

## **Relationship between urban morphology and the real estate market in Beja**

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The paper presents the analysis carried out between the spatial configuration and the real estate market for the city of Beja – Portugal. The aim of this study is to find out if there is a relation between the most accessible points in a city and the location of the most valuable real estate options.

In order to do so, configurational data such as the index of average depth (from the segment map) are used in contrast with the values of car flow for each street; and the real estate data – the age of the construction of the buildings, or better, where the constructed spaces are located, as well as the population density data by BGRI (*Base Geográfica de Referência de Informação* – Geographical Base of Reference for Information) (hab./ha) and the land use in the city.

The driving inquiry of this research is to verify whether the high value attributed to real estate – in a site considered small for Portuguese standards – present any pattern of localization or even a tendency of growth towards one or more directions of the city.

Through a configurational point of view, the relational forms in the cities are examined in order to understand its implications in the different spatial types, aiming to present characteristics of the relation between the urban whole and its parts. The city is evaluated in regard to its hierarchy, differentiated in terms of degree of topological accessibility of an urban conglomerate. The theoretical apparatus is guided by the theory, method and tools of the Space Syntax or The Theory of the Social Logic of Space (HILLIER e HANSON, 1984; HILLIER, 1996, HOLANDA, 2002; BARROS, 2006; MEDEIROS, 2006).

The construction of configurational maps was based on the street network of a model of traffic management developed in the VISUM software, from the department of Civil Engineering of the *Instituto Superior Técnico (IST)* from the *Universidade Técnica de Lisboa (UTL)* and later imported to ArcGis.

In regard to the methodological procedures, a selection was made of the most valuable buildings – which according to the Intervention Proposals Report for the city of Beja, from de mobility plan of Beja,(2008) are concerning recent buildings – and the streets where they are located. The same procedure was applied to the less valuable real estate and they were correlated with the respective configurational values. These values were further correlated with the population density and the land use.

Through the findings, it was verified that in great measure, areas with buildings considered more modern (or more recent) coincide with the areas of low population density, which is, peripheral areas, once the great population mass is preferably concentrated in the historical center of the city. It does not mean, however, that there isn't BGRI with high population density in more distant areas from the center. Another interference which can be drawn is that the streets considered more accessible in the city also present significant correlation with the car flow values.

The results show that the configurational analysis can considerably aid the indication of locations for the studies of the real estate market, even if in a preliminary stage. This enables, many times, the government to interfere in order to encourage or not the development of certain areas of the city.