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## Configuration and public life in social housing developments

Sociological Analysis of Paranoá Parque in Brasília

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### ABSTRACT

At the present time, there are a large number of urban studies of Brasília's urban space, including space syntax analysis of its configurational effects on performance upon different aspects of urban life. But when it comes to the issue of massive social housing production in the national context, there is still a long way to go, especially regarding the current large-scale and repetitive models planned by social programs. Paranoá Parque is a contemporary example that illustrates this type of housing production in the country, whose image is common to several other cases: a monofunctional and sprawling model, sparsely dense, with many convex spaces of large dimensions and low constituted spaces. In addition, it presents a more homogeneous and less hierarchical order of accessibility and visibility, with public/private connections that are frequently interrupted and that restrict potential encounters between residents. This paper analyzes figure-ground map, convexity and constitution, axiality and local properties, seeking to associate local adaptations and sociological aspects that occur in response to this planned and imposed configuration that still takes place within the metropolitan context of Brasília. This analysis reinforces the need for strategies to deal with this type of configuration that has been largely replicated, and seeks to highlight its effects on urban life to reinforce the idea that social programs should prioritize new alternatives and more humanized, sustainable, inclusive and user-friendly planning methods.

### KEYWORDS

Social housing development, Sociological Analysis, Public life, Public spaces, Urban Planning



## 1 INTRODUCTION

This sociological analysis is part of an ongoing course conclusion work and an extension program work at Universidade de Brasília (UnB). The urban configuration of Paranoá Parque housing development was taken as case study — it's the first project located at Federal District (Brazil) proposed by the social housing program “Minha Casa Minha Vida” (PMCMV) which consists of housing financing to cover families with the lowest income and most vulnerable social class. Paranoá Parque is a contemporary example that illustrates this type of housing production in the country, by which in reference to Lopes' thesis (2018, p. 135), its image is common to several other cases: a monofunctional and sprawling model, sparsely dense, with many convex spaces of large dimensions and low constituted spaces. In addition, it presents a more homogeneous and less hierarchical order of accessibility and visibility, with public/private connections that are frequently interrupted and that restrict potential encounters between residents.

This paper analyses figure-ground, convexity, constitution, axiality and local properties, seeking to associate local adaptations and sociological aspects that occur in response to this planned and imposed configuration that still takes place within the metropolitan context of Brasília. The results show that Paranoá Parque housing project, which should be the answer to the housing deficit problem, fail in several points: the urban planning does not take into account any urban morphology studies, it's a monofunctional and sprawling configuration with low density and large underused spaces which despises the vitality and interaction of functions and people. From this set of problems, this analysis aims to contribute in two ways: one by fostering a database for possible future comparative analysis, and other, by highlighting the effects of this type of planning on urban life, to reinforce the idea that social housing programs should, in the future, take into account studies such as this one and avoid this type of imposed planning by prioritizing new planning alternatives that are more humanized, sustainable, inclusive and user-friendly.

## 2 LITERATURE REVIEW

### 2.1 The Paradigms of Urbanity and Formality

Holanda (2011) suggested that the various types of settlements identified throughout history can be characterized as the range of positions between two polar tendencies, the fundamental paradigms of structuring cities: the "paradigm of urbanity and formality". These expressions presuppose the simultaneous communication of ideas related to spatial life and social life. In this way, referring to his conceptualization of the term, “urbanity” encompasses intense citizen participation and free expression of differences, identifying it with universal values closer to a democratic society. It technically means a quality of the urban space marked by activities of movement and permanence; by diversity of use, buildings and people; by relations of copresence



and co-awareness; and by smooth barriers between public and private spaces (Jacobs, 2000; Hillier, 2007; Holanda, 2013).

At the extreme opposite there is the space of exception, which is a type of settlement that is within the paradigm of formality, in which social arrangements are highly segmented, heavily insulated, ceremonial and hierarchical, and characterize relations of power. Holanda (2002) with reference to Hillier details the spatial patterns of formality that we commonly found in this case study: large open spaces; greater average convex space; lower number of constitutions per convex space; higher percentage of blind spaces; largest surface area of square meters of open space by constitution; greater number of linear meters of the shapes that define the convex spaces, by constitution; an extremely shallow or extremely deep axial structure; low intelligibility measures; integrating cores that are sometimes concentrated in the periphery, sometimes concentrated in the heart of the system, and do not irrigate the settlement as a whole. This spatiality results in negative effects on social life.

