture of the past. Despite people's interest in water and their efforts to integrate it as an important part of their living environment, and popularity of gardens, fountains and alike, water became highly domesticated and the appreciation of water as a visual pleasure and aesthetic quality dramatically decreased. In response, Camillo Sitte's *City Planning* (1965) calls to look back to ancient, mediaeval, renaissance and baroque examples of urban spaces. Through very careful observations, he aims to derive certain principles of each design to re-establish urban design as an artistic enterprise with emphasis on the visual experience of urban spaces (Sitte 2007, p. 25).

Since ancient time urban planners and engineers were searching for solutions to respond the growing need of water in urban areas. Bringing water from long distances was among the first solutions to face the problem of water shortages in population centers. The engineered water systems to bring water to urban centers, however, has been constantly developing throughout the history to respond the ever-increasing need of water of the growing population; the main concept of water transfer remained unchanged. Among the ancient examples one might name the Roman's aqueduct to bring water from mountains and the underground urban water delivery system of Persian Qantas to sustain life in areas with low rainfall and no spring water. Currently, the modern urban water networks of the cities use the same concepts; however, they enjoy much advanced technologies for faster and easier water transfer through canals and pipelines over long distances. In urban areas, water has become a commodity to serve the urban population. Hence, the current approaches towards water are mainly focused on technical and financial improvements, while its otherwise aesthetic, social and cultural significance are minimized.

As mentioned earlier, the primary role of water in cities was to sustain the urban life. In response to such significant role of water, communities started to design and decorate their water features. Therefore, the functional capacities of water to sustain urban life, and its aesthetic capacities to decorate public spaces have evolved together throughout the time, one supporting the other. Consequently, the special character of water features within the city as life-generators and visually attractive points gave them social significance and turned them into focal points of cities where people meet, gather, and socialize.

Introduction of modern urban water network changed the traditional approach towards water. The water systems of contemporary cities are composed of underground water pipes to bring water from longer distances. On one hand, invisibility of urban water pipes network weakened the visual and aesthetic significance of water in cities, and further highlighted its functional role. On the other hand, water features such as fountains, streams, and ponds lost their functionality and turned into ornaments and decorations of the city. Currently, the diversity of water features is mainly due to the existence of fountains and water sculptures to decorate urban squares and parks, and presence of water bodies such as lakes and pools in urban parks and recreational spaces. Water has lost its aesthetic and social significance in place making process of the cities, rather it has become a commodity to serve the urban population.

### 3 The case of Lahijan: water throughout the time

#### 3.1 Lahijan's Water System of the Past

Lahijan is an old small town, located in Guilan region in north of Iran. Over the centuries, it has earned reputation of being a beautiful green city with moderate climate and rich cultural and historical heritage. According to the given classifications to Iranian cities, with an area of 1013 hectares and some 73000 people, Lahijan is regarded a small city.

The urban water system of Lahijan in the past was due to respond domestic and agricultural purposes, and was provided through ground-, surface- and rainwater. The domestic water system was mainly based on use of individual wells in the houses (extracting groundwater as potable water), roof water collection in water basins (*hoz*) for other domestic uses (non-potable uses), while required water for agricultural uses was provided through either storage of rainwater in farm ponds (*sa*) or use of surface water.

**Table 1.** Water resources of Lahijan in the past

Water Feature	Local Name	Source of Water	Purpose of Use	Scale of Use
Well	<i>Chāh</i>	Groundwater	Domestic uses (Potable)	Small-scale (Family scale)
Water basin	<i>Hoz</i>	Rainwater	Domestic uses (Non-potable)	Small-scale (Family scale)
Pond, pool	<i>Sal</i>	Rainwater	Agricultural uses	Large-scale (Community scale)
Spring	<i>Cheshme</i>	Surface water	Agricultural uses/ domestic uses	Small/large scale
River	<i>Rūdkhāne</i>	Surface water	Agricultural uses	Large-scale (Community scale)

Roof water collection and farm ponds are the main traditional rainwater harvesting techniques, which have been used by locals for centuries. Roof water collection is specifically practiced in Guilan region to be used in domestic spaces. In this technique, rainwater was collected from thatched wooden/clay-tile roofs, navigated through downspouts and stored in cisterns. The cisterns or storage spaces in different forms and sizes could be located under, on or above the ground. In Lahijan's houses, however, rainwater was usually stored in small water basins in the courtyard, called "*hoz*". The collected rainwater was used for non-potable purposes such as washing, watering the garden and alike. "Nowadays, galvanized iron roofs are used and give the cleanest water for domestic use. Since runoff from roofs has to be directed into cisterns in the courtyards wooden, plastic and/or galvanized iron gutters are used. This type of water harvesting is called rainwater harvesting which is widely used all over the world." (Ghoddousi, 1999, p.292)



**Figure 1.** Water basin (*hoz*) in the courtyard of an old house, Lahijan, Guilan, Iran

Farm Pond is another technique, which is mainly used, in the larger scale of the city to collect rainwater for agricultural purposes. The same technique has been used in different regions of the country. Known as "*Gal*" in East-Azarbaijan Province, "*Bandsar*" in Khorasan Province, "*Esel*" in Lorestan Province, "*Hutak*" in Sistan & Baluchistan Province, and "*Sal*" in Guilan Province, all are designed and built to serve the same function; however, form, size and building method of farm ponds might vary from one to another. Ghoddousi refers to farm ponds as "structures" which are constructed by small earthen walls on flat or hilly land to collect and store rainwater, surface runoff and flood flows (1999, p.292). In Banihabib's words, the rain and storm water running from the upper or neighboring catchments is collected and directed into these small reservoirs (1999, p.337). Despite the fact that Guilan region has an annual average precipitation of about 1000 mm, it is not concurrent with cultivation season, and therefore, using farm ponds sounds to be a smart technique to harvest the water in rainy seasons and use it later in the cultivation period. Unlike southern Iran, the evaporation rate is not a concern in Guilan, and thus, among various rainwater harvesting techniques, farm ponds, as uncovered open cisterns to collect rainwater became very popular and common among the locals. Historical investigations reveal that almost all the cities and villages in Guilan province had one or more ponds to fulfill their needs of water. Banihabib argues that there

were 1200 ponds in Guilan province to provide water for various uses such as agriculture, fishing and other recreational activities (1999, p.339) However, rapid pace of urbanization, particularly in last 50 years caused many changes in rural and urban context of the region such as disappearance of many farm ponds. The emergence of modern irrigation systems and lack of proper maintenance are among the reasons of deterioration and later disappearance of many ponds in Guilan. In urban areas, there are many examples where the ponds were swallowed by expanding urban fabric to provide room for different urban functions, and to respond the needs of the population. Apart from their original functions, farming ponds have been contributing to the quality of spaces in different ways. As it is mentioned earlier, the still water of the pond combined with the surrounding greenery in the center of the city was an important element to define the urban landscape. The pond as the large body of water within the urban texture was contributing to the aesthetic qualities and visual attractiveness of the city. Besides, it was a generative place to bring together people for various recreational and leisure activities such as fishing, swimming, picnicking and alike.



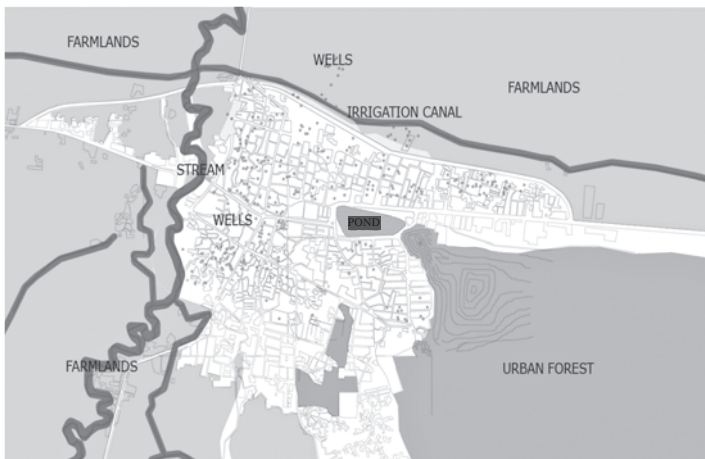
**Figure 2.** A farm pond (sa) in outskirts of Lahijan, Guilan

Lahijan, the small Iranian city, over the centuries, was known as a green city with rich beautiful landscape. Due to the availability of fertile soil and rainfall, city's economy was mainly centered on agriculture, and vast areas of rice and tea farmlands were among the main elements to shape the inner and outer landscape of the city. Among others, Lahijan's pond located inside the city was one major source of water for vast agricultural fields within the urban area. Recent studies, however, reveal many changes in the traditional water supply of the city in recent decades. On one hand, many of the agricultural fields within the urban fabric have been swallowed to provide space for new developments. On the other hand, through the introduction of modern water technologies, Lahijan Pond lost its primary function as a source of water. Therefore, Lahijan pond, which was once the main source of water for agricultural activities, went through many changes to adapt with new functional structure of the city. Besides, the dominance of automobile changed the street network of the city so that the natural connections between the streams and springs (source) and the pond (storage) were cut. Covering the floor and walls of the pond by concrete was yet another

step in transformation of the pond. Such changes albeit facilitating the maintenance of such large body of water inside the city and ensuring the sanitary concerns, transformed the “natural pond” to an “artificial pool” and damaged its natural aquatic life. The new pool, however, provides a great recreational space and beautiful scenery inside the city and improves the visual qualities of the space, is one single entity disconnected from surrounding natural environment. Currently, the pond is not a source of water anymore- as it was in the past, rather it is a large artificial body of water in the city, which fulfills its need of water through other underground water resources.



**Figure 3.** Location of Lahijan Pond in the city



**Figure 4.** Natural water system of Lahijan

### 3.2 Lahijan's Water System of Today

Introduction of modern urban water network to Lahijan, which happened some 55 years ago, affected the functioning landscape of the city in different ways. For better supplying the city, a

pipeline system was built to serve the people and to fulfill the urban water consumption. The required water was delivered to the city from twelve wells, which were dug in outskirts of Lahijan. Since then, the new urban water and wastewater network of Lahijan have been developing, while the traditional techniques lost their efficiency and therefore, their popularity.

Despite the considerable annual precipitation, rainwater is not considered a source of water anymore. While high precipitation of the region was among the most important characteristics to define the water system of the city in the past, currently, the main source of water of Lahijan includes surface and ground water; rainwater is mainly neglected or forgotten. Although harvesting and storing rainwater have been practicing for centuries, both in household and urban scale, rainwater has lost its value as a source of water and asset of the city; rather it is currently considered a problem. Hence, despite the availability of rainwater, urban water system in Lahijan does not use rain as a source of water and poses higher stress on its underground resource.

Furthermore, high imperviousness of the urban surfaces and inefficiency of the urban sewers have increased the risk of urban flooding. The dominance of automobile in the city of the last century resulted in emergence of huge impervious surfaces. Consequently, the green character of Lahijan is weakened and the gap between natural and built environment is widening. Less greenery in the city means less permeable and soft surfaces, increasing impervious and hard surfaces, and ultimately, more erosion and risk of floods.

Lack of proper stormwater management system increases the risk of urban flooding, particularly in rainy seasons. Currently, the city has a mix of combined (185 km) and separated (61 km) sewers to manage both wastewater and stormwater. Combining waste- and storm-water in one conduit eliminates the possibility of harvesting, treating, and reusing rainwater as a new source of water. Besides, if the sewer fails to manage the amount of inputs, in case of heavy rain, the excess water (polluted stormwater) overflows from sewers into the nearest water body and causes larger environmental catastrophes.

Studying the history of Lahijan reveals the multi-functionality of the pond in the past; It was not only a crucial source of water for agricultural and fishing activities, but also an important element to create a beautiful scenery and pleasant atmosphere through merging the natural and built environment inside the city. Currently, the pool (former pond) is not a source of water anymore, but a receiving body of water. Despite its high capacities, Lahijan Pond, which was once the main source of water for agricultural activities, has lost its functional significance and is transformed to a recreational area within the city.

Weakened presence of water in public spaces along with recent changes in urban water systems have negatively affected people's perception of water in the city; while rainwater was an asset and ecological value for the city, It is becoming a trouble maker for Lahijan, cas. Increased imperviousness of surfaces along with inefficiency of stormwater management system of Lahijan has resulted in more frequent floods. Despite the fact that Lahijan Pool, located in central part of the city and surrounded by dense urban areas, can act as a sponge to receive the extra amount of water in case of heavy rain, the city is not taking advantage of its great capacities. Instead, to reduce the risk of urban flooding, the city is further developing its sewage system to convey urban runoff as fast as possible out of the city. Within such process, many natural streams have also been

covered or converted to concrete channels for the purpose of fast conveyance of sewage out of urban centers. Although, among others, the pond due to its big size and its important character is remained, it has lost its natural character and is not part of the functioning landscape of the city anymore.

#### **4. (Re)Introducing Traditional Techniques to Urban Water System of Lahijan**

The rich history of water management of Lahijan reveals how traditional techniques can act as guiding lines to redefine the role of water in functional structure of the city, and to reintroduce waterscape to public spaces. Studying the history of water systems in Lahijan shows that the strong adaptation of traditional techniques to geographical, climatic, and even social characteristics of the context was the key of their durability. However, within the modernization process some traditional techniques lost their value and effectiveness, and by the time became forgotten. The emergence of urban water system, albeit solving a series of problems and facilitating access to clean water, was yet another step to domesticize water and to decrease aesthetic, social and cultural significance of waterscapes in public spaces of the cities. There is a certain need to change the current approach towards urban water system of the city. The new approach calls to look back at traditional techniques of water management to take advantage of various capacities of water features in the city of the past:

##### **4.1 Reintroducing Rainwater as Asset and Ecological Value of The City**

Despite some difficulties of the communities to access to the sources of water and to respond to their needs, the local use and management of water was among the great benefits of traditional water management systems of the past. Moreover, due to the importance of the problem of water scarcity in Iran and to move towards a sustainable development, there is a need to rethink of available water resources. To reduce the stress on surface and underground water resources, rainwater must be reintroduced as a source of water to the urban water system of Lahijan. As explained earlier, the practices of rainwater harvesting both in domestic and urban scale were not alien concepts in the region. On the contrary, one would argue while such practices were common in the past, currently, they are almost forgotten and/or are not largely in use. Recently, however, there is a growing awareness about the importance of stormwater as a valuable source of water to reduce the amount of withdrawal of fresh water resources.

Furthermore, the current wastewater management of the city, which combines waste- and storm-water in one conduit, eliminates the possibility of harvesting, treating and reintroducing rainwater to urban water network as a source of water. The condition becomes even more crucial in rainy seasons when the sewer fails to manage the amount of inputs and the excess water (polluted stormwater) overflows from the sewers into the nearest water body and causes larger environmental catastrophes. To reduce the risk of urban flooding and to avoid further environmental issues, the stormwater management of the city should change to meet the goals of a sustainable development. Hence, the current stormwater management, which is based on fast conveyance of urban runoff through underground conduits, should be replaced by local and natural techniques.

#### 4.2 Negative Approach: Transforming the Artificial Pool to Natural Pond

The Pond; The availability of Lahijan pool is creating an opportunity to start and develop a natural drainage system to solve the problem of urban runoff and decrease the risk of urban flooding in the city. Through a reverse process in which the artificial pool will be transformed to a natural pond, an ecological infrastructure will be developed to manage the stormwater in a natural way. Borrowed from Ahern's classification of landscape elements in defining the green infrastructure of cities (2007), the natural pond as a revitalized landscape element will introduce a decentralized stormwater management system to Lahijan. The strategic location of Lahijan Pool in central part of the city acts as a sponge to receive the excess water in case of heavy rain. The pond, as the main body of water will become a huge cistern to receive urban runoff from neighboring areas.

Green Corridors; In addition to the pond, "Green Corridors" would also play critical roles as the main connectors to convey urban runoff. In such a network, green corridors would become the "guiding lines" of the ecological infrastructure of the city. Long strips of publicly owned land within the city including drainage ways and green streets are examples of the corridors to shape the green network of a functioning urban landscape. Streets as crucial elements to collect and navigate rainwater to the pond will play important roles in transformation of conventional stormwater management of the city of Lahijan to a semi-natural one. By taking advantage of the natural slope, the urban runoff will be navigated through urban drainage to the pond, where it will be stored, treated, and then, either reused or discharged to the sewer. Through green streets and the drainage system of the city, it will later be discharged and directed to the river at western edge of the city. Through the network of the blue patch (pond) and green corridors (streets), water will be reintroduced to Lahijan's public spaces.

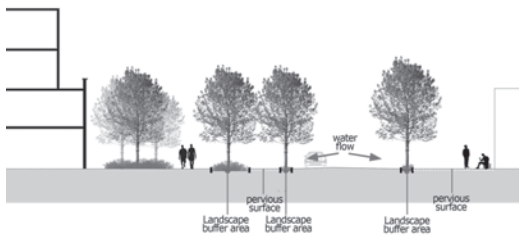
To transform the existing streets to green streets, a green buffer will be added to the existing profile of the street and available spaces such as huge parking lots, public buildings' courtyards, and leftover spaces along them will be transformed to various green spaces. Green buffers along the streets and nearby green spaces accept runoff from streets and rooftop surfaces, will decrease the imperviousness of the city, reduce the risk of urban flooding, and ultimately contribute to improvement of the quality of the urban space.

Stormwater once collected and stored in the pond can be recycled for various purposes. For instance, treated stored water, can be used for irrigation of the plants and fire sprinklers. Collecting rainwater locally and managing the urban runoff naturally would also increase the infiltration process and recharge the aquifer, preserve the local ecosystem and reduce the environmental impact. Despite the conventional approach, which is based on fast conveyance system, under the new approach, rainwater would become part of the urban water system of Lahijan.

Such blue-Green network, however, is not a natural network, mimics the characteristics of a natural landscape. Thus, connectivity is the most significant characteristic of such urban landscape. In Ahern's words, "Connectivity is a property of landscapes that illustrates the relationship between landscape structure and function. In general, connectivity refers to the degree to which a landscape facilitates or impedes the flow of energy, materials, nutrients, species, and people across a landscape." (2007, p.270) The urban landscape of Lahijan today is suffering from

low connectivity. The landscape elements are either disappeared and replaced by urban elements or fragmented and highly separated from each other. Despite the fact that the concept of connectivity is highly related to water flows and a fragmented hydrological system is not capable of well-functioning, water systems seem to be among the most affected ones; as they are mainly disconnected and fragmented through development of grey (civil) infrastructures of the city.

Building larger underground conduits for the conveyance of waste/stormwater does not solve the problem of flooding and water contamination; while the new network will provide the possibility to separate sewers (wastewater and stormwater) and facilitates the storage and treatment of each flow. Besides, the natural management of stormwater reduces the pressure on urban sewage system.



**Figure 5.** Schematic Section of a Green Street

#### 4.3 Reintroducing Water Features to Public Spaces

The network of blue pond and green corridors of Lahijan through local treatment of stormwater would return the rainwater to the river, and therefore, it would increase the environmental health of the city. The implementation of this idea would also enhance the city's grid of green spaces and waterways. After the period of absence of water in urban spaces within recent centuries, the real values of water from many different aspects are being rediscovered again and water is being reintroduced to public spaces. Water feature will become present in public spaces, not only as a visual element but also as a functioning landscape to manage the urban runoff and stormwater. The still water of the pond in the center of the city and the running water of the green streets will regenerate various forms of water features in public spaces of Lahijan.

The shift from strictly engineered systems of urban sewers to ecologic network of blue (the pond) and green (green streets), daylighted water bodies will not only reduce the environmental impact of the urban water system but also provide social amenities and contribute to the higher quality of urban environment and life of the communities. Under the new approach, the urban water/wastewater network of the cities can also act as decorative elements to improve the quality of urban waterscapes through design of different public places such as urban parks and recreational areas, water arts and fountains in city plazas, water festivals and alike.

#### 5. Concluding Remarks

One may argue that traditional practices are not able to solve all water-related issues of the current time; however, finding the right mix of “old” and “new” practices and techniques can be a key to

move towards the sustainability of water resources. Through application of a negative approach Lahijan Pond will be rehabilitated, modified and reintroduced into the urban water network of the city. Such initiative will be one step in learning from the past and building new concepts based on old traditions. Hence, the pond will not only receive the excess water in case of heavy rain but also it can treat the storm water before discharging it to urban sewer and nearby water bodies. In other words, under new paradigm, instead of underground water/wastewater infrastructure, surface stormwater in form of natural drainage will be implemented to manage urban runoff as well as providing recreational amenities to the community.

Accordingly, stormwater management system will become an integrated part of urban design of the city, where aesthetic and functional capacities of water are combined and intertwined. After the long period of absence of water in urban spaces, the real values of water from many different aspects are being rediscovered and water is being reintroduced to urban spaces. Highlighting the multiple role of water in the cities, water needs to be considered as a crucial element from the very early stages of design of the cities. Connecting water management with making good places would contribute to the higher living standards of people in cities and it would address the problems of water scarcity, flooding and pollution. In this regard, rainwater and urban runoff, as ecological assets and aesthetic values rather than problems will play crucial roles not only in water management systems of the city but also in enhancement of the visual pleasure and attractiveness of a given space. Water through its rich capacities and values can contribute to the creation of generative places in which improve the quality of life and enhance the public health of the living communities.

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# Social flows and multiculturalism in urban space-time interrelations and landscape identity transformations. Case study Mouraria district, Lisbon.

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The paper enquires into the identity transformation of the urban landscape and its heritage in super diverse historical centres (Vertovec, 2007), specifically within globalization processes that imply intense social flows, including immigrations and city tourism, with the emergence of multicultural communities and tourist mobility. Nomadism and mobility are features of our global liquid society (Gilroy, 2004; Bauman, 2000; Urry, 2000, 2007). The importance of city tourism as a driver of urban economic growth and development, also may threaten the sustainable fragile balance of local communities and their local identity. At the same time, the incoming of immigrants, contribute to the incorporation of new cultural patterns that unbalance the fragile equilibrium of the relational urban space and the historical cultural landscape. The case study of Mouraria historical district, contains a space of movement, temporality and deterritorialization (Seller & Urry, 2006); immobility and social exclusion; tourism and travel; migration and diasporas; social networks and mobile media; transitions in complex systems; routes and connections (Clifford, 1997). In order to understand the nature of this multicultural and dynamic urban space, it is necessary to analyze those processes happening inside a relational space-time. The dialectical interrelation between different space-time categories inside the district of Mouraria (absolute, relative and relational) (Harvey, 2006), together with the experienced (space of perceptions and sensations), conceptualized (representation of space) and lived space (space of representation) (Lefevre, 1974), give shape to a qualitative urban landscape built on memories, meanings, emotions, narratives and perceptions always evolving in time and dependent on the input of social flows.

**Keywords:** historical centres; multicultural space: urban landscape; super diversity: relational space.

## 1 Social flows and multicultural communities

In the last decade, the identity of the urban landscape of European cities, together with its heritage (tangible and intangible), is submitted to a continuous, irreversible and fast transformation. Cosmopolitan urban metropolis have super-diverse historical urban neighbourhoods submitted to globalization processes which imply intense social flows, including immigration and city tourism, with the apparition of a new nature of multicultural communities and tourist mobility. The concept of super-diversity in these urban centres defines a level and a degree of complexity in multicultural diversity and immigration surpassing anything experienced before. For the social anthropologist Steven Vertovec, in his article "Super-diversity and its implications" (2007), what defines the nature of contemporary super-diversity, compared to the past 30 years' experience on migration and multiculturalism, is the complex and dynamic interplay of factors and variables, with the apparition of differential immigration statuses with specific set of time limits, divergent labour market experiences, different migration channels, gender and age profiles, patterns of spatial distribution, and mixed responses from residents and services, among others (Vertovec, 2007, 1025). In the other hand, there is an increase of multi-ethnic small and scattered groups and individuals in the "new migrations" taking place since early 1990's, primary in their working age, coming from rich, middle income or poor countries, in a temporary or permanent stay and scattered in the city. These groups are smaller than in prior decades, less organized and legally differentiated. Only in London, and according to the Census Results of 2011, one in three London residents is born outside UK,

with a diversity of more than 190 different countries of birth (GLA, 2012). Super-diversity implies the expansion of migration channels, such as EU foreign nationals that they do not need visa, work permit holders, workers on seasonal special schemes, highly skilled migrants, working holiday makers, special visa holders, students, family member migrants, asylum-seekers or irregular, illegal and undocumented migrants. These new migrants also intensify their transnational contact with their places of origin, and other countries where they lived. Their contact with families, friends, organizations and communities elsewhere, is encouraged by the use of TIC's, and mobile technologies. Therefore, as Vertovec asserts, super-diversity is also associated with cross-border and global patterns of sustained communication, institutional linkage, and exchange of resources among migrants, homelands and wider diasporas (Vertovec, 2007, 1043). The Professor of Sociology Paul Gilroy in his publication *After Empire: Melancholia or Convivial Culture* (2004), questions the future of the study of multiculturalism in urban areas, with its spontaneous aspects and convivial culture. Diversity may seem a dangerous feature, seen as weakness, chaos and confusion in urban areas. Immigrants may contribute to the incorporation of new cultural patterns that unbalance the fragile equilibrium of the relational urban space and the historical cultural landscape. Moreover difference may threaten the same core of cultural local identity. Inside cosmopolitanism, "identity" is not closed, fixed and reified, but an ambiguous concept in constant transformation, always based upon unpredictable mechanisms of identification. It is necessary not to look at "identity" to understand multiculturalism but to study those processes of cohabitation and interaction that transform a multicultural environment into a space of "conviviality", where consensus and solidarity are necessary in order to find some spaces of unanimity and homogeneity (Gilroy, 2004).

### 1.1 Nomad space and time

Nomadism and mobility are features of our global liquid society (Bauman, 2000; Urry, 2000, 2007). Reality may look stable for the nomads, from an external point of view, however instability and fragility holds inside the look and experience of the subject, who has to face mutations and become flexible and versatile (Bauman, 2000). In this liquid medium there are no permanent bonds, any bond is guaranteed to last, they must be tied loosely so they can be untied again, when circumstances change. Without durable bonds effortless behavior is a premise (Bauman, 2003). This liquid society is exterritorial, freed from the concept of place, identity, property, or bonds. They move in a liquid environment, always fleeting, changing, unexpectant and unplanned. This society do not anticipate anything, they adapt, constantly changing, moving, and automatically finding alternatives to every change. In our contemporary "liquid modernity", a liquid society lives in constant mobility, uncertainty and relativity of values. Identities are constantly altering, and the search for identity and sense of belonging in the close environment is not a vital task anymore. Identities are volatile, taking place in a brief interval of time, linked to communities that could have a territorial location or be exterritorial, which appear as social scattered explosive impulses with a short life-span. Once these communities disappear, the disparate individuals belonging to them, return back to their different roles. One characteristic is the fact that people may belong together to a community while staying attached to their differences. This temporary and emergent social unity

is pluralistic, implying negotiation and conciliation of the natural differences of the members. The engagement in self-identification of the many is an outcome of negotiation and not as a priori given condition. The concept of identity in the liquid modernity is a concept of made-up identity (Bauman, 2000, 177-178). Therefore identities are fragile, volatile and temporary. They need the determination of the communities and their individuals to protect them. However, communities are ephemeral artifacts reliant on the responsibility, life actions and performance of individuals.

One crucial feature of this modern liquid life is the changing relationship between space and time.

For the nomads, there are no limits in the resistance of space. Everything is a perpetual becoming, because nothing secures a safe end-of-game. Everything is in a state of unfinishedness, incompleteness and underdetermination full of risk and anxiety (Bauman, 2000, 62). The fate of the nomad society is subordinated to a nomadic exterritorial elite. The nomadic powers hold to a ground to be abandoned at impulse without binding social commitments, once new economical and power chances appear elsewhere. In order for the power to be free to flow, human bonds and social networks disintegrate and should be transience while the world must be free of fences, barriers and fortified borders (Bauman, 2000, 14). Social division is based on the access to unpredictable movement, and hence to freedom. Those who rule can act faster and have the capacity to escape, disengage and move "elsewhere" while those ruled are trapped in a physical location and their moves are constraint. For the nomads time is not related to a long-term concept. The ultimate ideal is the ability to achieve the infinite capacity of instantaneity. Durability and immortality are devaluated, and as Bauman asserts, this fact augurs a turning point in human cultural history (Bauman, 2000, 126). Instantaneity guides culture into an unknown territory, which is not determine by the past or the future, remaining constantly in an unexpected present with infinite chances.

## 1.2 Tourism and leisure flows

Mobility and flows of people for leisure entail movement between specific places where corporeal, imaginative and virtual processes take place. Tourists always move through other people's spaces and temporarily inhabit them. Tourists may perform some activities conducted in transit, between one place of desire and the next. In these "interspaces", they realize activities highly significant, related with personal networking and rearranging next events using mobile devices. Sometimes this in-between time-space of virtual connectivity and network communication is much more important than the actual events (Urry, 2007, 224). Movement often involves an embodied experience of the material and sociable modes of living-in-motion, places and activities (Urry, 2007, 11). At the present time, and due to the increase number of people on the move, novel systems of monitoring, surveillance and control of movement of individuals start impregnating and leaving traces in the space visited and the transfer-points. When movement in space entails pleasure visits, those patterns of movement involve intermittent relationships with local people, specific locations and events. There is a desire to experience the space with all the senses, with the involvement of embodied performances and social interactions in the space (Urry, 2007, 37).

The importance of city tourism as a driver of urban economic growth and development also may threaten the sustainable fragile balance of local historical communities and their local

identity. Tourism can be a source of wealth, but also can destroy the local authenticity. Movement and touristic flows based on speed and density of content destroy the city and its traditional ecosystem transforming it into a thematic park. Global travel and tourism constitute the largest industry in the world. In 2014 there were 1.135 million international tourists crossing a border (World Tourism Organization, UNWTO, 2014, 10). There is an estimation of 1.800 million international tourists in 2030, with the incorporation of China and other emergent markets. Together with this data, it is important to consider the transformation of tourism due to internet and those travellers known as *millennials* (born after 1980), with new behavioural habits linked to the new communication technologies and the irruption of collaborative economies, which are transforming slowly the touristic industry. Since the 1990's it is possible to experience a structural transformation of tourism caused by mainly four factors: first, the appearance of a mass customization of products that give importance to the individualism of consumers; second, the European airlines offer low-cost transportation; third, TIC's alter the way air companies, hotels and tour operators do business; fourth, the new "generation X" and finally, *millennials* increase their demands in the search of quality, new experiences and authenticity. With the economic crisis in 2008, tourists lost income but gained a demanding attitude of consume. In the following years it has appeared a new type of tourism that combines experiences with authenticity, called in the touristic sector "creative tourism". A growing number of tourists seek enriching learning experiences and also want to feel part of everyday life, with the immersion of their body and all their senses through the contact with local people, their customs and the local culture. Leisure is not synonymous of rest and inactivity but a challenge to learn and do something new, asking for singularity and quality of activities, in contact with a specific geographical or urban reality and its inhabitants. This new type of tourism is already generating value in the territory and promoting the local culture.

## **2 The nature of time-space and urban landscape identity transformations**

How motion makes up places? Multicultural historical centres in cosmopolitan super-diverse urban metropolis contain a space of movement, temporality and deterritorialization (Seller & Urry, 2006). Urban space is affected by physical and virtual travel inside a society based on mobility. This systematic movement of people and objects, together with the new technologies of movement and mobile devices of communication has transformed the concept of time-space. Seller and Urry affirm that this mobility paradigm links all places into thin networks of connections that stretch beyond their own physical space. Within mobility, spaces may become zones of connectivity, centrality and empowerment while others suffer disconnection and exclusion. Places assemble and reassemble, changing constantly their configuration and identity. We cannot hold into durable identities, because they are shifting and morphing. These identities are also mobile. The changing of the identity of space also affects the attachment and detachment of the individuals who inhabit such spaces, constantly reformulating their subjectivities (Seller & Urry, 2006). In the last decade, the "mobility turn" in social sciences also implies a "spatial turn" in the study of space and its landscape.

The "new" transformative processes of this liquid modernity affect the physical world, the properties, relations, structures and internal laws of the built (urban - rural) and natural

environment. However, we will centre our attention in the transformation of the hidden mental nature of the urban environment, analysing the qualitative and sensitive phenomena that defines the subjective projection and introjection of a conscious and intuitive experience of reality that we call urban landscape. Landscape has a "trajective" nature between the environment (object) and society (individual). Society establishes a specific qualitative and introspective relation with their close environment, inseparable of space-time parameters, ecological factors and the socio-cultural milieu. It requires an individual (collective) that experiments through perception (observation, and other sensorial explorations) the existence of a specific environment, and predicates that existence through different modes of (aesthetic) expression and forms of representation dependent on those socio-cultural parameters (Berque, 1995). Landscape allows us to reflect on how the human consciousness mirrors and mediates the environment. Landscape is always evolving, with the changes produced in the psychology of perception of the self and the historical and cultural transformation of the environment.

In the present liquid modernity, are we facing a deep alteration of the concept and understanding of landscape? The anthropological transformations, that the liquid society is submitted to, affect the intimate and transcendent relation with landscape. Those transformations reshape and reformulate the urban matter - the urban-built environment. Which shape is it adopting? The mobile devices are introducing us into a flexible digital means of communication and social exchange and relation with the cyberspace network, consolidating a dynamic space of perception (Moya, 2011). The world is mobile and wireless, totally ubiquitous and fleeting. Information is now linked to the places, and these ones acquire the weight of the contents. Space is permeable to the digital information that contains layers of information that can be selected and shared. The physical world is one with the digital, and the digital world interacts with the physical. A new understanding of landscape is linked to tourism and travel together with its opposite, immobility and social exclusion. Therefore it is associated to migration and diasporas; social networks and mobile media; transitions in complex systems; routes and connections, multiculturalism, tangled cultural experiences and identity transformations. The subjective projection and experience of reality, together with processes of representation, is closely linked to how the liquid society dwells and travels, "traveling-in-dwelling" or "dwelling-in-traveling". For centuries, places in western culture, and those ruled by colonial powers had a historical continuity. Despite travel encounters and intercultural interactions, there was in the past a tendency to privilege cultural values, hierarchies and coherent identities linked to a world guided by ethnic absolutisms. However, human cultural differences and intercultural connections always were articulated in displacements, where cultures mixed, impurity, unruly processes, collective inventions and survivals appeared, generating a connected but not a homogeneous world channelled by powerful global forces (Clifford, 1997). In our present mobility paradigm, local identities are complex and interactive. They should not be based in notions of authenticity, rootedness and local continuity, but in cultures that work relationally, in intersecting routes, practices of crossing, tactics of translation, experiences of multiple attachment, that make and remake identities, in constant articulation of transnational cultures and identity transformation. As James Clifford asserts in his essay "Travelling Cultures" (1990), the diasporic and hybrid identities produced by movement can be both restrictive and

liberating from violent maintenance of identities, establishing new skills and creative ways of cultural survival, communication and tolerance (Clifford, 1990, 9).

### **2.1 The somatic urban landscape**

Atomized individuals, nomads always in the “move”, adapting constantly to liquid environments, have lost the place, the identity, the sense of belonging to an abode. For them the “here” does not need a permanent location, because location may change. The power of their psychological survival is in the connection to their body. The body as the only abode, as the last refuge, as a territory of infinite freedom and platform of communication with others. The “body” is place, language, knowledge, experience, and autonomy. As long as the “body” exists as a driver of any action holding conscience, there is adaptation to any place. The “body” is the medium that allows knowledge, is the mediator of the senses. Between the body and the world there is no mediation of language, which ends separating the body from the world. There is no mind-body dualism in which the body learns to relate with and talk about the world. Instead the body behaves in articulation with others and the world. The notion of articulation is more than a reference to language. It is a resonance inside the matter of the world, in which the subject “learns to be affected” by the differences through the senses and by others. The body affected by the environment, feeling and acting, is moved, put into motion (Latour, 2004). The “body” can give new meaning to the uncanny space of novelty spaces. With the loss of place it increases the connection and resilience of the own body, and the awareness of “being-outside-of-ourselves” looking at that body interacting in the space. The “body” touches, feels, experiments, relates, expresses itself, exchanges, communicates, resists. However, one of the weaknesses of the “body” is that it doesn’t have a location, a place. Change and transformation teaches the “body” that does not need a place anymore to express itself, to be one together with consciousness. The human being is a unity of body-mind-environment. As individuals, “being-in-time” and “being-in-the-world” (Heidegger, 1927), we need to relocate ourselves in relation to the body, to relocate the body in relation with the other. However our relation with the world (the environment) is going to be constantly fluctuating, and for that reason our physical relation with place is substituted by the intimate relation of the body within the body. In our liquid modernity the “here” does not need a permanent location, a place, because the “here” is the own body in the “now”. The body is the vehicle through which place and movement is sensed, and emotional geographies are constructed. The body experience and performances of the travel are located in the body and extend to the physical space (Seller & Urry, 2006).

Space not only holds contents but also artefacts, “goods” which are part of processes of human encounter and sensorial experience and which are also incorporated in the new concept of shopping, which emerges as an embodied experience in space. To arrive to the consumer, companies cannot attack visually or verbally the receptor anymore, because the future customers are already visually and verbally immunized, freed from “memory”. The only way to arrive to the body, is touching it, making it feel. In our liquid modernity, we are also inside an “experience economy” (Pine and Gilmore, 1998). Now the products of consume address the body. Companies may produce goods or supply services, but now they use services as the stage and goods as props for “creating experiences” that are stimulating as they are memorable. Meaningful and qualitative

communication is produced with a direct contact with the body, without the use of verbal or visual discourse, and using cross-linkages among the five senses to enrich the experience of conventional perception (Howes, 2005).

In our liquid society a new concept of tourism is related with the mediation of the body in the encounter with new spaces and landscapes, combining imagination, feelings and sensorial experiences. Vision is not detached of the body anymore in the consumption of landscape as representations— in which tourist's imagination plays a role- and places – in its material and metaphorical nature. The subject is embodied, encountering a space which surrounds the body. David Crouch in his article “Surrounded by place: embodied encounters” (2002), elucidates that space also contains content which is apprehended through the engagement of the self in an imaginative performance of signs and representations, where knowledge of space is an “embodied knowledge” developed in and through engagement with the world mediated through the body. “Doing tourism” implies and embodied “feeling of doing” in a multisensorial awareness of space (touching, smelling, hearing, tasting and seeing), within a great diversity of multidimensional engagement (Crouch, 2002, 212). This multidimensional engagement relates with memory (recalling or verifying printed and virtual information), imagination and discernment, embodied knowledge (getting to know space by moving and interacting through space), mental processes and emotions shared in virtual networks and connections, the awareness and interaction with local people, and finally the experience of spatial atmospheres. Therefore a space and its contents are seen from multiples angles and recomposed in multiple associations and combinations, including the creation of new contents by working significances in space both individually or in social encounters, sharing space and interacting with other bodies in an active process of sensorial intersubjectivity.

## **2.2 Dialectical interrelation between space-time categories**

In this new mobility paradigm, space is linked to time relations, based on the pulsating life of paths and traces happening in space through movement. Space holds a richness of complex systems of relationships linked with time. These network relations create complex “hybrid geographies” composed by people, objects, technologies, networks and space (Seller & Urry, 2006). Places contain patterns of strong and weak links. They generate network topologies that are fluid, shaping complex patterns related to dynamic and complex adaptive systems.

David Harvey, in his article “The nature of space” (2006), asserts that human practices create different conceptualizations of space-time. There is a relational world of experience and information that takes place in space and time. However, this space embraces three different conceptualizations depending on the nature of the phenomena taking place. Among these three conceptualizations there is a dialectical tension with each other, because all three define the complexity of the spatial phenomena, and they cannot be isolated. Harvey asserts that the concept of “absolute space” defines the structure, the frame and a fixed nature where it is possible to individuate phenomena (it is the space of Newton and Descartes). In this “absolute space” we can measure and calculate parameters. It is the space of geometry, cadastral mapping and engineering practices, in which the city is described by administrative units, urban plans and grids. In this space

we acknowledge geometry, morphology, the borders and limits of space, we locate coordinates and define those objects and events according to an absolute time that sets an action before and after a specific time coordinate. It is the space where subjectivity is formed and action occurs. The “relative space” instead is non-Euclidean (it is the space of Einstein), because it contains all forms of measurement depended upon the frame of the spatio-temporal reference of the observer. It is the space of transportation and topological relations connected to the critical role of the observer (postman, student, housewife...). The city is represented and measured in terms of modal transportation, distances according to cost, energy resources, financial flows, ecological systems, global markets, or rhythms of transformation. Finally, Harvey defines the “relational space” as imbedded in internal subjective relations (it is the space of Leibniz), because it is internalized in specific processes happening through time. This space describes patterns of thought (dreams and phantoms) that cannot be measured. It is a space of intuitions, memories, aesthetic judgement, and subjective meanings. It is the space linked to the concept of identity, which moves in the past, present and future and depends upon everything going on and around it. Despite it cannot be measured, it is a space of convergence. With this space, the city is described through subjectivity criteria and individual or collective consciousness. It is the relational urban space of gender, sexual orientations, social class, ethnicity and race, migrants, diasporic groups, tourists, travellers, and artists.

For Henry Lefevre in his work “The production of space” (1974), the physical and material experience of space-time is mediated by the way space and time is represented. In his tripartite division of space, he defines the “material space” as the physical space of experience and perception open to physical touch and sensation. The “representation of space” is the space conceived and represented based on representational codes. Finally, the “space of representation” is the lived space of sensations, imagination, emotions, and meanings. David Harvey proposes in his article “The nature of space” (2006), a dialectical interrelation between different space-time categories (absolute, relative and relational) (Harvey, 2006), together with the experienced (space of perceptions and sensations), conceptualized (representation of space) and lived space (space of representation) (Lefevre, 1974), giving shape to a qualitative three-by-three matrix of spatial categories, that suggests different modalities of understanding the identity of space in spatio-temporal terms. This proposed “matrix of spatialities” becomes an essential methodological tool of analysis to study the nature of dynamic multicultural urban landscapes, taking into consideration the observation of the actors involved, and their social flows, detecting how these actors observe, represent, conceptualize and construct the urban space and its identity, based on memories, meanings, emotions, narratives and perceptions always evolving in time and dependent on the input of social flows, complex “hybrid geographies” and network topologies.

### **3 Mouraria district in Lisbon as case study**

In 2008, the Intercultural Cities network (ICC) was promoted by the Council of Europe and the European Commission. It joins a peer learning and assessment network of European Cities, extended to cities in North America and East Asia. The city of Lisbon is a member since 2010. The

objective of ICC network is to create a collaborative methodology, sharing knowledge and expertise, to enable cities to cope with a new urban landscape of global/local cultural diversity. It inspires and provides a set of tools to apply in urban policies and practices on migration and diversity with the offer of a Good Practice Compendium and a Step-by-Step guide, which is flexible according to each city's conditions. ICC network reframes the political policy approach on diversity and interculturality by looking at it as an advantage for economic, social and cultural innovation in urban communities developing co-operation, encounter and interaction at the local level. It also breaks out the negative discourse that sees diversity in terms of crisis (terrorism, illegality, loose of identity) encouraging cultural mixing. Cities that join the network are changing and enhancing their urban policies and practices through the recommended tools, which imply the sharing of knowledge and connecting politicians and public officials with representatives of the media, business and civil society, deepening the participation of representatives of all different ethnic groups. This participatory approach of the broad community consolidates a strong and active support of all the groups in order to implement intercultural strategies. ICC network has also adopted the methodology of Community Results-Based Accountability (CRBA), in which Lisbon together with other three cities volunteered to prototype during 2013. Lisbon chose Mouraria district as case study with the aim to encourage physical regeneration, activate entrepreneurship and cultural bonding (ICC, 2014).

The Intercultural City Index for 2014, with 59 cities participating in the program, ranks the city of Lisbon in the position 22<sup>nd</sup> among the 30<sup>th</sup> cities with more than 200.000 inhabitants and in the position 17<sup>th</sup> among the 33 cities in Europe with less than 15 per cent of foreign born residents. Lisbon, capital of Portugal, is populated with 547.733 inhabitants among which 8,38% (45.915) are foreign born. The largest minority group are the Brazilian community made up of 2,27% of the population followed by the Chinese (0,68%), Cape Verdean (0,65%) and Romanians (ICC Index, 2014). Portugal together with Bulgaria, Ireland, Greece, Spain, Croatia, Estonia, Latvia, Lithuania, Cyprus, Poland and Romania, reported in 2013 more emigration than immigration. Portugal in 2013 received 17.600 immigrants, 56,8 per cent of which were from a European member states, compared to Germany and United Kingdom, which are the countries that receive more immigrants from a European member state of previous residence (Eurostat, 2015).

Mouraria is a district in the centre of Lisbon with a historical past of multi-ethnic coexistence and cultural diversity, and a space of confluence of heterogeneous groups. Mouraria dates from the XII century (1170). With the Christian reconquest, it became a space of residence for Muslims, Mozarabs and Jews that were forced to live in a segregated and controlled space outside the city walls. In the XVIII and XIX centuries, Mouraria received migrants from other regions of the country and from Spain (Galicia). During the mid 1970's, Indo-Portuguese, Hindus and Muslims arrived to the district, opening commercial businesses (Malheiros, 1996; Mapril, 2010). Between 1991 and 2001, the district attracted new residents corresponding to 11 per cent of their inhabitants. According to the National Census of 2001, 8,4 per cent of the residents were foreigners, 25,3 per cent of them were coming from PALOP (African countries of official Portuguese language) and 22,2 per cent were nationals from India, Pakistan and China (INE, 2001). In the 90's Guineans and Cape Verdeans arrived to the neighbourhood. In 2000's together with Chinese from

the province of Zhejiang that became shopkeepers, appeared shops of Pakistanis and Bangladeshi (Bastos, 2004; Mapril, 2010). In the last decade Senegalese and Zaireans open businesses in the area of cosmetics, music, food products and restoration. In 2002, a survey of street commerce realized by Mouraria Unity Project (Unidade de Projeto da Mouraria, UPM), verified that 56,9 per cent of the commerce in the neighbourhood was run by Portuguese, 31,5 per cent by Indians, 4,8 per cent by Africans, 3,6 per cent by Chinese and 2,4 per cent by Pakistanis (UP Mouraria, 2010). In Mouraria district coexist tourists, visitors, workers, old inhabitants, natives “the sons and daughters of the neighbourhood”, new dwellers and immigrants. Mouraria in the census of 2011 had 5.824 inhabitants with an aging index of 237 ( $pp > 65/pp < 15$ ), which represents that 61,04 per cent of the population of the neighbourhood is older than 65 years old. The immigration in the district represent a population of 29 different countries, with a percentage of 55 per cent between the ages 35-49 years old, with 34 per cent with secondary education and 28 per cent university diplomas (PDCM, 2012).

The flows of tourists visiting the city of Lisbon have reached new records in the last years. Lisbon in 2010 had a population of 469.509 inhabitants, with an amount of 921.869 domestic visitors and 1.924.017 international visitors, according to the arrivals at licensed hotels (UNWTO, 2012, 18). Lisbon harbour received 500.872 cruise passengers and 319 scales in 2014. On 6<sup>th</sup> of May 2014, Lisbon received for the first time the “three Queens” cruises. The passengers of Queen Mary 2, Queen Elisabeth and Queen Victoria added a total amount of 7.100 passengers arriving at Lisbon city centre at once ([www.cunardcruceiros.com](http://www.cunardcruceiros.com)).

### **3.1 Renovation and urban rehabilitation: searching for a socio-spatial self-image**

In Mouraria district, together with its multicultural nature, converges, since 2010, political and institutional policies for the renovation and urban rehabilitation of the historical urban tissue, with the investment of millions of Euros. The improvement of the socio-spatial self-image of the neighbourhood makes it more attractive for touristic targets and new residents (local and foreigners). The urban and social improvement of the conditions of the neighbourhood benefits the possibility that the neighbourhood becomes and attractive target for city tourism, inside the concept of the touristic consume of experiences and city-branding (Clifford, 1997; Crouch, 2002).

The Mouraria Action Programme (Programa de Acção Mouraria, PA, 2010), in the scope of the QREN, searches for the revitalization of the identity of Fado in the neighbourhood, with the execution of Severa House (Foundation of Fado in Lisbon) with positive consequences in the local economical touristic dynamics. The Communitarian Development Plan of Mouraria (Plano de Desenvolvimento Comunitário da Mouraria, PDCM-Ai Mouraria, 2012) is complementary to the PA Mouraria (2010), with a budget of 1 million €, and the purpose to achieve an urban rehabilitation of the neighbourhood with a broad repercussion in the improvement of the life of the inhabitants and the community, with the increase in job opportunities, education, social capital, community participation, the improvement in the use of the public space, better access to health, promotion of the identity of the neighbourhood, and valorisation and image promotion of Mouraria outside the neighbourhood. It also promotes the communitarian development, with the improvement of the life conditions of the community, allowing the participation of society in the processes of change. The

PDCM (2012), counted with the collaboration of 44 local entities, among them Association Renovate Mouraria.

Association Renovate Mouraria (Associação Renovar a Mouraria, ARM), is a community organization created in 2008 for the revitalization of the neighbourhood. They inaugurated their Communitarian House in 2012. They are involved in activities incorporating the participation of the local population with the objective to revitalize culture, society, economy and tourism in the district, such as supporting the intercultural community, creating activities for the public in general to promote the neighbourhood, offering a cafeteria space with food from all the world (prepared by the international inhabitants), offering a free biannual magazine of the neighbourhood, creation of cultural and touristic routes guided by representatives of collectives, promotion of competitions of Fado, establishing a program of employment and social innovation in the area of creative industries, encourage local jobs, development of formative activities, participation in Lisbon feasts, organization of the festival Arraial, talks, cinema sessions and parties; everything within the principles of intercultural integration and ethnic diversity.

### **3.2 Analysis of a dynamic urban heritage and identity**

The case study of Mouraria historical district, in Lisbon, presents the evolution, fragmentation and foreigner hybrid structures absorbed by the Lusitanian identity, which is submitted to processes of immigration and cultural-ethnic diversity (Mendes, 2012; Fonseca & McGarrigle, 2013). The analysis of the fusion of resources and identities show us a dynamic urban heritage (material and immaterial), always in transition and transformation, with continuous processes of absorption of foreigner cultures.

Mouraria district is an irregular neighbourhood of narrow and sinuous streets, with multiple corners and alleys with a certain compactness in its built tissue, integrated in the center of Lisbon, within the Parishes of São Cristovão, São Lourenço and Socorro, with arears frontier (border), including part of the Parishes of Graça, dos Anjos and Santa Justa. In Lisbon, Castelo-Alfama-Mouraria is a touristic district together with Belem-Ajuda, Baixa-Chiado and Barrio Alto-Cais do Sodré-Santos. All these areas in Lisbon have a built heritage that is at the same time a productive capital for the city. Mouraria district, with a unique and particular identity, creates a strong “brand” image, with the capacity of becoming an attractive destination for city tourism (UP Mouraria, 2010:3). The multi-ethnic coexistence is an asset for urban branding and for city tourism, encouraging the consume of products and services provided with authenticity, attracting tourists and visitors. Urban policies search to reinforce local strong brand images, staking for the singularity and authenticity of distinctive places and communities that attracts flows of visitors. Mouraria district has a cosmopolitan character, establishing a dialectics between the local and the global scale, in which it is possible to appreciate new ways of life and cultural consume. Its hybrid identity is addressed to a city branding that idealizes an urban landscape impregnated with ethno-cultural references and exoticism (Mendes, 2012).

One of the four main strategic axis in the structure of the PDCM (2012) is the reinforcement of the territorial identity of the neighbourhood related with the culture of Fado. However, despite this is a clear institutional strategy in the definition of the identity and urban heritage of the

neighbourhood, Mouraria has in reality heterogeneous identities that move among the idea of tradition, genuineness, popular culture, multiculturality, multiethnicity, history and heritage. Mouraria moves in a multiplicity of representations that are a social, symbolic and institutional invention (Menezes, 2012).

#### **4 A Matrix of spatialities for Mouraria district**

In order to "re-cognize" the nature of this multicultural urban space in Mouraria district, it is necessary to establish a system for reading space that includes the multiplicity of evidences which define specific identity and cultural patterns and their constant evolution. The evidences of hybrid multicultural identity inside a Lusitanian landscape heritage implies the observation of the evolution of cultural patterns and evidences of absorption of foreign cultures in Mouraria district.

The study and analysis of social flows and processes happening in Mouraria district within the local community, visitors, and incoming immigrants, together with the understanding of those abstract representations, conceptualizations, interactions and dynamic social participation in the urban space, help us to elucidate which are the qualitative dynamic meanings and identities hidden in this multicultural urban landscape. Using the methodology of a "matrix of spatialities" (Harvey, 2006) we create nine categories of space-time relations (combination of the absolute, relative and relational space with the Lefebvrian categories of experienced, conceptualized and lived space), for the case study of Mouraria District.

The challenge of mapping with different cartographic techniques this matrix of nine different spatialities, requires the study of the subjectivity of the actors involved with the exteriority of their local urban environment (their neighbourhood). The actors (social body) involved in Mouraria district relate with it according to its social, cultural and cosmic structure (habits, traditions and beliefs). According to Felix Guattari, in "The Three Ecologies" (1989), the articulation of the social, the mental and the environmental ecological register gives shape to Ecosophy (Guattari, 2000/1989:28). Our objective, in the representation of the nature of the relational time-space in Mouraria district is to include the collective subjectivities with the territory, with their singular processes that construct a complex overlapping of existential territories. Mouraria is an urban landscape of exchange and an articulated territory at local scale, with transversal connections and inter-relations between the social, mental and environmental ecology. The ecological social register of space relates with how a social actor interacts with a group of other specific actors and at the same time interacts with the urban environment bringing new connotations and significances to the space-time relations. The functional use of the urban space by the actor (inhabiting, leisure, health, sport, education, culture, work, food, religion, commerce or transportation) is also a platform for exchange and connection with the ecological environmental register of space and its biotic, abiotic and anthropic ecosystems. Within the ecological mental register of space, we understand how specific locations can acquire, for a specific actor, an explicit mental significance regarding historic, ecologic, aesthetic, symbolic, functional, spiritual or cultural values, among others. At the same time, for the same actor, the space can be impregnated with sensorial perceptions. Taking into account the ecological performance of Mouraria district, with the social, mental and ecological

register of space, we can be more specific in the mapping of multiple possibilities of interchange in the space. Therefore, the new nature of the urban multicultural space is built on the infinite variables that work across it, which constitute its specificity based on processes, operational flows, temporal patterns of connectivity, operational tactics, and multiple adjustments in the fluctuations that will occur over time.

#### **4.1 Material space or experienced space**

It is the perceived space of the daily urban reality, it also relates with a sensorial body experience. In the mapping of the experienced space we deal with a physical identity of the space. In the mapping of the three different categories of material space we deal with the social and environmental ecological registers of space. The material space is divided in three different categories: material space in the absolute, the relative and the relational space. The material space in the absolute space deals with the physical boundaries of space, relevant buildings, streets and communities circumscribed in specific areas, open spaces and greenery. The material space in the relative space may deal with circulations and routes, flows, commodities, movement of information, capitals and networks. Finally, the material space in the relational space represents social relations, or sensorial experiences of space according to a specific actor.

#### **4.2 Representations of space or conceptualized space**

It is the conceived space of scientists, urbanists, engineers, architects, who use codes of representation, using intellectual verbal signs. The codes serve to fix the language of the city, its signs and paradigms. Reality may also adapt and adjust to the discourse and the codes of representation of a specific actor. In our liquid modernity and mobile societies appear new modes of representation using complex dynamic networks and implicated realities, together with the relation with aesthetic modes of expression and its codes of representation. In the mapping of the three different categories of representation of space we deal with the ecological mental register of space. The representation of space is divided in three different categories: representation of space in the absolute, the relative and the relational space. The representations of space in the absolute space deals with maps, cadastral structure, landscape descriptions, definition of locations, positions, and coordinates. The representations of space in the relative space deals with thematic maps, topological maps about circulations and flows, motion, mobilities, displacements, or accelerations, dispersions and concentrations. The representations of space in the relational space map reality using specific codes of selection and interpretation of the subjective realities such as in surrealism, existentialism, psychogeographies, cyberspace, metaphorical narrations and dialectical discourse.

#### **4.3 Spaces of representation or lived space**

Space experienced and lived through its associated cultural images and symbols; space of institutional actors, inhabitants, users, artists, poets, writers and philosophers. It is permeated by magic, religion and sensorial haptic body experiences. It relates with landscape perception and representation. In our liquid modernity and mobile societies living in super-diverse environments, a new paradigm on landscape incorporates the body, its choreography and its multisensorial

immersion in the urban environment, defining an urban somatic landscape that affects the ethic and aesthetic fields of landscape, the evolution of its identity and heritage values. In the mapping of the three different categories of spaces of representation we deal with the three registers of space (social, mental and environmental). The spaces of representation are divided in three different categories: spaces of representation in the absolute, the relative and the relational space. The spaces of representation in the absolute space deal with feelings, sense of security, emotions, fear, or myth. The spaces of representation in the relative space deals with anxieties because of non-moving, fears about the unknown, tensions about exhilarations and speed. In the spaces of representation in the relational space we map visions, fantasies, desires, frustrations, memories, psychic states by gender, sexual orientation, social class, ethnicity and race, migrants, diasporic groups, tourists, and visitors.

## 5 Conclusion

In order to map and build a cartography of qualitative dynamic meanings and identities hidden in this multicultural urban landscape, using the methodology of a "matrix" of space-time relations, it is necessary to include the use of new technologies (TICs), to allow the representation of the dynamic complexity of a landscape based on mobility and social flows. The somatic landscape of the multicultural migrant community in Mouraria district requires to register social, mental and environmental ecologies, co-existing in the urban reality of the neighbourhood (Guatari, 1989). This proposed methodology of work implies the collaboration of the social actors (institutional and community representatives, inhabitants, migrants, visitors and tourists). The representation of space-time relations in Mouraria district requires the research on experimental cartographic and mapping representation, and the analysis of how to translate the material and immaterial values of the urban environment, the collective subjectivities, the cultural and social implications and relations with the space, the processes of aesthetic singularity, and finally the communication of the physical nature of the environment. The research on the concept of identity and landscape heritage in historical multicultural centres such as Mouraria district requires the study of its evolution, understanding patterns of absorption of foreign cultural values.

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# The Core of Campanhã: Critical Analysis of Liveability

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The parish of Campanhã is located on the easternmost of Oporto municipality. With an identity of its own it is unique for its yet unleashed or long forgotten potential which is finally beginning to be noticed, valued and explored by both the local administration and the scientific community.

Campanhã is noted for being an important point of entry to the city, for its aged population and as an area where the urban buildings clash with pockets of almost rural life styles and a close knit community.

As a consequence of being overlooked for decades, the area's development has been compromised in several domains, which resulted in desertification, unemployment and the gradual but inexorable degradation of its buildings. However, this parish is, on many levels, full of potential because the available space allows the introduction of heretofore unavailable services and activities, which would then result in better living standards. It's important to create the possibility of living the experience of "becoming local" and improve "liveability".

This article aims to analyze the core of Campanhã. To that end, we choose to focus on the area that surrounds the Campanhã train station because it is the busiest spot in the parish. In addition, there is the availability of expectant areas in connection with a diversified urban mesh, with lots of commercial activities and services. The key idea to develop the intervention proposal is to make the area more permeable and thereby provide a higher quality of life, maintaining the charisma of the place.

**Keywords:** liveability; becoming local; core; identity; parish.

## Introduction

This paper was carried out in the subject of Urban Project Studio in Master in Spatial Planning and Urban Project and the main objective was to analyze the core (pulse) of the parish of Campanhã in Oporto, evaluating the different challenges related to the implementation of the concept of *liveability*.

This parish was selected because over recent decades it has been forgotten and therefore less intervened, resulting in problems at various levels. With regard to the study area, it was decided to elect the space around the Campanhã station because it is the busiest place in town since it is an important railway centre. Furthermore, it also has a metro station and bus stops of different operators, which contribute to the potential of this place. Thus, an appropriate investment can offer a higher the quality of life for the population.

In this context, firstly it will be explained the concept of *liveability*. Then it will be settled a historical-geographical framework from Campanhã and shown the functional survey of the study area. As a result of this evaluation, it will be held the critical analysis considering the concept of *liveability*. Finally, it will be presented and explained the proposal for improving the space and the respective conclusions.

## 1 Liveability

### 1.1 The Concept

*Liveability* is a difficult term to define, since it is multi-faceted, dynamic and flexible, but this is not necessarily a problem. The challenge is to find an appropriate setting for the *liveability* context.

The visions about *liveability* change among different communities, regions and even from person to person. The concept is often used to describe various aspects of society, including the environment and the experiences that shape the community.

The evaluation of *liveability* should be held locally, taking into account the economic, social and environmental components.

The HUD, DOT e EPA<sup>1</sup> define *liveability* in a simple and totally enlightening manner, stating that "it means being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids in a park, all without having to get in your car."

Moreover, the principles established to achieve *liveability* are:

- Provide more transportation choices.  
Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.
- Promote equitable, affordable housing.  
Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- Enhance economic competitiveness.  
Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.
- Support existing communities.  
Target federal funding toward existing communities - through strategies like transit-oriented, mixed-use development and land recycling - to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.
- Coordinate and leverage federal policies and investment.  
Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.
- Value communities and neighborhoods.  
Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods - rural, urban, or suburban.

## 1.2 The relationship with the planning

The issue of *liveability* needs to be addressed in the planning process in order to reconcile with the objectives of sustainable development.

Cooperation between planners, policy makers and the community is increasingly necessary, since the lack of communication has consequences, which in no way favour the

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<sup>1</sup> Partnership for Sustainable Communities an interagency Partnership HUD, DOT and EPA  
<http://www.sustainablecommunities.gov/>

development of *liveability*. Therefore it is essential to exchange information, as this will determine the quality of the measures taken.

Thus, assessing local needs should be made possible to meet the needs of population. For example one of the key components for *liveability* is to ensure that sufficient services and within walking distance to the enjoyment of residents.

Summarizing, the cities with better living conditions are those who can give meaning to people's experiences, which goes beyond housing. Therefore, improving the quality of life goes on, for example, by easy access to services such as shops, restaurants and health care facilities and also to wide green spaces and cycling and walking roads.

### 1.3 Evaluation of liveability

*Liveability* is the sum of the aspects that contribute to a place's quality of life, which may include several factors, such as economy, environmental sustainability, health and welfare, education and leisure. However, a community must develop a *liveability* strategy that fulfills their aspirations considering its features. And then, according Partners for Liable Communities<sup>2</sup> the starting point is:

1. Define what *liveability* is for their community
2. Assess their *liveability*.
3. Create a *liveability* strategy and track progress over time.

Every city wants to be considered the most liveable, as it is a label that attracts business and investment, boosting local economies and property markets. Currently, several *liveability* rankings are held, but one of the most recognized is that of *The Economist* magazine. The *Economist Intelligence Unit*, consultant to the British magazine, does an annual study of the 10 cities with the best and the worst living conditions.

The analysis is performed based on five indicators, including stability, healthcare, culture and environment, education and infrastructure, which in percentage terms have different weights. However, within these there are qualitative and quantitative sub-indicators (table 1) that let you do the evaluation of the main parameters.

In 2014, Melbourne was ranked the world's best city to live, followed by Austrian capital, Vienna; Vancouver, which was the city with better living conditions until 2011, ranked third. The changes that occurred over the recent years have had negative effects in cities such as Kiev, Moscow and St. Petersburg, so that they do not appear in the top.

On the other hand, Damascus was elected the worst city to live. The conflict is the main responsible because the instability has an adverse effect on other indicators causing disturbances at several levels.

Thus, the EIU said that cities better positioned tend to be medium-sized, located in richer countries and with a low population density, while the "global business centres tend to be victims of their own success," such like New York, London, Paris and Tokyo who suffer from crime, traffic and public transport's problems. However, it is important to mention that this type of classification measures living standards and not the quality of life, since one can live in the best city, but have a

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<sup>2</sup> <http://livable.org/>

poor quality of life due to personal circumstances caused by situations of disease, unemployment or loneliness, for example.

**Table 1.** Indicators and sub- indicators - Economist Intelligence Unit, 2014

<b>Stability</b> 25% of total Prevalence of petty crime Prevalence of violent crime Threat of terror Threat military conflict Threat of civil unrest/conflict	<b>Healthcare</b> 20% of total Availability of private healthcare Quality of private healthcare Availability of public healthcare Quality of public healthcare Availability of over-the-counter drugs General healthcare indicators
<b>Culture and Environment</b> 25% of total Humidity/temperature rating Discomfort of climate to travellers Level of corruption Social or religious restrictions Level of censorship Sporting opportunities Cultural availability Food and drink Consumer goods and services	<b>Infrastructure</b> 20% of total Quality of road network Quality of public transport Quality of international links Availability of good quality housing Quality of energy provision Quality of water provision Quality of telecommunications
<b>Education</b> 10% of total Availability of private education Quality of private education Public education indicators	

## 2 Campanhã

### 2.1 Geographic Location



**Figure 1.** Geographical location of the parish of Campanhã

The parish of Campanhã is located in the municipality of Oporto in northern of Portugal. It was founded in 1120 and became village headquarters of the Oporto of county until mid-1836.

Located in a valley, the easternmost parish of Oporto is limited to the south by the Douro River, east by Gondomar and the north and west is accompanied by the limits of the road-rail that correspond to the lines of Douro and Minho.

The altitude varies between 60 and 80 meters, as a result, mainly, of the erosion caused rivers Torto and Tinto, which flow into the river Douro. With regard to weather conditions more prevalent, due to its proximity to the Atlantic Ocean, the parish has high rainfall and recurrent floods, which means that agriculture is still an important activity in Campanhã.

## 2.2 Socioeconomic framework

In 2011, Campanhã had a population of 32 659 inhabitants (3967 in 1801), spread over 8.13 square kilometers, making a population density of 4 017.1 inhabitants / km<sup>2</sup>.

Of the total of 13 611 individuals in active age, 10 199 corresponded to the employed population. 3292 remained unemployed, constituting 1.74% of the jobless portion in Oporto (18,879).

Regarding the distribution by activity sectors, 24 people were in the primary, 1 844 were in the secondary and 8 451 were in the tertiary sectors.

It is also important to note is that in Oporto were registered 146 homeless people, of which 46 belonged to the parish of Campanhã. However, it is clear that this is a feeble data, since different institutions dealing directly with this population show much higher numbers.

In 2009 resided in Oporto 31 670 people on social housing and of these 29.9% was part of Campanhã, parish with more people living in this type of housing. In 2011, 17% of cases with dependencies of psychoactive substances, but in treatment, came from Campanhã. And many children and young people were at risk - integrated into the education system - because they are from families with psychosocial vulnerability or consume narcotics and psychoactive substances.

## 2.3 The parish's history

Campanhã, with a privileged geographical position, offers the population, since ancient times, a wealth of water resources and fertile soil, which explains the presence of inhabitants since pre-history.

It is thought that its occupation has begun in the Paleolithic by the presence of traces near the Esteiro de Campanhã and it is believed that the place's name "Campanhã" is related to the strong presence of the Romans.

"The year 1120 marks, however, the beginning of a new historical cycle that proved decisive, not only for the parish of Campanhã, but for the whole town Oporto. This year, D. Teresa, mother of D. Afonso Henriques (first king of Portugal), donates the territory of Oporto to Bishop D. Hugo, and so the town begin to be administered directly by the Oporto Cathedral" (Junta de Freguesia de Campanhã, 2015). With this, the parish was divided, but only a portion was included in the donation. The link between the two areas was ensured by Church of Campanhã, in symbolic, cultural and social terms.

In the late Middle Ages, the population and the cultivated area in this parish increased significantly, so its main function passed quickly to provide the city of basic foodstuffs. Along the Modern Age this function is specialized and it becomes even more important.

As the nineteenth century, the parish is faced with the destruction due to the Napoleonic Wars (1777-1834), the Civil War (1832-1834) and the Siege of Oporto (1832-1833). "The tragic balance of the losses included, according to reports at the time, felled trees, destroyed vineyards, fields burned, demolished houses and walls and irreparable damage and industrial equipment" (Junta de Freguesia de Campanhã, 2015).

Despite the difficulties in the nineteenth century, this period also represented prosperity and growth of the population and industrial structure, because beyond the traditional industry

(weaving and milling) there were investments in factories and workshops (lime production, woodworking, manufacture of toothpicks, soap manufacture, among others). This fact was mainly due to the expansion of transport, including the railway, given that in 1875 it was possible to travel from Campanhã to Braga (Minho Line) and also Penafiel (Douro Line). The Maria Pia Bridge and Campanhã station were opened in the year 1877, which represented a great contribution to the development of this parish. According to Gomes (2003), the Campanhã station was largely responsible for the rural exodus to the parish, although standing out mainly Sé and Ribeira Barredo, where initially appeared the "human hives."

Population growth led to the need of redesigning the housing structure because there were many inhabitants with low purchasing power, leading to the concentration of workers in "islands" that as such housing estates have become the image of the parish, in physical and social terms.

"Campanhã was, while housing developments did not take care of it, one of the parishes that held the largest crop land and wooded areas, although it has been torn by the opening of the railway link with the North and construction of railway junction and the Contumil station"(Pacheco, 1986).

Currently, the parish of Campanhã continues to have the presence of the rural tradition in landscape and in day-to-day of many inhabitants, but the influence of modernity has been increasingly evident.

## 2.4 Tourism and Architectural Heritage

Campanhã has numerous buildings, which correspond to religious heritage, civil and architectural. That fact has value and interest to the parish and create their unique brand. The highlights are few:

- House and Farm of Bonjôia: Matches with Civil Architectural Heritage and its first owner who is known was Afonso Dinis, who in 1402 donated it to the Cathedral of Oporto. The house of the farm has carried with large stone arches and opposite the main façade lies a quartered shield. However, the Foundation for the Development of Parish of Campanhã acquired this Farm in 1955.
- F. C. Porto Stadium – Dragão: It opened in 2003 and the work was made by the architect Manuel Salgado. It has a capacity for 50,092 spectators.
- Campanhã Station: Inaugurated in 1877, it corresponds to the busiest station in Oporto. Located in an area where previously stood a farm (of Pinheiro). The opening of this station was fundamental in the industrialization of the parish. Trains serving the station are the Suburban, International, Alfas, Intercity, interregional, regional and Goods.
- Industrial District of Oporto: It is regarded by the parish of Campanhã (2015) as Architectural Heritage and is located in Largo da Corujeira. It appeared in 1923, but was only opened in 1932. This building is the kind Offenbach (Germany). It consists of numerous pavilions.
- Palácio do Freixo: It is Civil and Architectural Heritage and was built in 1742 by Nicolau Nasoni. Assumes great importance in the parish, and example of Portuguese Baroque. In 1910 it was classified as a National Monument. Recently, the palace was purchased by the city of Porto.

## 2.5 Transports and Highways

The parish is served by trains, buses, metro, and on several taxi courts, thus ensuring a very high-performance mobility because it is possible to establish connections across the country, but also exceed the border.

For example, buses of STCP offer direct access to locations such as Hospital S. João, Cordoaria, Foz, among others, and the metro allows you to access Trindade, Santo Ovídio (Vila Nova de Gaia), Maia, Gondomar and Matosinhos.

Therefore, those who live in this parish can whenever they want, change the use of the private car for the use of public transport, which contributes, for example, to reduce congestion, stress decrease and pollution reduction.

With regard to roads, Campanhã has 331 and has a structural way, the São Roque da Lameira Street.

The main roads are:

- A20: is the CRIP (Circular Regional Interior Porto) and bypasses for East and North Oporto. In much of its length, coincides with the VCI (Via de Cintura Interna) and in what remains of its extension allows access to the east of the city of Oporto for cars coming from the south, i.e. the A1, the A29 and A32;
- IC29: is the Radial of Gondomar, making the connection between the eastern city of Oporto and the A41 at Aguiar de Sousa, to connect the city of Oporto to the various municipalities and localities that lie east.

In addition to these routes, in the parish of Campanhã cross many national roads with a lot of importance, allowing connections to different municipalities and consequently the various locations, giving the possibility to get around the trend of low development and make this a more attractive parish.

## 2.6 Summary: External and Internal Forces

One of the major barriers to the development of the parish is undoubtedly the presence of Circunvalação, separating part of Campanhã to the rest of Oporto, to behave like a barrier. Due to the accumulation of an oversight over a number of years, Campanhã now needs to be targeted for intervention, more than other areas of the city. According to Rui Moreira, in an interview to Porto24 (2013) pointed out that "the parish of Campanhã has a very different dynamic from the rest of Oporto [covering] a significant part of that is outside of what are the imaginary walls of the city that is the Circunvalação. [Hence] need more intervention (...) [being] an area that needs projects and public investment.

"In 2014, in an interview to the *Público*, Rui Moreira argue that Campanhã should be considered an ARU (Urban Renewal Area), the first area to be outside the city centre because of the" need to promote urban renewal in Campanhã parish, covering the surrounding area to Campanhã station".

Thus, doing the framework about the parish and after what has been mentioned throughout this chapter, it is important to note that Campanhã is driven by internal and external forces.

With regard to internal forces, they are scarce. The Circunvalação becomes a barrier that affect the development of the parish on the eastern side. The centre is located at west of this route, highlighting the Campanhã station and the various services that are located there. This is the space that most people get and move.

On the other hand, the external forces are related to the population that travels daily or sporadically from other municipalities and parishes, coming to the city of Oporto, where there change their mode of transport to move to other parts of the city, acting as an intermodality point, but the truth is that there are few people that stay and enjoy the surroundings of the station. Campanhã is also an unattractive parish to live, since all its eastern area presents shortage of transport and the roads and paths are of poor quality. In addition, although it offers many places of interest to visit by tourists, they end up being forgotten because of difficulties of access.

In short, it is an area that needs attention, investment and projects, because the potential is huge and thus the guarantee of success is high.

### 3 Study area

After reflection on the entire parish of Campanhã, it was found that the problems are several and from different natures. Thus, it was decided then by selecting an area that really was a challenge and where the work done was valued. Thus, in a detailed scale, was selected the surroundings of Campanhã station (west side), where public transport has great importance, such as the availability of services.

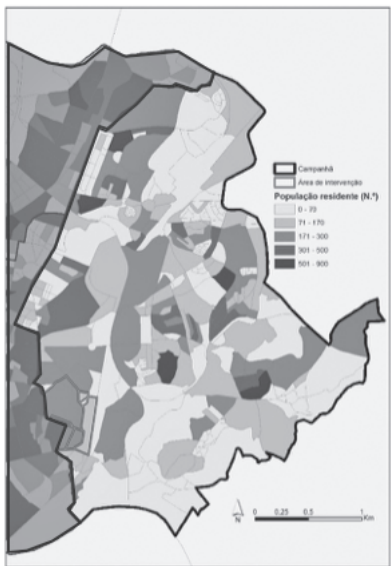


**Figure 2.** Location of the study area

#### 3.1 Housing stock in the area

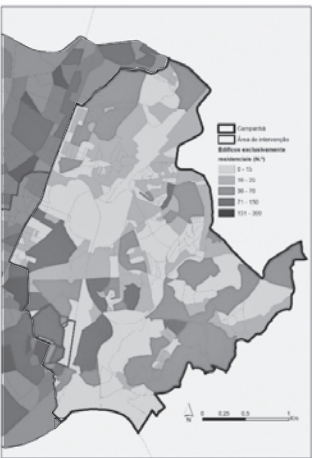
Now it's important analyze some statistics and compare them with the situation in the parish (the study area is always delimited by a line that distinguishes).

Starting with the resident population, Figure 3 shows the distribution of the number of residents in the various subsections, and although the parish has, in general, a low population numbers in some of its areas, in subsections study the value ranges between 71 and 300 inhabitants.

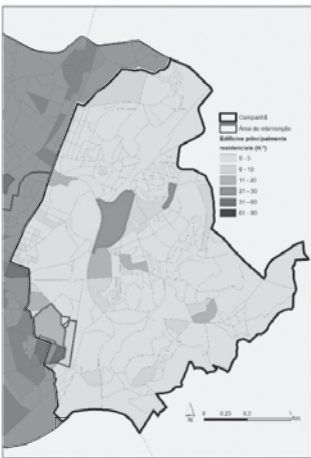


**Figure 3.** Resident population (No.) in Campanhã, by subsection (2011)

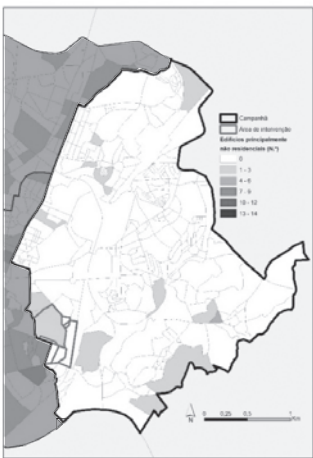
Regarding the functions and occupations (Figure 4, 5 and 6), the buildings are mostly exclusively homes.



**Figure 4.** Exclusively residential buildings (No.) in Campanhã, by subsection (2011)



**Figure 5.** Mainly residential buildings (No.) in Campanhã, by subsection (2011)



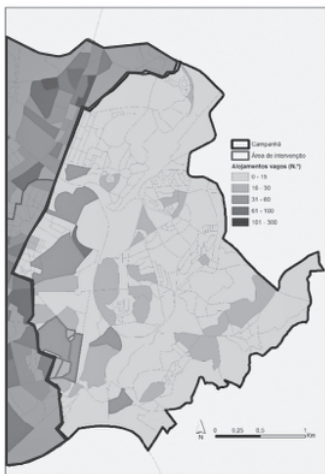
**Figure 6.** Mostly non-residential buildings (No.) in Campanhã, by subsection (2011)

With regard to dwellings not classic, visible in Figure 7, they still have a significant number in the parish, but when we refer to subsections analyzed there are only between 1 and 10.



**Figure 7.** Dwellings not classics in Campanhã (No.), by subsection (2011)

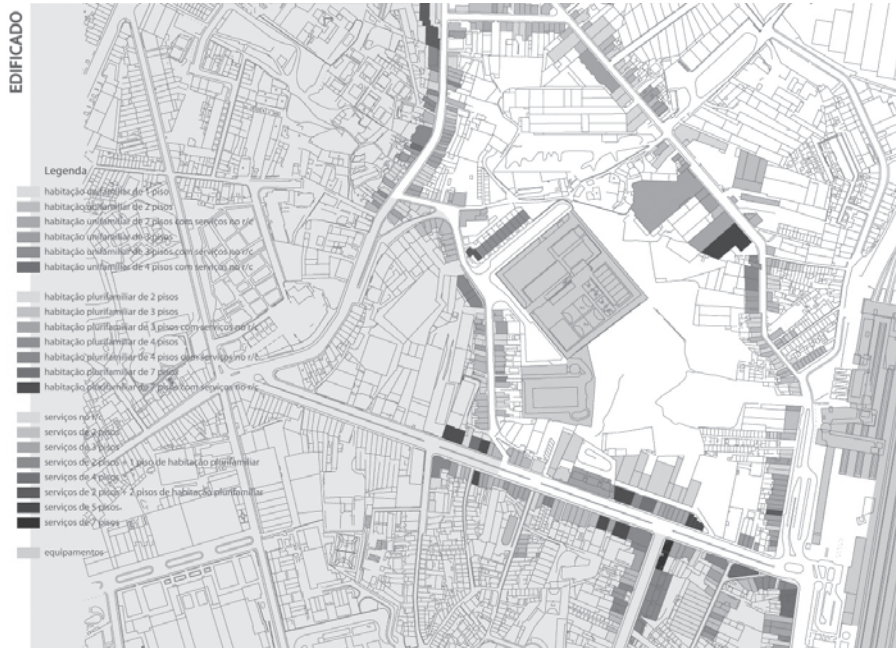
Finally, it is confirmed that the number of vacant dwellings (Figure 8) is considerable, as we have stated earlier, between 16 and 60, so, these buildings have great interest to our proposal because its rehabilitation will revitalize the area.



**Figure 8.** Vacant dwellings (No.) in Campanhã, by subsection (2011)

### 3.2 Functional survey

It is now important to analyze the present situation in the area concerned in physical terms, in relation to buildings and to existing functions.



### Figure 9. Occupation of the buildings

As can be seen, the buildings housing predominates, whether or not exclusively residential. In turn, the mostly occupied with services, despite having a considerable amount, are fewer in number.



**Figure 10. Existing services in study area**

With regard to services, these are quite varied, highlighting the offices, factories, restaurants, banks, post offices, supermarkets, pharmacies, clothing stores and shoes, hair salons, travel agencies, driving schools, funeral homes, stores furniture and household appliances, among others; i.e. a wide range of local services is offered, demonstrating restoration and hospitality, very important for users of Campanhã station.



**Figure 11.** State occupation / conservation of buildings

The ruined buildings are various, as well as the number of buildings that is vacant, especially in poor condition.

## **4 Campanhã vs the concept of liveability**

### **4.1 Critical analysis**

Today, the concept of *liveability* is increasingly important when planning and intervenes in the territory, so must examine, first of all, how the population that resides here, as well as one that can come to live or enjoy the surroundings of the centre of the parish of Campanhã, you can achieve the quality of life. Thus, there are several indicators to be taken into account when it assesses the living conditions.

#### **4.1.1 Education**

Teaching is an important form of transmission of knowledge, while developing a process of development of social relations. Although there are no outlets in the space under study, close to the

area for basic schools and kindergartens. Moreover, thanks to the high quality and public transport provision can easily and in a short time reach different schools. Access to Faculties of the University of Oporto, as well as to Polytechnics and also the other private also makes easily. So although educational provision is not present in the immediate surroundings, the great advantage of this place is its good accessibility.

#### 4.1.2 Health

The quality and availability of health services, private and public, as well as the absence of drug trafficking situations carried out in broad daylight are fundamental to *liveability*.

