

# Land uses in the context of a perfect grid: The case of Barcelona

# 103

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## Abstract

Syntactic analysis of cities has shown that the distribution of land uses in the urban network is influenced by the pattern of syntactic integration, through its effects on the city's movement patterns (Hillier 1993, Hillier 1996). However, the experience has, so far, based on the study of deformed or irregular grids, where the grid's pattern of syntactic integration tends to be strongly differentiated. But what would be therefore the case of regular grids, where the integration lines for lines are likely to be homogeneous, and the effects of the grid on movement therefore likely to be less?

This paper attempts to answer this question by syntactic and land use analysis of the regular grid in Barcelona. The initial conjecture was that, because of its lower level of differentiation, the effects of the grid configuration on land uses patterns would be weak. The results show that this is just partially the case. Effects of the grid configuration on land uses patterns can still be found in some instances, even though, in other cases, even diffusion is the norm. Furthermore, the study shows that the land uses distribution is affected by three main situations: the nature of the good offered, disruptions that occur in the grid (such as oblique streets) or by planned infrastructures that act as "magnets" such municipal markets or hospitals, and by the city's cultural particularities.

## Keywords

Urban grid, syntactic analysis, land-use patterns

## 103.1

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