## 2.2 Socio-spatial Patterns of Planned Housing Typologies at MCMV Context

Lopes' thesis (2018) brings an important contribution to the theme by reinforcing the hypothesis that the housing financed by the MCMV has the usual character of becoming even more segregated than the previous housing of these individuals. Not only limited to spatiality, it also demonstrates that the occupation modes also present similar characteristics to several other social housing carried out by the MCMV's program, a model that tends to become even more segregated than the previous housing of these individuals. The main reason raised is the loss of accessibility to all types of opportunities, and that this only worsens for lower-income individuals, as it accentuates the process of socio-spatial segregation, which can cause economic and social damage to these communities.

It is observed that a fear-based behavior is also present in Paranoá Parque. Gradually, walls and barriers to the public space appear, and this fact ironically approaches the logic of the enclave of the favela, a configuration that separates itself from the continuous space of the city.

## 3 RESULTS

Paranoá Parque was delivered to the population with only housing. Most of the lots that should have other uses are still unoccupied. As a result, a proportion of 91.24% of open spaces is observed, which results in a model of extreme formality. And even in a second hypothesis, considering a future scenario in which these lots will be occupied, we still reach the percentage of 57.75% of underused spaces.

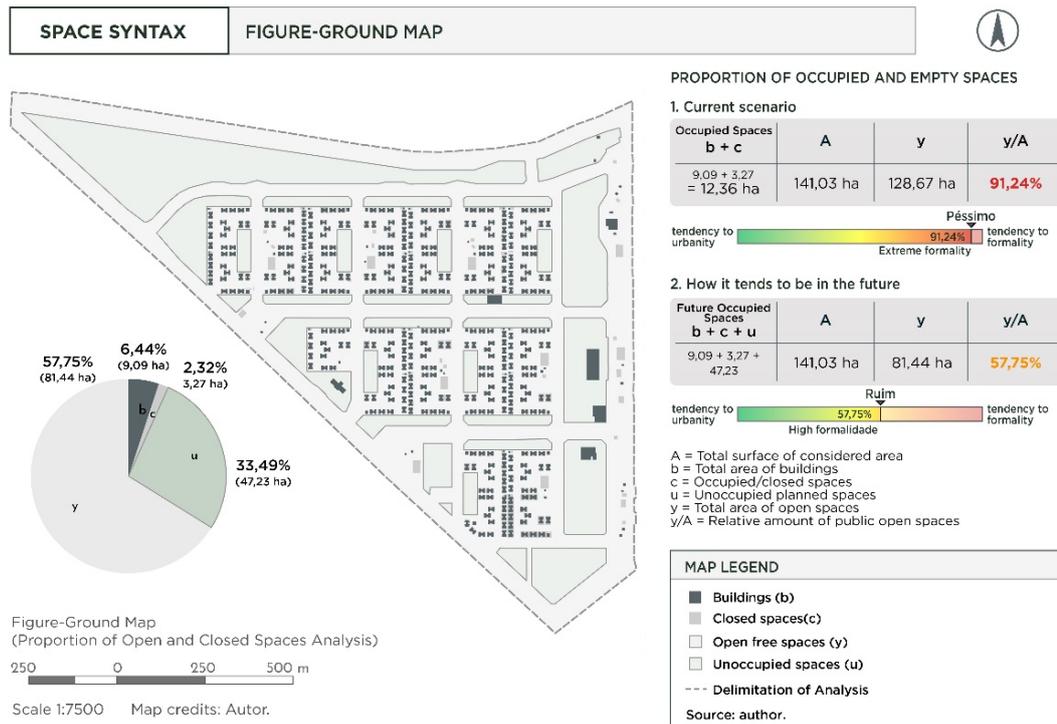


Figure 1: Figure-Ground Map with analysis of the proportion of open and closed spaces.

Its convex spaces are wide, and the average size of convex spaces is 301.07 m<sup>2</sup>. Residential buildings dispersed in large spatial islands make it difficult to grasp their convex spaces. There is a lack of closure and continuity for the definition of places. The large open spaces are configured more as obstacles than as places conducive to encounters. The various parking lots at the courtyards between buildings also contribute to expanding the area of their convex spaces.