In this particular case, there are only pharmacies, which is relevant because there is a frequent need to acquire medication. However, the good transport network, as well as the presence of a taxi rank, makes it easy to travel to any health institution, with several in Oporto, public and private.

#### 4.1.3 Trade

Access to local shops without using the private car is one of the key components to achieve *liveability*. As shown in the functional survey presented earlier, the marketing of products is done primarily through grocery stores and bakeries, which is a good indicator, since they are basic necessities. But trade is still linked to stationery stores, shoe shops, beauty salons, furniture, decoration and electronics.



Figure 12, 13 e 14. Trade on the streets around the study area

#### 4.1.4 Services

Easy access to services in the proximity is a key aspect to the population settling in any area. Along the Rua Pinto Bessa, Justino Teixeira and Station is situated a wide range of services, some related to financial activities, such as banks and insurance companies, others linked to dwellings, such as pensions and homes and adding to them, services automobiles, pharmaceuticals, post office, travel agency, among others.

#### 4.1.5 Leisure

Leisure is a very important aspect for the population, so as to occupy their free time. The elderly, the children and the general population, family, group of friends and / or individual should be able to go outside and enjoy the public space.

In the study area, the places that should be of leisure are not, mainly because they offer few conditions with respect to green spaces. For example, banks outsider of the Station are mere

cubes of rock, backless, uncomfortable, and the shadow on off is zero. Therefore, the population in hot weather cannot use this space, not being protected from sunlight also has no vegetation to minimize the temperature and maximize the utilization of place. Despite this, there are several cafes holding terrace, fostering the interaction of people, as well as the experience of the place. However, it should be noted that even tours being wide, placing tables and chairs brings inconvenience to the movement of persons with reduced mobility.

Still and going against the concept of *liveability* - that mentions be ideal access to green and recreational spaces without having to use the car and spending a little time in moving - the intermodal transport system and the extended network that directs to multiple destinations, allow the population to enjoy leisure facilities in other parts of the city. However, the relevance regarding the existence of a garden near the housing is large, since it improves the harmony of the place. In addition, this town is historically rural and so it makes sense to bring old features to the centre.



Figure 15 e 16. Square of the station

#### 4.1.6 Culture

Cultural availability in the area does not exist, which is one of the components to invest in its future proposal for space. The existence of activities related to the arts such as sculpture, painting, music, dance or theatre, would stimulate the place, diversifying the target audience of the site. Furthermore, it would be quite feasible, since there are unoccupied buildings, and therefore it would be important to introduce new uses in buildings.

However, there is the presence of Campanhã Pools that offer to the communities of Oporto a place to practice their swimming and water polo teams. In summer you can enjoy up to an outdoor swimming pool open to the public and winter is available an indoor pool.

#### 4.1.7 Transports

The offer of transport and the conditions of access is a key aspect to achieve *liveability*, since it is essential that everyone, regardless of their social and physical condition, can access the services and equipment needed in their daily lives.

Campanhã excels in intermodal, with services provided by CP, STCP and Metro do Porto, as well as other private operators that provide easy travel and diversity hours.

There is also a good road network, highways standing out as the A20 and the Circunvalação road, which gives you quick access to other parts of the city as well as neighbouring counties.

For international calls there are two possibilities: can be made the connection with Spain through the CP or easily access up to Francisco Sá Carneiro Airport by Metro or STCP bus.

Although there is an underground car park, on the surface there is a lack of this infrastructure. At the rear exit of the station we can find a space for car parking, but the floor is in very poor condition.

Moreover, this output, because it has only stairs, conditions its use by persons with reduced mobility.

Finally, some of the walks close to the station are in poor condition and / or have reduced width.

#### 4.1.8 Housing

The quality of housing is a factor of great importance when dealing with the issue of the quality of life. The supply of buildings with construction quality and various types is therefore fundamental. However, in the study area, there is a large percentage of buildings in poor condition, some in ruins, others derelict, which relates to the time of construction, i.e. the housing stock is old.

Thus, there is availability of buildings, but the need of rehabilitation retracts the population. As a positive aspect enhances it is also the architecture of the building, which should be of different times, have different designs and this allows for better legibility, especially for the elderly, children and the mentally ill, it promotes career management skills.

#### 4.1.9 Security

The centre of the parish, due to the high movement of people and the existence of several commercial establishments and services, is a pleasant place and therefore the occurrence of crime cases arise sporadically. However, the considerable amount of vacant buildings or state of disrepair may enhance the appearance of problem groups, particularly drug addicts or homeless. It would therefore be relevant to reclassify the built in worse condition because it can lead to situations of marginalization.

#### 4.1.10 Environment

The study area lacks of vegetation and this has implications both the noise level and in relation to thermal sensation. It is considered that the presence of trees could act as a barrier to the sound caused by intensive circulation of public and private transport and solve the discomfort of taxi drivers brought about by long exposure to the sun during the day.



Figure 17 e 18. Streets surrounding the study area

#### 4.1.11 History

The story is important to the *becoming local* and this, as we have shown above, has a high weight in the parish. Although several buildings present in the area are from different times and consequently have different styles of architecture, it is noted the building of the station, which was built in 1877. On the other hand, interventions in public space are more recent. The population values the heritage of the past, so it is important an attractive and diverse image.



Figure 19 e 20. Building in need of rehabilitation and space unused in the study area

#### 4.2 Intervention proposal

Our main idea is stop a development in an extremely waterproof area creating a public park inside a buildings ring.

Using as a starting point to development this study, a fieldwork, we can gather different types of data to understand the relationship of the buildings and the surrounding urban tissue and realize de local identity.

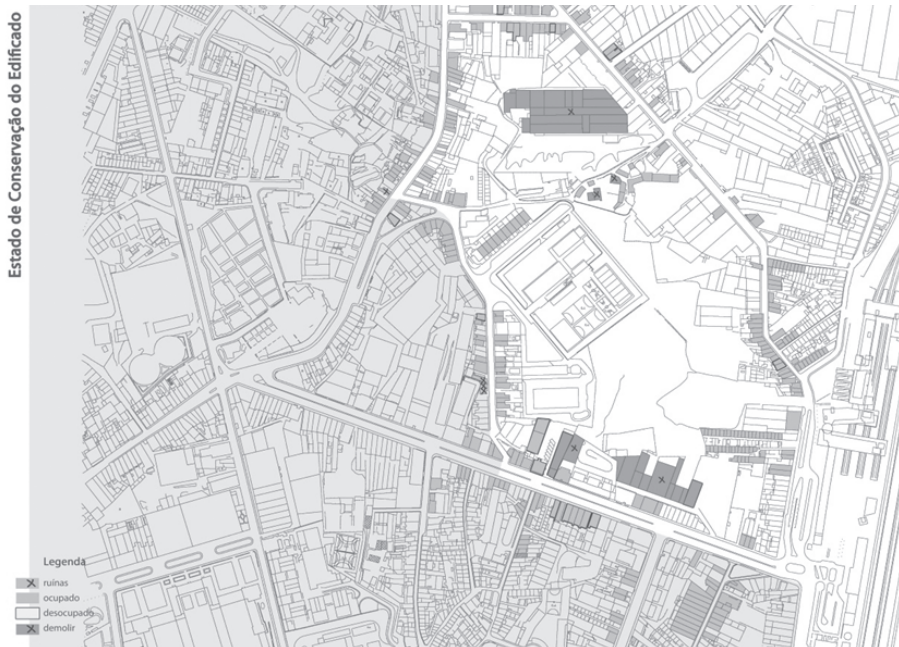
As has been said, the urban tissue in case is characterized by a densely built ring which comprises single and multifamily houses, some of them with a commercial ground floor; equipments and a high number of small factories or production houses. The buildings have no apparent organization with regard to their type, number of floors, its construction, maintenance and use, creating a wide range of offer at all levels, distributed randomly and spot on the ring. Much of the existing factories plants can be found abandoned, fact that is reflected in the conservation status of these buildings. Many of these infrastructures are only with the 4 walls up, close to falling, which allows us, in a proposal stage, clean these buildings in the core area, in order to gain space of intervention. All of unoccupied buildings and in a poor condition will be destined, as a priority, to rehouse people who lives there and have to move in cases of removing homes, and as a second priority, people who wants to have business and/or life there.

A functional analysis of the building was made: for what purpose they are intended, if it is occupied/unoccupied, to what extent are versatile to change, what will demolish and keeps, where we want to strengthen it and to this study have emerged linked it potential ideas for what should be the accesses to its interior. The accesses and the entrances raises issues of safety and frequency of the park and starts up to give movement to the lines drawing and to create a methodology structure that follows a vein from the outside to the inside, where it intends to unify the core to the existing consolidated network, extending and enhanced the urban tissue to the ring scale. To connect the ring with the green spaces, we create a network of paths articulated to each other

grabbing their points of departure and arrival and the way we promote the surprise and relational factor.



**Figura 21.** Our concept draw showing the articulation of green areas inside the ring with permeable flows north and south, east and west.



**Figure 22.** The built conservation status and proposed buildings for demolition (many of them were in poor condition and therefore could be re-used for other purposes).

More in detail, first we studied the buildings. Our main ideas for this topic are clear the ruined buildings and rehouse people in existing buildings unoccupied and then we close the front of the facades with new buildings to ensure the closed character of the local. For that we propose 3

types of construction: rural architecture building to strengthen the identity of the area; building to promote the continuity of the facades and a bridge building.



**Figure 23.** MasterPlan

Some in very specific situations, almost like street corner buildings; others form an aligned row and associated with one or another specific case of buildings that were in ruins, and returning to be born to strengthen and give life to the rural core (northeast of the intervention area) that we wish to continue function as a country in a public green area who is not muffle the surrounding space fully urban experience. The type of construction and housing this rural centre accompanies and follows the lines of what already exists. Portrays a genuine architecture, simple construction, to agriculture as life support, bringing an identity and a symbolic character to preserve. Finally, it is proposed yet another building, which fits between the school and the urban tissue on southwest area. It must be a "bridge" building, once the public space is already to take his place. This help in reading cohesive network, since the existing street access to schools and the pool has the widest space and eventually withdrew the closed nature of that specific site.

To ensure and enhance the success of the entrances we bring some other places with ideas that we can adapt to our area and its needs.

We have, thus, four potential ideas to work these entries, to join the use of existing access.

Famous for its authenticity, Vecchio Bridge that has a considerable amount of shops along its board. Carrying this idea to the study area, the purpose is not to create a bridge, but rather to reinforce a passageway and inspire some curiosity in, eventually grab with the associated trade.

There are two situations was adopted this idea: the case of the islands and the idea is take advantage of the infrastructure and propose those traditional shops.

Taking advantage of the ideas of the urban park Vondelpark in Amsterdam (which even has an identity similar to the study area), occasional interruptions in the surrounding buildings, it is proposed to extend the green conductor from the inside out, bringing up the trees the face of the streets, continuing the construction line with a green curtain, which has the same alignment of facades and by their size turns out to "welcome" of course who is circulating in the parallel street to the facades of buildings. There are 3 situations in the project with openings (interruptions) in aligning facades, which will be used to implement this model.

The random distribution of small houses of rural settlement and their paths provided the surprise factor resemble the rural centre that exists in the Oporto City Park. These features raise curiosity and desire to explore the existing country area. In order to decrease the risk of losing their identity, take advantage (even though they are nearby) the two existing entries and their stone paths. This area will come to develop and expand. We use the areas and the buildings to activities involving animals for extracurricular occupations children and promote workshops abording the rural life.

We have two cases, one north and one to the east, where entries are made through the facade of buildings, where they provide services about automobile industry and another to the south, which is done through a flagship facade housing.

An entry by the pools and further 3 to the parking lot that will be used by existing entries, to private garages of buildings.

It is suggested to attach an equipment that strengthens the tissue and invite to stay in the green area. This infrastructure is an installation of a ground floor restaurant with panoramic views over the park. Another intention is to create a car park in the south of the area, taking advantage of the existing entries to the rear of buildings, in support of surrounding area, once the car will not be allowed access to the interior of the park.

Inside, the proposals extend themselves. After cleaning of all attachments and situations of buildings in ruins, one begins to gain space to draw green structure with leisure and living areas and paths highlighting the ambulatories open the stream that runs through the area.

The roads in the area will follow two profiles. The main path that connects to surround on three major points will have a width of 6 meters and along its route align large trees of 5 by 5 meters from both sides, and this distribution regards an orthogonal grid, this meaning the trees also are arranged in line in cross-section. Secondary roads, with half the width of the main path, will have to respect trees spacing (7.5m) so there is no overhead the canopy and shade, making its pleasant and not oppressive go. In its aerial view these trees will follow a triangular mesh, mismatching their alignment in cross-section.

#### **4.2.1 Proposal consequences for the area: Prospective of Liveability for the Intervention Area**

It is important to relate our proposal with the concept that serves as the starting point for this proposal: *liveability*.

Our project aims to regress in time and re-create the rural characteristics that always marked the parish of Campanhã through the green space, but instead of forest and cultivated fields,

now you want to respond to the will and needs of society current, providing a space for the enjoyment of all, that takes advantage of the existence stream.

It is intended to create an attractive place in which residents and passersby will feel to visit and stay, alone or with others, whether in sunny days of winter or the heat of summer. This city park is versatile as it can be stage various cultural posters. Also, it offers the opportunity to play sports, contributing to the improvement of population health.

It is important to point out that if you want the space can be used by everyone regardless social or physical condition. The multiple entries allow this is interconnected to the urban tissue that surrounds it, making it more welcoming.

We hope the realization of this proposal will bring greater quality of life for the population, the attractiveness of new business (creative and innovative activities, catering, etc.) as well as the fact that action for rehabilitation and new construction of some buildings. Thus, it is expected that the park is easily accepted by the community and that the number of users is successful.

## 5 Conclusions

The Campanhã parish it is unique. Yet unleashed or long forgotten potential which is finally beginning to be valued and explored by both the local administration and the scientific community. Of relevant size, Campanhã is noted for a lot of capabilities. After conducting our brief analysis, we found that this parish is on many levels full of potential and there is a clear opportunity to revitalize an area, which was once so very important. The available space allows for the introduction of unavailable services and activities, which would then result in better living standards therefore creating the possibility for the experience of “becoming local”, and improve “liveability”. These two concepts form the basis of our work appearing in it, as not only desirable outcomes, but also as the main challenges to be addressed.

Thus, the proposed project could not only improve conditions for those who live there but also attract residents, merchants and creative activities for the improvement of the building, restoring it and giving it a new use, the implementation of a harmonious continuous green space into the urban tissue and the introduction of a car park contribute to the promotion of people's quality of life.

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## Design and Ageing – more real life, less virtual spaces

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Population ageing and urbanization are two global trends that together represent the major forces shaping the twenty-first century (OMS, 2008).

Among citizens, elderly are most probably those that are more available to become involved with new figurines of public life, detached from the general strong tendency to follow the virtual social spheres, and, therefore, to help generating new spaces and public life.

The scale of application aims the urban design principles to respond to the emergent cultural effect of ageing population, in reference to new local policies/ governance and professionals to get age-friendly urban design practices, attending to the contribution of citizens' active ageing as a vehicle to potentiate new shapes of public life, exploring the concept of age-friendly urban design and programmes.

Concerning to this, it is emerging a new paradigm of culture about active ageing in a humanistic perspective of urban design that can constitute an innovative tool to potentiate public life in contrast to the porous network of our daily virtual lives and spaces.

**Keywords:** public life; quality of public space; age-friendly places; urban design; liveable places; municipal programmes.

*"The number of elderly has tripled in past 50 years, which will more than triple again over in the next 50 years"*<sup>1</sup>

### Design and Ageing

Accepting that the world is a growing "city" (OMS, 2008) where in 2007 more than half of world's population lives in cities and the number of mega-cities has increased tenfold during the twentieth century, from two to twenty, corresponding to 9% of the world's urban population in 2005. As also the fact that in cities with less than five million inhabitants the proportion of the urban population will continue to increase in the coming decades. Both give support to the prediction for 2030 when *"about three in five people in the world will live in cities and the number of urban population in regions less developed will be almost four times higher than in the more developed regions"* (WHO, 2008). Thus is estimated for 2050 about two billion elderly based on the evolution of the life expectancy average.

The study of human evolution, focusing on concepts and models associated with development theories in the light of contextualizes paradigms, the developmental regulation (from genetics to mental functioning, behaviour, culture, society and history) and the plasticity in human development (levels of analysis and developmental system characterized by the potential for change over time), i.e. the elderly as "person to develop" not a "problem to solve" (Fonseca, 2009, 2012a).

In Gerontology<sup>2</sup> ageing is defined as a process that takes place over time and for which the experts monitor and analyze the biological, psychological and social aspects of senescence of individuals. Age is conceptualizing as standard of social behaviour in order to functional problems

<sup>1</sup> Source: World Population Ageing 1950-2050. Population Division, DESA, United Nations (80ch, p11).

<sup>2</sup> The recent history of Gerontology dates from the end of World War II (1945), with the creation of the Gerontological Society of America (GSA). In 2010 celebrated the 65th anniversary and aims to answer three knowledge objects: ageing, old age and elderly people. Ballesteros (2012:1).

of the elderly such as the disabilities and difficulties to perform an independent life (Fernández-Ballesteros, 2000; Paúl, 2005; Fonseca et al, 2013).

Generally, it is regulated by sets of determined genetic processes, taking place a progressive and generalized functional impairment, with loss of adaptive response to adverse situations and increased risk of incidence of diseases related to old age (Opas, 2005).

Intelligence and cognitive ability (or the ability to solve problems and adapt to change and loss) are the psychological factors associated with ageing and related with behavioural, environmental and social external factors (DGS, 2004), as are systematized in Table 1.

**Table 1.** Factors with influence on cognitive function (Opas, 2005).

Psychological		Behavioral	Social
Low self-esteem and pessimism	Lack of motivation, reliable and low expectations	Alcohol and drugs	Loneliness and isolation
Self-efficacy	Belief in the ability to control his own life	Personal choices behavior during the ageing process	Prepare for retirement
Knowing overcome adversity	Face to change	Retirement	Adaptation level
	Face to crisis	Deprivation and emergence of diseases	

Related losses to cognitive function include an equivalent degree to the initial state or terminal - mild cognitive impairment (MCI), more used to indicate a syndrome characterized by mild memory or cognitive impairment that cannot be explained by a medical or recognized psychiatric condition (Parigi et al., 2006).

Dementia is a symptom and a result as a result of one or more diseases as well as Alzheimer's disease, vascular dementia and other mental disorders<sup>3</sup>, for which is expected to increase to 1.2 million by 2040, alongside the reality of about 80% of patients who live at home<sup>4</sup>.

The Alzheimer's Disease has three distinct phases of symptoms: initial, most advanced and terminal. The first / initial similar to dementia as: loss of more recent memory and learning, spatial disorientation and temporal, the reasoning problems and thinking with moments of confusion, agitation and anxiety, worsening in the rate at which the cells brain are dying and their communication gets changed. Data from Alzheimer Portugal<sup>5</sup> and the National Plan for Dementia predict that exist in Western Europe in 2040, about 14 million Europeans with dementia and 150% of the current Portuguese population in the next 25 years will double the current 7.3 million and will triple in Eastern Europe.

Alarming and even disturbing results reveal that at the distance of a generation of active adults, a new case of dementia is diagnosed every 24 second. In Portugal, while it is ignored the real state of the Portuguese population and where not exists an epidemiological nationwide study, it

<sup>3</sup> Source: Alzheimer Society, 2000. Statistics on Dementia: <http://www.alzheimers.org.uk/about/statistics/html>

<sup>4</sup> Source Burton and Mitchell (2003): Audit Commission, 2000. Forget Me Not: Mental Health Services for Older People, Audit Commission, London.

<sup>5</sup> European Collaboration on Dementia, Eurocode. Study promoted and funded by the European Commission and coordinated by Alzheimer Europe.

is estimated that there are about 153000 people with dementia and of that universe 90000 suffers from Alzheimer's disease, about 1% of the total population.<sup>6</sup>

The citizens who appear in the dual role of parents and grandparents fulfill the life cycle on which we are increasingly awake, conscious, aware and informed about the set of determining factors that promote active ageing centered, among other objectives, in reverse the trend or natural propensity for addiction as the cause the following conditions, or in combination as referred by Loureiro (2014).

Condition 1) Biophysics and hereditary - is highlighted by directly influence the conditions 2) and 3), when combined with the results of studies conducted by the United Nations shows that the following chronic diseases are common to the elderly around the world (Opas, 2005):

- ✓ Cardiovascular diseases such as hypertension, stroke;
- ✓ Diabetes;
- ✓ Cancer;
- ✓ Chronic obstructive pulmonary diseases;
- ✓ Musculoskeletal disorders such as arthritis, osteoarthritis, osteoporosis;
- ✓ Mental diseases such as dementia / senility, depression;
- ✓ Blindness and reduced vision, such as cataracts.

Condition 2) Socio-cognitive - mental health services play a crucial role in active ageing and they should integrate the long-term care, considering in particular the stages of mental illness under diagnosed related to depression and suicide, and growing common among the elderly (Opas, 2005).

Condition 3) Social individual's network - decisive behavioral factors in all course stages of life, directly related to healthy lifestyles and active participation: physical activities appropriate to the age and physical condition, healthy eating, tobacco abstinence and moderate alcohol consumption and takes regulated drugs as a way to prevent disease and functional decline, increase longevity and short individual's quality of life (Opas, 2005), on the assumption that the earlier they are culturally assimilated more naturally will be part of your everyday.

Condition 4) Environmental - the environment or ecological reports settings where the ageing develops, Loureiro (2014) referring Bronfenbrenner, 2002.

Quality of life includes domains such as: physical and social environment, socio-economic and cultural factors, personality factors, personal autonomy factors, subjective well-being, health status and clinical characteristics. In other groups, the elderly elect these factors by widely interact with family and friends, social contacts, health, independence, mobility, emotional well-being, leisure activities, family context (Bond e Corner, 2004; Fonseca et al., 2013).

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<sup>6</sup> National Alzheimer Intervention Plan, 2009. Source: [Doença de Alzheimer - A Prevalência da Demência](#)

The term health defined by WHO involves the physical, mental and social well-being, and the key to an active ageing which implies maintaining autonomy, independence and remain socially active, since it necessarily involves third parties: friends, co-workers, neighbors and family.

As concept meets a positive experience of longevity for the elderly, as individuals or groups, whether or not dependent, needy or not specific care, frame a "process of optimization of opportunities for health, participation and security," improving the quality of life during ageing, according to their needs, desires and capacities, participate in society obtaining at the same time, protection, security and care when needed (Opas, 2005).

The Table 2 systematizes the internal conceptual structure of positive ageing, not including predictors or determinants of positive ageing. Reports to the objective values relating to health, the number of diagnosed diseases, number of drugs administered orally, physical status, static and dynamic balance and MCI. With regard to the subjective values contain three questions to assess the health and physical condition evaluation of strength, endurance and flexibility.

The assessment of cognitive functioning is expressed objectively through a digit symbol and Backward Digit, Cognitive Plasticity and MMSE. Affection, subjectively through life satisfaction and emotional balance, i.e. positive effect divided between negative affect and self-efficacy for ageing. Activity by attending productive and leisure activities, to test how the factor structure of the measures of positive ageing results of the total sample is influenced by gender / women and men, and age, two age groups between 55-64 and 65-75 years, which led to the agreement coefficients of these results.

**Table 2.** Example of objective (O) and subjective (S) measures of ELEA<sup>7</sup>

Outcome domains	Type of measure
Health	Number of illness reported O Number of medicine taken O Health Self-evaluation S
Physical and physiological functioning	Grip Strength O Tapping test O Body Mass O Balance static & dynamic O Fitness self-evaluation, endurance, strength, speed, balance S
Cognitive functioning	Digit backward O Digit Symbol O Cognitive plasticity O MMSE O
Emotional motivational functioning	Life satisfaction S Emotional balance S Self-efficacy for ageing S
Activity	Productivity, hrs. per year O Leisure, hrs. per year O

Note: S = Subjective; O = Objective; MMSE = Mini-Mental State Exam

<sup>7</sup> Adapted by the authors from Ballesteros et al. (2011), Table 1.

*"An age-friendly city encourages active ageing by optimizing opportunities for health, participation and security, in order to increase the quality of life as people age" WHO (2010), so that "the whole condition that reduces the use of public space is contrary to his nature", Alves (2003).*

As first steps, in the last two decades include so-called "age-friendly cities", whose guidelines are being adopted and molded in municipal intervention and local strategies (local government), or through plans prepared by different ministries and state sectors (central government). It is expected her reflection in urban design, intended to be inclusive and where the rules assist the planning of (urban space), with all (immediate surroundings), giving the residential areas a solid proximity network and access to goods and basic services day-to-day to promote social and (inter) generational interaction, taking as principle of these binomial elderly's integrated quality of life.

The public spaces are very important in everyday life and social behavior of their users, daily and occasional, directing for a (un) conscious appropriation, healthy or not, which deeply marks the daily quality of life of residents and to who only pass by, as well as stage of events and memories for generations to come.

Among the various factors that contribute to the excellence of urban public space, taking as a starting point data from Peter (2000), we highlight that most directly are likely to be associated with quality of life in residential areas:

- a. The housing as the first "basic need of all households" to be the shelter against external agents to the home and the right to privacy.
- b. The neighborhood as a second necessity given the social nature of Humankind.
- c. Urban environment as third need, in association with the housing, for setting up the outdoor family environment at home and assist in the daily lives of residents, since their characteristics might influence behavior and attitudes, "wants to constrain or prevent certain activities either to foster or provide other".
- d. Most of the physical characteristics of public space - orientation, size, geometry, framing, flooring, textures, etc. - which will keep for generations, decades or mandates / local government, mark and link uses and habits that characterize the inherent residential areas, giving the determinants that make them distinct from each other, i.e., personality versus identity of the collective space.
- e. Most features of the environment that promote the proximity of the network synergies between the house and access to services on a sustainable basis where prevailing economic factor of consumption from public lighting, maintenance, conservation, among others. Along with the socio-cultural network of the residential community, i.e. the relation between security and culture.

In addition to the overall situation of ageing we highlight some studies, that are already being translated into Portugal as first steps on the practical (in other countries), results and verification of these same studies and theories that have enriched the lexicon of urban design discipline with new terminologies and concepts. As international advanced studies concerning to

urban public space, particularly focusing on residential areas, which are at the root of some new concepts patents in the international scientific discussion, for example:

- ✓ Peace, Holland and Kellaher - public spaces encourage the elderly to leave the private family room / home, as a vital opportunity that promotes health through the activity that can be developed abroad.
- ✓ Charles Bohl, Appleyard, Jan Gehl, William Whyte and B. Huet - group of authors of works that reveal the importance of the joint study of the buildings to the study of outer space, public or not.
- ✓ Stephen Carr, Kevin Lynch, Mike Biddulph, Marcus Grant, Lynne Mitchell and Elizabeth Burton, among others as DeLozier and Davalos - source of new concepts in international discussion of the scientific forum, analyzed by experts distinguished in this area of knowledge, such as: " walkability ", " bodyspace ", " livable places, "" home zone ", " urban pulsar ", " food and urban design ", " memory-friendly neighborhood ", Alzheimer's disease and frontotemporal dementia.

Thus, the proposed methodology presents two distinct sectors: 1) Urban design and 2) Health, which arise inseparable given the close interplay between the physical condition of the environment and the human condition.

The goal to define a methodology to allow professionals of having a practice supported by a tool for check pattern to ensure the success and sustainability of residential areas, the quality of its public spaces and their function / role in ageing optics. To suppress the degree of abstraction of certain factors inherent to the human dimensions of public space, the comprehensive study of the rights and needs of users gives the evaluation process the necessary measurability.

The human component that characterizes the proposed method highlights the needs and expectations of potential users, identification and requirements with the means and opportunity to check the sustainability of public space, where model practices concerning to this study are based on European affairs and WHO guidelines as a starting point to check our main goal.

According to operation criteria and sustainability of urban public space the classification includes a careful analysis of the methodology inherent in the urban design process. Correlating different dimensions of space: economic, social, cultural and psychological / mental, allows us to clarify a broader methodology level of urban design as a discipline.

The methodology for "Urban Design of Skills" is outlined and structured based on the ability of inclusion and prevention of prevalence for which we define:

- a. Relation between the habits and activities of the elderly and the evaluation of the quality of public space;
- b. Criteria of urban design for the public space inherent to daily life outside of the elderly;
- c. Guiding and regulators parameters of municipal instruments and urban policies.

Thus, as approach to the main constructs of health (Table 3), such as the guidelines for the age-friendly cities, was considered the methodology to evaluate the state of health defined by the international classification of Functioning, Disability and Health (CIF), the longitudinal study of ageing ELEA, and the contributions of a Portuguese study focused on CIF to get the supportive fundaments for the health database.

**Table 3.** Main constructs for health schedule.

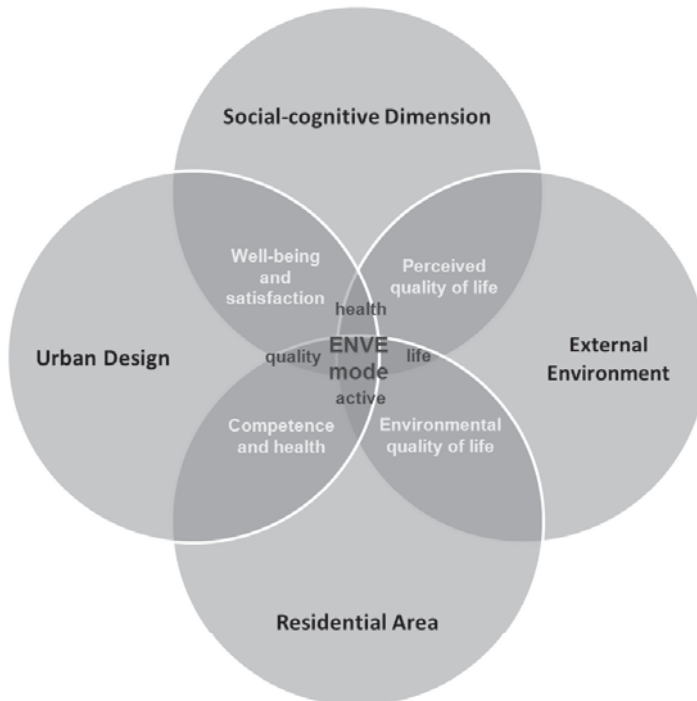
Components	First qualifier	Second qualifier
Body functions (b)	Generic qualifier with a negative scale to indicate the extent or magnitude of a disability.	None
Body structures (s)	Generic qualifier with a negative scale to indicate the extent or magnitude of a disability.	Indicates the nature of change in the structure of the body in question: 0 no change in the structure 1 total absence 2 partial absence
Activity and Participation (d)	PERFORMANCE Generic qualifier Problem in the person's usual environment	CAPACITY Generic qualifier Limitation, without help
Environmental Factors (e)	Generic qualifier, with negative and positive scale, to indicate, respectively, the dimension of barriers and facilitators.	None

Has an approach to the main constructs of urban design (Table 4), where considered the checklist for the age-friendly cities, models and assessments that characterizes the age-friendly neighborhoods, to get the supportive fundaments for an urban design database, as promoter of active ageing.

**Table 4.** Main constructs for urban design schedule.

Components	First qualifier	Second qualifier
Age-Friendly cities constructs	<ol style="list-style-type: none"> <li>1. outdoor spaces and buildings</li> <li>2. transportation</li> <li>3. housing</li> <li>4. social participation</li> <li>5. respect and social inclusion</li> <li>6. civic participation and employment</li> <li>7. communication and information</li> <li>8. community support and health services</li> </ol>	Thematic checklist
Main constructs of age-friendly neighbourhoods (Delphi method)	Generic qualifier of age-friendly neighbourhoods attributes.	
Constructs of public spaces (Urban Design and Ageing)	Systemization of the quality constructs of the public spaces obtained from the public participation surveys collected in London and Porto cities	PIENVE Algorithm (epari)

The Diagram 1 demonstrate the different levels of intrinsic and extrinsic correlations related to the individual and his mode or ageing process, within different variables that will influence the degree of well-being and of satisfaction along the perceived quality of life, competence and health closely to the environment quality of life, where he live and establish its own social proximity network.



**Diagram 1.** Theoretical relationship of urban design parameters and quality of life that structure the ageing as a process or mode.

As a final note, it matters refers that to a healthy ageing, autonomy and independence as long as possible, is today a challenge to individual and collective responsibility, with significant impact on the economic development of countries, and the bottom of the global society. Which leads to the inevitable question of looking at ageing throughout life, where the practice of moderate physical activity a regular, healthy eating and moderate alcohol consumption, not smoking, promote the safety factors and the maintenance of social participation they are inseparable aspects for a preventive approach and promoting the health and autonomy. Similarly, be reduced disability at an early global recovery attitude, appropriate to the individual and family needs, involving the community in a shared responsibility, potentiating of existing resources, and proactive actions ever closer to the citizens.

## Conclusions

This systematic study of age-friendly urban design and a socio-cognitive approach over ageing (active), as an individual-collective process at the public space scale of residential areas mostly inhabited by elderly, in reference to the several goals related with the main issue intended to reach the following ones:

- ✓ A proposal relating elderly needs and capacities with the assessment of the quality of public space.

- ✓ Alternative programmes / municipal rules, actions and urban design criteria for public spaces regarding elderly outdoor daily life as a tool to improve the quality of outdoor public and liveable places.

Planning age-friendly spaces is one of the most effective local policy approaches to accommodate the demographic ageing. Physical, social and cultural environments are key determinants of whether people can remain healthy, independent and autonomous throughout the standard process of getting older.

The human component that characterizes the proposed method highlights the needs and expectations of potential users, identification and requirements with the environment and the possibility to check the sustainability of public space.

To suppress any degree of abstraction of certain factors inherent to the human dimensions of public space, the comprehensive study of the rights and needs of users gives the evaluation process the necessary measurability. The classification follows the operating criteria for sustainability dimension of public space and for a careful analysis of a methodology inherent to a process of friendly design. The correlation between different dimensions of space (economic, social, cultural and socio-cognitive), clarify at broader level the methodology applicable to urban design as a discipline and as a local scale of city territorial management.

Public space is the right stage to promote the real public life, where elderly people should play an important role directly contributing to help places to be generative and liveable. At the same time urban design should emerge as a supportive instrument for city, elderly people gain advantages in the perpetuation of their active life as contributing to the real life of public spaces.

Since the quality of urban life mean adequacy of public space: as a bridge between housing, residence and the surrounding, the immediate and foreseeable needs of users, to normalize the individual needs and requirements with those of society, encouraging the weighted introduction of innovations leading to closer proximity and socialization with other independently on the basis of a self-sufficient and healthy lives.

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# Metropolitan Areas as collective projects – methodological proposal to study Oporto and Lisbon

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This paper sets a methodological proposal to study the possibility of building a collective urban project for the Metropolitan Areas of Oporto and Lisbon. The European Union through its initiatives and policies (Europe 2020, European Territorial Agenda, European Spatial Development Perspective, Partnership Agreement 2014-2020, etc.) has solidified environmental, social and technological principles and goals, territorial and regional dimension of its policies and a transnational vision of urban network. This has guided, in different degrees of understanding and sometimes by polysemic concepts (sustainable, inclusive, intelligent, cohesive) the production of different scales of spatial planning instruments progressively coherent on a development vision. However, the settling of a development model mostly by guiding and strategic initiatives is not enough to build a collective, mobilizing project for the metropolitan spaces of Oporto and Lisbon. Therefore, what kind of project can compromise the functional metropolitan spatiality of Oporto and Lisbon to a common structure of initiative, debate and decision? How far are these Metropolitan Areas from achieving it? On the study of the Portuguese Metropolitan Areas the proposed methodology deals with institutional/policy fragmentation and sectorialisation of views by using content qualitative analysis on the planning and governance instruments. For the purpose of this paper we will debate the advantages and limitations of such methodology using four documents; National Program for Spatial Planning Policy, Sustainable Cities 2020, Integrated Strategies of Territorial Development for Metropolitan Area of Oporto and for Metropolitan Area of Lisbon.

**Keywords:** Metropolitan areas; urban project; methodology.

## 1 Introduction

This paper intends to bring to this conference the methodological roots of a PhD investigation that wants to understand the possibility of building a collective urban project for the Metropolitan Areas of Oporto and Lisbon.

Under the guiding and strategic visions of the European Union, namely, Europe 2020, European Territorial Agenda, European Spatial Development Perspective (ESDP), and Partnership agreement 2014-2020, new instruments have been created and earlier ones have been changed to give consistency to new governance models for the Metropolitan Areas and the metropolitan scale of planning. The main initiatives - Juridical Regime of Local Authorities L 75/2013; Adjustment of Statistical Indicators with territorial organization (Nuts III level) and also with Metropolitan Areas perimeter, Sustainable Cities 2020; Integrated Strategy of Territorial Development for Oporto Metropolitan Area (EIDT - AMP); Integrated Strategy of Territorial Development for Lisbon Metropolitan Area (EIDT - AML) and the Integrated Strategy of Territorial Development Notice (Notice EIDT) for the development of Strategic Plans for Urban Development (PEDU)<sup>1</sup> - put the

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<sup>1</sup> To contribute to a clear reading the documental names were translated to English on the paper. However for the purpose of sources research and rigor with the authors, the references are in the original language of edition. Here follows a translation note for full comprehension of documental sources; National Program for Spatial Planning Policy - Programa Nacional da Política de Ordenamento do Território; Sustainable Cities 2020 - Cidades Sustentáveis 2020; Integrated Strategy of Territorial Development for Oporto Metropolitan Area; Estratégia Integrada de Desenvolvimento Territorial - AMP 2020; Integrated Strategy of Territorial Development for Lisbon Metropolitan Area - Estratégia Integrada de Desenvolvimento Territorial - AML 2020; Notice for the development of Strategic Plans for Urban Development (Notice EIDT) - Aviso EIDT - Planos Estratégicos de Desenvolvimento Urbano.

research goal on a new perspective since it proposes higher coordination between inter-municipal administration and new competences of the Metropolitan Areas with statistical information gathered and studied in metropolitan scale. But mainly, it enables for the first time close articulation between instruments of territorial development and instruments of territorial planning policy; integrated proposals between various scales and natures of planning (European-national-regional-metropolitan) and management of European funds through action-oriented metropolitan instruments.

From the Metropolitan Areas study point of view, it is a political understanding of the importance of these urban spaces for structuring the national/European urban system, a step forward for the recognition of the metropolitan functional space as public and institutional and as test for new models of participation and governance.

The strategic and guiding profile of the instruments produced has the urban development of the metropolitan territories as a goal setting conditions for environmental sustainability, competitiveness, innovation, technological access and social inclusion. Thus, belonging to a Metropolitan Area *means to belong to the construction of a metropolitan space at a regional, national and European levels* (EIDT – AMP 2014, 8) for which a specific territorial vision, as in Oporto and Lisbon cases, has an urban structure function. Hereupon, it makes sense to unfold the different problems with the present framework that can answer how far are the Metropolitan Areas of Oporto and Lisbon from a collective urban project; Definition for Metropolitan Area and characterization of Oporto and Lisbon Metropolitan Areas; Relevance of convergent development model for the Metropolitan Areas; Metropolitan territorial models; Definition of Metropolitan project.

The following sections of this paper will explain how we intend to study the metropolitan spaces of Oporto and Lisbon through a methodology proposal that tackles the absence, fragmentation and dispersion of information and sources about the research urban territories in pursuit of valid scientific starting points. Because Metropolitan Areas are not part of an effective territorial organization, they are mainly reachable through initiatives produced to plan, guide or organize other territorialities. Thus, what are the methodological questions and choices that arise from the purpose and object of our research?

This paper is organized to focus on this question through: Research perspective and methodology, Case studies and Research Questions, and Setting starting points.

Research perspective and methodology part, presents research concerns and methodology proposal, through the ideas and concepts in question, the general characteristics of the number of documents in analyses for this paper, the qualitative analyses method that will be used to build a representation of the planning and governance instruments and processes and complementary methods to confront analytical results from written, oral and cartography speeches.

Case studies and Research Questions part, presents the case studies and develop their relation with the documents in analysis. To explore research paths of mutual contribution and, consequently, to find the implicit limits and advantages of the proposed methodology. Here are developed the main axes of questioning.

Setting starting points part presents a prospective view and the main questions of research. It articulates the content of the previous parts to engage the debate and consolidate first

steps of our main research work.

## 2 Research Perspective

Around the research scientific object - Metropolitan Area - there is a thematic convergence of studies on morphological, typological urban transformation despite the continuity of the urban way of life (Indovina, 2009) or urban condition and the disconnection between spatial, political and administrative dimensions (*urbis-polis-civitas*) of the *metropolisation* processes (Domingues, 1992).

Overcoming the idea of *city* as cultural and scientific reference for the construction of the collective urban space happens empirically since the late nineteenth century, with the end of industrial society and the progressive transformation of city space in urban space (Choay 1999) or when processes of high scale concentration of people, goods and services started to transform into expanded, fragmented, heterogeneous urban spaces. The physical, conceptual and cultural heritage of the traditional city, especially in Europe, affects the production of thought, planning and urban policy structured on a territorial approach to development and social cohesion (Territorial Agenda 2020; ESPON 2006, 2013, 2020; Leipzig Charter 2007; ESDP 1999). Contemporary urban spaces built under a *radically new spatial order* or as an *advanced form of urbanization* (Ascher 2006, 28, 38) which is inclusive of various concepts and forms in the same city agglomeration (Bourdin, 2005) need to be observed and intervened in light of their problems nature and complexity, which invoke different processes of planning and governance.

Under the ideas of *Métapolis* or *Metametropolis* (Ascher, 2006), *Metropolitan Archipelago* (Indovina, 2009), *Zwischenstadt* (Sieverts, 2005), *Metropolis of Individuals* (Bourdin, 2005), *Generic City* (Koolhaas, 1995) underlies; through the permanent technological developments; the *techno-human condition*; the capabilities of territorial infra-structure and urbanization; mobility reach, digital communication and the subsequent manipulation of the space and time dimensions, the methodological importance of the *city-territory* (Portas, 2012) for the analysis and understanding of the disruptive transformations on contemporary urban space.

Incoherent, fragmented and hybrid, divergent of any idea, shape or city building process, the contemporary metropolis takes political and legal form as Metropolitan Area. However, is not *socially recognized or identifiable*, therefore *not representative of a specific identity* (Ferrão, 2002) as well as the civic and political participations don't take place in correspondence to the built form as in a *République du Sommeil* (Bourdin, 2005). Even without a specific plan, public policy, urban design, administrative structure or political legitimacy this is a *relational space* (Domingues, 2005, 216), working on common issues where there is a *sum of individual decisions* (Ferrão 2002, 195).

*We think and act in a frame of reference that no longer corresponds to the realities of today's world* (Bourdin, 2010; 16,17), which is determined by *uncertainty* and *reflexivity* deficit (Portas 2012, 252).

Thus, what are the methodological questions and choices that arise from the purpose and object of our research? The following section will develop this question introducing a methodology thought to make scientifically visible how are defined the Metropolitan Areas of Oporto and Lisbon.

The direction of argumentation is to approach the scientific object – Metropolitan Area, *from matters of facts to matters of concerns* (Latour, 2003), analyzing the facts (written, oral,

cartography) to reach an understanding of issues of transformation and project of the Metropolitan Areas.

### 3 Methodology

This section of the text explains the research methodology. It articulates the nature of the documents and general characterization with the analysis methodology.

To accomplish a cross-sectional analysis different levels of instruments and sources will structure our main analytical work. However, for the purpose of this paper two levels of documents were chosen; a national level with documents written in very different contexts and with different approaches to establishing goals and contents; the National Program for Spatial Planning Policy (PNPOT) 2007 and Sustainable Cities 2020 (CS 2020) 2015 recently approved. And a metropolitan level with the Integrated Strategy of Territorial Development for Metropolitan Area of Oporto (EIDT - AMP) and Integrated Strategy of Territorial Development for Metropolitan Area of Lisbon (EIDT - AML). All the examples and exploratory results written on this paper are based on preliminary interpretative analysis useful for testing, structure and debate methodology.

These are pertinent documents to understand the development of the Metropolitan Areas role in the transformation of the national/Iberian/European urban system because they are part of the recent *articulation between spatial planning instruments and the remaining territorial policy approaches provided in the Partnership Agreement 2014-2020* (Notice EIDT 2015, 2). Also, over the next years territorial transformation will be strongly influenced by EU funds, now planned for the 2014-2020 period. Partnership Agreement 2014-2020 - Portugal 2020 proposal negotiated with the European Union (the partnership agreement for 2014-2020) sets a *focused on the region* structure of planning instruments with emphasis on environmental concerns of sustainability, urban regeneration and social inclusion. In the Metropolitan Areas cases this gives new possibility to a future of an effective consolidation of the metropolitan region integrating its functional system and spatial dimension.

The National Program for Spatial Planning Policy (PNPOT) from 2007 is the only spatial planning document in analysis on this paper. It is divided in two parts, the Report and the Action Program and is an *instrument for territorial development, of strategic nature and national scope* (PNPOT 2007, 3), see table 1 for general characterization. It articulates a complete spatial planning analysis from national to regional scale with specific proposals for future intervention. It prioritizes 24 spatial planning problems and articulates strategic options per region on the report with correspondent strategic goals, specific goals and priority measures. This is the only document in analyses that presents a definition and development of a territorial model.

The Sustainable Cities 2020 (CS 2020) is a report with two attachments: Territorial Diagnosis, Funding Sources and *anchored in the sustainable development paradigm (...) should be understood as a guiding document for territorial development* (CS2020 2015, 5,6), see table 1 for general characterization. It is a document with policy guidelines that directly reflects the European development model based on sustainability/ efficiency, inclusion/ human capital, intelligence/ competitiveness and territorial/ governance as strategic axes for the organization of the new

### European Structural & Investment Funds.

The Integrated Strategy of Territorial Development for the Metropolitan Area of Oporto (EIDT AMP 2020) is a single document *following Europe 2020 orientations and the new European cohesion policy regulation (...) is anchored in Norte 2020 and in the Partnership Agreement, to strengthen and optimize the funds allocation in its territory during the 2014/2020 period* (EIDT - AMP 2014, 3), see table 2 for general characterization. It presents diagnosis on the metropolitan area of Oporto under three axes and institutional growth networks; intelligent, sustainable and inclusive. Sets a chain of strategic, thematic and specific goals and axes of intervention for the Action Plan.

**Table 1.** General characterization of National Program for Spatial Planning Policy (PNPOT) and Sustainable Cities 2020 (CS 2020)

Documents in analyses	Background references	Proposed governance processes
PNPOT Instrument of strategic nature which provides diagnosis on urban transformations from national scope to sub-regional knowledge and sets a specific strategy with general and specific goals as well as measures to accomplish it.	European Spatial Development Perspective (ESDP), 1999 Lisbon Strategy EU Sustainable Development Strategy (EU SDS), 2001 National Strategy for Sustainable Development (ENDS) National Action Program for growth and employment (PNACE) National Plan for Climatic changes (PNAC) QREN (2007-2013) National Strategic Plan for Rural Development (PEN 2007-2013)	Metropolitan Mobility and Transport Plan Management of network activities by metropolitan structures. Legal framework revision for articulation between local urbanization initiatives and metropolitan mobility system. Inter-urban cooperation on non-market services networks for gains on scale, specialization, multi-functionality. Implantation of referential equipment and infrastructures on peripheral areas. Enhancing heritage and public spaces role by controlling environmental impact of diffuse urbanization and industrial abandonment. Integrated renovation programs for abandoned industrial spaces. Metropolitan Ecologic Network Inter-municipal structures of cooperation and participation mechanisms for spatial planning National Strategy for land use PNPOT evaluation and revision Regional Spatial Plans (PROT) Special Spatial Plans (PEOT) Sectorial Plans Inter-municipal territorial Plans (PIOT) Municipal Territorial Plans (PMOT) Territorial Action Plans (PAT) Municipal General Plans (PDM)
CS 2020 General guiding document for implementation of European paradigm (smart, inclusive and sustainable cities) in planning and fund instruments of Europe/Portugal 2020.	Europe 2020 Partnership Agreement 2014-2020 - Portugal 2020 Leipzig Letter Toledo Declaration EU Cohesion Policy (2014-2020) National Program for Spatial Planning Policy (PNPOT) 2007 Regional Plan for Spatial Planning (PROT's)	<ul style="list-style-type: none"> <li>- European Union financing; Portugal 2020, FEDER, ESF, CF,</li> <li>- Sustainable Cities 2020 Forum</li> <li>- Integrated Territorial instruments ITI/ Integrated Actions for Urban Development AIDUS</li> <li>- Barometer CS 2020 (evaluation of AIDUS initiatives)</li> <li>- Urban Sustainability Index (ISU)</li> <li>- Sustainable Urban Development DUS 2014-2020</li> <li>- Networks and platforms of urban knowledge and innovation</li> <li>- Strategic Plan for Urban Development PEDU</li> <li>- Sustainable urban Mobility Plan</li> <li>- Urban Regeneration Plan</li> <li>- Disadvantaged Communities Integrated Action Plan</li> <li>- Local Development of Community Base (DLBC)</li> <li>- URBACT III</li> <li>- Operational Program for Science, Technology and Innovation</li> <li>- Operational Program for Sustainability and Efficiency on Resources Use (POSEUR)</li> <li>- Operational Program for Social Inclusion and Employment</li> <li>- Operational Program for Human Capital</li> <li>- Analytical Cities</li> <li>- Portuguese Network of Sustainable Cities</li> <li>- Good Practices (articulation with URBACTIII, Horizon 2020, Interreg, Smartcities)</li> </ul>

**Table 2.** General characterization of Integrated Strategy for Territorial Development of the Metropolitan Area of Oporto (EIDT AMP 2020) and Strategy for Territorial Development of the Metropolitan Area of Lisbon (EIDT AML 2020)

Documents in analyses	Background references	Proposed governance processes
EIDT AMP 2020 Strategic document for guiding of European funds allocation, 2014-2020. Recognizes metropolitan scale and complexity to achieve smart, inclusive and sustainable urban development. Sets specific strategic goals and Action Plan from axis of intervention, values and governance challenges.	Europe 2020 Partnership Agreement 2014-2020 - Portugal 2020 Regional Operational Plan for Oporto 2014-2020 (Norte 2020) EU Cohesion Policy (2014-2020)	Local Community based Strategies of Development (DLBC) Integrated Actions for Territorial Development (AIDUS) Integrated Territorial Instruments (ITI)/ Territorial Development and Cohesion Metropolitan Networks; Culture, Tourism and Leisure; Education; Social Action; Environment, Energy, Climate Change and Risk; Qualification and Employment; Competitiveness; Mobility and Resources. Institutional Cooperation Platform; Observatory indicators. Investigation and Internationalization Entrepreneurship Support Network Creative Industries Development Program Tourism – Known, structure and animate. Reference Multidisciplinary Events Program Share – System for the Open Hybridization for Economic Uplift Open Data Alert and response System (SAR) for Natural and Technological Risks AGRO-URBE Concentrate the dispersed Urban regeneration Healthy residential Areas Network Culture Heritage Urban Scripts Road Mobility Laboratory
EIDT AML 2020 Strategic document for guiding of European funds allocation, 2014-2020. Recognizes and questions metropolitan/regional scale of intervention setting strategic lines and main governance challenges for pursue them.	Europe 2020 Partnership Agreement 2014-2020 - Portugal 2020 Program for economic valorization of territory (VALORIZAR) EU Cohesion Policy (2014-2020) Integrated Territorial Plan for AML (PTI) Regional Action Plan for Lisbon 2014-2020 (PAR Lisboa) Sustainable Cities 2020 (CS 2020)	Local Community based Strategies of Development (DLBC) Integrated Actions for Territorial Development (AIDUS) Integrated Territorial Instruments (ITI)/ Territorial Development and Cohesion Employment Territorial Pacts Local Contracts for Local Development Regional Intelligent Specialization Strategies Regional merit weighing for the Small and Medium Businesses (PME) Territorial Executive Partnership of; Education / training; Global Sustainability; Connectivity and mobility Metropolitan working groups National Municipal Association (ANMP) representation Monitoring EIDT AML 2020: Quarterly Trends Monitoring EIDT AML 2020: Annual Trends Participation in the European Territorial Cooperation

Integrated Strategy of Territorial Development for the Metropolitan Area of Lisbon (EIDT - AML) is a single document, *strategy for 2014/2020 period, as essential instrument for the achievement of goals and interventions/projects of metropolitan scale* (EIDT AML 2015, 10), see table 2 for general characterization. It questions the metropolitan dimension in the urban hierarchy perspective, diagnosing the place of the AML in international, national and regional scales as well as under the vision of innovative, intelligent, network and governance models of development. It sets guidelines, priorities, strategic lines and their articulation with the Cohesion policy 2014-2020 and the Regional Action Plan 2014-2020.

The first approach to the analysis methods is the selection of the elements pertinent to our research. The roots of this research, the definition of perspective and theoretical framework that allowed abstract analyses on the development of the Metropolitan Areas as urban space and big scale urban projects, preceded, first readings of documental sources, parallel exploratory tests to understand the hierarchy, utility and influence of inter-relations between documents.

The option for content qualitative analyses of the planning and governance instruments and views was taken for different reasons;

- general fragmentation and dispersion of sources and information about Oporto and Lisbon Metropolitan Areas.
- polysemy and uncoordinated use of concepts and lexicon between planning instruments, related to metropolitan area.
- Disconnection between national and international scientific knowledge on processes of metropolitan transformation and urban development of the case studies.
- Few studies, with little thematic relation, on the selected case-studies of Oporto and Lisbon Metropolitan Areas
- Residual spatial planning competences of the Metropolitan Areas lack of obvious and specific elements for analyses like metropolitan statistics, planning documents and effective governance initiatives.

This is a research where the state of documentation for analyses seems to reflect the characteristics of the scientific object. But most importantly where any instrument or document (written, oral, cartographic) even if not produced to organize the urban space we want to study, shows the reasons, forms, and options for the contemporary construction of the Metropolitan Areas. This adds some complexity to the research because, the documental representation that qualitative research accomplishes seems in this research to drawn absences of information. Perhaps this can help structure our work.

Selected instruments and views on the Metropolitan Areas will be analyzed by a content analysis supported by NVivo. This computing tool allows detailed search, consultation and visualization of results. Not only the use of this tool will give a new perspective on the read documents but will give consistency to sensible and interpretative readings. Better structuring of lines of argumentation and thought to achieve answers to the posed problems are possible, because it is simpler to test and explore qualitative data.

Progressive steps structure the method of analysis. Both individual and simultaneous analyses of the elements will be made to ensure assurance in what it is researched. NVivo doesn't recognize the Portuguese language therefore manual intervention to assemble categories of words may be necessary. The qualitative analysis will follow the above method.

First, a *word frequency* will give a list of the most used words and how frequent is in numbers and proportion. In some cases this will mean the sum has to be done assembling similar words, plural and singular, for example *region* and *regions*. The goal in this phase is to establish a list of words for deeper analysis. Our exploratory list consists of: development, Lisbon, territorial/territory, region/regional/regions, metropolitan, services, network/networks, cities,

management, resources, system/systems, growth, amp, planning, aml, urban/urban, sustainable, innovation.

Second, new *word frequency* for the chosen list of words and derivatives (plural/singular, genre or both). Among which the main terms, *metropolitan area*, *amp*, *aml*, *porto* and *lisbon* are selected for more detailed analyses in two streams; *text research* to find phrases and paragraphs where they are used and consequent new *word frequency* analysis, this time for most frequent words used near the five last ones; *word tree* for visual recognition of the context in which the words appear and existing mutual contributions. Because our study has two case-studies and the documents for analysis name each one of them through a variety of names, following authors understanding of territorial organization, further analyses will be needed using the variety of terms used as approach or replacement for Metropolitan Area. As examples for the Oporto case: *Oporto Metropolitan Arc*, *Northeast*, *Urban-metropolitan region*, *Oporto's conurbation*, and *Oporto's agglomeration for Oporto's case*. *Lisbon Metropolitan Arc*, *metropolis*, *Lisbon's agglomeration* for Lisbon's case.

The content methodology analysis developed here will probably be insufficient to understand what is at stake before and beyond the writing speeches, collectively written in these cases. We think interviews with the main players involved in the production of the documents can give the research an inside to what their individual thoughts are about the documents, flaws, potentialities and unclear subjects as well as about the institutional and governance purposes they address. The analysis of the oral speech presupposes a deep knowledge of the written elements allowing an assertive selection of players and content for interviews. At this point we think interviews should be directed to representatives of the Executive Metropolitan Commission's of the Metropolitan Areas of Oporto and Lisbon and to a small group of mayors of the municipalities integrated in the Metropolitan Areas. Evaluation of other pertinent players will follow research development.

Two subsequent steps, subject to a more mature observation, are equated; on one hand, the production and analysis of enquiries directed to civil society institutions namely the ones mentioned as part of the Strategic Council of Metropolitan Development of Lisbon's Metropolitan Area (EIDT AML 2015, 255-256) and the ones that form the Institutional Networks presented by the Integrated Strategy of Territorial Development for Metropolitan Area of Oporto (EIDT AMP 2014, 129-136) that can provide a complementary perspective specially on the new metropolitan governance models and networks. The benefits of this phase will increase if the enquiries have a simple and clear structure of questions, more likely to be achieved in an advanced moment of the research; on the other hand, the analysis of metropolitan cartography, believed to be complementary to written and oral speeches. In this case evaluation of its possibility and utility is dependent not only on the research development but also on sources availability to provide it.

#### 4 Case Studies

This section of the paper is focused on characterization of the case studies; the Metropolitan Areas of Oporto and Lisbon, the understanding of each case place on the national urban system, as well

as the main reasons to the contemporary models of growth and transformation.

The multiplicity of players, narratives and concepts over the metropolitan spaces of Oporto and Lisbon is high and expected to be growing since one of the main goals and proposal efforts of the documents here in question is about processes of governance, their widening and multiplication in consultation, evaluation and decision moments. The inclusion of various concepts and forms of urban space in the same agglomeration is a premise that takes urban studies beyond the physical/morphological and spatial urban model observation (Bourdin 2005, 2011) and brings to our research the revelation of the urban space through its socio-technological processes (Graham, Marvin, 2005; 10).

The national urban system is marked by two metropolitan spaces where processes of concentration, growth and extension of urbanization have been more radical. They represent 40% of national population, 68% GDP in 5,1% of national territory (PNPOT 2007, 56).

Metropolitan Areas of Oporto (AMP) and Lisbon (AML) are juridical figures, political ideas, administrative organizations and functional spaces even if there is a disconnection between these dimensions. Although a metropolitan scale of planning is recommended by a variety of documents and studies it has never been effectively tried. Recent centralized initiatives have given new consistence to inter-municipal governance, where Metropolitan Areas are included, through legal updating of competences, production of guiding and strategic instruments to make European and national funds coherently invested and articulation between spatial planning policy and urban development instruments.

Despite a common institutional framework AMP and AML are very different urban spaces. AMP is a polycentric system of medium and small centers where Oporto is not an evident leader and although densely urbanized is a dispersed and fragmented urban territory. On the other hand, AML has in Lisbon a clear center following the metropolitan paradigm of growth with processes of centralization going from municipal to national scale and uneven urbanization extension having consequences such as center deflation of industry and housing as part of suburbanization processes. In both cases, through distinctive processes and forms of settlement the extension of urbanization has changed landscape, agricultural, environmental, cultural and economical values.

The pertinence of configuring our study around Oporto and Lisbon Metropolitan Areas case-studies is set upon the articulation of the following assumptions; significant differences on territorial processes of urbanization/*metropolisation*; under the same legal, political, administrative framework since Law nº 41/91 August 2; shared, even if unbalanced, spatial polarization on the Atlantic front of national/Iberian/European urban networks; parallel construction of recent instruments of adjustment between territorial organization, functional metropolitan spaces and new governance models; convergence on change of several goals for institutional and planning metropolitan scale.

#### **4.1 Oporto Metropolitan Area (AMP)**

The metropolitan area of Oporto is integrated in a wider urban system generally called Northeast which is *a space with no precise limits. More than a natural, historical or*

*administrative region easily distinguishable, the Northeast is a functional macro-region characterized by the intensity of internal fluxes of the most diverse kind* (Ferrão and Ribeiro 2014, 15). Only since 01-01-2015 the Metropolitan Areas of Oporto and Lisbon have the same territorial perimeter and name as NUTS III (EU Reg. nº 868/2014, August 8, 2014) which distinguishes the metropolitan area as a specific urban space and adjusts statistical indicators to territorial organization. Before this change, AMP perimeter changed until 2013 with the addition of Paredes municipality and was divided between four Nuts III (Grande Porto, Ave, Tâmega, Entre Douro e Vouga) and the AML perimeter changed until 2004 when Azambuja municipality left and was divided between two Nuts III (Grande Lisboa, Península de Setúbal). This incoordination had many consequences as for example the division of the metropolitan area of Oporto between the Regional Plans of Northern and Central regions. This is, together with the delay of the Regional Plans processes the reason why for this paper the Regional Plans were deprecated.

The Metropolitan Area of Oporto is a *dual or mixed structure of mononuclear core and disperse urbanization* (Font and Portas and Indovina 2004, 330) close to the idea of *Metropolitan Archipelago* (Indovina 2009) where the diffuse development of urbanization means fragmented land uses very conflictive between agricultural, residential, industrial, ecological spaces. However, the diffused settlement of the Northeast should be distinguished from the more recent processes of extensive urbanization, that also exist in Oporto Metropolitan Area, because it is an ancient way of territory construction based on mini-foundry structure and capillary accesses. This has made this polycentric system with some new centralities as it happens with Maia and Vila Nova de Gaia cases, border municipalities of Oporto, an urban space where different urban morphologies and networks of communication have overlapped and co-existed. Oporto municipality although it has a polarizing power, concentrating main logistic and communication infra-structures as well as political, administrative, educational, cultural, health and tourism institutions, it never revealed itself as hegemonic over the metropolitan space. Therefore, commuting connections are not mainly convergent to Oporto but have multiple beginnings and ends.

#### **4.2 Lisbon Metropolitan Area (AML)**

The Metropolitan Area of Lisbon urban development is dependent of its capital statute. In a very centralized political, administrative and cultural power system the Metropolitan Area of Lisbon still reflects its centrality, has other capital cities in Europe do. The contemporary metropolitan Lisbon urban space is very much defined by the processes of transformation lead by the dictatorship in the twentieth century. The building of the *metropolis* of Lisbon and the segregation of most of the periphery space and populations in a time of high housing demand with origins in inter-regional migrations and the end of the decolonization process has emphasized the halo urban growth and the high dependence of the new areas from central Lisbon (Ferreira 1987). The landowning structure generated a metropolitan urbanization based on big scale urban operations coherent with a *mono-centric structure of dispersed growth* (Font and Portas and Indovina 2004, 330). The processes of suburbanization, when there was an unorganized and discontinuous extension of

residential fabric and the replacement of the mixed used Lisbon's center for tertiary functions were emphasized by mobility development, especially individual transport. Although, since the 90's the metropolitan growth and demographic demand has stabilized, it created a larger employment and functional basin where some polarizations appeared. Lisbon's suburbanization processes started at border municipalities such as Amadora, Almada and Sintra but its territorial influence has changed and grown for a regional level; from Leiria to Évora and Sines (PNPOT 103). This region called the Lisbon and Tagus Valley is structured by the reorganization of the Metropolitan Area of Lisbon and is the most important motor of national development.

## 5 Research questions

Following methodology proposal and first readings of the documents, four lines of questioning articulate the theoretical framework with the understanding and observation of the specific case-studies of Oporto and Lisbon. The research will evaluate, through the proposed methods how documental sources approach the systematized problems. Therefore, the formulation of questions seems the right step to engage the debate and further develop the research proposal;

- Metropolitan Areas - In the context of all the mentioned changes and challenges the pursuit for the understanding of what is the meaning for Metropolitan Areas is probably more complex. Can we find a definition or conceptual structure based on explicit characteristics of this specific urban space? Also, what is implied and what is volatile in the analytical representations of the documental sources? What can Oporto and Lisbon case-studies question about the idea and conceptual definition of Metropolitan Areas? Which processes of *metropolisation* had bigger impact on transformation of their metropolitan spaces. Can we identify consequent specific spatial transformations in Oporto and Lisbon?
- Development model and urbanistic concerns – With common concerns between different level organizations, from the Sustainable Development Goals of the United Nations, to European Union ESDP, Europe 2020 Strategy, Partnership Agreement 2014-2020 - Portugal 2020, what is exactly the pertinence and significance of the proposed development model and the ideas, concepts it integrates for the Metropolitan Areas, these having to *pursue the interests of the people of the area of the municipalities* as written in Law nº 41/91 August 2, 1991 that establishes for the first time the Metropolitan Areas of Oporto and Lisbon? What urban proposals materialize the development concepts and framework of Sustainable, Intelligent and Inclusive urban spaces and growths? In terms of *environmental and urbanistic qualities* (Notice EIDT 2015) what are the proposals for the transformation of urbanization processes and spaces that are though to materialize the development vision? What is the difference between the new proposals and the previous ones. What questions do Oporto and Lisbon cases raise as urban models of different genesis and developments to the general and specific documental views on development and territorial models?
- Governance models – It is given focus, on the recent documents produced or directed to Metropolitan Areas planning, to the governance models and organization, namely; network

organization of external institutional contribution, influence and information (Institutional Networks; Global AMP; Sustainable, Intelligent and Inclusive Growths); on internal metropolitan networks (EIDT – AMP) or Metropolitan Working Groups (EIDT – AML) organization over thematic areas of intervention. Therefore, which are the new proposed rules and practices of governance and institutional organization? How, and in pursuit of which goals are they different from other experiences and models of metropolitan governance? Which players and processes of participation are proposed to change structures of decision.

- Metropolitan Project – The definition of a big scale project for Metropolitan Areas implies questions about the physical space dimension of urban transformation and influence as well as about a *fundamental contemporary characteristic of contemporary Urbanism which is the multiplicity of players and the difference between their intervention scales* (Bourdin 2011, 54). So, is a collective metropolitan project a goal for the Metropolitan Areas? Is it possible following the present institutional, political and urban framework to identify concrete measures proposed for the development of effective metropolitan planning and governance on a collective, mobilizing structure of project and re-invention? What policy compromises can address the need for internal consistency of the specific urban spaces of Oporto and Lisbon Metropolitan Areas? What kind of metropolitan project can articulate territorial vision, governance models of participation and decision and also political legitimacy? How the Metropolitan Areas, given as development motors of wider urban systems can change their structuring role to grant the remaining territory equitable goals and consequences of urban development strategies. Together with an integrated perspective of the national urban system and the possible complementary contribution of the different scale urban spaces? What specific measures are proposed to promote Oporto and Lisbon Metropolitan Areas as active and prominent poles of trans-national urban development, reinforcing the territorial dimension of the European Project? Which urban processes of transformation related with people, activities and infra-structure concentration on the Portuguese Atlantic façade are shaping the Metropolitan Areas of Oporto and Lisbon for a decisive role on European projection beyond its territory, on international scale?

## 6 Setting starting points

The methodological process we are proposing wants to contribute to the study of the contemporary metropolitan spaces from the perspective of its project, since our driving scientific concern is the absence of recognition of the metropolitan functional space as a public space of debate, project and envision of a future.

The recent changes to adjust statistical indicators to territorial organization, the reorganization of the Metropolitan Areas institution and the articulation between European, National and Metropolitan policy instruments, spatial planning and urban development ones, subverted the claim for the introduction of a new model of metropolitan governance that recognized the

metropolitan functional spaces. The chain of instruments produced or connected to make coherent on strategic and investment levels the use of European funds has changed the starting point of any research about the development of the Metropolitan Areas. The instruments necessary to our main research are beyond the ones chosen for the purpose of this paper. Complementary list of documents to include the Partnership Agreement 2014-2020 - Portugal 2020, EIDT Notice (Notice EIDT), North Regional Operational Program - Norte 2020 and Lisbon Regional Operational Program – POR Lisboa.

The settling of a coherent development model – The European policy influence on the production of subsequent instruments of governance sets an apparent common vision of development in the analyzed documents; unfolding the comprehensive concepts of sustainable, intelligent, inclusive urban development on environmental, social, governance, economical and technological concerns. Also, the big probability that the axes of intervention and specific measures of the Integrated Metropolitan Strategies will be accomplished stimulates participation from different players and allows these instruments to test a new model of interacting and deciding on a common future. Some roots for a new institutional and governance model are put on practice such as inquiries, workshops, forums, indexes and digital platforms of evaluation. And last, this shows the metropolitan space defined by mobility and conservation system PIBE; people, Information, goods and energy, (Ascher 2006) over which, a collective vision takes shape on a compromise between strategic goals and specific measures.

Determination of functional space and systems and corresponding territorial models, could establish with more accuracy the basis for metropolitan social, cultural and political identification. The definition of territorial models transforming strategic and sectorial views in a concrete urban vision of the metropolitan space shows over first readings, some common concerns to all the documents; restructuring of urban growth, Metropolitan planning of mobility; Metropolitan planning of big scale projects or inter-municipal projects; Protection of classified areas – environmental, historic, architectural; Urban renewal and regeneration; Land use regulation. Thus, the application of subsequent instruments of planning as the Integrated Territorial Instruments (ITI), Integrated Actions for Territorial Development (AIDUS) and the Strategic Plans for Urban Development (PEDU) officially structured and launched in the Notice EIDT (Notice EIDT), are established to accomplish the goals of integrated approach to a specific region and critical dimension of intervention through Action-Plans for *re-densification of urban population and sustainable urban development* (Notice EIDT 2015, 3); Urban Sustainable Mobility Action Plan; Urban Renewal Action Plan; Disadvantaged Communities Integrated Action Plans.

The search for identification of the Metropolitan Areas of Oporto and Lisbon is the recognition of a specific space, of close link between globalization and *metropolisation* processes (Marques, 2005; 190). The search for the definition of these metropolitan spaces involves criteria compromise in four levels; internal - consistency of metropolitan space; national – polarization and structuring power of national urban system used to build a more balanced, equitable territory; trans-national – reinforcing the European Project through transnational networks urban development; international – claiming the leading role of the Metropolitan Areas as an *important Atlantic front of the European Union* (PNPOT 2007, 14). Imagining the definition of criteria, a strategy that relates

urbanized/functional space, administrative boundaries and a political idea, brings us to the idea of a project for the Metropolitan Areas of Oporto and Lisbon (Ferreira 2003, 86) certainly urban and political, for which our main research will test its possibility.

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# The Cultural Dimension of Urban Space — Carnide as place of memory

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In this article, we intend to show, not only the importance of place in the consolidation of collective memory, but also the reverse, that is, how the collective memory influences the consolidation and preservation of that same place, so understanding the place as memory organizer. On the other hand, memory is a constituent element of the sense of identity, both individually and collectively (POLLAK 1992), hence a place with memory is a place with identity.

From the empirical reference — Bairro Padre Cruz, located in Carnide parish, once a rural nucleus of relief in Lisbon, we intend to highlight the importance of "place" in memory consolidation and strengthening of the sense of identity. The "Place of Carnide" for its history and collective memory, was consolidating an urban narrative, physical and symbolic, that was perpetuated in time, taking as a catalyst of urbanity, which has allowed absorb the temporal transitions between past and the present - The city as a place of uniqueness.

**Keywords:** Carnide, neighbourhood, memory, identity, urbanity and urban culture.

## 1 Introduction

The problematic around the urban questions and more specifically in the dialectic relationship neighbourhood - city, has been assuming in this new century, an important role in the city study. Much more than an administrative division of the territory, the city is a complex system, which although it seems immutable in its macro-scale, when viewed from distance, top-down, is dynamic when observed in its micro-scale, or more specifically in neighbourhood scale. It is in this observation scale that we can see how diverse is the urban territory in all dimensions, both physical and social. Each of us has a different view of the space that surrounds us, interacts with that space differently and interprets it in their own way. However, every place has a story and a narrative patent and latent in the physical and symbolic elements that constitute it. The territory is not offered to each group as a blank sheet, every generation receives a space already marked on the edification of each times always provides important evidence of the values and the social context in which it was produced or reappropriated (Salgueiro 1998).

This article follows on from work that is being developed at the Research Centre for Architecture Urbanism and Design of the Faculty of Architecture of Lisbon University (CIAUD / FAUL), inserted into the investigation line the "The neighbourhood and City in Question", which is associated a doctoral thesis entitled *The Neighbourhood as catalyst of the City Urbanity*. We pretend a critical reflection of the present city, not in the conception of infinite space, the Platonic root, that is, general and abstract, but according to the Aristotelian view that considers the space from the point of view of the place (Maria Montaner 2001). The place, for its history, collective experience and the physical and symbolic elements that constitute it, has been consolidating a collective memory, that singularize, over the time. If we understand that memory is a constituent element of the sense of identity, either individually or Collectively (Pollak 1992), so a place with

memory is a place with identity. In this sense, the collective memory influences the consolidation and preservation of that place, so understanding the place as a memory former.

To the Greeks each place was unique, with its own identity associated with the deity who ruled, the *genius loci*, or spirit of place (Norberg-Schulz 1991 [1979]). Greek temples reflecting the link between the place and the divinity in man's attempt of reconciliation with nature (Maria Montaner 2001). This metaphysical understanding was also followed by the Romans, when deploying their military camps, because beyond the physical characteristics the place should have, it was for the Roman priest give its approval to the construction of the camp (Macaulay 1982 [1978]). Therefore, in addition to geographical location and symbolic elements that represent, the concept of place it is associated with the concrete manifestation of the human dwell (Norberg-Schulz 1991 [1979]). In this way the history of the place is always linked to the history of cities, it is its memory, ending the cities to be the reflection of these places.

As mentioned earlier, the territory as we know it today is the cumulative result of successive transformations to which it has been subject over the centuries — is the book on which rein scribes the city's history, the palimpsest (Corboz 1983). Most of the time, the new urban projects, based on an overall strategy, there are unlinked to an existing urban narrative, both physical and social and absorbed, almost completely, the old rural cores. This dynamic development has been converting the city into a deep artificial artefact, where large urban developments and their buildings have been imposed on the landscape (Salgueiro 1992), creating new urban and architectural icons, changing completely an identity and cultural matrix, secular, based on the old ways, in the country lanes and other symbolic elements of the territory, which are still visible in the built heritage, territorial references in the ancient associations and, in the collective memory of the people of some of these places, particularly in the older generation. Each place is unique, has its history or "stories" that were passed from generation to generation, perpetuating in time, but which tend to disappear if nothing is done to reverse this reality.

Lisbon is a city full of places, which, in the thought of Marluci Menezes (Menezes) the collective imagination-called neighbourhoods. These neighbourhoods are part of the city's memory. However, when we talk about memory and identity, there is a tendency to reduce its universe to so-called traditional neighbourhoods - Alfama, Mouraria and Bairro Alto - just to mention some of the most relevant<sup>1</sup>, which are confined to the old core and we tend to forget others who also are part of the history and city memory. For example, we began to mention a few places that were at the origin of ancient rural parishes<sup>2</sup> and which are now important parishes of Lisbon, not for their uniqueness but by the percentage of resident population, namely: S. Domingos de Benfica, Benfica, Carnide, Lumiar, Ameixoeira, Olivais Velho, Beato, Xabregas, Marvila, among others. From the eighties of last century, most of these parishes suffered major urban transformations associated with PIMP/PER<sup>3</sup> programs, in order to finish with the informal urbanism, which affected the peripheral

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<sup>1</sup> They are those on which focuses the majority of studies and research in areas such as sociology and urban ethnography, and is the tourist hub of the city. So, they are the most newsworthy part of the city.

<sup>2</sup> Archaeological findings in some of these parishes, allow us to conclude that originated from the Chalcolithic fortified settlements and subsequently suffered influence of Phoenician, Roman and Muslim culture. These core exist since the conquest of Lisbon from the Moors in 1147.

<sup>3</sup> Medium Term Intervention Plan and Special Re-housing Plan.

City waistline (from the Alcantara Valley to the Valley of Chelas). The construction of social housing for the relocation, as well others from the private sector, due to the accelerated growth of the housing market, which has become one of the most influential sectors of the national economy and promoted a different kind of market than social housing (Guerra 2011). In this context, contrasting situations have been created and destroyed completely many structural territorial references, namely, the old ways and the old country lanes. These identity and urbanity promoters darn the territory, through farms and palaces, linking all these urban cores (Nicolau, 2012b).

As a result of urban sprawl, many of these rural cores, have lost relevance and were "absorbed" by the city grow, and only a watchful eye of the territory in its micro-scale, when we walking, allows to identify (Nicolau, 2012a) Many of them are known, not for its history, identity and collective memory, but by the negative aspects associated with public promotion neighbourhoods built there.

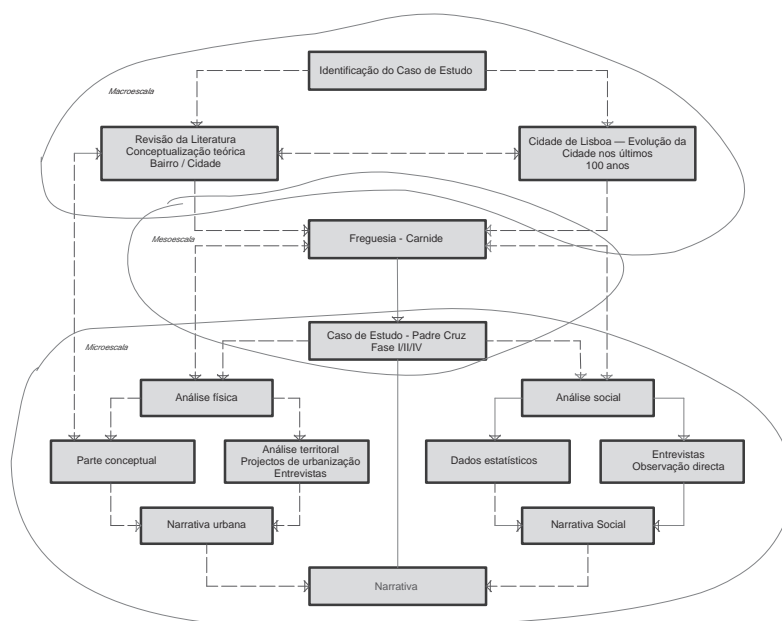
Until the end of the nineties of the last century, Lisbon was an expanding city as a result of a new urban development strategy, supported by three types of plans: The Lisbon Strategic Plan (PEL), the Municipal Master Plan (PDM) and the Priority Projects (PPP), as well other's twenty-two detailed plans carried out simultaneously (Soares 1994). Over this period were built large operations such as Expo 98, the Alta de Lisboa, Olaias, Vale de Chelas, in addition to other smaller associated with PIMP/PER programs mentioned above, they are also important because they definitely marked the territory of the city. These operations have changed the urban and cultural city landscape, especially by the new forms of urban consolidation and the heterogeneity of architectural language.

With this article we intend to emphasize the importance of each of these places (neighbourhoods and parish), that for its identity and collective memory can be assumed as urbanity catalysts of the city where the Bairro Padre Cruz in Carnide parish is a case-study.

## 2 Investigation Methodologies

As methodological approach we used the *case-study* method, whose methodology requires the mobilization of different techniques for collecting and analyzing information in the various stages of research. The evidence for a case study are based fundamentally on six sources (Yin 2005): the existing documentation, on file registration, interviews, direct and participant observation, and physical or cultural artefacts. In this study, we used almost all of these sources. Accordingly, we developed a diagram [Figure 1], which allowed us to develop and apply this method. As can be seen, all the work was developed in four distinct phases:

The first one, to identify the case study with a more comprehensive research on the city scale (macro-scale); Our focus was primarily on morphological and typological analysis, to understand historically its urban evolution, the associated urban policies and the neighbourhoods that were built as a result of these policies. The second, on the approach to the case study, which the data collection was focused on parish of Carnide (meso-scale) and in its relations with the Bairro Padre Cruz. The third and fourth phase relate directly with the case study (microscale) in search of empirical evidence.

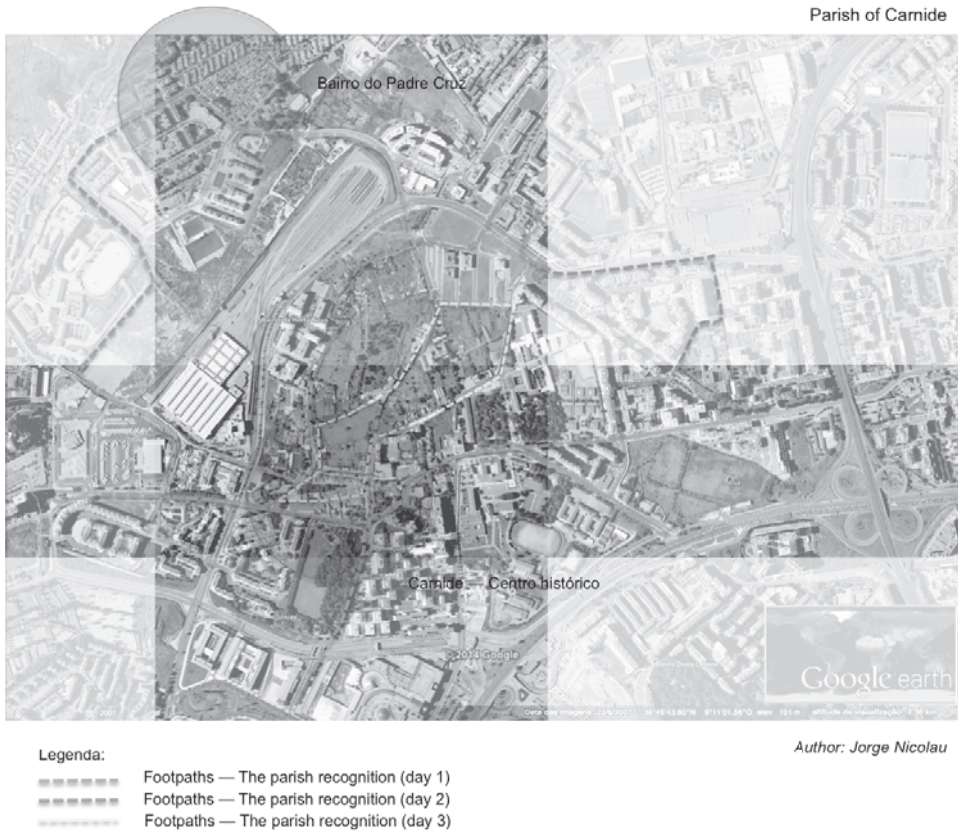


**Figure 1.** Empirical Phase Diagram | Source: Jorge Nicolau

Also we mobilized the technique of document analysis, which focused on written documents (books, magazines and scientific articles, monographs, etc.), graphics elements (military maps, urban plans, plans of Lisbon, orthophotomaps and satellite images) and audiovisual documents (films, photographs and engravings).

