Public Open Spaces Urbanity: A Confrontation Between the Physical and Social Dimension at the Parque Germânia

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Abstract. Public open spaces have historically been places of political action. Contemporary life, on the other hand, raises challenges to the city and its places of urbanity: they need to meet multiple demands, which indirectly include political action, but also involve leisure, entertainment, sport and social interaction, for example. Understanding the city as a place of encounter, and public open spaces as essential facilities for social interaction, leads to an approach to public open spaces from the perspective of urbanity. This article analyses the case study of Parque Germânia in Porto Alegre, Brazil. The case study considers a confrontation between the built environment as a physical dimension and appropriation as a social dimension. The study analyzes public use of the park through non-participant observation focusing on the following concepts: diversity and tolerance; visibility and flexibility. Diversity and tolerance is considered as a way of understanding the dynamic of appropriation by different social groups and their relationships; visibility is considered as a concept related to urban security, and flexibility is analyzed from the seasonal nature of different scenarios of use in the same space. The study analyzes the physical dimension by presenting a layered map that focuses on urban insertion, environmental aspects and design. Urban insertion is considered from the perspective of urban planning, such as use of the surrounding areas, access points and mobility; the environmental aspects consider areas of environmental preservation and hydrography; design considers the design of the park and its facilities as support for community activities and its multifunctional ability to serve different uses. The article presents a possible approach to public open spaces from the perspective of urbanity by considering both physical and social dimensions, and specifically builds a structured analysis of Parque Germânia.

1. Introduction
Public spaces have historically been places of political action. According to Aristotle [1] man is a political animal. The polis, in turn, constitutes the stage of social interaction, and it is in public spaces that this social interaction takes place. The quality of these spaces is an important factor for the promotion of social life. Understanding the city as a place of encounter, and public open spaces as essential facilities for social interaction, leads to an approach to public open spaces from the perspective of urbanity. To this end, the article presents a model for the analysis of public spaces in...
terms of their urbanity, in the light of studies by Vittorio Gregotti [2], Jane Jacobs [3], Ângelo Serpa [4] and Lineu Castello [5].

Contemporary life, on the other hand, raises challenges to the city and its places of urbanity: they need to meet multiple demands, which indirectly include political action, but also involve leisure, entertainment, sport and social interaction, for example. Contemporary issues such as social segregation and urban violence, together with the emerging sense of the right to the city, are paradigmatic in the Latin American context. Although public spaces represent the space of social interaction, Latin American public spaces reflect economic and social imbalances which impact both on design as a physical dimension and on use as a social dimension of its public spaces.

This article analyzes the case study of Parque Germânia in Porto Alegre, Brazil. Parque Germânia is an example of a recent urban operation; the creation of a new park from the construction of a new neighborhood carries with it the contemporary paradigms of Latin American cities. So this case study is itself subject to application of the structured model of analysis proposed by the work. Consideration of the social dimension of the urbanity of the park involved two site visits aimed at non-participant observation of its usage. The first took place on April 13, 2019, a fall weekday, and the second on August 24, 2019, a Saturday afternoon in winter. The information and photographs collected were systematized for later use.

2. Conceptual Framework

How is it possible to assess the urbanity of open public spaces? What parameters could be used for measuring their quality? The complexity of public spaces lies in the interrelationship between their different dimensions. Landscape, according to Vittorio Gregotti [2], contains not only a geographical dimension, but also a social dimension and an historical dimension.

Serpa [4] considers the degree of accessibility as an attribute of public spaces, seeing accessibility as not only physical, but also social. Analysis of spaces must include consideration of the social groups that access them. The author also presents the concept of visibility as the capacity of users to adopt the form as well as the values, be they symbolic, economic or representations of power structures. These variables illustrate the possible variables to be pursued by the research.

