Tangible Patterns and Levels of Belonging in the Neighborhood's Public Spaces

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Abstract. Santiago de Chile is a metropolitan city with high residential mobility. This mobility is related to a generalized sociopolitical and cultural centralism developed in the country, which generates an inequality between life in the capital city and other states. In the country, one of the significant challenges cities have encountered is their constant growth. This growth generates a series of country-wide issues, such as the increase of insecurity, the need for greater citizen participation, and the incentive to support the preservation of communities’ traditions.

In the last decades, citizens of Santiago de Chile have experienced a lack of belonging to their residential neighborhoods. This lack of belonging is shown by the absence of a sense of attachment to the land and the respective community. Without housing continuity, neighborhood relations, and social ties among residents face development difficulties. In this context, it is challenging to consolidate communities in neighborhoods, which is a fundamental aspect of the sustainable development of a city.

Public space represents a common element for different human groups. These spaces can contribute to the satisfaction of needs, such as a sense of belonging and community consolidation. Commonly, public spaces are highly valued due to their recreational and leisure opportunities. The relationship between urban space and sociocultural aspects of its inhabitants determines the degree of belonging to the neighborhood.

The research focuses on residents’ sense of belonging in the Santiago Poniente neighborhood. The main objective is to identify and define the elements within the public space that embody a sense of belonging. Methodological surveys were used, as well as observations through drawings and the Neighborhood’s Plan Method. It has been able to determine specific tangible patterns in the place with which residents identify themselves and value as fundamental for their life in the neighborhood.
1. Introduction

Santiago is a metropolis with a high ratio of residential mobility. Population features are strongly connected to their destination locations; constant mobility tends to intensify pre-existing socio-spatial differences. Many population groups migrate to other areas of the city to settle down, searching for better opportunities, changes in their life cycles, or changes in their family’s composition. However, there is also a part of the population that settles down and remains in the same place for a long time. This population reflects ownership of the territory given by certain elements associated with a sense of belonging. The space, in some way or another, is related to each person.

Public space is a variable that can contribute to the consolidation of a community. It offers complementary spaces to the neighborhood for the development of participatory, recreational, and festive activities, particularly to the neighborhood’s newcomers. Granting these spaces spatial, formal, and aesthetic qualities can promote the gathering of diverse groups of neighbors under equal conditions.

1.1. Sense of belonging, community, and neighborhood

Defining and explaining some specific concepts will help understand the different interactions and social links that predominate in public spaces of a neighborhood, such as a sense of belonging, community, and neighborhood.

A sense of belonging is defined as the identification and acceptance of an individual with a group or a specific place. It is related to a person’s feelings that are associated with experiences, symbols, daily activities, safety, among others. These feelings make the place a respectable environment for the person [1]. The sensation becomes stronger as social circles of the inhabitants converge on the territory. When inhabitants require services outside the territory, such as education and employment, they acquire new social circles. Going to other areas entails developing multiple social circles at the same time; that is, multiple senses of belonging. “Life in contemporary modernity imposes on individuals the existence of a large number of polycentric social circles.” [2]

The community is where the sense of belonging develops. It represents the stage where human relationships are built, recognition of others is established, and collective awareness is identified within the situation of a shared life [3]. It is possible to identify a link between the inhabitant, space, and their elements. Each community can define its activities in this space: meetings, celebrations, fairs, markets, local parties, sports activities, among others, which strengthen social cohesion.

Hence, community space is provided with meanings and symbolic connections. There must be a physical place that puts them together, which is known as "neighborhood" to recognize these concepts. The neighborhood is defined as an identifiable urban unit, an organized system of relations at a specific scale, and the sitting of a given urban community [4]. In general, there can be found multiple equipment and services within a neighborhood. Above all, it is understood that it has generic characteristics related to the idea of spatial, social, and cultural unity. It is considered an urban referent that has a territorial connotation, with unrepeateable features. A neighborhood involves a physical-environmental homogeneity and similarity in the inhabitants’ behavior. Each area has spatial circumstances that characterize it due to cultural conditions and socioeconomic stratification. It also appears as a community life controller, where individual and collective performances are shown. A neighborhood is where a child develops their first friendships, as well as a youth and an adult their first lively and political expressions. It is a social learning space that transcends the family context.