In addition to the interviews conducted with residents of the Padre Cruz neighbourhood, technicians, politicians and elements of membership organizations, we participated in events linked to the neighbourhood life, including: meetings of the Community group (we were in two sessions) and cultural events. This phase was particularly important because it allowed a thorough knowledge of the human dimension.

Finally, from the old core of parish we Walked by the various neighbourhoods, public or private promotion, in getting a thorough understanding of the physical and social heritage, by the country lanes whenever possible, as a link between the different "territories". The photographic collection of notable elements such as buildings, visual axes, streets names and collective experiences, have enabled us reconstitute an entire urban narrative that is part of the collective memory of Carnide. The following figure [Figure 2] exemplifies the territorial reconnaissance.



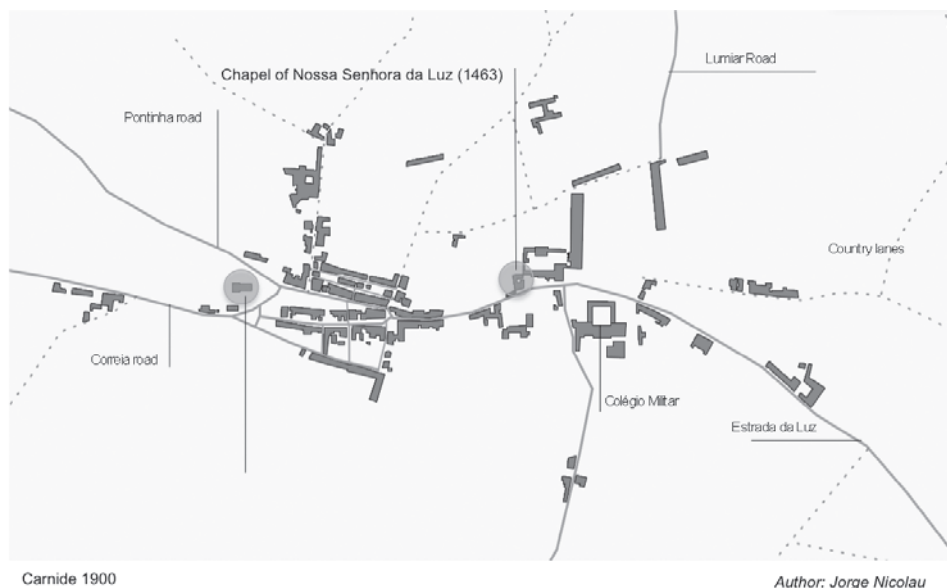
**Figure 2.** The parish recognition — Footpaths

### 3 Carnide As Place of Memory

The Carnide parish is one of the oldest in Lisbon. Its origin is from 1297 linked to large rural parish that was there constituted — Parish of S. Lourenço de Carnide, in the reign of D. Dinis. Also belonged to this parish the territories of Pontinha and Casal Falcão, who are now integrated into the Odivelas County. On 11 September of 1852, the parish was integrated in the newly created municipality of Belém (old parish of S. Maria de Belém) and remains there until their extinction. The administrative reform in the city of Lisbon, approved by Law Letter on 18 July 1885 and supplemented by Decree Law of 8 October, reintegrate the parishes in the municipality of Lisbon.

In Carnide history we can consider three key periods, preponderant for the consolidation of the parish as prominent space in the city's history. These periods are associated with population dynamics, related with historical events, political and religious, which were consolidated its urban fabric. The first two had a special importance, not only because they were in their genesis and physical consolidation, but also because it guided the development of the village, during the following centuries, these are important moments that are attached to the buildings and to the orders and religious events. On the other hand, allow us to be aware of the importance of the collective memory in the place consolidation. One example is the construction of the Santuário da

Luz (Sanctuary of Light), because its construction appears associated an alleged miraculous font, the Font of Machada, whose history has been perpetuated in time, from generation to generation — the narrative on the origin of the place.

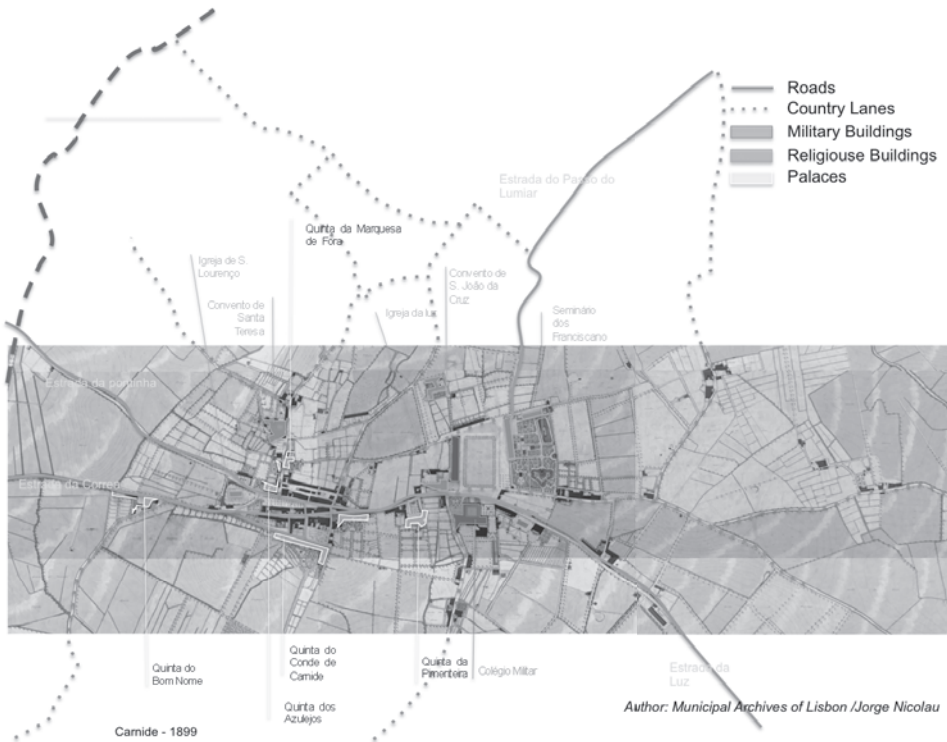


**Figure 3.** Carnide village 1900

The third period is a consequence of the 1755 earthquake: the Santuário da Luz (Sanctuary of Light) was virtually destroyed and loses the importance of the past, as a place of worship. The church only retains some parts of the original building and the convent was only the ground floor, currently occupied by the Military College. However, the parish back to gain relief when various nobles took refuge there, on farms and palaces, built around the sanctuary and along the access roads — Estrada da Luz and Lumiar — and Carnide (Estrada da Pontinha). However, this fixation was temporary until their urban palaces in the capital were built (Calado et al., 1993).

The Farms have brought a new economic and social dynamics. During this period, there is a population growth of the parish and a consolidation of its urban fabric, which develops from the Rua Direita (Straight Road — built part of the Pontinha Road), with a path that is consolidated during the eighteenth century and has remained practically unchanged to this day (historic center). The resident population stabilizes only since 1921, and begins to grow in a consistent way from 1931. The consolidation of the social fabric is the result of two important factors: the inauguration of the Tram (Eléctrico) No. 13, in April 1929, and the urban revolution that the city of Lisbon was subject in the following decades — The parish is connected to the city center by public transport. Tram No. 13 (Restauradores Square - Carnide), will be a structuring element for economic and social development of the whole area and adjacent areas, including the Pontinha, already in Odivelas municipality (at the time of Loures).

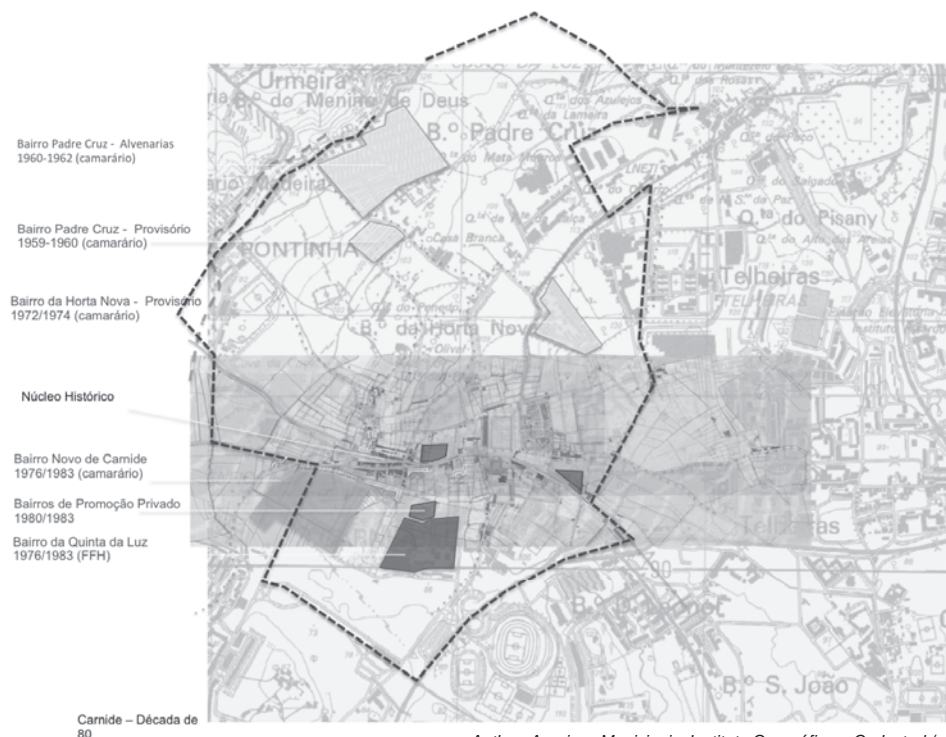
The construction of new roads and the strengthening of public transport solved the peripheral location of Carnide, verified by the end of the eighties. This situation, combined with a land handbag for urbanize (old farmhouses), created the necessary conditions to the construction of new urban facilities, most of them the private promotion.



**Figure 4.** Carnide Heritage

Based on the eighties Military Letter [Figure 5], we have the notion of urban evolution; It was built three municipal neighbourhoods and one of private promotion. The parish has changed little and remained virtually its entire morphology – still remain the old paths and country lanes to demarcate the properties and to serve as a link between farms, factories and neighborhoods built outside of its urban core, in particular the Bairro Padre Cruz, built twenty years before.

The [Figure 6] represent the current territory and shows us the opposite. This satellite image (2007) upon which we put patches that represent new urbanization presents a reconfigured space. In twenty years, the parish of Carnide and the whole territorial environment has changed radically in their morphology and typology. Beyond the new allotments realized under rehousing PIMP and PER programs (Padre Cruz and Horta Nova neighborhood's), and other's of the private sector (Telheiras Urbanization and the Columbus Park), there are news equipment's such as the Centro Comercial Colombo (shopping centre Colombo), the Hospital da Luz (hospital), the Metropolitano de Lisboa (sub-away), the technological park INETI, the bus station Carris, and the Teatro Armando Cortez (Artist's House), among others.



**Figure 5.** Carnide in 80s

*Author: Arquivos Municipais; Instituto Geográfico e Cadastral / Jorge Nicolau*

New road's and avenues are building and interconnect these new infrastructures. All these urban transformations destroyed completely the old paths and country lanes and created a fragmented territory. In the image above, are marked in gray the main roads and it can be seen this new urban layout.

An example of this new reality is the Bairro do Padre Cruz, who once was linked to the core of Carnide by country lanes, at this moment is "isolated". The avenue Radial de Carnide has interrupted these ancestral links. The same happened to the road Estrada da Pontinha that for centuries was one of the structuring elements of the territory, connecting Lisbon to the municipalities to the north, was cut, and now is nothing more than a link, simple "impasse", to the facilities of the Lisbon Underground.

The [Figure 7], is a set of photographs, taken in April 2011, when we carried out the first path [Figure 2], in recognition of the parish reflects this new urban reality. However, regardless of major changes, The parish has managed to preserve its history "hull", contrary to what happened in other of the county, transforming it into an generating element of identity and urbanity inductor from the collective memory.



#### 4 The Cultural Dimension of Urban Space — Padre Cruz neighbourhood

Located at the northwest of Lisbon, in the parish of Carnide, Bairro Padre Cruz is bordered on the north by the Military Road, to the west by the Regiment of Engineering nº 1 in Pontinha, to the south by Radial Carnide / Lisbon Underground facilities and to the east by Carnide Cemetery.

This municipal neighbourhood administrated by Gebalis, was the subject of several allotment operations since its construction in 1959, and is currently the subject of an urban regeneration process for construction a new buildings, which will culminate in the demolition of the initial nucleus, known as "Masonry". According to the latest census, the Padre Cruz represented 23.64% of the population of Carnide, however, as last administrative restructuring, that figure rose to 28.8% as a result of this restructuring, what represents more than a quarter of its population.

On June 18, 1958, the municipality acquired the land of Quinta da Penteeira by public deed, performed in the twelfth Notarial Office of Lisbon, for the construction of a provisional neighbourhood — Quarter of demountable houses of Quinta da Penteeira, to satisfy the commitments assumed with the government. On 19 February 1959, is approved in camera session the Contract No. 243/58, for the construction of 224 houses in fibber cement sheets (Phase I).

The first stage is completed in the following year in 1959, with the construction of 200 prefabricated houses with a wooden structure, covered with Lusalite plate (walls and roof). That's why this neighborhood area has become known as "houses of Lusalite".



Fonte: Arquivo C. M. Lisboa

Author: Jorge Nicolau

**Figure 7.** Neighbourhood of demountable houses of Quinta da Penteeira — "houses of Lusalite".

In 1960, it begins the second phase with the construction of "brick houses". This new phase differed to the first not only by the specific characteristics of their materials, but also by the

origin of the relocated residents. They are people from different geographical areas, including Alcantara, displaced by the works of the Tejo bridge, and from other places in town, whose houses belonged to the municipal heritage and they were in very bad condition. They are municipal employees with low income who lived in dwellings without the minimum conditions.



**Figure 8.** Padre Cruz — The place, the memory and the city

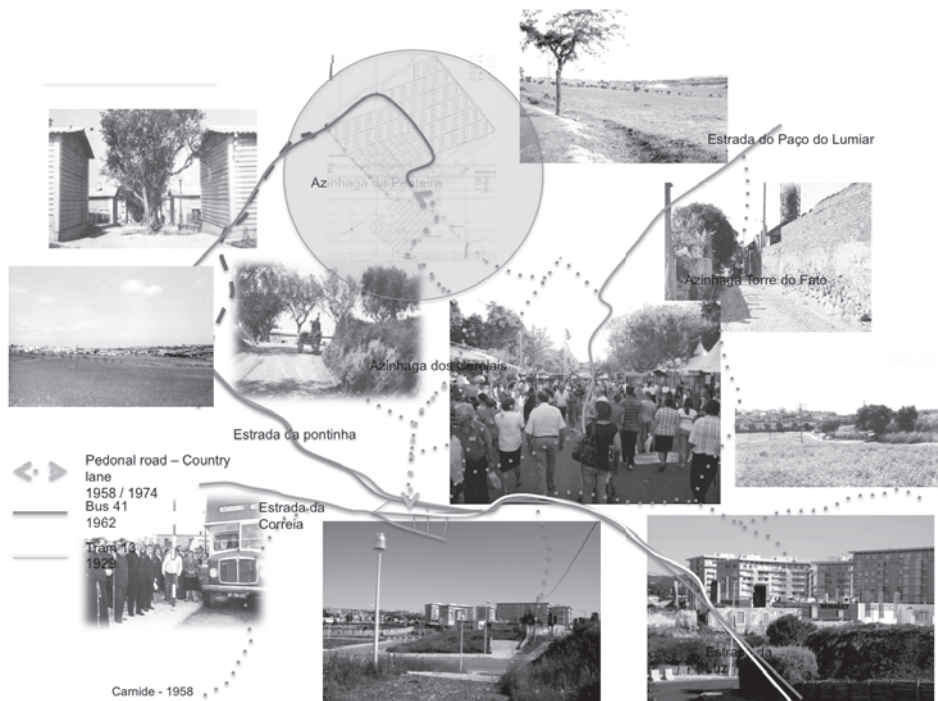
This "Provisional of New State" had some specific characteristics that set him apart from everyone else in your "category" including urban design; the heterogeneity of the population — not in relation to social class because they were all poor people — but because they had coming from different areas of the city and the location next to Carnide.

The cultural diversity of these people, most of them illiterate, was shared in neighbourly relations that were creating. Over the years, all this exchange of experiences and knowledge were forging and consolidating new identity references, multiple and diverse among residents, in this way building a collective memory — "(...) The memory must also be understood, that above all, as a

*collective and social phenomenon, that is, as a phenomenon built collectively and subjected to fluctuations, transformations, constant changes.*" (Pollak 1992).

Another aspect essential to the consolidation of identity and collective memory of the neighbourhood was its peripheral location. This opinion results, not only from the analysis of the interviews, but also from the participant observation we have made. Is interesting to observe the implications of that particular type of conditions have on the relationship between social and urban. In this case, the constraint was the inexistence of public transport, this fact as promoted/forced the interpersonal relationships. By the away, in this specific case, there are two urban elements that promote the relation identity, one is the street and other is the country lane, as we will see.

Between 1959 and 1962, date of the implementations of public transport, bus nº 41, by the Carris, in November of that year, the neighbourhood was completely isolated. During this period the residents who worked in different areas of the Lisbon city needed to move every day, to and from the centre of Carnide, which caught the tram nº 13 at the Largo do Coreto (Bandstand), to their workplaces in several parts of the town — *"When we came here there was only the desired 13 in Carnide (...) I spent all this on foot, walking through the country lanes, with my lunchbox (...)"* (Inhabitant).



Author: Jorge Nicolau

**Figure 9.** The country lanes and old roads as territorial connecting elements.

This pendulum movement, represented in the previous figure, at orange dash dot, was done fundamentally by the Azinhaga dos Cerejais (country lane) — "umbilical" cord that linked the core of parish to the neighbourhood. That situation was remained even after the career opening 41,

by the scarcity of transport, to the revolution of 1974. In this daily journey that lasted roughly 20 minutes, the people were related to each other and were creating neighbourly and solidarity relations by the isolation to which they were subject.

The Carnide neighbourhood (at the time there was only the historic centre) was central in to this identity consolidation, because beyond the historical, cultural and religious wealth, who were incorporating, was in Carnide that took place a number of recreational activities and pastoral events associated with the festivities of the parish, as the Feira da Luz and essentially the school examination of the fourth class. In this way, they maintained permanent contact with the local people — *"Everyone walked on foot. We were going to the Feira da Luz (Fair of Light)... When I went to the freiras my mother would say, speak of high, high speak with each other to pretend to go here a lot of people ... Everyone walked to Carnide "* (Inhabitant).

This particular situation was developing into inhabitant's a collective self-esteem. The Bairro Padre Cruz has never been an appendage of the parish but an integral part of it. Therefore, we conclude that, as had happened to the people of Carnide, the "Place of Carnide" was at the genesis of the identity of Padre Cruz. The specific characteristics of the civil parish, allowed the neighbourhood residents to find historical and cultural references, which fostered their self-esteem, thus keeping the entire negative connotation associated with this "provisional New State" would affect them. Carnide was always a "safe haven" for its people.

#### 4 Conclusion

In a short time (about twenty years) as a result of a political attitude that is being implemented by the local government, in collaboration with the associative movement and charities of Carnide, it was possible to create its centrality, based on their own identity and a deep-rooted civic culture and, so far, it has been transmitted to surrounding neighbourhoods.

A key factor for the collective memory consolidation and its perpetuation in time has been, beyond the physical heritage, gastronomy, publications promoted by Carnide Parish Council; it's the associative movement.

In Carnide, we could watch the combination of two important factors for the place of memory consolidation and, where the place is assumed effectively as memory space: the first one is related with the physical heritage; the catalytic element that enhances the identity and promoting civility (the relationship's in the urban space) and the second, its people, than to internalize all this historical burden were developing a sense of self-esteem and identity that leads to relate and to create associative movements.

The first appears in 1886, when a group of Republicans — Associação de Instrução Primária de S. Lourenço de Carnide (Primary Educational Association of S. Lourenço de Carnide) — intended to make possible the night school for disadvantaged children and illiterate adults. This association is extinguished ten years later, to give rise to another in 1907: the Associação Auxiliadora de Instrução em Carnide (Help Association of Instruction in Carnide), commonly known as "Night School" (Figueiredo 2006). It was probably one of the first night schools of Lisbon, thereby helping to combat illiteracy and to strengthen the sense of identity and self-esteem of the

population. It is with proud that today, the older residents of Carnide look at the old and abandoned building in Rua do Norte (North Street) and identified as "Your Night School".

Are these movements, which gave rise to the collective association that formed after the establishment of the Republic, including the Sociedade Dramática de Carnide (Dramatic Society of Carnide) (1913) and Carnide Club (1920); Until the 60s, were the only existing association and both have an important role in the consolidation and dissemination of identity values of Carnide and served as a beacon to all the others that followed.

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## Can a (new) port bring happiness to city people? The case of Suape (Recife – PE)

Filipa Malafaya-Baptista, Luisa Mendes Batista, Emília Kohlman Rabanni, Simone Rosa da Silva

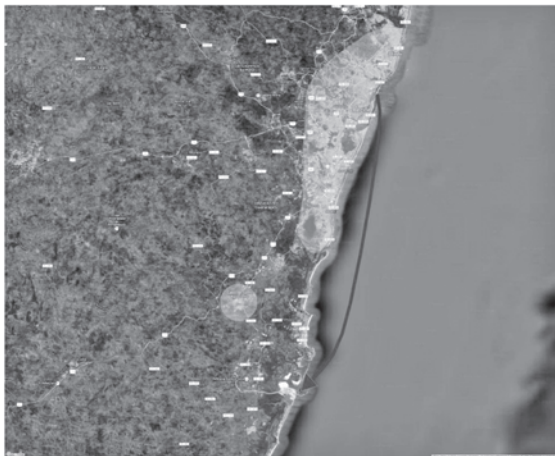
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The aim of this paper is to understand how far port infrastructure and activities can be related to the changes in the territory's development model, especially changes related to its social impact. This study focuses on the case of new ports that were created in the last quarter of past century and how they affected the preexisting cities - ports that in many cases are related to the creation of MIDAs (Maritime Industrial Development Areas), separated physically from the city but integrated with the territories around it. These ports portrayed effects since their influence is exerted over the social and economic reality that existed previously. The port always presents itself with a set of advantages and disadvantages. On the one hand, it brings economic and technological development, but, on the other hand, it produces consequences on the structure of the city and impacts in the environment, which may be negative, at different levels of intensity. Most of the negative impacts are felt locally, particularly those that fall on the environment. But is it possible to identify relevant positive effects at local level in all cases? Can the (new) port bring happiness to people in the city and in the surrounding territories in all cases? This is an important question, mostly with regard to the integration of urban and port planning instruments and local features are significant in this process. The case of SUAPE (Recife/Brazil) is a good example of this complex port-city interrelationship.

**Keywords:** Port, local communities, sustainable development, social responsibility.

### 1 Introduction

Seaports produce great economic and social impacts on its surrounding territories, in a process that involves interaction between port and city. Still, these seaports are placing strong environmental pressure in these areas but they are also considered to play an important role contributing to social and economic development and environmental protection. The Cabo de Santo Agostinho and SUAPE port in the Recife Metropolitan Region in Brazil is a good example to study these issues.



**Figure 1** - Suape and the old port of RECIFE. Source: adapted from Google.

The city of Cabo is not located in a coastal position since its main function was to support industrial activities and for doing so, positioned itself near the main roads that ensured accessibility to Recife and its port, the existing port in the area for centuries.

The SUAPE port and its industrial district, located in Cabo, represents an important infrastructure that dates back to the 1970s and brought significant changes with regard to the local economic development, absorbing a great volume of the Recife's old port facility. An important fact is the growth of GDP in Cabo and Ipojuca, which is now higher than in Recife but the population average income remained low. The port also developed different actions in other areas in order to contribute to local sustainability, as well as the local municipal authority, the Prefeitura.

Once made the assessment of the first decades of the relationship between the port of Suape and its surrounding territory, the challenge for the future will be on deepening the social component towards a more cohesive and inclusive development. This greater cohesion will also have to be reflected at territorial level. This moment presents a combination of contextual factors that may benefit an upgrade in this port-territory integrated development model: (i) the creation of a foundation financed by ecological taxes that has as object to intervene in sustainable development; (ii) the development of some social programs in partnership between the Brazilian public institutions and UNESCO, (iii) the existence of some local communities dissatisfaction towards negative social impacts of the port (namely, the unbalanced distribution of wealth); and, finally, (iv) the existing example of numerous port facilities, all over the world, that have invested strongly in its social responsibility component, even without good practice guides. If this upgraded relationship between port and the region translates a more community led approach it will certainly produce happier people.

The approach developed in this paper begins with an initial theoretical context of port-city relations, taking note of the latest developments marked by globalization and the technological advances that affect the relationship between ports and the surrounding territories. Then presents a characterization of the case of the Port of Suape and the surrounding region of Recife, highlighting the fields that are especially constraints of this relationship, namely: territory, population, infrastructure and economy. It is also presented briefly the land-use plans that have, in some way, embodied the development model for the region in recent decades. This analysis revealed some attempts to integrate such an important infrastructure as it is the port of Suape, on a pre-existing territory with its own socio-economic realities and dynamics, characterized by very significant needs.

Such a strong relationship, such as the one that exists between the port and the city/region, deserve some space of detail in the presentation of the main identified impacts, whether economic, social or environmental. Having done this, it was also analyzed how the port - in the form of an integrated social and environmental responsibility program - intends to relate to its surroundings and how it will choose to be committed to the socio-environmental challenges of all region and design a strategy to allow it to minimize the negative impacts and to promote positive impacts of its presence. Finally, the central issue and the debate raised by the approach here presented, aim to conclude if the future of this relationship, between the port of Suape and the

surrounding region, can be a virtuous relationship, in the sense that offers very significant social, economic and territorial benefits, translated to higher rates of well-being and happiness.

## 2 Conceptual framework

The role cities played as gateways through their ports and other transport facilities changed. The city is no longer that central place and traditional gateways gave place to new facilities located in strategic places many times away from it, embracing new technology and new management skills (Hesse, 2010). The city attitude towards the port in its vicinity has raised problems and gave place to a widespread concern over environmental quality issues that portrayed the port as a negative impact factor. This was true, in most cases, in the past, but is no longer the present feeling, particularly in what concerns ports undergoing capital investments and modernization programmes (Pinho, Malafaya and Batista, 2002). Still, old problems remain, aggravated by the fact that the city is managed by local authorities, while the port is, in most cases, managed at national or regional (state) level. These two power levels often pursue different objectives and define different priorities concerning development processes and economic and social goals (Hesse, 2010). Hoyle (2011) mentions the fact that, though in a close physical situation, port and city may develop in a close and integrated way or not, but anyway, their interactions will condition the development in the area whether in infrastructural and land use structures or in economic activities and employment structure.

Presently it is recognized that economic transformations have led to the fact that the city and port economic development is increasingly perceived as less interdependent when compared to some decades ago. As mentioned by Verhoeven (2009, p.80), ports went through a deep and fast process of change especially in the last two decades, generating strong pressure on their traditional role. Before that as mentioned by Hoyle (2011, p.17), in the 1970s the Maritime Industrial Development Areas were developed, "away from urban spaces" and highly integrated "with maritime and land transport systems and services", occupying significant areas mostly to install facilities for oil and mineral ores. There was a change in the approach of port authorities towards their management model, seeking for greater autonomy and stronger relations with private investors and other ports, since the public resources applied in this area diminished significantly. This new model is also concerned with developing logistics and a better integration with the distribution systems in the port's hinterland using intermodal platforms and more sophisticated information systems.

Yet, as mentioned by Allemany (2011, p.72), "port activity has a great impact on its urban surroundings" and throughout the years exerted a significant influence in the structuring of cities and their economies, in land uses and urban structure (Hesse, 2010). According to Hall (2007, 87), freight transportation and logistics systems and as a consequence seaports, face a series of significant challenges and problems such as permanent investment in their physical facilities, integration in transport intermodal networks, climatic changes and environmental protection. Nevertheless, "seaports also have the potential of being important components of the shift to urban sustainability", which is related to the social and economic conditions of urban populations while

preserving the environment and natural resources. The truth is that city authorities, though aware of their links to the port, are mostly focused on the development of local and regional communities. The new challenges faced by the production structure will introduce new challenges to the city management, to the economic functions it performs and to the coexistence with the port.

In Europe, as mentioned by Verhoeven (2009), port authorities united in ESPO were pleased with the recent effort made by the Commission to create a stable investment climate and also with the recognition of their role in the preparation of development master plans, integrating both stakeholders and city authorities (Verhoeven, 2009, p.93). In fact, the communication on European ports policy in 2007 includes a specific section on the role of port authorities reinforcing the importance of their autonomy and recognizes the diversity of port management systems. The fact is that maritime transport is a fundamental part of the transport system worldwide. Its operation depends on good accessibility and good connectivity. This caused, in most cases, the relocation of port facilities, moving from urban areas to other areas with better connections to the terrestrial transport system (Allemany, 2011).

According to Stopford (1997), port management authorities emphasize the innovations in technological and management that took place in the last years. These innovations contributed to the ports reshape and to perform a new economic role in cities, metropolis and wider regional hinterlands. Pinho, Malafaya and Batista (2013) identified issues that are becoming more and more relevant in this area like the fast technological and management innovations, the new role as a capital intensive enterprise or the improvement in productivity. In fact, in the present economic scenario, the port infrastructure position in the supply chain has been reinforced and the efficiency of their management systems is enabling their sustainable development in financial terms.

The positive impacts of port activity are wider in terms of their territorial range while the negative ones are usually local and are related with air emissions, water quality, soil, waste, biodiversity, noise and other impacts, producing severe effects in the public health quality, which are usually stronger for the population with the lowest income. These impacts on the environment, land use patterns, increase in traffic congestion, or even social segregation, produce an ambiguous relation between port and city. Still, the positive aspects like the value added, the employment and the economic situation of the port are indeed important to the city economic dynamic. New strategic planning developed by port authorities contributes to changes in many sectors. Particularly in industrial activities, ports created more sustainable operational conditions in their industrial sites or in their vicinity, providing good infrastructure and implementing environmental good practices (Merk, 2013).

Another important action is the adoption and integration of public policies concerning ports, transport and urban functions and structure, environmental and social protection (Merk, 2013). Both city and port perform an important role in the present globalized economy, offering conditions for new enterprises and new activities related to the global logistics supply to invest in their land (Allemany, 2011). It is important to ensure a greater integration between cities and ports (Laquet, 2011). This brings new challenges to city authorities too, since spatial planning systems can provide the basis to develop balanced territories embracing environmental protection, considering social and economic goals (Faludi 2001). It involves, as Rydin (1998) mentions,

decisions about resources allocation producing a distributional impact. It also allows for the control of land use, integrating and coordinating different sectorial instruments and, according to Faludi and Zonneveld (1997), supporting prudent strategic action. Within the planning system, local plans, particularly the Master Plan emerges dealing with critical environmental degradation situations. In particular, as Atkinson (2001) mentions, the most serious problems are those of social exclusion and segregation processes. Environmental Impact Assessment (EIA) is also an instrument that has proven to be an essential tool to support decision making in the planning process and it has been integrating the assessment of social impacts. For Welford and Gouldson (1993), this tool allows the introduction of changes in projects, minimizing negative effects and proposing mitigation measures, since the early phases of project. Another instrument is the Strategic Environmental Assessment (SEA) focused on the evaluation of the environmental implications of infrastructure projects (EC, 2001), as well as the sustainability of policies, plans, spatial and the formulation of sectorial programs (Fisher and Seaton, 2002; Fisher 2003). Combining these instruments is fundamental to achieve sustainable development whose underlying goals involve social progress, environmental protection, prudent use of natural resources, maintenance of high and stable economic growth and employment levels (DoE, 1998).

The European Sea Port Organisation published, in 2010, the Code of Practice on Societal Integration of Ports and defined that in operational terms “societal integration of ports is an essential part of port governance which concerns actions by port authorities that aim to optimize relations between the port and its surrounding societal environment and it focuses on the human factor in ports, i.e. (future) employees, people living in and around port areas and the general public” (ESPO, 2010, p.11) and represents an effort to combine both its economic dimension and the societal dimension. This effort “is marked by conflicting interests with societal stakeholders linked to environmental protection, urban development, labour conditions, resident interests and overall economic development” (ESPO, 2010, p.10). Another important issue is the Corporate Social Responsibility (CSR) defined by the European Commission and applies it to the port in several dimensions such as the environmental one, since the port produces impacts on human activities. Strategically the port must prove relevant to different target groups (p.193), identify the needs and the gaps within the port job market (p.195) and match curricula of educational institutes with job needs (p.197), invest in social infrastructure (p.197) and make neighbours their ambassadors limiting negative externalities (p.197).

### **3 Framing the Suape port (Cabo de Santo Agostinho)**

The 1888 Constitution in Brazil aimed to protect the environment using urban planning as a vehicle for environmental protection. For Souza (2007), urban environmental degradation in Brazil resulted from development processes where interventions represented, in most cases, environmental risks. The urban population, mostly with very low incomes, is forced to use illegal housing solutions (Giehl, 2013) since there is a lack of alternatives in the city housing market and end up occupying areas protected by environmental legislation (Maricato, 2010). The creation of an urban spatial planning tool, required by the Constitution, came up in Law 10.257 in 2001, the City Statute. The

Master Plan, which is advocated in the City Statute, is an instrument concerned with environmental protection and rehabilitation, with public health and social segregation, with urban accessibility and mobility, fulfilling an urban property social function and integrating solutions for the urban infrastructure. With regard to environmental protection, the Constitution and the CONAMA Resolution 237/97 established the use of assessment tools and environmental protection in the urban space through the Plano Diretor and Environmental Impact Assessment (MC, 2004). EIA is a tool applied to activities capable of producing adverse impacts on the environment, supporting integrated decision-making processes in the local planning system, particularly the licensing process.

The Metropolitan Region of Recife (RMR) is about 3% of the territory of Pernambuco. It concentrates 42% of the population of the state and more than half of the state GDP (65.1%) and consists of 14 municipalities and a total area of 2,768 45 km<sup>2</sup>. The Cabo de Santo Agostinho municipality, with a 447Km<sup>2</sup> area, is located in this region. It is the state's main industrial district and in it is installed one of the most important industrial and port facilities of the country. The municipality also has part of their economic dynamics based on tourism, due to its natural and cultural heritage and its coastline with about 24 km. The rural area of the municipality has an important environmental function housing strategic reserves of water. With regard to urban growth in the city, the urban centers began in 1580. During the process of economic development, traditional mills gave way to factories, attracting people who came to occupy in a disorderly and unplanned manner pre-existing urban areas (Barros, 2004). It should be noted the construction of the first Northeastern Railroad (1858) that has favored the process of movement of workers for the city (CONDEPE FIDEM, 2008).



**Figure 2** - Cabo de Santo Agostinho XIX century. Source: Adapted from Google (Albuquerque e Pereira, 2015).

In the twentieth century, the development of the city was marked by the creation of the Industrial District of Cabo in 1961 and the installation of the Industrial and Port Complex of Suape in the 70s. In this period there has been a strong migration to urban areas offering employment and housing opportunities and that, in the absence of an urbanization plan and orderly growth, gave rise

to the occupation of the hills and flood areas, risk areas and protected natural areas. As mentioned by Barros (2004), in recent decades the city has undergone profound changes. On the one hand there is the formal city, made up of the workers' villages, regular subdivisions and housing developments. On the other hand, there is the informal city consisting of the slums and the illegal settlements. In fact, according to the IBGE (2010), on Cabo, 47.59% of the households account for subnormal settlements (slums). Regarding the coastline, the urbanization process has greatly increased in the 70s, with the creation of seaside resorts, accompanied by new roads. Previously, the land occupation corresponded to small communities of fishermen that developed their activities there (Albuquerque e Pereira, 2015)

In 1960 the total population was 51 365 inhabitants and in 2010 of 185,025 (IBGE, 2010). The variation of the population shows a significant increase in absolute terms. It is noticeable the increase of more than 28,000 inhabitants in the 70s, associated with the creation of Suape, as well as almost 25,000 inhabitants in the previous decade with the creation of the industrial district of Cabo and its degree of urbanization has increased significantly, from 78.6 in 1980 to 90.6 in 2010. However, the employment situation on Cabo de Santo Agostinho has not changed due to the lack of qualifications of the local workforce. Much of the population can only find precarious and low-skilled jobs. As a result, the average income of the population in these municipalities is low, since the hand-skilled labor force moves in most cases from other municipalities, states and countries. According to data from the United Nations Development Programme (UNDP), the Institute of Applied Economic Research (IPEA) and the João Pinheiro (FJP) Foundation, while the per capita income in the city of Recife in 2010 takes over R \$ 1,100.00, the Cabo de Santo Agostinho does not reach R \$ 500.00. These figures contrast with the values registered for gross domestic product (GDP) per capita in those municipalities where Cabo has a GDP per capita in 2010 of R \$ 24,419 and Recife only R \$ 19,636.00.

With regard to planning instruments, the Local Development and Environmental Plan of Cabo de Santo Agostinho was established in the Municipal Law No. 2,360/2006, and subsequently amended by municipal laws 2,463/08, 2,471/08, 2,922/12 and 2,926/12. It defines the objectives, guidelines and general principles of urban and environmental policy of the municipality, especially considering the social function of the city and of urban property. The Master Plan has incorporated the Law of Land Use and Occupancy (LUOS), Law No. 2,179/2004 which established standards for the occupation of the territory, defining urban parameters as the maximum load factor, in order to requalify urban space, limiting urban sprawl and establishing protected areas. The zones are classified into Urban Zone divided in Urban Consolidation Zone and Urban Expansion Zone, Urban Outstanding Interest Zone and Special Areas. Special Areas are defined in order to differentiate spatial units according to their characteristics, guiding its development process, such as the Special Zones of Social Housing (ZEHIS), the Special Zones of Priority Occupation (ZEOP), the Special Zones of Urban Promotion (ZEDU) and Special Areas of Historical and Cultural Preservation (ZEPHC).

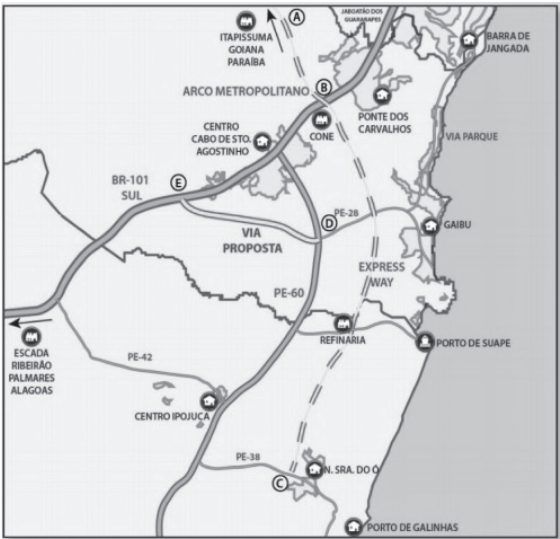
Concerning environmental protection, there are the Special Areas of Ecological Interest (ZEIE) and the Agricultural-Forestry Special Zones (ZEAF). The municipality of Cabo published Law No. 2513/2009 on the Environmental Policy to ensure the Protection, Control, Conservation

and Restoration of the Environment. This law is regulated by Decree No. 546/2010, which aims to ensure the quality of life and ecological balance of the city, control and monitor the activities and impacts of environmental pollution and preserve natural resources. It also establishes the guidelines for obtaining the Environmental permit. With regard to the promotion of industrial productive nature sites, the Special Areas of Strategic Consolidation (ZECE) aim to promote the reurbanization and economic dynamics of the region. It stands out the Suape Special Industrial, Port and Environmental Zone (ZEIPAS) dedicated exclusively to industrial activities but where is expected the full protection of the mangrove ecosystem, as well as the implementation of tourism and leisure facilities.

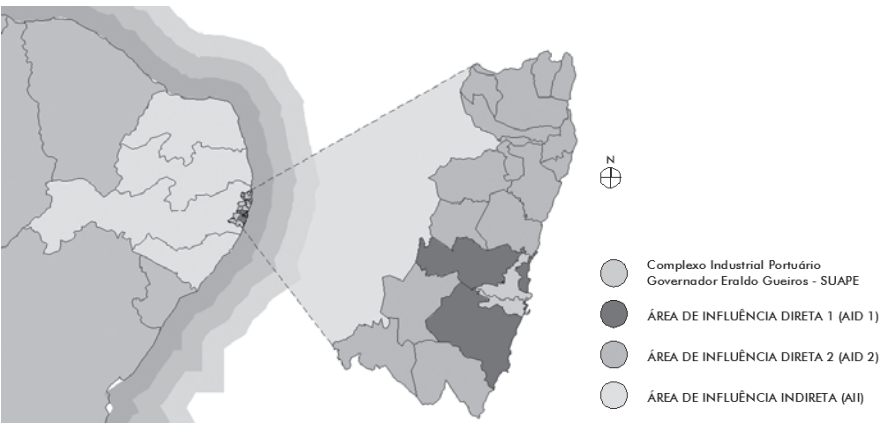
For other municipal aspects should be noted that the Cabo industry is responsible for about 60% of the wealth produced, resulting the rest from trade activities and services, transportation and food, largely related to tourism. There are serious problems in terms of sanitation, even though the infrastructure indicators show coverage of water supply and waste collection to the urban population of 96.81% in 2010 (as well as electricity supply) (UNDP, Ipea and FJP). These figures refer only to urban population and produce a wrong image of reality since the quality of these services is very low.

With regard to accessibility and mobility, there is the Urban Mobility Plan, included in the municipal Master Plan of Urban and Environmental Development. The most important access roads are BR-101 south and PE-60, and the network further comprises PE-28 and PE24-Via Parque/Paiva. There is also a project of a state highway that will connect the BR-101 to PE-060, diverting much of the traffic volume passing through the congested city center. According to DETRAN-PE data (2015), the municipality of Cabo de Santo Agostinho registered a fleet of 44,405 vehicles, which corresponds to a tripling of car ownership in the city in the last decade (the Cape had 14,392 vehicles in 2005). The distribution of vehicles on municipal roads is 55.4% for cars, 11.9% for cargo vehicles, 27.5% for motorcycles and only 2.0% for buses. Thus, with regard to the transport system, although composed of two subsystems, the inter and intra-municipal, these are insufficient and do not function in an integrated manner. There is also access to the Integrated Structural System (SEI) (Grand Recife Transport Consortium) and a public transport line Port of Suape/TI Cabo connecting the integrated RMR terminal system of Cabo de Santo Agostinho to the Port of Suape. The rail mode ensures the transport of passengers between Cajueiro Seco/Cabo de Santo Agostinho and Cajueiro Seco/Curado through the Light Rail Vehicle (LRV).

It is also important to mention the Suape Master Plan, which divides its area of influence in Direct Influence Area 1 (municipalities where the port is inserted), Direct Influence Area 2 (the surrounding counties on which the complex activities have relative interference) and Area of Indirect Influence (considers the States near Pernambuco). In the Direct Influence Area I it stands out the productive chain covering activities like the production of sugarcane and the processing of sugar and alcohol, as well as the petrochemical industry, the textile sector, the shipbuilding industry and the logistics sector. In the Direct Influence Area II, stands out the construction sector, in the primary sector, irrigated fruit growing, and the in the tertiary sector it is worth mentioning trade and education services, information and communication technology.



**Figure 3** - Road Map of Suape Region (Source: EIA PE-033).



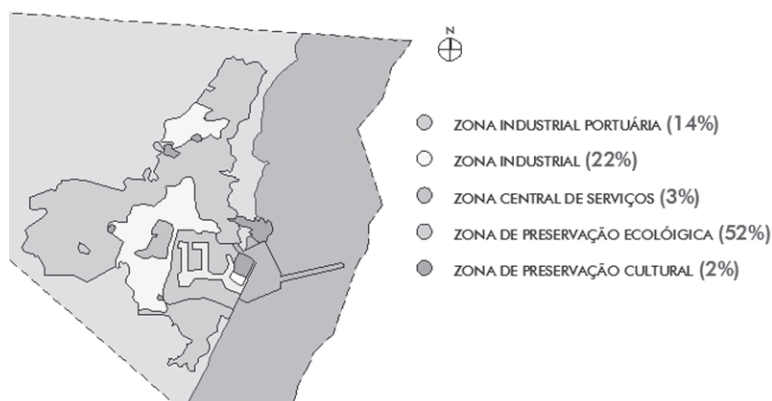
**Figure 4** – Direct and indirect areas of influence of the Suape port. Source: Almeida and Neves, 2015, based on Pernambuco, 2010.

## 4 The interrelation between SUAPE and its surroundings

### 4.1 The port over time

The Cabo de Santo Agostinho region, where the port is located, has a long tradition of fishing communities closely related and dependent on the sea activities. Furthermore, the existence of some important water courses (Massangana, Ipojuca and Tatuoca rivers), and some roads, has accentuated its relevance to the flow of agricultural products (sugar, fundamentally) (Suape, 2015). From the 60s, with the first viability studies (which also emphasized the aim of relieve pressure on the nearby town of Recife, exerted by the existing port), but mainly in the 70s, with the construction

of the port and the implementation of the industrial and port complex, this region suffers a deep economic, environmental and social transformation, which still lives in the present moment. The industrial and port complex of Suape covers an area of 13,500 hectares that is distributed in distinct zones: the industrial and port area (14%), the industrial zone (22%), administrative central and services (3%), ecological preservation zone (52%) and cultural preservation zone (2%). It is envisaged to increase this ecological preservation zone for about 59%.



**Figure 5** - Zoning map of industrial and port complex of Suape. Source: Almeida and Neves, 2015, based on ADDiper, 2014.

Currently the port of Suape occupies a strategic position in the trade relations of the State of Pernambuco and Brazil and with the foreign countries. Its geographic position is strategic in relation to the main international maritime transport routes, connected to more than 160 ports all over the world (Suape, 2015). It also plays a very important role in boosting the industrial economy of the region, which has experienced, along with the whole country in the last decade, a very significant growth. This growth also happened in all the port's terminals, but the area associated with energy is the one that stands out.



**Figure 6** - Suape port, external area. Source: ADDiper, 2014.

Associated with the growth of the port there is a road and rail network that has been modernized and a set of high public investments in projects (shipyards, refineries) that produced a strong multiplier effect in the economy of the State of Pernambuco. The industrial and port complex of Suape has now more than 100 companies that have created about 25,000 direct jobs, in addition to some 40 000 jobs created in construction, in projects for new infrastructures and industries.

Suape also developed the Project "Suape for all" that includes all the social programs in its territory, such as professional education and training. It also created housing programs as well as several environmental basic programs, to preserve the "Mata Atlântica" (Atlantic Forest), to promote waste treatment and to implement environmental education (Suape, 2015).

#### 4.2 The most relevant impacts

The fact that a large infrastructure such as the port and industrial complex of SUAPE is located in an environmentally sensitive area and with the pre-existence of local communities distributed in a disperse way in the territory, it has maximized its impacts, even more in a period of strong growth as it has been for the last decade. From these facts stand out the following impacts, as the ones more relevant:

- the massive construction of slums ('favelas') and illegal settlements associated with the introduction of the port in the 70s and the corresponding increase in labor demand. As a result of this unplanned construction, it has developed a dual urbanization model: on the one hand, a town of formal genesis, made up of the workers' villages, the regular lots and the residential complexes; and on the other hand, the city of informal housing, consisting of the slums and the illegal settlements. This strong urban sprawl had the direct impact of an enormous pressure on cultural and natural values as well as the serious degradation of the quality of life of local communities.

- the fact that the port surrounding territories have been affected, from the 70s, by a major tourist pressure on the coastal zone, especially felt by small and pre-existing fishing communities. This situation creates conflict and dissatisfaction in an extremely needy population, since they do not feel the benefits of the changes associated with the tourism progress and the construction of the port and associated industrial zone. And worse, often they feel harmed and that they are not the object of any concerns to mitigate these negative impacts.

- the attraction of important companies to the industrial complex, creating about 25,000 direct jobs which was clearly a positive impact of port and the associated economy must be complemented with the information that the qualified labour force comes from Recife, while the disqualified jobs are executed by people from the 'favelas' and illegal settlements of Cabo de Santo Agostinho. This division of qualified and disqualified jobs in the territory, obviously, has a direct relationship with the great inequality in the distribution of incomes associated with the growth of the port and industries. Thus, the Cabo de Santo Agostinho concentrates the population with lower incomes, while in Recife live the families with higher incomes;

- the public investment to build up essential infrastructure to the construction and growth of the port (essentially roads, railways). While this is a positive impact, there is a certain agreement that this strong public investment has not been well distributed since it is mostly producing wealth to the port and the companies but it has not always increased local life quality and income levels of

local families. Because of this, there is a conflict between local people and port authority, unhappy with the negative impacts on their lives (destruction or disqualification of natural values with consequences on quality of life; displacement of residential settlements; loss of traditional activities; insufficient infrastructure; unplanned urbanization processes; traffic congestion; pollution) and also finding that the positive impacts are unequally distributed, frequently benefiting non-resident social groups.

- the port, the industrial and logistic activities, and the urban growth, results in an enormous pressure on the natural values. This impact has a central and decisive importance in the case of the Port of Suape, since it is located in an area of great sensitivity and rich environment.

The perception of these impacts raises questions about the sustainability of the development model, which now is on the basis of a socio-environmental responsibility strategy.

### **5 Social and environmental responsibility program**

Almost two thirds of the area under the jurisdiction of the port authority corresponds to a territory of high environmental sensitivity, in this particular case, called Atlantic Forest Reserve. Faced with this absolutely dominant condition, the port administration reviews its Master Plan in 2011. This plan, in addition to strategic issues of operation of the port and industrial infrastructure, also includes social and environmental issues associated with the impacts generated by the port. In this sense, it develops a set of programs that start to focus on the protection and environmental safety and, at a later and more recent phase, deepen the social action of the port with local communities. As well as an environmental audit conducted in 2013 (to repeat every two years), in order to comply with all legal requirements applied to the ports sector, the emergency and control risks of environmental accidents plans, the plan of solid waste management, it was implemented some monitoring and environmental control programs (including those targeted to the quality of air and water), a permanent preservation area was delimited and ecological corridors have been created.

Of course, in addition to the clear environmental benefits, it also results in relevant gains for the quality of life and public health of the communities directly affected by the port activities. From the social point of view, the SUAPE port is dealing with the challenge of being located in a direct impact area of about 13,000 inhabitants with low levels of education and income, which are dedicated, mainly, to agriculture and fishing. So far, the growth of the port and industrial infrastructure associated with it, did not produce an increase in income to the local population, since the qualified human resources do not live in the immediate surroundings of the port.

Faced with this challenge, the port administration has been developing a set of social programs and partnerships with companies in order to encourage the inclusion of local communities in its development process. The main objective of these programs is the qualification of these people, to enable them to work in the universe of the port-industrial complex. Beyond this central objective, social programs of the port also develop cultural and leisure programs for local communities and environmental awareness programs. Finally, and given the enormous existing housing needs in the area surrounding the port, the port authority has been concerned with the

reinstallation process of the families displaced due to the port's growth in new homes with better conditions (piped water, sanitation and electricity).

All these actions of socio-environmental intervention of the port, with the aim of minimizing the negative impacts and promote the positive impacts (that have been intensified in recent years), reflect a clear corporate responsibility strategy, culminated this year of 2015 with the formalization of a technical cooperation project between the government of the State of Pernambuco and UNESCO, in order to expand the institutional capacity and management actions for environmental development of the industrial and port complex of Suape. Improve the living conditions of local communities and protect the environment from the pressures of the port and industrial development are the two main pillars of this partnership.

## 6 Debate and conclusions

The frame that marks the current environmental and social responsibility strategy of the entity that manages the SUAPE port is based fundamentally on three starting realities: i) the environmental framework of the port is an area of extreme sensitivity; ii) the socio-economic framework is of extreme deprivation; iii) from the urban point of view, there are a deregulation and a dominance of informal processes that marked the territory in a negative way. Given these constraints, the strategy for the future and the relationship with the surrounding, will require that the action of the port related with the environmental protection becomes clearly a priority – 'the priority'.

From the perspective of the social action, there was an awareness of the port authority of the need to intervene socially, to take an active role in the socio-economic challenges of the region, namely the qualification of human resources and the increase of income levels of the local population to enable it to overcome basic needs that currently exist. The administration of Suape is making an effort to develop social programs and partnerships with companies located in their industrial area in order to enhance the integration of the local communities in the development process of the port. Other examples of actions in the social domain are cultural and leisure activities, housing programmes or environmental education. Facing the three above-mentioned conditions, the future strategy for the port is to build a sustainable relationship between port development, urbanization, preservation of natural and cultural values of the region and, finally, strengthen the development of local communities, integrating them in the benefits achieved through the port's growth.

This new focus on the relations with the territorial surrounding, accompanied by a set of clearly identified environmental and social concerns, happens in a moment where the port is experiencing an expansionary period, in addition to national and international more and more demanding regulations, whether from an environmental point of view either from the point of view of social corporate responsibility.

As corollary of this combination of factors, the opportunity of the partnership with an institution like UNESCO was the answer found by the port to frame this period of expansion and the promotion of environmental and social sustainability with internationally recognized benchmarks and, at the same time obtain the important and necessary technical advice.

But, although this is a moment of opportunity - general awareness of the relevance of the environmental and social corporate responsibility; the availability of financial resources for this purpose; the partnership with UNESCO; and the country prosperity – some relevant threats do exist: the inertia of the Brazilian administrative system, the unstable political situation, the slowdown in economic growth that can lead to the reduction of available resources; the difficult coordination between the different institutions managing the port, the spatial planning system and the different sectorial development processes (economy, transport, education, environment, culture, etc.).

Suape has indeed contributed to the local development process. If the present plan developed by the port authority is fully implemented and if it is capable to include the local population in the mentioned development process, then we have reasons to believe that the happiness of these communities will increase.

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# Contributions for an Inclusive and Participative Municipal Planning in the City of Lisbon: The Local Housing Plan (PLH) and the Priority Intervention Neighbourhoods / Zones (BIP/ZIP)

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One of the biggest challenges for today's planning is how to integrate, in the decision processes, the active participation of populations, in order to articulate the aspirations of communities with the technical and financial resources of Municipalities.

This paper has, as its subject of study, two initiatives developed by Housing, Local Development and Social Rights of Lisbon's City Council: the Local Housing Program (PLH), implemented since 2008, and the Program BIP/ZIP - Priority Intervention Neighbourhoods / Zones, implemented since 2011, which has this year its 5th edition; these tools for municipal planning are subject to analysis, as well as to testing the different participative processes used as tools for support to decision in planning housing policies at a municipal scale.

**Keywords:** Participated and Inclusive Planning Tools; Housing, Urban Rehabilitation, Local Development and Social Rights Planning; Local Housing Program; BIP/ZIP; Community Based Local Development Programs; Lisbon's City Council.

## 1 Lisbon's Local Housing Program (PLH)

### 1.1 What is Lisbon's PLH

The Strategic Housing Plan (PEH)<sup>1</sup> of 2008-2013, promoted by the housing and Urban Rehabilitation Institute (IHURU) under the rules of the European Charter for Local Autonomy<sup>2</sup>, would define the Local Housing Program as the tool to be used by local governments with the purpose of defining, at a municipal or inter-municipal level, a strategic vision for the interventions in the areas of housing, mixing different policies with a special focus on urban rehabilitation and reconversion, and defining the goals of the local housing policy for a period of 4 or 5 years.

<sup>1</sup> PEH would establish as specific goals:

- *"To Hierarchize housing needs and problem-areas at a multi-municipal level.*
- *To define a framework of goals and actions with a scale of priorities at a municipal and multi-municipal level.*
- *To define the strategic goals, the tools and the projects under a public policy of housing and urban rehabilitation at a municipal and multi-municipal level.*
- *To articulate the local housing program with the urban policy and the municipal/multi-municipal social dynamics.*
- *To propose local partnerships in accordance with the Measures (cooperatives, companies, associations, ...).*
- *To foster a framework of local integrated indicators at the National Observatory of Urban Rehabilitation.*
- *To promote periodically good-practices, at the construction, rehabilitations, social inclusion and management."*

[<http://habitacao.cm-lisboa.pt/index.htm?no=4005001>]

<sup>2</sup> European Charter of Local Autonomy [<http://www.gddc.pt/direitos-humanos/textos-internacionais-dh/tidhregionais/conv-tratados-15-10-985-ets-122.html>]

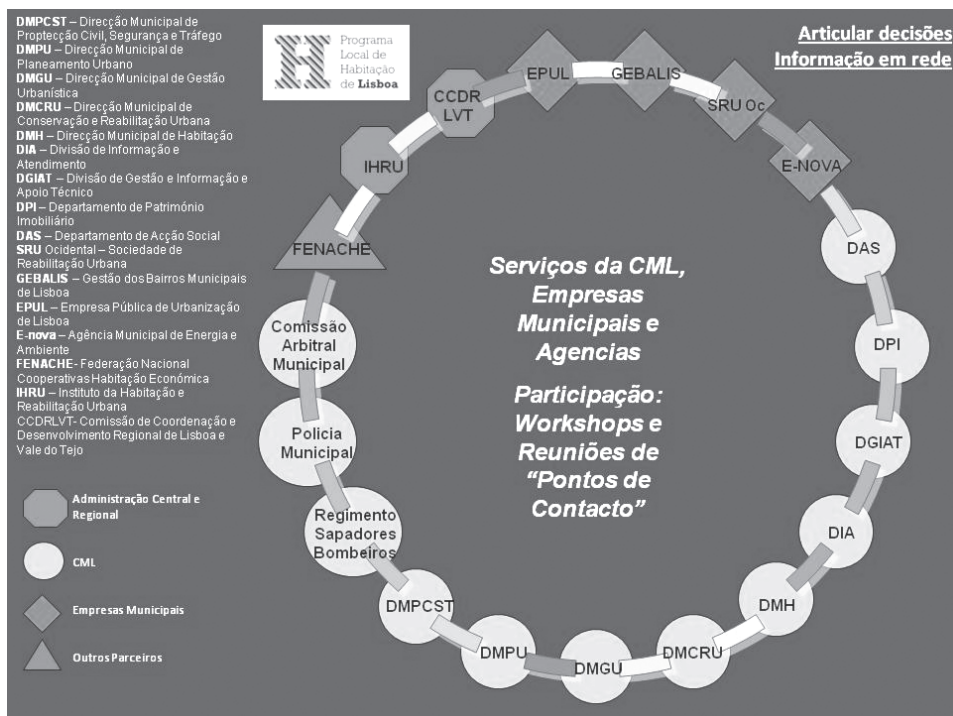


In Portugal, the first experience for the creation of a PLH would be done by Lisbon's Municipality. Lisbon's PLH, whose program began in 2008, would have as its territorial area the boundaries of Lisbon's Municipality and was created based in the knowledge which existed in the municipal services, to which would be added the data coming for a large participative process, identifying as active agents and including in all this participative process, from the demand side, the current and future residents and, on the supply side, the real estate, cooperative and social sectors as well as the housing promoting public entities in Lisbon.

Lisbon's PLH — whose methodology would be approved by the Municipality in October 22<sup>nd</sup> 2008 and by Lisbon's Municipal Assembly in November 11<sup>th</sup> 2008 — would develop according to a methodology with three sequential phases designated as: "To Know", "To Chose" and "To Implement". Presently we are at the third phase, "To Implement"<sup>3</sup> – "PLH in Action", having been created the PLH Project Team with the purpose of elaborating this tool, in a first moment, and to implement and monitor it in a second phase (Afonso, et al, 2013).

Lisbon's PLH, with a largely publicized methodology, would resort to a focused participation through the implementation of workshops based in themes, and to the establishment of 17 "contact points" of different structures in a wide approach of the Municipality and other institutions under a concept model that fits in the "organizational urbanism", in other words, the urban concept applied to the structures of the organization with the purpose of connecting parts and to integrate different practices (Anunciação, 2006; Neves, 2010) and housing policies in space and time, in the city of Lisbon.

<sup>3</sup> See "PLH in Action – 3rd Phase Report: To Implement"  
[<http://habitacao.cm-lisboa.pt/documentos/1334085131X6jRR2xj3Tg43HG4.pdf>]



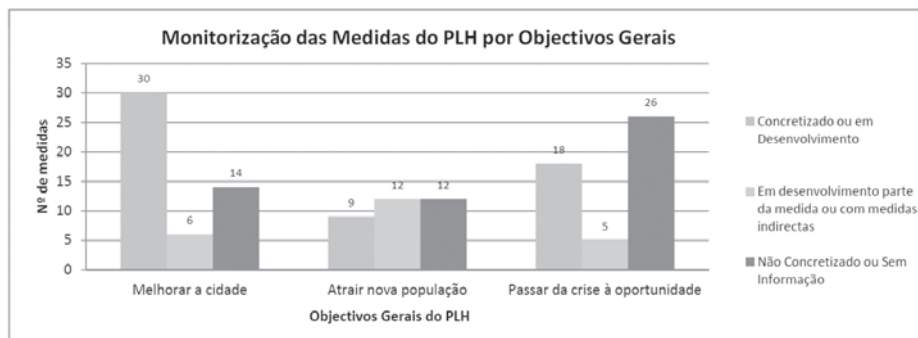
At the PLH have been identified 123 steps able to improve reality and then would be created inter-objective "clusters", i.e., sets of measures intending to absorb and potentiate the interdependences and existing synergies between them, in order to operationalize, efficiently, intervention strategies. In 5 public sessions for clarification, that took place in 5 Parish groupings, had been presented the General and Fundamental Objectives and, after the evaluation of the proposals and suggestions by the residents, the number of proposals went from 123 to 132 (Bana e Costa, 2010).

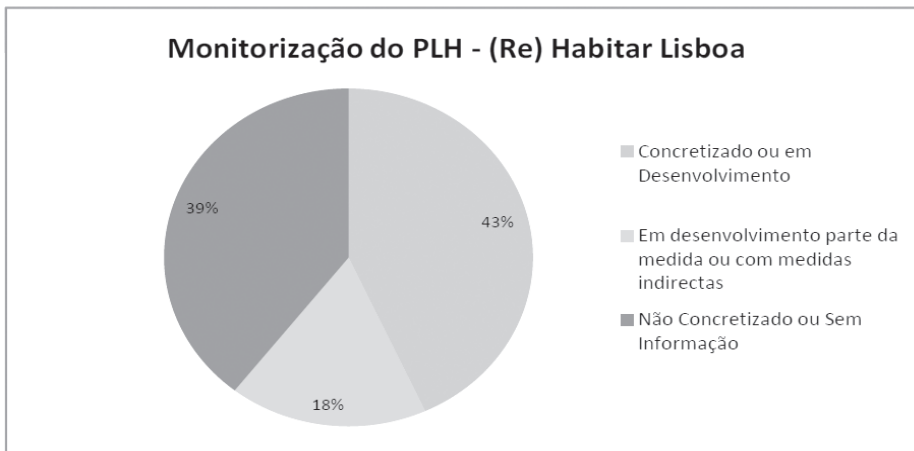
As states Güell (2006), "the implementation is a the most important stage of a strategic plan" ( Güell, 2006) having been the set of "132 measures" understood as a flexible and facilitator tool of municipal policies, which intended not just to prepare the decision making process but also to explain in a clear way the difficulty level of the implementation of the actions in order to establish a priority hierarchy of the policies and, at the same time, to be molded the main strategic instruments of the Municipality – the Multiannual Plan of Activities and the Municipal Budget, as well as the new Municipal Master Plan<sup>4</sup> which, being a 2<sup>nd</sup> Generation Master Plan, includes a wide number of Strategic Goals.

<sup>4</sup> Municipal Master Plan - Notice nº11622/2012 of August 30th, Diário da República n. 168, 2<sup>a</sup> série [www.pdm.cm-lisboa.pt/](http://www.pdm.cm-lisboa.pt/)



As a result of the performed monitoring of the PLH measures, stands out that this strategic tool was, and still is, the guide of many innovative programs in the City of Lisbon, changing the intervention paradigm of the Council of Housing and Local Development, creating "bottom-up" dynamics in the communities that reinforced or created neighbouring bonds able to create jobs (as it is shown by the BIP/ZIP Program). It also contributes to improve the City, proximity equipment that will reinforce the attraction of the resident population. However, it is with the action programs concerning private property, occupation of vacant properties, coercive works, training activities for rehabilitation and rehabilitation programs about the private market, that in the future the new PLH will focus, and for such purpose there is the need to be exceeded the powers of the Municipality itself, which will imply an agreement about measures to be taken with the Central Government and IHRU.





The PLH Atlas<sup>5</sup>, attached to this program, would be a study for characterization, analysis and urban test, elaborated using different statistical sources, emphasizing the importance of the information used by the time of the Census 2001, being this Atlas updated since the new Census 2011<sup>6</sup>.

At the same time, as had been pointed out by the data of the last few Census, we had seen a reverse in the population reduction that the City had endured for the last decades<sup>7</sup>. In consonance with the top mission of the Housing Local Program — "(Re)Habitar Lisbon" [(Re)Live in Lisbon] — that will bring for the future, clearly, a double challenge: unleash social-urbanistic policies able to grant housing conditions to those that live already in the City and, at the same time, to attract populations of Lisbon's Metropolitan Area that are returning to the City.<sup>8</sup>

<sup>5</sup> <http://habitacao.cm-lisboa.pt/index.htm?no=4020001>

<sup>6</sup> In fact, the geo-reference allowed the verification that a large part of the buildings in bad housing condition is located in central areas with an elder and vulnerable population, leaving in rented homes that need a to be dealt quickly. In 2001 it must be emphasized that Housing in Lisbon still has about 444 houses without water, 588 without privies, 338 without a sewer and 2501 without baths. It is urgent to create dignifying housing conditions for this resident population, largely elder people, and which need new programs that may be articulated with the Council for Social Rights, as the City of Lisbon has one fourth of the elder and vulnerable population.

<sup>7</sup> According to the Census 2001, the City of Lisbon recorded a strong slow down in the loss of population, showing a trend to maintain the current population or even a recovery of its resident population, with values close of those of the year 2001. In 2011 the Municipality lost only about 3% of its population, which represents about 20.000 individuals.

<sup>8</sup> More specifically, has been growing the search for houses in Lisbon resorting to the rental market (as a result of its centrality, lesser transportation cost and bigger proximity to workplaces with the reduction of time of travel) over the argument "for buying a house" in the surrounding municipalities. Besides this group, other type of population looks for a house with the rental market, now as a direct consequence of the financial crisis, for the following reasons:

- The growing difficulties to access financial credit for house purchase, a largely practiced model in Portugal, contrary to the rest of Europe;
- Family insolvency as a result of the increasing living expenses and unemployment, which is leading to the failure of the payment of loans and the home delivery to banks.

This last phenomenon exists only with the most extreme cases of economic difficulties, bringing to the resurgence of overcrowding of houses, as a result of the renting of rooms to different families and generations.

On the other hand, from the 80s began an exodus period common to other cities, a sharper loss of population in the centre of metropolitan areas in exchange with the peripheries. The population exodus between the 1980 and 1990 was about 15%, equivalent to a loss of 120.000 residents per decade in the City of Lisbon.

Lisbon's Metropolitan Area occupies presently 2.750 Km<sup>2</sup> and has 2,1 million people travelling daily to the city, a floating population that brings a cosmopolitan dynamic but also demands an pleasant city to live and to work. In order to do that it is necessary a number of proximity public equipment for the population looking for them.

To this end, the increase and reinforcement of proximity equipment had been planned and programmed by Lisbon's Municipality by several Equipment Charters that would be included in the Revision of Lisbon's Master Plan being, today, a line of Strategic Development of the Municipality, according to its governance plan, recently subject to vote, that defends "A City for the People" having the purpose of attracting population and making the City socially coherent, providing life quality and equal opportunities to its territory and its resident population.

As such, Lisbon's Municipality has already four strategic documents for guidance and framework of its activity: the Educative Charter<sup>9</sup>, Health Equipment Charter<sup>10</sup>, Strategic Guidance for Childhood Social Equipment Charter<sup>11</sup>, and the Sports Charter<sup>12</sup>.

At the same time, rehabilitation and creation of public spaces. Likewise, the conservation, rehabilitation and creation of public spaces are to be included by the measures contained in PLH's objective B – "To improve urban life quality and social cohesion", whose additional purpose is to rescale, manage and keep the network of proximity equipment; to keep, rehabilitate and create public and leisure spaces; to assure the quality of urban environment; to assure mobility (car parking, public transportation, sidewalks) and to promote the local trade, measures that have been developed by Lisbon's Municipality in its different areas and also with the intent of making them available to be enjoyed under the perspective of the Healthy Cities<sup>13</sup> and through actions of the Health Municipal Plan.

Also, the transformation of the urban mobility standard in the City of Lisbon has seen a strong investment for the reinforcement of mobility, standing out the contribution of the Municipality

<sup>9</sup> The Educational Charter of Lisbon, approved in the Assembly Hall and 29.4.2008 approved in 15.5.2008 by Minister of education, proposed the construction of 7 new equipments and an extensive list of works in the existing school Park. Were built, since 2008, 2 kindergartens, 4 primary schools with kindergarten, 1 elementary school.

<sup>10</sup> The Charter of Health equipment of Lisbon was approved by the Municipal Assembly in, having as Proposal 2.6.2009 of priority Intervention for reducing the current shortages of primary care Network, the location of 10 new units, of which municipal property 6:00 pm to give in to the ARSLVT. As a result of this proposal was signed in 21.7.2009, between the CML and ARSLVT, a contract-program for the construction of 6 new units to be built on land to yield by the municipality. In 2012, the first of these units in the neighbourhood of Boavista and in 2013 the second in Bethlehem, and the entry into operation of the third in Carnide in early 2014. However it was also inaugurated the unity of Angelina Vidal Street, owned by ARSLVT, and celebrated the contract for the Downtown unit between the Regional Administration and the EPUL, in one of the new buildings in the Martim Moniz. As for the long-term care Network, for the 15 proposals for location, the camera has endeavoured to attract private non-profit entities concerned in its construction and management, but in the present context, by financial difficulties, is only in the process of building a unit by Montepio Geral, in Rego.

<sup>11</sup> On 31.07.2009, the Board adopted the strategic guidelines for the social facilities for children, setting the public network of Kindergartens for the city of Lisbon and shortcomings were identified in Lisbon 73 equivalents crèches. Of these, only 6 were in work or equipment with land/building affection to your installation. In addition to these 37 locations, were also identified for effective Plans or in preparation, and to real estate projects, in which should be included some of the equipment needed, without having to already possible to predict a timeframe for their implementation. These proposals would be incorporated in the new PDM and served as basis for the recently created Program B.a. Bah-"Development Program for Kindergartens in Lisbon", the subject of a "Memorandum of understanding" signed in 2.5.2011, between the CML, the Union of mercies, the District Union of IPSS and the Union of Portuguese mutual funds for the construction of 11 equipment corresponding to 9 double and 2 nursery schools nursery schools simple.

<sup>12</sup> The Sports Charter, approved by the Municipal Assembly in 2.3.2010, would identify the shortcomings in the field of sports and would set the priorities for intervention.

<sup>13</sup> [http://redecidadessaudaveis.com/index.php/pt/noticias/rpcs\\_novo\\_site](http://redecidadessaudaveis.com/index.php/pt/noticias/rpcs_novo_site)

towards the improvement of the intermodal articulation of public transportation, the creation of "Areas 30" — slower zones where the speed limit had been reduced to 30 Km/h, able to reinforce life quality in the city of Neighbourhoods, aimed to the improvement of life quality in residential neighbourhoods, the reduction of atmospheric and sound pollution and a better cohabitation between pedestrians and vehicles, with the intent of foster auto-locomotion in the City. Being under implementation the Pedestrian Accessibility Plan, approved by the Municipal assembly in 18/02/2014, which defines strategies and actions in order to make of Lisbon a city for everyone<sup>14</sup>.



However, among the most important programs "born" from PLH and developed under the Council for Housing between 2009 and today (such as the new Municipal Regulatory Framework<sup>15</sup>, the integrated Program of Requalification and Management of Municipal Neighbourhoods, Houses for Those in Need, Contest by draw for the sale of empty houses for Youth, Strategic Orientations for Non-Residential Spaces and the Program of Valuing of the Municipal Housing Property, that would be deployed as the program Rehabilitate First and Pay Afterwards<sup>16</sup> and the Program of

<sup>14</sup> <http://www.cm-lisboa.pt/viver/mobilidade/modos-suaves/mobilidade-pedonal/plano-de-acessibilidade-pedonal>

<sup>15</sup> As of 2010, the Housing Commissioner would create a significant legal framework with various regulations, relating to the management, relocation operations and evictions, namely:

- Regulation of disposal of Municipal Buildings (RAIM), approved in 2008, laying down the conditions and the value of alienation of municipal houses;
- Regulation of access to Municipal Housing Regime (RRAHM), approved in 2009, and that requires the carrying out of contest for access to municipal houses;
- Regulation for sale of Municipal Housing Dole Fractions to Youth by drawing Contest;
- City Council housing regulation, establishes rules for creation and operation, a consultative body of the municipality with representation of the main social partners with activity in the housing sector in Lisbon's Municipality;
- Regulation of Municipal housing Evictions defines the criteria and procedures to be applied by the GEBALIS and the Lisbon City Council to control and combat the abusive occupation of municipal housing;
- Regulation of Relocation operations brings together in a single document the rules and criteria to be met when the Municipality have to rehouse families;
- Management regulations of the housing stock in the city of Lisbon (RGPH) comes to bring transparency to the specificities of the lease contract, as well as the management criteria and procedures, including innovative provisions on participation of residents and out of conflict resolution, covering all municipal dwellings;
- Extend the youth leasing program (65) expanding the rental market from the dispersed heritage rehabilitation of the city – around 3 246, creating a regulation to apply in contest with jury that comes to define the General rules which allow the Municipality to alienate real estate housing Dole fractions.
- Imposition of a "social mix" to promote private, inserting the "cost" controlled houses in lots of private initiative as the Pedreira do Alvito, with about 25% of the rental cost fires supported or Urbanization plans and Detail - which also guarantees the programming equipment, environmental targets and houses at affordable costs.

<sup>16</sup> Program "Rehabilitate first, pay later" – aims selling of unoccupied vacant buildings, in totally or partial municipal buildings, that need a profound rehabilitation or reconstruction, with the obligation of rehabilitation. The payment can be done after the conclusion of rehabilitation. Under this program, we have been placed at

Agreed Rent<sup>17</sup>), we would like to highlight one of them, the BIP/ZIP Program – neighbourhoods / priority Intervention Zones, not only because it's a project that had been used to identify the neighbourhoods and zones where social deprivation, dilapidated buildings and abandoned public space are more evident, which contributed for the improvement of life quality of the residents of those areas, but also because it was seen as a challenge at the level of increasing the resident participation in the different policies and programs of the Council of Housing, which resorted to the development of participative methods that went beyond the usual information or public consultation procedures.

## 2 Neighbourhoods and priority intervention areas in Lisbon

### 2.1 BIP/ZIP Charter

The concept and methodology for the intervention in Priority Intervention Neighbourhoods (BIP) comes up following the measure 5.B.7, proposed by PLH and which had as inspiration the Government Resolution 143/2005, of September 7<sup>th</sup>, that approved the Initiative "Qualification and Urban Reinsertion in Critical Neighbourhoods Operation", considered as decisive in the cities' policies<sup>18</sup>. The change of its own vocabulary meant a new intervention paradigm which intends to replace the stigma over the populations of critical territories, for a new idea of priority for the public intervention in needy and neglected territories. It also brings, from PLH, the stamp of participation as a founding model of all the process.

As such, after the constitution of a new multidisciplinary group, the first approach for the delimitation of BIP/ZIP focused in the verification of the "state of the art" in what concerns relevant information that might support the identification of needy territories in the Municipality. Had been mapped the following municipal limits: Recovery Critical Area and Urban Reconversion (ACRRU), Urban Area of Illegal Genesis, Municipal Neighbourhoods, Remaining Zones of Relocation Procedures, Former SAAL and Self-construction Neighbourhoods, Intervention area of the Western Urban Rehabilitation Society (Western SRU) and the Area of Urban Intervention of the Live Marvila Program. In a second approach had been selected, from the PLH Atlas, several indicators, in the socio-economic, urban and environmental dimensions<sup>19</sup>. Through an analysis procedure it had been possible the construction and, late, the mapping if a social and urban index of Lisbon.

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auction about 52 buildings with bidding base between 20,000 and 966,000 euros. It is noted a program to encourage rehabilitation of buildings throughout the city of Lisbon with 9 "benefits" to the owners.

<sup>17</sup> Program of Agreed Rent - it has as a goal the renting of municipal houses in good condition or in need of small repairs, meant for own and permanent housing, with accessible rents, lower than the rents in the open market but higher than the maximum values of the supported rent.

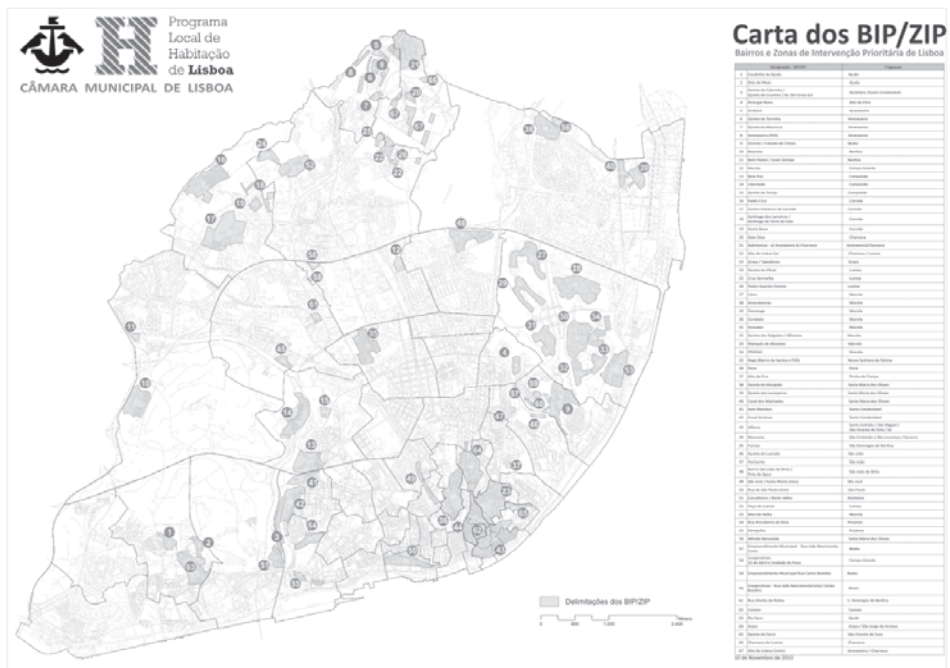
<sup>18</sup> According to this Resolution of the Cabinet, "the intervention programs in each neighbourhood must correspond to immediate problems and, at the same time, to stimulate the creation of new opportunities from the existing potentialities, by means of solutions" developed under the guiding principles, among which can be included the exemplar, innovative and experimental nature of interventions, the viability of the projects to be implemented, the rehabilitation and housing, urban and environmental qualification, the strategic coordination and the civic participation of the residents.

<sup>19</sup> Cf. *Methodology of identification and designing Map with BIP-ZIP*. Lisboa: BIP-ZIP-CML, 2010.

From the mapping overlapping of all that information resulted the determination of a "stain" in the City, defining of the territories with deep needs and point to a growing absence of social and urban cohesion. This stain was named as the Socio-Territorial Fracture of the City of Lisbon.

On such stain was done a first identification by BIP/ZIP, which had been subject to a procedure of public consultation that based itself in three distinct levels of participation. The first level of participation intended to publicize massively with the civil society, the second level of directed publicizing had as target the citizens and entities with local involvement and a third level of publicizing focused on the qualifying participation of experts.

From this process was born the final proposal for the BIP/ZIP Charter, with the delimitation of 67 Neighbourhoods and Priority Intervention Zones (BIP/ZIP), with an estimated population of 141.126 residents in 2010.



The BIP/ZIP delimitation must, as such, be seen as a territorial unit, with a flexible concept and dynamics that became a tool for priority and implementation of municipal policies. The Action and Strategy program with BIP/ZIP bases itself primarily in two complementary intervention levels: Activation of the Initiative and Local Partnerships and Urban Regeneration.

## 2.2 Activation of the Initiative and Local Partnerships - BIP/ZIP Program

From the debate on the BIP/ZIP Charter also resulted the need to find ways of expeditious and participated performances, that should include transversal and articulated technical support of the municipal services involved, the intervention of Parishes and the participation of resident

associations, collectivities, non-governmental organizations and citizen movements which have an expressive performance in the neighbourhoods and areas involved. It was also clear that Lisbon's Municipality should include, within the framework of the financial intervention of the Budget and Activities Plan, an annual value for local interventions by BIP/ZIP, to be distributed according to priorities defined locally and according to the participative methodology, in order to guarantee the involvement of all concerned.

