Urban Material Analysis and Sustainability: A New Methodological Approach Towards Planning.

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At a time when planning research is under pressure to better respond to sustainable development, revision on the urban planning models and available planning tools and methodologies has been claimed.
This paper reveals a methodological approach towards planning that takes in account the analysis of the urban material dynamics as the principal indicator for the guarantee of the sustainability condition. It does this by exposing the existing relationship between the urban material dynamics and sustainability as the elementary tool to access the sustainability problem, and to approach the city planning itself.
In order to do so, it reveals the results of an ongoing investigation, supported on the urban material flow analysis, of a case study area of 33 ha - Bañas de Sar, situated at Santiago de Compostela, Spain. This research aimed to identify in the spatial organization of Brañas and within its relation to the material dynamics of Santiago, the elements that allowed its functionality, in the traditional city, and their current ruined condition. The different elements that one should take in account to intervene with a planning proposal includes the physical aspects, the resources management over the territory, and the strategic approach account, towards the implementation of a sustainable urban model for the city of Santiago.
The results of the case study revealed for Brañas the opportunity that future interventions in such site could contribute to transform it in a sustainable manner, and that such transformation would have implications at the city scale itself.

Keywords: Sustainability, Urban Material Flows, Urban Planning, Methodology, Santiago de Compostela