1.2. Public Space: the material dimension and the immaterial dimension

Public space is defined as a public good where their inhabitants have the right to use it collectively. This space is shaped by two dimensions: the material dimension and the immaterial dimension.

The material dimension is configured by certain architectural elements and conditions such as a) natural elements (i.e., preservation areas for natural resources or areas that have not been intervened by humans) and b) artificial elements (e.g., streets, parks, squares, etc.). Artificial elements are classified into two categories: permanent and mobile elements. These urban physical aspects ensure the comfort (visual, thermal, ergonomic) and safety of public spaces in order to promote its use. A well designed
public space consists of elements fostering an intensive use of the space and when it is capable of gathering the aspirations and requirements of the community. The design also acknowledges other architectural conditions such as scale, proportion, dimensions, and lighting features. These conditions may also consider accessible design and universal accessibility devices, signage, sidewalks, and pedestrian crossings (Figure 1).

The immaterial dimension is defined as the moment when that space is used, and certain acts or actions are recognized in it. We must consider as well the user type and their impact on the use of public spaces, e.g., the dynamics of the elderly neighbors vary significantly from dynamics by families or young people. By linking both dimensions, it can be said that the design is closely related to the understanding of the reality where it is inserted. This linkage will reveal an appropriation by the frequent user who will recognize ownership and comfort.

Figure 1. Organizational chart of concepts related to public spaces in neighborhoods.

1.3. Sense of Ownership of the Neighborhood Area
The settlement in a neighborhood considers a set of different kinds of manifestations by its neighbors, who express themselves accordingly to the accessibility opportunities provided by context. For Hertzberger, design standards for spaces will vary according to their accessibility level [5]. He refers to the choice of architectural elements, their articulation, shape, and material as crucial components to the design of the space requirements since architecture can promote specific uses. Wherever individuals or groups of people are allowed to use public space for their own interests, the public nature of that space will be placed, temporarily or permanently, under the scope of that specific use. Each space features will depend, in part, on who defines its management and who takes responsibility for it.

In residential neighborhoods, the most relevant public space is the street. This space can even achieve "living room" standards, both for daily interaction and for special community occasions. Both types of activities are developed in one same space. The street can also be used as an extension of the house. The “street life” concept is based on the idea that its inhabitants have something in common, that they expect something from the other, even if it is just to be aware that they need each other.

Shared interests by neighbors or the feeling of “belonging together” revolves around a daily interaction that takes place in the street or other public spaces. The permanent contact between neighbors or neighbors babysitting children from other families playing on the street is a clear example of shared neighborhood life. In summary, all those concerns that are considered as part of daily life whose relevance is underestimated. In terms of mobility and the street, studies by Baratta have confirmed that pedestrian-friendly neighborhoods increase movement by foot or by bicycle and triplicates the use of
public transit. This situation can significantly reduce car use compared to other neighborhoods with no pedestrian infrastructure. [6]

2. Objective, Methodology and Case Study
The objective of this study is to recognize elements that configure public spaces of the neighborhood and to analyze its evolution over time, identifying features related to the inhabitant’s sense of belonging.

The proposed methodology consists of the development of planimetric drawings, on-site sketches and surveys applied to users of public spaces in the neighborhood. The survey design was applied to a total of 48 respondents (21 males and 27 females). Respondents were required to be residents of the neighborhood or to work at the farmer’s market. These variables were defined in order to analyze a group with experience and relevant knowledge of the neighborhood, such as the location of public services and green areas, public streets, and main streets.

Additionally, the Neighborhood Maps method [7] was applied to connect impressions of users to areas defined by public spaces of the neighborhood. This method is based on a survey where respondents are asked to draw boundaries on a base map of the areas considered as safe, comfortable, crowded, etc., from the case study.