11,39% is a considerable number of blind spaces, and that is harmful for urban life performance. The formation of physical barriers occurs as an attempt by residents of seclusion and protection, and a pattern is observed in the formation of these barriers - they always delimit the perimeter of the building, or parts of it, and the vast majority is made by small wire fences with presence of small gardens. The graphs generated allow us to observe this, and reveal the effects of this appropriation over the different variables.

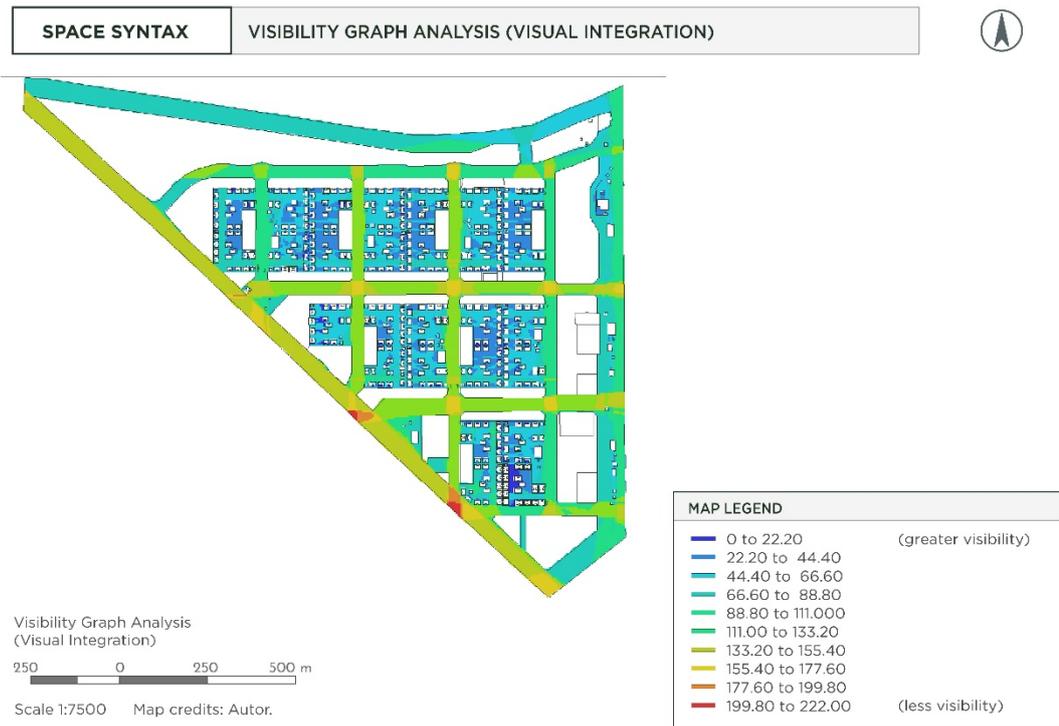


Figure 2: Visibility Graph Analysis – Visual Integration.

