

AN APPLICATION OF SPACE SYNTAX IN THE DEFINITION OF BUS CORRIDORS

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0 Abstract

This paper reports the findings of a study in which Space Syntax has been applied in a methodology elaborated to determine the bus corridors in an urban grid. In the proposed methodology, the integration values of bus routes represented by axial lines were correlated with the values of bus flow ratios observed on the same lines. The correlation between these two variables was later analysed statistically and qualitatively.

The findings show that the correlation between these two variables cannot be explained through a single regression function, on a global level. As a result, these data need to be aggregated in homogenous groups. For this reason, a qualitative analysis was carried out on the data that constitute each group. This qualitative analysis was related to the functional characteristics of the roadways in terms of main roads and local roads, and the effects of magnets on movement densities. The importance of the qualitative analysis is justified, in the research, in as much as it helps explain the motives behind the agglomeration of the points represented in the scattergraph in three distinct groups, presented by the data on the overall level of the urban grid, namely: local roads, main roads and roads located near the bus station.

The findings of the research show the importance of the aggregation of the data into homogenous groups and the qualitative analysis of them.

Keywords: space syntax, urban structure, bus corridors, Anapolis, urban bus transportation.

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