"Some places are sought after for their reputation; others are preferred because they are evocative of memorable events; still others because they are endowed with extraordinary levels of animation and socialization. Thus, it is the phenomenological content that helps to highlight certain "types" of places. Which raises the question: wouldn't this sharing of phenomena lead to certain spaces acquiring the status of place? A status of place of memory, place of aura or place of plurality?" [5]

Castello [5] suggests three possible statuses for places of urbanity. The statuses of a place of plurality, a place of aura and a place of memory are presented as a possible structure for case-study analysis. Interested in understanding urban processes from a sensory perspective, this paper uses Castello’s classification and starts from the proximity of phenomena to the social and historical environment.
### Table 1. Methodology applied to the confrontation between the physical and the social dimension

| DIMENSION  | SPECIFIC OBJECTS OF STUDY | CONCEPTS                  | ASPECTS                                           |
|------------|---------------------------|---------------------------|--------------------------------------------------|
| PHYSICAL   | Built environment         | urban insertion           | urban planning perspective such as use of the surrounding areas, access points and mobility |
|            |                           | environmental aspects     | aspects from geography, such as environmental preservation areas |
|            |                           | design                    | design and its facilities as support for community activities and its multifunctional ability to serve different uses |
| SOCIAL     | Appropriation             | diversity and tolerance   | dynamics of appropriation by different social groups and their relationships |
|            |                           | visibility                | urban security                                    |
|            |                           | flexibility               | seasonal nature of different scenarios of use in the same space |

In this sense, the concepts presented by Gregotti, Serpa, and Castello allow construction of a conceptual framework for analyzing public open spaces, and specifically Parque Germânia. As a methodological strategy applied to this work, the case study also considered a confrontation between the built environment as a physical dimension and appropriation as a social dimension. Table 1 illustrates the model for structured analysis according to the proposed conceptual framework.

The built environment is considered from the urban and neighborhood scale, from its demographic and geographical aspects, and its design. These three aspects are related. The urban perspective is considered in relation to use of the surrounding areas, access points and mobility. The environmental aspects consider aspects of the natural environment such as topography, vegetation or natural preservation areas. Design is considered as the solution applied to the interaction of urban and environmental aspects and as a proposal for promoting social interaction.

Appropriation is considered in relation to the concept of urbanity, developing out of aspects of diversity and tolerance, visibility and flexibility. Diversity and tolerance are considered as a way of understanding the dynamics of appropriation by different social groups and their relationships; visibility is considered as a concept related to urban security, and flexibility is analyzed from the seasonal nature of different scenarios of use occurring in the same space.

### 3. The Physical Dimension

#### 3.1. Urban Insertion

Parque Germânia is located in the eastern portion of Porto Alegre, in the Jardim Europa district, approximately 7 km from the historical center of Porto Alegre (Figure 1).
Figure 1. Location of Parque Germânia in relation to the historical center of Porto Alegre. Source: Modified from Google Earth, 2019.

Envisaged by Municipal Law 6.688, of 1990 [6], the park was inaugurated on March 27, 2006 in an area of the then Vila Ipiranga neighborhood, and constructed as part of the implementation of the Jardim Europa subdivision, which occupies the central portion. The Jardim Europa subdivision was one of the largest real-estate developments in Porto Alegre, with a privileged location next to the main regional shopping center, Iguatemi, occupying one of the last freeholds in this region of the city and concluding a process of occupying this empty space, which began with implementation of the shopping center itself. Its design focused on the establishment of up-market apartment towers in condominiums that occupy entire blocks, characteristics that clash with the forms of the urban fabric of the immediate surroundings, which are older and fully diverse. According to Abreu Filho [7], Jardim Europa signaled “the new standards for housing development, in terms of scale, modeling and product definition”.

Part of this new pattern of real-estate business was the creation in 2016 of the Jardim Europa District, which encompassed the subdivision and the park allocation as well as the Iguatemi and Bourbon Country shopping malls to the west and a smaller, irregularly occupied area to the southeast. The real-estate project of which Parque Germânia was part, according to Abreu Filho, “reinforces the creation of the new urban context: the continuity of the roads is cleverly avoided or disguised, there is no road intersection, and the circular winding design looks away from the Vila Ipiranga and Vila Jardim neighborhoods to the north and east, and turns entirely towards the new Parque Germânia, which has become the main asset of the project ”[7].