Following this work, it was created the BIP/ZIP Program, which is destined to support activities and projects to be developed with the 67 Neighbourhoods and Priority Intervention Zones defined by the Municipality and it presents itself as a participative process of the citizens in the management of the City. It presents, also, as a tool of municipal public policies which intends to boost partnerships in small local interventions implemented by parishes, local associations, collectivities and non-governmental associations – and they can range from the placement of public lighting to graffiti cleaning, from community stores to citizenship caravans, from community gardens to intergenerational parks.

The BIP/ZIP Program have been approved by Lisbon's City Council in 22/12/2010, with a yearly budget allocation of 1 Million Euros, to share according to the method of the participative budget. Lisbon's BIP/ZIP Program developed according to an yearly cycle with 7 phases (see fig. 8) and provides support to projects that fall in one of the following three typologies and intervention levels:

- Occasional Interventions, with a maximum support of 5.000,00€;
- Community Services, with a maximum support of 25.000,00€;
- Small investments and integrated activities, with a maximum support of 50.000,00€.

The financial support is granted under the celebration of cooperation protocols between Lisbon's City Council and the project promoters. The financing of the approved projects is of 100% to the limit previously defined for each intervention typology. May apply to the Program organizations of civil society that develop or propose to develop activity in the territories identified by BIP/ZIP, such as Parishes that include in their territories at least one BIP/ZIP. All applications must be presented with a territorial partnership, which includes at least two entities.

In the total of the four editions already implemented of BIP/ZIP Program, have been submitted 437 applications that represent a total number of 2.603 proposed activities. On the other end, have been selected 152 projects, implementing a total of 742 activities in the priority territories of the City.

**Table 1.** Program BIP/ZIP – Statistic Table

	2011	2012	2013	2014	Total
Nº DE CANDIDATURAS	77	106	108	146	437
Nº ENTIDADES EM CANDIDATURA	169	285	290	362	
VALOR SOLICITADO DE FINANCIAMENTO BIP/ZIP	2.595.804,98 €	4.078.604,00 €	4.189.701,00 €	6.120.363,00 €	6.120.363,00 €
Nº DE PROJETOS APROVADOS	33	28	52	39	152
ENTIDADES EM PROJETOS APROVADOS	84	97	174	118	
VALOR DE FINANCIAMENTO BIP/ZIP APROVADO	1.249.843,48 €	997.003,00 €	2.055.283,00 €	1.608.544,00 €	5.910.673,48 €

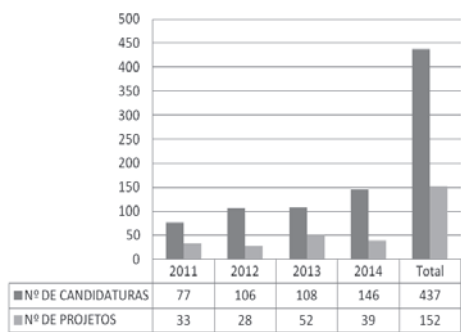


Figure 1 – Evolution of applications and projects approved during the 4 editions

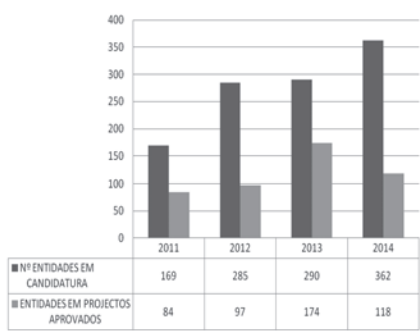


Figure 2 - Evolution of entities on the applications and projects approved during the 4 editions

Concerning the requested amounts during the applications for the three years of the Local Partnerships BIP/ZIP Program, it must be said that in 2011 had been requested a total of 2.595.804,98€, an amount over the municipal budget attributed to BIP/ZIP, in 2012, 4.078.604,00 € and at last in 2013, 4.189.701,00€. In turn the projects financed during the three years of the Program had been of 1.249.843,48€ in 2001, in 2012, 997.003,00€ and in 2013, 2.055.283,00€.

The evolution of the number of presented applications (77 in 2011, 106 in 2012 and 108 in 2013), the quality of the projects submitted to the program and the results already obtained in the field show the potential of transformation of what we may call the "BIP/ZIP Energy" and that shows, in our opinion, a new species of "emerging urban planning" or "grassroots planning", potentially innovative and increasingly necessary.

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2.3 The Process of Urban Regeneration with BIP/ZIP – Network Experience

A fundamental element of this participative intervention process is the local support structure — GABIP, created as a result of a municipal initiative and has the following formation: Core Coordination Group, Executive Commission and Extended Commission.

The permanent follow up is done by the Executive Commission, responsible for ensuring the regular exchange of objective data to all involved and the follow up of operations and planning. The Executive Commission includes the members of GABIP's coordination nucleus, representatives of the Parishes part of the territory under evaluation and a representative of the non-governmental entities and remaining institutions. It is responsibility of the Executive Commission, in a model of participative co-management, to build a Local Action Plan that promoted the socio territorial cohesion, structuring a sustained basis of local development. It is the responsibility of the Extended Commission the systematic thinking and evaluation of the development of Local Action Plan that must include Municipal policy makers, representative of relevant public or private entities and other local actors.

There are already 14 BIP/ZIP territories (Padre Cruz Neighbourhood, Mouraria Neighbourhood and Boavista Neighbourhood, Horizonte Neighbourhood, Portugal Novo Neighbourhood, Fonecas e Calçadas Neighbourhood, Cooperativas do Beato Neighbourhood, Prodac Neighbourhood and Alto da Eira Neighbourhood) that benefit of the support of the local structure of Municipal Coordination – GABIP, for the operation of Regeneration and Urban Requalification.



As an example of the partnership experience in a local, national and international network, we have the case of GABIP – Ex-SAAL and Auto construction which, besides its initial mission – to implement the legalization process of the cooperative neighbourhoods Ex-SAAL and Auto construction, also promotes the territory under the USER European Project – Changes and Conflict in Using Public Space, under the theme of Urban Regeneration of the URBACT II Program, socio-territorial cohesion actions by the public space, a convergent element of good practices.

These actions, that present as operation template the methodological and strategic principles of the BIP/ZIP Charter, explained in the structuring project "Regeneração BIP/ZIP 2020" of the Urban Regeneration axis of Lisbon 2020 Strategic Document and shown in the Governance Plan for the City of Lisbon 2013-2017.

## 2.4 Lisbon's Local Development Strategy

The process of definition of the premises of the model of Co-Local Governance: transparency, participation, partnership and cooperation, part of the process of "development" of the Operation Strategy of Priority Neighbourhoods, supports the constitutions of a Local Development Strategy of Lisbon's Municipality. One of the good examples that is the fact that the municipality was the pioneer in the creation of the "DLBC LISBON NETWORK - Association for the Local Development of Communitarian Base" that includes a network of more than one hundred institutions and entities of the three sectors of the society in an unparalleled partnership for work at the disadvantaged territories of the city. This platform intends to:

- 1) The constitution of an Association "Network for Local Development of a Communitarian Base in Lisbon";
- 2) A model for cooperation and work;
- 3) The guiding lines for a DLBC strategy in the Neighbourhoods and Areas of Priority Intervention in Lisbon.

Following the deliberations of the Founders Assembly of the DLBC Lisbon Network - Association for Local Development of a Communitarian Base in Lisbon, from February 7<sup>th</sup> 2015, through the Installation Committee began the participative process for the definition of the *Strategy of Local Development of a Communitarian Base* of the DLBC Lisbon Network. These sessions have the presentation of the guiding principles of the network, regulatory framework for SLBC applications and the presentation of the BIP/ZIP Strategy of Local Development.

## 3 Final considerations: the participation of citizens in the housing municipal policy

It was, and it still is, an hallmark of the Council for Housing of Lisbon's City Council to develop participative procedures as broad as possible, through formal consultation modalities as well as the effective promotion and the collection of contributions, every time they are necessary to promote public consultations, particularly for the identification of BIP/ZIP Neighbourhoods and for the approval of the Municipal strategy for Housing in Lisbon.

These public consultations, whose reports are available at the website of the Council for Housing and Local Development<sup>20</sup>, had high rates of participation, particularly when compared with the scarce answers gathered in the public consultations promoted by other Municipalities.

For such result has contributed and continues to contribute the fact that the Council for Housing and Local Development has a website where it is placed all information of actions implemented and through which it is possible to participate in public consultations. There is no participation without information and ease of access to that same information.

<sup>20</sup> <http://habitacao.cm-lisboa.pt/index.htm?no=3010001>

However, participation does not exhaust itself with public consultation. To hear the residents concerning the problems of the neighbourhood, to hear those interested about any decision, the adjustment of proposals after hearing those interested, the convocation of Seminars to deepen these subjects with experts, bringing the ruling texts to a language comprehensible by everyone and spreading it through the means available to Lisbon's City Council, are examples that a housing municipal policy only makes sense and is effective if it takes into account the opinion, intervention and creative capacity of all those targeted by that same policy.

Either PLH, as a strategic document, or BIP/ZIP, as an operational action program, are demonstrative examples of the recent change of paradigm of policies for local development by Lisbon's City Council.

We are, as such, in a time of change - from policies thought up-down, based in organizations of hierarchical power, to policies which have to integrate the impulse in the down-up line and to learn to deal with hierarchies, or networks, that today manifest in different forms and that must be articulated with strategic action lines by the Municipality.

The Municipal governance plan, recently voted by the end of 2013, would establish as priorities with the axis "Lisbon Inclusive" the promotion of Social Rights and with the axis "Closer Lisbon" a City more participated and citizen; projecting in a new cycle that goes through conception, planning, implementation, monitoring and evaluation of the cycles of poverty and inequality and the fight against discrimination, focusing on a model of local development based in the participation and co-decision, keeping an action focused in the elimination and prevention of the risk factors, which are in the origin of situations of exclusion and discrimination.

Signs of this change have been the reconversion, in 2014, of the extinct Project Unit of the Local Housing Program (PLH) into the renewed Project Team of the Local Housing and Social Rights Program (PLH+DS), with the purpose of grant continuity to the work done, as well as to answer the challenges of the new cycle of inclusive, sustainable and participated municipal planning policies (Craveiro, 2014) articulating with the set of new tools, such as the Social Development Plan, under revision, integrated with the Social Network of the City of Lisbon<sup>21</sup>, or the Municipal Plan for the Integration of Immigrants in Lisbon, recently approved in July 2015, as well as the change of designation of the Department of Social Development to Department for the Social Rights, or yet the constitution, during the same organizational restructuring of 2015, of the new Department of Local Development in order to guarantee, structured in the Municipal organics, the fulfillment of the municipal policy at the Priority Territories (BIP/ZIP), based in a new Strategy of Local Development.

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# Syncretic design as solution for a new urban identity

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The identity of places is the complex of tangible and intangible factors, which generate that sense of belonging that every human being develops towards the space he lives in. These factors are identified as in cultural values, for instance related to the memory or nostalgia of a place, as in physical and concrete actions related to the direct experience of the space that surrounds us, and the type of relationships that we interweave with it.

Within an increasingly intercultural context as that of the contemporary city, the recognition and shaping of places that can act as catalysts for social integration processes, is of leading importance, if not extremely urgent. The coexistence between different communities within the wefts of the same urban fabric provides, in fact, as many difficult questions as interesting opportunities relating to the living conditions of the "new citizens" and their chance of integration (linguistic, cultural and social) with the urban territory and the rest of the community that inhabits it.

The identity-making character of a place is therefore, an essential factor in the process of mutual understanding between the city and its people. The mixture between the physical and intangible space elements, sometimes even imaginary ones, that the human being projects on it can be crucial in the creation and enhancement of places that could work as symbols of integration and coexistence.

These aspects are inevitably interesting for both the discipline of urban planning and social design. The first one has always focused on the analysis of the territory and the development of solutions able to solve conflicts of spatial order and not only. The design, understood in its role of observer of those social dynamics, if interpreted in the right way can help to define possible future scenarios characterized by an improvement in living conditions for human beings. This methodological scenario includes, moreover, the urban syncretic design whose purpose consists in this case in redefining the urban environment, both at a structural level and a perceptual one, in order to foster a preparation process of the interethnic and intercultural city able to recognize itself as such facilitating inside relations between "old and new citizens."

On the basis of the above, this paper deals with the issue of urban identity in the contemporary city characterized by the presence of immigrants.

Following the analytical reading of the phenomenon and its influence on the concept of identity, it proposes a project of interethnic space to be carried out through urban syncretic design.

**Keywords:** urban identity; multiethnicity; public-spaces; social-design; syncretic design

## 1 Human and urban identity

The notion of urban identity cannot be accounted for by one single definition. It implies such concepts as authenticity, culture, identification, belonging, orientation, safety, character, uniqueness, and so on (Lo Piccolo, 1995). Urban identity may be described as the awareness of living in a place which is specific and cannot be simplified (Casarin, 2002); or alternatively as the experience of arriving in a place which one has never seen before and receiving the sensation of having been there before, because the semantics of the new space seem familiar, recalling something already experienced, even though nothing is identical to what one had ever known.

The urban space is a complex system structured according to the geometrical and morphological relationships, which exist among its elements (buildings, pavements, shop windows, etc.). The users of an urban space react emotively to the formal and functional organization of its components simply by virtue of being and acting in it.

In order to achieve an identity of its own, a child needs to identify with the people who are emotively important, acquiring a subjective identity (Fiorelli, 2007), whereas for a collective identity to form, the members of the group, community or society have to share the same system of values, rules, customs and habits. By analogy, we can say that urban identity exists when it is "part of the

cultural system., the symbolic, normative, instrumental structure, ..., as characterized in time and space" (Di Cristofaro Longo, 1993).

Urban identity is a sense-making system, featuring values and meanings, which may have come into being more or less spontaneously or, on the contrary, were deliberately preordained by the planning of specific features. In both cases, as is true for the child, urban spaces require time to take on an identity, the time necessary for experience and knowledge, without which the sites in a city are not able to arouse true emotions. The passing of an adequate period of time is also the *conditio sine qua non* for the formation of memory and thus for the construction of urban culture, without which there can be no subjective, let alone collective, identity.

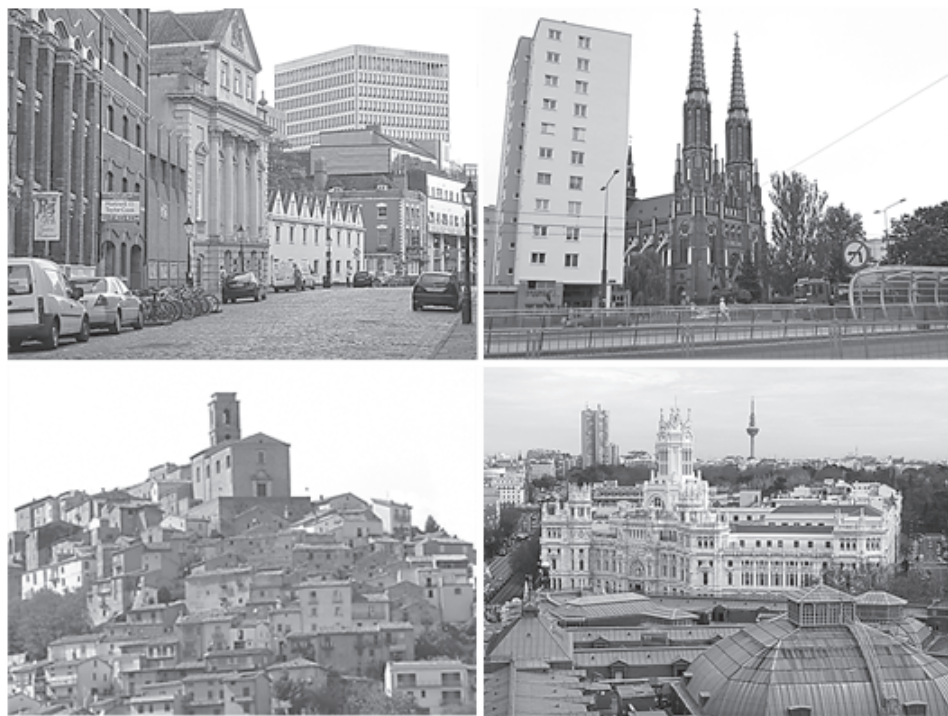
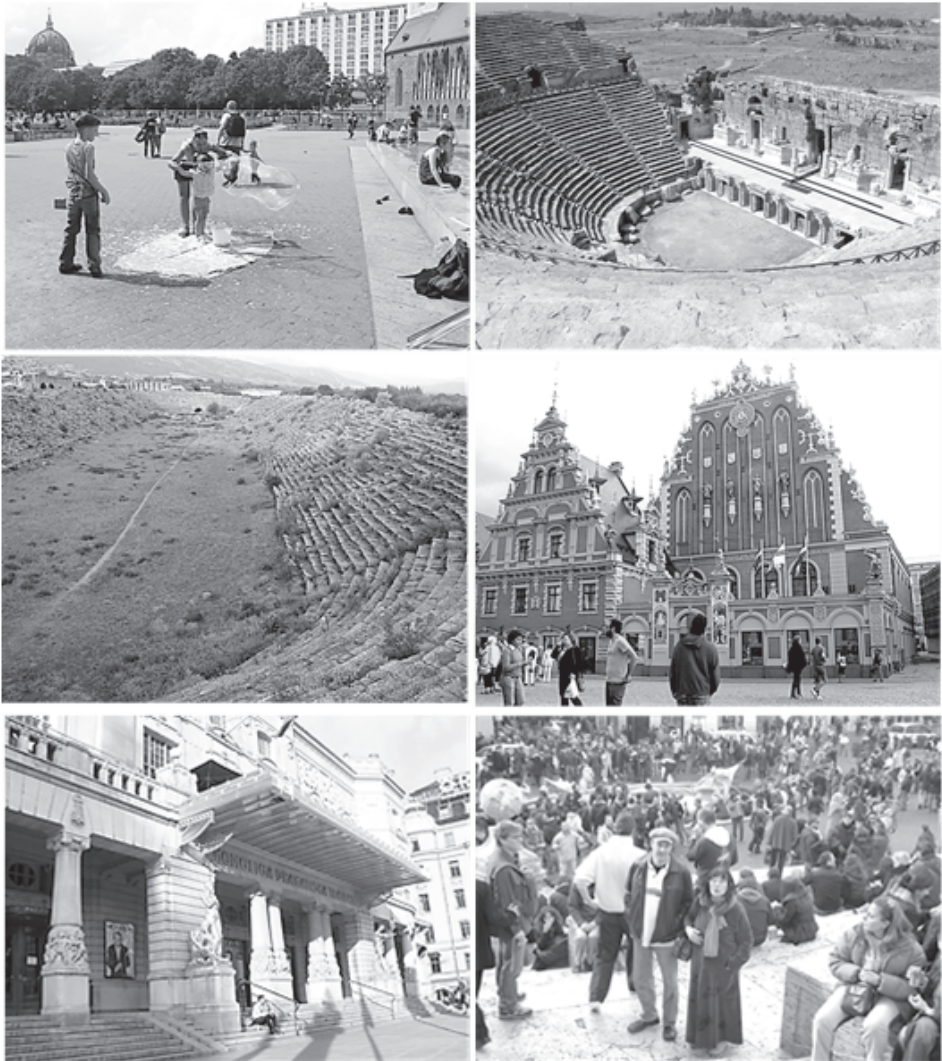


Figure 1. Urban places are the result of a city's history. Urban identity is a sense-making system, featuring values and meanings, which may have come into being more or less spontaneously, or on the contrary, were deliberately preordained by the planning of specific features.

The individual and collective experience which leads to the construction of an urban identity is gained in shared, communal spaces, that is to say in places which are accessible to and frequented by every citizen, promoting socialization: squares, promenades, pavements, streets, parks, markets, and so on. The way in which the public space in cities is animated bestows on it a participative value, meaning a value of the social community to which one feels one belongs, and which is also an urban community. When the community recognizes and recognizes itself in an urban place, most people adopt participative forms of behaviour (Newman, 1996), tending to protect their territory and ensure that it will survive the passage of time, not necessarily unchanged but conserving analogous symbolic and relational meanings. The morphology of the urban public

space, and hence the formation of its identity, also involves those private constructions which give onto it, entering into formal and functional relationships with the system of open spaces and built agglomerations. This means that private initiatives in the spheres of building and urban décor play a role, which may indeed be decisive in the overall composition of structured space. This role does not end once building work has been completed, but persists with the behaviour of private subjects in managing, maintaining and using those parts of their property which are intimately related to the collective space, whether visually or perceptively: façades, gates, gardens and open spaces in general, however these are laid out.



**Figure 2.** The recognizability of public buildings and spaces provokes feelings of belonging to one's own city, while facilitating meetings and social cohesion. The ancient and recent theatres, churches, squares, ecc. are the elements through which different civilizations have found their identity and through they identify themselves in their cities and in their neighborhoods.

The formation of urban identity is grounded in relationships between individuals; the greater the capacity of an urban system to foster such relationships, the greater the potential of urban identity it can engender (Calafati, 2009). Psychological processes never occur in an "environmental vacuum" (Bonnes, Secchiarioli, 1992) but rather within formal and functional relationships able to nurture or repress the vitality of an area, relationships which tend either to close or to augment the gap between an individual's hopes and expectations and the intolerance of the spatial reality in which her or his daily life takes place. At whatever latitude, longitude or altitude, the origins of a city go back to one and the same requisite: the need of human beings to organize a common settlement to ensure the optimal conditions for carrying out the activities envisaged by the social organization they have adopted. Lewis Mumford (1961) points out how Aristotle in *Politica* stated that "Men gather together in the city to live; they remain there in order to live the good life". Living together in one place increases communication and exchanges between individuals in the group; the increase in social relationships brings about the conditions for a greater creativity. Such innovatory creativity gives rise to new inventions, which nurture new activities and new ways of implementing them; while the various activities introduced require a modification of the pre-existing organization in terms of settlement which, by means of the same process, generates a different social and urban conception of space. In spite of the fact that settlements are a product of human activity rather than of nature, it is possible to observe evolutionary processes in their organization, which they share with biological organisms, undergoing mutations that may be analogical or homological.

Evolution by analogy implies that, from a common origin, structures develop in an independent fashion, maintaining the same function but changing their form. Starting out from the same origins, the wings of a bird and a butterfly have kept the same ability to fly but have taken on different shapes. A similar process has accompanied the evolution of places deputed for commerce: the market in the tribal village, the corn exchange in medieval times, the department store, supermarket and shopping mall have all maintained the function of selling goods, while over the centuries their form and dimensions have clearly undergone transformations.

Evolution by homology, on the other hand, involves keeping the same form and modifying the function; the wings of a bird and the flippers of a seal have kept the same shape. Although both enable mobility, the former are used for flying while the latter enable the seal to swim, walk and keep its balance. The same can be said of the evolution of the urban grid layout. For the Etruscans an orthogonal groundplan reproduced the meaning of cosmic order; for the Greeks it gave concrete form to the urban configuration of democracy; while for city builders in North America the gridiron constituted a rational choice when it came to exploiting the terrain to the utmost.

### 1.1 Ancient Urban Identity

Originally the organization of settlements was significantly conditioned by the natural morphology of the site, by factors of climate, by the materials available and by the construction techniques then known to man. As is well known, the ancestral organism of urban civilization originated in the first villages, made possible by the invention of agriculture. It must however be remembered that even

when humans had learn how to grow crops, many peoples continued to be nomadic, basing their subsistence on grazing and breeding livestock.

While the sedentary agricultural communities constructed permanent villages, nomadic tribes fashioned temporary settlements; in their modes of organization they did not differ much, whereas the building materials and techniques used were very different. Nomads' encampments were made out of materials that had to be long-lasting but easy to take down, transport and reassemble; according to the resources available in different places, dwellings and other shelters were tents in various shapes and sizes made out of matting, animal skins or woven sheep's wool (Faegre, 1979).

In spite of their provisory nature, the camps of nomadic populations display an organizational layout, which is typical of cities. The fact that this layout was reproduced identically each time they moved on set up relationships of reciprocity between tribes involving customs and habits and the spatial dimension of daily life, giving rise to a feeling of identification and an identity of place for the community in question. The recurrent elements in the camps of North American Indians or nomadic peoples in Africa and Asia can be summed up as: the hearth, a place for prayer, animals' quarters, space for conviviality and dancing and the dwelling of the sage or chief with its symbolic location. The disposition, dimensions and forms of the individual elements and of the encampment as a whole go to form a recognizable attribute of the tribe which inhabits it; it continues to be identifiable even when the site has been abandoned, since some marks of occupation are bound to remain, notably the hearth, boundary markers, ditches, and so on.

The elements and organization of the villages of sedentary growers were not that different from those of the migrant herdsmen, just as they do not differ greatly from those of tribes which practice nomadism still today, or the tribal villages which still survive in some parts of Africa, Oceania and Asia.

The abiding feature bequeathed to us by the Mesopotamian, Egyptian and Mycenaean civilizations, designated respectively as monumental, hydraulic and great river cultures, comprises not a city of men but rather a proto-city in the service of the gods and the dead (Mumford, 1961). The necropolis is the first form of human settlement, the place of burial for the forebears of both hunter and gatherer peoples, where their descendants would return periodically to honour them. Spirituality and the cult of the dead, in the different forms this took on down the ages in the various cultures, would continue to play an important role in the organization of cities and the formation of the identities, which they took on in the different periods of social history (Mumford, 1961). The periodization of urban history helps to clarify the significance of urban identity and above all of what left its mark on the collective imagination.

The *polis* was the first form of settlement in which the features of the modern city are clearly visible: it could be identified on account of the acropolis and the agorà, featuring buildings serving the various urban functions which could certainly not be mistaken for the buildings to be found on the forum in the Roman *civitas*.

Irrespective of the specific degree of general or specialist culture, when one thinks of a medieval city the image that immediately comes to mind is that of a piazza, lined with the façade of a church with its bell tower and also that of an "elegant" palazzo surmounted by a civic tower. From

the piazza short narrow alleyways lead off, sometimes consisting in steps, which go to make up an urban pattern which is apparently haphazard. Then perhaps one recalls that the Middle Ages were also rich in castles, monasteries and cathedrals, but this time the images that spring to mind are no longer those of cities proper but rather of a stronghold with a few houses clustered round it, an enormous monastery, and the spacious cloisters and imposing façades of Christianity in all its aspects.

The order, proportions, symmetry and harmony of streets and architectonic prospects are commonly associated with the urban developments of the Italian Renaissance. Ample straight thoroughfares, large theatrical squares and a royal palace of imposing size and magnificence dominate the whole city and accompany us into the capitals of European Baroque.

After which it is factory chimneys, narrow streets resembling rivulets of putrid water with tenement blocks crammed up against each other on either side, with an old city and a new, the sense of a previous order overrun by current chaos, a new economy symbolized by a magnificent stock exchange, the monumental façades of railway stations and the insignificant entrances to the underground system, tram lines, bus shelters, and so on all go to make up the mental and urban image of the "industrial city". In the ensuing decades further new elements came to characterize European cities, which have gone on changing incessantly: buildings increasing in height until we are confronted by skyscrapers and by the imposing façades of supermarkets and cinemas, traffic in the city requiring traffic lights, central reservations and slip-roads, while night life thrives in cities lit up by street lamps and neon commercial advertisements, etc.

This long string of clichés highlights the marks of urban identity, which stamped themselves on the history of the European city up to the mid-20th century. They are clichés because they have become part of popular awareness; whether they correspond to reality or, on the contrary, are totally at odds with scientific observation, they have been assimilated by the collective imagination and play a key role in the affirmation of a sense of social and urban identity. In any case, there is no doubt that (as has always been the case, and will continue to be) the urban structure and aesthetic are the more or less explicit representation of the dominant power and hence of the system of socioeconomic relationships. Clearly the final outcome depends both on artistic intuition and on the availability of energy, techniques and technologies through the various periods of history.

Even though the different phases in urban periodization can be identified by means of the common characteristics visible in building types and layout, cities were nonetheless distinguishable and manifested an identity of their own both when observed from afar and from the inside.

The prosperous centres of Corinth (Greece) and Miletus (Turkey) were similar and yet different in both Greek and Roman times (Mumford, 1961). Then Hierapolis (Turkey), with its majestic theatre, and Aphrodisias (Turkey), with a no less impressive circus, were located not far from each other, but in spite of the indispensable functional features and standard architectonic types, no traveller in the 2nd century BC could have mistaken the one for the other (Barresi, 2003). And again, although Tomis (Romania) and Pompeii (Italy) were a long way apart, they nonetheless exhibited similarities in their diversity (Mac Kendrick, 2000).

Recognizable identities were also formed in the period following the fall of the Roman Empire in the West, when the loss of temporal security and the quest for a divine counterpart led into what scholars refer to as a period of urban contraction or implosion. Among the many possible examples, early medieval Arles (France) and Mainz (Germany) show how from the same ancestral urban organism homologous structures developed which cannot be superimposed in terms of either dimensions or semiotics: in Arles the Roman amphitheatre became a city in its own right, while in Mainz it was the walls of the ancient city which were rebuilt and developed.

After the year 1000, urban culture began to flourish once again both in cities which were centres of commercial exchange and in those characterized by the power of the Church, as well as in cities which combined both functions. Among the latter we can mention the urban identity of Chartres (France), distinguished both by its majestic cathedral and by the spacious squares where merchants coming from far and wide displayed and sold their wares. Even "citadels" which were specifically monastic foundations, and honoured all the conditions, including those regarding form, imposed by their respective religious orders, constitute a series of unique realizations. Which pilgrim, wayfarer or merchant could have mistaken the abbey of Cîteaux in France for that of Melk in Austria or San Nicolò on Lake Como?

The features which bestow an identity on Venice, Florence, Rome or Milan, whose courts saw the blossoming of Italian humanism and where the leading artists and architects of the age vied for supremacy, are so patent as not to require any illustration. But throughout Europe cities were being transformed on the basis of the stratifications of their past existence. While respecting common rules and an ever more prevalent aesthetic imprint, each city retained specifics of its own which point up the importance of local factors. In London extensive use was still made of timber, in Paris planners constructed a second circuit of city walls, and Lisbon adopted the characteristic Manueline style, highlighting the city's key role in maritime commerce towards the end of the 15th century.

When the Baroque aesthetic came into vogue and carriages had become a comfortable means of transport, the cities of Europe, and above all the capitals of the various kingdoms, introduced further modifications in the architectonic and urban panorama (Petrella, 1992). Once again the urban phenomenon, for all its common ground, gave rise to many different urban settings, as variations on the common theme: symmetrical squares featuring the statue of the monarch in Paris or an Egyptian obelisk in Rome; in London, following the Great Fire which destroyed most of the city in the mid 17th century, building changed to brick, and the city expanded and took on a new physiognomy with façades and porticos.

## **1.2 Urban Anonymousness and industrial society**

From an economy based on commerce the emphasis moved to industry, and cities began to expand on a scale and with a rapidity unlike anything that had been seen over the preceding millennia of urban history, undergoing a transformation from mercantile-aristocratic to bourgeois-capitalist (Aymanino, 1993). The premium on power and profit drove the expansion of the "industrial cities" which, thanks to the innovation of reinforced concrete, introduced the concept of standardization in construction work and in the morphology of new urbanization.

The differing degree of industrial and economic development characterizing nations made for a time lapse of as much as several decades between one region of Europe and another in urban expansion. Cities began to resemble one another, above all in the new residential quarters, which paved the way for what was to become the uniform and conformist phenomenon of the suburbs.

The rapid expansion fostered the separation of the historic city centre from the new periphery; the combination of speed of development and speculation left no room for concern with identity in the new urban realities. Unlike the situation in the democratic *polis*, during the Roman Empire, and under the authority of the church, princedoms, feudal lords and absolute monarchies, the new economic power of the construction firms had no reason to invest in self-representation, and even less interest in representing the social community. They had no need to seek consensus, being exclusively concerned with maximizing the profit to be extracted from land exploitation.

In the first part of the 20th century, when the process of industrialization was well advanced, not only were residential quarters for the working class put up on a large scale but also the architectural projects carried out in the existing cities were mostly sponsored by city councils and large economic and financial corporations. Even when buildings were put up to provide public services (stations, schools, post offices, banks, etc.), the new architecture sought to represent the bodies, which had commissioned them, while of course fulfilling the functions required. Urban transformation in the first half of the 20th century responded to a process, which can in part, and without an excessive stretch of the imagination, be likened to what occurred in the mutation of the Renaissance city. In that era there was no recourse to generic urban blueprints it was a matter of inserting small fragments into the existing city<sup>1</sup>, in an amalgam and juxtaposition of ancient and modern (Mumford, 1961). Further similarities between these two periods of urban development, separated by five centuries, can be identified: notably in the activity of planners who combined engineering and architecture and who elaborated both new architectonic theories and treatises of urban planning which, by interpreting the new urban civilization, came up with models and methodologies for problem solving<sup>2</sup>. And lastly, albeit on a very different scale, even the recourse to the creation of new cities was one further point in common between the Renaissance and the requisites of advanced industrialization<sup>3</sup>.

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<sup>1</sup> Except for Pienza in Tuscany, where interventions were based on a detailed urban plan, in the Renaissance urban blueprints were not produced, while this has become very common in 20th century Europe, not least because countries passed national laws concerning urban development (the first to do so were Sweden, Great Britain, Morocco and France). There have been any number of fragments of new architecture and many designers who have inserted segments of modern construction into classic contexts in historic city centres. Since it is impossible to cite all the protagonists and their work here, we refer to two books which provide a comprehensive survey: Ragon (1972) and Crippa, Gavitelli & Loik (1993).

<sup>2</sup> Among the best known essays: *La beauté rationnelle*, Paul Souriau (1904), *Der neun Stil*, Henry Van de Velde (1907), *Vers une architecture*, Le Corbusier (1923), *Space, time and architecture*, S. Giedion (1941). In addition to specialized journals, we can recall the following essays: *City development* (1904) and *Cities in evolution* (1915), P. Geddes, *Town planning in practice*, R. Unwin (1909), *Neighborhood and Community Planning*, C. Perry (1923), *Urbanisme*, Le Corbusier (1925), *Qu'est-ce que l'urbanisme?*, P. Lavedan (1926), *Grosstadtarchitektur*, L. Hilberseimer (1927), *Introduction a l'urbanisme*, M. Poete (1929), *Socgorod-Socialisticheskij gorod*, N. Miljutin (1930), *La Carta di Atene*, Ciam (1933-1941), *La ville radieuse*, Le Corbusier (1935), *The culture of cities*, L. Mumford (1937), *Problèmes d'urbanisme*, G. Bardet (1941).

<sup>3</sup> As well as the numerous residential quarters related to new cities, we can recall the creation of: garden cities (Letchworth, 1903; Hellerau, 1909), frontier and development cities (Murmansk, 1915; Gdynia, 1921, Magnitogorsk, 1939), agricultural and mining cities under Italian Fascism (Arborea 1928, Littoria 1932, Sabaudia 1934, Carbonia 1938, etc.).

### 1.3 Urban homologation and globalization society

In the second half of the 20th century the process by which the urban boundaries became lost to view spread throughout all the cities on the continent of Europe. Commercial and leisure activities, which had traditionally been carried out in the city centres, moved out into external areas reached by major highways where it was possible to erect vast buildings and enormous car parks. This construction work beyond the city limits was in the hands of large commercial multinationals, cinema chains and entertainment consortia focusing above all on discotheques and fun fairs, whether generic or themed<sup>4</sup>.

As well as the additional and catastrophic exploitation of land, the new peripheries have compromised the anthropological values of the historical city centres, which have become less authentic and risk losing their specific identity altogether. There are numerous factors which have contributed to this state of affairs, most of them directly linked to the effects of economic and cultural globalization, enhancing that “*surmodernité*” which finds expression in the excess of space, of consumption, of time and of the ego (Augé, 1992).

Already in previous decades the historical centres of European cities had lost a large part of their craft workshops and small retail shops. The former had been forced to close down (on account of their lack of competitiveness with industrial production) or move out (because of legislation on urban cleanliness) while small shops, already threatened by the appearance of the first large stores<sup>5</sup> and urban supermarkets, were definitively smothered by the opening of extra-urban hypermarkets. It must be emphasized what a significant role was played by the first supermarkets in the structural change that came over urban identity wherever they opened, all too often in the very heart of the historical city centre<sup>6</sup>. Their relationship with the city only concerns the façade (often the work of a leading architect) and their window displays, designed to attract customers through the doors. Once inside, however, any mediation with the urban context is carefully neutralized, since the interior of the stores is organized so as to prevent any glimpse of the world outside.

The large industrial and commercial corporations which began to strip away the original anthropological identity of the historical centres are also the ones that are responsible for the current process of anonymous and uniform urbanization. By the spread of franchising, the all-powerful brands (above all in clothing and catering) tend to homogenize urban realities, which had been structured by means of their peculiar history, taking on a unique character, which set them apart from other realities. Often with the complicity of local administrations (using the pretext of lack of funds) and designers who indulge in a sort of “*trahison des clercs*” (Benda, 1927), the schemes

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<sup>4</sup> The first European shopping mall opened in the suburbs of Paris at the end of the 1960s. The first multiplex cinemas situated on the outskirts of cities opened in Canada and the USA in the sixties, and the first one in Europe near Brussels in Belgium at the end of the eighties. Ten years later Kinopolis, near Madrid, was the largest multisala in the world (25 cinemas catering for 9000 spectators). The first large “modern” amusement park was created by Disney in 1955; in Europe the first funfare was the Prater in Vienna, which featured permanent merry-go-rounds in the mid-19th century; followed within a few decades by Coney Island, New York.

<sup>5</sup> Magasins de Nouveautés and Le Bon Marché were the first department stores to open in France in the mid-19th century while the first ever supermarket (King Kullen) was built in the USA in 1930; the spread of the supermarket chains took off in Europe following the Second World War.

<sup>6</sup> One example is the *Rinascente* in Milan, which opened in *Piazza del Duomo* at the beginning of the 20th century, when it was called “*Alle città d'Italia*”; in 1950 the façade was restructured by F. Reggiori

for rehabilitating historical urban sites in European (and also extra-European) cities take no account whatever of context and apply standardized models which employ the same modalities everywhere (such as pedestrianization realized with the same organizational structures and elements of urban décor) so that these places serve as mere consumer traps, generally aimed at the younger generation. The business plans of brands which tend to homogenize urban identities do not stop at franchising but also involve sponsoring other leisure activities which become similarly subject to mass standardization (the project “Heineken music club” is one of the most emblematic examples).

The lack of any relationship with context makes for a disconcerting similarity in the image, use and perception of urban places, which may be very distant geographically and culturally. I often find myself recalling the sensations I received while strolling through the little streets surrounding the ferry terminals in Thessaloniki (Greece), Cape Town (South Africa) and Kusadasi (Turkey), but also as I meandered through streets and squares invaded by tables, awnings and paraphernalia which even when they do not obstruct one’s passage undoubtedly detract from an appreciation of the majestic façades of the buildings. Who has not felt such a discomfort while walking in Piazza San Marco (Venice) or Piazza Navona (Rome), but also in the much smaller but no less significant concourses of Place de l’Abbaye in Cluny or Piazza Pio II in Pienza, or so many other squares and streets in our historical city centres?

The operations of standardized rehabilitation cause the same discomfort one feels in observing the faces and bodies of people homogenized by plastic surgery. The same metaphor can be used also for many of the recent interventions of the so-called “archistars”. Without giving any thought to the context in which they are operating, they pursue an architectonic “eye catcher”, producing a statement which merely mirrors their own ego rather than exalting the identity of the place in question. In this case the discomfort can be compared to what one feels when confronted by a face where one senses something is wrong and, on closer observation, you realize that you are looking at a perfect nose, which is at odds with the rest of the face. In the same way the architect, or plastic surgeon, has been determined to create a “fine nose” without bothering to match it to the rest of the façade.

Just as human faces and bodies treated in this fashion lose all trace of the original personality and authenticity of their features without attaining a new one, so the urban sites risk losing once and for all their original identity without managing to transmute it. The new identity may indeed be innovatory, but should in any case enable us to orient and identify ourselves making us feel safe and at ease, in places we recognize because we understand them.

## **2 The design proposal**

Plural cities are the result of human migrations and of different ways of living and using urban space. History of plural cities is full of marks left by groups and communities from different backgrounds that have inhabited it. In reference to Italy, for example, you can think of Palermo, or of other cities sharing the same Arabian origins, of Venice where many communities have operated, or of Florence, where – as the chronicles say - four languages were spoken in local markets. In Florence, the most representative monument of the city, the Baptistery, is full of

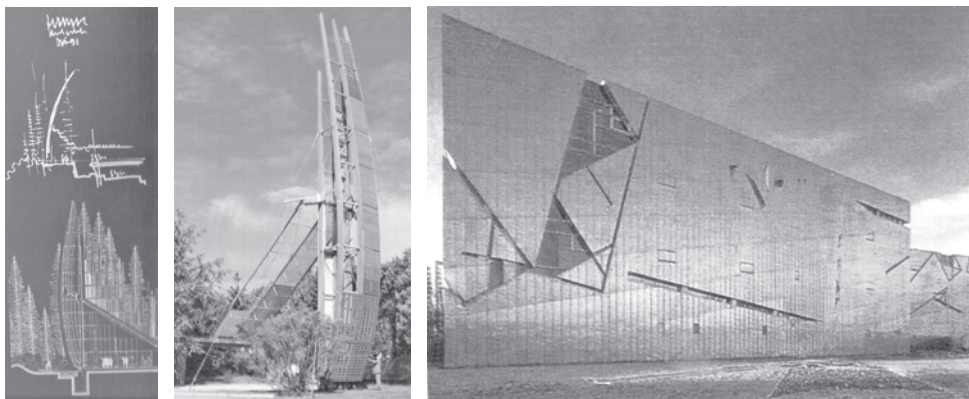
ornamental motifs arising from the Arab culture and the basilica of San Miniato that was built by the community of Florentines Armenians. Similar reliefs are also valid for many other Italian cities, in particular the seaside ones, since ports were the privileged doors of trade that favored cultural exchanges until the beginning of the last century. Although immigrations have been displayed several times over the European scene, it seems now that they have occurred for the first time and that the space of the city – historically the land of exchange and integration – is more often the ground of exclusion and conflict. Facing with a public discourse on immigration that in Italy is obsessively dominated by the fear of invasion and security (or, at best, from the consideration of immigrants as just an economic resource), it is important to look towards the concrete contexts of departure and arrival of those new people that populate Europe. Getting the point of this dimension of the phenomena is important for understanding the new demand of space proposed by the multicultural urban society: the market space for the Senegalese and Moroccan pitchman, the nomadic space, the community and closed space of *Chinatowns* and so on.

There are several European project experiences for the multiethnic living: the French policy of assimilation (which in terms of housing has resulted in the choice of the *mixité* within the *logement sociaux* in the suburbs), the strong territorial characterization of the English "ethnic" districts, the model of "mutual integration" of Sweden (where the Integration Office of Stockholm City allocates for just three years 200 million to the five major Swedish cities for integration programs). This should make us think about the different approach to the migration phenomenon and the various management solutions of the interethnic city. It needs to be underlined that migrants bring a project (such as that of the Greek settlers that came from a nostalgic desire of the mother country and from which arose a *nea-polis*) that undergoes an evolution, determined by its gradual integration and establishing within the reception reality but also by its gradual marginalization till the exclusion. The change of outlook to the future brings back the migrants to the precariousness of the first project, defined in their own land; more a wish than a project, since it did not take into account the actual conditions in which it would then be carried out and, above all, the dynamics of identity that the migration route would have entailed. The situation of illegality – which marks part of the migration phenomenon – confirms how immigrants are able to survive even in situations of *invisibility*, thanks to the presence of a strong informal sector that is also based on the work of foreign stowaways, ready to accept any kind of work and any condition of living. This section aims to highlight the existence of a multifaceted city, invisible to the distracted ones, that every day interacts with the mainstream one; it is an informal city, made of perceptions and formal unconscious experiences, which offers a wealth of urban elements capable of structuring the environment in multiethnic and peaceful ways.

Through the contribution of people and immigrant groups in our area, we build a mosaic of urban signs, which highlights the proximity of cultures rather than "the narcissism of the tiniest difference" recognized by Mondher Kilani (Kilani, 2003). In this way, by approaching rather than separating, you exceed the "clash" of civilizations, which leads to the fragmentation of the world in a myriad of separate islands, to arrive at "a critical universalism" that supports an open view of history, in which "coexistence and *métissage* between cultures are the rule" (Kilani, 2003). Roberto Camagni (Camagni, 2005) describes a *mixité* of the city, referring to the diversity and the functional

multiplicity that some European cities consider to be a value to defend and pursue within urban projects. Camagni also considers the need to find a soul, an "integral identity" of the territories, to prevent desertification and extinction, what happened in many inland areas of southern Italy or Spain; "Europe's major cities should aspire to become collective actors to be competitive and to propose alternative models to the market, which tends to disintegration" (Camagni, 2005). For this purpose, the city offers a cultural variety and heterogeneity that is a great resource, it takes the shape of an expanded identity able to realize an ex-ante coordination for innovation, projects and competitiveness; therefore, the interventions of urban design for new public spaces must implement synergies aimed at increasing the confidence and security of citizens through the physical space too. According to Donatella Mazzoleni (Mazzoleni, Simeone, 2002) there are two operating modes to foster dialogue between cultures through the design of public and multicultural spaces that, in some way, constitute a planning offer to the demand of public interethnic spaces.

The first one is about the mixture of established linguistic traditions and, for example, we can refer to the work of Renzo Piano in New Caledonia that represents an object of urban design that has become a new environment symbol. In the cultural center of New Caledonia, Renzo Piano interprets the local tradition through the combined use of traditional materials and modern techniques, offering to visitors a different way of enjoying a museum space. The intent is to combine several fragments (Renzo Piano implements an interpretation "camouflage" of natural and artificial elements: the columnar pines and the typical local buildings) in an image which refers to the traditional roots of the place but that also expresses the interference of different cultures; the ten pavilions take the form of large shields and at the same time suggest to the roofs of huts that stand out among the vegetation and refer in some way to the columnar pines, typical of the local vegetation.



**Figure 3.** Left: R.Piano, Cultural centre in New Caledonia ; right: D.Libeskind, Museum of Jewish Art, Berlin.

The second mode is the deconstruction of Western language; this method emphasizes the fragmentation rather than continuity, the contamination against the uniformity, there is no clear rule of composition but a precise invitation to participate in the flow of change. The Museum of Jewish Art of Daniel Libeskind in Berlin is representative of this type of approach.

At the base of the design proposal there is the philosophy thought of Jacques Derrida (Deriddà, 1986; Deriddà, 2000); the philosopher through a critical analysis of contemporary architecture reports of the impossibility of creating a universal language, and calls for the deconstruction of the too self-referential "Western" language.

It is expected that both mingling and deconstruction can come together in what is called the urban syncretic design for public inter-ethnic spaces.

An exemplifying case study of design interpretation of the local culture, using a method similar to the "*commingling and deconstruction*" of figurative/representative language, is the project of Francesco Rocco, compared with that of Domique Perrault, elaborated for the same place; that comparison is useful to exemplify a possible methodology for urban interethnic cross-scale design.



Figure 4. Ruocco F.: Redevelopment of Piazza Garibaldi in Naples.

The project refers to the local culture, strongly syncretic as a result of past and recent contamination that cannot be represented with a unique language. Piazza Garibaldi is a "market town" where different ethnic groups find their own space. The project, relying on the theme of the fair, brings together different elements of urban design, articulating a space that is polysemic, playful and able to involve men and women who "mark" their own space. References are sought in the folk tradition, among the emergencies of urban and natural landscape, but also in the habitual actions of an immigrant in Naples (peddling, consuming food quickly, resting near a fresh fountain). The design intent is to establish a real communication with different cultures through a simple language like that popular one; to the foreign citizen is offered the opportunity of participating in a folk festival interacting with a series of urban objects that elaborate multiple images of Campania village festivals.

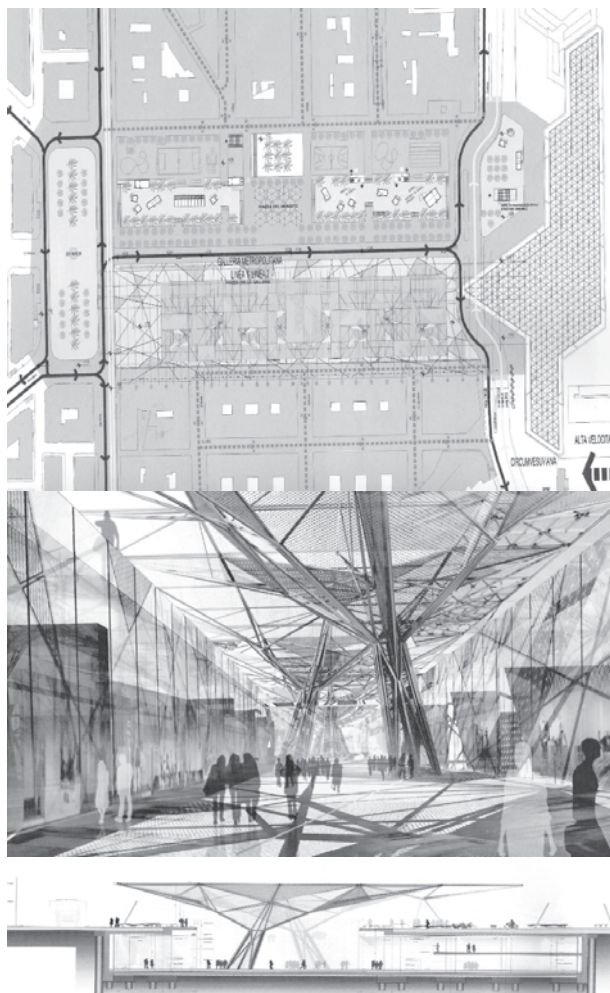


Figure 5. Perrault D., Redevelopment of Piazza Garibaldi in Naples.

The project of Dominique Perrault, characterized by an original, but unique, language, constitutes an element of urban renewal in a neighborhood where there are five stations, a true gateway to the city. It is divided into two areas, one underground and the other at street level; these are two large squares organized as follows: the basement level includes a shopping plaza, covered by a large canopy, 16 meters high, which becomes a pergola along the length of the hypogean square. The street level provides: a market square, gardens, playgrounds and rest areas. It is a great intervention of urban design that considers the use of "light" and transparent materials that can really mix with the structures of the already existing central station.

It is believed that the cultured intervention of Dominique Perrault may result as a "forced acculturation" against many and varied users of public space; therefore, it is believed that some participatory processes should be implemented through urban art, useful to the creative process of urban interethnic design, to assist the process of *territorialisation* and identification with the space. The new image of the square should become a semantic/collective identity expertise for the people who daily live the square.

The difference between the French architect's project and that of the Neapolitan one is in the opposite design approach. The first one has the intent of a dialogue between different cultures through interactive elements and a poetics of the game; the second, instead, "neutralizes" or qualifies the environment with highly innovative technological materials, the French architect proposes a contemporary public space, new for all, meaning to overcome the differences of expression inherent in a complex and heterogeneous "collective body", interethnic.

In conclusion, targeting the design of a public interethnic space, it is believed that the Perrault's project can be enriched with some elements, signs, objects of urban interethnic design, that are present in the project of Ruocco. The elements of urban design, conceived and designed from the rites, by the collective actions of the folk festival, representing urban symbols on which it is possible to insert new values and meanings in order to give rise to urban syncretisms' of third cultures.

### 3 Syncretic Urban Design<sup>7</sup>

We call syncretic urban design the subject of the methodological proposal. It intends to prefigure public and common polycultural spaces avoiding the creation of ethnocentric spatial formalizations. Therefore the syncretic urban design (s.u.d.) consists of a methodological approach to the urban form question and the urban environment related to the design of the interethnic city. The urban structure is seen as the final product of a process strongly wanted by a complex society made of codes and representations which need to be continuously reinterpreted, to respond to the various models of behavior, values, interests, ambitions, beliefs and myths; the quality of the urban structure is the result of the individual lives and the shared evaluations, a delicate balance between physical structure (historical stratification) and aesthetic evaluation (perception, sentimental values, emotions, fruition).

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<sup>7</sup> The project proposal has been prepared with the Architect Ciro Tufano as part of the doctoral thesis in Industrial Design Environmental Urban - 19th cycle - Faculty of Architecture, SUN.

Through the structural elements interrelation (coverings, banners, benches, enclosures, flooring, lightning etc.), their distribution in the space and the ways these elements facilitate or not the mutual interrelations, the syncretic urban design puts together interethnic spatial locations, facilitates the associative purpose and the processes of self-recovery and recognize the potential of the ongoing experiences of spontaneity. By aiming to facilitate the assimilation in the places and non-places of the contemporary city, the s.u.d. can recover the fantastic dimension of the city, recognized in the Italo Calvino's invisible cities, through a process of preparation of the interethnic urban interior by suggesting new interpretations and ways of using the spaces of the interethnic city, by giving new meanings also through the use of irony. The s.u.d. can get to a remarkable level of experimentation and stylistic freedom trying to easily interpret the interethnic public space question; it can work by referring to elements that connect parts and by composing a story through the buildings; it can induce the space to compare itself to the senses, by acting on the dark and the light, on colors and depth, by revealing unconscious and accidental relations that people and communities have with the surrounding environment. For this purpose, it will be extremely heterogeneous and cross-scale based, by benefiting from the contribution of different disciplines, meeting various planning and conceptual ranges. The urban design for the open public spaces can be disjunction or conjugation, can separate or connect through intrinsic logics of the central or peripheral spaces. The syncretic design through the process of preparation (preparation not include the construction of new objects, volumes, but the introduction of new points of view privileged, which guide the vision and perception of space; it is a sort of filter that does not change things but urges and transforms the perceptual mechanisms) may not change things but can change our perceptive mechanisms, prefiguring new urban spaces ready to receive new cultures and express expanded identities.

### 3.1 The methodological proposal

The intervention method suggests some *planning attitudes* supported by an abacus of elements of urban design and realizes an experimental exemplification on the Vesuvius area of Ottaviano, Naples.

Syncretic urban design method for the interethnic, polycultural, sustainable public spaces

Purpose: *quality and functionality of the syncretic and cross-scale public spaces;*

Instruments: *syncretic urban design;*

Results: *Curiosity*, towards new shapes and new objects

*Spontaneous self-appropriation* of the public and common space

*Identification*, common identification in the space

*Cure*, right adjustment of the space

*Awareness* of the public good

*Innovation* of the process and the product

Preface urban design and self-appropriation of the space

The research, focusing on the tool of urban syncretic design, wishes to assume the prevision and upgrading of public collective multicultural spaces avoiding physical/spatial ethnocentric formalizations. In this regard, i.e. in the design practice of multicultural spaces, there is

the risk of stereotyping, in "prefabricated prototypes"; those that are envisaged, however, are symbolic places open (this term indicates the propensity, openness to change and transformation) and collective (squares, streets, subways, markets, etc.), where are readable the contributions of "old" and "new" citizens. In these places, we should tend to favor the process of identification, ownership and *territorialisation*, giving life to those urban syncretisms' ("A process that recombines the differences and takes as its wealth in their unusual assemblage", Abbagnano, 1993), to cultural contaminations and *metissage* of urban third cultures. To this end, it is assumed, as the space operating sector to prefigure, identified in the public interethnic space, an "elastic" equipped space, a space for a sedentary lifestyle, but also a place where the transition and the circulation of vehicles and people take place smoothly.

For the drafting of a methodology of intervention, the research refers to: the analysis and study of the European programs, to the theoretical apparatus of the first and second part of the research, finally, to the learning points of the methodological references. The comparison suggests the need to provide and configure the processes of self-management of the space (internal and external) that users (and immigrants) operate in an attempt to differentiate it. Such attention will avoid the forced acculturation by the designers and the institutions, thus favoring the needs of both cognitive orientation and affective spatial identification. The processes of modeling the space of life for the human species are fundamental, radical in the sense of incorporation of roots (Leroi-Gourhan, 1977). The urban design, therefore, is intended as design strategy that must interpret the sensitive space, must be a brokerage between clients (both public and private), products and users, promoting a widespread quality through a "systemic" attitude.

A design scope may be to achieve an aesthetic quality understandable for people who aspire to live in comfortable, functional and beautiful spaces through the versatility, the multi-functionality and the polysemy of human acting, overcoming the tendency to equate in a timely and univocal way a space and an action.

The elements/objects of urban syncretic design must, therefore, be "polysemic" and "multi-functional", capable of responding to the needs and demands of different communities, generating the *metissage*. The variability of urban design objects, the metamorphic identity obtained through hybrid configurations (removable, semi-closed, semi-open, mobile, repeatable, homebuilt, ephemeral, etc.), the attempt of a sensorial recovery of the space, (through the increase of green spaces), stimulate, tell and suggest uses and solutions that never impose terms or behaviors and that evoke a playful everyday life which mediates between a cultured space and a popular one.

The methodological proposal refers to the concept of creativity, understood as the ability to introduce a break within the current and homologated thinking, leading to new and functional solutions, able to generate value (La Bella, 2005); it comes to trigger a process of creative participation for the transformation of the city, more and more interethnic, that urban design can interpret.

Such as *land art* tried to interpret "the new landscape" as the urban syncretic design can try giving the figurative to the "new space" through cross-scale and "magic" objects that help compose the knowledge of the city and landscape intercultural. The objects, thus designed, are

elements of affection that can give identity and security to people – who daily pass through places – and so the objects become important for their symbolic meaning and for their functional purpose.

In response to the current process of urban and territorial transformation, characterized by the dispersion in the territory of the individuals with the resulting social disruption, communities (indigenous and immigrant) tend to congregate in neighborhoods well characterized, distinct from the level of affordability, favoring, in this way, the process of self-ghettoization, a spatial symbolic phenomenon that is dangerously illusory and with which, apparently, immigrants are defending their cultural presence from the threat of disintegration; this form of urban aggregation can not match the physical/spatial condition concerning the maintenance of the cultural identity of a community but, at most, a temporary and transient condition, in view of a new and syncretic urban transformation.

These places of forced aggregation are strongly characterized by an "inner part" and an "outer part", distinguished from other urban places through specific elements attributable to urban design:

- Elements that determine a closure with the outside: walls, fences, gates,
- Elements that characterize the interior: flooring, walkways, paths roads, lighting and urban facilities.

Therefore, after eliminating physical and conceptual obstacles of the space/ghetto it is possible to begin reflecting on the elements that foster social/spatial interaction.

In the list below, you can find some design themes (space/function) of urban syncretic design, which enable projects of urban transformation in a multicultural and sustainable key:

- the edge, defined as a catalyst of events where different cultures project needs of identity;
- the border, considered as redefinable limit that always determines new spaces, in opposition to the concept of barrier;
- the door, the gate, by which is meant to overcome the conceptual limit between inside and outside and, at the same time, point out and emphasize the psychological and emotional condition of passing between two different spaces. These themes are associated by the fence (another urban object to re-semanticise) that always remarks the interactive role between those who are "inside" and "outside";
- the path, as a metaphor of knowledge, complexity and opportunities of choice, reinterpreting the static / professional space in a dynamic space of the narration, in which the vacuum becomes dominant respect to the "full".

### 3.2 Design attitudes

For the intervention methodology of transformation and urban regeneration, according to an interethnic key, six design attitudes of syncretic urban design for the public collective space are identified: in all of them there is an attempt of overcoming the conceptual, physical and symbolic barriers through the syncretic re-composition and recombination of the elements involved. Each attitude, individually and interrelated, (multifunctionality, permeability, polysemy, participation, aesthetic "performance", green project) characterizes the interventions of urban syncretic design in their spatial organization.

The random sum of objects, even if individually well designed, does not automatically set a positive *environment*, as overcrowding, overlapping and poverty of relationships can deny what each individual object states.

The same can be applied to the city: it is something more than the sum of its inhabitants, it looks like location for many economic/political and cultural activities that determine interactions and continuing comparisons between cultures and subcultures, resulting in elaborations of symbols and manifestations of socio/cultural life. In the relationship between the city and "cultures", an important role is played by aesthetics, intended as sensitive knowledge, hence, as experience of beauty. Material and symbolic interactions have a fundamental place in the construction of social relations between individuals and between individuals and the space.

Therefore, for each attitude is indicated its own valence and its systemic amplification, that is, when more attitudes are activated simultaneously, finally, each attitude is supported by a semantic abacus, deriving from theoretical and physical / formal references of all the work of research.

This methodology is structured as a brief (along with the objectives assigned to the product) of urban syncretic and interethnic design, for the definition of concepts (general configuration of the product before the definition in detail) of public and collective spaces that are sustainable and interrelated. Below are reported below the six *attitudes* with their respective abacus, for the design of public collective spaces in a multicultural key.

*\_ Seeking the multi-functionality of the single object*

In general terms, it increases both psycho/perceptual interactions between object and person, and the number of users, facilitating the meeting; the answers of the objects should never be univocal or prescriptive but, ensuring a multiple and syncretic use.

According to an interethnic logic, it responds to different conditions of use of objects related to different traditions and rituals.

*\_ Seeking the permeability of any barriers*

In general terms, it allows accessibility to the space.

According to an interethnic logic, it allows adaptation and self-appropriation in / of the space by all.

*\_ Seeking the polysemy of sculptural objects urban*

In general terms, it fosters the linguistic / formal enrichment of the space, preferring the intensity to the density (quality over quantity), the continuity to the permanence, with objects capable of drawing an idea of interior while remaining outside, through metaphorical thresholds whose value lies in its relations with the surrounding environment.

According to an interethnic logic it relativizes the "certainties" of individual cultures which being juxtaposed can trigger a process of self-criticism and self-irony, promoting urban / spatial syncretism.

*\_ Seeking the creative participation for the design of public space*

It provides the possibility of self-producing objects for urban regeneration since, according to an interethnic logic, it allows a multiple self-representation of space, integration and intercultural exchange.

– *Seeking the aesthetic result of the technical and performance characteristics of objects*

In general, it allows the realization of basic and innovative shapes, taking advantage of the real possibilities of interference and cohesion between adjacent disciplines (design, architecture, urban planning, engineering) through a systemic and cross-scale approach.

According to an interethnic logic, it allows the realization of forms "new for all", as lacking of preconceived linguistic structures.

– *Trying to increase the "green" with individual, multiple or allusive / symbolic elements*

In general, it responds to a psycho/physical individual and collective need, increasing the quality of urban spaces. According to an interethnic logic it promotes the sense of belonging of new citizens.

Addressing an urban project according to the six attitudes described, through the instrument of urban syncretic design, allows us to achieve the fixed results:

- they attract curiosity for new spatial forms and represent the only green "designed" of the city;
- they promote self- appropriation eliminating the physical/symbolic barriers;
- they allow the identification of the entire population, because it is a new space designed taking into account the different traditions and rituals;
- they encourage care, as a result of the identification process; if you perceive a space as your own, you get to work in order to protect it;
- they spread the awareness of the public good, because it creates a place accessible to all, open and flexible;
- they facilitate the knowledge between individuals, because it is provided the realization of places of interaction not only physical, but also psycho-perceptive ones;
- they determine, finally, the innovation process, as it introduces a new design and product procedure, since new items and new spatial configurations are introduced.

A further strength of the methodology presented is the cost-effectiveness: just by investing limited resources, improvements in quality of natives' life can be achieved (through the new public spaces equipped) and processes of social/spatial integration of the new citizens can start.

#### **4 What social designers do?**

Although nowadays social design has become one of the most discussed practices within the design world, it seems still quite difficult to find a clear definition of it due to the scarcity of satisfying references.

The Social Design term finds its origins in 1971, when the book "Design for the Real World" (Papanek, 1971) was published pointing out how designers should always be aware of the social impact that their projects might have on society.

In fact, even at that time the perception of design was still mainly related to the aesthetics and function of a product, the urgency of coming out from the "design bubble" problematizing society through the design process and effectively acting within real social contexts

through a deep analysis of the human reality was already showing its results in several experiences and projects.

Analyzing the work of Superstudio, Peter Lang (2003) recognizes how this design group actually made use of self-revaluation to correct their design strategies in a more conscious way affirming how they "concluded the journey not with a new form of people's architecture, but an architectural people ready to give their world a form".

With their unreal scenarios, often expressed through eclectic and dreamy collages, Superstudio's members offered a first hint on how design objects should have been understood not only according to their effective function, but also as tools able to allow people in shaping their own reality.

Despite the social role of designers seems to be quite defined nowadays, using Paola Antonelli's words (2012), Social Design is still walking a very fine line.

In fact, using this term to indicate those projects related to social-political issues or human well being is always more often a risky attempt of generalizing the real objectives of it, including the important role covered by the processes of this works more than their official results.

About the awareness concerning the designer's role Antonelli seems then to agree with what expressed by Jan Boelen, Head of Social Department at Design Academy Eindhoven, who claims that "There is no such thing as social design!" (Boelen, 2013) stating that every designer is obliged to work with the social aspect guided by a critical attitude, which allows him/her to analyze the reasons, and impacts of the design project without forgetting whom it will affect.

Themes such as economy, housing, education, labour, private/public space, immigration and politics are often addressed by current designers in the attempt of opening a dialogue around social relevant issues.

In most of cases they do not try to provide definitive answers or solutions, but their work is more focused in offering opportunities through actions consisting in exchanging, accessing, adapting, including, etc.

Young French designer Raphael Coutin in his *Re-place* project (<http://www.re-place.co/>) analyzes the history of a building that will be soon destroyed and decides to take some structural elements of it, replacing them outside in order to create a temporary public space. Coutin proposes this approach as a methodology that can be applied in different contexts where the presence of a building that will be destroyed can work as catalyst for participative modalities of interventions. Moreover, his action is not only strictly related to the re-use of physical elements, but it hides a more poetical intent: the new space just born besides the one that will be destroyed becomes the scene where imagining possible future scenarios for the area and the possibilities of integrating the new building in the existing context.

In this way Coutin opens a discussion about a place using the final moments of a building as starting point for a dialogue between design, the space and those people that for different reasons feel they belong to it.

This project shows how the designer's role consists first in understanding the social context where he/she is acting through a careful observation and analysis of it in order to define in a further step those elements able to repair what is already there, without bringing anything new.

As stated by Richard Sennett (2012), in fact, “modern society is in urgent need of repair” and social designers are now called to offer the right tools for re-thinking our reality.

But what kind of tools design can actually offer? Do they need to be physical tools or they can be even conceptual ones? And how people can learn to make use of them?

According to Ivan Illich (2001) “Convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his vision”.

In fact, it is through the creation of a new temporary space that in his project Coutin offers those spatial and social tools for imagining new scenarios, allowing the people interested to directly work on improving their own environment guided by the designer's know-how.

Before continuing with examples of social design participatory models through the description of two case studies, it is necessary to clarify that these participatory design processes are proper of architects, urban planners and other professional figures who usually deal with projects which inevitably involve society and therefore required a careful and aware evaluation of the social effects they will generate.

A first example here considered is the *Freehouse* project (<http://www.freehouse.nl>) developed by Jeanne van Heeswijk (who defined herself an artist) and architect Dennis Kaspori. This project, related to Coutin's one for its participative modalities of interventions, it is actually more structured about the effective social and economic improvement of the area interested.

In fact, in this project there are two quite known creative figures who, together with market salesmen, local entrepreneurs, people from the neighbourhood, designers and artists worked on the multicultural neighbourhood of Afrikaanderwijk, in Rotterdam, using the social role of the market as catalyst in the process of transformation of the suburb.

Through a series of interventions that directly involved the local community the market, which already represented one of the biggest markets in The Netherlands, became a site of cultural production and a meeting place for the neighbourhood.

The multiethnic character of the project contributed to its success bringing a new awareness among residents and their human and working conditions.

Finally, it is interesting to mention the *Quinta Monroy* project (<http://www.elementalchile.cl/proyecto/quinta-monroy/>), realized in Iquique (Chile) by the Elemental studio.

In this case the action aimed at the transformation of a residential area allowing housing solutions different from the previous ones through the creation of kind of social deal between citizens, designers and city administration necessary to overcome economic and bureaucratic issues.

The project began in 2004 and provided citizens to intervene autonomously in completing and enlarging a complex of housing units. In this way residents had the opportunity of doubling the initial 36m<sup>2</sup> floor area of the individual units through a real community work based on an effective architectural expansion, by just imagining or even inventing the new enhanced residences.

It is evident how in these kind of projects the “users” are no longer perceived as receivers of the design result, but they are involved since the beginning in the planning process becoming actual participants of it.

#### 4.1 Social Design for the interethnic city

Within a process of social and urban transformation like the current one it is therefore crucial trying to define possible future scenarios for the syncretic multiethnic city.

In order to achieve the ambitious aim of redefining the space that surrounds us and the way we behave in it as citizens, we first have to question what actually a city is, nowadays, and how the public space is perceived by its "users".

As stated in the Urban Manifesto realized for the Third Architecture Triennial of Lisbon in 2013 "A civic public can only exist as a collective constellation (...) and this constellation consists of the spatial experience in the urban territory".

Is then the way we experience a specific place that can offer or deny us the sense of belonging to it? If yes, how a heterogeneous system such as the one of the city can be shaped according to the human capabilities contained in it?

The *Freehouse* project previously presented shows how involving the local community in the improvement process of the context they live in, and consequently their own life conditions, actually led to a renewed sense of belonging within the neighbourhood.

About those participative dynamics, in his book "Design, When Everybody Designs", Ezio Manzini (2015) affirms that the real possibility for social change stays in the generation of a "social conversation" intended as a co-designed activity where participants and experts collaborate contributing together to the process of change.

Therefore, those differences that within the urban context usually act as generators of social segregation could be positively exploited as catalyzing elements for a new discussion about new ways of merging different cultures and traditions in order to build a common ground within the space of the city that will always be original in its outcome according to the specific social and spatial factors that characterize it.

The main elements for the realization of a new interethnic city-environment based on a social conversation will be then related to the "human and cultural luggage" carried by each individual. Through a continuous process of exchange and mixture between different traditions and rituals it will be possible to shape new spatial realities redefining squares, streets and urban interstices as not only transitory portions of the city-plan, but as new active elements with a concrete social function in the development of integration and urban regeneration.

In fact, by adopting a syncretic and social design approach it will be possible to first problematize and deconstruct our current perception of the environment we inhabit in order to redefine it assuming the role of main actors on the city stage.

A further step in the definition of new urban scenarios will then consist in redesigning society through those physical private and public structures whose role will be crucial as containers and at the same time catalysts of social change.

Architect Azra Aksamija states: "(...) it thus calls for a balance between formal and informal urbanism. The role of the architect is consequently redefined as well: he/she is a sensor, a provoker, and a guide through urban processes, which do not result in a final order, but are left open-ended. Architectural intervention thus accompanies and inspires the ever-evolving process of sustainable urban development."

With these words she reminds us how the architectural definition of the city landscape plays an important role in the production of new social values showing how the realization of an interethnic environment cannot prescind from a careful planning of urban infrastructures.

Aiming to a more complete possible scenario it is therefore essential to re-value the way in which private and public infrastructures (such as schools, hospitals, residential buildings, etc.) are experienced by their “users” in order to elaborate new syncretic and social proposals characterized by a collective and shared intention of belonging to the same place.

The idea of an urban identity is described by Pelin Tan (2008) through the concept of *coexistence* of the urban space.

Hence, during the design process of future scenarios for a syncretic and interethnic city, it is important to understand the urban environment as a mosaic of multiple entities where every tile can contribute to the cultural enrichment assuming its own position within the spatial fabric of the city and collaborating with its “neighbors”.

Through the action of sharing common experiences together with cultural differences it will be possible to shape a new urban reality characterized by a strong but not univocal sense of belonging.

Moreover, as a syncretic long-term result of these formal and informal social practices, it will be possible to create an urban collective memory with which future citizens will finally identify themselves as equal inhabitants of the place they live in and eventually belong to. In the end, according to the possible scenarios provided and referring to the three case studies previously shown, it is no longer that naive imagining our future cities like new born constellations made out of bottom-up urban strategies, multiethnic networks, grassroots housing solutions and collaborative synergies between individuals and the space.

**Attributions:** Chapter 1 written by B. Petrella; Chapter 2, 3 written by de Biase; Chapter 4 written by De Salvo.

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# Dealing with History, Rome and its alternative production of “public” space

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In many “superhistorical” European cityscapes, we can see the tendency for an over-musealisation of historical urban spaces. This phenomenon creates an enlarging discrepancy between the local citizens and how they relate to their city. Monuments and public squares, mostly located in the city centres, are losing their original civic and democratic function – an heritage from the ancient Greek polis, which intended to be a common space for the citizens, distinguished from their private sphere. As a consequence, the term “public” is losing its sense, with public sector and institutions behaving like “privates” pursuing profit and touristic value out of the built and cultural heritage. The prototype of this process is the city of Rome, with its historical weight that obstructs an innovative local city development, as much as for the demand of public spaces. It seems that the effort to preserve identity (over-musealisation) is blocking the affection of the unexpected, something that constitutes and renews cultural production - which (re)shapes local identity. In Rome the main contemporary cultural production is held by autonomous institutions, often illegal, which are characterized by bottom-up processes. This situation was leading into the creation of many self-organized and mainly illegal cultural centers, which are interacting with the local communities and their need for “public” spaces for a contemporary cultural production.

**Keywords:** Superhistorical, urbanity, UNESCO, self organization, social centers

## 1 Introduction: the loss of the public sphere

According to Hannah Arendt, action is the only activity that relates directly men without the mediation of material things: as distinguished from labour and producing art, which are activities that can be realized in complete solitude, action has as its condition of possibility human plurality, and opens out in that “relational space”, different for every group of people, consisting of the plural interest of a certain group. Interpreted in this way, it wouldn't make sense to act in complete solitude: we act to reveal ourselves to others. This *infra* it's not a neutral space that action fills out, but is already saturated of that twist of human relations that precede action, in which action inserts:

*Human plurality, the basic condition of both action and speech, has the twofold character of equality and distinction. [...] In man, otherness, which he shares with everything that is, and distinctness, which he shares with everything alive, become uniqueness, and human plurality is the paradoxical plurality of unique beings. Speech and action reveal this unique distinctness.[...] With word and deed we insert ourselves into the human world [...]. This insertion is not forced upon us by necessity, like labour, and it is not prompted by utility, like work; its impulse springs from the beginning, which came into the world when we were born and to which we respond by beginning something new on our own initiative. To act, in its most general sense, means to take an initiative, to begin (as the Greek word archein, “to begin”, “to lead”, and eventually “to rule”, indicates), to set something into motion (which is the original meaning of the Latin word agere). [...] It is in the nature of beginning that something new is started, which cannot be expected from whatever may have happened before (Arendt, 1958, p. 175).*

Furthermore, action presents two characteristics, representative of human beings: its unpredictability and irreversibility, that distinguishes it from any mechanical form of action and guarantee the emergence of the new and unexpected. While nowadays we tend to consider speech and action as distinguished, for the Greeks such a difference was not perceived and speech in itself was considered a way to act. Arendt aims exactly to recuperate this original connection between action and word: in her opinion is in their interconnections that public space is created. The ancient Greek *polis* is then analyzed by Arendt for this purpose, not as a “nostalgic” or “utopian” of the *polis* (Habermas, 1984), seeing that the *polis* form arose in a precise and unique historical and cultural moment, but for the exemplarity of its mechanism: “The *polis*, properly speaking, is not the city-state in its physical location; it is the organization of the people as it arises out of acting and speaking together, and its true space lies between people living together for this purpose, no matter where they happen to be” (Arendt, 1958, p. 198).

## 2 Built Heritage and the concept of the historical city

The typical European city form is built on fragments: the historical core, the suburban residential areas, the office district, the shopping mall and the industrial zone. The inner centre is the only part that can be considered as a multifunctional space. This city core is defined as a successful mix between residential, office and retail space. Its streets, the historical architecture, the squares, small retail facilities and cafés are creating a special urban atmosphere, which is leading into a powerful force for identity.

In the last 30 years, many European cities recreated pedestrian areas in their city centres. Being a “flâneur” became “postmodern” and the historical architecture with its squares and narrow streets opened for a fluctuating city life. The Danish architect Jan Gehl analyzed in his book *Life between Buildings* that the historical cityscapes with its historical buildings, churches, monuments and public squares are creating the most attractive aesthetic for pedestrians. This attractiveness can be seen in many commercial activities public events and city tourism. This means that the ornament, which Adolf Loos hated so much at the beginning of the 20th century became the identification for a successful post-modern European city.

For more than three decades, the built heritage in European cities has been a focus of attention in the discourse of architecture, urban design and planning. The European Union is launching special programs for supporting and financing preservation, renewal and revitalization of historical city centres. In the last decade built heritage and the UNESCO heritage status had become a big promoter in the economy of urban tourism and the importance of place identity.

Rem Koolhaas wrote in his essay *Preservation is Overtaking Us* about the history and extension of preservation laws. He describes the rapid extension of listed built heritage from a singular object towards a coherent cityscape. One the first preserved building was the *Notre Dame Cathedral* in Paris preserved as a singular object in 1844 and extended with a protected area around in 1913. In 1973 the whole Soho district in New York got preserved and designated as a historic city landmark. From the 60s on we can see an extreme extension of preserved built

environment. According to Koolhaas, this fact creates a kind of over-preservation and cities became open-air museums for their residents and visitors.

The original root of this over-preservation process is, with no doubt, an important task, a responsibility that every citizen should subscribe: the care and preservation of its past. In order to protect and guide the outstanding historical and natural sites was founded UNESCO (United Nations Educational, Scientific and Cultural Organization), born in 1945. The step to create a programme for cultural and national heritage protection was taken during the 17th UNESCO general conference held in Paris in 1972<sup>1</sup>. The agreement of the convention was the fact that there is a need to protect the cultural and natural heritage from destruction in relation to social and economical conditions.

Although the historical sites has always been of public interest – for tourism as much as for the local people – the concept of the “historic city” is more recent:

*The invention of the historic city collapsed the memories of different historic periods into a generic notion of “the past.” This process relied on a specific elasticity of the language employed by designers and theorists. Over the course of the 1970s and 1980s, terms such as preservation or reconstruction retained a positive connotation while simultaneously time undergoing a radical change in meaning. In the same way, the quasi-biological conception of the city as a body with a life cycle, where “obsolete” neighbourhoods had to be regularly demolished, was gradually suspended (Urban, 2006).*

This kind of transformation processes can be seen in the cityscape of many European cities today: different forms of architectural expression built next to each other towards a unique whole. The interconnection of an architectural production over centuries can be considered as the formal identification of a European cityscape.

### 3 A sandwich with Dante's Divine Comedy: the contemporary Rome



**Figure 1.** Restauration works in Fontana di Trevi, 2013, Source: tg24.sky.it

<sup>1</sup> Criteria for the Inclusion of Cultural Properties on the World Heritage List: monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science; sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view. (UNESCO)

To be honest, the conception of culture as an economical income is far from being the predominant on the Italian contemporary scene: let's just consider the declaration of Giulio Tremonti, at the time the economic minister in Berlusconi's government, when justifying the cuts on the cultural sector asserted: "Well, go ahead and try to make a sandwich with Dante's Divine Comedy"<sup>2</sup>. Tremonti, not by chance, was the very same person that closed the ETI, *Ente Teatri Italiani* that provoked the closure of Teatro Valle.

Despite the declaration of Tremonti, it is estimated that only in Rome there are about 12 million visitors per year (that makes the city one of the major tourist destinations in the world) which are imagining the urban scenario as an open-air theme park: 2000 years of visible history are leading the city of Rome into a world famous open-air museum.

The Tremonti episode lead to a wide discussion about what is the sense and the role of culture in Italy. Some economists and theoreticians, as a reaction, wrote a manifesto in order to promote another concept of culture; part of the manifesto appeared as an article on an important Italian newspaper, *Il Sole 24 ore* (owned by *Confindustria*, the Italian employers' federation) with the title "No culture, no development" ("*Niente cultura, niente sviluppo*"<sup>3</sup>) which insisted instead on the importance of "culture as the oil of Italy".

This debate can let us distinguish very clearly between two modalities to conceive culture that goes beyond the Italian problematic situation. These can be synthesized in "we can eat with culture" and "we can't eat with culture": it is worth analysing their meaning for our purpose. First of all, both of them seem to consider as the only declination of culture the "cultural goods": these two alternatives – which at bottom hide an identity – seem fluctuating between the cultural goods as an obstacle, an encumbrance or a weight to be maintained (as, for example, Porta Maggiore's underground basilica) which certainly doesn't fill out the plate; and the other one, only apparently in contrast, that sees these goods as a resource for profit, petrol of Italy, for which "the matter has to become strictly economical". These two visions deduce different conclusion from a same conception of culture: of its ability or inability to relaunch economics. No wonder in the manifesto is used the expression "Culture industry", a term - *Kulturindustrie* – introduced in 1944 by M. Horkheimer e T. W. Adorno<sup>4</sup> to describe, in a critical way, the factory producing standardized cultural goods, for which "Culture as a common denominator already contains in embryo that schematisation and process of cataloguing and classification which bring culture within the sphere of administration."

In the year 2000 the former mayor of Rome Francesco Rutelli decided to dedicate the plan towards a modernisation of the city especially in a cultural sense. The aim was to give Rome a more contemporary image to compete with the other global cities around the world:

*Francesco Rutelli's Grands Projets for Rome are coordinated in what he has called "a new master plan for growth for a city that does not need to grow." The master plan of 2000 is based not on the idea of expansion but on the vitalization of latent urban resources. The mayor explained, "Rome*

<sup>2</sup> As declared in October 2010, during an interview discussing the budget in the cultural sector and university.

<sup>3</sup> The *Manifesto* appeared on the newspaper *Il Sole 24 ore* the 18th of February, 2012: <http://www.ilsole24ore.com/art/cultura/2012-02-18/niente-cultura-niente-sviluppo-141457.shtml?uuid=AaCqMotE>. Among the numerous signers, Giorgio Napolitano, the former President of Italy.