The case study is located in the Santiago Poniente district and was selected due to the confluence of the following urban features: buildings in poor condition, gentrification, modifications in the land use, and high population mobility. This area represents one of the districts with the highest transitory population settlement in the city of Santiago. The centralized location of residences and the existing bedroom leasing system contribute to the high demand for housing in this area. Likewise, the presence of numerous infrastructures, public utilities and facilities are considered as positive aspects of the neighborhood. The case study consists of the Panama neighborhood and its surrounding context, where Panama Park is located (Figures 2 and 3). This neighborhood presents a busy urban life, with continuous pedestrian flow and a farmer’s market on Wednesdays and Sundays that constitute the neighborhood’s central node. It is possible to identify different types of dwellings (i.e., cités, continuous facade buildings, and housing complexes) that generate diversity in the profile of its inhabitants.

![Figure 2. Organizational chart of Panama Neighborhood.](image-url)
3. Results
The survey application, the Neighborhood Maps method, and field observation allowed researchers to identify the impressions and opinions of neighbors regarding public spaces of the Panama neighborhood. This information contributed to characterize the satisfaction level from neighbors, to measure the park's occupancy and associated feelings of safety.

3.1. The Panama Neighborhood
The age range of survey respondents varies from 20 to 80 years old, and there is a predominance of neighbors between 60 and 70 years old (12%). Results show that 78% rated the neighborhood overall with 5 and 6 out of 7 due to factors related to the proper maintenance of the streets and the variety of public utilities, facilities, and proximity to public transit. However, the growing unsafety perceived in the neighborhood over recent years was also mentioned.

Respondents were asked about their assessment of the neighborhood, taking as a reference other neighborhoods they have previously inhabited, in order to analyze the general perception regarding the quality of public spaces and utilities of the Panama neighborhood. Results show that 48% of respondents feel that the Panama neighborhood has a better standard than their previous homes. This response may be attributed to the benefits of the proximity of services and utilities in the neighborhood. Both male (42%) and female (55%) neighbors rated the neighborhood as "Best" compared to other areas in Santiago. Results also show a propensity to compare the neighborhood with its previous condition. Respondents mentioned that safety issues and relationships between neighbors were not relevant some years ago. They emphasize that today this has been lost due to the progressive misuse of the park and the neighborhood.

Neighbors were inquired about their greeting habits with other neighbors on the street and their participation in community organizations in order to characterize relationships within the neighborhood. Results show that 70% of respondents usually greet their neighbors (84% male, 61% female), while 76% are aware of the existence of neighborhood associations or neighborhood councils. Elderly adults
are the most informed and active participating neighbors of these organizations. Overall, the neighborhood shows a high sense of community organization and concern for its safety.

As neighborhood issues, the frequent abuse of alcohol and drugs (24%) is the primary source of unsafety and uncertainty for neighbors and cause of numerous crimes in the neighborhood (20%) (figure 4). The level of sense of belonging is affected by these issues as they usually occur in public spaces. These spaces are where neighbors require the development of community workshops and instances of recreation. In other words, public spaces such as the park become appropriated by alcoholics, drug addicts, and criminals; and becomes unsafe and challenging to occupy by other neighbors.

![Figure 4. Neighborhood issues perceived by neighbors.](image)

The Neighborhood Map method developed by Rossetti et al. [7] consists of a survey where neighbors freely identify their perceived neighborhood area and boundaries on a base map of the context. Results consistently show some neighborhood areas coinciding in all maps drawn by respondents. Table 1 synthesizes these coincidences as public space areas.
Table 1. Neighborhood Plan Results.

|                                      | m²  | há  | %      |
|--------------------------------------|-----|-----|--------|
| Santiago Poniente District Total Area (a) | 3,932,927 | 390 | 100    |
| Matching Neighborhoods Total Area (b) | 34,587  | 3,4  | 0,87   |
| Maximum Area (c)                     | 2,114,593 | 211,4 | 54,2   |
| Minimum Area (d)                     | 34,587  | 3,4  | 0,87   |
| Green Areas Located Within Matching Neighborhoods Area (e) | 2,865  | 0,28 | 0,07 (8,3% de (b)) |
| Area of Utilities and Public Services within the Total Marching Area (f) | 1,053 | 0,1  | 0,02 (3% de (b)) |

The areas of highest and lowest influence show a significant difference of 208 ha. Perception levels of each neighbor vary, both by gender and by age, despite the survey's requirement of a minimum residence period in the Santiago Poniente district. The largest neighborhood area identified by neighbors exceeds half of the total area of the Santiago Poniente district (54%), while the smallest area corresponds only to 0.87%. Figure 5 shows all overlapped, where dark colors represent areas of high coincidence, while the light colors low coincidence areas.

