

Microclimatic (MC) Scenarios: Innovation in Environmental Urban Planning - Redefining Urban Sustainability in the Space Between Buildings

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In a context of a great uncertainty respect to the future of the world and the cities, it is necessary new and innovating processes for building sustainable cities and public space. In front of this scenario, the local sustainability perspective establishes that public space maintenance and care between constructions or urban micro space acquires great relevance for the social cohesion, citizen interaction and urban sustainability. Cities recovery as coexistence fields requires increasing spaces qualification and activities diversity in order to make them more comfortable and pleasant for the citizens. This paper describes the urban micro space construction process from the sustainability perspective as well as it also describes a new method of environmental-urban planning which incorporates microclimatic scenarios as a new tool of analysis to redefine urban sustainability in the space located between buildings. At the same time, it replaces the methodological linearity by a heuristic and iterative management among morphological, constructive, materials and climatic variables, key factors to define building environment and its performance. The conceptual development of this new planning perspective has as a purpose to understand the system of relationships among the site, the architecture, the specificity of the climate and inhabitants' comfort. This paper concludes emphasizing the influence of climatic variable upon neighborhoods, human activities and energy loads. Also, it concludes describing the building process of scenarios to mitigate the impacts in the micro urban public space and to advance towards sustainability.

Keywords: urban micro space, microclimatic scenarios, environmental urban planning, environmental variables