<sup>4</sup> M. Horkheimer, T. W. Adorno, *Dialectic of Enlightenment*, Stanford, Calif. Stanford Univ. Press, 2002.

hopes to offer to visitors from all over the world an avant-garde metropolis with the ability to combine the patrimony of its glorious past with an improved quality of life, a modern and compatible infrastructure, efficient services and cultural stimuli.”

[...] The master plan is designed to govern the entire metropolitan area, not just the historic centre. As Paolo Portoghesi puts it, it is a plan to help correct “an overcongested heart and an invertebrate body.” The problem lies in dealing with the far-flung periphery, forgotten places like Tor Bella Monaca, Torre Spaccata, Tor Marancia. Their evocative names derive from the medieval towers of the Agro Romano, but they do not conceal the lives of desolation of these former Fascist Settlements (Kirk, 2005).

Another strategy for the city was to change the tourist strategy from a post-industrial archaeology towards a contemporary modern one. A part of this strategy was the organization DARC (*Direzione Generale per l'Architettura e l'Arte Contemporanea*) which is a special institution for the support of contemporary art and architecture. DARC was founded in 2007 and since that many new contemporary collections and museums like MAXXI and MACRO appeared in the city of Rome. That was an important step for creating a more contemporary image for the 3 million inhabitants metropolis to be able to compete with other European cities. The financial support at least lasted for a couple of years until 2010 when different cultural organisations in the city of Rome went into serious financial problems. The cultural budget of the city declined drastically and the DARC organization lost its function for supporting contemporary culture. Many of the new museums and cultural institutions lost significant parts of their yearly financial resources and had serious problems to continue their programme.

#### 4 Social centers, cultural squatting and new generation occupations

##### Rome Social Centers ★ Historical Center ●

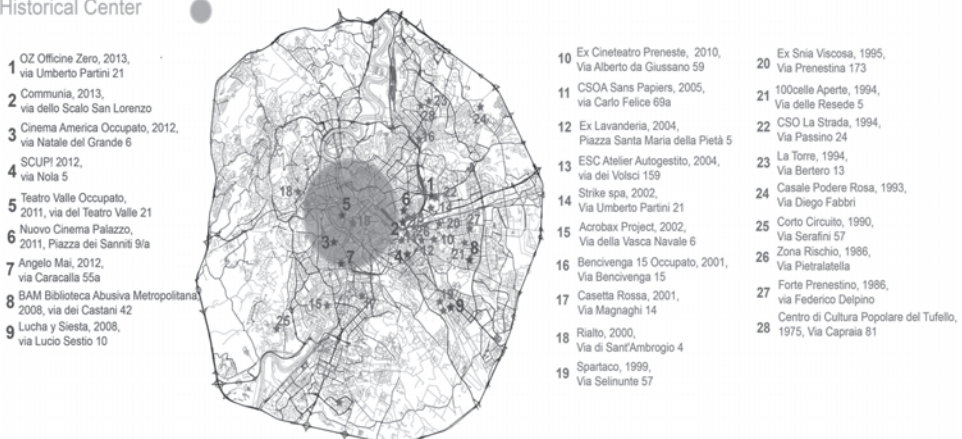


Figure 2: a map of the *Centri Sociali* in Rome, by the author

The economical configuration of culture moves first of all from its physical places, and goes hand in hand with the functionalization of urban spaces. Although it is without doubts the predominant, the conception of culture as an economic good is not the only existing one, and we should question which are the places that guarantee this other way of promoting and producing culture. For example, cultural associations, committee districts, volunteering activities and squats represent, in a very different way, a valid alternative to the functionalization of culture.

The existence of social centres in Italy is having a long tradition and started in the middle of the 20th century. The country was suffering from a 20 years fascist regime followed by a political hegemony of the Christian Democrats party. After the fascist period, many autonomous left wing organisations have formed a strong presence in the city of Rome, influenced by thinkers like Antonio Negri. Different independent groups formed the *Autonomia* movement, which used the classical Marxism ideology as their language. (Mudu, 2012) The end of *Autonomia* in the mid-1980s concurrently generated the Social Centre Movement, which also absorbed a new generation of anarchists who identified themselves as “punks” and were defined by a repudiation of the rules of modern capitalist society through dress, music, and a simultaneous rejection of political participation and development of political consciousness. (Mudu, 2012)

The earliest Social Centres were organised by workers organisations with the name *Casa del Popolo* (House of the People). With the process of de-industrialisation the Italian economy declined in the 1980s and the social centres became again places for a protest movement. These “Centri Sociali” are occupied urban spaces animated by different groups of people, which are fighting for the right to cultural places without any commercial or speculative interest. The movement is presenting a form of self-organised and anti-capitalistic cultural space production, which is protesting against the weak political and cultural landscape of the city of Rome. Some Social Centres underwent a nuanced paradigm shift in the 1990s, growing from militant pockets of resistance into more public spheres within the city that maintained their individuality while beginning to network in order to act in common over certain demands. (Solaro, 2007) “Broadly defined, Social Centres are abandoned buildings, such as warehouses, factories, military forts, or schools that have been occupied or “squatted” and transformed into cultural and political hubs explicitly free from both the market and state control.” (McGann, 2014)

However, as Rome’s squatted Social Centres have always shared some ubiquitous qualities, primarily their role as sites of occupation, where the political dimension is dominant over urban housing needs. (Vereni, 2012). In general, all of the “Centri Sociali” are self-financed and many of their members are working as volunteers without any salary. Different activities or renovation works are paid by fund-raising through cultural events, parties and private donations. The squatters are in most of the cases supported by the local neighbourhood and are places for everybody.

In seeking to exist outside the dominant capitalist bureaucracy, it follows that squatted Roman Social Centres generally attempted to organize horizontally to achieve a form of direct, non-hierarchical democracy (Mudu, 2004). This horizontally organization is discussed in participatory weekly meetings debating the ideology and practice of squatted urban spaces. These debates are focused on the relationship between the consumer and the social centre, the relationship between

political entities and the social centre (including the arguments over the legalization of these spaces), the relationship between the individual and labour, the provision of services in the context of the shrinking public welfare state, and a host of other, often hyper localized, issues. Perhaps the greatest division was between centres that accepted a relationship with the municipality and those that did not (Mudu, 2004). But, Social Centres were forced to collectively address other realities as well – how should the centres be funded? Should the workers be paid? Was it possible to develop a political consciousness while maintaining the core mission of an autonomous self-managed space? (MxGann, 2014)

*Most notably, they have helped to ameliorate the damage caused by the Roman tradition of speculative expansion by reconstituting abandoned and decrepit properties in the city for positive public use. Social Centers emancipated the antagonistic movement from the ghetto, but it is their continued connection to this secular movement which has made them somewhat incompatible with integrating the recent international immigrants who wish to keep their religious beliefs or involving citizens who do not want to operate outside of neoliberalism, but simply believe they are not being provided with the public services they are owed as tax payers (Mudu, 2012).*

Social centres in Rome are places for “everybody”: migrants, workers, students, children etc. The aim is to create “common spaces” for the local population in Rome against the neoliberal city policies. The fact that most of these common spaces are in a constant danger to get evicted is bringing up a discussion for legalising some of the social centres and helps illustrate the different ideologies in the Roma squatting scene.

The oldest and one of the most important Social Centres in Rome is *Forte Prenestino*, located in a southern suburb of Rome. *Forte Prenestino* is a former medieval fortress, which is squatted since 1987 and can still be seen as an impregnable fortress against the commercialisation of the city. Located in a peripheral neighbourhood known for high levels of unemployment and heroin abuse, the occupiers sought to offer a radical alternative to the marginalization of fringe city life through bottom-up local self-development/management.<sup>5</sup> As an initial occupier expressed the excitement of the centre’s genesis: “All of a sudden, we were inside, ‘running’ the place – we who had never managed anything except our unemployment, our homelessness, our own little patch, our streets” (Solaro, 2007).

*Forte* reinforces the earlier discussion of the political fragmentation typical of the Roman Social Centers and how this affected the activities that were undertaken. “...*From punks, who had pushed the concert programs...to people (not only autonomists) coming from the various political experiences of the seventies, who brought with them debates over nuclear power, anti-militarism and third worldism, the new left, censorship, psychiatry and so on*” (Solaro, 2007).

This ideology can be seen in most of the Roman social centres, which are fighting for better cultural and social conditions in the city. At the moment there are around 200 self – managed social centres in Italy, which have their aim to support the daily life of the local communities.

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<sup>5</sup> *In the Shell of the Old – Italy’s Social Centres*, trans by Steve Wright, <https://libcom.org/library/in-shell-old-italy-social-centres-wright>.

### 5 “New generation occupations”: Teatro Valle Occupato

We can consider June 2011 as an explanatory moment in Rome. While a crowd of tourists is shooting photos in the centre and enjoying the city, a copious number of citizens crosses the threshold of Teatro Valle, the most ancient theatre in use in Rome, build in 1727 and located in not more that four minutes walking from Pantheon. This public theatre had closed a couple of months before, destined to privatization or, more likely, to a definite closure due to austerity cuts<sup>6</sup>.



Figure 3: the theatre in 2012, source: repubblica

These occupants - artist, politicians, students, cultural workers, journalists, citizens, curious - define themselves “workers of the show” (*“lavoratori dello spettacolo”*) and declare to be “occupying a theatre as workers occupy the factories” (Mattei et al., 2012); their intention is to regain possession on the cultural production process and practice auto-governance. Moreover, they declare a new juridical category: the joint management of the commons, nor private nor public. For three years “the occupants took care of the ancient theatre, collected funds for small restorations and produced shows of an exceptional interest, performances, assemblies, educative programs to which the population had access through a donation method based on each one’s possibilities” (Zardo, 2014). With the help of a group of famous lawyers and theorists, they first discussed and then made a *Foundation* that counts more than 5600 citizens, in order to have a juridical recognition, the “first institution of the commons through community political action” (Mattei et al.,

<sup>6</sup> In 2011 the management of the Theatre was transferred from the *Ministero per i Beni e le Attività Culturali* to the municipality. “Teatro Valle was occupied in 2011 on the day after the victory of the Italian water referendum when 27 million Italians voted against the privatization of water utilities. At that time, a new left-wing coalition – including grassroots political and civil society organizations and a splinter group from Partito Democratico (the main left-wing party) – came together around the Movement for Water Common Good led by MP Stefano Rodotà, Ugo Mattei and other prominent lawyers. The movement opposed the programme of privatization and labour deregulation of the Berlusconi government and proposed a radical reorganization of the state based on decentralized forms governance and progressive welfare policies, including a European basic income and minimum wage. In 2010, Berlusconi’s Minister for the Economy Giulio Tremonti closed down the Ente Teatrale Italiano (ETI – the national agency in charge of the management of some public theatres and cultural institutions). This *de facto* sparked the privatization of the whole Italian theatre sector.” M. Mollona, *An unprecedented experiment in political economy and participatory democracy: The Teatro Valle experience and its legacies*,

2012). For this purpose they elaborated a Statute, which is open and modifiable by any interested, according to their horizontal management principles, making it accessible from their web site (changes can then be discussed in open assemblies). Their experience was studied worldwide and was the object of numerous publications; they received so far 4 prizes (among which the prestigious "Princess Margritt Award" assigned by the *European Cultural Foundation*).

When, the 31st of July 2014, in the middle of the process of legalization the theatre was closed for "urgent renovation works" (that had no evidence and were so far not even started) and remained closed for six months with no plan about its future, many artist and intellectuals showed their support and made a public motion: among them, Slavoj Žižek, David Harvey, Étienne Balibar, Michael Hardt, Peter Weibel, Sasa Dobricic and Tomaso Montanari.<sup>7</sup>

What the experience of Teatro Valle showed is exemplary of a problematic relation, particularly evident in Rome, between built heritage and contemporary culture production. The occupation of Teatro Valle is not a singular and atypical event, but is rather inscribed in a more wide process of a new kind of occupation in Italy, starting from 2010, that were defined "New Generation Occupations"<sup>8</sup>, which seems a further answer and protest for the current political and cultural policies. Given that there is not a sharp dividing line between these two typologies of occupations, but rather a gradual transformation in the direction of old and new ones, the introduction of this category can help to trace some relevant characteristic to better understand this phenomenon. First of all, this process is inscribed in the progressive distinction between squat and *centro sociale*. While traditionally, in Italy as much as in Europe, occupations were meant for both the purposes of social housing and cultural centres, these two finalities progressively diverged, to the point that often in the new generation occupations no activist lives in the occupation (making it also more easy to evict). This distinction is to remark the increased open character of the space 'occupied': in fact, living in these spaces involves inevitably a physical and subjective appropriation on the side of its inhabitants and would have as a consequence a not fully open and accessible space to citizenship. On this purpose, it is often declared by activists that these places are considered rather released than occupied spaces. Another of the main distinctions with the 90s occupations is the way these new generation occupation are crossed: it is not – or rather only at first<sup>9</sup> – a collective that occupies an abandoned space in order to make there its political headquarters. As a consequence people who live and use the place do not necessary coincide with the activists of the collective.<sup>10</sup> The result is that these new kind of occupations are much more open to citizenship, with (almost)<sup>11</sup> no barriers of the subjects and projects allowed to enter, define the space and as concerns the typology of activity proposed. The centrality of the cultural initiatives has also a more thick meaning, compared to the traditional ones: it's true that *centri sociali* were

<sup>7</sup> <http://www.dinamopress.it/news/appello-in-sostegno-del-valle-occupato>

<sup>8</sup> In Italian: "occupazioni di nuova generazione".

<sup>9</sup> The typical experience the birth development of a new occupation is the almost immediate encounter and interest from the neighbourhoods and districts, starting from open assemblies to define projects and spaces.

<sup>10</sup> <http://corrieredelmezzogiorno.corriere.it/napoli/notizie/cronaca/2014/20-marzo-2014/mezzocannone-occupazione-si-fa-3le-nuove-rivoluzioni-fanno-base-bar-2224243293291.shtml>

<sup>11</sup> There are, nonetheless, some strong principles pursued: anti-fascism, anti-nazism, anti-racism, anti-zionism, anti-homophobia, against torture: principles we believe to be coherent of any authentic democracy, and which coincide more or less with human rights – proclaimed, for example, by organizations such as Amnesty International (which, no wonder, has done some cooperations with these occupations).

always focused on promoting culture, but this was deriving from the political thinking and activism; in the New Generation Occupations, instead, the political attitude is more an effect that arises after months of attendance at the occupation, than its cause. In other words, while traditional occupations appeared as a politicized collective with some already well defined political orientation, the new generation ones present a wide range of political ideas, because of the unpredictability of an alterity which is always possible – not consider a danger but a resource. In fact, alterity is what affects the collective instead of being “integrated” or refused, defending the principle of the right to the city. It seems that these occupations are shaped by alterity, if by alterity we mean otherness, or rather the possibility of the irruption of what is totally other and unpredictable. In the contemporary map of these *centri sociali* we can find many experiments of occupied cinemas and theatres (*Nuovo Cinema Palazzo*, *Nuovo Cinema America*, *Teatro Valle*, *Volturno Occupato*) self-organized libraries (*Communia*, *BAM – Biblioteca Metropolitana Autogestita*, *BAC – Biblioteca Autogestita di Casal Bertone*), culture, sport facilities and other social institutions (*Scup*, *Sans Papiers*, *Ex Snia*, *Esc Atelier*), houses for women (*Casa delle Donne Lucha y Siesta*, *Centro Donne Dalia*) and many others.

As concerns their geographical location, it is also noticeable an important change. While traditionally, occupations tended to be in the periphery, these new ones are leading a process of re-centralization. Instead of going more on more on the outskirts of Rome, their political claim is the purpose to reduce the distance between the centre and periphery: by occupying and offering low-price services they overcome one of the most strong social barrier, and they oppose themselves to the sell-off process of public heritage, seeing that these occupations arose mainly in public abandoned buildings, or built heritage on the point to be privatized.

At first sight, the kind of occupation that *Teatro Valle Occupato* and these other new occupations are practicing may seem subsidiary in relation to services and political cultures that the institutions are not able to guarantee. A better look evidences that this is only partially true. In fact, what these spaces claim is not simply to make evidence of the institutional lacks and supply to their gap of responsibility, but to propose new ways of cultural production and the challenge to make a more just city – that means, what vivifies and confers sense to cultural identity of a nation or of a city. We believe that starting from these practices can be deduced some interesting characteristics on the organization of space, the exercise of citizenship, on the way to interact with the territory and on the relation between historical city and contemporary culture production; these characteristics can be useful tools to rethink the quality of public space. Functionalization of spaces and mercification of culture in Rome are actually only an example of a much more wide process – neoliberalization of capitalism - that affects not only Italy, but Europe, and that represents one of the ways contemporary architecture is undertaking. And more than anything, that these experiences pose again the question of what is cultural identity and what are, and should be, the spaces of its production.

## 6 Self-organized architecture and the production of a “common” space

In Rome itself, it is very hard to find contemporary buildings in the setting of the historical city: Piranesi's dialectic between the modern and the ancient city certainly changed configuration, but never disappeared. “Most of the new construction that Rome is witnessing- Massimiliano Fuksas's *Congress Center* at E.U.R., Zaha Hadid's Center for Contemporary Arts, Renzo Piano's *Parco della Musica* Auditorium, Meier's Jubilee Church - have been built on the city's periphery.”<sup>12</sup> With their outer city positions, the success of these architectures is relatively hard to judge. Until now, there is no project in the city centre, which could gather the battle with the ancient masterpieces. This situation will hardly change in the future and conservative right wing politicians, as the former mayor of the city Gianni Alemanno, who forced that kind of preservation strategy, and nonetheless the current centre left mayor Ignazio Marino, who is prosecuting the policy of not changing the face of the city. Many of the prestigious projects like the Congress Center at EUR or the new *Città dello Sport* designed by Santiago Calatrava are still under construction or more or less stopped by financial problems. These contemporary “ruins” are representing the “state of the art” of the current architectural production of the city of Rome. A city in which architectural innovation was produced for nearly 2500 years is not having a current identity of an architectural discourse. Successful Italian architects are constructing their projects in foreign countries and not in their capital city and also at the academic level a discourse of an innovative strategy for dealing with past, the presence and the future is missing. On the other hand the post-industrial change in European cities created many social, economic and spatial changes in the urban space: in the last 40 years a radical urban transformation took place and produced unused industrial areas and vacant places. In the industrial Fordist growth model of the past, cities were firmly embedded in the regulatory and redistributive framework of the centralized welfare state. In the transition towards a “flexible accumulation regime” (Harvey, 1989) operating on a truly global scale, this has become dysfunctional. Many European cities had transformed into post-industrial cities and their former industrial sites became vacant and forgotten. The reanimation of this kind of vacant plots can be often seen as a low budget intervention towards the archaeology of the 20<sup>th</sup> century. In many cases we can see a very informal architectural strategy in the transformation process. Informal or self-organized architecture is usually a term which got used in many cases within the rapid urban transformation of different megacities in Asia and south America; this kind of architectural production can be defined as “Architecture Without Architects” a term which was introduced by the architect Bernhard Rudolfsky in 1989. Since the global finance crisis in 2008 we can see in many European cities similar tendencies. More and more buildings became vacant concerning financial pressures and collective groups from different backgrounds are using and interpreting the different spaces in their own way.

In the case of the architecture of the “social centres” in Rome most of the occupied buildings are used in a multifunctional way. The biggest and most famous example is the already quoted *Forte Prenestino*, the former medieval fortress which became the first cultural centre of Italy in 1986. A transformation of a fortress into a contemporary space of cultural production can be seen as a reinterpretation of the tradition of a Roman ruin or the fact of building on or into the old. The

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<sup>12</sup> P. Singley, *Roma Macchiata, The Stain of White*, New York: Log Magazin

same kind of transformation that occurred with the Aurelian city wall, the *Teatro Marcello* and with many other ancient buildings towards the history of Rome.

It is useful to distinguish two types: *material reappropriation* and *character-conserving transformation*. The first is a literal adaptation of building materials and structures, repurposing them for new uses or, more radically, deconstructing them for salvage and incorporating *spolia* into very different new configurations. Depending on the specific outcomes, such reappropriations may be genuinely adaptive — as in the Temple of Hadrian or the Theater of Marcellus, where the original composition and character of the monument remain legible despite successive alterations — or they may prove catastrophic, as in the “crudely cannibalistic” reuse of antique columns, statuary, marbles, and rough masonry for the construction of the medieval, Renaissance, and Baroque city. But the visible survival of old materials and structures in Rome would represent little more than a recycling program of unprecedented longevity and scope were there not also considerable continuity in formal principles — preeminently the classical language of architecture (Semes, 2014).

In the cases of the social centres, we can generally define two different types of transformations: the first is the historical building with a strong architectural value and a very defined space, which is where often former theatres or cinemas like *Teatro Valle*, *Cinema America*, *Cinema Palazzo* where these existing “open” spaces got interpreted in different ways connected to their current program. The other typology is the post-industrial ruin, a space, which is often defined by its flexible steel structure, easy to transform with some low budget interventions. The indoor space is in many cases combined with an outdoor space in form of a courtyard or the classical street level. The budget for their architectural changes is financed most of the times with their events, parties or private donations. Sometimes architects are included into the decision-making processes depending on the need of the multifunctional uses. The aim of the occupants is to provide a space, which is interacting with its neighbourhood and their residents. The buildings get basically adapted with multifunctional spaces, which are hosting activities like concerts, lectures, libraries, sport activities, language courses etc. All the decisions are discussed in the weekly public assembly meetings where everybody can participate. This kind of participatory decision-making is one of the key elements of the production of this alternative way of architecture. A self-organized system with a very clear outcome: “We are now beginning to understand that our success as architects, planners, preservationists, and policy-makers depends on our ability to imitate the processes by which both natural systems and traditional human communities sustain their character or identity while accommodating growth and change. Adaptive principles have particular relevancy for the design of new construction in historic settings, whether additions to landmark structures or infill construction in historic districts.”<sup>13</sup> What could be deduced from the many experiences of the “centri sociali” is to proclaim the need for a rethinking of “formal” architecture and its dynamics towards a new architectural avant-garde with young protagonists. To guide and design low budget interventions to vacant spaces between historical monuments and buildings can

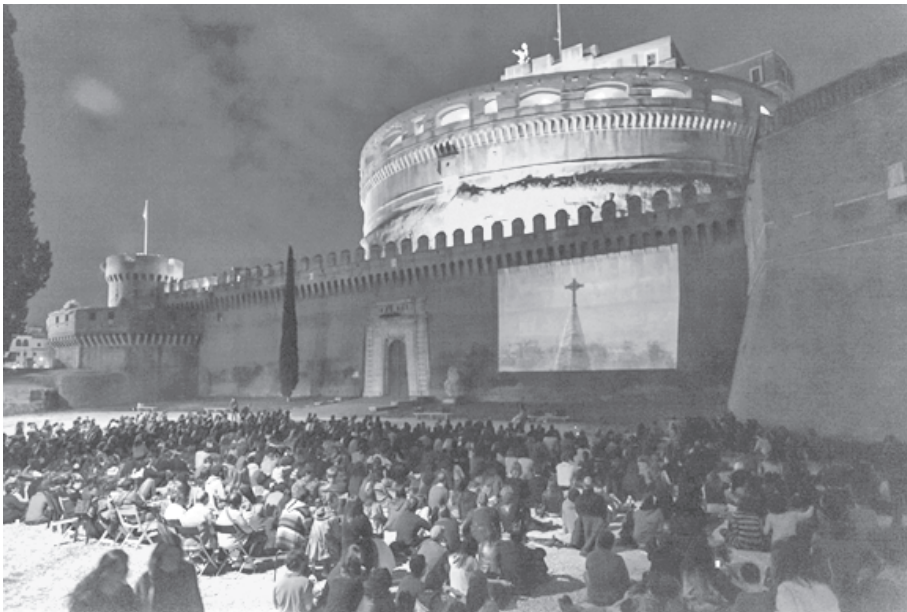
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<sup>13</sup> S. W. Semes, *Adaptation as a Model for New Architecture in Historic Settings: Some Observations from Rome*.

create a new kind of architectural avant-garde which is dealing with history and low financial resources.

Another and perhaps more revolutionary aspect of these spaces is their function of informal public spaces. Compared to what nowadays is meant by public space, that is often downgraded to “open” or “free” space, these informal – and not completely - public spaces absolve its aggregation programme, giving the structures to make decisions and have a political effect (in their cases, mostly coincides with the physical place of the occupation); in other words, the possibility to act. Space is never neutral in relation on how we behave. More a space is functionalized and specific for a certain activity (transport, a museum, a restaurant, a shop) more the resulting possibility of action is limited.

## 7 Public sphere, built heritage, cultural identity



**Figure 4:** an illegal film projection organized by Cinema America Occupato, after the eviction in 2014, source: Cinema America Occupato

According to Hannah Arendt, action is the only activity that relates directly men without the mediation of material things: as distinguished from labour and producing art, which are activities that can be realized in complete solitude, action has as its condition of possibility human plurality, and opens out in that “relational space”, different for every group of people, consisting of the plural interest of a certain group. Interpreted in this way, it wouldn't make sense to act in complete solitude: we act to reveal ourselves to others. This *infra* it's not a neutral space that action fills out, but is already saturated of that twist of human relations that precede action, in which action inserts:

*Human plurality, the basic condition of both action and speech, has the twofold character of equality and distinction. [...] In man, otherness, which he shares with everything that is, and*

*distinctness, which he shares with everything alive, become uniqueness, and human plurality is the paradoxical plurality of unique beings. Speech and action reveal this unique distinctness. [...] With word and deed we insert ourselves into the human world [...]. This insertion is not forced upon us by necessity, like labour, and it is not prompted by utility, like work; its impulse springs from the beginning, which came into the world when we were born and to which we respond by beginning something new on our own initiative. To act, in its most general sense, means to take an initiative, to begin (as the Greek word *archein*, “to begin”, “to lead”, and eventually “to rule”, indicates), to set something into motion (which is the original meaning of the Latin word *agere*). [...] It is in the nature of beginning that something new is started, which cannot be expected from whatever may have happened before.*

Furthermore, action presents two characteristics, representative of human beings: its unpredictability and irreversibility, that distinguishes it from any mechanical form of action and guarantee the emergence of the new and unexpected. While nowadays we tend to consider speech and action as distinguished, for the Greeks “speech in itself was considered *a priori* a way to act” Arendt’s effort is directed to recuperate the original connection between action and word: in her opinion is in their interconnection that public space is created. To restore this link is nowadays essential when questioning about authentic democracy, which should not be reduced to the right of vote and choosing between already-given options, leading citizens into a political quietness. The ancient Greek *polis* is then analyzed by Arendt for this purpose, not as a “nostalgic” or “utopian” of the *polis* (Habermas, 1984) seeing that the *polis* form arose in a precise and unique historical and cultural moment, but for the exemplarity of its mechanism: “The *polis*, properly speaking, is not the city-state in its physical location; it is the organization of the people as it arises out of acting and speaking together, and its true space lies between people living together for this purpose, no matter where they happen to be” (Arendt, 1958).

The decision-making processes held by new occupation generations can be considered an interesting example of how the link between action and speech is restored. In the assembly form, for example, the decision making process is not made by raising hands but rather on *persuasion*, an ancient Greek and Roman concept which Arendt has particularly at heart, not to be confused with the mystification and inauthenticity: to persuade is to physically put oneself in the light, to take risk, discussing in the attempt to convince the other of one owns reasons. Furthermore, any considerable action that is undertaken by the occupants passes through word, through assemblies, long discussions – if needed. New generation occupations represent, paradoxically, what is more close to a public space – an illegal public space. *Illegal*, nonetheless *just*, because it brings back the authentic role of the citizen: the possibility to build, rebuild, determine, change and imagine the city through speech and discussion – that makes the whole difference between *living* and *inhabiting* their city. A more just city is perhaps a city in which citizens are defined not on passports but on the way they *appear* to each other – meaning, according to Hannah Arendt, to act in a public space, visible to many. The conditions (and the risks) for achieving a more just city lay in this struggle for (re)creating public spaces.

## 8 Conclusion

The economical configuration of culture moves first of all from its physical places, and goes hand in hand with the functionalization of urban spaces. Although it is without doubts the predominant, the conception of culture as an economic good is not the only existing one, and we should question which are the places that guarantee this other way of promoting and producing culture. For example, cultural associations, committee districts, volunteering activities and squats represent, in a very different way, a valid alternative to the functionalization of culture.

The existence of social centres in Italy is having a long tradition and started in the middle of the 20th century. The country was suffering from a 20 years fascist regime followed by a political hegemony of the Christian Democrats party. After the fascist period, many autonomous left wing organizations have formed a strong presence in the city of Rome, influenced by thinkers like Antonio Negri. Different independent groups formed the *Autonomia* movement, which used the classical Marxism ideology as their language (Mudu, 2012). The end of *Autonomia* in the mid-1980s concurrently generated the Social Centre Movement, which also absorbed a new generation of anarchists who identified themselves as “punks” and were defined by a repudiation of the rules of modern capitalist society through dress, music, and a simultaneous rejection of political participation and development of political consciousness (Mudu, 2012).

The earliest Social Centres were organized by workers organizations with the name *Casa del Popolo* (House of the People). With the process of de-industrialization the Italian economy declined in the 1980s and the social centres became again places for a protest movement. These “Centri Sociali” are occupied urban spaces animated by different groups of people, which are fighting for the right to cultural places without any commercial or speculative interest. The movement is presenting a form of self-organized and anti-capitalistic cultural space production, which is protesting against the weak political and cultural landscape of the city of Rome. Some Social Centres underwent a nuanced paradigm shift in the 1990s, growing from militant pockets of resistance into more public spheres within the city that maintained their individuality while beginning to network in order to act in common over certain demands (Solaro, 2007). “Broadly defined, Social Centres are abandoned buildings, such as warehouses, factories, military forts, or schools that have been occupied or “squatted” and transformed into cultural and political hubs explicitly free from both the market and state control” (McGann, 2014).

However, as Rome’s squatted Social Centres have always shared some ubiquitous qualities, primarily their role as sites of occupation where the political dimension is dominant over urban housing needs (Vereni, 2012). In general all of the “Centri Sociali” are self-financed and many of their members are working as volunteers without any salary. Different activities or renovation works are paid by fund-raising through cultural events, parties and private donations. The squatters are in most of the cases supported by the local neighbourhood and are places for everybody.

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on the relationship between the consumer and the social centre, the relationship between political entities and the social centre (including the arguments over the legalization of these spaces), the relationship between the individual and labour, the provision of services in the context of the shrinking public welfare state, and a host of other, often hyper localized, issues. Perhaps the greatest division was between centres that accepted a relationship with the municipality and those that did not (Mudu, 2004). But, Social Centres were forced to collectively address other realities as well – how should the centres be funded? Should the workers be paid? Was it possible to develop a political consciousness while maintaining the core mission of an autonomous self-managed space? (McGann, 2014)

Most notably, they have helped to ameliorate the damage caused by the Roman tradition of speculative expansion by reconstituting abandoned and decrepit properties in the city for positive public use. Social Centers emancipated the antagonistic movement from the ghetto, but it is their continued connection to this secular movement which has made them somewhat incompatible with integrating the recent international immigrants who wish to keep their religious beliefs or involving citizens who do not want to operate outside of neoliberalism, but simply believe they are not being provided with the public services they are owed as tax payers (Mudu, 2004).

Social centres in Rome are places for “everybody”: migrants, workers, students, children etc. The aim is to create “common spaces” for the local population in Rome against the neoliberal city policies. The fact that most of these common spaces are in a constant danger to get evicted is bringing up a discussion for legalizing some of the social centres and helps illustrate the different ideologies in the Roma squatting scene.

The oldest and one of the most important Social Centre in Rome is *Forte Prenestino*, located in a southern suburb of Rome. *Forte Prenestino* is a former medieval fortress, which is squatted since 1987 and can still be seen as an impregnable fortress against the commercialization of the city. Located in a peripheral neighbourhood known for high levels of unemployment and heroin abuse, the occupiers sought to offer a radical alternative to the marginalization of fringe city life through bottom-up local self-development/management (Solaro, 2007). As an initial occupier expressed the excitement of the centre’s genesis: “All of a sudden, we were inside, ‘running’ the place – we who had never managed anything except our unemployment, our homelessness, our own little patch, our streets” (Solaro, 2007).

*Forte* reinforces the earlier discussion of the political fragmentation typical of the Roman Social Centers and how this affected the activities that were undertaken. “...*From punks, who had pushed the concert programs...to people (not only autonomists) coming from the various political experiences of the seventies, who brought with them debates over nuclear power, anti-militarism and third worldism, the new left, censorship, psychiatry and so on*” (Solaro, 2007).

This ideology can be seen in most of the Roman social centres, which are fighting for better cultural and social conditions in the city. At the moment there are around 200 self – managed social centres in Italy, which have their aim to support the daily life of the local communities.

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# Tree-Squares in Anatolia: What does an emergent public space mean?

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Urban places, besides their physical characteristics, are regarded as grounds where personal or collective meanings are created and accumulated. An individual can capture the meaning of a place, or create new meanings by relying on his/her own feelings and experiences. This research, by discussing the idea of togetherness of meaning and design in urban spaces, presents trees both as place making and meaning generating features, which honors the local identity of a site. Tree-squares are, therefore, the unique urban public places where this relationship is observed clearly.

The researcher's encounter with a Çınaraltı Square - a Turkish term used to define public places under massive and historical plane trees and will be referred as Tree-Square within the scope of this paper - which is marked by a plane tree that is called Musa (Moses) Plane in Antakya/Turkey has triggered an idea of questioning the urban planning and design approaches beyond the broadly accepted role of trees as natural and aesthetic beings in cities. Later on, Yalvaç Plane in Yalvaç/Isparta site, and the outstanding public place under its tremendous branches carried this wonder one step further, since this Tree-Square was not only an attractive place with a magnificent plane tree, but also the heart of the city. It was unplanned and un-envisioned by any kind of legal planning or design authority; instead, it was emerged and developed out of the cultural beliefs and traditions.

This emergent public space is a product of a long term social and historical interaction process that created the main public place of a medium-sized Turkish city, as in many Anatolian cities. It carries significant urban qualities, such as forming the heart of cities and having a visible impact on the urban macroform. Therefore, a case study research has been conducted in Yalvaç Tree-Square to gain a comprehensive grasp of the social and spatial organization of an urban place that is dominated by a historical plane tree. In this sense, the role of Yalvaç Plane in the historical and spatial development of an urban space will be evaluated by relying on socially produced meaning in the built environment

**Keywords:** Tree-Square; Public Space; Emergent Space; Local Identity; Meaning in Urban Design.

## 1 Introduction

Trees, as the first source of food, shelter and worship for man, are one of the most valuable living things on earth. From early times till today, people have always been in contact with trees, but once worshiped as gods or holy spirits, they now enrich urban exterior spaces. That is, this long-standing relationship is concealed behind the appreciation of existence of trees, and in turn the extensive use of them in the built environment. However, a child who plays around a tree, a person who planted a tree to honor the birth of his child or to provide profusion for his home are the meaningful remnants of this deeply-rooted relationship. Whether tangible or not, these facts point out a strong connection between people, trees and spaces that needs a comprehensive study covering a range of meanings of trees from physical to symbolic that may influence a person who walks by trees on streets of his/her city.



**Figure 1.** Connecting the Concepts: Meaning, Design and Trees

The need to understand the qualities of tree-squares in cities that contributes not only to 'emergent' place making processes but also to foster meaning in those places are the fundamental concerns within this paper. The connections between people, trees and urban public places are explored to excavate the meaning possible channels that contribute to the formation and maintenance of cultural identities on urban physical environment (Figure 1). Therefore a relevant question to ask is *"Do the emergent tree-places in Turkish cities contribute to the place making processes and meaningfulness within an urban settlement?"*

In order to construct the bridge between meaning and urban design on urban space through the evaluation of specific tree-places the first part of the paper elaborated the relationship between trees, people and places. The following part is devoted to present the richness of the meanings of tree use in urban environments especially in Anatolian region. The important point here is to see the reflections of the deep-rooted cultural and religious believes on the urban physical environment. The last part of this study illustrates this relationship from a closer perspective by conducting a detailed case study research on one the most well-known tree-squares in Turkey that is called Yalvaç Çınaraltı Square.

## 2 Trees, People and Places

*"Trees are our strongest allies."*  
(Hageneder, 2005,6)

Urban design, as *"the study of how cities have achieved their physical form and the processes that go into renewing them"* (Cuthbert 2006, 1) is not merely interested in physical arrangements. Social aspects, symbolic values, meanings, collective memory and conflicts are also of utmost significance (Cuthbert, 2006, 1). Moreover, urban place, as the main study ground of urban design, is composed of three elements, form, activity and meaning. The formation of places is closely linked to the culture and social aspects of a society and hence people try to "match their characteristics, values, expectations, norms, behaviors" (Rapoport, 1977, 4). In this sense, urban design actions should come into the scene to provide places for people to maintain their lives and reflect their feelings. This is not an easy task, since the meaning formation requires a mutual and social interrelation between people and their environment.

By definition, a tree is *"a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground"* according to the Oxford dictionary. Without doubt, there is much more about the meaning and the use of trees. For instance, they have multiple benefits ranging from environmental to psychological contributions in an urban setting (Nadel *et al.* 1977; Sommer, 2003; Arnold, 1993). Thus, trees are extensively used in urban planning and design activities to satisfy various design purposes, such as enhancing urban environment, adding scale, dividing spaces; creating discrete spaces, rhythm and geometries when used properly (Arnold 1993). Besides, as representatives of nature itself trees enhance urban life by humanizing urban landscape with their visual powers, which in turn shape the human psychology positively (Nadel *et al.*, 1977). Beyond the physical and psychological

contributions, there exist a profound relationship between people and trees shaped by traditions, symbolism, religions, metaphors, psychological and social metaphors and perceptions (Sommer, 2003).

In essence, trees provide multi-dimensional benefits for human life and for cities. Therefore, this research focuses on the fields of psychology, anthropology, sociology, urban design, landscape architecture, ecology, theology and alike to acquire the taxonomy of meanings of trees and to solve the complicated relationships, benefits and feelings attached to them. The complexity and density of the subject is striking when different fields are studied. As the meanings of trees are examined from physical to spiritual perspectives, it gets harder to grasp and categorize the relationship and interactions between people and trees. Thus, in accordance with the findings from a comprehensive literature review, a classification for significance of trees has been formed as follows:

- Physical – Visual Benefits
- Special Benefits and Meanings for People
- Deeper Attachments

Table 1 summarizes the categories showing the importance of trees in three broad meaning levels. This classification has been developed in accordance with the environmental perception and cognition process related to grasping the sense of place. That is, the tree here may be an object at first sight, but as it gains meaning in time or in response to experiences, it may become a powerful phenomenon and may satisfy the need of meaning generation in urban places.

**Table 1** Classification for Significance of Trees

	Classification of Meaning		Explanation
1st Meaning Level	Physical – Visual Benefits	Environmental	Trees' benefits for urban biodiversity and climate or trees' potential to rise real estate values etc.
2nd Meaning Level	Special Benefits & Meanings for People	Feeling Stimulator	Positive psychological and sociological effect of trees on people. Such as nurturing local identity, healing damaged self-etc.
3rd Meanings Level	Deeper Attachments	Trees in Spirituality & Cosmology	A deeper perception of trees and special ties with people. The deeply-rooted relationship between people and trees that shows itself on mythology, religion, spiritualism and depth psychology.

## 2.1 Physical and Visual Benefits of Trees

The studies concerning trees are generally focused on their environmental and visual benefits. Since these are easier to measure and observe, they are considered as the first level of meanings of trees in this research. Trees, at the first glance, are the beautiful features and noble representatives of nature in urban areas. They contribute to ecology by preserving biodiversity, rainwater runoff, heat balances, gas emissions and the like. These valuable attributes they construct the initial meaning association with trees. In other words, when we experience trees in

urban places, we tend to think more of their physical beauty. Their appearance can easily be an asset of aesthetics of nature. Besides, on a sunny day, we comfort ourselves along their shade, and on a rainy day we protect ourselves under their branches.

## 2.2 Special Meanings of Trees for People

Until recently, trees were thought as mere ornamental or cultivated additions to a cityscape. This horticultural view has been accompanied by an awareness of the contribution of trees to the psychological life in the city today (Nadel et al. 1977; Arnold, 1993; Sommer, 2003). Accordingly the second meaning level appreciates the positive effects of urban trees on human health, psychology and culture. This is because with their size, shape and other physical intrinsic characteristics trees create visual attractiveness which can easily engage our senses (Jones et al. 2002, 91). These are the sounds of their leaves, the flickering light among their branches.

Furthermore, studies on environmental psychology show stress-reducing and restorative effects of trees and landscapes on children and adults (Sommer, 2003). Also, healing effects of trees which were measured by Ulrich (1981) point out that individuals who experience urban scenes with vegetation have “*slower heartbeats, lower blood pressure, more relaxed brain waves*” than the ones who do not. In addition to visual responses, the smell and the noise of the trees and forests have healing effects on people as well (Schroeder 1990).

The resemblances between people and trees could be another reason for special ties to emerge. The humane characteristics of trees such as standing up, having arms, feet, legs are mostly associated with trunk; root and branches of trees are the first set of reasons. For instance Native Americans call trees “*our standing brothers and sisters*” (Hageneder 2005, 6).

Besides, trees protect people from sun, rain and wind, arousing a feeling of shelter or home creating profound bonds between man and trees (Schroeder 1990). When these similarities and psychological ties come together, trees are capable of reminding sociological meanings for communities. In other words, trees embody some social characteristics of people as well. For instance, when separately planted trees grow different than the ones that grow together in a forest. This is a similar situation for people who live alone or connected to a society. There is a well-known verse from the famous poet *Nazım Hikmet* that expresses the ideal life by exemplifying trees that touches upon this very context:

*“Living alone and free like a tree and in brotherly love like a forest.”*

## 2.3 Deeper Attachments between People and Trees

There are strong and deep psychological connections between people and trees that cannot be unconsciousness. The connections between primitive and modern man through meaningful remnants such as symbols and myths of the unconsciousness should not be ignored. Jung's analytic psychology studies show the relevancy of ancient symbols -one of which is the tree- for modern man as well (Henderson cited in Jung 1964, 106).

This profound association is explored mostly by psychology, symbolism, mythology, and studies in cosmology. Trees and man share a common fate shaped throughout the history which resulted in rich accumulation of traditions and symbolism. They are one of the particular beings that

affected the imaginative life of man considerably (Nadel *et al.* 1977, 1; Porteous, 2002, 150). Almost all people regarded trees as the representatives of some deeper virtue beyond their physical existence, which in turn resulted in strong attachments between people and trees especially in spiritual and psychological dimensions (Philpot, 2004, Nadel *et al.*, 1977). Their imposing sizes, changing colors, sounds, durability and solidity may have triggered the early people's imagination. Trees commonly were seen as an embodiment of life or a spiritual essence, the main axis of the universe, and as the center of the world connecting three realms; namely earth, heaven and hell (Philpot 2004 ; Fontana 1994). The upright position, branches reaching to the sky, changing colors through seasons and many other characteristics of trees have resulted in the experience of awe (Porteous 2002, 149; Schroeder 1992). Trees were the first temples, homes, sanctuaries for men who supplied his first food and clothing from them (Porteous 2002, 216).

This spiritual connection between people and trees can be exemplified through the history of tree worship and its contemporary traces. There are interesting norms and daily practices of modern man that carry traces from this deeply-rooted relationship. For instance, evergreens are seen as the symbols of the eternal life, while the deciduous trees represent regeneration and immortality in various regions (Fontana 1994; Schroeder, 1993). Another remarkable example is the Christmas tree. Pine trees are decorated during the Christmas time as a symbol of the continuity of life even in the cold or "lifeless" months of the year (Fontana 1994, 100). A famous turcologist Gönül Tekin (2009) states that the first traces regarding to the symbolism of a world tree and a tree god date back to the Sumerians (ca. 4500 and 4000 BC).

From the earliest periods of time till today, these powerful associations to the trees could have left marks in the psychological and spiritual perception of modern man. Jung (1964) explains this historical interconnection as the bridge between conscious expressions of rational thoughts and the primitive, colorful and pictorial world of instinct (Jung 1969, 48-49). It is clear that this third level of meaning association towards trees is the most profound and enigmatic one.

#### *Trees in Symbolism*

Trees in mythology are the symbols representing what is unexplainable for the primitive man who sought answers for what is going on around him. Therefore, these myths offered explanations by relating real life incidents to some spiritual or natural references. In this sense, trees stood for life, growth, fertility, health, regeneration, wisdom, enlightenment, wish, healing and strength almost in all ancient beliefs (Schroeder, 1992, 75; Ergun, 2004, 17).

Especially one ruling tree that stands in the middle of earth, with its roots reaching to underground, its trunk standing on the ground and branches rising to the sky has been a significant symbol for the cosmic or the "World Tree", which represented hell (roots), earth (trunk) and heaven (branches) (Ergun 2004, 17). This concept of tree of life dates back to the Neolithic times (Hageneder, 2005, 8). One of the famous examples belongs to Scandinavian mythology and called "Ash Yggdrasil". It was believed that Ash Yggdrasil's branches covered earth, and the creator made his decisions beside it (Ergun 2004, 20). There are other cosmic trees as "Hayat/Dünya Ağacı" in Turkish belief, "Irmınsul" in Germany and "Haoma Tree" in Iran and many alike. These myths indicate the similarity of perceptions regardless to the geography, since there is always a colossal

tree at the center of the world, covering the three realms of the universe and ruling the life on earth. It is for sure that, symbolic values of trees go beyond the World Tree.

### 3 Tree-Places in Anatolia

The literature findings indicate that the earliest traces for tree cults date back to the 4<sup>th</sup> century BC to the Huns (Hunlar) in Anatolia. At the end of every summer, Huns performed a ritual around a pine tree located on a skirt of a mountain in their capital city. This can be considered as a mark showing that the majesty of an individual tree with impressive size and shape affected the lifestyle of Turkic people. Furthermore, the most common symbol of a cosmic world tree is known as Hayat Ağacı (Tree of Life) holding the three realms of the universe with its nine branches representing nine levels of sky reaching to divine and as long as this tree stays green, life on earth will continue (Ergun, 2004, 145-146). Similar to the other examples of world tree around the world, the branches of Hayat Ağacı represent birth and death. The tree of world (or life) is single, lonely, magnificent in size and shape, deciduous, life giving, old, connecting the three realms of universe and covering the whole world in all civilizations (Ergun, 2004, 193-195).

There are some specific tree symbols. The beech tree, for instance, was sacred to Shamanist Turks. Shamans' drums were believed to be made from tree of life and hence, Shamans had to be present in all sorts of rituals to make the creator hear their will. According to an Altay Legend, a pine rises at the center of the world touching to sky (to god), and it is possible to see this pine drawing on some Shaman drums. There is a well-known association of tree cult to shamanism, totemism and polytheistic religion of Turkic peoples. Sky God (Göktanrı), for instance, tree of life is a reflection of the creator on earth (Ergun 2004, 148).

#### 3.1 Plane Trees in Ottoman Era

The descriptions of cities made by Moltke in the first half of the 19th century prove the significance of existence of trees. Moreover, the noteworthy role of plane trees worth mentioning in detail. Plane tree is known as a symbol of the Ottoman Empire, and thus they were frequently planted in urban places. The story behind this symbolic value is a dream in which the founder of the Ottoman Empire Osman Gazi saw a plane tree covering the entire sky and ruling three continents. This dream was interpreted as the forerunner for foundation of empire. It is also believed that, after this dream a dervish named *Geyikli Baba* planted an old plane tree to present the solidity and eternity of a new empire (Ergun 2010, 231). Ünaydın (1938 cited in Çınar et al. 2004, 63-64) emphasizes the link between the plane tree and Turkish identity by saying:

*"Plane is the very tree of Turks. It is beautiful, that much connectedness to the earth ...When it covers a square, it gives coolness and shade. It is also visible in our architecture. On one side of a mosque there is a plane trees symbolizing life and on the other a beech trees symbolizing death."*



**Figure 2.** Small Raised Square with a Plane Tree

(Source: Cerasi 1985, 45)

Furthermore, the valuable studies of Cerasi (1985) demonstrate the significance of tree and water elements for open space arrangement in Ottoman cities. He describes that in a courtyard, near a fountain or along river majestic trees were the “pivots of an urban square” defining a human intervention that generates “urbanity” which integrates culture, nature and what is built (Cerasi 1985, 43) (Figure 2).

On account of this symbolic value, plane trees were frequently used to enrich urban places, especially in social complexes during the Ottoman era. For example, in the mosque yards plane trees provided shade and a nodal point for people to gather, creating an open public place for people. Plane trees were marking the memory of a dream that came true about a great regality and at the same time they are unique collectors of people in Turkish cities although they had lost their true meanings through years (Cerasi, 1985; Lowry 2009, 97).

### 3.2 Trees in Turkish Culture Today

Every community carries their former beliefs as it moves to another level of religious or cultural understanding. Even not fulfilled completely, these habits and customs are imprinted on the cultural codes of the society (Ergun 2004, 391). Tree cults, in this sense, can be described as meaningful remnants of a deep rooted past. Ergun (2004) argues that, today the trees with their imposing characteristics are looked upon as the reminders of the existence of Allah while former cults are being evolved into other type of rituals and customs.

There are over one thousand tree cults all around the Anatolian region today (Ergun 2004 ; Lowry 2009, 97). The beech tree, pine, cypress, mulberry, plane trees are the frequently seen trees carrying a symbolic value in the Anatolian geography. To illustrate, beech tree stands for the kindness and wellbeing, the pine for the uniqueness and greatness of the creator, poplar tree for the independence, plane for power and regency, cypress tree for the eternity and so on (Ergun 2004, 195-234).

As some trees are symbolizing life, it was a tradition to plant trees around sanctuaries or cemeteries. Today people plant trees on the direction of tiptoes and heads of the dead in Turkey. The cypress tree is commonly seen in the graveyards (Figure 3). People believe that the souls of their loved ones reach to the skies (to heaven) and as long as the tree is green, the soul is believed

to be in peace (Ergun 2004, 234). Besides symbolizing the peaceful eternal life, cypress trees rise straightly to the sky and have gentle roots that do no harm to the graves. As the tree for death, the form of cypress trees was linked to their moral impacts by Hisar (2006 cited in Çınar et al. 2010, 64) as: *"They were always looking at the sky, as if not to see any slavishness"*. A famous Turkish poet Necip Fazıl Kısakürek summarizes the perception about cypress trees by this single verse from his poem of *Canım İstanbul* as:

*"Cypress, graceful cypress curtains the after-life."*

The "Dilek Ağacı-Wish Tree" is a noteworthy illustration for historical Turkish customs related to trees (Figure 4). The wish trees are quite widespread in Anatolia. People hang clothes up on some special trees wishing that their wills to be heard by the divine. The paragraph below explains these appealing characteristics of trees:

*"When you get close to one single tree, you see some pale rags of every color hanging on the dry and puzzled branches of them. These are the vows of desires plucked from the cuffs of jackets and tied to those puzzled branches. They are the vows of beautiful desires that may never come true."*

(Birand, *Anadolu Manzaraları*, 1999)



**Figure 3.** Cemetery and Cypress Trees  
(Personal Archieve, 2012)



**Figure 4.** A Wish Tree in Cappadocia  
(Oktay, 2012)

Another example is the trees which are planted next to tombs, mausoleums and mosques. It is almost impossible to think of a tomb or mosque without a tree in its close vicinity. The reason can be the meaningful remnants from the earlier rituals of associating trees with divinity and gods. Today, the trees planted near worship related places or tombs are believed to symbolize the existence of god and protect the spirits of dead ones (Figures 5-6).



**Figure 5.** Trabzon Square: The Mosque and Plane Tree (Gedikli, 2012)



**Figure 6.** Edirne: Selimiye Mosque and Plane Tree (Günay, 2007)

The symbolic value of the mulberry tree is also remarkable. It is known as the home tree and planted in front of the houses before they are built. The mulberry tree is planted to prevent bad luck, to bring happiness and luck to the home, to mark their territory and to provide shade as well. It stands for that the spirit of houses, and provides happiness and profusion (Ergun 2004, 238).

The common tradition of planting trees in front of houses can be interpreted in terms of two aspects, the first of which is the visible impact of trees on the urban layout and the second aspect is the maintenance of a deeply-rooted relationship. In terms of the first aspect, trees planted in front of houses can be perceived as an integration of green to the urban tissue. Le Corbusier, for instance, states that “A Turk, before he builds a house, makes the garden and plant the tree, while French cut the tree to build the house.” (cited in Ergun 2004, 299) although the present situation has turned the other way around. For the second aspect, there seems to be a symbolic value of these trees for the owner of houses even if it stays hidden nowadays.



**Figure 7.** Mulberry Tree and a House (Personal Archive, 2012)



**Figure 8.** Pine Tree and a House (Günay, 2006)



**Figure 9.** Walnut Tree and a House (Personal Archive, 2012)

The figures 7-8-9 illustrate the house and tree relationship in Turkey. They are from various settlements from Turkey, and in each one of it, there is a different housing and tree type which makes this tradition (or ritual) significant for the urban fabric. In spite of being a spontaneous application, this sort of tree use indicates a valuable urban feature that has a word in the

organization of urban space.

#### 4 Case Study: Yalvaç Çınaraltı Square

Yalvaç Çınaraltı Square in Yalvaç in the province of Isparta is located in the Central Anatolian region of Turkey. This tree-place serves as a public square and an 800 year-old plane tree which is called Yalvaç Plane stands in the middle. This tree is at the heart of the urban fabric forming a gathering area for the citizens and visitors of Yalvaç. Yalvaç Çınaraltı Square is a particular example which is developed spontaneously throughout the years. That is, the existence of the plane tree had affected the spatial development of the city. People have regarded trees as focal points for years, and yet the intentional design interventions enrich the site's spatial qualities as well. In this sense, this chapter presents the methodological approach to the main research question, how it is evaluated with the case research and the related findings.

##### *The History of Tree / Yalvaç Çınaraltı Square*

Yalvaç Çınaraltı Square is one of the most attractive urban areas in the city of Yalvaç. It stands out as a distinctive and lively urban area both for local people and visitors. This place is surrounded by a variety of commercial uses such as coffee houses, hairdressers and restaurants. This 800 year old-plane tree dominates this public square with its 25 meters height and 3.2 meters diameter. It embraces the whole square with its magnificent branches of 8 to 16 meters length.

The history of the site and tree is not clear in the current sources. However, an interview conducted with the mayor of Yalvaç city, Mr. Tekin Bayram, has revealed some clues regarding the historical background of the square. The mayor states that, history of the plane tree dates back to the Battle of Myriokephalon in 1176. During this war, army of the Crusades had been defeated near Yalvaç region and Turkish empery had proven its dominancy in the Anatolian region once again under the leadership of Kılıçarslan the Second. It is believed that Kılıçarslan's brother and Emir Ahmet came near to the Yalvaç city, and Yalvaç plane tree had been planted as a sign of victory at the beginning of the 13th century A.D. The Devlethan Mosque near the plane tree was built in the 14th century in the name of the brother of Kılıçarslan the Second. According to the mayor, the Seljuk Bath, mosque and plane tree all in close vicinity give clues regarding the settlement pattern in Seljuk period.



**Figure 10.** Çınaraltı Square in 1946  
(Yalvaç Municipality Archive)

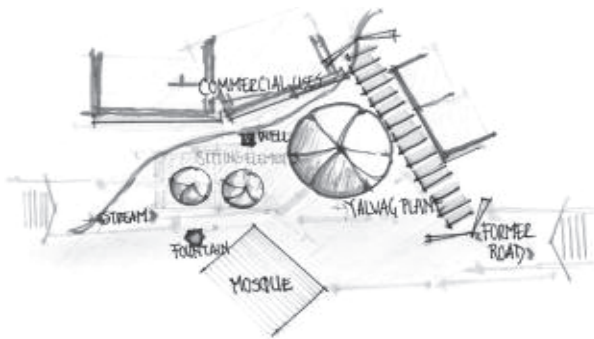


**Figure 11.** Çınaraltı Square in 2012  
(Personal Archive)

Since this monumental plane tree has been a key feature within the urban fabric for 800 years, the spatial organization around the tree surrounding deserves a closer look. It should be noted that, there is not adequate information regarding the former situations of Çınaraltı Square. Old pictures, interviews with mayor and local people are used to conceptualize the site in pre-90s.

Based on the data collected from narrators and old pictures, the area seems to have served for gathering and functioned as a marker of the mosque. Even back then, there were tables and other sitting elements which oriented local people and visitors to gather around the plane tree (Figure 10).

The Mayor explains that before the 1990s the site was already acting as the heart of Yalvaç, together with the sitting elements and socio-cultural activities (e.g. call and response duets, festivals, a cinema called 'Çınar Sineması' etc.). Plane tree was located at a corner of a paved street and a road was passing right beside it. Older interviewees added that there was a stream on the other side of Yalvaç plane. People would drink water from a well that was fed by this stream. Briefly, Yalvaç Çınaraltı has always been the very public place that gathers people together, makes it possible to share thoughts, entertains local people, and welcomes visitors for many years. The spatial organization of the square before 1990s has been illustrated by taking the old pictures and statements of the participants into account (Figure 12).



**Figure 12.** The Square Before the 1990s  
(drawn by the author with respect to interviews and old pictures)

Today, Yalvaç Çınaraltı square dominates a significant urban area after some design arrangements held on site. There are 13 coffee shops, one hair dresser and two restaurants around the tree. Also, former road was canceled and added to the place. The surface of the square was differentiated than the surrounding area to indicate the “tree's place”. There are two ottoman bazaars (arasta) which are ironsmith and shoemaker bazaars opening up to the square. Devlethan Mosque, the Mausoleum of Emir Ahmet can be listed as the important religious and architectural values near Çınaraltı (Figure 11).

#### 4.1 Research Design

Several academic fields come into the picture while constructing the theoretical framework, although the point of departure for this research has mostly been on the studies of urban design.

Relying on the findings of this variety, literature review has clarified the diversity and

complexity of the subject of meaning, elaborated social, spatial, cultural and psychological contexts related to the relationship between meaning, trees and urban places. During this, four hypotheses have been constructed to investigate through this case study in accordance with the main concerns of the research which are:

-The relationships between people and trees have direct or indirect impacts on the location and spatial organization of a tree-place.

-Tree-places act as semi-public or public places that offer various activity choices and motives.

-Tree-places carry the characteristics for its users to associate meanings and to develop a place identity, place attachment and the notion of sense of place.

-There exist a profound relationship between people and trees that is shaped throughout history and experiences.

Four sub-questions about how trees affect people and places in urban areas are formulated accordingly. They are to analyze the role of trees in an urban place in three ways: meaning, activity and form -the three essential components of urban place-. These questions intend to have a grasp of how trees define urban **activities** and spatial **forms** and in what ways trees add **meaning** to places and in turn to people. Table 2 shows the sub-questions, related research approach, data collection techniques and data analysis:

**Table 2.** Research Design

Sub-questions	Type of Research	Data Collection	Data Analysis
What are spatial qualities of Çınaraltı Square within the urban fabric of Yalvaç?	Exploratory	<ul style="list-style-type: none"> <li>• Observations</li> <li>• Municipal Archives</li> </ul>	<ul style="list-style-type: none"> <li>• Drawings</li> </ul>
What do the users of the Çınaraltı Square do with respect to the presence of the plane tree?	Exploratory	<ul style="list-style-type: none"> <li>• Open Ended Questionnaire</li> <li>• Municipal Archives</li> <li>• Observations</li> </ul>	<ul style="list-style-type: none"> <li>• Content Analysis</li> <li>• Direct Quotations</li> <li>• Mapping/Drawings</li> </ul>
What do the users of square perceive about the contribution of plane to the formation of meaning in place?	Exploratory	Open Questionnaire      Ended	<ul style="list-style-type: none"> <li>• Classifications by using Quotations</li> </ul>
What are the constituents of meanings that people assign to trees of common urban places?	Exploratory	Open Questionnaire      Ended	<ul style="list-style-type: none"> <li>• Content Analysis</li> <li>• Direct Quotations</li> </ul>

### *Respondents*

The case study aimed to integrate respondents from different age groups, genders and occupations to the research process to minimize biases that could have caused by the dominance of a specific group. Hence, the respondents contributed to the research carried out in the Yalvaç Çınaraltı Square represent the inhabitants of Yalvaç city from different age groups, occupations and genders. The method of random sampling was applied in choosing the respondents. Twenty-two participants were asked about their perception of the plane tree, the meanings they attached to it, and their activities in the tree-place (Table 3). So as to provide gender equality in the case study

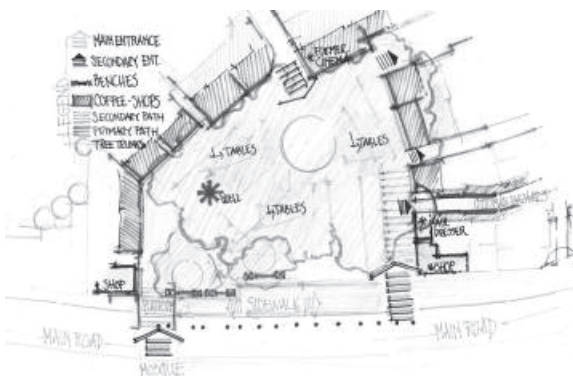
research, the very vicinity of Çınaraltı Square was chosen to speak with local women, as they barely use the square itself.

**Table 3.** Concepts and Related Interview Questions

Sections	Questions	
INTRODUCTORY QUESTIONS	1. 2. 3. 4.	What are the main reasons for you to come to Yalvaç Çınaraltı Square? Can you please describe this place? What do you feel when you come here? What do you see around you that triggers these emotions?
ACTIVITY	5.	How do you use this square? How often? Which characteristics of the square determine how you use it?
MEANING of TREE AND THE PLACE	6. 7.	What feelings does this plane tree evoke in you? How would you describe the plane tree with your own words?
	8. 9.	What does this plane tree mean to you? What would happen if the plane tree were not be here? What kind of a place would this square be? How would you feel?
	10.	Do you have any special memories about the plane tree on the Yalvaç Çınaraltı Square?

## 4.2 Form

The Yalvaç Plane dominates a substantial place within the urban fabric of Yalvaç. Even the best pictures from the site may not explain well enough the impressiveness of the tree and the place under its tremendous branches. The plane tree shows itself in the middle of the urban macroform and main transportation lines of the city of Yalvaç even from the satellite images. The tree says: "I'm here." Although one is walking towards the plane tree with an awareness of its majesty, the first meeting is still highly impressive. The width of the square is narrower than the foliage of the tree. The branches hang over the roofs of surrounding buildings. There are so many people taking advantage of the shade of the tree, sitting in the cool area during a hot summer day. At the opposite of the square stands a face-stone coated Seljuk mosque and a fountain (şadırvan) next to it, both completing the definition of a square of Turkish settlements; a fountain, a mosque and a plane tree (Figure 13).



**Figure 13.** The Spatial Story of the Çınaraltı Square (Personal Drawing)

### 4.3 Activity

There are 13 coffee shops, a hairdresser, two restaurants and a former cinema (now vacant) within the square, which serve to local people and provide a meeting place. During the field research, there were a lot of people present in the case area. However, the local women do not seem to frequently use the Çınaraltı Square as far as my personal observations and some respondents' declarations are concerned. Only some high-educated female visitors were spending time in the site. There were some local women, as well, who came together with their families, but preferring to sit at the very edge of the site.

Firstly, the respondents tend to explain their activities on the site firstly stating by the activity types (62.2%) as meeting, chatting, spending time and so on, then with the motives (30.4%) that make them prefer to conduct that activity in this place as the existence of friends, relatives, coffee shops; and finally by mentioning about their frequency of visits (7.4%). Furthermore, there arise three noteworthy activities going on in the tree-place, namely: local bazaar, festivals and funerals.

### 4.4 The Meaning of Tree-Place

To be able to grasp the significance of Yalvaç Çınaraltı Square, the interview findings are grouped under six content groups -*aesthetics, spatial, historical, sensuous dimensions, nature and belonging*-. They specify that people express themselves mostly by stating a **sensation** (peace, comfort, calmness, serenity, relief, etc.), a notion of belonging (feeling like home, belonging here, etc.), a **spatial** assessment (centrality, meeting point, intersection, etc.), a **natural** characteristic (green, climatic comfort, natural, etc.), a **historical** association ( history, past, old, etc.) and an **aesthetic** relation (beautiful, interesting, etc.).

**Table 4.** Content Groups Related to the Meaning Attribute of the Tree-place

	Content Groups	Phrases from Respondents
1	<b>Aesthetics</b>	"This is a beautiful place."
2	<b>Spatial</b>	"Here is the center of Yalvaç. You can see/find everyone here."
3	<b>Historical</b>	"This place tells the history."
4	<b>Sensuous Dimension</b>	"I find peace here. You get rid of all the sadness and concerns."
5	<b>Nature</b>	"Here is green and natural."
6	<b>Belonging</b>	"You feel like you are home."

Among the content groups provided in Table 4, the sense-related statements hold the highest ratio of 63%. That is, people tend to describe the significance of the tree-place via their emotions. The notion of belonging follows it with a ratio of 10%. While the space-related explanations hold a ratio of 8,5% among the respondents, nature-related ones are 7,5%. The least mentions are historical (5,7%) and aesthetic (4,9%) characteristics of the tree-place (Table 5) . Briefly, the users of Çınaraltı plane have strong sentimental bounds towards the area as they mostly express themselves using the words such as 'peaceful', 'comfortable', 'calm' 'happy'. Another significant point is that the respondents emphasize their feelings of safety and belonging frequently. Existence of familiar faces and the long stability of the site seem to make Yalvaç people feel themselves connected to the place. Çınaraltı Square, therefore, is a meaningful site for its users which contains prospering natural, historical and aesthetic characteristics.

#### *Sense of place*

Yalvaç inhabitants seem to have developed deeper attachments with the Çınaraltı Square that go beyond what place means solely in physical terms. Within this perspective, it is necessary to mention the notion of sense of place that is an attachment to the spirit of place which is aroused by the meanings that evoke in people's mind about a place.

Local people start talking about the functional or spatial characteristics of the place; but after a while, they tend to express their feelings towards the tree's place. It is clear from the interviews that the Çınaraltı place has produced and is still producing profound meanings for local people which in turn make them attached, remember the 'past' and associate 'profound' feelings towards it.

*"This plane is the soul of Yalvaç, the soul of a city. Also, in here all the city is represented."*  
(Mayor of Yalvaç)

**Table 5.** Frequency of Mentions of the Perceived Contents Related to Meaning of Tree-Place

Content Groups		Contents	Frequency of Mentions	Total Freq. of Mentions	Ratio %
1	<b>Sensuous Dimension</b>	Comfort Coolness Crowd Peace Familiar faces Calmness Getting rid of stress Reminds past Serene Safe Relief Proud Happy	12 9 8 7 6 4 3 3 3 2 1 1 1	67	63%
2	<b>Belonging</b>	Familiar faces Hometown Everyone is connected Belongs to Yalvaç	6 2 2 1	11	10,4%

Content Groups		Contents	Frequency of Mentions	Total Freq. of Mentions	Ratio %
3	<b>Spatial</b>	Centre / central Square of Yalvaç Being close to public buildings Quite big Interaction point	5 1 1 1 1	9	8,5%
4	<b>Nature</b>	Being green and natural Coolness A beautiful nature	4 2 2	8	7,5%
5	<b>Historical</b>	Represents history Old place Has a spirit Different history	3 1 1 1	6	5,7%
6	<b>Aesthetics</b>	Beautiful Different Interesting	3 1 1	5	4,9%
<b>Total</b>				106	100%

#### *Place attachment*

Familial, social, political, economic linkages and religious, moral, mythological dimensions are the concepts that explain the attachment to a place (Low 1992, 170). In other words, people, for any of these reasons may feel themselves attached to a place. It, naturally, depends on individual or cultural experiences and memories about a place (Tuan 2001).

Eight participants out of twenty-two state that they visit the Çınaraltı Square 'regularly' or 'in every occasion'. This physical attachment has been supported by the narrator's statements on their common past and profound connections with the place.

*"I see old people, young people, and close friends all together here. There are grandfathers and grandsons sitting together. Sometimes you can see three generations side by side."*  
(Housewife, F)

#### *Place Identity:*

*The concept of place identity is the unique and continuous characteristic of places, which differentiate them from other places.* Another issue about the place identity is that it is based on individual experiences. Some of the respondents indicated that the place make them feel they are from Yalvaç, while some others specifically stated the place-related information such as the uniqueness of the Çınaraltı Square.

*"(When I come here) I feel like I'm from Yalvaç. This square is the most important place of Yalvaç. I feel happy and proud here."*  
(Retired, M)

*"It's a feeling of belonging to a stable area for years now, the symbol of Yalvaç."  
(Retired, M)*

## 5 Concluding Remarks

The theoretical discussions for bridging the meaning and urban design with the help of trees have been illustrated with a real life context. Yalvaç Çınaraltı Square sets a successful example for its values in contexts of space and meaning. This tree-place is an outcome of long historical processes. Once there was only the plane and earlier people of Yalvaç must have seen it substantial and acted accordingly to the tree and the place around it. These initial and spontaneous acts have merged with the purposeful design actions on the site today. That is, 800 year old existence of a being has been favored by its users throughout the years, and in turn the plane tree carried the spirit of its history, meaning and value till today, and it is quite sure that this will last as far as the tree lives.

What has been inferred from this case study shows the validity of the hypotheses produced for a tree-place scenario, that is holding the meaning of the place and the tree together, influenced urban design actions and was influenced by them. This case study research has presented four hypotheses and related four sub-questions. These concerns have been enlightened throughout this case research and can briefly be analyzed respectively:

(1) **The relationships between people and trees have direct or indirect impacts on the location and spatial organization of a tree-place.** There is a strong interrelation between the location of the place and the urban macroform. The 800 years of existence of tree seems to shape the design interventions and people's acts towards the site. Consequently, Yalvaç Çınaraltı Square can be seen as a node, a spinal element, a natural landmark and a public square

(2) **Tree-places act as semi-public or public places that offer various activity choices and motives.** The variables and the prominent content units that are validating the public characteristics of the site are:

- **Activity Types:** Meeting, Chatting, Spending Time, Drinking Tea-Coffee, Coming Together etc.
- **Motives for Visits:** Existence of Friends, Relatives, The Tree and its Benefits etc.
- **Frequency of Visits:** Every Possible Occasion, Regularly etc.

(3) **Tree-places carry the characteristics for its users to associate meanings and to develop a place identity, place attachment and the notion of sense of place.** The respondents indicated their feelings towards the Çınaraltı Square fostered a new framework for the matter. In this respect, the main content groups have been developed as below all referring the richness of the responses to the related question. The users of the square have multi-level meanings for the place. Furthermore, most of the statements were about the sensuous meanings of tree-place such as its being comfortable, peaceful, and crowded and so on. This group of meanings was categorized as:

- **Sensuous Dimension** (comfort, peace, coolness, serenity, happiness etc.)
- **Belonging** (hometown, familiar faces etc.)
- **Spatial** (central, close vicinity square etc.)
- **Nature** (green, beautiful nature etc.)

- **Historical** (old, spirit, representative etc.)
- **Aesthetics** (beautiful, different, interesting )

Moreover, other variables (place identity-attachment and sense of place) inferred from the literature research also supported this hypothesis. Respondents consistently expressed their feelings of attachment, belonging to the place, as well as the uniqueness, identity and symbolic value of Yalvaç Çınaraltı Square. All of which emphasize the validity of measurers of **meaning in place** for the case of Yalvaç Çınaraltı.

(4) **There exists a profound relationship between people and trees that is shaped throughout history and experiences.** To unveil the meaning patterns and profound connection between people and trees was a fundamental aim of this research. It was of utmost importance to understand the meaning of the plane tree for its users by considering the fuzziness of the distinctions between the meaning of tree-place and the plane tree. Specific questions were designed in this respect. The findings of the content analysis supported the meaning variables derived from the literature research. That is, the respondents express the meaning levels in accordance with the main components introduced during the third chapter. Starting from the highest ratio of mentions to the lowest, these statements are:

Yalvaç Plane as:

- **A Symbol** (symbol of city, or as a symbol carrying humane characteristics such as being lonely, protective, embracing)
- **A Utility** (a beneficial object providing shade, Coolness; attracting clients )
- **A Sensorial Object** (a reminder of the past, evoking the feelings of sadness and peace)
- **A Design Element** (unique, irreplaceable, central)
- **A Bridge to self** (immortality of people)

The main hypothesis of this research has stated that the trees mean more to people and places than it is visible today and this makes trees valuable urban features for spatial planners to help them generate meaning or create discrete places in urban areas. This hypothesis has been supported by the findings of the literature survey as well as the case study research. The investigation of tree-places has demonstrated the power and impact of trees on urban places and provided a framework for further design applications with trees. The problem of placelessness and loss of distinctiveness can successfully be solved through this awareness by enhancing existing tree-places or creating new examples. The concluding question in this context is how to relate these findings to the fields of urban planning and design. Below are presented the inferences design guidelines prepared in accordance with the literature survey and case study research. They are presented to create a framework for design actions through which designers can care more about the deliberate use of trees in cities.

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# Reflection of political restructuring on urban symbols: The case of Presidential palace in Ankara, Turkey

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Ankara, capital of Turkey has been the revolution space of the country after the proclamation of republic in 1923. The city has carried out the urban symbols of the republic and modernity vision created by the nationalist administrators and elites. The newly established state used architecture and urban planning in transmitting the ideals of national unity and sovereignty by breaking off its ties from Ottoman heritage. After the span of eighty years, Turkey has experienced a new political hegemony. Post-2000s' political approach changed the urban symbols of early Republican period and redesigned the capital in the line with its ideological basis. One of the most concrete transformations is observed in the presidential palace of the country, which conveys the political intents of each period through its spatial and architectural organizations. This study, therefore, aims to put forward the change in urban symbols and their meanings by focusing on the presidential palace of early republican and post-2000s periods. The comparative analysis on presidential palaces in Ankara is significant in understanding the spatial structuring process of the city with respect to the change in political objectives. The palaces are investigated in observational domains; their spatial configurations, buildings, and symbols in relation to the political intents on urban areas and public realm. This paper concludes that in both periods presidential palaces with respect to their spatial and architectural designs are regarded as the icons in transmitting the messages of the dominant political intentions to the public; the former used it as an instrument of national sovereignty whereas the latter used as a mark of government dominancy over the nation.

**Keywords:** urban symbols, presidential palace, spatial organization, Ankara.

## 1 Introduction

The symbolic dimension of landscape is related to the construction of collective historical memories. For Hutton, collective memory is "an elaborate network of social mores, values and ideals that mark out the dimensions of our imaginations according to the attitudes of the social groups to which we relate" (1993 in Osborne, 1998; 432). In this sense, the capacity to sustain the collective memory relies on power and the memory and forgetting are hegemonically produced and maintained. As argued by Halbwachs, "the past is social and memory is socially acquired" (1992 in Mitchell, 2013). Belanger (2002) identifies the desires of political elites to earn symbolic capital by controlling the meanings through 'political economy of urban collective memory'. In line with the Foucauldian discourse, Mitchell notes that "the hegemony of memory is never complete, as memory remains multiple and mobile, with fragments that are not subsumable in a holistic logic" (2013; 450). Therefore, spatial iconographies inspire meanings "as they are imagined, constructed, and employed in processes" (Evered, 2008).

Urban design of space, architecture of buildings in addition to monuments and ceremonies are the agencies of the symbolic space that enable to create a sense of shared identity and collective memory. Gordon and Osborne (2004; 620) claim that "one of the principal strategies of nationalizing in overcoming internal difference and plural imaginations is to construct a cohesive collective memory and associate the state with a national symbolic space". As the spaces that shape public memory and collective identity changes, the urban collective memory associated with the space also changes.

Urban space is the milieu of reflecting the social, economic and politic order of society. Political power forms the spaces that scale the city, holds the traces of values embedded by different cultures in the city, and acquires social identity. Political spaces can serve for the political and social integration, "as the monumentality of public buildings, their invitation to identification" (Minkenberg, 2014; 5).

Capital cities are the addresses of political authority and "play a significant role in representing the ideals of a nation, or at least the national government's interpretation of these aspirations and ideals" (Shatkin, 2005; 577). The politico-administrative centres are "symbolic theatres for national ideology, a reflection of the larger national stance towards urbanism, a catalyst for national economic development, and at least historically, a bridge between local culture and the 'imagined community' of the nation-state" (Campbell, 2000; 1). Being the host of nation's history and future ideals, physical development of capital cities is shaped by political intents and, their physical form in turn affects the political action. In other words, while the political power designs urban space of capitals, the urban space designs politics.

The cityscape of capital cities addresses the central offices, administrative functions and the symbols that reflect the political authority. The symbols derived from the political intentions and expectations for future and history express the authority and the national identity. Minkenberg claims that "through its architecture and urban design, a capital provides constructed spaces which serve as instruments and offer a language of representation for the entire nation" (2014; 7). The urban design, architecture, and monuments, notes Cinar, are functioning for the state "to establish its power and authority in controlling and dictating the norms that guide daily public life" (2014; 228). By constructing a city, the state becomes the engineer of the national authority, the urban space, and the way of citizens in experiencing the city and the way of life.

In the opening sentence of the book "Architecture, power and national identity" Lawrence Vale (1992) writes that "political power takes many forms". As accepted by many scholars, architecture and spatial planning have been manipulated to transmit the political power to society. As an instrument of state propaganda, monumental structures and spaces have been used to embody the values of dominant ideologies, which do not necessarily have to do with size, but with intensity of expression (Curtis, 1996; 514). Minkenberg states that "public architecture, official buildings and the urban design of official places can be can always be interpreted as ingredients of the establishment of political legitimacy" (2014; 3) whether it is assumed that architecture and urban design reflects the underlying ideology of political regime or they contribute to the constituting political reality. In explaining the relationship between power and architecture, these two major approaches claim basically that public spaces and buildings are "the material expression of political power, its exercise, and its form" (Minkenberg, 2014; 3).

Although cityscapes of capital cities are considerably stable (Wusten, 2000), the capital of Turkey has been experiencing a change in terms of political, social and historical geography. In parallel to the change in the time and political regime, the symbols of Ankara have exercised a shift drastically. The central premise of this article is the historical processes and symbolic spaces of different politics, which made a capital city. Capital cities, as argued by Therborn (2006; 2010;

2015), are the manifestations of political power. As nodes of politics and economics, capital cities are the centres and the representatives of nations.

With continuous imperial decline in the 19th century, Ottoman effect on Balkan and Anatolian cities diminished. In those cities, several significant structures in forms of residential buildings, bazaars, religious complexes, mosques, and bridges were constructed for diverse ethno-cultural groups. Similar to the Ottoman style in architecture, the built environment was identical with narrow, irregular and inward-turning street layout. The wave of nationalism and consequences of World War-I determined the end of the Empire. The Independence War against the imperialist occupation redefined the national territory of Turkey. Mustafa Kemal, later Atatürk, the founder of Turkish Republic, deliberately chose Ankara as the site for the new capital in order to reduce the political influence of the Ottoman Empire, to avoid the invasion risks and enhance militaristic capacity, and to serve as a new pole for economic development of the nation. Therefore, the new nation and the state constructed its own symbols and collective identity.

The modern affects both communal life and the rise of a nation. The Turkish project of nation building has incorporated the development of symbols for the regime, a collective memory for past, a common vision for future, and their concrete representatives. Therefore, along with these goals, in Anatolia, a national capital rises from the multi-ethnic empire, "expressing itself in urban forms, building patterns, architectural styles, monumental icons, and in naming" (Therborn, 2006; 234).

As a part of the Kemalist modernity project, city-planning approaches would become a model of inspiration and especially the urban plan of Ankara as the capital city would reflect the modern way of life encompassing all spheres of city life. The concept of public space was created by the Turkish modernization and nationalization process. New public spaces, squares and parks, boulevards and streets and their naming with commemorative glories, buildings and monuments constituted not only the landscape of the city, but also a synthesis of Republican ideals. Mediating for communication milieu, boulevards and streets were aimed at serving as an artery of circulation and a showpiece of elegance, shoppers, flaneurs, and of shops, restaurants, banks, ministries and parks. Moreover, the new regime asserted itself in cultural forms to solidify the national awakening. National museums, operas, and halls were accompanied the movement. As the new state did not have available governmental buildings from the imperial time and reject the use of such buildings, new ministerial buildings and military offices were gradually added and designed with respect to national symbols in order to correspond sovereignty.

Ankara, as the new capital of the state, is intended to be the symbolic locus not only with the physical environment but also all other structures and spaces that imposing the power of regime, dignity of the state, and modern public sphere. Ergut (1999; 112) notes that "an examination of the process of building a national capital, as in Turkey, could be particularly illuminating in understanding the significance of its architecture, and the built environment in general, in relation to the idea of nationalism and national identity". The early republican public buildings and spaces hence communicated visually with the citizens and performed as the new ritual spaces. The nation builders constructed the landscape of sovereignty with didactic monuments and memorials, public gardens, state architecture, and regulative plans. Thus, in

building the capital, the presence of the Republican memorials in the townscape of Ankara was remarkable.

Rejecting the authority of Ottoman monarchy and the Islamic caliphate, which was governed from the Palaces of Sultans as the place of administrative mechanisms having grand architectural and monumental designs, the chief objective of the new regime of Turkey was the construction of a capital by grounding it with national imagination. Thus, the administrative functions were separated from each other and the house of presidency was distinguished from those units. In Ankara, the governmental district was designed along the new development axis of the city, the parliament building was placed at the southern part of the district and the presidential palace was planned to be annexed to the governmental core at the end of the axis to represent the power of national sovereignty.

The presidential palace is the spatial representative of connection of public with administrative and political domains although it is not an open space for public use. In this respect, the palace is significant by being both the upmost point and physical representative of political formation. Therefore, any physical or spatial interventions made to the palace reflect the interventions applied in other social places of city. It is important to examine the palace in a socio-temporal perspective in evaluating the symbolic meaning it has been holding and its place in the collective memory.

