

The Permanence of Urban Form in the Construction of a Place:

Quality of Design in a 1930's Residential Area in Rio de Janeiro, Brazil

Vicente del Rio, Marcos Favero, Bruno Alegria, Adriana Santos, and Vanessa Quintal

Federal University of Rio de Janeiro and CalPoly San Luis Obispo

How much of the original urban design of an area leads to its perceived qualities, to its public image, and to its recognition as a special place by its users? In this paper we present the preliminary results of a comparative study of residential areas in the city of Rio de Janeiro - Brazil, that are highly regarded as special places by both their communities and the population at large.¹ Our research tries to understand which aspects of the original design of these places still remain today and may be held responsible for their popular success, and which design fundamentals are common to all of them. We will comment on the first case-study in our research, the area called General Glicerio, a residential development of the late thirties.

Place Construction and Dimensions of Performance

To study a place means to understand the relationships that its users have with it, and its *genius loci* (Norberg-Schultz, 1979). In a city, the quality of a place determines preferences and expectations, attractiveness, inclusion in tourist guides, commercial profits and differential land rents. People simply feel attracted or not to a place, a feeling that Tuan (1974, 1977) relates to memory, to imagination and to what he calls *topophilia*. In this sense, our research assumed the theoretical construct of a place proposed by Canter (1977), who understands that the nature of places is formed in the amalgam of three fundamental realms: its observable physical attributes, the concepts that it forms in our minds, and the set of behaviors that it is capable to promote.

The Study Area

The case study discussed is an area popularly known as General Glicerio, a residential development that replaced a XIX Century mill with a garden-city-like, appropriate and site-specific urban design.² The area is regarded as a specific place in Laranjeiras, a district in the south zone of Rio de Janeiro that today is mostly middle-class high-density residential. The district lies along the narrow valleys of a creek, and its development is limited by the rough top-

ographic conditions typical of most of the southern territory of Rio de Janeiro (Fig. 1).

As the valley district of Laranjeiras is right off the expansion line from downtown towards the southern districts and the beaches, urbanization and the sub-division of its rural properties happened as soon as tram tracks were built in the beginning of the XIX Century. With the tram, commercial uses and higher densities concentrating along the major central valley, and from it the General Glicerio road lead to the gate of a new textile company - mill, administrative buildings and labour housing.

Closed down in the late thirties, the mill and its properties gave way to a residential middle-class real-estate development: *Cidade Jardim Laranjeiras* - Laranjeiras Garden City, a name that reveals a coincidence with the proposals contained in the city-beautiful master plan for Rio that had been completed almost a decade before by the French architect-urbanist Auguste Agache. Designed by architect Washington Azevedo, the original project reveals a strong influence of the garden-city model: adapted to climatic and topographic conditions, it covered an area of approximately 29 ha. with 413 lots for detached houses in an organic street pattern around a central spine.

Interrupted by the II World War, the development was re-launched in 1945 with changes to the original design. The General Glicerio street was now to receive twelve residential buildings of twelve stories each - some of them with shops at street level -, three stories residential buildings were allowed in the surrounding lots, and the plan of a new city tunnel connecting to southern neighborhoods was incorporated into the design. The development was to impact in the district in attracting hundreds of new families. Interestingly, architect Azevedo was sensible enough to respond to the new post-war taste, altering his original design toward a more "progressive" refreshed image. He understood that the construction of the tunnel would turn main street into an avenue, in which case tall buildings would be more appropriate.³ He also adopted a *proto-modernist* vocabulary for the new tower-blocks, besides concepts of the Charter of Athens, such as the idea of super-block, the high density and the tower-in-the-green. Figure: 1



Both the original and the revised project had urban design qualities that were advanced for their time: it was responsive to site conditions, it permitted a mix of residential and commercial uses, it promoted an impressive tree canopy covering main street, it put value in pedestrian circulation by means of wide sidewalks and of design solutions that stressed semi-public spaces. Advertising at that time stressed the qualities of *Cidade Jardim Laranjeiras*: “a modern city in an aristocratic neighborhood”, “the most picturesque quarter in Rio”, “ten minutes from downtown”, “rigorous selection of buyers”, “healthy climate and proximity to Flamengo beach and to commercial centers” (*A Semana*, 9/9/1939). Later, after the design was changed and the development re-launched, a newspaper stated that “majestic constructions surrounded by gardens” would cause a stronger effect in the design of the whole (*Diário da Noite*, 3/15/1945).

Although in the seventies real-estate developers and zoning changes forced building heights to go up to five and seven stories in the area, and the neighborhood as a whole changed dramatically, our place managed to maintain much of the original aspects that made it special and admired by its community and by the city population at large.

Research Methods and Findings

Besides the historical evolution of the district and the study area, we considered census data, field appraisals, morphological and figure-ground analyses, interviews, questionnaires, and cognitive mapping (Fig. 2). A series of maps and serial-vision sketches (Cullen) were drawn showing physical and spatial attributes.

Located in the bottom of a small valley, General Glicerio street is surrounded by steep hills that define the organic street pattern of the development. The circulation system is dependent on the main street as the axis, served by the two involving rings of secondary streets responding to contour levels, and land-use is predominately residential except in some of the tower blocks with convenience shops at ground floor. Tree planting is intense, particularly along the main street; an important amenity in making the place comfortable and known for.

In the original design, permeability between the street realm, the tower blocks and the surrounding hills was superb. In walking along the main street marked by tall trees and their impressive canopy, the rest of the development and the surrounding slopes always show through the spaces between tower blocks, and as a scenario at the end of the street. Until recently, the tower blocks maintained their two original main entrances – one from the main

street and another from the back street. Pedestrians also could walk easily from one street to the other through the landscaped short-cuts between the buildings. Unfortunately, physical permeability was disrupted when tower blocks residents decided to maintain the main entrance, for the sake of “security. Nevertheless, the front landscaped areas and the street connections were preserved, still allowing for passengers of arriving cars to enjoy a comfortable *portecochere*, and pedestrians to have a direct physical and visual connection to the buildings.