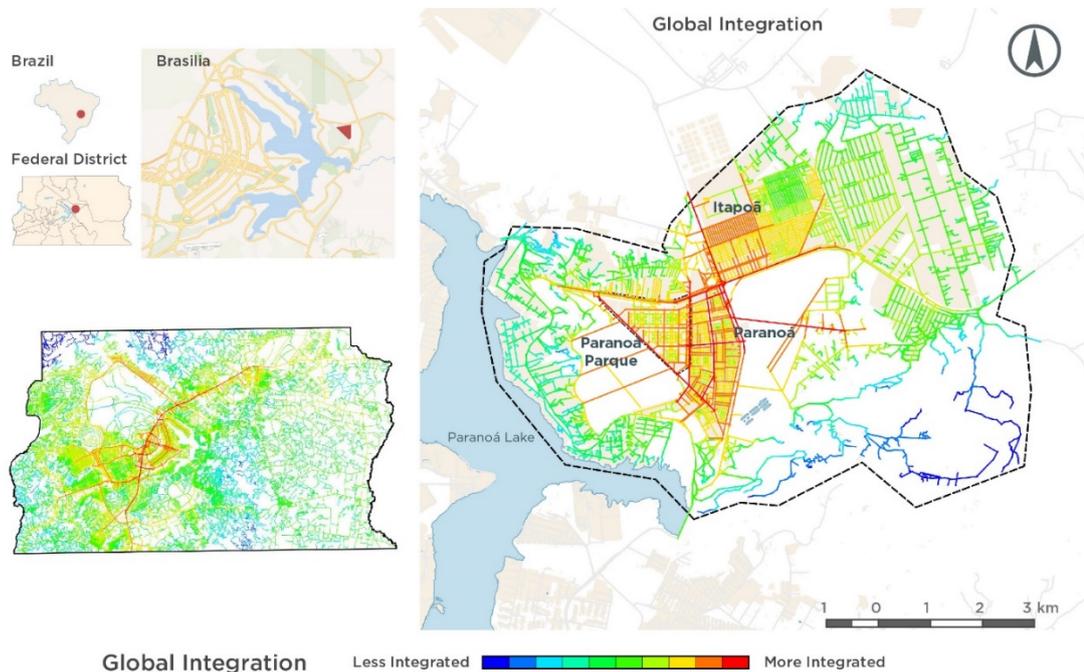


Figure 3: Axiality analysis of Paranoá Parque, surroundings and its syntax context at Federal District.

At axiality analysis it is observed a high external hierarchy – the axes are ordered and their integration with the urban structure favors encounters between different ones. Furthermore, integration with the city does not take advantage of this integration potential of the axes in the way in which it was built: public-private connections are interrupted, low seams with the adjacent urban fabric, the surrounding avenues behave as barriers for pedestrians, and isolated buildings with wide facades without alignment and low constitutive spaces do not contribute to the



definition of these spaces. At the same time, there is a low internal hierarchy and consequent low visual integration – public/private connections are frequently interrupted, and present a configuration that restricts potential encounters between residents.

## 4 CONCLUSIONS

In conclusion, it is observed that Paranoá Parque and its spatiality configuration brings effects that are harmful to everyday public life. There is recurring news about invasion of privacy on the ground floor. For this reason, in an attempt to protect themselves, barriers are made that create small segregated spaces. As observed by Lopes (2018), it is common for these housing projects to develop socio-spatial patterns over time that approach the self-defensive logic of the favela's enclave configuration, which determine a behavior of reclusion and based on fear.

When associating some of the spatial syntax graphics, it can be inferred that these individual appropriations start to result in other effects in a systematic way in the neighborhood as a whole. It is observed that community gardens are always made where there are closed spaces, which means reducing a blind space to a space occupied and cared for by residents. But on the other hand, the enclosure with gardens and physical barriers on the perimeter of the buildings also brings segregated and deep spaces that harm the natural surveillance in the system of open spaces adjacent to these small barriers. This is very evident when we look at the blue spots on the control, connectivity, local integration and visual integration graphs. In addition, the planting of gardens by individual initiatives of the residents, without prior planning results in a disordered scenario that often brings problems of maintenance of the local infrastructure.

In the case analyzed by Lopes (2018), it was observed that the population persisted in being in open spaces, despite the geometrically planned form not contributing to this. However, in the case of Paranoá Parque this was not observed. In this case, the urban environment is too sprawling, which, as observed in the axial map, associated with the low accessibility of internal roads, greatly restricts the fields of encounter between residents.

The analysis of public life indicates a low performance and extreme formality. Analyzing both inside the courtyards between buildings and the local squares, it can be seen a low variety of people, with a predominance of groups and low distribution of people in time. The diversity and distribution of activities are not adequate, and a deep interaction of users with these places was also not observed. In the squares, when occupied, people stay for a short time. There is no natural surveillance and there is little diversity of activities. And in courtyards between buildings the meetings are also scheduled and restricted by specific groups of residents.

The configuration of internal courtyards that is formed between the buildings reveals a potential to define spaces for meetings and permanence; this can be seen by associating the graphics of local integration, local choice, control and connectivity. But this potential is not taken advantage



of, because in addition to the low internal hierarchy and consequent low visual integration, these spaces are almost completely filled by parking lots, in large convex spaces that greatly restrict potential activities that could occur, resulting in the lowest possible occupancy.

In this way, this sociological analysis aims to contribute to the mapping of socio-spatial patterns existing in the current Paranoá Parque, but which are also found in other housing projects planned by MCMV's programs. It is hoped that these studies will be taken into account in the development of new social housing programs, and that they may point to new paths for interventions and requalification strategies to improve the urban life of Paranoá Parque and other MCMV's similar projects, mainly treating this configuration of extreme formality and prioritizing planning alternatives for more urbanity.

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