Politics has been the Ankara's core business, that is, the illustration of the power is predominant in the cityscape. Affected from the change in the political structure, Ankara has not been only the capital of a country, but also the symbol of a new identity construction as being both the producer and product of social and spatial transformation. Beginning from the 1990s as the decade of a stark differentiation, the rift in society polarized in the early 2000s in Turkey. Despite the opposition parties and public reactions, the passionate government of 2000s imposed its political control over the space and symbols of previous era. The new political hegemony supported by the majority of the society differentiated themselves from 'others' through creating a new state approach and changing the national past.

The presidential palace is used in this study to examine the change in the distinctive symbolic and aesthetic significance to denote the political power. The research depends on the thesis that the production of the symbolic icon is driven by those who controlled the state to transmit its political approach to the public. The argument is illustrated with respect to debates around the politics of monumentality in spatial planning, the relationship between symbolic spaces and political power, and a critical presentation of how these spaces are perceived by public.

This paper argues that government buildings, as well as, presidential palaces represent the symbols of the political regime. At the intersection of urban space and politics, Henri Lefebvre and following literature stress that space is the product of social conditions. This paper attempts to carry the argument a step further by digging the question that how political power is embedded in the spatial organization and design of presidential palaces. Symbolic state buildings are to be evaluated with respect to political contexts. The presidential palaces serves as an interesting subject in determining this relation, as the palaces are the expressions of the political manifestation together with their locations in the capital cities.

## 2 The core of power: Ankara in the early republican era

Following the War of Independence (1919-22), the new Turkish Republic was established on October 29, 1923. In the subsequent years, Kemalist revolution was launched in social, economic, and political aspects to constitute the foundational ideology of the Turkish state. Turkey has been a unitary state model that was constructed upon the core values of national sovereignty and modernity.

Denying the agglomeration economies around Istanbul as a centre of development (Keskinok, 2010; 176), the state aimed at implementing even development among regions and nationalization policies. As a result of economic goals targeting the regional integration of national territory and the ideological goals leaving the former regime's heritage in addition to the security problems of Istanbul constituting a threat on the new regime and on protection, the leaders of new government decided to move the capital. To this end, on October 13, 1923, Ankara replaced Istanbul as the capital of Turkey, shortly before the declaration of Republic. The economic, political and spatial strategy of the new state in behalf of Ankara associated with the nation-state construction ideals. Ankara's geographical location away from the Ottoman capital, and lack of political and historical significance in the Ottoman and Islamic past served as a "metaphorical distance that the new state wanted to take from the imperial and Islamic frame of the Ottoman Empire" (Cinar, 2014; 228). In creating the future of a nation, the new regime chose its past – "largely seeking a divorce from the Ottoman influences in favour of Hittite symbols and subtler Greco-Roman references to achieve a pre-determined future of civilizational accomplishments and greatness" (Glyptis, 2008; 355). In addition to the very first movement, the state proclaimed republic as the new government model, applied nationalization policies in economic terms, constructed new state factories and integrated railways, liberalized rural labour, prepared comprehensive development plans, and undertook social reforms.

Parallel to the economic rationalism and social transformation movements, the city planning efforts took place in the early 1930s. Keskinok argues that "in this period, city planning is based on the creation and development of the public spaces in an environment that was to be shaped with the modern life style of the idealized Republican Citizen" (2010; 184). The new regime aimed at developing a public realm in urban spaces to emphasize the modern social life practices. According to Cinar (2014), the image of the new nation benefitted from various mediums, including the writing of a new national history, establishing social and political institutions, and arranging cities and city spaces. In this sense, the government invested in the city planning activities by giving a particular priority to Ankara.

The making of the urban space of the capital city in accordance with an urban plan was a part of a comprehensive modern process of a nation-building program. In line with goal of identity construction for the new Turkish society, first citizens of Ankara would be the first Turks (Gur, 2011). The capital idealized as a model for the Republican modernization held a small population within the limits of the old city around the citadel. Ankara provided a more appropriate space the government to construct the Republican symbols and new collective memory than Istanbul housing the cultural and political geography of the Ottomans.

Ankara was regarded as an empty space to be built up as the space of the new regime despite its history rooted to Hittites. At the time of Turkish War of Independence, it was a town of 20,000 with a formidable citadel. Since the new political order rejected the Ottoman and eastern past, a new and modern urban development was supported. The aim was to site and design the major governmental buildings and public spaces for the capital city of the young ambitious nation with grand aspirations. Capital city planning has tended to be grand and comprehensive in the effort to create places 'worthy of the nation'. In doing so, the new state allocated a significant part of its scarce resources to the construction of Ankara. The urban affairs and architectural works were commissioned to foreign urban planners and architects. The very first initiative toward a development plan for Ankara dates back to 1923 and to the appointment of Carl Christoph Lorcher (Cengizkan, 2004). Nevertheless, the Plan was partially rejected due to disagreements over design proposals concerning transformation of the old town around Ankara Castle since there was no possibility of successfully applying any plan in the old settlement because of the land speculation (Bademli, 1985). However, the proposals regarding the new city were accepted which constituted the spatial basis of republic institutions, boulevards, squares, and the growing and urgent housing need of the population (Cengizkan, 2004; Gunay, 2006). Since Lorcher's plan was limited in size and scope to guide the construction phase, the need for the preparation of a general plan for Ankara was arisen (Kacar, 2010; 46). In 1927, an international competition was organized to prepare an urban development plan for the city. Prof. Hermann Jansen, who won the competition, would be the author of the plan enacted in 1932. Being less rigid and monumental than its alternatives, the main reason for accepting the Jansen Plan was its focus on the social context, the creation of green areas, the stress on the car age, industry and the workers district (Tankut, 1993).

During the two decades after the War of Independence, the construction phase of the new capital was carried out. The capital of Republic was aimed to symbolize the futurist and revolutionary space for the new state. The plan was structured for the following 50 years around an estimated population of 300,000. It aimed at regulating urban growth with respect to population increase. To ensure the development project, along with the statist approach 3 million m<sup>2</sup> of land were expropriated by Law no. 583 in 1925 (Tankut, 1993). Jansen's urban form was to surround Ankara Castle, focusing on pre-Ottoman history and developing a new city in accordance with the new regime (Kacar, 2010). Many 20<sup>th</sup>-century plans have combined the baroque desire for the display of power with the City Beautiful desire for comprehensively coordinating cities around impressive centres (Abbott, 2009). These cities have been laboratories and exhibit cases for modernist approaches to urban design. Similarly, in the Ankara Plan, a zoning approach was applied in order to differentiate urban functions geographically. In this way, administrative, residential, recreational, industrial, health and educational zones were created in the new city, distinct from the existing historical areas. Atatürk Boulevard was determined as the north-south axis of the city connecting the old and new towns. The boulevard, which constitutes the spine of the city, begins from the first national assembly beneath the citadel, crosses over the railway line, passes through the governmental district, and ends at the presidential palace in Cankaya.

The public spaces, ministries, city parks, institutions, boulevards were consciously designed to constitute the modern symbols of republic. Turhanoglu (2010) argues that the main

feature of this period was that the state was not only symbolized by buildings, but also characterized by space. Urban design and architectural principles with strong ties to modernity were employed as the instruments for consolidating the new national structure. Jansen's plan envisioned the governmental centre to represent the landmarks of republican ideology and to display national prestige. Also, a new architectural approach was supported to generate the visual expression of the modernity and statist economic policies that were associated with the republican ideology.

The national style of late 1920s as a continuation of Ottoman neo-classicism in architecture became obsolete and with the invitation of foreign architects the architectural approach gained an official-looking modernism. Bozdogan argues that "Modern architecture was imported as both a visible symbol and an effective instrument of this radical program to create a thoroughly westernized, modern, and secular new nation dissociated from the country's own Ottoman and Islamic past. [I]n this respect, architecture in the early republican Turkey can be looked at as a literally concrete manifestation of the high modernist vision" (2001; 6). The sense of homogenous nation associated with the emergence of the national architecture that "dictates a common style to be used in the new buildings, structures, and monuments across the country" in order to create an image of homogeneity, to nationalize space, and to reflect the identity (Cinar, 2014; 240). Thus, the architecture of the public institutions was founded on functionality, utilitarianism and rationality in design by rejecting the imitation of traditional forms.

In conjunction with the statist and protective economic policies, the newly constructed buildings have both simple and modern traces in terms of their construction methods, materials and form. Their cubic forms, clear geometric shapes, simplicity of façades, large, simple and symmetrical masses presented the revolutionary ideas, homogeneity among citizens, and governmental authority (Kacar, 2010; Ulug, 2004; Bozdogan, 2002; Aslanoglu, 1980). The public buildings and their open spaces promoted harmony in proportions and scales to blend into the general silhouette of Ankara. Monumentality was observed in the symbols of War of Independence and revolutions. Bozdogan defines the architectural culture of early modernization period as "one big effort to reconcile the modern with the national" (2001; 7).

The government commissioned the architectural projects of the administrative centre of the new capital to an Australian architect, Clemens Holzmeister. Holzmeister contributed to the construction period of Turkey by forming the buildings of Ministry of Public Works, National Defence, Interior Affairs, Supreme Court of Justice, and other official buildings such as General staff headquarters, Central Bank, Austrian embassy building, and above all else the Grand National Assembly. Tanyeli argues that along with the approach of Turkey for foreign expertise and labour, none of the architects were involved in as many construction activities as Holzmeister did (2010; 64). The reason behind the reputation and powerful influence of Holzmeister is related with the characteristics of his architecture.

During the construction period, a house, located in the vineyard region of Cankaya at the apex of the hill, was allocated to Mustafa Kemal on 30 May 1921 by the Ankara Municipality for residential purposes (Presidency of the Republic of Turkey, 2015). The name of the hill would recall the palace and the site of power. During the period between 1921 to 1932, this house was the

witness of the War of Independence and the foundations of Republic until being restored as a museum.

Due to the inadequacy of the vineyard house despite of the enlargement and renovation projects, Mustafa Kemal appointed with Holzmeister and asked for tearing down the old one. In the book 'Clemens Holzmeister: An architect at the turn of an era', his own words are noted as "this house is the birthplace of the Republic you have founded. [F]or this reason it should never be torn down but be transformed into a museum. [W]e can build the presidential palace in another appropriate location" (Balamir, 2013; 356). The architect took the role in designing a new President Palace in order to symbolize the state in international arena. The Presidential Palace, or so-called Pink Villa (*Pembe Köşk*) was built up in 1932 and used as the residence of Atatürk till the end of his life (see Figure 1). The new presidential palace carried the symbolic essence of the pink house in Salonika in which Atatürk was born. The palace is not only the house of the President of a nation, but also the symbolic centre of an imagined and performed modernity.

In opposition to the splendid palaces of Ottoman sultans, the Villa symbolizing the national sovereignty and Western modernity was to be designed as an element to distinguish the Republican Turkey from Imperial Ottoman. Being one of the early Republican buildings, the Presidential palace was decided to be a powerful symbol of the regime having its roots on national sovereignty, secularism, and modernity. Thus, the house did not only give Ankara an expression of Republican capital, but also infused the cultural codes of Western life style.

The Pink Villa was to be a monument itself through the messages it conveys. This iconographic unit designated to contribute into national sovereignty by underlying the powerful effects of its simple silhouette and geometric design. It was designed according to the detailed specifications of Atatürk during 1930 and 1931. The symmetrical composed Villa reflects a transformation of traditional Turkish house having the main-floor raised on pilotis. The house completely suited to the European style of living. Elevated on the columns, the Pink Villa commemorates the leading role of Atatürk over the nation. Furthermore, consciously intended to be the highest point of the new city, the siting of the Villa highlighted the power of the state symbolically and captured the imagination of modernity and national sovereignty. The house of the president, as the leader of Republic, was aimed to represent the cohesion, homogeneity, equity, and secularity.

The visual condensation of the house in the eyes and minds of the people, Cankaya gained the most prestigious position in the city. Its very name recalls the highest position in the political hierarchy given by the national sovereignty. It stands at the apex of Cankaya hill. Taken together, the presidential palace is not only located at the apex of the administrative district of Ankara, but also at the symbolic apex of the republican Turkey. Gaining the most prestigious location in the city, politicians, ambassadors, high level bureaucrats, and media organizations sited gradually around the boulevard in Cankaya district.



**Figure 1.** Cankaya Palace of Kemalist period by Holzmeister (Source. Presidency of Turkish Republic)

The Pink Villa was used actively from 1932 to 1973 until becoming inadequate in meeting the administrative functions. With regards to the limited size of the Pink Villa, a new administrative building was decided to be constructed in the Cankaya Campus during the presidency period of Kenan Evren in 1986. The new presidential palace was designed by Aytore and Genc, and installed in the Cankaya campus in 1993. Gradually, the residence of President showed a campus-like development with its offices, meeting rooms, and halls. The new main building together with the Pink Villa, Museum Villa, Glassed Villa, and Aid-de-camp's house constitutes the Cankaya Campus of Presidency. Thus, the symbolic meaning of Presidential Palace in Cankaya has expanded to become the place of republican regime for all country. None of the administrative functions removed from the area, which provided large indoor and open spaces until the 2000s.

### **3 The (de)politic dispersion: Ankara in 2000s**

The subsequent periods of Turkish Republic witnessed multidimensional changes in social, economic, and political structures, such as transition to multi-party regime, engaging in liberal economic model, and displaying populist policies. Since the 1950s, Ankara has begun to lose its ideological and symbolic burden. Especially in the 1980s, due to the reconciliation with its Ottoman and Islamic past, and the dominant neo-liberal economic policies, Ankara was to experience a significant change, and even a trauma. This transition has been carried out step-by-step by destructing early Republican basis and building the roots of a new ideology. In this process, while Istanbul is gaining a central role for capital and global networks, Ankara remains solely as a political centre at national level in spite of being literally the ideological conveyor of such a significant message as a representative of nation.

The city has been restored by the capitalist movement of post-1980s. Incoming foreign investments, the pull of domestic market forces, and the new political power have redefined the capital city. Ankara and some other cities in Turkey have become post-industrial service cities, by economic evolution accelerated by privatization policies. Employment in service sector takes the front stage from the blue collar in industrial sector. The urban street, of consumers and flaneurs, has lost its importance against shopping malls including stores, restaurants, bars, and entertainment to all tastes. Individual transport has become a highly preferred option. The new landmark buildings are largely residences, business companies, and shopping malls constructed by private entities, although there are also others, like new mosques, institutions and public buildings

handled by the public sector. Urban space is now governed primarily by money. Segregation is money-driven, the pattern of guarded, 'gated communities' has spread across the city while the urban transformation projects increasingly lead to the social exclusion. As the principle of local autonomy has been established, the elected mayor has been able to put an important local stamp on the national capital. Since 1994, an enduring mayor has been governing Ankara and structuring the urban space whose political position can be regarded as an extension of the dominant right-wing policy.

The post-2000s is the period of contradictions; it is politically conservative and nationalist, economically neo-liberalist, and culturally increasingly cosmopolitan, but desirably homogenous. Nationalism in Kemalist terms was never an attractive idea for the new period, rather the new state aimed at building a distinct national structure with historical and religious references. Political monumentality and ideological dominancy are nationalist, with a recent break from Europeaness, or Western modernity. At the same time, there is an economic break from the national investments. The popular nationalism was observed everywhere despite the recent revolt of civil society against the absolute power of the central government.

In spatial terms, suburbanization and decentralization is entering the city, while the inner cities are thinned out by the expansion of office space. A new national urban pattern has not settled yet. But a couple of tendencies are discernible. A general outcome of the architectural concerns is arousing the pre-modern imperial links. Thus, Ankara, together with other Turkish cities witnessed the praising of Ottoman revivalism in the urban environment.

The revenge has been visible on the Republican space; the spaces of interventions were selected deliberately by the new political power came in force in the 2002 central government elections. In this period, buildings identified with Kemalism have been abandoned intentionally. Despite to be assigned new functions, these buildings have been isolated from the urban life not in physical terms but in symbolic meanings by breaking its ties with city. Unsurprisingly, there have been those who ignore or challenge Atatürk's legacy and the potency of the images. However, none of them have attempted to alter the topmost address of Turkish Republic.

Along with the all destruction processes realized in Ankara, the Presidential Palace took its toll from the ideological transformation. The victim of the struggle of ideological supremacy on space is the Atatürk Forestry Farm (or Gazi Farm). The Farm was founded by Mustafa Kemal to be "a pioneering enterprise for agricultural transformation by using scientific methods and modern technology" (Keskinok, 2010; 177). In line with goals of the urban-rural integration and liberation of rural labour, the purpose of the state farm was enhancing productivity by mechanization in agriculture, using innovative agricultural techniques, educating agricultural work, developing agricultural industry, supporting it through cooperatives, and building a modern sample of living environment for workers. The farm was built deliberately on a non-fertile land of Ankara. This selection had ideological roots, as mentioned by Mustafa Kemal (1925) "if we do not improve this land, then who will come to do it?". Established on May 05, 1925, by his individual efforts, the Farm has been one of the concrete achievements and become symbol of the republican regime. The modernization story of the Turkey was written on the Farm: the marsh was rehabilitated and forested; science, positivist techniques and technology was used for agricultural production;

research and development was supported; agricultural factories was constructed to provide healthy and delicious food to citizens; accommodation facilities, a primary school, a public bath, a station, a post office, and administrative units were built to meet the daily life requirements of employees; social life practices was generated in public spaces through pools, gardens, restaurants, and weekend hotels (see Figure 2). The Farm was designed by a Swiss architect, Ernst A. Egli, together with the German planner of Ankara, Hermann Jansen. Egli's plan had been "a small model of the national modernity project, with the social, cultural and historic implications it has" (Alpagut, 2010: 263). Establishing the pioneering enterprise, Ataturk donated the Farm to treasury and to Turkish nation. Being a modern role model for other state farms, Gazi Farm provided a comprehensive schema by its contribution on economy, social life and republican symbols.



**Figure 2.** The plan of Egli for Forest Farm (Source. AFF Researches web page)

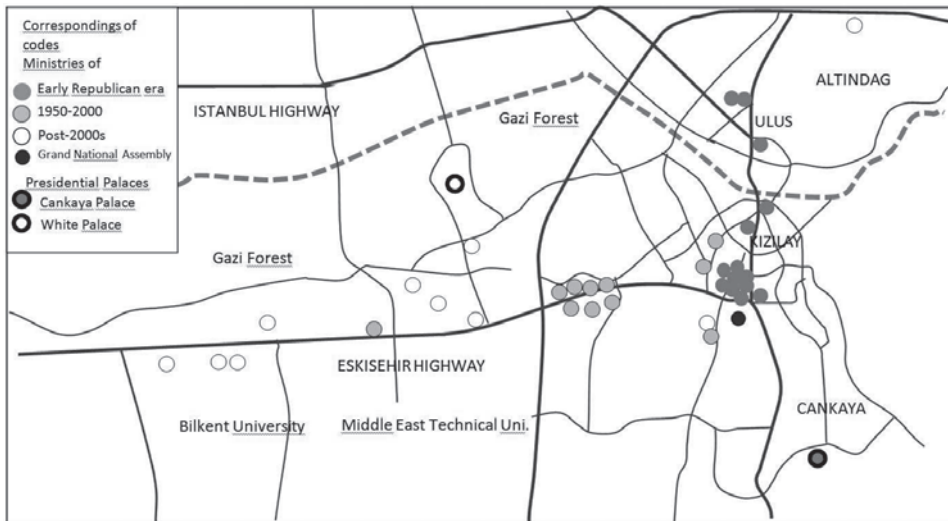
In the following years of the construction period of Ankara, the territory of the Farm has become to decrease by allocating land to the use of private sector and public institutions. Especially, in the post-2000s, the Farm was subjected to an intentional intervention at state level. Since the comprehensive urban plans sat on the shelf after the 1980s, the local and central governments of Ankara prepared several planning schemas for the Farm territory. The site selection for new Presidential Palace is also an outcome of such a piecemeal planning approach. Therefore, under the circumstances of uncertain land-use decisions and authoritarian state power, the Palace would be settled in the middle of the Forest Farm (see Figure 3).

The White-Place<sup>1</sup> was constructed for Erdogan<sup>2</sup> by being the most assertive place among the other public institutions. The power of the new authoritarian state figure comes from the support

<sup>1</sup> The Turkish abbreviations of the Justice and Development Party is AKP, yet is widely used as AK Party. In Turkish, the synonym of *ak* is white. Elaborating on the White Palace in USA and continuing discussions on presidency system, the opponents call the new Presidency as *Ak-Saray* (White Palace) since they claim that the building was constructed for Erdogan himself whatever his position is prime minister or president. Following the

of the majority of nation, which is used instrumentally, especially in the violation of court decisions. Located on the first-degree naturally and culturally protected area, the presidential power obtained so-called from the national willpower provides itself a transcendental authority and privilege by settling the Palace in the Farm area.

The project process of the Palace was not transparent. Even, the construction period of buildings was kept apart from the media and public until it was completed. During the construction, the judiciary process has continued. Despite the judgments that announces the illegal land allocation from the Forestry Farm, and that declares to stay of order, together with the Erdogan's rigorous statements, the Palace has been constructed.



**Figure 3.** Present locations of ministries and presidential palaces in Ankara according to their construction periods (Source. The author)

The most assertive architectural attempt of post-2000s period would be the new Presidential Palace<sup>3</sup>. The campus of the Palace includes official blocks, a residential block, and a mosque apart from a series of service buildings. The symmetrical official buildings are located around a rectangular courtyard. The presidential office block sits along the main entrance and has a panoramic city view due to its hilarious location in the Forestry Farm. The square in front of the Palace illustrates a public space, which cannot be a representative of a democratic public space because of its subordinating location between the house of the authority, the office of execution and

court decisions, which declared the illegal land allocation for the Palace from the Forest Farm, opponents began to call it as *Kaç-Ak Saray* (squatter palace). Due to the very popular and antagonist connotation, Erdogan changed the name of Presidency from *Saray* (Palace) referring to Ottoman past to *Küllüye* (the complex of buildings adjacent to a mosque) having Islamic ties. The new name of the Palace as *Cumhurbaşkanlığı Külliyesi* was declared officially on July 7, 2015.

<sup>2</sup> Justice and Development Party came in force in 2002 central government elections and Recep Tayyip Erdogan has been the Prime Minister of Turkey until 2014, by gaining the majority of votes. During the years of single party government, Erdogan was selected as the President in 2014. The building in the Gazi Farm was initially designed as the Prime Ministry Office, but after the Presidential Elections, the office was shifted to the Presidential Palace.

<sup>3</sup> The Presidential Seal was moved to the White Palace on January 29, 2015 that denotes the official end of an era of Kemalist state tradition.

the holy place of a religion. The Palace was designed by a Turkish architect, Şefik Birkıye who undertook several international and national projects. 18<sup>th</sup> century neo-classical Turkish-Islamic architecture was embraced in architectural terms.

The monumentality in presidential palace is an attempt to affirm and display the symbol of the new politics. The luxuriantly decorated building with its crushing grand mass serves to stimulate the power and privilege (see Figure 4). The symmetrical building on a landscaped high ground makes the sense of a consciously created symbolic space over the public. However, current public access to the Palace is thoroughly discouraged. The hilltop with its huge neo-Ottoman structure is a place that evokes a picture of what the power of an Ottoman Sultan was like in the 18th century.

The architectural language of the Palace is consisted of wide roof trees, column series, and Ottoman and Seljukian adornments in order to compose the revivalist approach. The design of the building intentionally disregards the use of arches and walls to lighten its mass. Also, the colour of first floor is differentiated from the rest of the building for the same reason. The façades are consisted of double and triple column groups. The monolithic structure of the block is divided by the multiple ceiling covers. Inside, the Palace includes a thousand rooms decorated with high technology and expensive equipment. Thus, it is fair to claim that the (post-modern) neo-classical design supports the prestige and magnificence of the new presidential house rather than meeting the functional essentials.



**Figure 4.** White Palace of post-2000s period, by Birkıye (Source. Anonymous, 2015)

The Palace has been highly criticized through academicians, non-governmental organizations and chambers, media, and opponent politicians in Turkey since the very beginning of the land allocation to the Palace. Most of the criticisms are related to the illegality of its location choice, which takes place on news nearly on everyday basis due to continuation of judiciary process. Also, the neoclassic architectural images of the Palace and its huge budget draw oppositions. Ottoman revivalism based architectural approach has been used as the national architectural style to illustrate the political image and power over the society. Since there is not any intersection point between these historical periods, the invented Seljukian-Ottoman style does not actually make sense in the discipline of architecture (Batuman, 2014). Rather, this apocryphal style

does only imitate the golden ages of these previous states. Today, the reference made to the most powerful periods of the empires is used intentionally to denote the hegemony of the official ideology of the state and to be differentiated from the early Republican modernism visually. Besides, international media released news about the Erdogan's palace by emphasizing the glory of the buildings, their numerous rooms and the luxury interior designs, and the expenditures made for the Palace.

#### 4 Conclusion

Space is composed of a physical environment and an abstract meaning in which the meaning requires to be evaluated as a cultural entry. The urban symbols and historical meaning shaped by practices apart from the physical appearance enable to the development of collective behaviour by recalling some phenomena and the formation of the social characteristic. The urban space producing symbols is the stage of the production, continuity and transfer of urban memory to future. Breaking the continuity of spatial meanings and assigning new roles to them lead to weakening of symbols in collective memory and consequently disappearing in time. The multi-layered urban forms are the indicators of cultural prosperity. The urban characteristic is likely to be demolished unless the traces of layers are protected and newly produced one is integrated to the old layer. In this respect, the power determines the identity construction by making decision on those having enrolled today through recalling the collective memory.

The Jansen Plan is the most significant document in Ankara's planning history in understanding the approach of the young republic to a modern city. The plan guided the urban development and the rapid transformation of a small and poor town into a nation's capital. Since the 1950s, the years of migration and urbanization, a series of plans were prepared to enhance the initial efforts. However, especially after the 2000s when neo-liberal policies became dominant over space and when comprehensive planning lost its prevailing position against political intents, the city was to be formed by piecemeal attempts. Public places and buildings lost their primary focus and their symbolic meanings. A new political landscape was shaped on a formerly identified territory of early Republican period.

Looking back to this period from today, the modernity project of Turkey incorporating the social, political, economic, physical and spatial attempts can be identified as a successful project despite the deficiencies in monetary, legal and technical conditions. However, from the 1950s, the urban fabric of Ankara was transformed far more than it had been by the early republican interventions. The urban development of Ankara began to differ from what was initially intended. Due to the population growth through urban migration, illegal squatter areas emerged around the proposed limits of the city. Together with the speculative demands of wealthy citizens, urbanization from north to south could not be controlled. Though the main lines of the modern capital of Turkey were drawn by these early interventions, Ankara, with its over 4 million residents, has a more complex urban structure today.

Through a comparative discussion of urban symbols of state sovereignty in Turkey, this paper examined the change in meanings and spatial organizations of presidential palaces. The

presidential palace produced in the early Republican period differs from the one produced in the global era of Turkey not only in terms of form, but crucially in terms of the meaning that represent the political and economic approaches of each periods. In Gordon's terms (2004), Ankara's former Presidential Palace is the product of a nation-making, capital-making, and city-making process. It is the site of the powerful symbol of national sovereignty and secularity. Divergence of the conservative ideology of post-2000s from the republican ideology has been creating new spaces, and demolishing collective memory and urban identity. The new political power aimed at developing its own symbolic spaces. In this respect, being the most significant and upmost building pertaining to the political system, it is right to claim that the address of Presidential house was deliberately changed.

The presidential palaces examined here illustrate key conclusions regarding in which ways the construction principles of the authorities were instituted through the arrangement of the urban space, designing its architectural concerns, and conveying a message to both the citizens and the nation.

In terms of spatial organization of the city, the former presidential house in Cankaya, Pink Villa, has never been the focus of the city although it has a panoramic city view due to its location over the hill. Rather, the Presidential Villa was designed at the end of the original urban spine. In that time, the centre of the city has been the site welcoming the newly established buildings of the execution and the legislation. In spite of the first spatial organization of the city and political order, the new period shifted the central point of the city in parallel to the spatial enlargement. Today, the new address of the President would be the new centre of city that has already sprawled along the western corridors. By the short transmigration of the President, the sequence of the political powers in the parliamentary system would be changed. In the new ideology, the apex of the politics seems the President rather than the National Assembly.

The shift is seen, not only in spatial arrangement of the city, but also in the architectural representation of the power. The ultimate change can be read in the scales of Presidential Villa and the Palace. Despite the modest and modern design of the Pink Villa, the White-Palace draws attention with its Ottoman revivalist architectural image, grand size, and expensive decorations. The Presidential house is required to consolidate with the general structure of its society and surrounding spaces in order to be identified with the city, in specific, and the country, in general. It is obvious that having neo-classical Seljukian and Ottoman traces, the Palace does not correspond to the spatial pattern of Ankara, the Republican ideology, the average income level, and the national sovereignty ideals. The imperial Ottoman symbols and the Seljukian pattern, forms and styles deliberately selected from the past in parallel to the ideology of the new authority are resulted in degradation, artificiality, and kitsch. Despite the expenditures and revivalist efforts, the Palace with its monumental mass may only evoke the ashes of an imitated history.

However, comparing the Palace solely with its ancestor is not enough since the splendid size and uncommon cost of the building affects the whole parliamentary system. The Parliament that represents the whole nation lost its privileged position across the executive power in terms of architectural image. Obviously, the Palace conveys the symbolic message of the power of the President to public by shading any other public institutions in the city.

In addition to the loss of the symbolic meaning of Cankaya and political focus, Ataturk Forestry Farm is subjected to a change in meaning. The Farm that illustrates the ambitions of a young nation for being a developed and a modern country has been regarded as an empty basis for the construction intentions of the new ideology. The testament of Ataturk for Farm was disobeyed, and the collective memory was erased. The Farm was physically demolished, and a wide extent of its territory was allocated despite the opposing court decisions. The public access to the Palace was prohibited, therefore, the publicly owned land which was bequeathed from Ataturk to Turkish nation was occupied illegally.

By discussing the formation and reproduction of presidential palaces as a deliberate project of political intents, this paper concludes that the transformation of urban symbols to demonstrate the prevailing power supposedly changes the notion of national meanings. Underlying power struggles, tensions, and conflicts seek a divorce from constructed symbols and references, and create its influence to achieve new official symbols. If the societal and national structure remains reckless to these changes, the new authority can easily find itself a new place and new form to be constructed. Such destructive processes are supposed to be taken into consideration, and a communication milieu is to be generated to mediate for memory construction and to maintain the continuity of urban identity.

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# Planning with Place Attachment

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According to psychological findings, people become attached to other individuals, as well as, to places they spend time in and have memories about. Planners and practitioners therefore have to assume, that there exist emotional bonds to almost every place they somehow transform.

Since the 1960s, many concepts have been developed that describe these emotional bonds towards a place, mostly within environmental psychology, sociology or human geography. The most common concepts are place attachment, sense of place and place identity.

To consider place relations within a transformation of a place is challenging for planners and practitioners. As there is no common research ground in the field of place attachments, they have to become familiar with different approaches and methodologies.

Furthermore, these concepts are grounded on a different understanding of place and space than the ones common in planning. In this paper, an overview is given about the common concepts of place relations, place and space.

There is little knowledge about what impact place changes have on the existing relations with place. That will be discussed in this paper. Hence, there are no empirically proved guidelines that could give advice on how to design a place while respecting the existing place relations. This makes it even more important for planners and practitioners to gain knowledge about place relations themselves.

**Keywords:** place; place attachment; planning.

## 1 Introduction

In many disciplines such as architecture, urban planning or applied spatial arts, practitioners influence the physical environment of people. This action has effects on the residents as well as on their feelings towards the place affected. Therefore it is helpful or even necessary, that planners integrate people's relationships into their actions: "Planners can benefit from environmental and community psychology perspectives on individual and community place attachments to help understand who gets involved in neighborhood change and planning efforts and why, as well as why people resist or support change efforts" (Manzo & Perkins, 2006, p. 347).

By now numerous concepts exist about relations towards place (Manzo & Perkins, 2006, p. 337). Every concept highlights different aspects: „Topophilia, rootedness, place dependence, place identity, urban identity, place attachment, sense of place, sense of community, or community attachment are examples of the wide array of existing terms." (Hernández, Hidalgo, & Ruiz, 2014, p. 125). The most cited ones are place attachment, sense of place and place identity.

What makes it difficult to become familiar with the research field of people-place-relations is that

"Research on place attachment is not grounded in a common theoretical understanding." (von Wirth, 2014, p. 103). Concepts about place-relations have been developed in the interface of different disciplines, mainly environmental psychology, human geography and sociology. Hence there are different positions and methodological preferences within this research field and a common theory is missing.

The first part of this paper will introduce the most common concepts about place relations. For a better understanding of the - often small - differences between the different concepts they have been analysed and then clustered into three groups: concepts which focus on people moving in and through space, concepts about individuals and their feelings and thoughts towards place and concepts addressing community aspects of place relations.

The second part of the paper will address theoretical and practical challenges that might appear when practitioners try to apply place relation concepts.

Theoretical challenges might be caused by different research backgrounds. Place and space is understood differently by planners and practitioners as by social scientists. Practical challenges are grounded in the complexity of the person-place-relation itself. Relations to place are not monofunctional and therefore practitioners cannot conclude, that changes in the physical environment will always have the intended impact on people.

The paper will be concluded with future research options and some advice for practitioners.

## **2 Concepts describing place relations**

### **2.1 History of the research field**

Interest in people's relations to space started to grow in the late 1960s. The starting point for this research field was the attachment theory established mainly by the psychologists John Bowlby and Mary Ainsworth. According to them – and contrasting to Sigmund Freud's assumption - a child has a basic need for an emotional relationship and not just for bodily needs such as food (Scannell & Gifford, 2014b, p. 24). Based on this idea researchers from different scientific fields (mainly environmental psychology, human geography and sociology) developed the theory that a person also establishes emotional relationships to his/her physical environment. This contrasted the by then common understanding of the physical environment "as little more than location and container of human action (Peet, 1998)" (Williams, 2014, p. 90).

One of the first studies to address the emotional relations between people and their environment were Jane Jacobs' famous publication "The Death and Life of Great American Cities" in 1961 and Marc Fried's study "Grieving for a lost home" in 1963. Jacobs broached the issue of fatal consequences that large scale urban development being common in New York's planning culture would have on a vital urban life and pedestrian activity on the street (Jacobs, 1961). Fried's study about Boston West End and its citizens proved, that forced displacements caused by urban renewal seriously harmed the affected population. Although the objective living conditions might even have improved for most of the former inhabitants, nearly everyone suffered from psychological stress such as feelings of loss, sense of helplessness and so on (Fried, 1963, p. 359 f.).

In the following years there have been increasingly more publications and theories about people's relations to place (Scannell & Gifford, 2014b, p. 24). One of the main journals next to Journal of Environmental Psychology - Environment and Behavior - was founded in 1969 (Kruse & Graumann, 1987, p. 1202). In the 1980s interest in people-place relations decreased a little (Giuliani & Feldman, 1993, p. 268) just to increase again in the 1990s. In 1992, the first miscellany was published by Setha Low and Irvine Altman containing articles of the most important researchers (Altman & Low, 1992). Until the beginning of the 21<sup>st</sup> century most publications focussed on social aspects of place relations rather than on physical aspects. By far the most

popular target to be analysed was the neighborhood, followed by home and city (Lewicka, 2011b, p. 211).

## 2.2 Concepts about people place relations

As already mentioned, there are many more or less popular concepts about people-place relations. Hence, this work does not have a claim for completeness of concepts. The following concepts will be introduced, because they are the most common ones: sidewalk ballet, lifeworld, topophilia, place attachment, sense of place, insideness/ rootedness, place identity, urban identity, environmental identity, community attachment, sense of community, community place attachment.

Jacobs's term of **sidewalk ballet** describes the movement of persons on the street's sidewalk. To her these movements of every person following his/her daily routines merge to an order that can be compared to a ballet: "The ballet of the good city sidewalk never repeats itself from place to place, and in any one place it always replete with new improvisations" (Jacobs, 1992, pp 50-51).

The **lifeworld** approach has been developed by Seamon in his dissertation and was supported by Anne Buttner. A lifeworld is the total sum of "people's first hand involvements with their everyday places, spaces and environments" (Seamon, 2006, p. 2). These everyday environmental experiences are structured by movement, rest and encounter and together form time-space-routines. Daily time-space-routines of a person lead to the fact that he / she is present in a place at a certain time. An essential part of the time-space routine is the body routine, a set of certain behaviour (Seamon, 2006, p. 4). One example for this is the daily way to work with a stop at the same café every morning.

Strangers, who are an integral part of Jacobs' sidewalk ballet, are less central in Seamon's lifeworld; he focuses on everyone's individual behaviour.

**Topophilia** is a term that describes strong positive feelings towards a place. All affective ties with the material environment are included – emotional as well as tactile or aesthetic ones. (Tuan, 1990, p. 93) The material environment might not be the cause for the feelings, but it provides the stimuli (Tuan, 1990, p. 113).

**Place attachment** is a very similar but far more common and cited concept. By many researchers, place attachment is understood as a superordinate term, but a few consider place attachment as equal among other concepts such as place identity and sense of place. For example, Altman and Low consider place attachment as a concept subsumed by other concepts such as topophilia, place identity, insideness, sense of place and so on (Altman & Low, 1992, p. 3). A greater research community formed the term place attachment; therefore, there is no uniform definition (Scanell & Gifford, 2010a, p.1). A general definition given in Low's and Altman's miscellany that probably everyone could agree to is "the bonding of people to places" (Altman & Low, 1992, p. 2). To distinct place attachment from sense of place, Hidalgo and Hernandez (2001) added the aspect of proximity seeking behaviour.

Different authors such as David Hummon, Robert Hay or Louise Chawla have addressed **sense of place**. Sense of place describes the sensory perception and the emotions in a place in total. To feel sense of place one has to spend a certain amount of time in a certain place. It then

provides feelings such as security, stability and belonging (Hay, 1998, p. 25). Hummon distinguishes five types of sense of place (or missing sense of place): ideological rootedness (gained through active interest in the place), taken-for-granted-rootedness, alienation, relativity and placelessness (Hummon, 1992, p. 263). Hay differs sense of place from place attachment in that sense of place contains the social and geographical context of bonds as well as aesthetics and a feeling of dwelling (Hay, 1998, p. 5).

In his dissertation Edward Relph considered, that more and more places are placeless which means, that they become unified and lose their character. To contrast that observed development he introduced the terms **insideness** and rootedness. People are rooted in a place, when they are familiar with it and care for it (Relph, 1976, p. 51). They become insiders, when they dwell in a place and take it for granted, not considering that this place could be an object of attraction (Relph, 1976, p. 50). The concept of insideness or rootedness can be compared with sense of place, but Relph does not include the sensory perception of the place.

**Place identity** was first mentioned by Harold Proshansky in 1978. His assumption was, that the identity - the conscious part of the self - does not only consist of social identity but also of place identity (Proshansky, Fabian, & Kaminoff, 1983, p. 58). He defines place identity as: "(...) those dimensions of the self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals, and behavioral tendencies" (Proshansky H. , 1987, p. 155). Although according to the definition, feelings are a part of place identity, the main focus of this concept lies in the influence, the environment has on a person's identity.

As one type of place identity, Proshansky also describes **urban identity**. Urban identity characterizes the lifestyle of an urban life and the adaptation to it, for example the noise level, the rapidity or the complexity (Proshansky, Fabian, & Kaminoff, 1983, p. 78).

Another concept focussing on the influence of the environment on the identity was introduced by Susan Clayton. With the term **environmental identity** Clayton describes a certain type of people who show a pro-environmental awareness and behavior (Clayton, 2003, p. 45 f.).

Morris Janowitz first mentioned **community attachment** in 1967. Although often mentioned in the course of place relations, it originally is a concept of community studies. It describes the feeling of persons towards a community in which they feel as a member of it. Mostly community attachment is attended by commitments (Fried, 2000, p. 198). It can even lead members to put the community interests above their own ones. Community attachment is closely connected to place attachment, because most of the time the emotions are not only developed towards the community itself but also the place it is situated in, for example the neighbourhood.

According to David McMillan and David Chavis **sense of community** can either develop out of common interests such as hobbies (community of interests) or out of shared places such as neighbourhoods (community of place). However, sharing a common space does not necessarily lead to a sense of community because in parts different parties express their identity spatially and conflicts can arise easily. Communities of place evolve when membership, influence, fulfillment of needs and shared emotional connections are given in a shared place (McMillan & Chavis, 1986, p. 91). The difference to community attachment might be the intensity of feelings: while community

attachment in parts consists of commitments of social roles, sense of community describes a friendly atmosphere that might be understood less intense.

The term community place attachment was introduced by Nikolay Mihaylov and Douglas Perkins to describe common actions undertaken by communities to preserve the beloved place: "What makes community PA<sup>1</sup> truly unique, however, are the complex place and social cognitions, emotions, and behaviors, in response to environmental disruptions or threats, that feed into an interpretive process at both the individual and community level and that lead to collective, community-level actions, adaptations, or acceptance of the disruption." (Mihaylov & Perkins, 2014, p. 62).

The distinction between different concepts, especially topophilia and place attachment as well as sense of place and insideness is quite narrow. This makes it even harder for laypeople and professionals of other scientific disciplines such as urban planning or architecture to deal with the theoretical background of people-place-relations. Furthermore there is no grounded theory about how the different concepts relate to each other. While most researchers understand place attachment as a superordinate concept, there are others that consider the different concepts equally and still a few others that view sense of place or place identity as a superordinate concept.

### 2.3 Overview

The aforementioned concepts about place relations will be clustered into three groups. First there are concepts, which focus on people moving in and through space. The second group of concepts focusses on the individuals and their feelings and thoughts towards place. The third group can be defined as those concepts addressing community aspects of place relations.

Concepts of the first group addressing how people move within and through space were mostly developed by geographers. The common ones are sidewalk ballet (Jane Jacobs, 1961) and lifeworld (David Seamon, 1979).

Most of the concepts of the second cluster regarding people-place relations concentrate on people's thoughts and feelings. They can be subdivided in those focusing on emotions towards place and those addressing the role of places for the identity of a person. Examples for concepts about emotions are topophilia (Yi Fu Tuan, 1974), place attachment, sense of place (David Hummon, 1992) and insideness/rootedness (Edward Relph, 1976). The concepts of place identity, urban identity and environmental identity address the role of the environment for a person's identity.

The concepts of the third group describe attachment towards a community such as the neighbourhood. The research of community dynamics evolved out of sociology and therefore the place as a setting is not always the core of the concepts. Still these concepts are central to the research of people place relations because they often determine each other. Community attachment, sense of community and community place attachment count among this group.

The following table 1 gives an overview and a short definition of the described concepts about place-relations.

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<sup>1</sup> PA is the abbreviation for place attachment.

**Table 1.** Overview of most common concepts about place relations

	Concept	Originated in	by	scientific background	content
Movement in place	sidewalk ballet	1961	Jane Jacobs	non	performance of daily movements of all users on a sidewalk
	lifeworld	1979	Anne Buttimer, David Seamon	geography	being present in a place at a certain time performing a set of certain behaviour
Emotions towards place	topophilia	1974	Yi Fu Tuan	human geography	strong feelings towards a place containing emotional, tactile and aesthetic ties
	place attachment	?	?	?	bonding of people to place with proximity-seeking behaviour,
	sense of place	1992	David Hummon, Robert Hay, Louise Chawla	sociology	sensory perception and emotion in a place over time, leading to security, stability and belonging
	insideness/ rootedness	1976	Edward Relph	geography	being familiar, dwelling in a place and caring for it
	place identity	1978	Harold Proshansky	environmental psychology	dimension of identity containing conscious and unconscious beliefs, feelings and behaviors about the environment
	urban identity	1983	Harold Proshansky	environmental psychology	dimensions of identity containing abilities to cope with the urban lifestyle
	environmental identity	2003	Susan Clayton	psychology	pro-environmental awareness and behaviour
Community phenomena	community attachment	1967	Morris Janowitz	sociology	intense bond towards a community, accompanied by commitment
	Sense of community/ community of place	1986	David McMillan & David Chavis	psychology	friendly atmosphere developed out of place-sharing
	community place attachment	2014	Nikolay Mihaylov, Douglas Perkins,	community psychology	common community actions to preserve the beloved place

### 3 Theoretical and practical challenges

By the time a planner or practitioner feels familiar with concepts about place relations and wants to implement them, there are even more challenges appearing. As these concepts arose out of disciplines such as environmental psychology, sociology or human geography, a planner also has to get familiar with their meaning of place and space to fully understand place relation concepts.

Although there are many concepts describing the phenomenon of place attachment, there are still many knowledge gaps about it. For example, so far it is not clear how relations to places actually evolve and dissolve again and how this process can possibly be influenced. Furthermore the impact of the physical features and its changes on place relations is little understood, although this is of great interest for planners.

In the following section different understandings of place and space will be presented. In the second part of the section the influence of the physical environment on place relations will be discussed with a notion on design guidelines.

### 3.1 Theoretical challenges – different understandings among different research fields

Intertwined with concepts about place relations is the question what place actually is. Of course, there exist different approaches about place in everyday life and in the scientific world. While space is mostly understood as an abstract category, place is seen as a definable part of space to which personal meaning is attached (Rubinstein & Parmelee, 1992, p. 142). Therefore, to understand concepts about place relation both, understandings about place and space within different scientific disciplines are of interest.

Hay defines three different meanings of place depending on the context. First, there is the trivial common understanding of place as a geographically defined piece of space such as a room. Second, place can be seen as one's social role in the society. Third, place can designate a person's feelings towards a place, to which meaning is attached and in which time is spent willingly (Hay, 1998, p. 5).

While the first and the second understanding of place reflects the everyday use of the word place, Hay's third definition is the one that is recessed in the publications about people's relations to place.

In the 1970s, researchers such as Tuan and Relph mostly understood place as providing rest and security against the hectic outside world. Meanwhile an additional understanding of place has been developed, in which place is seen as a location with interactive potential serving as a meeting point (Lewicka, 2011b, p. 210). For Seamon, both the inward aspect of a place, as well as, outward aspects are an integral part of place experiences, although they contrast each other (Seamon, 2014, p. 15).

Morgan distinguished three different scientific discourses about place (Morgan, 2010, p. 11). First, there are researchers examining place with a phenomenological approach. Their aim is to gain knowledge about the deeper meanings of place and the difference of emotional qualities and relationships. They mostly use qualitative empirical methods such as interviews or combined photo-based and narrative talks. Tuan, Relph and Seamon represent this approach. The second discourse aims at analyzing the relationship between physical environment and the human psyche. Empirical methods are to translate psychosocial phenomena in numeric measures and analyze them quantitatively. Current researchers such as Lewicka mostly use this method for large surveys with more than 1000 subjects. The third approach displays a socio-constructivist approach in which place and the relationship to it is seen as a construct designed by social processes. The latter discourse is applied more in theoretical debates than in empirical works. Probably the most famous representative of this approach is Bourdieu.

As Childress puts it, „Probably the least common denominator that all place researchers would agree upon is that place denotes an environment that is “experienced” (even if only in the imagination) [...]” (Childress, 1996, S. 340). A place can vary greatly in shape and dimension: it can be an armchair as well as the whole city (Gustafson, 2014, p. 42). It follows, that places are arranged in a concentric character, with smaller places being contained within larger ones. They contain a social dimension as well as a physical basis (Lewicka, 2011b, p. 209).

The understanding of place as piece of space to which meaning is attached, asks for a deeper approach what meaning is: „Key phrases in the literature such as „invest...meaning” and

attach significance" indicate that meaning is somehow applied onto or into space making it "place"; space is the object to which significance is attached" (Lawrence, 1992, p. 212).

Stedman, Amsden, Beckley and Tidball define meaning as symbols. Meanings can be descriptions such as "friendly" or "pretty" as well as symbolic attributes such as "home". What differentiates meanings from attachments is that meanings are the basis on which attachments can be built on (Stedman, Amsden, Beckley, & Tidball, 2014, p. 112).

Weichhart, a German social geographer, distinguishes three different aspects of place, which might give a more detailed understanding than the term meaning (Weichhart, 2008, p. 168 f.).

According to him, there are appraisive, designative and context-specific components of a place. Designative aspects contain spatial information about a place, such as the geographical location (country, climate) the kind of place (city, pilgrimage) and so on. Appraisive components include judgements such as "pretty", "large", "important". The third context-specific dimension describes the meaning, a place has for a specific person.

It becomes clear that while talking about place relations such as place attachment, one always needs to clarify which understanding of place is basic.

Ever since space has been a topic to discuss a lot about. One of the first scientists to publish about place was Aristotle. Until now there have probably been published countless theories about space. The major ideas about space will be described in the following part. Here, again, this paper does not claim a completeness of concepts. As the author of this paper is German, the focus of this discussion about the semantic meaning of space has been on German understandings. Therefore, the main part of the concepts is German as well.

Hans-Heinrich Blotevogel classified two major categories about existing theories of space. The first category contains theories in which the authors tried to describe the objective, existing world. Mostly space was seen as infinite entity with its own existence. Long enough, the research field that dealt with space was solely natural sciences.

However, especially due to the rising research field of social sciences more and more concepts were evolved in which space is not just seen as the physical real world but also as a mental concept. Following this understanding of subjective concepts about space, space is the outside world as well as a person perceiving it.

The classification, Blotevogel introduced will be taken on, but the number of concepts, especially of subjective ones, will be extended. As place attachment concepts were developed in disciplines such as environmental psychology, it is important to include psychological understandings of space as well as the ones common in planning. Therefore the author analyzed summaries about space from different authors with different scientific backgrounds. These are Hans Heinrich Blotevogel to reflect space understandings common in spatial planning, Gernot Böhme to display an architect's understanding, Peter Weichhart to include the perspective of social geography, Lenelis Kruse to depict the environmental psychology view, Andrej Holm, Martina Löw and Jörg Dünne and Stefan Günzel to consider the sociological view. While analyzing the different summaries about space from the authors of different scientific backgrounds, it soon became clear, that there are indeed some differences. Weichhart and Blotevogel focused on objective concepts of

space: five out of seven concepts Weichhart displayed and six out of eight concepts Blotevogel mentioned were objective ones. Böhme just introduced his own understanding of space, which is a subjective one. Concerning the other authors, sociologists and psychologists, it was the other way around: Dünne und Günzel displayed one out of six objective understandings of space, Holm one out of four, Löw five out of thirteen and Kruse none out of nine.

This illustrates how different the common understanding of space is between different scientific disciplines. In the following section, seven major ideas about objective space and four ideas about subjective place are presented.

Most commonly, the trivial understanding is an objective view on space. Space is understood as a room filled with objects. The room is finite and has clear borders.

The absolute space described by Aristotle or Newton is an abstraction of the trivial understanding. Space is not bordered anymore but infinite and endless. It can be imagined as a room where the walls are extended endlessly. Within this understanding, space has its own existence and can be imagined as a container in which everything sits in.

To understand space in a relative way was first introduced by Leibniz. He refused to believe that space has its own existence. For him space is the distance between objects. If there are no objects, there is no space. Einstein is also a representative for a relational understanding of space.

Kant understood space as well as time as a classification system that is basic to human's perception. One could argue that Kant's view might also be a subjective view, but it is not seen as one, because Kant does not reflect about the subjective and individual perception that differs from person to person. For him, space is an ordering system and can therefore be understood as a corporeal feature.

Carl Ritter was one of the first ones who understood space as a piece of territory, containing organic and inorganic objects as well as the society on it. Because of its features, the pieces of space on earth can be divided in, for example, different ecosystems. This understanding is still present in the common planning culture in Germany.

Space is also often viewed in terms of a formal or organizational system. Grids like coordinates and meridians were introduced to be able to exactly locate a person or an object. This understanding is mostly used in economic models, to determine positions, distances between them and the flow of goods. The term space in this sense can also be used to describe things and objects that belong to one family, like for example, colours within a colour space.

Within political space, the development of political borders and the location of institutions are viewed. Here an understanding of space as a conceived and imaginary structure is basic. The discussion about private and public space is also grounded on a political understanding of space. Power balances and grades within a space are an essential theme within this understanding.

When it comes to subjective concepts of space, there are many different concepts. All concepts describe an individual and his or her perspectives and behaviour within space. Basic for these understandings is that every individual perceives space differently. One of the first ones to have that thought was Jakob Johann von Uexküll, a biologist. Using the example of a tick, he

described that it has a world, which it perceives, and a world it has an effect on. While a tick only perceives heat and smell, it has an influence on a much larger part of the world, including humans.

As with the concepts about place relations these concepts all describe different aspects and have different focuses on the same phenomenon.

The phenomenological approach was introduced by Husserl and is based on the assumption that there is a common basic structure to human's consciousness about space. By observing the behaviour on many individuals this common structure can be derived. The phenomenological approach can be found in different sociological discourses. Phenomenologists solely use qualitative empirical methods, because quantitative ones always imply a reduction of the concept as a whole.

Living space was a concept first verbalized by Lewin. The living space of a person describes the sum of factors that determine an individual's behaviour at a certain time. Since its introduction, many other authors have modified this idea.

Minkowsky introduced the lived space as a similar but different concept. Lived space describes the space in which a person lives and acts. Different spheres of influence have been described. For example the space, which a person perceives, is larger than the one, it can act in. While the concept of living space focuses on influences the individuals perceives, the concept of lived space focuses on the influence an individual has.

Using the term "experienced space" Bollnow describes a space that a person has ownership for. He also distinguishes between different spheres. The first sphere is one's own body which the person can control but cannot leave. The second sphere is for example a person's home, which a person still can control, but also can leave. The third sphere describes the outside world, where the influence of the individual is limited.


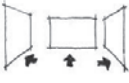


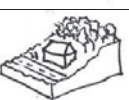
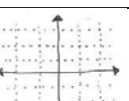


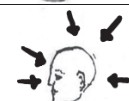
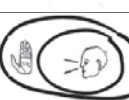

Of course there are many more concepts and modifications describing subjective space. The presentation of these four approaches serves to give an insight in this large field.

It becomes clear that when planners and practitioners talk about space relations it is not just necessary to clarify the underlying concept of place attachment but also the underlying understanding of space.

As concepts about place attachments are focusing on the individuals feelings towards a place it is obvious that these concepts are grounded on subjective concepts about space. Space is always considered, as something perceived by humans.

While most planner's understandings of place are still rested upon some kind of objective conceptions, for example terrestrial space or formally organized space, it is essential to understand subjective concepts of place when he or she deals with place attachment concepts (Blotevogel, 2005, S. 839).

**Table 2.** Overview of most common concepts about space

	Concept/ author	author	content	icon <sup>2</sup>
Objective concepts	trivial understanding	-	bordered, filled with objects, like a room	
	absolute space	Aristotle, Isaac Newton,	infinite, has own existence, container or second skin	
	relational space	Gottfried Wilhelm Leibniz	position of objects to each other, does not exist without objects	
	space as fundamental assumption	Immanuel Kant	time and space as classification systems that form the basis of everyone's perception	
	terrestrial space	Carl Ritter	space as a piece of environment, can be divided in ecosystems	
	formally organized space	-	formal organizational system like grids and meridians to locate positions, distances, and flow of goods	
	political space	-	development of political institutions and borders, difference between private and public space	
Subjective concepts	phenomenological space	Edmund Husserl	a common structure that is basic to human's consciousness of space	
	Lebensraum / living space	Kurt Lewin	total factors that determine a human's behaviour at a certain time	
	lived space	Hermann Minkowsky	space in which a person lives and acts	
	experienced space	Otto Friedrich Bollnow	space that is one's own space,	

### 3.2 Practical challenges – the complexity of a person-place relationship

When it comes to the question how a planner or practitioner can include place attachment concepts in his/ her design approach there is no easy answer. Some design guidelines exist, starting from Christopher Alexander's „A Pattern Language“ (1987).

<sup>2</sup> All icons are drawn by the author to support the understanding of the different concepts

A more current example is proposed by the American Institute of Architects. They device guidelines on how sense of place can be created by fostering functionality, comfort and aesthetic attractivity. What can be criticised about that approach is the assumption that sense of place can solely be created with a nice physical setting (von Wirth, 2014, S. 138).

This is the central issue practitioners and planners have with place relation concepts. While the main task is to change and 'improve' the physical environment, it is not just the latter one that accounts for place relations. Indeed the physical environment has some influence on people but nowhere near enough to determine people's behavior (Visser, 2008, p.233). As place relations are not monofunctional one cannot automatically achieve intended influence on people with a change of the environment. Therefore, these guidelines cannot promise to design a place that people automatically feel attached to.

Next to design guidelines there are theories about which kind of places are preferred. One example is the prospect-refuge-theory from Jay Appleton (1975) that implies that people prefer places that offer prospect and refuge. Appleton explains his theory evolutionary: according to him the former human species had the greatest chance for survival in this type of place and therefore still prefers it today. None of these theories have been tested empirically so far (Lewicka, 2011b, S. 218).

There have been some interesting studies about human's perception of the environment. For example there are findings on how people perceive their environment in terms of recognizing things. Probably the best-known study is Kevin Lynch's "Image of the City" (1960) in which he found out that paths and landmarks are the most important categories to gain orientation in a city. What can be criticised about his work is the small sample size and the predetermination of his categories (Weichhart, 2008, S. 198).

Peter Weichhart, a german social geograph found regularities concerning traffic, distances and orientation. For example people generally do not remember the angle of a crossing but just on which they have to turn left or right. Furthermore people replace their orientations towards north by a memorable axis in a city. Also close distances are often estimated further away and vice versa (Weichhart, 2008, S. 188 f.). Places of preference are generally thought of to be closer than they mostly are. Orientation and feeling for distances are influenced by the living environment as well. Lloyd and Heivly found out that depending on the neighborhood they lived in, residents showed either more rotation distortions or more distance distortions towards different landmarks.

There are only very few studies regarding both, the subjective perception as well as the objective environment although one might think, that the analysis of the correlation between the objective environment and the perceived one should be of great interest, especially for planners and practitioners (McCrea, Stimson, & Marans, 2011).

One example for this is a study Timo von Wirth conducted in a northern urban sprawl area of Zurich, Switzerland. Using a questionnaire he asked 1693 households about their perceived safety, perceived access of daily supplies and perceived quality of life. Access and safety are seen as major indicators for quality of life. While better access reflects the positive side of central place of residence, decreasing safety symbolizes the negative affects attending it.

Using Geoinformation Systems von Wirth analysed every households location and the real access and safety of it (by evaluating car accidents; burglaries and attacks in a 100 x 100 m pattern) (von Wirth, 2014, S. 81).

The results of his study were, that perceived access and safety strongly matched with objective access and safety. It could also be approved, that perceived access and safety are reliable indicators for the subjective quality of life. Interestingly there was only a low correlation between the real access and safety and the subjectively perceived quality of life.

This means that the residents experienced their environment quite as it really is but that they do not necessarily evaluate it anew when objective changes occur: „The findings implied that variations in objective measures do not reliably represent differences as evaluated by residents“ (von Wirth, 2014, S. 69).

Von Wirth concludes that if one wants to find out more about how to improve the overall quality of a neighborhood, it is always necessary to survey both subjectively perceived as well as objective measures (von Wirth, 2014, S. 93).

After reading the results of this study one might ask what is actually known about the relation between the physical environment and people's relation to it as well as their reaction to place changes.

So far, it can be said that there is no direct effectiveness of place changes on people's behavior. Devine-Wright and Howes held a survey about offshore-windfarms in two cities in Great-Britain.

In one town people identified strongly with the coastline and reacted very defensive, while in the other coastal town the residents identified more with other dimensions of their town and responded quite positive to the proposed wind-farm (Devine-Wright, 2014, pp.168). This means that people's reaction towards place changes greatly depended on the dimension of a place, which they are attached to.

Furthermore, the perceived extent of the change, the rapidity and felt control over the process have a great impact on people's reactions (Devine-Wright, 2009).

This result matches the ones from Bonaiuto et al., who found out, that Italian farmers resisted against a natural protection area, because they felt that their economical income might be threatened (Bonaiuto et.al. 2002, p.649).

These findings imply that people's relation to place as well as their reaction on place change greatly depends on the components of a place to which they attach meaning.

So while some might still hope for guidelines they can follow to design a sustainable and human oriented place it has to be said, that every place and every relation to it is different and therefore can not be generalized. This makes even more obvious how helpful a grounded knowledge about place relations can be for planners and practitioners.

#### **4 Conclusion**

Relations from people to places – also called place attachment – is a research field that can offer great insight for everyone concerned with the modification of physical environments. Knowing about

place relations of residents can help to understand their reactions on place change and their degree of involvement. Furthermore, the inclusion of place attachment can lead to a more user-adapted design. By far, it is not easy to become acquainted with it, especially if one does not have a research background of social sciences. There are many concepts with focuses describing nearly the same phenomenon that do not ground on a common research theory. Therefore, it is helpful to give an overview on the existing concepts and to cluster them.

When it comes to speaking about terms like place or space among different disciplines linguistic problems might appear. Place is a highly symbolic term which is understood differently by the diverse scientific fields, that deal with it. Therefore, it is essential to know and understand the theoretical approaches existing about place attachment and place to be able to compare notes about it.

The impact that changes of the physical environments have on place relations is still an open research field. There is no empirically proved guideline that could help practitioners to implement place attachment within his or her design. One of the few surveys that compare objective features of the environment with the subjective perception of residents showed, that still little is known about people's evaluations of their environments. To offer grounded advice concerning the design and change of the environment, further research on this field is needed. However, having the findings of the studies in mind, it seems even more necessary, that planners deal with place attachment themselves. On the short run, there will not be a generalizable design guideline available that guarantees a 'place attachment-friendly' change of a place. As place is a mental construct, planners are always confronted with the views and the feelings of residents and users. To consider and respect them in a planning device will be an enrichment and it should be a claim for the occupational area of planners to be able to do this.

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## **4. Multisectoral Dimension**



# Trans-disciplinary approach to maritime-urban regeneration in the Italian case study "Friends of Molo San Vincenzo", port of Naples

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Urban regeneration in coastal urban areas requires taking into account some specific features, due to the concentration of inhabitants, functions, and activities of the area. In addition to this, we need to consider the maritime identity, which derives from geographic position and community history.

This paper addresses the issue of what kind of innovative strategies of urban regeneration are needed in coastal urban areas. Our analysis brings to the fore the need for a wide and across-the-board collaboration among all those people who, despite being heterogeneous, consider the sea as a substantial element in their culture, a common good, and hence a resource.

Collaborative strategies of lateral participation represent an innovation, which also promotes, through technological innovation, more effective strategies aimed at bringing out those potentialities concealed in urban spaces. This can be attained through the use of new functions, which meet the needs of the civil society.

This paper offers a contribution to the issues raised at the Conference by presenting a regenerating project under way at San Vincenzo Dock, which is the main external defense of Naples' harbor. Despite its historical, cultural, scenic, and architectonical value, this place lies in a state of neglect and inaccessibility.

Our goal is to regenerate a seaside public space in collaboration with Institutions, the local urban community, and pro-sumers.

CNR IRISS interdisciplinary research group, together with Community Psychology Lab of the University of Naples Federico II, is a main actor in this process. San Vincenzo Dock represents a chance to develop and test the planning of collaborative methodologies for the regeneration of maritime cities.

**Keywords:** urban regeneration, maritime identity, waterfront redevelopment, collaborative commons, community participation

## 1 Maritime identity and collaboration in seaside city regeneration

The sea is an important aspect of most people's identity worldwide. In fact, over 50% of the world's population lives within 200 km from the coast. Moreover, eight of the biggest metropolises in the world are coastal cities, that is: Tokyo, Mumbai, New York, Shanghai, Lagos, Los Angeles, Calcutta, Buenos Aires ([www.oceansatlas.org](http://www.oceansatlas.org)).

The coastal growth rate is higher than that observed in inland areas. This entails, especially in highly urbanized areas, an increasing anthropogenic pressure, resource consumption, and environmental impact. Seaside cities have always been places for shipping movements, melting pots, and cultural hubs. This is the reason why ports have always been magnets that have fostered the growth and development of coastal cities. Ports are places for exchanging products (hence money), and are characterized by the presence of transportations, food, and all the ecological benefits related to the presence of the sea ([www.oceansatlas.org](http://www.oceansatlas.org)).

The specialization of ports due to the introduction of containers and the subsequent separation of the city from the sea has distanced cities from their ports. Today, in fact, the port has become the asymptote of the rising curve of degradation.

The crisis experienced by some ports, which is spreading rapidly, has exacerbated this phenomenon to such an extent that decaying ports have become real urban pockets of degradation. It is therefore unsurprising that urban regeneration is a topic of central importance in coastal cities.

Urban regeneration aims for some specific development goals, which can be attained by drawing on the endogen resources of the city, just as we would do for biological organisms where wounds and biological tissues can get healed over.

Urban regeneration is also of extreme relevance in some European cities, especially in those countries such as Greece, Portugal and Italy, which have been hit hard by the economic crisis.

Regeneration must identify and increase potentiality as well as local identity. At the same time, it needs to avoid standardized interventions by taking into account the specificity of every local culture. This will avert the risk of globalization and homogenization.

In Italy, these issues are highly topical and also very close to the hearts of its citizens due to the numerous wounds that have been inflicted on our territory, cities, and landscapes. In particular, the entire coastal area running along our peninsula – a great coastline that overlooks the Mediterranean seas for over 1000 km – has been wounded.

The issue of urban regeneration in coastal urban areas requires the consideration of some specific features due to the concentration of inhabitants, functions, and activities. In addition to this, we need to consider the maritime identity, geographic position, and community history.

Urban cities, between earth and sea, represent an important open laboratory for testing novel strategies of urban regeneration aimed at the enhancement of maritime identity and cooperation.

In this context, the connection between urban development, life quality, and new technologies plays a pivotal role. In fact, in modern cities ICT Technologies and smart approaches constitute instruments that simplify the set-up, management, and implementation of collaborative regeneration.

Sustainable development is, or at least should be, a desideratum in every urban development project. However, in coastal cities this takes on a different meaning in terms of environmental, social, and economic relevance. Maritime identity is at stake in this case, so this prompts us to look at the city 'from the sea', that is, taking into account its maritime key features, which conflate in what has been defined as *urban maritimity (maritime identity)* (Clemente, 2011).

Maritime economics encompasses shipping, cruises, fishing and tourism to maritime artworks, as well as the recovery of disused ports.

The social aspect of maritime identity pertains to the accessibility of the sea for the whole urban community as well as the public availability of the area overlooking the sea, which is limited, and thus of considerable value.

Moreover, the environmental issue is pivotal in that the sea is the main ecological heartbeat of coastal urban areas as well as a source of urban resilience. The sea-earth balance is delicate, and as such it requires dedicated defense.

Problems arise in the battle that takes place between the stakeholders of the three above-mentioned domains, that is: economics, environment, and society.

Interests are likely to vary and goals can differ widely depending on which perspective (economic, environmental, social) takes precedence. For instance, the stakeholders of economic activities often look at environmentalists as enemies and the environmental concerns as obstacles rather than resources. Likewise, citizen associations usually consider entrepreneurs to be opponents of their social development projects.

In coastal urban areas these issues become even more peculiar and accentuated compared to local situations taking place elsewhere. The bivalence of sea and earth on the coastline is an impact multiplier and accelerator.

Therefore, it becomes important to come to an agreement between the various subjects involved in the process of regeneration. From this viewpoint, the role of the urban planner is not only to analyse the situation and offer strategies of interventions, but also to figure out the different interests at stake and mediate between them.

The identification of overlapping interests and objectives among the stakeholders was, in fact, the first step of our planning project.

It is also important for urban planners to collaborate with other disciplines. This will help them better understand the needs of the territory as well as identify overlapping areas of interests. However, although multidisciplinary collaboration is a shared value among scholars, it is not easy to achieve.

Different approaches, goals, and subjects, even if very much in line in principle, are sometimes not easy to keep together. A further obstacle might be the presence of multisectoriality, particularly in those cases where the object of study is very much variegated.

All these issues are always present in every city, and yet they are more prominent when it comes to seaside cities. The strong identity and the sense of belonging to two distinct worlds, that is water and earth, make seaside cities peculiar cases, which are subject to specific problems and as such require appropriate interventions.

Urban regeneration in coastal cities is usually quite slow. Naples is a prime negative example of this in that the gradual lost of competitiveness of the port runs alongside urban degradation.

Over recent decades Naples has been a battleground for institutional disputes, lack of jurisdiction, and vetoes that have prevented the renovation of the port and waterfront from taking place (Gasparrini, 2014).

Therefore, this city, along with its port, represents a privileged open laboratory for testing novel approaches and methodologies of urban regeneration.

The research group that studies cities "from the sea"- coordinated by Clemente - has been involved over the years in urban coastal theoretical and methodological projects that build on maritime identity. Given the peculiarity of the Neapolitan metropolitan coast, we have decided to develop novel methodological strategies of intervention.

In urban regeneration, social dimensions, sustainability, economic and environmental features, have been regarded for many years as crucial.

In this context, novel collaborative methods of lateral participation, through which it is possible to attain territorial regeneration, have been put into action.

This paper addresses the issue of regeneration in coastal urban areas, and in doing so highlights the need for a wide and across-the-board collaboration of all those who, though heterogeneous, consider the sea as a substantial element in their culture, as a common good, and thus a resource.

Regeneration of coastal urban areas becomes relevant in so far as it builds on *maritime culture* as well as integrated urban transformation, which hinges on a successful interaction between citizens, stakeholders, organizations and authorities.

Collaboration is lateral in that it involves a swarm of “urban pro-sumers” (Clemente Clemente and Giovene di Girasole, 2015b) who share and realize coastal transformation in the interest of everybody.

Collaborative strategies of lateral participation represent a novel process, which also promotes, with the aid of technological innovation, more effective strategies aimed at bringing out the potential of urban spaces. This can be attained through new functions, which meet the needs of civil society.

The urban community represents the key for collaborative regeneration. From there the very actors of the regenerative process must be taken. And although the actors might belong to recurring categories, each one of them must be individually considered in their specific context. In so doing, the project becomes a shared process between various actors such as stakeholders, citizens, and policy makers. Therefore, there is the need for a new professional figure that is capable of gathering and connecting all the actors involved in the process, while also resolving conflicts, and give value to areas of overlapping targets.

The required steps are as follows: definition of theory and methodology; interdisciplinary collaboration; debate with stakeholders and citizens over the demand for spaces and functions that contribute to regeneration; engagement of policy makers.

This paper, presents an example of urban regeneration that is currently in progress at San Vincenzo Dock, which is the main external defense of Naples' harbor. Despite its historical, cultural, scenic, and architectonical value, this place lies in a state of neglect and inaccessibility.

Our goal is to regenerate a public seaside area, through a process of renewal and requalification that brings together institutions, the urban community, and *prosumers* (Rifkin, 2014).

CNR IRISS interdisciplinary research group, together with Community Psychology Lab of the University of Naples Federico II, is a main actor in this process. San Vincenzo Dock represents a chance to outline and test planning collaborative methodologies for the regeneration of maritime cities.

## **2 Community participation and psychological processes**

Psychology studies participation in community life and works on how public spaces can become means of social relations and ties between citizens. Psychologists are expert in social interactions, and their tools are useful for discovering new creative expressions that can aid urban regeneration, their knowledge helping to define the new uses of spaces that are suited to people's needs

(Arcidiacono, 2016).

Community Psychology, in particular, has a twofold aim, that is: to examine the role that public contexts play in people's lives as well as how these are perceived, experienced, and symbolized. A further aim is to take action in local contexts to promote social change that is able to meet the needs of local people as well as foster interactions and synergy among different stakeholders (Arcidiacono, 2016). Local community is, in fact, the framework within which the personal and social identity of citizens develops. This provides a cultural and meaningful space for all the subjects included in it (Cox, 1989).

Indeed, the drive to participation does not develop in a social vacuum, but through the interactions with the context. It is also related to the subjective conditions that shape one's "feeling of being", that is: experienced significance (to what extent my contribute is significant), knowledge about the results (how effective is what I produce), safety (how much I can get involved without fearing for my status, public image, or career).

Active participation seems to have a positively enhancing effect on both social well-being (Keyes, 1988) and the sense of belonging to the community. This, in fact, drives people to take on less marginal roles, promote community development, and provide resources for personal and professional growth.

We are already mindful of the notion that the relation with a place expresses community identity (Puddifoot, 2003) since it allows for the exploration of those personal and shared representations that people hold about their community. This also applies to those places that are bureaucratically labelled as public, whilst psychologically speaking they do not appear to be part of the community town.

In contexts marked by high deprivation and social distrust a further aim is to reflect on the absence of a potential linkage between participatory actions and a sense of belonging (Arcidiacono, 2010). This requires us to first outline and then develop those elements that kindle participation. Consistent with other research carried out in local communities (Procentese and Schophaus, 2013), social trust - understood as subjective expected utility related to a given context or collective bond – appears to be the driving force of social action orientation (Di Napoli and Arcidiacono, 2012).

In particular, pro-social action when linked to identification to public spaces calls for the promotion of sense of community engagement.

In fact, personal and community investment can open new pathways for thought and action. This facilitates tapping into and fostering both citizens' and stakeholders' efficacy and responsibility and as a consequence it prompts them to take action towards urban regeneration.

The redefinition of marginal places in terms of social ties helps to find novel ways of perceiving and giving meaning to public spaces. In so doing, we can turn a 'neutral' or 'alien' space into a place of symbolic and functional investment.

### **3 Collaborative Regeneration and ICT: an open Laboratory for social experimentation**

The "City and Architecture" research group, which is coordinated by Massimo Clemente, has been studying seaside cities and their sustainable development for the past few years. The research

group “Communitypsychologylab” at the University of Naples Federico II, which is coordinated by Caterina Arcidiacono, works on community building by leveraging on individual and collective strengths for social change (Figure 1).

The CNR research activity on seaside cities started in 2009. In 2011 their first findings were published on the volume ‘Cities from the sea. On the art of sailing and building cities’. This work has laid out a novel way of looking at seaside cities - that is through the lens of *maritime culture*. The first conference titled ‘The sea and the city. Urban culture and maritime culture for sustainable development of coastal urban areas’ was held in 2012. The conference described seaside cities as the manifestation of a specific maritime culture. The event was an occasion for an in-depth analysis and confrontation for all those interested in the topic. All interested parties, were in fact, involved and invited to express their thoughts and viewpoints.

In 2012, attention shifted towards Naples, through the conference “The sea and the city 2.0. Participating and sharing the sustainable development of Naples”. On this occasion the objective of the event was to invite Universities, research bodies, scientific associations, trade organizations, and scholars to develop a shared project of local sustainable development for the coastal metropolitan area of Naples.

Between 2013 and 2014 first the paper “The sea and the city” was published in TRIA international journal of urban studies, followed by the special issue ‘The sea and the metropolitan city of Naples’, which included contributions from the main experts on the port and waterfront of both Naples and its province.

The activity of Community PsychologyLAB of the Department of Humanities of the University of Naples Federico II, started from some of its members’ interest in urban conditions coupled with the desire of interpreting citizens’ needs (Arcidiacono, 2004, 1999). Their focus was, in particular, the study of the historical city centre of Naples.

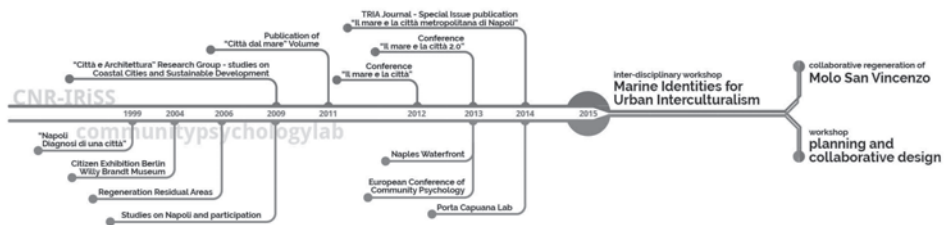
In 2004, this work led to an exhibition held at Willy Brandt Museum in Berlin as well as to research for the regeneration of the residual areas in the Phlegraean fields (Procentese, 2006).

Their exploration of the linkage between local people and local development has been expanded to include several other contexts (Arcidiacono and Procentese, 2005; Arcidiacono, Procentese and Paolillo, 2011) until it reached its full potential through the Portacapuana Lab ([www.communitypsychology.eu](http://www.communitypsychology.eu)). In 2013 the Lab decided to address the neglected and unemployed potentialities of the Neapolitan waterfront in a workshop organized with Tom Fox, New Yorker social activist in development and urban planning ([www.communitypsychology.eu](http://www.communitypsychology.eu)). This event has represented a first step towards defining outlooks and competencies for those who decide to undertake sustainable and well-being oriented plans in public places in general, and for the waterside of Naples in particular. His “fight”, as Fox himself likes to define it, has allowed for a redirection of the planning for the Westside waterfront of Manhattan from a private site on which only luxury houses were to be built, to a public space for its citizens. His intervention has not only been limited to the mere planning of a public park, but has involved the very citizens of Manhattan to uphold the safeguarding of this public space along with the promotion of initiatives aimed at fostering community well-being.

In 2013, the key feature of this workshop, which was held in Naples on the occasion of the 9<sup>th</sup> European Congress of Community Psychology was, therefore, the waterfront of Naples itself. This has been presented through photos and videos as well as a series of interviews, which were administered by a group of community psychologists to all those who live around and have access to the waterfront. This work gave a voice to the local people's desires and expectations of future transformation. It also presented an opportunity to reflect on how to build a link between individuals and society, people and contexts, and both individual and relational characteristics.

Moreover, the workshop was an opportunity to promote the specific competencies and instruments that Community Psychologists offer to strengthen communities.

In October 2014, "Città e Architettura" research group in partnership with Communitypsychologylab held an interdisciplinary workshop titled "Maritime Identity for Urban Interculturality – The Sea and the City as Habitat of Peace" on the occasion of the "Forum Universale delle Culture 2015".



**Figure 1.** The story and journey that led CNR IRISS and CPL of the University of Naples Federico II to take action towards the urban regeneration of the waterfront

During the workshop – which saw the participation through web conference of the main actors of the successful regeneration of the waterfront of New York City (Clemente, Giovene di Girasole, 2015b) – the great potential of the metropolitan coast of Naples was discussed. Along with that, the need for a wide and across-the-board engagement of all those actors involved in the process of regeneration was brought to the table. These, in fact, bear the potential to lay the groundwork for an *action arena* (Ostrom, 2006) upon which to build interventions of urban regeneration.

Today, maritime culture is still a key feature of seaside cities. Therefore, the acknowledgment of the sea as both an urban (Donolo, 2012; Mattei, 2011) and a common good (Hardin, 1968; Ostrom, 2006; Rifkin, 2014) that benefits the city and the urban community is strictly related to maritime identity and culture.

In fact, the sea bears those features that Carlo Donolo considers typical of commons, that is: ecological characteristics (i.e. what sets apart a humid area from a fishing ground as well as the global climate from the local microclimate), inherent qualities appreciated by human kind (these usually either directly contribute to human subsistence or represents underlying conditions for life on earth), qualities of social artefacts manufactured by the human mind (i.e. end products of social interactions and human history), and aspects that are considered valuable from both individuals and humanity at large (2010, p.24).

This workshop has highlighted some interesting aspects about coasts as *generative places* where the sea-earth system shows its threefold value of ecological lung, social place, and economic resource. These can be seen as three entry points for the future regeneration of the metropolitan coast.

In particular, the prominence of Molo San Vincenzo as neglected and inaccessible place has been brought to the fore. This was followed by a proposal to restore it to its former value of both port and public space open to the city. For this to be attained we need a shared understanding between institutions (Navy, port captaincy, port authorities) and economic, leisure, sport, and cultural activities.

Molo San Vincenzo can turn into a common good only if, once recognized as such, it becomes relevant for the urban context (Mattei, 2011) and the local community. The latter, in turn, must develop social capital through making use and protecting the port. This social capital must build on social relations characterized by shared behaviours and values, which in turn will keep community members together and in so doing foster cooperative actions.

Therefore, regeneration calls for a wide and across-the-board collaboration among all those people who, despite being heterogeneous, consider the sea as a substantial element in their culture, a common good and hence a resource.

In this context, Molo San Vincenzo has been a place for a collaborative regeneration and lateral participation. This approach, which is an alternative to classical vertical models, makes it possible to attain a thorough transformation of the territory (Ostrom, 2006; Ostrom et al., 1994).

For the requalification and regeneration of Molo San Vincenzo, we built on the concept of “collaborative commons”, as defined by Jeremy Rifkin (2014). This is, in fact, a novel process, which when endorsed by new technologies, is likely to generate more effective regenerative strategies.

Indeed, technological innovation must be coupled with social innovation (Ratti, 2014; Fusco Girard, 2013; ABB-Ambrosetti, 2012; Giffinger, Fertner, Kramar, Kalasek, Pichler-Milanovic and Meijers, 2007) to truly contribute to sustainable city development (Carta, 2013; Mostafavi, 2010) as well as with responsibility (Procentese, 2011) to create collaborative regeneration.

Along with better-established tools (i.e. working groups, etc.) the use of ITC tools can make it easier to generate social involvement. Collaborative digital platforms, for instance, allow citizens and urban communities be part of the proposals and decision-making pertaining to city regeneration (Van Timmeren, 2015). This means creating the conditions for citizens to collaborate towards common interests, tackle the problems of the city, resolve common frictions, pooling ideas, and take care of the common good.

This represents an innovation, which when supported by the aid of new technologies, helps to develop more effective strategies aimed at bringing out the potential of urban spaces. These also create new functions that better meet the needs of civil society.

It is also a process that must be built together with actors, stakeholders, citizens, and policy makers. This entails resolving conflicts and giving value to areas of overlapping targets. In this context, following on from the collaboration established during the workshop, the CNR IRISS and the Communitypsychologylab of the University of Naples Federico II have set up a “Laboratory

for collaborative project planning" that is aimed at outlining a new methodology for developing collaborative regeneration.

