# The spatial morphology of a fragmented city:

# The urban growth of Aracaju, Brazil

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#### **Abstract**

The starting point of this research is the apparent high fragmentation of the urban fabric of Aracaju, a city located in the Northeast of Brazil. The first conjecture is that the fragmentation might be an outcome of the government planning policies and the main question is: could the Government have increased the overall segregation of the city as a whole, as a promoter of segregated areas?

The objective of this paper is to investigate the rate of fragmentation of Aracaju from its origin (1855) to 2001. It may answer the initial conjecture, to determine whether Aracaju is a highly fragmented city because of the government planning policies, which may have the effect of diminishing accessibility and create several segregated areas.

The methodology presents some historical and geographical data about the urban grid and its contents, such as land use and socio-economic aspects. It is also divided in two levels of analysis: one is at level of the physical growth of the city itself; this involves collecting and analysing data relating to syntactic and geometric organisation over time, comparing some social-economic events with the spatial-syntactic measures. The other level of analysis is a comparison between samples of urban areas, which might be related with the government policies and with the private intervention. Almost always these are related with the popular class and the bourgeois class, respectively. Some spontaneous settlements are considered for a complete analysis of the social-economic structure.

The city has grown as a grid-like pattern and its centrality can be found in the commercial centre, the most global integrated area. There are very sparse areas which create a linear growth, but it maintains a quasi-grid urban pattern for the settlements, which reinforce the development of sub-areas, i.e., some settlements approximate to a "subcentrality" with a high local integration. The key-point of this paper is showing how the government planning policies are related with the urban fabric and its accessibility and integration.

### Keywords

Urban trasformation, evolution, socio-economic analysis, integra-

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Some results have showed that the initial conjecture seems right but only partly, because a more complex case has been revealed that is a dual creation of segregation, which comes from the Government and from the private agents. It might be called a socio-spatial paradox, which has increased the spatial segregation, independently of socio-economic class.

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