Since local security conditions related to urban violence are critical for the commercialization of this type of real estate, these practices sought to “isolate” the enterprise from the surroundings and ensure the expected business returns. Part of this tactic also involved fencing the park, the first such case in the city, which became a selling point. Extending the demand for security of the condominiums, the park is open daily from 6:30 am to 8:00 pm.
In socioeconomic terms, ObservaPoa [8] data states that the neighborhood currently has 2,299 inhabitants, representing 0.16% of the population of Porto Alegre. With an area of 0.763 km², it represents 0.16% of the municipality, with a demographic density of 30.1 inhabitants per hectare. The average income of heads of households in the neighborhood is 12.84 minimum wages (approximately $3,200 per month). Immediate neighborhoods such as Vila Ipiranga (4.6 minimum wages), Vila Jardim (3.5 minimum wages) and Cristo Redentor (5.6 minimum wages) conceal even harsher realities, with areas of irregular occupation where average monthly income can be lower than 2 minimum wages.

3.2. Environmental Aspects
According to data from the Municipal Secretariat of Environment and Sustainability, Parque Germânia has an area of 15.11 hectares and is equipped with a wide range of facilities, for sports (tennis courts, volleyball, basketball and indoor soccer), playgrounds, exercise equipment, jogging and walking paths, lawns and green areas. The park also houses an important rainwater dam for the neighborhood in its southwest and lowest portion (Figure 3).
One important physical aspect is the presence of Permanent Preservation Areas – APP (Figure 4) along the course of Arroio da Areia stream, considered as native vegetation reserves. According to the Federal Forest Code, these APPs must remain isolated from human interaction and in the park must be fenced off to prevent entry of people and domestic animals and contact with wildlife. These four forest areas make up a significant part of the park’s total area, and define spatial relationships, flows and movement. Topography is another relevant element, with the park center being more or less level, it inclines steeply eastwards towards Ferdinand Kissinger Avenue.

3.3. Design
The park has seven access points, signed as gateways in the surrounding fence. Figure 5 shows the sectors of the park and its uses. The internal pathway system (Figure 6) merges a well-defined north-south axis, which runs north from the confluence of four accesses, and to the south connects spaces hidden between the forest portions and the access points at this end.
In addition to the areas surrounded by woods, three areas of park occupation are defined, as well as its pathways. To the north, along Túlio de Rose Avenue, the largest portion for users features grassy areas, sparse vegetation, playground, lake and tennis courts. A central portion, accessed from Ferdinand Kissinger Avenue, contains offices and maintenance, as well as sports facilities and another children’s playground. The southern portion is smaller and more hidden by vegetation and contains a playground on the higher part and two sports courts.

Figure 5. Parque Germânia access points, paths and main facilities. Source: authors, adapted from Mog [9]

Figure 6. Parque Germânia pathways. Source: authors
4. The Social Dimension

4.1. Diversity and Tolerance
Mog [9] considers intangible boundaries from the social tensions of different social groups frequenting Parque Germânia. Analysis of the Urban Insertion aspect, according to ObservaPoa data [8], reveals great income differentials between high-income occupants of the Jardim Europa neighborhood, and its surrounding low-income neighborhoods. Figure 7 shows the use of the park on weekdays and Figure 8 illustrates the use of the park at weekends.

![Figure 7. Park use on weekdays. Source: authors](image)

![Figure 8. Park use at weekends. Source: authors](image)

Although there is a large difference in the volume of people on weekdays and at weekends, park users were seen to demonstrate a diversity of age and gender. The non-participant observation method prevented assessment of park users’ income differences. On the other hand, the volume of users, parked cars and routes between the public transport stops and the park over the weekend suggest that the park is used not only by neighborhood residents but also by people from other parts of the city.