Molo San Vincenzo shall represent the field context for testing this new methodology. The interdisciplinary group we founded will act as a liaison between institutions, stakeholders, and the urban community. This will contribute towards achieving the requalification of the dock along with its shared uses and functions.

#### **4 San Vincenzo Dock from Common Good to *Commons***

This paper presents an on-going experiment of collaborative methodology, which has been developed by the interdisciplinary research group of the "Laboratory for collaborative project planning". The project aims to regenerate Molo San Vincenzo in Naples, which represents the main external defence of the city harbour.

Despite its historical, cultural, scenic, and architectonical value, this place lies in a state of neglect and inaccessibility. This is due to the military intervention of the Navy that, in fact, denies access to the dock.

The dock runs a length of approximately 2 km, in the area located on the Westside of Naples harbour and the nearby Acton shipyard. Our goal is to regenerate a seaside public space in collaboration with Institutions, the local urban community, and pro-sumers.

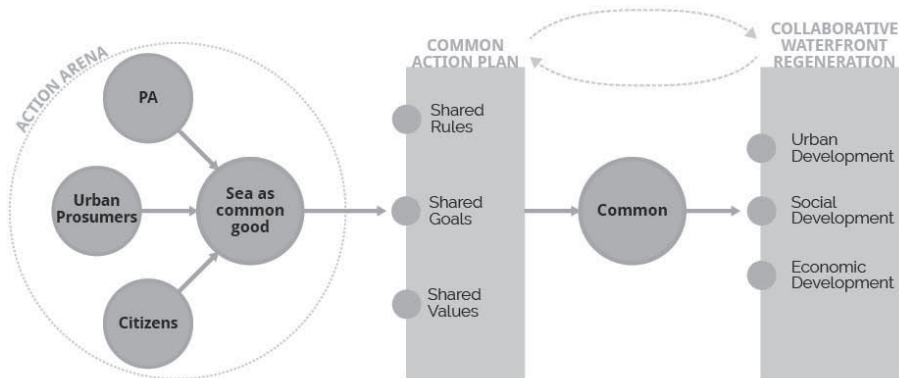
The metropolitan waterfront, along with its diversified coastline, is a constant battleground between private, corporatist, and public interests. Entrepreneurs do not start businesses, the urban community is divided, and the public institutions cannot work. The relationship between the sea and the city is critical. Lack of public spaces, visual and physical inaccessibility, and troubled physical/political relations between port and city are the current state of affairs.

Molo San Vincenzo has, over the years, been witness to many unrealized projects. These have most likely failed due to their inability to keep together the objectives and interests coming from different parts as well as to the use of a partial focus on the matter.

The collaborative regeneration of Molo San Vincenzo is in progress. We aim to promote trust between those who are committed to the requalification and development of the dock and have also the welfare of the city and the whole citizenry at heart.

A convergence of interest is one of the objectives of the multidisciplinary research group. This is aimed at supporting the network of actors involved in the cultural and productive life of our city, which has decided to take action towards the betterment of Molo San Vincenzo both in terms of its values as port basin and as a public space open to the city. The multidisciplinary research group acts as a liaison and welcomes every kind of proposal and request aimed at the regeneration of the dock. These will be systematized in a combined and comprehensive vision. It also intends to promote communication between the various social actors involved as well as to identify their needs by elaborating those social representations and symbolic meanings that are attached to this place. In addition to this, it sets out to facilitate social aggregation with programming and finance institutional bodies.

The regeneration of Molo San Vincenzo will require three main steps - these are: to build the *Action Arena*, to define a *Common Action Plan*, and to develop *Collaborative Regeneration Projects* that are able to have an urban, economic, and social positive impact (Clemente and Giovene di Girasole, 2015a) (Figure 2).



**Figure 2.** Framework for the collaborative regeneration process of San Vincenzo Dock

The first goal, that is the construction of the *Action Arena*, will be achieved by combining the lateral forces of pro-sumers and the vertical forces of the citizens (bottom-up perspective), with those of institutions that recognize the value of the Molo San Vincenzo Dock and tend to regard the sea as a common good (top-down perspective).

Thus, the consideration of San Vincenzo Dock as a common good lays the groundwork for “common ground” which Elinor Ostrom (Ostrom, 2006; Ostrom, Gardner and Walker, 1994) regard as fundamental to fulfill trust, integrity, and reciprocity between community members. A *social commons* is «the place in which it's generated a collaborative spirit which enables a society to act as a cultural cohesive entity» (Rifkin, 2014, p.28).

This perspective begs the question of how “to develop the common good” (Quintas, 1979) as well as how to use and manage it, what are the rules to follow, and how can everyone contribute towards the maintenance of the whole system (Ostrom, 2006).

The definition of a shared vision may be actualized through a shared *Common Action Plan*, by means of which the interaction takes place between all the subjects of the action arena. The action arena is the place where we will define rules, targets, and shared values, that is to say the set of rules for the shared use (and respect) of San Vincenzo Dock as a collective resource as well as the waterfront regeneration.

Collaborative regeneration will turn the collective into community and the San Vincenzo Dock from common good to *commons*. This will also take into account its double value of sea and land as well as its environmental, social, and economics aspects.

The third step involves validating the projects of collaborative regeneration of Molo San Vincenzo that are, in line with the *Common Action Plan*, capable of contributing to the urban, social, and economic development of the area.

This process requires shifting from a “vertical” vision to a “lateral” or “horizontal” vision, that is the vision of a collaborative city, where “pro-sumers” (Toffler and Toffler, 2015; Tapscot, 2015; Rifkin, 2014; Toffler, 1987) will turn into “urban pro-sumers” (Clemente, 2015), both real and virtual networks of city consumers will turn into producers of their main necessities and the sustainability of the city, while sharing their results and thus increasing productivity. This is a flow of energy, which affects and takes part in city regeneration.

### **5 Collaborative Regeneration of San Vincenzo Dock**





Actions and Instruments, coupled with the used of ITC, have been laid out in order to set up a participatory action research project for the collaborative regeneration of Molo San Vincenzo (Table 1).

The first step, that is the construction of the *Action Arena*, includes Institutions, pro-sumers and citizens, which are to be involved in the whole process. Our goal is to invite them to partake in the regeneration. We intend to do so by means of social networks, media, pictures, and videos as well as by developing informative/cultural material.

The second step, that is *Common Action Plan*, calls for the active participation and the shared involvement of common actions. In this phase it is important to allow all the actors' viewpoints to emerge. These cover different aspects of the phenomenon at stake, based on whether we refer to economic, environmental, or psychosocial perspectives. To this end, we will employ interviews, questionnaires, participatory observations, focus groups, and multi-criteria evaluations. In addition to this, reports, seminars/workshops, organization of events and dissemination/utilization of social networks will support collective negotiation. In this case, our aim is to share objectives as well as to build values and rules that will govern future actions.

The collective regeneration of the dock requires the projects to contribute to urban, economic, and social development as well as to be part of a collaborative master plan, which must be in line with the aims of the Common Action Plan. To this end, we will launch a ‘collaborative contest’, which will actively involve citizens, stakeholders etc.

**Table 1.** Steps for the collaborative regeneration of San Vincenzo Dock (the already achieved objectives are reported in bold)

Collaborative Regeneration of San Vincenzo Dock				
Objective	Steps	Instruments	Procedural Functions	Actions
Collaborative Regeneration of San Vincenzo Dock	<b>1. Action Arena</b>  Institutions Pro-sumers Citizens   	<ul style="list-style-type: none"> <li>• Organization of events</li> <li>• Social network</li> <li>• Media</li> <li>• Pictures/video</li> <li>• Informative/cultural material</li> </ul>	<ul style="list-style-type: none"> <li>• Development of the Network</li> <li>• Interest in partaking to urban regeneration</li> <li>• Participation</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Foundation of FMSV (Friends of Molo San Vincenzo)</b></li> <li>• <b>Development of the FMSV logo</b></li> <li>• <b>Visit to “Molo San Vincenzo”</b></li> <li>• <b>Leaflet containing the history of the dock and the aims of FMSV</b></li> <li>• <b>Party for Molo San Vincenzo</b></li> <li>• <b>FB page</b></li> <li>• <b>Video/Interviews</b></li> <li>• Work in progress</li> </ul>
	<b>2.Common Action Plan</b>  Objectives Values Rules   	<ul style="list-style-type: none"> <li>• Interviews</li> <li>• Questionnaires</li> <li>• Participatory Observations</li> <li>• Focus Groups</li> <li>• Multi-criteria evaluations</li> <li>• Reports</li> <li>• Seminars/Workshop</li> <li>• Events</li> <li>• Social networks</li> </ul>	<ul style="list-style-type: none"> <li>• Active participation</li> <li>• Identification of shared common interests</li> <li>• Collective involvement through common action</li> <li>• To bring out the point of view of each social actor</li> <li>• While being mindful of their different roles in terms of economic, environmental, and psychosocial aspects</li> <li>• Sharing and negotiation of the rules governing future actions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Bottom-up Interviews and questionnaires on needs, uses, and functions</b></li> <li>• <b>Drafting of the manifesto</b></li> <li>• <b>Top-down Interviews and questionnaires on needs, uses, and functions</b></li> <li>• Identification and assessment of the stakeholders' values and objectives</li> <li>• Publication on social networks for dissemination and discussion</li> <li>• Focus group for the identification of final goals and shared rules</li> </ul>
	<b>3.Collaborative regeneration projects</b>  Urban, Economic, and social development projects	<ul style="list-style-type: none"> <li>• Research steering committee</li> <li>• Contests</li> <li>• Social network</li> <li>• Workgroups</li> <li>• Events/meetings/debates</li> </ul>	<ul style="list-style-type: none"> <li>• Achievement of collaborative action</li> </ul>	<ul style="list-style-type: none"> <li>• “Collaborative contest” for developing a master plan aimed at the regeneration of Molo San Vincenzo</li> <li>• Committee for the adequacy of the projects with the Common Action Plan/Common Action Masterplan</li> </ul>

### 5.1 Construction of the Action Arena

During the workshop, Molo San Vincenzo has been labelled '*generative place*'. In other words the dock is recognized as a significant element of the Neapolitan waterfront both in terms of economic

resources and public space. This represents a first step towards the regeneration of the whole metropolitan coastline.

Following from that, a spontaneous collaborative intent took place. This includes among its pioneers the incumbent president of the International Propeller Club Port of Naples Umberto Masucci, Alessandro Castagnaro the president of Aniai Campania (Architects and Engineers Campania Association), the Neapolitan Port Authority and various practitioners working at the port of Naples. These have partnered under the name “Friends of Molo San Vincenzo”, which echoes back to “Friends of High Line”, the group of social actors that turned a disused train station into a public park (Giovane di Girasole, 2014; Gasparrini, 2010, [www.thehighline.org](http://www.thehighline.org)).

Thus, a process to transform this disused place into a valuable asset and a public place open to the city was set into motion. Our aim is to create a common space where it is possible for institutional and corporative actives such as the navy, port captaincy, and port authority to coexist with economic, leisure, sport, and cultural activities.

For this reason, Friends of Molo San Vincenzo organized two events: the first involved visits to the dock, on the occasion of “May of Monuments 2015”. The visits went on from the 15<sup>th</sup> to the 16<sup>th</sup> of May 2015. During the visits, the urban community was shown the dock by water; this gave the chance to draw attention on its state of abandonment and neglect. To this was followed by a “Cocktail for Molo San Vincenzo”. The event was held on the 10<sup>th</sup> of June at the dock station of Naples and witnessed a high participation. Again, on this occasion, the focus was on the future of the dock.

The guided tours were also highly successful. Initially only two visits per day with a maximum of 30 people were envisaged. However, given the large amount of requests, the visits became 3 per day with a maximum of 50 people.

During the second event - which was attended, among others, by representatives of Naples city council and the Navy – the group of pioneers of the “Friends of Molo San Vincenzo FMSV” drafted a first Manifesto, which was signed by local associations and bodies.

The media also gave prominence to these events through publications in local and national newspapers (Napolimonitori.it, 18 maggio 2015; Il Mattino del 8 maggio 2015; Corriere del Mezzogiorno, 8 maggio 2015).

The process of revaluation of Molo San Vincenzo is still underway and many other initiatives are in the pipeline. These are all aimed at regenerating the dock through new alliances between a number of people that will collaborate towards the requalification and development of the dock, working for the benefit of the whole community.

A facebook page with nearly 600 members has also been set up.

## **5.2 Common Action Plan: shared rules, objectives, and values**

This work raises the question of how to utilize the dock again as well as what kind of actions to take, what are the rules to follow, and what is the contribution that everyone can offer. In order to shed light on the different viewpoints, we carried out a series of focused interviews. These aimed to explore from both a top-down and bottom-up perspective how the stakeholders look at the future of

the dock. A further aim was to identify shared objectives, rules, and values that would lead to a collective regeneration of the area.

During their visits, a group of Community psychologists also administered a number of questionnaires aimed at tapping into people's perception of Molo San Vincenzo. This laid the groundwork for developing an understanding of the dock's uses, needs, and functions. Video interviews to organizers and participants were also recorded and projected during the cocktail reception for Molo San Vincenzo ([www.communitypsychology.eu](http://www.communitypsychology.eu)).

A questionnaire was also developed in order to tap into people's perception of the dock and, in so doing, to identify the desired uses for that place as well as the availability of people to partake in the process of regeneration of the area. 66 women and 61 men answered the questionnaire - that is, 52% and 48% of the whole group respectively.

A first question asked how the participants got to know about the initiative. 36.4% were informed by friends, and 15.5% found out through Facebook. This points to the importance of the network of friends as a trustful means of information as well as to the group as a source of common interests.

Therefore, the intention to set up the Friends of Molo San Vincenzo FMSV Facebook page (<https://www.facebook.com/groups/954992661198228/>) is based on identifying common interests that will lead to social action.

Finally, 25,6% of the participants came to know about the event through "May of Monuments" (<http://www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/26471>), which is an initiative promoted by Naples city council that envisages guided tours, events, performances, shows, concerts, exhibitions, tourist routes etc. This informative medium combines the private amicable life with the public interest.

53.5% of the participants decided to go and see the dock since its access is usually prohibited. The remaining questions have shed light on the desire to access this place for leisure (69.5%), and to convivially share it with one's group of friends (76.8%). Among the most favourite activities there are sport (34.4%) and strolls (78.1%). 46.5% of the participants also showed a potential bond with the historical-maritime identity of the place, which was fed into by a further 46.5% that expressed the desire for the promotion of maritime artisan activities.

All the participants expressed the will to partake in the initiatives aimed at making the dock accessible again. Of these, 85.3% would give values to the dock through organizing public and cultural events as well as mobilising the media.

This initiative has had a strong impact on the city, since it not only involved an unexpected high number of visitors, but also many stakeholders that are committed to the dock through maritime activities, along with institutional representatives. The visits represented a chance to involve the citizens as well as to tap into their perception of the place and their interest in it.

During the visit, a number of brief video interviews were recorded. These aimed to tap into people's perception of the place as well as to bring out possible ideas on how to improve it. The interviews were intended to overcome the limit of the standardised questionnaires and also to give meaning and a sense of involvement to the participants.

The observations carried out during the visits revealed the enthusiasm of many people, who reported their wish to share that experience with their friends. Other people stood in admiration of the dock, which they once viewed as a wasted patrimony due to its inaccessibility.

The visitors have also expressed their satisfaction in taking part to this kind of experience as well as in having being allowed to share their thoughts through the questionnaire. Others expressed their disappointment regarding the inaccessibility of the dock. These people suggested developing projects for bringing this area back to public space as well as building an access to the dock so people would not have to get there by water.

Others have suggested developing a business plan through which everybody could give their contribution to better the state of the dock. These comments highlight the sharing and inclusive function that the visit to the dock had.

Our aim was to develop an initiative that would bring together the most important and expert representatives of Naples in order to restore the whole area, not just the dock, to its former glory. The recurring theme was the desire to freely access the dock, relax and enjoy its scenery, have a stroll with the family or on one's own, without having to deal with all the obstacles currently standing there.

The contribution of FMSV coupled with the one of the participants to the visit of Molo San Vincenzo led to editing an easy-to-broadcast video that would provide feedback and a sense of efficacy to those who took part in the event. Indeed, works conducted through pictures help the actors to better identify themselves with the scope of the project.

Collaborative participation feeds into the perception of being a vital member of society as well as having something valuable to offer. This is shown by the people's will to partake in the FMSV group and, as a consequence, it highlights the strength of the link between participation and self-efficacy, and hence collaboration.

The data offer a vision on how to promote community engagements in contexts such as the one of Molo San Vincenzo, which is currently inaccessible. In a context where individual commitment does not easily meet the collaboration of social actors, the richness of functions attributed to the place and the actions people want to take promote collaboration and participation.

Therefore, our future objective will be to endorse an action orientation plan for the development of the dock that will build on a type of participation that goes beyond the mere accomplishment of personal goals.

One last goal of the interview was to draft a Manifesto for Molo San Vincenzo that would show the results of participatory action and shared visions. The 10 aims of the Manifesto are the following:

1. To foster a high level of collaboration among citizens, firms, and associations;
2. To act as a liaison in order to gather all the proposals for the regeneration of the dock and systematize them in a combined and comprehensive vision;
3. To act as a facilitator in the dialogue between institutions, stakeholder, and citizens for the revaluation of the dock;

4. To foster good relations between the city and Molo San Vincenzo through shared spaces, activities, and uses. These will give citizens and tourists the opportunity to enjoy the dock one again;
5. To promote the regeneration of Molo San Vincenzo through architectural projects as well as the recovery of its maritime identity;
6. To regenerate Molo San Vincenzo by fostering maritime economy and related activities;
7. To raise public awareness about the knowledge , promotion, and use of Molo San Vincenzo; and
8. To monitor the progress of the Molo San Vincenzo's projects.

This Manifesto, which has already been signed by a number of individuals and institutions, will also be disseminated via the Internet. The aim is to gather more subscribers in order to increase the number of Friends of Molo San Vincenzo whilst collecting more feedback.

## 6 Conclusions

The research continues with further interviews involving institutional representatives and stakeholders. Our aim is to outline the Common Action Plan through which we will identify shared values, objectives, and 'rules' geared towards the collaborative and respectful regeneration of Molo San Vincenzo.

The collaborative regeneration of Molo San Vincenzo will turn collectivism into community as well as the common good into commons, whilst also giving value to environmental, social, and economic aspects.

In this regard, we wish to highlight the strong correlation between the perception of participative contexts and a favourable community orientation in terms of connections and investments.

The data draw attention to the relationship between personal and contextual dimensions. Moreover, in the absence of recognition of a causal bond between community identification and social wellbeing, a clear distribution follows two directions: the first individual and the second contextual. People's integration into the environment depends on the identification with Molo San Vincenzo's community and also on the effective involvement of citizens and institutions in decision-making.

Therefore, it is necessary to develop a value-based contextual culture for the promotion of behaviours orientated toward community well-being, social responsibility, and higher levels of critical thinking, as well as political and social involvement.

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# Cultural heritage for collaborative urban regeneration: community and stakeholders activation for the historical centre of Naples

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The paper deals with participatory and bottom up strategies for urban regeneration processes in historical centres, enhancing cultural heritage as driver for a development based on local identity and genius loci, strengthening the sense of belonging in the citizens.

In the last century, politicians with the support of the technicians designed experiences of renovation in historic sites, obtaining different level of urban quality but often favouring cases of gentrification or museification. Cases that are more recent are based on a community-led regeneration approach, for reconciling the social with the economic and physical outcomes of urban governance. The implementation of this approach requires collaborative practices with a network of local stakeholders to facilitate a wide regeneration.

Sharing common goals with stakeholders and decision makers, citizens can contribute to define solutions to local issues in a collaborative approach, improving the social, economic, environmental and cultural well-being of their everyday places.

To demonstrate that, a case study has been purposely selected, the ancient centre of Naples and the participatory initiatives activated by the Sansevero Chapel Museum and Corpo di Napoli Committee.

The study includes a comprehensive analysis of material and immaterial cultural heritage of the area, fieldwork sessions and interviews to key stakeholders to analyze initiatives for urban regeneration promoted in the historic centre in the last decades.

Evidence from the case study highlights the strategic role of community involvement together with the network of key actors, to trigger socio-economic and physical improvements in degraded area and to support regeneration processes, achieving common goals of local valorization.

**Keywords:** community involvement, urban regeneration, historical heritage, local identity, stakeholders

## 1 Introduction

Urban regeneration is a central issue for urban planning and design in European cities – it is a great challenge for scholars, architects and planners. In historical cities – particularly in city centres – the issue assumes specific characteristics that should be deepened through new approaches to be more effective.

In the last century, many experiences of renovation in historic sites were imposed from the politicians with the support of the technicians, obtaining different level of urban quality but often favouring cases of gentrification or museification. On the contrary, more recent community-led regeneration approaches aim at reconciling the social with the economic and physical outcomes of urban governance, engaging inhabitants in the process. The implementation of this approach requires to involve and to collaborate with very different partners to achieve common goals.

In historical centres, monuments and sites can be poles of renewal and regeneration of the city, highlighting the local identity and the sense of place and strengthening the sense of belonging in the citizens.

In this perspective, we consider the cultural heritage as common assets to be developed according to the principles of sustainability – by acting on the economic level, on the social one and on the environmental level. To demonstrate that, we will discuss a purposely selected case study,

the ancient centre of Naples and the participatory initiatives activated by the Sansevero Chapel Museum and Corpo di Napoli Committee.

Cultural heritage is object of protection and preservation but it could be also the crucial element that activates and carries on urban regeneration processes in historical city centres.

Regeneration is a medical word that concerns with the finding of a renewed life after a wound or after a disease. In urban planning and design, we use it to represent the city as a living organism that need to born again, to recover a state of health that it had but that has been lost.

Let us imagine that the historical city has been injured but the right therapy can heal all the wounds. Many times, we have to face a general state of disease of spaces and functions of the city more than single wounds in the urban historical tissue.

We have to enhance the diagnosis so that the cure would be more effective and we should begin from a closer examination of symptoms. The starting point is a different dialogue with the urban community in which we overcome old models that revealed to be ineffectual.

In traditional urban planning, we had the phase of observations by urban actors to the draft plan. This phase is still used in a traditional way in Italy and other European Countries.

The approach through generic models of listening people, associations and subjects that are active in the city life, has been overcome too. Actually, listening forums are ineffective to promote regeneration even if they have been well organized and with a wide participation of people and stakeholders.

In the end, we should go over the so-called participatory planning that often assumes a paternalistic way towards disadvantaged social classes and the planner supposes that he understands problems and requirements better than interested subjects.

The weak point is that, at best, the planning process looks for generic approval, consensus and contingent suggestions from stakeholders and associations.

If we want that plans will be effective more and more, we have to move from the participatory approach to the collaborative approach, especially for plans and projects that aim to urban regeneration in historical city centres.

Our proposal is to build the urban regeneration process avoiding both bottom-up and top-down approaches – we propose a lateral approach that considers on the same level all the subjects that would be involved, at the present moment and in the future scenario.

This approach could implement through three phases that concern with the vision, the strategy and the tactics.

Politicians, stakeholders, citizens, scholars and planners, all together can contribute to define a common vision of the city future – all of them should converge about the possible output of the regeneration process that they will launch and implement together.

Who has the key role is the “urban prosumer”, who is women, men and, more in general, all the subjects that are, at the same time, consumers and producers of the urban regeneration process.

The first step is a new approach that goes over the traditional knowledge of urban context even if quantitative and qualitative analysis cannot be substituted – these should be renewed and empowered through new available technological tools as internet of everything and big data.

The main issue is the lateral collaboration in a comprehensive vision that is not imposed from the top and neither from the bottom because, in both the cases, results would be less effectual.

In the same way, lateral collaboration would help to elaborate shared strategies that implement the common vision and realize the regeneration process.

In the end, local activation groups set up urban tactics that are finalized to get specific results according to the common vision and applying the shared strategy so through the lateral collaboration.

The historical centre of Naples is an ideal field of experimentation for collaborative process of urban regeneration because of its great cultural value, the strong identity of the local community and many unresolved problems.

On the one hand, the problems are complex and stratified; on the other hand, we have good examples of social activation as the committee for the recovery of the "body of Naples" a sculpture that is symbolic of the entire historic centre.

This paper deals with participatory and bottom up strategies for urban regeneration processes in historical centres, enhancing cultural heritage as driver for a development based on local identity and genius loci.

The selected case study provides the opportunity for discussing about local initiatives in activation of bottom up regeneration processes, focusing on material and immaterial heritage in urban spaces of historic centres.

In this perspective, urban planning needs to consider the sense of a place strongly related to the sense of belonging of local community, in order to share common goals of valorization and increase the levels of happiness and quality in everyday life.

## **2 Cultural heritage and social activation for urban regeneration in studies and practices**

In recent decades, the increasing focus on community participation, engagement and empowerment in urban regeneration processes has demonstrated its potential to contribute to physical and civic renewal in contemporary cities, especially in deprived areas.

Sharing common goals with stakeholders and decision makers, citizens can build their capacity to explore solutions to local issues in a collaborative approach to regeneration, improving the social, economic, environmental and cultural well-being of their local area.

This assessment of urban regeneration processes highlights the capability to generate new values and new economies based on the activation of local, social and cultural resources. City and cultural heritage, not considered as static entities but as living assets, have a key-role in ongoing and growing debate of the scientific community at national and international level.

The integrated conservation of both urban and cultural values could support new local sustainable development especially if we consider the urban heritage as Historic Urban Landscape: «urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of "historic centre" or "ensemble" to include the broader urban context and its geographical setting» (UNESCO, 2011).

This vision has to be supported by an adequate strategy in which the mayor investments on the integrated conservation of the Historic Urban Landscape should be oriented to the reuse and the rehabilitation of public spaces and common assets through a bottom-up approach and social activation tactics. The focus is an exponential growth of functions – that maximize the benefits and reduce costs – from historic centre to the whole urban territory. The functions such as business incubators should be studied in an ongoing process of urban regeneration related to cultural heritage linking to users' needs and stakeholders' interests. In this perspective a participatory approach has to be included on the cycle of production-consumption, producer-consumer (Rifkin, 2014) that values the local context through community planning and management instruments supporting the appropriation of the territory by citizens and the place branding (Esposito & Trillo, 2014).

In order to enhance new local economies, a lateral participatory approach and an integrated management of shared strategies are critical for competitiveness in the global market, overcoming standardization processes (Zukin, 2010). The local identity and the genius loci are competitive factors that highlight the role of places and historical architectural goods for the local development (Barca, 2009).

The productive use of cultural goods is able to transform the heritage in both common asset and a sustainable tool for economic development creating a shared responsibility (Garrod & Fyall, 2000; Landry, 2008; Fusco Girard & Nijkamp, 2009; Clemente et al., 2012).

In line with this theory, because of a self-interested person would not contribute to the production of a public asset (Olson, 1965; Ostrom, 2014), each individual is really realized with shared common targets that increase levels of happiness and quality in everyday life, as in the case of the public good (Zamagni, 2007; Clemente & Giovene di Girasole, 2015). Therefore social activation in cultural heritage conservation for urban regeneration is a key opportunity for realizing an upgrading in cities management and economic implementation (Clemente et al., 2012), in terms of employment and tourism incomes identifying three different levels of governance of new organizational city assets: strategic, tactical, and operational (Fusco Girard and Nijkamp, 1997; Rotmans and Loorbach, 2008).

The crucial point is that appropriates strategies and tactics are needed – integrated with local and regional planning policies (ODPM, 2003) – focused on “shared rules” system for the construction of a “common ground” (Ostrom, 2006).

This rules system with the involvement of the third sector is able to produce the “civilization of the economy” promoting local collaborative development and new virtuous circles of value exchanges (Fusco Girard et al., 2011).

Several urban strategies demonstrate the relationship between common properties and economical resources (Neill, 2004) based on cultural regeneration processes of urban spaces in historic centre.

Successful case studies highlight economic benefits by enhancing material and immaterial cultural heritage that provide employment, attract people, businesses, investment and increase property prices (DCMS, 2005).

This trend has led an increasing of cultural management through special exhibitions, events and festivals (immaterial heritage) that also ensure more controlled access to heritage sites (Kaminski et al., 2013). In spite of everything, the values of material and immaterial heritage resources are often acknowledged but not integrated into the management process.

In particular, buildings, public spaces and local traditions in historic centres can inspire new regeneration management processes, also recognizing the main role of community in the urban transformations strategies.

Among various studies and practices about this issue, in a district in Boston, Jamaica Plain, the reuse of a 19th-century-old brewery as business incubator – with a strong symbolic linkage to the former industrial past – is playing a pivotal role in the process of urban regeneration of the whole area. The main actor of this transformation is the Jamaica Plain Neighborhood Development Corporation, a type of Public Private Partnership (PPP) that has the overall mission to promote local equitable development, also supporting economic opportunity initiatives (Esposito & Trillo, 2014).

The partnership structure of the Boston CDC, the organizational support offered by local authorities through the Boston Redevelopment Agency (BRA), the presence of historical and architectural goods with a high impact in terms of identity and the participatory approach allowed developing successful initiatives with investments relatively controlled (Esposito & Trillo, 2014). Today the brewery, become also a tourist destination, houses about forty small businesses, linked to local bottom-up initiatives that help the neighborhood to rebuild its own image from the new local brand.

Among the various models of American PPP, the Main Street is a driven experience in supporting communities for the city centre revitalization: the initiative was launched in 1977 by the National Trust of Historic Preservation and it is based on private/public investments for enhancing historical, cultural and architectural heritage (Coca-Stefaniak et al., 2009).

Several important initiatives are also promoted in many European cities as Liverpool where we found many projects of urban regeneration linked to community, social activation and art production. Liverpool is a port city on the Irish sea characterized by a rich cultural heritage, received the prestigious appointment of World Heritage Site in 2004 as “Maritime Mercantile City” and then became ECoC (European Capital of Culture) in 2008 (Garcia et al., n.d.).

Cultural and urban heritage was enhanced by a partnership's community strategy called “Liverpool First: our community strategy”, launched in 2001 (ODPM, 2004). This strategy, through collaboration among various stakeholders as City Council, English Partnerships, Liverpool Vision ([www.liverpoolvision.co.uk](http://www.liverpoolvision.co.uk)), North West Development Agency and Merseytravel, aimed at the regeneration of the city center, with an integrated actions system on transport and residential sectors. In 2002, a strategic partnership was born to integrate the historic settings in planning urban transformations: it was called Historic Environment of Liverpool Project (HELP) and it includes the main actors involved in the conservation and management of urban heritage (English Heritage, Liverpool City Council, National Museums Liverpool, University of Liverpool, Liverpool Vision e Liverpool Culture Company). Among several initiatives in the city it is relevant the HELP database of historical landscape to support planning in the decision making process (Farr & Giles, 2008) and

"Liverpool Waters" a strategic development plan to regenerate the docks of Wallasey and Birkenhead on the opposite bank of the River Mersey. The project called "Wirral waters" aims at a waterfront idea as a functions and infrastructures node in direct visual contact with the skyline of the historic city ([www.wirralwaters.co.uk](http://www.wirralwaters.co.uk)).

Another international best practice has been developed in Lapa, a 19th century downtown neighborhood in Rio de Janeiro, a place of poor and marginalized people (Duarte, 2009), where creative appropriations of Rio's public spaces through artistic engagements were able to preserve the immaterial cultural heritage for collaborative urban regeneration. In order to develop art in the streets, as part of the participatory construction of the city, artists had created among residents, a movement to occupy Lapa with art and culture and to protest against violent police actions (Boas, 2015). One of these movements is "Arte Pública" that allows over 700 artists and people to perform in public spaces without any authorization, thanks to a registration platform. Because of the success of this initiative, the mayor started to support this collective project and financed weekly events in six squares of Rio for three months that continue to happen up to now.

In Italy, in a similar way, among several collective initiatives, the case study of Venice and its neighborhoods, as Santa Croce, built a sense of responsibility of public spaces as "collaborative common" (Rifkin, 2014). In the last three years, many social activation projects like "Arte in Campo" and "S.A.L.E. Docks", characterized the city. "Arte in Campo", in Campo San Giacomo Dell'Orio, is a cultural and social initiative that involved several artists, children and residents in workshops focusing on the collective painting of a panel as a symbol of the neighborhood's commons. The S.A.L.E. Docks project is about the occupation of an old salt warehouse, property of Venice's government, by a group of activists from the experience of the social centers. It is an independent space for visual and performing arts born in 2007 that developed political, social and artistic actions for urban regeneration (Boas, 2015).

An Italian crucial question on common assets and social activation is also the reuse of military goods in a creative and productive way. In Friuli Venezia Giulia region, for example, a historical and archaeological research association, "LandScapes", decided to recover and reuse an underground bunker of 1,000 m, in "vallo Alpino del Littorio": the Fort Beisner. The group, with focus on enhancing landscape and cultural heritage of the territory, does not have the properties and availability of good, but for three years offers educational paths to increase local identity and memory of places in collaboration with Friuli Venezia Giulia Tourism (Casu & Pellegrini, 2015).

Starting from this international and national scenario, the case study of Naples represents an emblematic example of a great material and immaterial heritage in historical centre (Pane et al., 1971) with a wide potential as driver for sustainable local development and urban regeneration.

### **3 Social activation in historical centres: the case of Sansevero Chapel Museum and Corpo di Napoli Committee**

#### **3.1 Research methodology**

The study is a work in progress developed within the research "Planning and Sustainable

Management of the Territory", at the Institute for Research on Innovation and Services for Development (IRISS) of the National Research Council of Italy (CNR).

In order to investigate role and potentialities of a collaborative approach in rehabilitating degraded city centres, a case study has been purposely selected: the ancient centre of Naples and the activities of Sansevero Chapel Museum and Corpo di Napoli Committee.

The area reflects all the issues related to a cultural and historical heritage that can be enhanced as driver for a development based on local identity and *genius loci*, in a globalization time (UNESCO, 2012; Madanipour, 2013). Besides, the case offers valuable insights to discuss about initiatives of social activation of local communities in regeneration processes of degraded historical area.

In particular, we propose to investigate the Sansevero Chapel and Corpo di Napoli Committee initiatives for the community engagement in urban regeneration processes. In this field, the case study aims to highlight how involvement of stakeholders and community can play a pivotal role to face decay and abandonment in the ancient centre.

The research methodology is based on the qualitative direct survey of the case study area, focusing on the initiatives of the private museum of Sansevero Chapel, analyzing the case through the consultation of indirect sources and through fieldwork based on active observations, visual analysis and interviews (Yin, 2008).

In a preliminary phase, the researcher group collected and analyzed documents, information, data about the area and the initiatives promoted by the Sansevero Museum that demonstrate its key role in social activation for regeneration in ancient city centre. This phase aimed at a brief narrative outline of events and initiatives that have affected the study area in recent years.

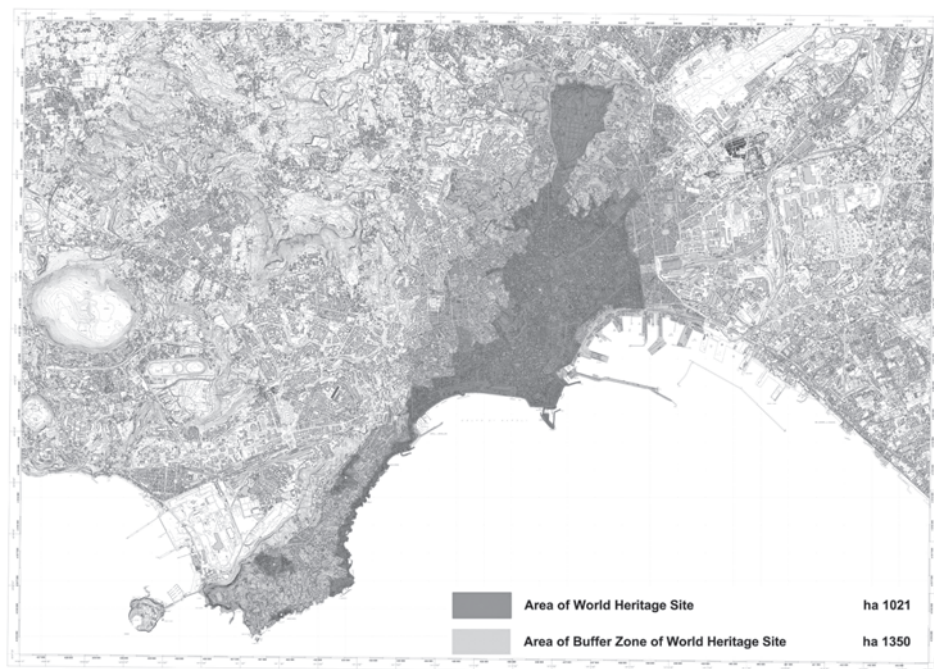
The survey of indirect sources has been completed by the analysis of material and immaterial cultural heritage through working sessions in the area, also documented by photo and written notes taken by the researchers during the observation. Besides, semi-structured interviews to key actors have been conducted to identify successful participatory initiatives promoted in the last decade and to highlight the opportunities and the main obstacles to a wide urban regeneration in the historic centre of Naples.

### **3.2 Promoting collaborative regeneration processes in the ancient centre of Naples: the initiatives of Corpo di Napoli Committee**

The city of Naples is located in the South of Italy and it represents the urban core of a metropolitan area of about 3 million inhabitants with extremely high level of density. In this context, the ancient centre of Naples is an emblematic case study because, on one hand, it is characterized by a relevant historical and cultural heritage, also recognized by the UNESCO, but, on the other hand, there are many conditions that represent obstacles to a wide regeneration processes.

Since 1995, it has been included in the list of UNESCO World Heritage, with the following motivation: «It is one of the most ancient cities in Europe, whose contemporary urban fabric preserves the elements of its long and eventful history. Its setting on the Bay of Naples gives it an outstanding universal value which has had a profound influence in many parts of Europe and

beyond» (UNESCO, 1996). The site (Figure 1) includes the extension of the Historical Centre introduced with the approval of the General Plan (Piano Regolatore Generale) of the city in 1972 (Ministerial Decree No 1829, 31 March 1972) and it is part of the historic centre of the city identified by the new General Plan approved in 2004 ([www.comune.napoli.it](http://www.comune.napoli.it)).



**Figure 1.** Boundaries of the World Heritage Site and Buffer Zone ([www.comune.napoli.it](http://www.comune.napoli.it)).

«A large number of buildings in the city are designated under the terms of Act No. 1089 of 1 June 1939, the central piece of Italian legislation relating to heritage protection. These rules were later merged in the code of the cultural heritage and landscape of the D.Lgs n.42/2004» ([whc.unesco.org](http://whc.unesco.org)).

Despite the presence of a recognized extraordinary heritage and values (Figures 2, 3, 4), some social, economic and political conditions represent an obstacle to a very comprehensive regeneration process. Nowadays, in many parts of the ancient centre, the state of decay affects the quality of life of citizens and contributes to amplify a sense of insecurity, representing a problem for the touristic promotion of the area.



**Figures 2** Historical heritage in the ancient centre.



**Figures 3.** Historical heritage in the ancient centre.



**Figure 4.** Traditional food markets in the ancient centre.

In this context, it is significant the case of Sansevero Chapel Museum, a baroque noble mausoleum located in the heart of the ancient centre of Naples. It is one of the most famous Italian private museums, very appreciated by tourists as appears by online rankings of social networks ([www.tripadvisor.it](http://www.tripadvisor.it)). The Museum is rich of artistic masterpieces as the famous Veiled Christ sculpture by Giuseppe Sanmartino (Figure 5).

In particular, the research analyzes initiatives promoting by the Sansevero Chapel Museum in terms of cultural activities and social activation in the ancient centre of Naples, as participatory initiatives arisen together with other cultural and socio-economic local stakeholders to rehabilitate the area.

In the last twenty years, the Sansevero Museum is developing an innovative strategy, aimed not only at enhancing new cultural activities but also at rehabilitating the urban area around. It is the promoter of several initiatives based on the interaction with local stakeholders, involving citizens to make the local community awareness of material and immaterial heritage in the area, through a culture-based regeneration approach. The aim is to share goals of local valorization for a collaborative and participatory governance, putting citizens at the centre of the process.



**Figure 5.** The Sansevero Chapel and the Veiled Chris sculpture (photo by Massimo Velo).

First, the Museum increased its cultural activities, especially enhancing the personality of the Raimondo di Sangro Prince of Sansevero, involving local and international artists in organization of theatrical representations, poetry and music performances. Besides, it has also included dissemination activities producing videos and founding a publishing company named *alòs* (1996) that since 2000 collaborate with NOTgallery for multimedia productions such as the NOTpaper e-journal.

Information about initiatives, activities and events are continuously spread updating the Museum website, but also by the activation of a responsive web design for mobile and tablet and by the official profiles of the Museum on social networks such as Facebook, Twitter, Instagram, Google+, Youtube ([www.museosansevero.it](http://www.museosansevero.it)).

In terms of collaborative approach, since 90s the Museum is working for the social activation, promoting initiatives to enhance interaction with local community and stakeholders, networking with key economic and cultural subjects in the area. In 1992 it collaborated with the Napoli Novantanove Foundation supporting the first edition (and the next editions) of "Napoli Porte Aperte" (Naples Open Doors), for opening of about 200 public and private monuments usually closed.

In terms of renovation, in 1992 the Museum promoted the establishment of the Corpo di Napoli Committee to support the restoration of the Nile God statue, named Corpo di Napoli, and the homonymous square, in 90s used as a parking area, located in the ancient centre of Naples. A team of architects supported this goal with the Committee by elaborating a project for the renewal of the area that included building restoration and urban rehabilitation (Clemente, 1993).

The ancient Nile God sculpture represents an iconic element of the millenary history of the city, probably made in the II century for the community of merchants of Alexandrian in Naples (Middione, 1993).

The initiative of restoration launched in 1993, based on a crowdfunding campaign, obtained over 300 adhesions of citizens and associations, especially thanks to the campaign called "Una goccia per il Nilo" (One drop for the Nile).

The Committee did not looked for excellent sponsors but it directly addressed the inhabitants, the subjects with great interest to rehabilitate the area for a better quality of life (Masucci, 2015). A collective action has been activated, unusual approach in the historical centre of Naples: people felt the key actors in a renewal project that has been brought to completion, in a context where good ideas often do not turn into actions and results.

More than 5.000 people gave their small contribution to the restoration of the monument by purchasing a postcard at shops of the ancient centre of Naples ([www.comitatocorpodinapoli.it](http://www.comitatocorpodinapoli.it); Masucci, 2015). Also Italian immigrants living in the United States, Australia and New Zealand participated in fundraising.

The success of this initiative highlights its capacity to enhance the meaning of this place for its community and to strengthen the sense of belonging. This experience represented the first restoration of a monument in Italy through a form of popular shareholding.

The Committee joined the goal relocating the recovered statue in the square on 14 November 1993. In addition, the square was cleared by parking and closed to traffic.

On 31 December 1993, the Committee has been disbanded and its short duration underlined the will to achieve the goal in a short time.

The remaining fund collected by the Committee has been given to Spaccanapoli Committee to promote other initiatives in the ancient city centre. In the next years, the image of Corpo di Napoli has been used as logo for some events organized by the Municipality of Naples, underling the success of the initiative.

In recent years, on 25 September 2013, the Corpo di Napoli Committee has been reformed for launching a second campaign to complete the restoration of the statue, after that the Carabinieri for the Protection of Cultural Heritage of Naples recovered the head of a sphinx that was part of the Nile God statue, but disappeared in the 50s of the last century.

For this reason, the Committee launched the crowdfunding campaign called “Mettiamo la testa a posto” (Get the head on straight) aimed at completing the restoration, replacing the head of the sphinx in its original location (Figures 6, 7).

Also in this case, the participation was wide: over 2.200 people contributed with small donations of 2-5 euro, buying a postcard with the reproduction of a sketch of the statue, designed by a famous Neapolitan contemporary artist. Who jointed to the Committee as partner or supporter received a sample numbered of the sketch of the Nile God statue designed by the artist in limited edition.



**Figures 6, 7.** Logo of the Committee and poster of the “Mettiamo la testa a posto” campaign.

After about one year from the launched of the crowdfunding campaign, on 15 November 2014 a public ceremony in the square Corpo di Napoli celebrated the result of the second restore with participation of local authorities, stakeholders and community (Figures 8, 9, 10).



Figures 8, 9. Ceremony for the restoration of Nile God statue, on November 2014 (photo by Marco Ghibelli).



**Figure 10.** The Nile God statue after the restoration.

The initiatives of the Sansevero Chapel and Corpo di Napoli Committee aimed – and today aim – at enhancing local community awareness of material and immaterial heritage in the area, sharing goals of local valorization and regeneration for a collaborative and participatory governance, and reconciling the social with the economic and physical outcomes (Evans, 2005; García, 2004).

The wide participation in both the campaigns testifies the desire of local community to re-appropriation of its history and cultural identity and to make better the everyday places, valorizing cultural heritage and improving urban spaces quality, both for the citizens and tourism sector. Starting from these evidences, our research group has selected and interviewed a set of key people, in order to collect information related to the different roles played by institutions, stakeholders and community in initiatives for the ancient centre of Naples and to highlight main opportunities and obstacles to a wide regeneration processes.

#### 4 The qualitative research dealing with cultural heritage and urban regeneration: interviews to stakeholders in the historical centre of Naples.

The research methodology is based on the qualitative direct survey of the case study area, and on the identification of a core set of stakeholders involved in its management, in particular concerning the Sansevero Chapel Museum. The study includes a comprehensive analysis of the material and immaterial cultural heritage in the area, fieldwork sessions and semi-structured interviews to key people, focusing on participatory initiatives promoted in the last decades and their impacts in terms of urban regeneration.

Interviews are a well-established tool of qualitative social and urban research, and their use has been significantly effective for the direct investigation of places, people and values in the historical center of Naples, by approaching the city from its vibrant core in a planned, gradual and mutual "production of knowledge" between the researcher and the stakeholders interviewed (Kvale, 2007). The objective is to understand the *role of social capital activation* within regeneration mechanisms, making the *local insight* visible and workable for a collaborative process of social, cultural and urban reactivation. For this purpose, the interviews refer to a representative cross-section of the local community, ranging from entrepreneurs, public institutions and scholars to artisans, retailers, artists and activists. A preliminary draft has outlined the scope of interviews, the issues to deal with and the typology of interview, aimed at defining a proper questionnaire sample.

This framework has indicated the semi-structured format as the most appropriate to develop step-by-step levels of learning making themes and priorities of discussion always clear and shared (Arcidiacono, n.d.).

The questionnaire schema contains fifteen queries, from general contents concerning the cultural heritage in the city center to specific topics relevant to the case study area. Average duration of interviews is 30-40 minutes per stakeholder, including a brief explanatory introduction about the interview's scope. The thematic questions pertain to three phases of visions, strategies and tactics, directed at defining common goals of action going through critical aspects and potentialities of current situation. The expected result is outlining a collaborative method to translate the *genius loci* of the area into a trigger for new long-term sustainable economies, in which the stakeholders can play a decisive role adjusting local policies and decisions.

This specific phase's structure is shown below:

- The *Visions* phase investigates which cultural factors of the historical center can produce a competitive local brand within European tourism market, with a special focus on the historical/architectural heritage (buildings, public spaces, attractive sites) and the cultural identity (traditions, typical handicraft, events). UNESCO urban heritage and the new metropolitan dimension are essential background drivers. A crucial point is to estimate if current or planned local policies and initiatives meet the interviewee's vision.
- The *Strategies* phase detects the primary strategies for the valorization of the cultural heritage and the local identity of the historical center. Strategies can address several topics: enhancement of mobility, infrastructure and transport to the city center; organization of strategic connections to the extra-urban historical sites; reuse of abandoned historical buildings or spaces; web marketing campaign to sponsor the cultural heritage; and many others. However, it is crucial to

select and target which strategies should come first heading and making the others achievable. This phase defines, also, the most effective tools for making the historical center smarter and creative, and the spatial accompanying operations that local policies should implement. Finally, it identifies ordinary obstacles to local development.

- The *Tactics* phase analyzes the local involvement in cultural initiatives, the level of awareness about the cultural heritage, the associations and the events recently activated in the historical center, the availability to collaborate or manage initiatives of social activation. This phase focuses, especially, on the successfully experience of Sansevero Chapel Museum and the restoration of Nile God statue (Corpo di Napoli).

Interviews are still in progress; final database and interpretation of answers will be ready at a second stage of the research process. However, some interesting preliminary observations and reflections have evolved so far, defining a number of working findings.

Below, a brief report that describes performed interviews thought three categories of input:

- a) The inner perspective of socio-economic operators, associations and activists;
- b) The strategies, studies and projects of local institutions and researchers;
- c) The experience of stakeholders directly involved in the Sansevero case study.

Categories (a), (b) and (c) of stakeholders consider the local development an interplay between historical heritage and cultural identity. The historical center is the cultural values' keeper, so that the urban regeneration of Naples should anchor the city core's reactivation. However, unless few steps towards cultural valorization are visible, several logistic, procedural and management obstacles must be still removed. The opinion of most stakeholders is that visions, strategies and tactics should take place at the community level turning ideas into positive common actions.

The category (a) recognizes the accessibility to the historical center an important point of discussion. According to a *small retailer*, the restriction of vehicles' access in the city center has recently improved the urban environment acting as a filtering zone. However, the transport system and the security service appear not yet appropriate for regeneration purposes. A *small artisan*, indeed, reflects about the leading role of good accessibility for the cultural heritage enhancement and the tourism (especially cruise tourism) development.

Another crucial theme raised from category (a) is the relevance of re-organizing public spaces. In accordance with stakeholders' perspective, local policies should reactivate the city center gradually, by networking small creative labs; implementing innovative tools to attract, welcome and inform tourists upon respect of tradition and authenticity; simplifying procedures in support of cultural initiatives. Several events and exhibitions have recently revitalized the city center; however, they appear restricted and not well promoted. Otherwise, public spaces should be pivot of artistic confluence continuously renewed by changing uses. According to a *local association*, public space should meet appropriate safety and efficiency standards stating that it is fit for community activities. The association mentions the "social streets" model in Bologna as a successfully practice of adopting streets and notice boards, making areas common and identifiable. This model encourages forms of local collaboration between neighborhoods dealing with everyday

difficulties. The association interviewed, for example, works for cleaning the Greek's wall ruins in one of the historical central squares and has recently introduced in Naples the bike sharing practice.

The category (b) analyzes the intangible values of stratification and the persistence of tradition in the historical center. This category examines the regeneration process at various viewpoints, moving from the metropolitan to the urban fabric level. In this cross-scale perspective, time is an important parameter to deal with, as promptness of action is necessary to preserve the cultural heritage. An *institutional representative*, indeed, is dissatisfied with misalignment between European and Italian laws, long complex procedures and overlapping of competencies across various authorities. On the condition that policy actions become faster, the metropolitan dimension might be a great opportunity through which heterogeneous identities can perform within a unique integrated system. For this reason, the interviewee embraces participatory models, which combine interests and conflicts among stakeholders, getting community into the same decision arena.

A *researcher and professor* in History of Architecture, President of the Municipality Building Committee, reflects about the "old town" of Naples (Pane et al., 1971) where architectures, traditions and cultures overlapped for centuries. The original center is a living core, although unauthorized development or abandonment has altered various valuable zones. Failure to valorize the cultural heritage, indeed, prevents many historical parts from becoming economic catalyst. Thus, local policies should adapt the historical heritage to new functions and uses encouraging a proper social, cultural and urban *mixité*. In this sense, the Sansevero case study is a positive term of reference, as the public/private management successfully safeguards the cultural site.

A *professor in Architectural and Urban Composition* mentions another significant example, the project called S.I.RE.NA. It was based on a self-propelling mechanism able to raise the 70 percent of private interventions through the 30 percent of public capital. This urban and financial experiment stopped because policy failed to provide its support. If we consider that in the historical center of Naples monuments and public historical buildings represent little more than the 20 percent of the building mass – he says – the public/private management appears, instead, basic for the regeneration of the city core. The historical center of Naples is part of the UNESCO World's Heritage list thanks to its stratification and identity values. The city blooms continuously upon, beside or across its previous editions (in terms of custom, style, economic events), modifying itself in modern forms. The historical core's strength and persistence should also connect and reactivate disperse and ephemeral peripheries.

The category (c) focuses on the symbols of the local cultural identity.

In the ancient stable of Palazzo Sansevero, the Atelier of a *famous artist* tells the true narratives of Naples by introducing the archetypes of its local "identity and metamorphosis" (Pulcinella, Saint Gennaro, Vesuvius, the horse, and many others) into a global exchange of views. The atelier's location intensifies his artistic production, which – he says – runs faster than institutional interventions. He participated actively in the Committee for the "Corpo di Napoli" – he is the author of the sketch of the Nile God statue sold to promote the fundraising campaign for the restoration – as through a pragmatic approach he works for the preservation of historical and contemporary identity, which is the sacred fundamental of Neapolitan culture. The problem is *ethic*:

if the mess of blur decisions, policies and actions releases, then the world will come to meet the city starting from its historical center. According to the *Sansevero Chapel Museum's Director*, hospitality is what distinguishes the historical center of Naples from all others. Unfortunately, there is a certain "relapse into illiteracy", meaning that after top-down recovery operations most areas get back to degradation. Incisive solutions should found themselves on real participation of community aimed at enhancing the local awareness of heritage. He was pleased of residents' gratitude for the restoration of Nile God statue. He is convinced that there is no perspective without culture, neither economic development. Therefore, Naples should change direction by boosting collaborative strategies among anyone who cares about the future of the city.



**Figure 11.** Main findings from the interviews.

In summary, the main findings of interviews are the following: 1. Level of satisfactory about local policies for the cultural heritage enhancement is very low; 2. Fragmentation of stakeholders is quite high. Most of responders expect collaboration among political, cultural and socio-economic sectors. In short, act locally and act together; 3. A recurring theme is that top-down strategies are ineffective; 4. Shortage of economic resources, lack of awareness and lack of information about local specificities and events are marked as urgent difficulties to overcome; 5. Connection between the historical center and other city elements (metropolitan city, port and waterfront, peripheries) are essential; 6. There are several interesting associations operating in the historical centre, as "Le Scalze", "Artoteca", "Quartiere Intelligente", "Fondazione Napoli Novantanove", "Santa Fede Liberata", and many others; 7. There are several innovative projects on local identity, which go through the world; for example, *Notre Napule 'a Visionaire*, which promotes the Neapolitan dialect in Provence, and other artistic productions in Palazzo Sansevero.

## 5 Conclusions

Starting from the goal to investigate collaborative strategies for urban regeneration processes in historical centres, the selected case study allows identifying first findings of the ongoing research.

Evidence from the case study highlights the strategic role of community involvement together with the network of key actors, to trigger socio-economic and physical improvements in degraded area and to support regeneration processes, achieving common goals of local valorization. In this perspective, monuments and historical sites can be poles for the activation of the process, able to enhance the local identity and the sense of place, strengthening the sense of belonging of citizens.

The case of Naples is emblematic both for its significant heritage, tangible and intangible, and for the presence of active groups of public and private stakeholders, that promote initiatives despite the problems and the obstacles posed by the context and despite low level of collaboration among political, cultural and socio-economic sectors.

In particular, since 90s, the success of the initiatives promoted by Sansevero Chapel Museum and Corpo di Napoli Committee testifies the desire of the local community to have an active role in improving urban quality and, therefore, quality of life. It also demonstrates that processes based on social activation respond more directly to people's needs and aspirations, increasing the levels of happiness and quality in everyday life.

Discussing about problematic and degraded ancient cities, this experience offers relevant findings suggesting that collaborative strategies are necessary for realizing a key upgrading in the ancient city centre, activating new economic, social and cultural dynamics to support urban regeneration, also through innovative tools and processes (Farrel, 2000; Clemente et al., 2012; Smith, 2005).

The methodological approach and some tools can be more generally applied in other areas of Neapolitan historical centre and in other similar contexts. Starting from the case study, we propose key elements and insights for participatory models of urban regeneration processes, to share goals of local regeneration enhancing material and immaterial heritage for a collaborative and participatory governance.

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# The Fountain Square –‘Shadervan’– a living landmark of Prizren

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This paper tries to present the importance of local cultural values of the city of Prizren embedded in its cultural heritage. The ‘Shadervan’ or fountain square is a central public space, one of the most important landmarks of the city. It is the centre of all public activities and a starting point of any story about the culture in Prizren. It is a landmark in physical terms, but it has also a strong social and cultural dimension bounded with many stories, songs and events across the history.

We are searching here for the cultural values embedded in the square being those simple life culture, such as coffee and tea culture during an ordinary day or in the evening during the Ramadan, or cultural events that take place in Prizren such as DOKUFEST, the international documentary and short film festival. Empowered by the civic activism of talented people to enrich the culture life, the fountain square serves as main foci in the city, where festival activities are bounded with a local identity.

In this research we used a combined research methodology/strategy involving interpretative historical research and case study research method. Searching the history of development of the ‘Shadervan’ area the basic arguments are found in the literature and archive documents. In the current standings, beside the literature and archives, analyses of the public life is used to present the findings and make comparisons within the same time frame and fast changing context.

**Keywords:** Place, Urban Culture, Identity, Shadervan, DOKUFEST

## 1 Introduction

Some places flourish because they allow every single individual to interact with the public life that takes place in it. By providing a qualitative experience to every body, opportunity to actively be engaged, these places bring happiness and well being of the community. The Fountain square or ‘The Shadervan’ in Prizren is a central public space, one of the most important landmarks of the city. Any visitor, who comes to visit Prizren’s Shadervan Square, is amassed with the vitality of the place and the human scale. We are searching here the cultural values embedded in the square being those simple life culture such as coffee and tea culture during an ordinary day or in the evening during the Ramadan, or cultural events that takes place in Prizren such as Dokufest, the international documentary and short film festival.

The paper tries to present the importance of local cultural values of the city of Prizren embedded in its cultural heritage. Empowered by the civic activism to enrich the culture life, Prizren is today known all over the world through DOKUFEST. The Shadervan square, as one main public space and landmark is the center of all activities and a starting point of any story about the culture in Prizren. It is a landmark in physical terms, but it has also a strong social and cultural dimension bounded with many stories, songs and events across the history.

Prizren is one of the oldest cities in Kosovo, Due to its position it is a very important city in terms of economy and culture. It is also a touristic city with cultural heritage attractions and a very lively public space and public life.

The Fountain Square – or ‘Shadervan’ in Prizren presents foci of public life with a long history, dating back to 16-17 century in the Ottoman Empire. It is a place where several old bazaar streets terminate and meet each other. Through the century the artisans guilds of Prizren – so called ‘esnafs’ maintained the tradition of meeting at the ‘Shadervan’ for business exchange and

coffee and tea talks during the whole year, whether outside or in the inner coffee and tea shops interiors. The transformation of the ottoman city started since the beginning of 20th century, when Prizren felt under Serbian, Croat and Slovenian Kingdom in 1918. But, because Prizren was a city in the periphery of the Kingdom, it did not suffered much in terms of eradicating of the Ottoman structure. The fountain square – Shadervan preserved its importance because of its role as a crossroad of main bazaar streets. This remained even during the communism time when the esnafs dissolved and the shops were partly nationalized, and artisan's products lost importance due to more industrialized products. Major transformations took place after the World War II – 1950's to 1970's, when some parts of the bazaar were demolished and modern buildings replaced the older.

This is a combined research methodology/strategy involving interpretative historical research and case study research method. In the analyses of the development of the 'Shadervan' area through history the basic arguments are found in the literature and archive documents. In the current standings, beside the literature and archives, the case study method using analyses of the public life is used to present the findings and make comparisons within the same time frame and fast changing context.

Using the simple tools such as counting, mapping, tracing, tracking, photographing, keeping diary and making test walks, we tried to generate the intensity of public life linking the festival event as a major event with the square and the surrounding spatial elements that makes it lively 24 hours.

The findings were classified in three main categories: the cultural values and meanings for the local settings and identities that Shadervan Square produce in term of physical, social-cultural and functional dimension. Positive features that supports these values are identified and others that should be improved as well. As there is a growing awareness for protection of cultural heritage, we considered a set of recommendation in terms of keeping the vitality of the square and improving the actual situation.

## 2 History

### 2.1 Prizren

The Romans called it Theranda, the Byzantines, Prizdrijana, to get to the name known from the Ottoman period as Prizren<sup>73</sup>. Founded at the footstep of the Sharr Mountains, along the Lumbardhi River, Prizren has been an important commercial, administrative and cultural centre. From the Roman and Byzantine Empire, through Kingdom of Serbs to the Ottoman Empire, a rich treasure of cultural, historic and architectural values, was left behind, which today make Prizren an historic city with a particular cultural heritage, and a centre of culture in Kosovo and the region. Beside the fortress, which was inhabited until the end of 19th century, very little material heritage was left from the pre Ottoman period, to be able to trace any form of public life and place.

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<sup>73</sup> Doempke, S. Lulo, A. Petrels S. (2012) Four Historic Cities in the Western Balkans, Gjirokastra Conservation and Development Organisation, Gjirokastra, Albania

## 2.2 Spatial Organization of Ottoman Prizren

Prizren flourished in the XVI century during the rule of the Ottoman Empire, when it became an important commercial and artisan centre with more than 1500 workshops and a centre of culture and art as well.

The main morphological feature of the Ottoman city is the division into two parts. A centre where economic, religious, cultural and other public activities took place, and the residential areas – a number of mahalles or residential neighbourhoods.<sup>74</sup> The morphological structure was bounded by a street network with mainly two types of streets - wider in the centre and narrow streets and alleys – dead end streets or coul-de-sacs for local use. As in all 'eastern cities', it is difficult to trace a hierarchy of the streets.

The chief device of Ottoman city-making was the *külliye*.<sup>75</sup> The word derives from the Arabic word meaning "the whole." A *külliye* was the functional center of a well-defined neighbourhood, identified in the first decade's by family bonds, profession, or place of origin. It consisted of an interrelated group of buildings around a mosque installed and endowed by the sultan as the public nexus of obedient subjects. It is to be distinguished from the administrative center of the town, usually a citadel, and the commercial centre of bazaars and hatts, which were placed next to the Friday mosque.

The Ottoman city of Prizren developed along the river and Gazi Mehmed Pasha *külliye* consisting on Bayrakli Mosque, Gazi Mehmed Pasha Hamam, Library and Medrese, a complex of public buildings linked to Arasta Bazaar (destroyed in 1960's) (Figure 1).



Figure.1 - Prizren - Ottoman city structure before 1912

<sup>74</sup> Acun Fatma, A portrait of the Ottoman Cities, Muslim Worlds 92, no 3/4 Fall 2002, The H.W Wilson Company

<sup>75</sup> Kostof, S. The history of Architecture, 1992,



**Figure 2** - Prizren- view fom the fortress around 1912

As a rule of Ottoman authorities, the city was organized in the plain area under the fortress because the ottomans provided the security from the any kind of attack from outside the city. Usually the city was devided into Muslim part, mahallas in the walley, and Christian, in the hill under the fortress, called varosh.

### **2.3 Mahalles – Residential Quarters**

As all ottoman cities, residential neighbourhoods - mahalla's, developed around the *külliye* and the bazaar, which in Prizren were organized in both sides of the Lumbardhi River. In Prizren, we find two types of *bazaars-çarshi*<sup>76</sup>. The first type is a complex of the shops gathered around the mosques such as Arasta - dairy market, Saraç-hane and Sinan Pasha, around the main square. Arasta market was a covered type of bazaar.

The so-called unorganized structure of the Ottoman city, i.e., narrow and labyrinthine streets, dead-end streets and unplanned quarters, which were the main characteristics of Islamic cities as well, is closely related to the concerns for privacy of the city dwellers.<sup>77</sup> *Mahalles* were the basic units of urban society, headed by a local prayer leader (imaret). Each *mahalle* was also the unit for administration and tax collection.

Like most city dwellers, nonmuslim and minority groups usually lived in their separate quarters. In Kosovo this was usually for serbs, roma. In Prizren they were settled in on the hilly area under the fortress. Mahalles were named by the family names, usually identified by crafts that they were practicing. The division of quarters according to ethnic-religious identity or occupation, however, did not necessarily meant a lack of communication among these groups.

<sup>76</sup> Nikolic, S. (1998), Prizren - od Srednjeg veka do savremenog doba - Pokrajinski Zavod za zastitu spomenika culture, Prishtina, -Prizren - from Medieval Period to Modern Times, Kosovo Institute for Protection of the Cultural Monuments, Prishtina

<sup>77</sup> Pinon, P. (2008), The Ottoman city of the Balkans, The City in the Islamic World (2 vols), Edited by Salma K. Jayyusi Renata Holod, Attilio Petruccioli and André Raymon

## 2.4 Bazaar/Çarşi

The core area of the centre was the bazaar or *çarşi* in Turkish, a commercial area consisting of *bezistan*, *caravanserais* and shops where crafts, trade and other transactions were carried out. These buildings belonged to *waqfs* and provided the larger part of the urban commercial facilities. Because such buildings were rented by *waqfs* to merchants and artisans, the *waqf* system was directly related to urban economic activity such as artisanal production, trade and services<sup>78</sup>.

Shops of all kinds, workshops, merchandise on display, artisans working, negotiating, observing passers-by from the threshold, crowded cafés, across different languages and cultures, this place has the same name - *çarshia* for some, bazaar for others - interchangeable words that both mean "market" in Turkish and Arabic respectively. But *carshia* is not only a marketplaces or a shopping street; it is public spaces where the citizens' urban and social lives flow together and where the urban meets the rural. Business and marriage deals, vengeance, reconciliation, and negotiations have taken place for centuries in the cafés of the *çarshia*, naturally over one or many Turkish coffees. The rich, the poor, different cultures and languages – they all share daily life and exchanges in the *çarshia*<sup>79</sup>.

## 2.5 Open Public Spaces In The Ottoman Prizren

Usually, the historians have explained the lack of formal open space as lack of a strong public life and municipal governing institutions, which is not quite true. Several travellers and historians have described the rich and picturesque open-air life of Ottoman towns. The Ottoman open space has its origin in the byzantine-Ottoman view of nature and architecture

Maurice Cerasi<sup>80</sup> classifies the Ottoman open space in four principle types: *meydans*, *namazgah*, *mesire* or *çayir*. Branislav Kojic, a Serbian architect, considers that in the Balkan cities, the amorphous type of square, which occur in the crossings, is the main public space that, beside the streets and bazaars, constitutes the public space network<sup>81</sup>.

In Prizren, during the ottoman period public life in the open space took place mainly in the bazaars through shopping and production activities. Eating and drinking in the cafés and *meyhane*-restaurants was also part of the daily life of those working in the bazaar. Public gatherings took place at specific places - small squares and open areas around the bazaar - mainly at Shadervan square.

<sup>78</sup> Shkodra Z. Qyteti Shqiptar në shekullin IX- Albanian City in the IX century- Academy of Science of Albania, 1972

<sup>79</sup> Rukaj, M. Čaršijas/çarshijas, ancient markets at the heart of the Balkans - <http://www.balcanicaucaso.org/eng/Cooperation/Seenet/Carsijas-carshijas-ancient-markets-at-the-heart-of-the-Balkans-82861>

<sup>80</sup> Cerassi, M.

<sup>81</sup> Kojic, Dj. B. (1976) Stari Balkanski Gradovi, Varoši i Varošice, IAUS, Beograd, Serbia



**Figure 4.** Shadervan Square before 1912.

It is the main square, remained even today as the most attractive public space in the city. Enclosed by the shops with a drinking fountain in the center, it is the main arena of public life. People walk stand and sit around in the cafes to enjoy the city, the view towards Sharr Mountain and fortress.

Different residents groups would meet at their places of work or wherever they conducted their economic activities. For others, however, public gatherings were synonymous with social meetings. From time to time meetings organized for amusement and entertainment, even if impromptu, took on a different note. Marash, the suburban garden of Prizren, was a public place open to all residents. Usually residents would gather for walking and socializing in the natural setting. Even today, it provides the opportunity for leisure activities, walking and running.

Usually the shops and the cafes had their open area towards the street, which acted as a kind of semi-public hall to the private space of the shops or cafes. In Prizren, *Meyhancılık* was the

café and *meyhane* complex - where these shops were grouped to form a particular street of the bazaar. Public life took place also in the *hamam* - public baths that were a kind of city pride. Gazi Mehmed Hamam is a monument well preserved which today is under reconstruction.

The public spaces of the old Balkan town were distributed throughout the urban fabric of the *bazaar* and in the *mahalles*. The network of these spaces was not planned, so we can assume that they occurred spontaneously. Observing them in the existing fabric and based on the surveyed material, we could consider that the open spaces usually occur at the crossings. Some time they occur alongside the streets and at the end of dead ends streets.<sup>82</sup>

According to Branislav Kojic, the shape of the squares is diverse and irregular but among these various forms triangular plan can be distinguished in most of the cases. It was usually created in a street wye - two or more branches with a lot combination of cuts and corners altering the shape of triangular square.

### 3 The Shadervan Square

The triangular shapes squares are known since ancient times in the towns that were created spontaneously. Thus, in the medieval town, triangular square often occurs as a form of public space. Other square shapes that can be found in the Ottoman Balkan are: trapezoidal shape which occur when several streets flow into the same space; elongated irregular rectangle which represent a street extension; a combination of the two former types of square, and various other types that can not be defined by any geometrical shape.

Shadervan square is a typical triangular square. Elevations that shape the square were built in the same way as the street that fronts *mahalla* or *carsija* (*bazaar*) where the market is located, in Christian mahalles, with a closed system, and in Muslim *mahalles* with an open system or with a full surrounding walls. We could see in the Shadervan Square that the façade line follows the streets with no particular articulations they keep human dimension to allow the Mosque and the Church to exercise the role of landmarks that visually dominates the city landscape around the square.

The floor space of the market was similar to street floor: when it possessed social features or it functioned for gathering, the floor was paved with cobblestone-*kallderma*.

Shadervan or Fountain Square is the central square in the city of Prizren dating back from the 15/16 century. It is a typical small square positioned in the intersection of main pedestrian axis in the city, leading to Sinan Pasha Mosque in the city centre. It is enclosed by cafes and shops with maximum stories that provide a human scale. Most of the architectural features of the buildings are from the end of 19<sup>th</sup> and beginning of 20<sup>th</sup> century when, the period when old shops were refurbished. Light colours with little details make the urban architecture to fit the purpose of the square. The urban landscape is dominated by the 17<sup>th</sup> century Sinan Pasha Mosque, a traditional Ottoman mosque with dome and minaret, The Mosque poses some monumental features such as big porch elevated more than 2,50 meters from the street level due to the topography. The floor of the square and the

<sup>82</sup> Kojic, Dj. B, (1976) Stari Balkanski Gradovi, Varoši i Varošice, IAUS, Beograd, Serbia

streets that terminates in the square is paved with granite cubes. Originally the floor was stone paved taking them from the river. Recently the drinking stone fountain was refurbished.

### 3.1 Cult of Water

*"The Water of Allah!" they yield*

*and after a stay of five times by a hundred long nights*

*they trapped it*

*they jailed it*

*they shackled it in a pillar*

*they named it Shadervan*

**Edi Shukriu, Archeologist and poet**

In these verses of Edi Sukriu<sup>83</sup> poem 'Shadervan', we could trace the importance of the water that in Muslim society water possessed, and how difficult they considered to grasp the water from the nature, Of course it's God 's water, so even long time to extract it, didn't change the everyone uses it, it was a public good. The water in the Shadervan square, made people to stop and wash their foots and hands, the 'abdes', an Islamic ritual before praying in the mosque. It was also a public source of water in the city for those who worked in the bazaar and market, and those who didn't have well in their home.

### 3.2 Urban Transformation of Ottoman Prizren

Shadervan square within its history of existence as an open public space has served as a place of special experiences for its individual users, and a generator of creative community of artisans, artists and writers concluding with the wider Prizren's culture community initiatives to permanent improvement of organization performances in place. From its origin, as a place that connects neighbourhoods and bazaars, it has been the foci of public life of the city, which remained even nowadays. Through the years the square has improved the features adding functions that fits in the existing physical space structure suitable for different seasons in the year. Tea and coffee shops, which during the Ottoman Empire mostly frequented by male costumers, after the World War II changed a lot so there is a mixed users including gender, age and ethnic variety.

Urban transformation of the ottoman city becomes visible in the beginning of 20th century when Ottomans were withdrawn from Balkans. Kosovo felt under Serbian, Croat and Slovenian Kingdom in 1918. Because Prizren was in the periphery of the Kingdom, it's structure was not eradicated and most of its Ottoman features were preserved. Serbian government was more focused in transformation of the ottoman structure of the cities in Serbia, so changes that occurred in Kosovo Ottoman cities, were fragmented and more focused in providing new communal buildings. Most of public life remained the same as in Ottoman period, taking place in the carshia/bazaar and in the small squares - mostly intersection of the streets. So did the 'Shadervan' or the Fountain Square.

Although after the World War II the economy shifted from small manufacturing in the city core to more massive industrial production that migrated to the outskirts, the carshia/bazaar

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<sup>83</sup> Shukriu, E. 'Shatervani' from the book of poems 'The Sky', 1989, Rilindja, Prishtina

preserved its vitality because it was the principal space in the city where citizens met and public life took place. The 'Shadervan' is important because of its role as a crossroad for main bazaar streets. But, major transformations took place between 1950's and 1970's, due to new property ownership relations. Most of 'waqf' endowments were dissolved so the property was nationalised. The nationalisation provided the opportunity for city transformation with the aim to build the new city on top of the old. We could talk here about the planned transformations that affected Ottoman city core structure in all Kosovo cities.

### 3.3 Shadervan - a foci of contemporary social and cultural life

After the recent war in Kosovo, beside the new forms of artisan production and services, the cafe culture regained important role in the public life. As one of the oldest cities in Kosovo, beside its cultural heritage, Prizren possesses a strong sense of community self-organized in terms of keeping a traditional vitality in the public spaces. These facts are motives for different initiatives in terms of enriching public life in the public space. During the socialist period, there were many local culture initiatives such as festivals and does a very strong culture community of Prizren primarily.



**Figure 5.** Shadervan Square from the west

Today, the Shadervan square is characterized by a set of formal and informal activities that takes place during the day. A very lively public life through the whole day can be experienced in the square. There are periods during the year when the square is full of people through the night until early hours in the morning. This usually takes place during the DOKUFEST - the International Festival of Documentary Film in the summer, when the square becomes a kind of living room for all citizens and visitors of the festival. In the morning you can drink coffee or tea and have light breakfast in the terraces or inside. Then, around noon people gradually fill up the area around, sit

in the cafes or do shopping. The street vendors are usually in the west side. They sell festival tickets and souvenirs.

Beside the environmental and social values that possesses, the square is very vital economic spot in the city. Cafes and shops are viable businesses that contribute to the vitality of the square. At the same time they play an important role for safety of the place. In the other side, the use of the terraces provides some incomes for the municipality from tax incentives necessary for an effective maintenance.

A mix of stakeholders in the square takes care on how the square is maintained. Shopkeepers, and local civil society organisations constantly keeps warning the city department for public services on whatever the square may need in terms of maintenance.

### **3.4 Citizens Initiative and public space activism**

These facts are motives for different initiatives in terms of enriching public life in the public space. During the socialist period, there were many local culture initiatives such as festivals and art exhibition, primarily organized by a very strong culture community in Prizren. This was continued after the war. One of the mainstream local initiatives is DOKUFEST, the International Documentary Film Festival organized since 2002. From a very modest three day festival in the beginning, it grew to a nine day international event that brings more than 10.000 thousands visitors in Prizren. Dokufest provide the city not only a top class documentary film festival, now rated among the 25 best festivals in the world, but it made city of Prizren to flourish, making all residents be engaged in the different culture activities and those supporting the event in different ways.

The initiative came from local people working in culture, the class of the local people that love the city, its history and traditions. And they recognize the values of the cultural heritage that can help city development.

Dokufest, International Documentary and Short Film Festival, is the largest film festival in Kosovo. Each year the festival fills the cinemas and improvised screening venues around historic city center of Prizren with a selection of more than 200 hand picked films from around the world. The festival is known for its lively atmosphere, the amazing enthusiasm that grasps the city and its people and also for more than 150 volunteers working for the festival. Documentary photo exhibitions, debates, master classes and lively music events are also part of the festival.

During the festival, the Shadervan square becomes the starting point of all activities. There is an info-box, which provides all necessary information on daily and evening activities, projections, workshops and venues and maps for orientation, and nightlife, which usually last until early hours in the morning. Considering central position, it is a reference point to find all important places to visit in the city.

Shadervan is also a place where people meet, organisers, directors and media, exchange information's. While eating kebab, drinking traditional Turkish coffee or tea, interviews take place. The square also connects other landmark and hidden public spaces, areas in the vicinity where some other would like to enjoy the city charm in a more relaxed atmosphere.

Although the festival last only 10 days, the flavour of the event takes off from the March with a constant rise ending with the impressions of those comes for the first time and those who are regular visitors of the festival.

### 3.5 Making city development and inclusive process

The generative feature of the fountain square arises from the multi-layered dimensions such as time, morphological and functional dimension. Positioned very close to the river Lumbardhi, at the mountain footstep, under the historical neighbourhood of 'Nenkalaja' – under the antique fortress, presents the most focal point of the city core. Two most prominent religious buildings surround it: the Sinan Pasha Mosque from 17th century and the Sent George Orthodox Church from 1887. The square was the centre of the city bazaar including goldsmiths, gunsmiths, farriers, grocery shops and coffee shops. It was also the intersection of the Blacksmith Street crossing the river through the old stone bridge and Tailors Street.

In the making of generative places, Municipal Authorities, culture community, business community and ordinary citizens that loves their city should built an alliance from which benefits for all could be generated. Although there were some initiatives and projects, Municipal Authorities in Prizren have not been very successful to implement a public space agenda that could transform the city core into a car-free area. One of the biggest problems is the lack of finances to protect and revitalise the old core, which is currently under protection.

The ordinary citizens play the crucial role as their activism in improving the public space is gradually coming to the spot. Local residents understand that the city image goes beyond individual interest. Recently this activism broke the barriers between Municipal authorities and citizens, who usually tended not to be transparent and exclude interested players, such as culture community and business community. These activities are bringing the new culture where people are more and more interested to contribute for the public space.

## 4 Public life of the Shadervan square

*"...Please look closely at real cities. While you are looking, you might as well also listen, linger and think about what you see."*

Jane Jacobs<sup>84</sup>

Direct observation is the primary tool of studying the public life studies. The users of public space were involved in the survey, but their activity and behaviour were observed and mapped in order to understand how the space is used. The choice of tools is based on the features that make chosen public spaces samples for finding answers to the research questions. For any area/site study, it is necessary to consider the study context holistically, including physical, cultural and climate aspects. A single tool is rarely sufficient. It is usually necessary to combine various types of investigation.<sup>85</sup>

Usually this issue depends on the purpose of the study and local conditions. In order to

<sup>84</sup> Jacobs, J. (1962) *The Death and Life of Great American Cities*, Edition 2000, Pimlico, Random House, London

<sup>85</sup> Gehl, J. Svarre, (B. 2013) *How to Study Public Life* - Island Press, Washington, DC, USA

cover the different time periods in a day, the survey took place from 10.00 to 16.00 and from 18.00 to 21.00. Counting took place 15 minutes each hour. It is considered that 15 minutes observation and counting during the hour could sufficiently illustrate the social life and activities in the public space. Concerning the nightlife, especially in the occasion of particular events- such as Dokufest in Prizren, separate observation until midnight was made, in order to extract the features specific for this particular event.

In order to see the daily differences, the research was carried out during weekdays and weekends, because patterns change during the non working days and holidays. In Prizren, the traditional market day presents also a significant pattern change around the market and generally in the centre of the city.

Basic tools used for survey were: counting, behavioural mapping, tracing, photographing and diary keeping. By counting we provided numbers for making comparisons between different sites over time. Maps of activities show people's places, places for walking, staying or sitting. Differences according to timing are shown in the diagrams. People's movements inside or crossing through, are drawn as lines of movement on a plan of the site being studied. The interaction of urban life and form were captured and documented by photographing. To register details and nuances of interaction between public life and space, the notes were taken in the diary, noting observations that can later be categorized and quantified.

What makes a public space a pleasant place to be and to use? The survey shows graphically how they change during the day and the days in the week. What is the best time to sit in the square or adjacent café, how time influence the use of parks or how working time of the shops triggers people to walk on a shopping street. These criteria are based on human senses and needs.

#### 4.1 The flow of people

Through counting the flow of the people using the Shaderva square on different hours of the day, on different days, and different weather conditions was measured. The flow of people varies of different conditions. Mornings are usually more quite but there are more people who use the square in the morning during working days as their way to their work- especially in the summer. At 11 o'clock there were more people on the weekend than on the working days, but in the rainy days the number of people decreases substantially. The afternoons are characterized with small differences through hours.

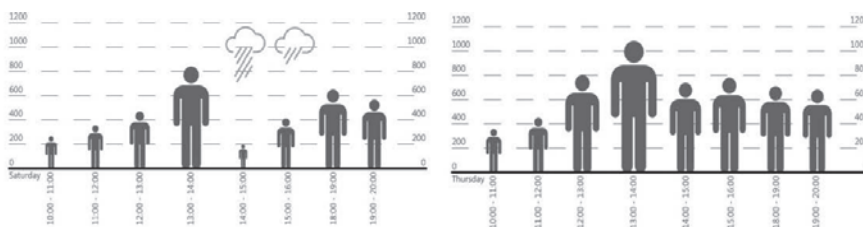


Figure 6. Diagram of people flow in the square



**Figure 7.** Analysis of the most common lines of movement and the intensity of the flow

The diagram of common lines of movement used on the space is an outcome of several observations of the site on different days of the week. People prefer peripheral parts of the square for walking. There are cases when they use these lines just as a connection between two points, but in most cases there are other reasons people prefer these lines. Walking through these lines people enjoy shadow during the summer and cover in the winter, which are very important components of having people on public space. But the main reason people prefer peripheral lines has to do with the interaction with the activities that take place in the shops in the ground floor, such as greeting people sitting in the bar, or just looking to the shop windows. Even though peripheral lines are the preferred observations, it has showned that the number of people passing through the fountain is still quite big, but it is not organised in one line but there are many paths used while passing through the fountain, creates a network of movement lines in the middle of the square. Passing through the fountain is a must for every tourist in Prizren, but citizens also use it very often, mostly for drinking, mostly children and aged people.