A series of site interviews and the random application of ninety questionnaires to respondents who lived, worked or used the study area, provided us with rich information on cognitive mapping, environmental evaluations and preferences. Respondents were sub-divided into four groups of users: those who live in the area, those who work in the area, and those who only use the area frequently. The data generated graphics to help in the analysis of results. Here we can only comment very briefly on the results obtained and the preliminary conclusions of the research.

For instance, to the question “*What is the first thing that comes to your mind when you think of this place?*”, 58% of the respondents imagined positive aspects, and crossing this data to the answers to other questions suggests a significant relation of these positive aspects to physical and design aspects of the area. Another question about the degree of satisfaction towards a list of elements revealed “tree planting” as the most preferred, and the aesthetics of the place as a whole came in second followed by the gardens. The only item that received a totally negative evaluation was parking, from 69% of the respondents; parking spaces in the area are well beneath demand, and irregular parking impedes pedestrian circulation

The majority of respondents was worried about personal security – a feeling that is shared with all population in Rio as a matter of fact – and said they wanted police watch-points in the place. 81% of the respondents wanted more recreational areas – the little square with the play-ground seemed not to be enough – and 55% of them suggested the main street should be closed to through-traffic on Sundays and holidays so that it could be used freely for recreational purposes – just like is done very successfully in other parts of the city.

The most important *lynchian* element for the construction and structure of the mental image of this place is the “path” and, as expected, the General Glicerio street stands out because it is the main access and the physical axis that organizes the space around it, what is reinforced by the presence of intense tree plant-

Figure: 2



ing and the “tunnel effect” that it generates. The little square at the entrance of the area may definitely be considered a “node”, and constitutes a spot for functional, spatial, and formal interest of the respondents. As to the “sector” and “limit” elements, the majority of the respondents place a distinction between the study area and the rest of the district.

Preliminary Conclusions

The comparative analysis of the area as it is today with the original urban design, and the permanence of many of its most important aspects, revealed that the quality of design was fundamental to its recognition as a special place in the city, and to its preservation by the community of users. These results permit us to conclude that the methodology proved to be valid in qualifying the performance of urban design, particularly in respect to the cognition of its principal assets, and their role in helping it to be recognized as a special place by its users. The interviews and answers to questionnaires corroborate this conclusion. In our case, the research suggests that quality and uniqueness of place seems to be derived from:

- the site with its unique topography, constituting a small and enclosed valley with only one entrance and a feeling of being “out of the urban craze”;
- the clarity, quality and responsiveness of the original urban design;
- the tall and ever-present canopy of large trees aligned along the main central axis-street;
- the relationships between public/semi-public/private spaces, and particularly the intensely landscaped side-walks and set-backs of the residential towers;
- the relative visual permeability of the place: spaces between tower blocks reveal the surrounding slopes and suggests the ever-present security of enclosure, small public spaces for the use of children and the aged, along the main axis and easily controlled from the blocks and sidewalks.

Our findings suggest that the public image of the area - its perceived qualities, attractiveness and recognition as a special place in the city - is strongly related to the quality of the original project and the permanence of some of its design elements and attributes, and to how they are perceived, utilized and preserved by the residential community and by other users of the area. Its design quality also generated a strong community movement that guarantees preservation to this day - some years back the city responded to this movement by declaring it a preservation area. The quality of the place is clear in the daily use of its residents and frequenters alike, immersed in the three realms that Canter (1977) points out as affecting the con-

struction of a place: physical attributes, concepts and behaviors.

References

- Canter, David (1977) *Psychology of Place*. London: Architectural Press.
- Choay, Françoise (1998) *O Urbanismo*. São Paulo: Editora Perspectiva.
- Cullen, Gordon (1961) *The Concise Townscape*. London: Architectural Press.
- del Rio, Vicente & Gallo, Haroldo (2000). *The Legacy of Modern Urbanism in Brazil*. In *Do-co-mo-mo Journal # 23 (The Modern City Facing the Future)*. Delft:International Working Party for the Documentation and Conservation of Buildings, Sites and Neighborhoods of the Modern Movement.
- Lynch, Kevin (1981) *Good City Form*. Cambridge, MA: MIT Press.
- _____ (1960) *The Image of the City*. Cambridge, MA: MIT Press.
- Norberg-Schulz, Christian (1979) *Genius Loci - Towards a Phenomenology of Architecture*. London: Academy Editions.
- Piaget, Jean (1963) *Traité de Psychologie Experimentale : La Perception*. Paris: Presses Universitaires de France.
- Tuan, Yi-Fu (1977) *Space and Place*. Minneapolis: University of Minnesota Press.
- _____ (1974) *Topophilia*. Englewoods Cliffs, NJ: Prentice Hall.

Endnotes

- ¹ The research Urban Design and the Quality of Place: Performance Evaluation of Places in the City of Rio de Janeiro with Emphasis in the Study of in Environmental Perception and Cognition was coordinated by professor Vicente del Rio at the graduate program in architecture of the Universidade Federal do Rio de Janeiro - Brazil, from 1999-2000, and received grants from the Brazilian National Council for Scientific Development - CNPq, and the Jose Bonifacio University Foundation - FUJB.
- ² Named after the district where it is located, in Portuguese the name the development means “garden-city of orange trees”.
- ³ The city was to give up building the tunnel in the late fifties.

Figure 3