4.2. Visibility
On weekdays and at weekends alike there was less occupation of the green area than of the spaces close to the circulation axes defined by the park’s design. This occupation is due to a variety of factors. On weekdays, occupation of green areas occurs mainly in places close to the circulation axes. At weekends, there is a great concentration of people in the green areas. Figures 9 and 10 illustrate the difference between weekdays and weekends.

Considerable occupancy occurs only during daylight hours. On weekdays there is no considerable use of the park at the end of the day. Although gates are closed at 8 pm, in winter the park empties before it closes.

The largest concentration of people is in the visible green area. Areas near APPs (Permanent Preservation Areas) showed little occupation at the weekend and none on weekdays. The preservation areas and their surrounding fences function as physical barriers, both for access and for internal circulation of the park.
4.3. Flexibility

Operation of Parque Germânia presents different scenarios according to such dualities as day and night; weekdays and weekends; winter and summer. During the week, the park surroundings reveal a greater concentration of cars than of people. In this case, park surroundings form a large parking lot during the week and the flow of people around it is related to parking activity.

Use of the surroundings is limited to large housing complexes with private condominium areas. This aspect means that the flow of people in their immediate surroundings is a daytime activity related to the essentially daytime entry and exit. In contrast to the urban aspect of the surroundings, Silvio Abreu Filho [7] analyses the urbanity of Parque Germânia according to the four aspects presented by Jacobs [3].

“She defines four indispensable conditions for generating urban diversity (Jacobs, p. 165). The first is the need for combined main uses, that is, urban spaces must serve more than one main function, preferably more than two, ensuring the presence of people at different times and for different reasons, making use of the infrastructure. The second is the need for short blocks, so that streets and opportunities for turning corners are frequent, oxygenating and irrigating the city with public space. The third is the need for old buildings, in a very compact mix of buildings of varying ages and states of conservation, to generate a diversity of economic income and opportunities. The fourth is the need for concentration, with a sufficiently high density of people, and high concentration of local residents” [7]

The relationship between the fencing and the gates presents different situations. Areas outside the fences are presented as passageways, the areas inside the fences appear as seating areas. Park entrance and exit gates also take on trading characteristics at weekends. The gates restrict space and are a mandatory passage for park visitors, becoming trading areas through the accumulation of food trucks and street vendors. Figures 11 and 12 illustrate the park’s main access on weekdays and at weekends. There is no trade near the gates on weekdays, and they merely provide passage between the outside and inside.
Figure 11. Main access to the park on weekdays
Figure 12. Main access to the park at weekends

5. Final Considerations
Analysis of Parque Germânia according to the proposed model proves the inseparability of the built environment and appropriation. The methodological model proves to be an approach to a structured understanding of the effective urbanity of public spaces.

In the case study of Parque Germânia different nuances were presented in the issues of diversity and tolerance, visibility, and flexibility. The observed aspects constitute a structured analysis that can be used in post-occupation evaluation. Characteristics of Latin American cities, insecurity generated by urban violence and social segregation, can be seen to be reflected in the public appropriation of Parque Germânia.

Two main conclusions can be pointed out by the study. The first is that the occupation conditions of the surroundings, characterized by high-income residential condominiums, reflect the low pedestrian traffic during weekdays. The second is that the physical conditions of the park are strongly defined by the presence of the Permanent Preservation Areas and their enclosure, in addition to the enclosure of the park itself. Such conditions for the appropriation of the park conferred a usage dynamic of appropriation that needs further study. At nighttime during the week there is a sparse circulation of cars and people around the park, giving the area a sense of emptiness. At times of greater flow in the park, people are seen to “venture” towards the low visibility spaces presented by barriers and at times of low flow people essentially occupy the axes and adjacent sectors. This proves that visibility is an important factor for guaranteeing a sense of security and that, in the specific case of Parque Germânia, there are sectors and times without visibility and therefore without security.

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