**Figure 8.** Moments from different movement lines through 'Shadervan'



Figure 9. Measurement of the speed of the people walking through different paths in square

From the observations the preferred spots for standing are usually under the trees. These spots sometimes serve as prearranged meeting points, but there are also cases when people prefer standing on the shadow under the tree from where they passively experience the space. The fountain is usually a standing point for tourists, children or other people who wants to feel the sunshine in front of the fountain especially in the colder days of the autumn and winter.

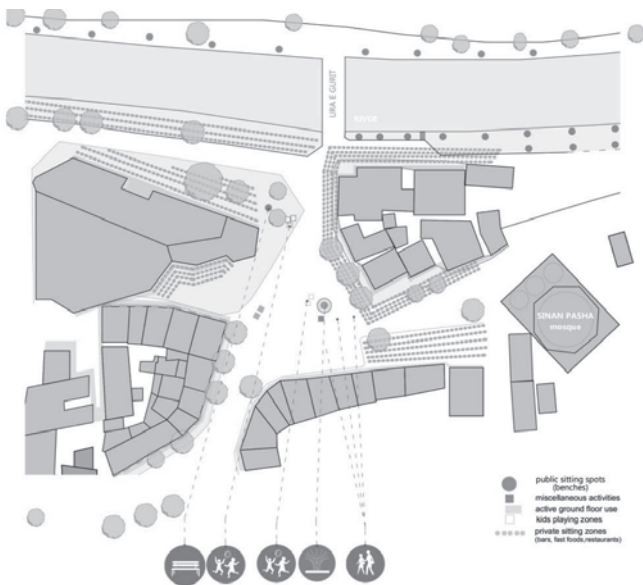


Figure 10. The common everyday activities on the square



Figure 11. View from the square to the south

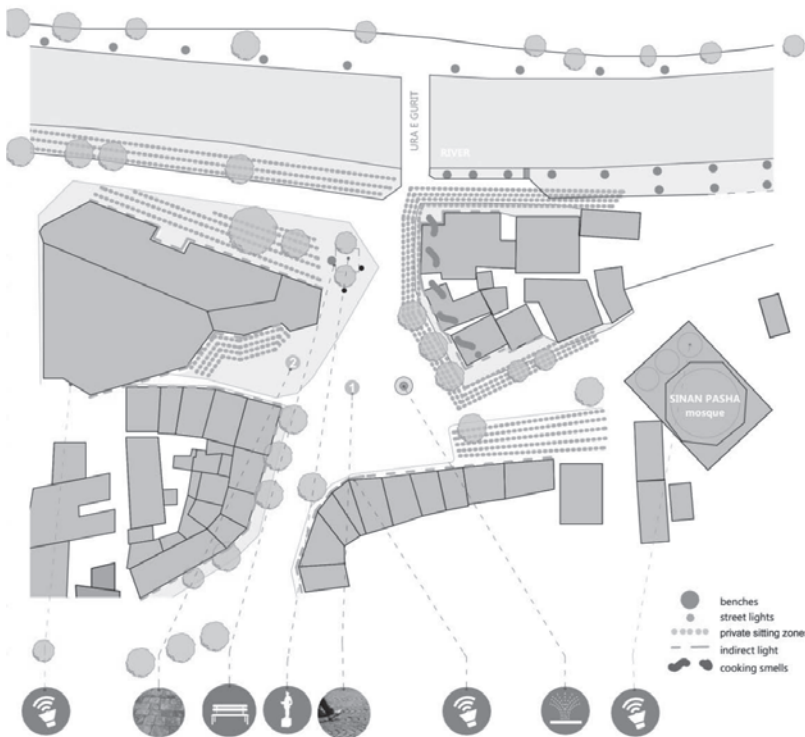


Figure 12. The urban furniture

## 5 Conclusions

Prizren could not be imagined without 'Shadervan' Square. Any song or poem written about Prizren necessary contains verses on Shadervan Sqaure. It is a landmark with cultural values and meanings that contributes to local settings and identities.

**Physical dimension** - Shadervan possesses a set of physical features that makes it the most important public space in the city. These includes interwoven architectural styles from the early and late Ottoman period, Colonial style from the beginning of the 20th century and building elements of modern architecture in the refurbished buildings such as shop windows and doors. Low height of the surrounding buildings envelope, contributes to human dimension of the square providing hierarchy towards monumental Sinan Pasha Mosque towards Arasta Bridge in the east and Sent George Church towards Tailors street in the west. The balance, between these contrasts of dimension and materials, is provided by the green alley of lindens, which also contributes to create the shadowed spaces used for sitting. The overall visual features are complemented by the dramatic landscape consisting on walls of the medieval fortress on the top of the hill and residential area under the medieval fortress that gradually flow to the Lumbardhi riverfront.

**Functional dimension** - The Shadervan square for the centuries was a foci of production and trade activities. Beside doing usual business, the artisans and traders gathered in the coffee shops and meyhanes to eat and drink during the long working days . The traces of artisanal production remained nowadays. Goldsmiths and silversmiths has their corner and their traditional filigree artworks are well known internationally. Restaurants and coffee shops, presents a significant business active through all the day. The other shops and groceries complement the variety of functions in the square and around.

The Sinan Pasha Mosque, Saint George Church and a little bit further Catholic Church shows the century harmonious coexistence of different religions, a feature that characterizes all Balkan cities.

**Social-cultural dimension** - Shadervan Square has preserved social values that were built during the ottoman period. Ottoman every day life can be still traced in the present. Shopkeepers and vendors has changed, but the sense of socializing inside and outside in the open space has remained a cultural feature that is valued by the users. Shadervan Square presents one of the Pirzren's most lively public spaces. Beside physical features, its public life features contributes to the local identity of the area and Prizren as a whole. Residents and visitors would not dear tto say that withot Shadervan Square, Prizren wouldn't be such a lively city. Linked to the culture events that takes place in Prizren, Shadervan Sqaure will probably continue to attract writers and musicians to comeback with new poems and new songs on the water and people.

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# Parque Capibaribe – Reconnecting Territories

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The integration between people and public space by the Capibaribe River - Recife's main river, Northeast Brazil - used to take place quite naturally. The river provided means of transport and livelihood and was thus highly valued by society, who saw its banks as a privileged area for living and leisure. Changes in technology, local culture and citizens' perception of public space have transformed the physical space of Recife, degrading it over time and diminishing its use. With the expansion of access to information, an increasing part of the population has begun to relate through virtual networks, influencing the way people interact, especially in the larger cities.

By accepting that the virtual network is already part of the social and urban dynamics, the Parque Capibaribe (Capibaribe Park) stands as a physical network that aims to improve public space and to integrate urban territories in the city, transforming the way public space is lived and neighbours interact.

As a 21st century project, in which the technological and virtual worlds are intrinsic to culture and citizenship, Parque Capibaribe - a transdisciplinary project designed by InCiti research group, from UFPE, and commissioned by Recife City Council - aims to attract users and change behaviors through a reinvention of the city grounded in the expansion of the potential and qualities of public space and existing open areas, prioritizing connections to facilities, public transport and non-motorised displacement through a vitalizing urban structuring network.

**Keywords:** Parque Capibaribe, Urban Vitality, Public Space, Urban Intervention, Digital Media.

## 1 Introduction

This article concerns public spaces in Recife, on the northeast coast of Brazil, and how these spaces have behaved with respect to social and behavioural changes deriving from technological advances and new forms of communication. Considering this study, the imminent implementation of Parque Capibaribe seeks to stimulate the interactions among citizens and reconstruct urban relations and public life in this city.

The Parque Capibaribe project is a partnership between Recife City Council and the Federal University of Pernambuco State (UFPE), represented by the Laboratory for Innovation and Research for Cities – InCiti. The main goal is to transform the city with the construction of a park along the banks of the Capibaribe River, Recife's main waterway. The idea is that Parque Capibaribe will re-establish the connections of the city and thus be an incentive for the utilization of public spaces through integrated uses, generative activities and participative processes.

### 1.1 Historical and Geographical Situation

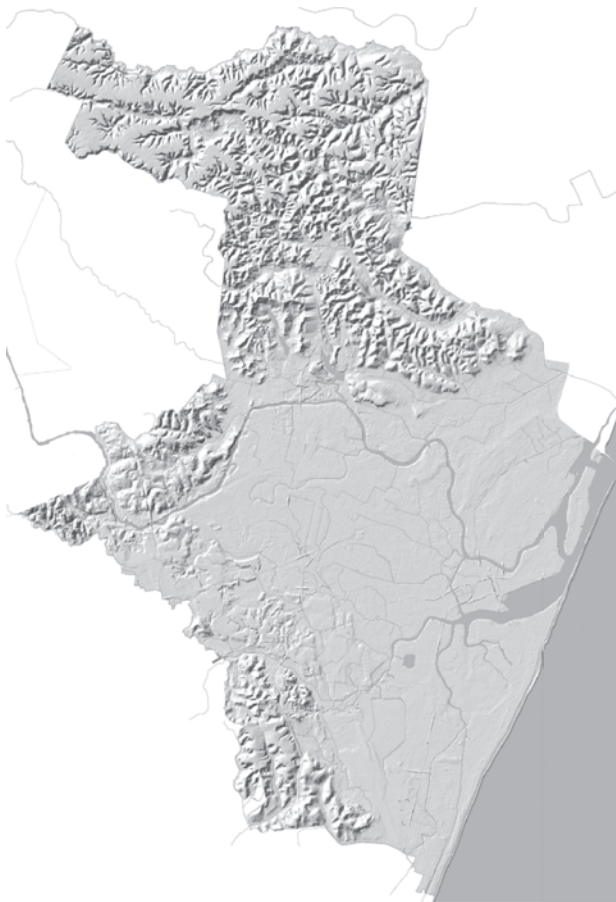
Recife is located on the northeast coast of Brazil, a region with a mild tropical climate, and whose terrain, a marshy floodplain, is crossed by a number of rivers and streams. The first settlements were established on an isthmus located between the mouth of the Capibaribe River and the Atlantic Ocean, forming a natural port protected by reefs, after which the city is named.

During the Dutch occupation in the 17th century, the city went through a period of growth whose main characteristic was the relationship with the waterways. At that time, The Capibaribe River was of fundamental importance in the region's development. In addition to representing an important source of water, food and energy, the river was the main transport route, providing both

access to the farms and villages to the west and a means of transporting the sugarcane products responsible for the great economic development of Brazil's third most important region.

In this context, the banks of the Capibaribe River were considered privileged places, where mansions were built with direct access to the waters. These were areas of great vitality and home to the most popular cultural and leisure events. As an inheritance from that time, many public buildings and areas in the historical area of the city are still located next to the river or nearby.

As time passed, the friendly coexistence of the people of Recife with the waters of the Capibaribe was lost, the "technological evolution", mostly in transport terms, being one of the main causes of this change in behaviour. With the advent of motorised transport, it became necessary to build roads and railways, which gained importance as transport infrastructure routes. As a consequence, the buildings that once faced the river began to turn their backs on it as their new frontal facades were built to face the newly laid streets and roads.



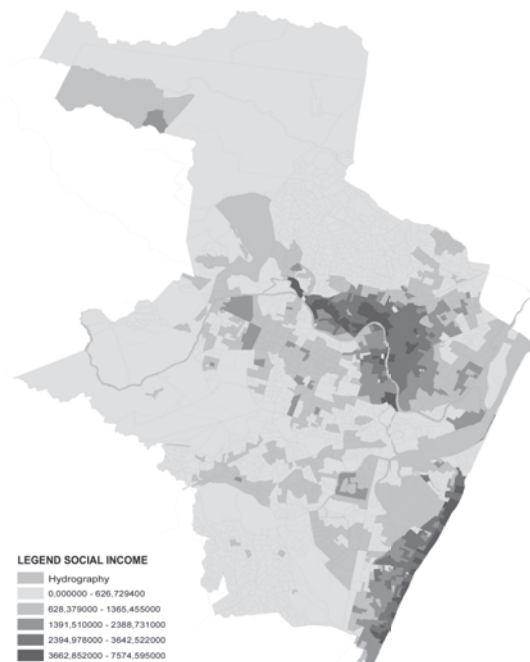
**Figure 1.** Watercourse. Source: Parque Capibaribe, 2015.

Moreover, in order to secure land amenable to urban expansion, continuous and progressive landfills were carried out, making the city more vulnerable to the natural tidal oscillations typical of the floodplain. The riverbanks thus lost their favourable condition as they

gradually became regarded as areas subject to flooding. This condition also led to decreased knowledge of the situation of the river, leading to practices such as garbage and sewage dumping, compounding the neglect in relation to the environmental state of its waters, fauna and flora.

The expansion in new means of transport allowed their more disperse distribution throughout the territory. Still in this period, most of Recife was accessible via a tramway system, and the high use of public mass transit systems in itself already engendered social life and proximity between citizens and public space. As Brazilian cities started to become more motorised, the investments in urban rail transport were replaced by both private and public motorised modes. It is important to notice that in the configuration of the rail network, the river worked as a radial waterway equivalent to the three tram lines that went from east to west, already denouncing the lack of transversal connectivity between radial paths and the river axis, evident to this day.

From the initial settlements on old sugarcane farms, various neighbourhoods started to form along the river, with diverse spatial and environmental conditions. In the areas with more bridges crossing the river, it is clearly visible that the social and economic conditions on both sides of the river are similar, while the absence of physical connections between the banks has intensified the process of social and spatial segregation in other areas.



**Figure 2.** Map of social income. Source: Parque Capibaribe, 2015.

The lack of urban planning together with the great population increase owing to migration from smaller towns to the capital and social changes have caused a disordered occupation of the banks of the Capibaribe, generating a series of unarticulated areas along its course. As a consequence of this occupation and development process, the river has become a physical barrier,

contributing to social and spatial segregation in its surroundings, while also generating a substantial loss of environmental quality.

The expansion of the urban territory has increased the demand for better coverage in transport systems, but these improvements have not followed the evolution in the territorial occupation that started in the late 19th century. This reality, along with the greater access to private vehicles and prioritization of motorised transport, started a process of degradation of the public spaces dedicated to urban mobility and a progressive deterioration of the public transport system, discouraging its use. Nowadays the traffic flow in the city displays a very high rate of retention, mostly at peak hours, leading Recife to be the third most congested city in Brazil and the sixth worldwide (TomTom, 2014), as well as being ranked earlier this year as the state capital in Brazil with the longest waiting time and second longest travel time on public transport (PROTESTE, 2015).

These changes are reflected directly in the ways of building public spaces. The prioritization of motorised transport has made streets lose their human scale and dedicate a larger part of their area to cars. Narrow and poorly maintained sidewalks do not encourage pedestrian movement and the lack of bicycle infrastructure, to the same degree, inhibits cycle commuting. As of July 2015, the city has only 28.43km of cycleways and the existing sections are fragmented, which does not allow for effective, safe movement between different areas.



**Figure 3.** Cycleways Existing . Source: Parque Capibaribe, 2015.

In the last few decades, public space has become “more and more hostile, marked by fences in building facades, high walls surrounding inward-looking condominiums, mega malls, mega parking lots” (Aguiar, 2012), which undermines its condition as a space of staying and reducing it to a space of passing. Since the 1980s, in Recife it is possible to witness the adverse

social effects of this “new” format of city: the increase in urban violence encourages the progressive closure of the interfaces between private buildings and the public realm and the progressive emptying of public spaces, thus producing a vicious circle that is difficult to reverse.

In this context, the movements, encounters and interactions – so important in the construction of collective experiences and that evoke tolerance, creativity and knowledge in people – end up lost amidst urban barriers and prejudices that should have been dissolved by the public space itself. Many of the activities that used to happen in these spaces have been transferred to private environments, showing one more way in which public space becomes neglected (Evers & Zottis, 2015).

“The public space, now disconnected from the human being, encourages the search for this lost reality in virtual environments. The contact, the expression of creativity, the personalization, the significance, the stimuli and the relationships are now part of a life built and lived virtually, in a digital way” (Prouty, 2009).

On the other hand, all of Brazil has been experiencing a period of flourishing, diverse social movements that are fighting for the right to the city and other urban issues. Recife, a city marked historically by conflict, is no exception.

Witnessing the startling growth of the neighbourhoods towards the end of the last century and the problems of verticalization, limited urban mobility and market forces, neighbourhood associations and discussion groups have led to the creation of certain social movements that have attracted public attention and, on different occasions, played an important role in decision-making processes.

Although these movements have arisen from local urban issues, they show a clear link with broader struggles for participation and democracy elsewhere in the world. Their activities using online social networks have contributed to a wider, more effective participation in discussions of local urban problems, as well as being a sign of accountability in the face of crises and threats and in constructing more sustainable cities. Their discussions could be seen in terms of the notion of a “virtual auger”: debating the city.

## 2 Theoretical Basis

According to Halprim (1963), we can identify two different kinds of life in a city: the public and social life, which takes place in public spaces, and the private and introverted life, which happens in private, quiet, secluded places.

Nowadays the distinction between public and private spaces has been blurred by the information technologies: it is no longer possible to think about space without considering globalization and the Spaces of Flows concept defined by Castells (1999), which deals with the “complexity of the interaction between technology, society, and space”. It has been impossible to disconnect space and time in a world of continuous movement (Costa, 2014). Increasingly equipped with technology, we have been changing our sense of time and space, distances have become shorter and the time is now (Ramalho-Pinto, 2012).

Cerqueira (2013) understands public space as a dialectic expression between physical space and urban dynamics (political, social, economic and cultural), while Miessner (2012) states that “it is a material condition of society, as well as a practice that expresses society”. In this way, public space is reformulated to the extent that its components are put to the test: questioned, transformed and increased. These transformations occur both in the context of the social representation of public space and in its physical-spatial configuration, through the relational forms and the forms of appropriation inherent to it.

In order to study public space in the present context, it is necessary to understand the high level of complexity of the contemporary city, given the countless possibilities of arrangements, technologies and values it contains. If before The Communication Revolution, the definition of the physical space was directly related to the physical place, after the advent of technology it has been broadened to contain even information and meanings that go beyond the material and experiential values. The possibility of interaction without a spatial – or even temporal – bond reflects on the way of life both individually and in society. The transformations that derive from informatization can be observed on a smaller scale, both in the physical dimensions of the neighbourhood and of the home.

Especially in urban centres, the reformulation of daily spatial needs in terms of citizen's routines can be observed. The day-to-day dynamics and their respective spatial demands are influenced by the level of access to information technologies, just like other social factors – composition of families, education and income levels. Although it evolves, the way of living is maintained as a fundamental condition inherent to man. Nonetheless, when it comes to living the public space, it is a more delicate matter. Although public space, according to Arendt (1958), is the place where man attains liberty through dialogue, establishing agreements and legitimating institutions, isolation has become marked in The Information Society. Subverting the nature of public space, the contemporary city has reallocated activities that once occurred in the streets – or, at the very least, were accessible through them – to semi-private environments. It is common to observe the configuration of walled streets, delimited by residential condominiums that comprise gyms, schools, playgrounds and shopping centres with food courts that recreate the public street market and malls with stores that simulate streets with social vitality, impeccable infrastructure and security.

This tendency in contemporary cities, especially in developing countries, together with the technological de-spatialization, takes away the importance of the public space as a social reference and meeting place. This model ends up subsidising isolation and inducing living in enclosed, purified environments (condominiums, shopping malls), where differences are sanitised and the risk of adventure is scarce. Moreover, internet access through computers and mobile devices allows for social exchanges, fundamental to human development, to happen independently from physical spaces.

However, while public space may show evidence of abandonment, virtual space is not the villain in this phenomenon and cannot be left aside in the process of reclaiming and reactivating public space. The planning of urban shapes should articulate digital formats. According to Leite (2011), it is about avoiding “the dualistic character in the analyses of the relation between urban

and virtual spaces. Furthermore, the phenomenon of hybridization allows the summation of various means of constructing social bonds which can be both physical-territorial aspects as well as devices for information and communication". This hybrid aspect presupposes an interconnection of characteristics, properties and qualities for at least three attributes: spaces/places, digital interfaces and people. This combination ends up drawing different scenarios, subject to a condition of originality and unprecedented spaces.

In this context it is possible to observe a movement of reclaiming neighbourhood ties in the communities that have already suffered the consequences of the advent of technology. The search for reactivating physical connections often happens by means of virtual mechanisms, in which the forms of social organization and mobilization take place through social networks and other media. It is about a moment of "(re-)enchantment of their components with the place – affections and technology" (Leite, 2011).

It is important to highlight that this is not a homogenous, unidirectional or recurrent process for the whole urban population. If the city possesses great social and economic diversity, this imbalance concerns the level of access to information and consequently the speed of increase and influence of new technologies on the way of living in society. Santos (2004) goes further when he affirms that the level of awareness varies independently of place, social class or professional situation. According to him, "the speed with which each person appropriates the truth within history is different, as well as the depth and coherence of this appropriation". (Santos, 2004)

It is a very important fact that, in communities with no access to information, the way of life, of relating to neighbours and kids playing in the street still resembles middle-class daily life in the 1980s. When it comes to communities in a precarious situation, living without basic infrastructure, often in self-built homes, the way neighbours relate to each other and occupy the street occurs effectively. These communities that still base their social lives on public spaces and physical bonds, also tend to informatize naturally, in a late development of the movement already experienced by the middle and upper classes three decades ago.

Each of these samples that seem temporal in the way of life, are in fact physical and spatial and can be observed side by side, on the opposite banks of the Capibaribe River. The complexity between different socio-economic conditions, levels of access to information and perceptions of public space, is added to the efforts of understanding and managing the relationship between the physical and the virtual realities. "Generally speaking, this new urban condition is the index for a new way of living and perceiving the collective living spaces, their physical and social dimensions, where digital technology turns into an unavoidable mediator of the urban experience" (Leite, 2011)

The search for reclaiming public space does not thus pretend to combat virtual logic, for that would not be viable. Neither would it be a coherent strategy, considering the current reality, to reclaim public space without incorporating information technology and communication into this process and into the dynamic implementation of common-use spaces. In short, it is about creating new spatial configurations from the equation of architecture, information and digital communications networks and social dynamics already established.

Beyond expanding physical space, technological resources may perform as participation instruments in the construction of the city. Virtual platforms are resources increasingly used in urban planning and political decisions.

"Computers and the internet open new possibilities towards social transformation, since they allow, for example, channels of direct communication that break through the information monopoly kept by mainstream media outlets, which are controlled by small groups and at the service of big capital. With a computer connected to the internet, it is possible for determined social groups to tell their own story without the need for middlemen. Besides, it opens a path for discussion channels and critical debate. This is how virtual manifestations and demonstrations materialize on the streets." (Costa, 2014, p. 70)

Studies have shown that hybrid contemporary space promotes activism, regaining its concepts and the relationship between them: citizenship, public space and technology. In the last few years Recife has seen the emergence of struggles for the right to the city, in which the mobilization and organization generally start in the social networks and subsequently materialize in physical spaces in the city. Some of these movements reach a few neighbourhoods, some take in the dimension of the whole city of Recife (Critical Mass, bicycle advocacy actions) and others have even reached national and international audiences, due to the viralization of their causes throughout the social media (Movimento Ocupe Estelita<sup>i</sup>).

In general, popular involvement occurs from the organization of the movement and, in those that follow the principles of tactical urbanism, for example the Praias do Capibaribe<sup>ii</sup>, groupwork follows through to the staging of the event and construction of the space. Tactical urbanism follows the do it yourself line, in which organized social groups comprising citizens from different backgrounds raise funds within the community and temporarily occupy areas that have been "forgotten" with features and events that gather people from different areas of the city and generate a vitality that would not normally exist.

These actions in the streets have shown that the paths of collective construction of public space, aided by digital tools, favour and invite people to the expression of differences, pluralities of thought and ways of life within the population. This type of mechanism in digital communication has encouraged participative and propositional attitudes, promoting collective reflection on urban, social, cultural and environmental matters, triggered both in daily life and occasional situations.

While some of these movements arise in response to political and/or market actions, others are actions with no visible triggering event, and originate from the will of rescuing missing links between people in the neighbourhood and public spaces themselves. Another interesting matter is that even movements that have apparently been created because of local issues carry in themselves a certain baggage of references already transmitted to the population through virtual networks. The internet makes it possible for activist movements to strengthen one another without having to exchange physical experiences. As Costa (2014) points out, "spatial changes are thought and (re-)constructed from an order that can come from far away and interfere directly or indirectly in people's daily lives".

It is interesting how the efficiency of the virtual instrument follows the rhythm and the nature of emergency causes and actions. Through social networks it is possible to give warning of

an occurrence, spread the news, verify the fact with the circulation of data and proof, articulate different actors at the same time and provide constant support to events (demonstrations, protests, occupations) that are already in motion.

At a time of a world in search of solutions for achieving more humanized cities, with urban solutions aimed at people, and considering the important role played by the social media in the construction of social movements, it is a challenge for urban planners to seek synergy between these outcomes and many others that coexist in public space in Recife without leaving out a part of the population that still does not have wide access to communication technologies.

That said, one of the challenges and objectives of Parque Capibaribe is to articulate forces that act upon public spaces in Recife, especially those near the Capibaribe River. Establishing a network of public spaces with vitality and physical and socio-cultural connections, even in a territory of diverse places. How then can we provide an answer to diversity of access to information, to the social and functional need for public space in each locality and still engage different social realities in a single project?

The tools and paths leading to these answers are being built together with the population, in a progressive process of participation and engagement, in which methodology is constantly and thoroughly revised. Localized interventions have taken place in order to activate spaces by the river, relying on simple solutions for the construction of complex systems, following the commandments of emerging urbanism and investing in digital media to involve people in the project. Urban interventions of this nature set the population as a producer of content, as a transforming social agent, increasing commitment to the cause and the feeling of belonging to the place.

The Parque Capibaribe project has arisen as a proposal to reconnect territories: physical, subjective and virtual, which permeate the urban environment of Recife. Using the Capibaribe River as a structural axis, this multidisciplinary project seeks to re-establish friendly interaction among the diverse systems that make up the city and, from this multifunctional structure, promote a new way of experiencing the city: new connections, better integrated public spaces, stimulating active transport, better integration between natural systems and the built environment, the reconstitution of the street as a living public space. As a strategy for social engagement in urban planning, Parque Capibaribe will also be presented as a digital platform, helping the understanding of the city and serving as a communication channel, as well as facilitating the participation of anyone who is interested in the construction of this public space, as well as its continuous adaptation to constantly changing demands.

### **3 Parque Capibaribe**

Although the context, habits and ways of use have been modified, the relationship between the city, the society that inhabits it and the River Capibaribe remains very strong in the imagination of its inhabitants, principally those that still keep certain customs, such as fishing, riverbank dwellings on stilts, or crossings or short journeys by boat. But it is in the absence of an active use of the riverbanks that the greatest discontinuity in habits can be perceived, owing partly to the

disconnected occupation of the riverside and in part to the global shift in worldview, which at a certain point in time began to look to technology rather than the environment around us.

The traditional format of city planning, which sees the city as a rigid structure, disconnected from its functioning and the wishes of its users, no longer meets the needs of this complex system, which, with dynamic characteristics, understands that these processes can be followed and directed, but rarely imposed (Batty, 2007). Within this context, a profound knowledge of the city in all its subsystems is indispensable.

The innovative aspect of this project began when the Municipality invited the Federal University to gather a network of researchers cooperating towards an integrated vision of environmental and urban systems and to think through what would be necessary for the development of a sustainable plan for the River Capibaribe.

A transdisciplinary perspective of the relationship between these subsystems enabled the researchers to recognize essential issues for respectfully treating the survival relationships between fauna, flora, nature and the society, which inhabits it.

The resulting plan of the partnership between University, Municipality and inhabitants became an Urban Plan for Environmental Recovery and an urban park project alongside the banks of the River Capibaribe, approximately 15km long and passing through 42 districts (nearly 1/3 of the city). Within this context, different realities can be observed on a scale ranging from pockets of preserved forest to historically built areas, including precarious dwellings on stilts, tall buildings, roads for motorised vehicles and squares, all considerably disconnected from one another.

A brief analysis established the perspectives that would come to guide the unfolding research and project, which are the following:

The River as a promoter of environmental recovery

The River as a promoter of urban and social integration

The River as an articulator of non-motorised mobility

Five analyses were identified to connect with the perspectives established and are of fundamental importance to the development of this project: Open Space availability, Environmental Legislation, existence of Natural Systems, the need for Urban Connections, recognition and improvement of the Transformability Potential of the entire park area.

### **3.1 Park Zone Delimitation**

The compatibilization of the analyses enabled the recognition of a larger area of influence of the Capibaribe Park and transition between the existing infrastructure and the natural system of the River Capibaribe. The same analyses also allowed the delimitation of the first limit and legal area for the Capibaribe Park.

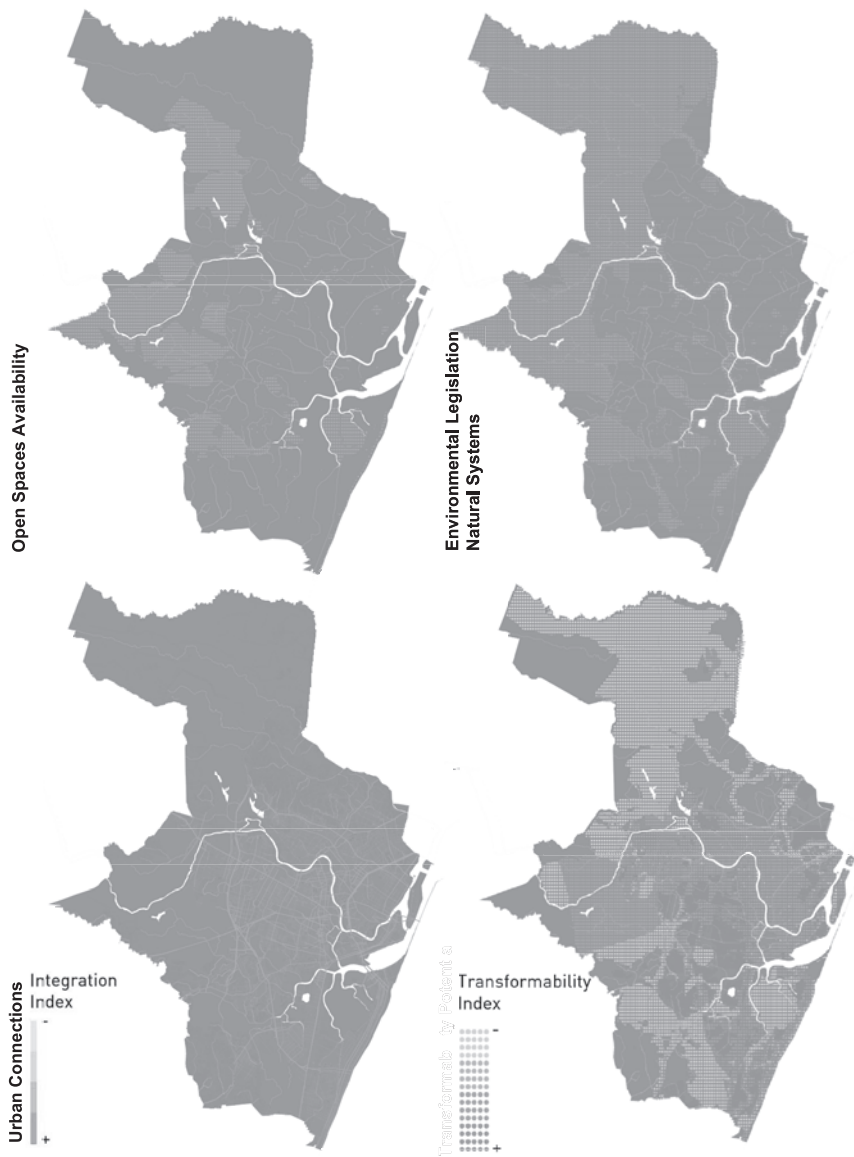
This region, which is structured around the Capibaribe Park – denominated Park Zone – will concentrate actions that aim to reintroduce the Capibaribe into the mental map of the inhabitants through the establishment of emotional relationships, encounter and exchange, and towards which the city will look in order to create new opportunities for education and socio-economic development.

The results point to a new opportunity for the restructuring of the whole territory around the River Capibaribe. In the groupings of vacant and potential spaces, in the watercourse network, in the existing street network, in the need to improve spatial integration and in the social movements reclaiming the right to the city, we can envisage an opportunity for the development of a new integrated and integrating structure whose axis would be the River Capibaribe. Restoring the river's role as the city's structuring axis, with public functions defined around it and improvement of access and connections recovers the importance and the vitality of this natural element in the socio-spatial integration of the various neighbourhoods along the river. Moreover, the recovery of these elements would restore to the city the human scale and diversity so appreciated in public life.

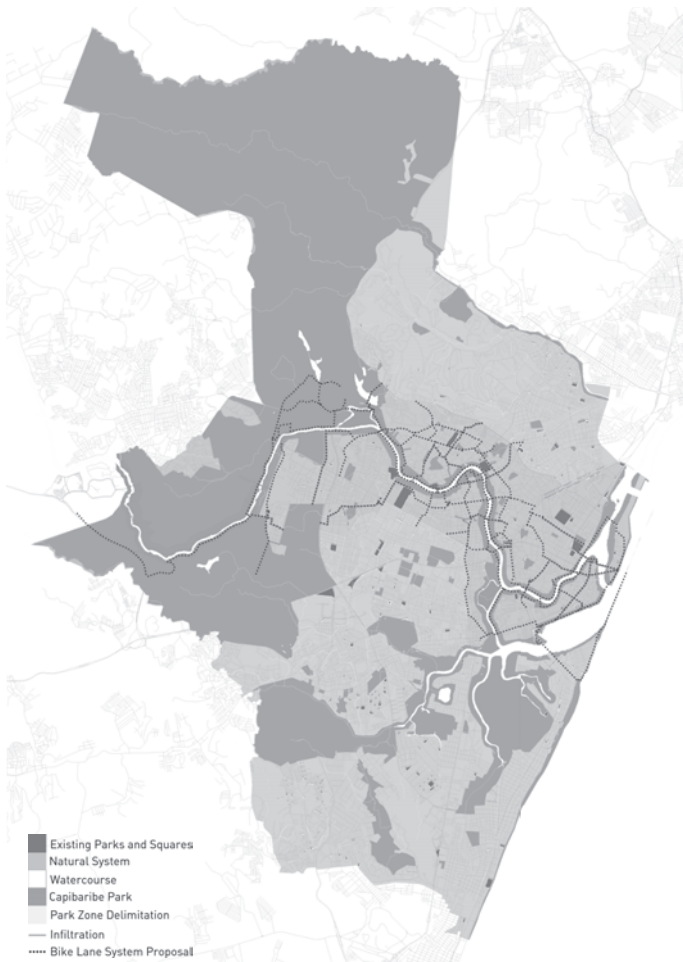
Large public spaces, used by people of different social, racial and cultural groups, are important areas of social friction, but it is the public spaces in neighbourhoods that contribute to the feeling of identity and belonging, awakening the sociability and knowledge that nourish shared memory and community life. In this sense, it is indispensable to enable the connection between these large public spaces in such a way as to induce and allow free access for all citizens to a broader experience of the city parks. Another important aspect in the construction of these spaces is the understanding of the vocations and wishes of each area, in addition to participative construction, in which the users of each section play an active role in the definition and planning of each new space, thus increasing the chances of these places being duly appropriated by the community.

The construction of this network of public spaces is one more effort in the attempt to bring to this stretch of the city, not only to the recreational spaces, but also to their internal and access connections, the qualities of an urban park, such as: trees, an accessible and inviting street system, encouragement of non-motorised access and the installation of suitable urban furniture. These qualities also fit the concept of "complete streets", which has been improved and applied worldwide since the end of the World War II and refers to a set of urban design principles which aims to improve the quality of public space in order to encourage or facilitate common use, thus enabling coincidental meetings, informal exchanges and general community development (Evers & Zottis, 2015).

The idea of an ecological structure that follows the river, streams, channels and streets within the Park Zone fits into this context as an alternative to the traditional models of city construction, in which each subsystem has its own independent function. Here, the superimposition of functions enables each component to be incorporated into this complex system more easily and to establish itself as an integral part of the city, thus minimising threats caused by urban expansion, increasing urban resilience and enhancing diversity.



**Figure 4.** Studies about open spaces, environmental, urban conection and transformability. Source: Parque Capibaribe, 2015.



**Figure 5.** Park Zone Delimitation. Source: Parque Capibaribe, 2015.

The incorporation of vacant and public spaces located along the banks of the River Capibaribe into this ecological structure represents not only the possibility of protecting and re-establishing the environmental functions of this natural system, but also the expectation of increasing the green area of the city and creating a system of public spaces which may increase the effectiveness of the ecological and non-motorised mobility connections and reinforce relationships with the surviving natural systems on or beyond the banks, strengthening, preserving and consolidating their presence as an integral part of the city.

### 3.2 Spatial Dynamics: Space, Connections and the Mobility Challenge

This urban plan is also aware of the need for a functional system of urban connections, with a connected street network that facilitates access to the Park from areas near the river or from more distant locations by connection with public transportpoints.

The evaluation of the urban connections allows us to identify the trend of movement between different city areas and, together with other variables, enables the correlation of the spatial structure with several social phenomena. This interaction between space and society can be observed in 3 different movements: the relationship between the individual and their daily activities, the movements to carry out activities and the materialization of these activities in a building or space (Zechlinski, 2013).

The distancing of the city from the river is clearly manifested in the urban structure. From reading the morphology of Recife over the areas near the banks of the Capibaribe, the impression of an “incomplete” urban fabric stands out. The fragmentation and low connectivity of the lines on the boundaries between the river and the city, like a fabric that “falls apart” on approaching the river, is noteworthy. The river is not perceived by those who walk through the city, with the exception of the city centre, which is surrounded by water.

The need is perceived for greater irrigation in the areas adjoining the banks, as well as enabling public access to them, given that most of the perimeter in question is currently inaccessible to the population. This same analysis reinforces the need for better articulation between the two banks of the Capibaribe, with the aim of improving not only spatial integration, but also social integration and facilitating access to public facilities or transport.



**Figure 6.** Public Transport System (Buslines). Source: Parque Capibaribe, 2015.

The use of digital media as tools of communication has been reflected drastically in the forms and intensity of the use of public space, to the point of highlighting warnings concerning the current needs for these spaces or even their possible disappearance (Lehtovuori, 2005). It is understood that the changes caused by the use of the new information technologies have brought with them a crisis of relationships in society, which reflects directly on the form and dynamics of spaces (Rauterberg, 2001). The attribution of new meanings to these spaces from the comprehension of the current dynamics of the city and of each particular community can justify opinions contrary to those warnings.

Bringing the river closer to the city is also a way of bringing the city closer to its users. The creation and improvement of the connections can lead to the daily movements and activities taking place with greater quality, greater fluidity and in a way that is more integrated with the space and the needs of each community.

According to Sennett, automobiles are probably the ultimate piece of technology for isolating people from the stimulation of their environment (Reflections on the public realm - A Companion to the City Aug 16, 2002 by Gary Bridge and Sophie Watson). Through encouragement of non-motorised movement and use of public transport, Capibaribe Park aims not only for a healthier way of life, with more physical, outdoor activities, or the reduction of traffic jams and pollution. This proposal for changing public space and its use also seeks a change in the habits of its users. Connecting the communities, the digital media and public life allows citizens the possibility of perceiving the real space in which public life manifests itself. Using virtual media as a tool to stimulate real meeting and interaction and empowerment through access to information allows users to express opinions, intervene and increasingly take possession of the city's public space. Not forgetting the value and function of private environments for common use, but encouraging the permeability and softening of the interfaces.

### **3.3 Social Dynamics: Urban Vitality and Transformation**

Urban vitality is understood as being the capacity of the space, whether public or not, to promote greater integration among people, or at least co-presence, a fundamental element in evaluating the performance of public spaces. This notion of vitality approaches the concepts related to urbanity, which, according to Hillier (2007) and Peponis (1987), refer to the capacity of the space to promote the meeting of buildings and public space, between residents and passers-by and between the different scales of movement. The concepts of urbanity and vitality thus converge, on relating spatial, social and use dimensions.

Designing a system of public spaces aims to encourage meetings and non-motorised displacements as a manner of connecting dwellers and the city in a more human way. Through the creation of new landscapes and the chance of perceiving spaces and its users, Park Capibaribe intends to afford the dwellers the right to modify the city through their behaviour, reactions and needs. These relationships generate a continuous transformation, in which both space and its users are agent and object. Furthermore, by restoring to the Capibaribe River its original function as the city's backbone, using this natural system as a foundation for a multifunctional network will provide

neighbourhoods along the river the opportunity to use these connections as strengthening elements for their relationships and integration.

In this sense, digital media emerge as collaborators, not only in the use of public spaces, but also in the process of discussion, transformation and appropriation of the city. The use of mobile equipment in public spaces, despite distracting the attention of the user, enables a longer stay in these spaces, thus enhancing their vitality. Moreover, Park Capibaribe relies on technology not only as a collaborative means of information about the city for its users, but also to increase popular participation in the definition of the project and to monitor its effects in the areas that make up the Park Zone and adjacent locations. Collecting this information and making it available on a platform that is open and accessible to the population will enable citizens to follow the changes and events in course in the city and, for the managers and planners, it will supply data for analysing the unfolding and design of possible adjustments and adaptations in the projects.

### 3.4 Capibaribe Park Guiding Concepts

Given the analyses and the perceived needs, the plan has devised four basic actions which intend to contribute to enhancing the use of the park and its integration with the urban environment in which it is embedded. They are the following:



Figure 7. Guiding Concepts: To arrive at the river. Source: Parque Capibaribe, 2014.

**To arrive at the river** – To enable and improve access to the riverbanks, connecting public facilities of great vitality, important transport axes or public transport points to the Capibaribe Park, thus encouraging non-motorised movement and bringing urban vitality to this region. Priority will be given to the connections that follow urban streams or channels, which shall also be requalified within the characteristics established for this function. This street network will also include cycle lanes and cycle paths, as well as stretches for shared pedestrian and bicycle use. The integration of the Park with the rest of the city will encourage its use and future adoption by the population. These paths of integration have been denominated “infiltrations” and will also have the objective of irrigating the city with the same qualities defined for the Capibaribe Park, in such a way as to establish the ambience of the urban park in the area of the city that will extend beyond its edges (Park Zone). Another function of the infiltrations is to establish an ecological structure integrated into the city, which will allow connection between areas of important ecological value, an action that aims to strengthen the natural systems that make up the Capibaribe River Basin. The qualification of these routes consists of the treatment of the existing street system with interventions that encourage universal and diversified use, such as: improvement of pavements and infrastructure, tree-planting, installation of urban furniture, signposting and adaptation for universal accessibility.



Figure 8. Guiding Concepts: To cross the river. Source: Parque Capibaribe, 2014.

**To cross the river** – To provide more regularly spaced connections between the two sides of the River Capibaribe along its whole length, enabling non-motorised crossing (pedestrians, bicycles and small boats). The improvement in the integration between the two sides will facilitate the access of the population to public services and public transport, aiding socio-spatial integration. The connections can be made in the form of footbridges, the upgrading of boat crossing points and the creation of new mooring points for small boats.

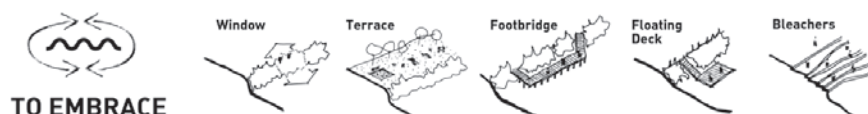


Figure 9. Guiding Concepts: To embrace the river. Source: Parque Capibaribe, 2014.

**To embrace the river** – The incorporation of public spaces on the riverbank into the city by defining the uses and activities directed towards the population, such as: squares, parks, cultural and sports facilities, and environmental conservation areas. The public use of these areas will enable them to be reintegrated into the daily life of the city and thus be reintroduced into the mental map of Recife's citizens, stimulating the sense of belonging and ownership. Open areas identified as potential parts of the Capibaribe Park and located beyond the riversides will also be treated according to the same guidelines used for the riverbanks, in such a way as to extend throughout the Park Zone the characteristics of the park as a city-structuring public facility.



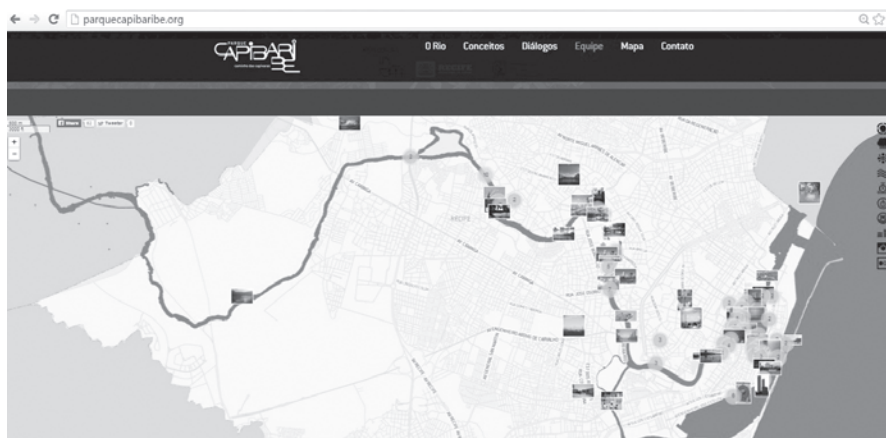
Figure 10. Guiding Concepts: To go along the river. Source: Parque Capibaribe, 2014.

**To go along the river** – Free access to the riverbanks along the whole possible extension of the River Capibaribe within the limits of Recife, so as to allow their use and ownership by the population in the form of parks, squares, green areas, non-motorised mobility routes, sports and cultural facilities. The freeing of the riverbanks will permit the re-establishment of riverside vegetation, strengthening what is this city's principal natural system, and will enable the Capibaribe to recover its role as a structuring axis for mobility in Recife. To this end, it is necessary that some

structuring actions will have to be planned and executed in an integrated fashion, such as: relocation of high-risk dwellings, repossession of plots occupied irregularly, definition of public use for vacant riverside plots, among other initiatives.

### 3.5 Legitimacy Challenge

Although some researchers claim that the use of security or data gadgets changes people's behaviour in public spaces in an undesired way, these same tools can provide helpful information about the routine of these spaces. Based on the "Internet of Things" concept, this urban plan proposes the use of devices installed in mobile objects or even digital sensors along the Capibaribe River and in the whole Park Zone for collecting data and building up a real-time map, in which information about vitality, public transport, temperature and even air quality would appear in a new form of interaction. Pictures taken and sent by users or information about facilities and amenities would also feed into this open platform.



**Figure 11.** Open Platform with georeferenced imagens taken by population: [www.parquecapibaribe.org](http://www.parquecapibaribe.org)  
Source: Parque Capibaribe, 2015.

Using the areas where the aforementioned four actions will take place as a sampling source would prepare the ground for proposing adjustments and a management plan. Furthermore, this same data would help planners to better understand city movements and then design plans for other areas of the city.

Understanding the city dynamics is fundamental to directing the joint effort of the public authorities and academia, in order to achieve the goals established by this urban plan and also to deal with unforeseen effects, such as low acceptance by the population or real estate pressure. This information will bring input to the future definition of a management and monitoring plan, which will have, among other responsibilities, the mission of articulating the different public and civil spheres in a participative, flexible structure, which should adapt to the constant changes in the city. Special legislation for the Park Zone, which will meet the specific regulatory needs of this region in an integrated and transdisciplinary way, shall also be constituted.

#### 4 Recife Park City

Given the socio-spatial segregation of Recife, from which other urban problems have resulted (RISÉRIO, 2012), Capibaribe Park represents the required solution of integrating public spaces and promoting urban vitality. The proposal is to enable people to take ownership of these spaces with a view to overcoming this socio-spatial segregation.

Furthermore, the proposal of Capibaribe Park is centred on the idea that the River Capibaribe, a defining element in Recife's identity, should be the starting point for a new design for the city, starting from the rediscovery of the riverside spaces and progressing to a full restructuring of the territory and its urban and built environment planning policies.

The clarity of the function of the River Capibaribe as the backbone of the municipal and the metropolitan territory requires the recognition of the interfaces, the limits, the crossings and points of exchange, as well as the juxtaposition and superimposition of layers, be they physical, technical or conceptual, analytical or propositional, disciplinary or practical-design features implicit in the diverse interlocking degrees of the construction, the study and the projects of this system-territory of Capibaribe Park.

If an aquacentric city such as Recife needs and deserves a sustainable city design that provides support for the social and economic development dreamed of for generations, the city needs the integration of the Capibaribe System. This should be the starting point of this new urban reality.

Holistically, it is evident that the city of Recife is made up of the Environmental System, the Infrastructural System and the Land Use and Occupation System. The integration of these systems, based on the concept of the Capibaribe Park, proposes a city in continuous reinvention, a city- concept: Recife Park City.

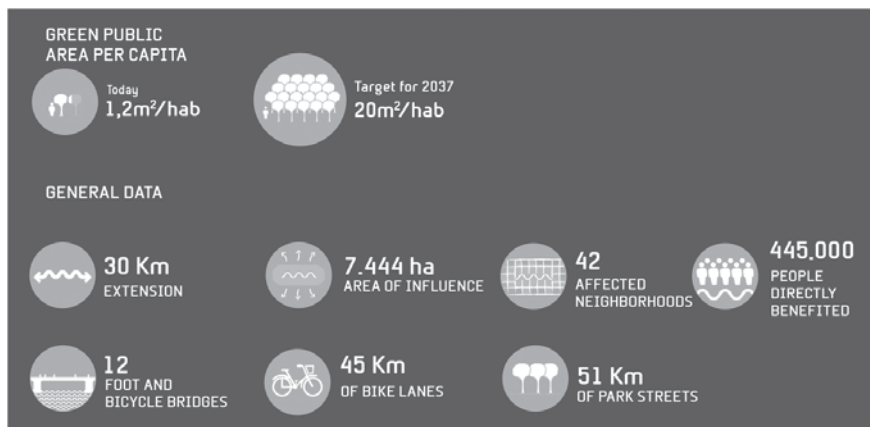
However, as Recife is a consolidated city, any urban proposition to articulate these systems will face political difficulty in its implementation, although the proposal is that they would be analyzed and designed in an integrated manner, as scenarios open to change:

1. The Environmental System, or the substrate of geomorphological, hydrological and vegetation matrices, in addition to the characteristics of the intrinsic flora and fauna studied in detail by the InCiti researchers;
2. The Infrastructural System, or the networks of general linear technical systems, analyzed principally by connectivity models;
3. The Land Use and Occupation System, or built local functional systems, emphasising the places of vitality/centrality and, at the other extreme, with their specific social and physical-environmental weight, the areas of precarious dwellings.

It is worth pointing out that these systems are currently disconnected from the process of occupation and development of the city of Recife. The Environmental System, over the centuries, has been gradually losing its scope, having been disconsidered, forgotten and violated, reducing its potential in the urban history. The Infrastructural System has grown, but in a disordered way, since it has been designed and built on demand. The Land Use and Occupation System has not been given its due strategic function as a tool for environmental security and quality, its role in promoting urban vitality and dynamics being of little significance.

The Capibaribe Park Project is the basis of an urban reinvention, a sustainable and personalized urban project, respecting the geographical and social particularities of the metropolis. It also incorporates the contemporary technologies capable of contributing to reversing urban degeneration, integrating the territories of the current districts into park-districts that are reinvented from urbanistic concepts, articulating boundaries, marking new centralities, valuing the old ones and building transversalities through new promenades that reverse the way of treating transport, energy use and land use, mitigating climate change and natural disasters.

Another strategy used in the project for integrating the city is the definition of the Park Zone, characterised by a territory in which a series of urbanistic parameters shall be adapted to the image of the park-city intended for Recife. The redesigning of access roads to the river is the first, forming the different green roads, entitled Infiltrations. Additionally, special pedestrian walkways have been conceived, together with specific urban furniture and a set of cycleways all along the river bank linked to the road network and existing cycle routes.



**Figure 12.** General Datas in Grafics. Source: Parque Capibaribe, 2015.

These new routes will connect the Capibaribe and its banks with public equipment and spaces, facilitating people's access to the micro-regions of the city, enhancing their urban vitality, seeking to respect the socio-environmental specificities of each and creating a system of parks. The experience of each new setting or upgraded existing area will knit the districts together from the native area of the river to the region in which it will link with the historical origins of our people, creating an immediate metropolitan vision of the intervention.

On another, more complex level, the whole city will be subject to the influence of the urban and social standards set out by the initial movement, leaving the plain near the riverbanks to permanently reach the whole territory of the city, including the hillsides and more distant districts. The articulation of the natural system with the urban road network has been conceived in such a way as to promote access to the river whilst respecting the environmental dynamics. Recife Park-City will thus become possible.

Moreover, the results expected from the creation of this integrated system of parks along the river are manifold, and some are worth highlighting: to contribute to the reduction of the average

temperature in the 42 districts directly influenced; the gradual increase in public green areas; and the incentive of another mode of local movement of people. Furthermore, planning a green city is a project to change people's mentality, it is a stimulus for everybody to take possession of the city, feel it, experience it and build it.

This plan will result in an inestimable social dividend, even more significant when spaces and opportunities for connections between people are created, eliminating the existing physical and environmental barriers. The result is a stimulus for creativity and innovation, an increase in business possibilities, an economy of time spent in movement and, above all, a feeling of belonging and engagement of people with their own city. When public space becomes the interest of all, a park-city is a solid argument for good political, social and economic strategies to bear fruit.

In the system concept, which is constituted and effected only in the relationships that it maintains with other systems (mobility, environment, centrality, housing and production), the River Capibaribe is also evident as a backbone of the municipal and metropolitan territory. This requires the recognition of the interfaces, the limits, the crossings and points of exchange, as well as the juxtaposition and superimposition of layers, be they physical, digital, technical or conceptual, analytical or propositional, disciplinary or practical-design features implicit in the diverse interlocking degrees of the construction, the study and the projects of this system-territory of Capibaribe Park.

The integration of the mobility, environment, centrality, housing and production systems corresponds to the improvement in the quality of the city as a direct reflection of the quality of life of the population as a whole. The strategic relationship of such systems transforms what was isolated into a complex whole, a radical system of urban transformation to be desired in various forms, by various generations of Recife citizens. This integration has its physical dimension, involving issues such as infrastructure and mobility. A park-city requires, for example, a road network that extends beyond the existing streets and includes an alternative mobility system comprising cycle routes and navigable waterways.

In this sense, digital media contribute both in the use of public spaces and in the process of discussion, transformation, monitoring, management and appropriation of the city. The attribution of a human scale to cities means really accepting the spaces as public, made for the citizens. When in the service of human needs, urban planning overcomes the urban apartheid that appears from socioeconomic differences. The possibility of walking in one's own city is also the chance to get to know it better.

Therefore, more than a physical city design, planning a park-city is a mentality-changing project, it is a stimulus for people to take ownership of the city, feel it, experience it, build it. This represents a change in citizenship philosophy, whether through digital media or physical presence in these places. Fragmented initiatives have shown themselves to be insufficient in dealing with the complex challenges of a metropolis. It is necessary to work for a more integrated, integrative, inclusive, tolerant and democratic city.

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<sup>i</sup> Movimento Ocupe Estelita – a social movement against the Novo Recife (Cais José Estelita) project, in favour of a more socially and environmentally sustainable city.

<sup>ii</sup> Praias do Capibaribe – a group that carries out urban and cultural interventions, with a view to transforming spaces on the banks of the River Capibaribe into places for citizens to gather and interact.

# Urban planning, management and regeneration: the case of the Eastern waterfront area of Lisbon

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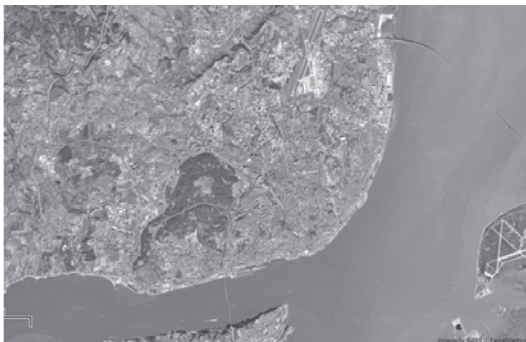
Inserted on international public policies, urban regeneration represents the present and the future of contemporary cities, aiming to improve the quality of life of citizens, departing from and embracing urban past/history. This paper analyzes and questions about how to promote urban regeneration in declined territories, specifically in post-industrial waterfront areas, inserted on the current complex scope of urban planning and management. It considers the current context of scarcity of funds and resources, the need of using history, pre-existing elements, local identities and meanings as support tools of urban regeneration as a cultural intervention and a form of social justice and cohesion. Considering the urban and historical evolution of the city of Lisbon and its metropolitan area, we analyze the case of the Eastern waterfront area as a complex and declined area that reveals several opportunities and challenges. Although the ancient port and industrial legacy and its urban relevance, it is currently a semi-peripheral territory, located between two important centers (*Terreiro do Paço* and *Parque das Nações*), requiring mobility and accessibilities improvements. Besides the processes of industrialization, the subsequent socioeconomic disaffection and the consequent evolution to post-industrial cities, brownfields and declined areas, the dislocation of industrial activities allowed the expansion of the LMA. We propose a theoretical proposal of urban regeneration, exploring local features, reusing buildings based on eco-design and suggesting urban connections and dynamics to the city and its metropolitan area. The paper concludes that glocal strategies are needed, considering the international context, legal framework and the evolution of urban planning and management; urban regeneration consists in strategic, integrated approaches, executed both by public and private entities.

**Keywords:** urban regeneration; Eastern waterfront area of Lisbon; governance; mobility; eco-design

## 1 Introduction

Attending to the rapid European development and subsequent decline, urban regeneration is a priority action and represents the present and the future of cities. This wide and complex concept is currently inserted on international and national public policies and ultimately seeks to improve the quality of life of citizens and to grant a cultural meaning of urban spaces, departing from and embracing urban past/history. As a political process and tool, it is also inserted on strategic guidelines of international, communitarian development, which implies the constant update and revision of urban planning and management. The issue/research problem implied in this paper is concerned about how to promote urban regeneration in declined territories, specifically in post-industrial waterfront areas and inserted within the complex scope of contemporary urban planning and management and according to the new models of urban development based on economic competitiveness, globalization, sustainability and social cohesion. The proposed thematic considers the current context of scarcity of funds and resources, the need of using history, pre-existing elements, local identities and meanings as support tools of urban regeneration as a cultural intervention and a form of social justice and cohesion. Although contemporary cities and current policies benefit from strategic visions, the Portuguese case is peculiar in the international context, due to its peripheral location in Europe, with a late impact of the modern, rationalist and normative urban planning and management after the World War II. Facing the demographic boom in 1950-60 and after the Revolution of 1974, the priority was to build dwellings, where private promoters

promoted speculation processes of territorial occupation. In parallel, the industrialization process- a weak process, when compared to other European cases – and its subsequent socioeconomic disaffection promoted severe disruptions in the territory and in the socioeconomic system. The industrial activities in late 1950s started to promote environmental problems and many sets were transferred to peripheral areas of the city. Hence, there was not a coherent urban planning in the outskirts of the city, the strategic visions and participated processes of urban planning, management and regeneration area relatively recent in the national context. For instance, the case of the Eastern waterfront area is a complex and declined area in Lisbon that reveals several opportunities and challenges, requiring a critical look and appreciation. Although it is still a port, post-industrial and waterfront area, this current semi-peripheral area in the city is punctuated by patrimonial and historic buildings and public spaces, which reveal its important historic legacy. We highlight the iconic industrial sets that reveal an interesting and undeniable important part of the city and the metropolitan area of Lisbon. In spite of being located between two relevant poles (Terreiro do Paço and Parque das Nações) (Figure 1), this territory still needs articulation with central areas of the city, improvement of mobility and accessibilities.



**Figure 1.** Delimitation of the case study area. (Abstract diagram elaborated by the Author, over a partial aerial view. Available resource at <http://maps.google.pt>).

The relevance of the proposed communication for the conference theme relies on contributing to:

- i) The scopes of urban planning, management and regeneration in contemporary cities, in both practical and theoretical plans;
- ii) Reinforce the technical-scientific debate about urban planning, management and regeneration, in articulation with mobility;
- iii) The scope of urban regeneration of post-industrial waterfronts and its articulation with the city/municipality, metropolitan area(s) and regions;
- iv) Smart approaches of intervention based on urban regeneration processes and local features (of the place and its populations);
- v) The current scenario of obsolescence and decline defies technicians – like architects and urban planners – to critic, debate and intervene through urban regeneration programs, initiatives and policies, using minimum of funds and resources in times of crisis.

- vi) The improvement of the relation between the case study area with the city and its metropolitan area, the share of that area with Tagus river and the surrounding territories in the Region of Lisbon/Tagus Estuary;
- vii) Rethink the case study area departing from the present, the question of industrialization and especially of post-industrialization as a fundamental condition of the contemporary city.

The background of the proposed theme remotes, on one hand, to the process of industrialization, the subsequent social and economic disaffection of the industrial activity and the consequent evolution to post-industrial cities, brownfield and declined areas. On the other hand, it considers the dislocation of industry to peripheral areas of Lisbon that contributed to build its metropolitan area as we know it today. Considering, on one hand, the multiplicity and complexity of European directives of urban regeneration that are materialized on public documents of urban planning and management, and, on the other hand, the scarcity of funds, we highlight the need of a combined action among public and private sectors, as well as with local communities in order to promote inclusive, integrated and multidisciplinary approaches. Thus, we enhance the cultural dimension, local identities and meanings. Besides, we recover the idea and the initial industrial vocation of the site, in order to promote the reuse of old buildings through contemporary non-pollutant industrial activities (e.g.: iHubs) and renovating them through eco-design (re)constructive solutions.

Methodologically, we selected the Eastern waterfront area of Lisbon as a case study and we analyse it through a theoretical and empirical perspectives, considering:

- i) The evolution of the city and the metropolitan area of Lisbon through urban plans, cartography, legislation and the governance (focusing on the municipality/local authorities interventions);
- ii) Empirical knowledge, through visits, pictures/photographs and analysis of pre-existences (in situ), such as declined and/or recently regenerated buildings and dwellings;
- iii) Related bibliography as theoretical and scientific support.

Contemporary city is a system and urban regeneration – as a strategic prospective operation and a goal of sustainable development -, is not only restricted to central areas. Its analysis necessarily implies the global scale, throughout international references, directives and communitarian funding. Infrastructures are strategic tools of urban regeneration, especially on complex, declined and fragmented territories. Besides improving life conditions, they are able to structure the territory. However, big scale intervention models are progressively replaced by smaller, restricted and punctual operations, according to local specificities (Nevado, 2015). We analyse the city, the LMA and the case study area under the perspective of urban regeneration, focusing strategic, communitarian programs, such as *Portugal 2020*, and its priorities of investment, focusing on urban regeneration.

### 1.1 Lisbon: a contemporary city and region

The city of Lisbon is an example of mixture of development ages. In this paper, we focus urban and economic development from the XIXth century until today, considering the industrial expansion, the subsequent socioeconomic disaffection and its dislocation that promoted new urban centralities, external to the city but inserted in the Lisbon Metropolitan Area (LMA), requiring nowadays specific technical-political organizations. In fact, LMA concentrates a relevant part of the inductor factors of economic and knowledge development, in parallel with the emerging and decisive challenges of inclusion and sustainability (vd. Portugal 2020).

The metropolitan area of Lisbon was debated since late 1950's and officially defined in 1965, with the *Regional Master Plan of Lisbon* (i.e., *Plano Director da Região de Lisboa*, MOP, 1965) (Figure 2), where industrial activities were crucial to the development of the city, the economy, transportation nets and new urban settlements.



**Figure 2.** *Regional Master Plan of Lisbon* (Scale 1:50000; Author: Eng. Miguel Rezende/MOP, 1965).

The industrial activities emerged since the XVIIIth century and the initial implantation was near the river, taking advantage of the existing resources. There are several examples of industrial architecture that are still alive (Figures 3-5), revealing the past of that ancient industrial territories.



**Figure 3.** General view of the Eastern waterfront area, with old industrial and infrastructural (railway) traces, Xabregas, Lisbon, Portugal. (Photograph of the Author, October 2014).



**Figure 4.** View of existing and decadent buildings (*Abel Pereira da Fonseca industrial set*), Marvia/Poço do Bispo, Lisbon, Portugal. (Photograph of the Author, July 2014).



**Figure 5.** Partial view of an old working industrial s village – *Vila Flamiano* -, Xabregas, Lisbon, Portugal. (Photograph by the Author, October 2014).

Since mid-1980's and 1990, the city was facing the progressive installation of the tertiary sector and decadence of inner areas in the city of Lisbon - due to densification, absence of integrated operations directed to improve quality of life (CML, 1991). Hence, it is needed to:

- i) Diagnose urban fragilities and constraints at a global and local scales;
- ii) Consider the multiplicity of implied agents that operate on the territory throughout their participation in the selection process of goals, programs, actions and resources that promote the future of the city, defining its development guidelines, in partnership with the municipality (CML, 1991; Nevado, 2014a);
- iii) Develop integrated and inclusive strategies based on urban regeneration;
- iv) Correct punctual/sectorial situations, integrating them on strategies of urban socioeconomic redevelopment of the city, metropolitan area and/or region.

In this sense, we depart from:

- i) The context of post-industrial city, subsequent from urban evolution and industrial expansion, consequent deindustrialization and contemporary city;
- ii) Urban regeneration as prior action;
- iii) The past as a competitive advantage;
- iv) Preservation/conservation VS demolition.

### 1.2 Case study: The Eastern waterfront area of Lisbon

The case study area – the Eastern waterfront area of Lisbon – represents a crucial historical, urban, industrial and port legacy in severe urban decline. However, it is currently a potential experimental lab, considering its diversity, location (whether in the city and in the metropolitan area), due to its important industrial and port legacy, and also due to the fact of being an example of resiliency in spite the globalization process, since the lack of investment through several decades has conserved numerous relevant samples of architecture in that territory. Those are in fact true live testimonials of the recent industrial past.

The successive urban and socioeconomic transformations since its rural and leisure genesis in the XVth century by industrial expansion and implantation in the XIXth century (Matos and Paulo, 1999), and its subsequent socioeconomic disaffection until today, impute it complexity and diversity at several levels. That ancient and important industrial port pole as crossed several stages, presenting nowadays as a precarious and urban declined area, triggering challenges and problems within urban regeneration (Nevado, 2014b).

The Eastern waterfront area is currently a semi-peripheral territory that presents several signs of decline but represents a crucial port industrial legacy to the knowledge of the historical and urban past of the city, such as the port/logistic area (Figure 6). In spite of the inclusion of social/municipal housing (e.g.: Chelas and Olivais) and the international/global event of EXPO '98 and its associated urban regeneration operation and although this area is located between two urban centres (i.e.: *Terreiro do Paço* and *Parque das Nações*) - Figure 1 -, the case study area was not targeted with integrated operations in order to correct/prevent critical situations and consequently contributing to the improvement of the quality of life of the population, preserving a great part of the monofunctional past of the territory, which is mostly obsolete and declined.



**Figure 6.** Port area in the Eastern waterfront of Lisbon, Santa Apolónia, Lisbon, Portugal. (Photograph by the Author, April 2015).

Although the Municipality of Lisbon has recently invested on urban regeneration and improvements, there is still not an effective connection with the nearby territories and other important city centres.

However, recently it has started to emerge signs of urban renewal and regeneration that focus on:

- i) new housing (Figure 7);

- ii) renovation of pre-existing buildings and public spaces (Figure 8);
- iii) integration of economic activities (such as Museums – *Fábrica Braço de Prata* - and enterprises – clusters, ihubs and coworking systems);
- iv) Artistic interventions (e.g.: VHILS) (Figure 9);
- v) Mobility/accessibilities improvement (e.g.: cycle pathways and public transportation nets) (Figure 10).



**Figure 7.** View of an example of urban regeneration (Housing), Marvila, Lisbon, Portugal. (Photograph of the Author, July 2014).



**Figure 8.** Urban regeneration (buildings and public space), Beato/Xabregas, Lisbon, Portugal.. (Photograph of the Author, July 2014).



**Figure 9.** Art work by VHLS at *Fábrica Braço de Prata*, Braço de Prata/Marvila, Lisbon, Portugal. (Photograph by the Author, April 2015).



**Figure 10.** View of the recent cycling pathways promoted by the Municipality of Lisbon, Marvila, Lisbon, Portugal. (Photograph of the Author, April 2015).

Regarding urban regeneration, it is hence important to synthesize debilities as opposed to potentialities of the Eastern waterfront area of Lisbon, as well as strategic urban development guidelines, under the formulation of prospective scenarios of socioeconomic (re)development. In fact, *prospective* – as a tool of anticipation of the future and change, acting over present and exploit the lessons of the past –, is different from the mere activity of prevision/prediction, highlighting strategic planning, regional planning, territorial prospective analysis (Godet, 1991; Perestrelo, 2005). Just like in strategic planning, it evolves a medium/long term planning, local articulation and strategic intervention, being though unable to cover its totality (Fonseca Ferreira, 2005). Within this context, it intends to improve and/or correct existing situations and predict strategic guidelines of redevelopment.

## 2 Strategic development

### 2.1 Portugal 2020

In the 1990 decade, the regional development was highlighted with the municipal planning and management (e.g.: Strategic Plan of Lisbon, 1992; Municipal Master Plan of Lisbon, 1994). It were

developed several international communitarian programs (such as *Lisbon 2020*, *Horizon 2020*, *Portugal 2020* and *Europe 2020*).

The current program *Portugal 2020* was established throughout a partnership agreement between Portugal and the European Commission. It follows the Strategy of Europe 2020 and it consecrates the policy of economic, social, environmental and territorial development that will stimulate prosperity in the future of the country. It defines the necessary interventions, investments and priorities of funding in order to promote a sustainable, inclusive and intelligent development, seeking to accomplish the Europe 2020 deadlines (vd. Portugal 2020).

In 2011, facing a severe crisis and near bankruptcy, the Government of Portugal was obliged to ask support to the International Monetary Fund. The *Plan of Financial and Economic Adjustment* then defined aimed to correct external deficit and internal budget unbalances, triggering, however, negative social consequences and asymmetrical impacts in the development of the regions of the country. Hence, public policies – especially the ones that were co-financed by communitarian funds -, should promote economic development and employment, seeking for reducing poverty and correcting the existing external deficit (vd. Portugal 2020). Specifically in the domain of urban planning and management, those conditions highlight the need of articulation between local, regional, national and international/global scales, where urban regeneration play a determinant role in the socioeconomic development, surpassing, indeed, architecture and urban planning/management.

Besides transversal domains relative to the reform of the Portuguese Public Administration and the territorialisation of the interventions, the programming and implementation of Portugal 2020 program are organized in four thematic domains:

- i) Competitiveness and Internationalization;
- ii) Social inclusion and employment;
- iii) Human capital;
- iv) Sustainability and efficiency in the use of resources (vd. Portugal 2020).

Thus, it is needed to identify the main constraints and potentialities of those four domains, allowing to define the priority of intervention of the communitarian funds for the future, i.e., the 2014-2020 period (vd. Portugal 2020).

## **2.2 Urban regeneration on Portugal 2020 program**

Urban regeneration is inserted on the fourth domain of Portugal 2020 program, i.e., “Sustainability and efficiency in the use of resources”. Since Portuguese economy is mainly supported on high energetic intensity, the inefficient use and management of resources, the vulnerability towards natural and technological risks and the weaknesses on the protection of environmental values are extremely important constraints that difficult and/or unable economic development. According to *Portugal 2020* program, the approach to face those constraints relies on three base rows in order to mobilize future communitarian funding:

- i) The transition to a low carbon economy, mainly associated to the promotion of energetic efficiency, the production and distribution of renewable energy systems (e.g.:

- contemporary Architecture present plenty of new and saving solutions of materials, technical and constructive systems that allow to promote that sort of policies);
- ii) Preventing risks and adapt to climatic change (for instance, it is crucial to develop suitable projects according to local and specific climatic features);
  - iii) Protecting the environment and promoting resource efficiency, supported in the following areas of intervention:
    - a. Waste management (for instance, the Portuguese legal framework has been recently revised in order to save the environment, to prevent and define sorts of waste management, such as in the scope of architecture demolitions);
    - b. Water management (i.e., the urban cycle of water and the management of hydric resources);
    - c. Management, conservation and valuing of biodiversity;
    - d. Recovery of environmental passives;
    - e. Qualification of urban environment, especially resulting from processes of urban regeneration and revitalization.

In fact, urban areas are relevant both as energy consumers and high emissions producers. As a result, urban regeneration is considered as a crucial vector of (re)development. It is necessary to invest on sustainable cities, considering energetic efficiency, mobility, housing, urban renewal and regeneration, improving the quality of the air, managing and renting the efficiency of resources (such as water, soil and wind), enabling the territories as green development catalysers (vd. Portugal 2020).

Besides the need of suit employment strategies and social inclusion to the specificities of the different territories and local features - where local strategies and approaches seeking for inclusive growing are determinant – it is also needed a wider and integrated perspective of policy and urban development. Urban regeneration and revitalization assume relevance as main structural nodes of the national urban system. They are able to contribute to economic competitiveness and to improve the attractiveness of those centres, and also seek to improve quality of life and well-being of the inhabitants. Inserted in a logic of density and compact cities, urban regeneration and revitalization highlight a more efficient use of the soil, lesser dislocations of the populations and a wider offer of quality and more rational collective public services (vd. Portugal 2020).

In order to promote sustainable cities, the interventions seek to improve, for instance, urban environment, the revitalization of cities, recovering and decontaminating abandoned/obsolete industrial areas (such as many post-industrial and brownfield territories on the Eastern waterfront area). It promotes physical, economic and social regeneration of critical urban areas and social/local disadvantaged communities (in inner city or peripheral/metropolitan areas). In that process, we consider as well the structuration of the territory and a wider territorial cohesion through the reorganization of the nets of public and/or collective services. In that sense, it is needed to analyse demographic dynamics, the accessibility of the populations to urban services/equipment and the transformations of the occupation patterns of the territories. Hence, recentralization and

infrastructural (i.e., transportation) are needed within urban planning and management, through the concentration of the public services and, consequently, reducing economical/financial costs.

### 3 Theoretical proposal

The aim of this theoretical proposal is to investigate and define new strategies for launching urban regeneration in the Eastern waterfront area of Lisbon. As it was referred before, that territory has undergone significant transformations over the past decades in parallel with the private and speculative interests that prevailed in peripheral areas of the LMA. Those different urban spaces require new approaches of intervention. Hence, the singular development and its produced effects on a wider territory (i.e., the city and the LMA), leads us to question about the relationship between public and private interests from different points of view. Within this context, we believe that the revision of the legal framework of urban planning and management is crucial to achieve this goal, especially the revision of the regional planning law. It is also important to trigger the debate among Lisbon politicians, regional and municipal officials, architects, planners, researchers and local communities in order to rethink the contemporary city and its metropolitan area. Finally, the proposed points define strategic solutions to the major problems raised by the last cycle of urban transformation, reinforcing the need of urban recentralization and, consequently, redevelopment.

#### 3.1 Future of the Eastern waterfront area: departing from the past and the present

The current projects (such as *Jardins Braço de Prata* – Figure 11; Urban Plan of *Matinha*) intend to connect the Eastern waterfront area with the nearby urban areas, betaking, however, big scale intervention models like *Parque das Nações*. We consider that regarding the current (and future?) context of crisis and/or scarcity of funds, the urban interventions must follow local approaches, focusing on and departing from the pre-existing elements (i.e.: local communities and buildings), considering local history, diversity and specificities as added values. Even though the apparent antithesis between *social cohesion* (global) and *diversity* (local), urban operations cannot dissociate from the European/international space and communitarian directives. Thus, the past of the territory must be considered as an active element (Teran, 2009) and the territory as a productive system, reusing/recycling/regenerating it through the existing buildings and public spaces.



**Figure 11.** View of the construction phase of the project *Jardins Braço de Prata*, Braço de Prata, Lisbon, Portugal. (Author: Architect Renzo Piano). (Photograph by the Author, April 2015).

Analysing this case study area also implies to analyse the contiguous territories and the LMA, in order to rethink and recreate multiscale centralities and connections. It requires integration and connection with the recent *Lisbon South Bay* area (2015) – which gathers Almada, Seixal and Barreiro, located on the South Margin of Tagus River -, relocating in the global/international competitive panorama. Hence, we consider that water/river connections (by boat/ferry) and articulated economic activities are needed, such as enterprises hubs, using, adapting and regenerating industrial buildings that are unoccupied and/or obsolete.

### 3.2 Strategies of urban regeneration on the case study area

The case study area must be valued through its local features and specificities, considering local communities and pre-existing buildings as part of the history of the city, embracing, simultaneously, past, present and future.

Considering the complex urban transformations and the current features of the Eastern waterfront area, we consider the following needed improvements:

- i) Inserted in structural goals of urban regeneration - that are, in fact shared with European directives -, urban regeneration must:
  - a. connect new public spaces to historical landscapes;
  - b. enhance the role of infrastructures in urban areas, especially urban sprawl ones;
  - c. help to review and control density and land use;
  - d. new social housing;
  - e. generate new, integrated and strategic visions of the physical urban transformations according with social and economic issues of urban regeneration;
  - f. new regional policies in order to create city networks and efficient city hubs to prevent urban sprawl;
- ii) in order achieve the stated goals, we reinforce the importance of the revision of law and urban planning tools, such as:
  - a. the Municipal Master Plans;
  - b. the transfer of development rights for equitable distribution of benefits, costs and duties of urban development;
- iii) the particular process of planning and management in Lisbon and its metropolitan area reveals that:
  - a. the planning and management tools are mostly abstract and expensive documents;
  - b. legal, planning and management tools recall on abstract zoning and layout;
  - c. there is not enough public participation on those processes.

Overall, this paper highlights the existence of a new culture of urban design that can revive the values and image of the city to compete more effectively with the ongoing changes, to be better understood by the inhabitants, and to promote the procedural simplification and reduction of costs of length of time needed for the planning and management procedures.

#### 4 Conclusions

Urban regeneration as cultural practice and promoter of new dynamics determines and depends on the construction of local identities and meanings. Urban regeneration also symbolizes emergent and alternative cultural, political and social transformations that surpass the physical dimension of the territory.

As key results of the paper, we highlight the following facts:

- i) Glocal strategies and approaches are needed, considering the both local features and communities as well as current international/communitarian contexts, legal frames and the evolution of urban planning and management, as a shared competence between European Union and Member-States;
- ii) Urban regeneration policies and activities must be executed with strategic and integrated visions/approaches, both by public and private entities, in articulation with local citizens, in order to achieve socioeconomic cohesion and to enhance the relationship between citizens and territory;
- iii) Post-industrial and port areas are complex territories in the city and may benefit from small scale urban regeneration interventions;
- iv) The direct relation between the increase of urban mobility (i.e.: public transportation, communication paths) and the success of urban regenerated areas through the inclusion of new socioeconomic activities and population. Finally, and since the case study was selected due to its current situation of urban decline and the lack of connection with central areas of the city, we propose a theoretical proposal of urban regeneration, departing from and using local features, reusing buildings based on eco-design and suggesting urban connections and dynamics to the city and its metropolitan area.

Finally, we sum up some last considerations from the analysis of the Eastern waterfront area of Lisbon throughout the perspective of urban regeneration and the duality between global and local scales in the contemporary city:

- i) The (re)location on the international system of cities and metropolis require:
  - a. an articulation of social and economic organization center lines;
  - b. structure facing external systems by selecting external influences in the economic national space, in order to enable a strategy of complementarity of activities in net and according to current marketing logics;
  - c. internal structure facing and departing from the pre-existences, articulating public and private actions (CML 1991).
- ii) According to the rapid mutations of the European and worldwide frames, there are needed strategies of redevelopment of national and specifically the Region of Lisbon, based on dynamic sectors and factors, such as productivity, quality, answering social needs and infrastructures of economic development, science and technology activities, environmental and heritage resources, among others (CML 1991), within the scope of urban regeneration. Therefore, the frame of development of Lisbon only can be achieved in its

metropolitan dimension, reinforcing the central character of the city and metropolitan area in Europe (CML 1991).

- iii) The city of Lisbon needs to be considered as a city of single added values, calling upon urban structures, sociocultural factors, natural and heritage conditions, human resources, geostrategic location, national and regional capital, etc., inserting, however, in the international European panorama (CML 1991; Fonseca Ferreira 2005; Fonseca Ferreira 2007). Consequently, the Eastern waterfront area is no exception, whose specific features should be considered as added values to the architectural, urban planning and management interventions.
- iv) As a prospective tool, regarding socioeconomic improvements, urban regeneration intends to improve the levels of quality of life of the populations. We highlight mobility and accessibility, non-pollutant industry, the constant revision/update of legal tools, the inclusion of urban equipment (e.g.: the new Eastern Hospital Park).

It is crucial to explore peripheral urban areas in order to promote and/or recreate relations between central and external areas. For that reason, it is important to understand and analyze the territory in an integrated way, departing from clarified concepts. Throughout the analysis of the Eastern waterfront area, we questioned how to regenerate declined industrial port areas in the contemporary, post-industrial city.

We believe that it is needed to understand the territory as a living system. Especially in peripheral, fragmented, sprawl areas, the new challenges and problems imposed reflect new dynamics that require critical and alternative ways of rethinking the contemporary city, since they are opposed to the already known monocentric, compact and continuous urban areas.

Urban regeneration in the contemporary and future city requires creativity and innovation. The possible methodologies presented refer to pre-existing elements as the main canvas of intervention.

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