Figure 5. Neighborhood Maps of the Panama Neighborhood
3.2. The Panama Park and Elements in Public Spaces  
A significant ratio of elderly males frequently occupies public spaces in the neighborhood. Respondents from this age range acknowledged visiting the park, grocery store warehouse, and bakery on a daily basis either by themselves or in groups as these businesses are identified as meeting points in the neighborhood. Neighbors, in general, rated public spaces of Panama neighborhood with a grade 5 out of 7 (figure 6). Respondents emphasized the proximity of the park, transport, and facilities as positive aspects and were identified as high incidence factors in the survey. Low ratings of the quality of the public spaces by neighbors were attributed to the lack of safety, while residents living in the neighborhood 30 plus years gave high ratings.

![Figure 6. Public space occupancy by age range.](image)

Most of the park’s users during the daytime are older women (50 to 60 years old) who take care of their grandchildren after school hours, i.e., between 3 pm and 6 pm. During the afternoon, it is common to find users of similar gender and age. Overall, one-third of respondents acknowledged not attending the park at all, while the other two-thirds attend at least once a week (figure 7).
It is possible to identify repetitive elements located in public spaces that externalize activities that usually take place inside homes. Chairs, armchairs, cloth hangers, pennants, tables, among others, are some of the elements that were observed on site. These objects remain for long periods of time and acquire special relevance despite the absence of their owners (figures 8-9).

**Figure 8.** Sense of ownership of public spaces (sketches).
Figure 9. Sketches showing private elements in public spaces

These elements were classified according to their shape features, function, and user to define a connection with the level of belonging they depict in public spaces (table 2).
Table 2. Synthesis of elements found in the neighborhood.

| Zone                      | Elements               | Use             | Users                                      | Levels of belonging |
|---------------------------|------------------------|-----------------|--------------------------------------------|---------------------|
| Park’s edges - street and sidewalk | Chairs, Armchairs, Clothes Line, Pennants, Tables, Wagons | Functional, Decorative | Only elements, intermittent users          | Low                 |
| San Pablo street - sidewalk | Tablecloths, Chairs, Tables | Functional, Commercial | Variety of users: residents y non residents. | Medium low          |
| Panama Park               | Children’s playground, “Coat rack” trees, Benches | Leisure, Functional | Children, families, homeless.               | Medium              |
| Cité Villa el Escorial - interior and sill | Vegetation, Grills, Pennants, Corner wall | Decorative, Functional | Mainly elderly people.                    | Medium high         |
| Martínez de Rozas north - street, sidewalk and houses sills | Fair’s sunshades, Fair’s tablecloths, Chairs, Clothes Line | Functional, Decorative, Commercial | Variety of users: residents y non residents. | High                |
| Maturana - houses sills   | Pennants, Tables, Chairs, Grills, Children’s playground | Decorative, Functional, Leisure | Variety of users: residents y non residents. | High                |

4. Conclusions
The Santiago Poniente district shows diverse perceptions of the neighborhood according to different types of neighbors, from young and older families to immigrants and homeless people. Every group appreciates their neighborhood and appropriation of the territory in a specific way. However, common aspects confirm an area of influence that is common to all of them.

Different levels for a sense of belonging may vary according to gender and age group. Safety levels in public spaces perceived by users through time have a relevant impact on rating results.

Many of the neighborhood site plans identified by neighbors are concentric to Panama Park as it is the only green area in the neighborhood. As the plan layouts move farther from this point, the boundaries coincide less between different neighbors.

Architectural design for public spaces must consider elements that meet the basic needs of the community in order to support the integrity of its activities. The balance between architectural elements and the sense of belonging will exist as long as neighbors acknowledge in those elements, features that identify, embrace, and support their activities.
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