Public Space in the Regeneration of the City

Raquel Isabel Teixeira dos Santos

Report Supervised by Professor Dr. Miguel José das Neves Pires Amado

MSc student in Architecture, Instituto Superior Técnico, Lisbon, Portugal

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ABSTRACT

Given the various problems that currently exist in cities, various proposals and future projections are increasing in order to reduce the impact of humanity on Earth. Therefore, public space has a relevant role in the regeneration and maintenance of the well-being of cities and it is considered one of the bases for obtaining a quality life in successful cities (UN-Habitat, 2016a).

In this sense, the present dissertation addresses how can the public space be an essential tool in land use planning, both in developed and developing countries through the proposal of quality public spaces based on their social, environmental and political-economic components. Taking into consideration the social and physical dimensions and through the analysis of recent case studies, the research focuses on the development of fundamental principles to implement in the process of transformation of public spaces.

The main results show that progressively interventions in public spaces have been growing with diverse programs managed by organizations worldwide. Public space planning is going in the direction of participatory proposals, which emerge from the communities’ own needs, encouraging a bottom-up process. The results also allowed us to conclude the importance of small-scale interventions that can serve as “seeds” in the progressive improvement of the city. By complementing these tools with the principles developed based on sustainability, it is possible to plan solid public spaces that have a positive impact on the dynamic city of today.

Keywords: Public Space; Participatory Processes; Sustainability; Human Behaviour; Gender equality
1 | INTRODUCTION

“Public space (...) [has] the capacity to promote the continuity of the urban space and to order and structure the territory.”

translation from Pinto et al., 2008, p.2

The present dissertation is part of a context in which the search for the improvement of the quality of life in the urban environment in economic, environmental and social terms becomes essential in the development of cities. Public space, until very recently devalued in achieving this objective, is in fact currently considered one of the foundations in obtaining quality of life and an essential “ingredient” of successful cities (UN-Habitat, 2016)

Indeed, in the context of today’s city, the new challenges in relation to overpopulation and the steady increase in the world’s urban population (United Nations, 2016) provoke problems such as the increase in the proliferation of physical and mental diseases (Awadalla, 2013) or the inequality (Kwai, 2012), casting doubt on the future of cities. In the context of solving these problems, the role of public space appears as an “(...) important identity factor of the cities, contributing to their structuring” (Pinto et al., 2008, p. 2).

It will also respond to the main requests in the transformation of the public space in order to update the information and sufficient data that answer the main current issues of the public space. In order to answer the main question of writing, it is made a suggestion of principles of transformation of the urban spaces, which allow to reach more sustainable cities.

2 | PUBLIC SPACE AS CONSOLIDATION SPACE OF THE CITY

“Vital cities have marvelous innate abilities for understanding, communicating, contriving, and inventing what is required to combat their difficulties... Lively, diverse, intense cities contain the seeds of their own regeneration, with energy enough to carry over for problems and needs outside themselves.”

Jane Jacobs, The Death and Life of Great American Cities, pp. 461-462

In this first chapter, it is first intended to make a framework of historical evolution and its concepts of the city and public space, with special emphasis on the issues arising from the modernist period, where the respective challenges continue to the present day. The city mirrors the state of society at various historical moments. In fact, public space has always been present from ancient times to the present day. Its perceptions varied, having a mutating impact on the life of the citizen, who interacts with it unconsciously. The great demonstrations regarding the urban public space took place mainly in the modern era around the 60s. Nevertheless, its historical path, the uses and respective transformations began long before this period. Either in Ancient Egypt, Mayan civilizations or in the Greek and Roman civilizations, we can see examples of these spaces that, although not called “public spaces”, contained some of these characteristics. Open spaces were dedicated to recreational activities, commodity transactions and the importance of power. In the medieval city, it is used more frequently by the population. In the Renaissance period, the public space is reconfigured with the idea of a square in prominent places of the city, appearing as well the first gardens
and urban parks.

The industrial revolutions of the XVIII and XIX centuries, with the introduction of the steam engine, the automobile, new construction materials and planning, led to an acceleration in the evolution of modern society, transforming the existent space of the city. With the economic boom of the post-World War and the migration of the rural population to the cities, illegal and rudimentary constructions began to emerge in the peripheries (Mumford, 1970). Concepts and phenomena such as distopia, gated communities, social control neighbourhoods, urban voids, dissuasive design (that led to the exclusion of the poorest) and consumerist lifestyle are described and how only the following artistic mentality succeeded in transforming the urban voids into pleasant places. During the 50’s adventure playgrounds have the same effect, such as following artistic movements from the 60’s to the 90’s, such as Publi Art, underground culture and civic art. Others like Jane Jacobs, William Whyte and Jan Gehl transformed the modernist perception of the city into one focused in the human scale, its experiences and dynamism.

Next, it is explained the meaning of public space, its current definition - as opposed to private space -, constitution and process - comprising its 3 territorial scales (Pinto et al., 2008). Given the complexity and diversity of public spaces, a collective analysis of Duarte Francisco’s (2005) parameters of urban public spaces and its typologies by Gonçalves (2006) and UN-Habitat (2016) - who considered the typologies of cities worldwide, this analysis being thus an update and a compendium of this investigation - is necessary in order to have a better comprehension of these spaces.

Completing this chapter, why and how public space is relevant in the regeneration of cities is explained. Cities are like a living organism, forever in metamorphosis, regenerating themselves in order to correct its vices that were accumulated over past periods, especially the XX century. Current concerns include overcrowding and it is predicted 60% of world population living in cities by 2030 (United Nations, 2016) -, the functional zoning of some cities (Krier, 1999), environmental problems and pollution due to industrialization, cars and an increasing consumerism (Awadalla, 2013), technology and the digital age, among others. Emerging countries are being one of the most affected by its abrupt growth, slums, extreme poverty and unemployment, problems in water supply, basic sanitation, hygiene, food (Awadalla, 2013), physical and psychological illnesses and social instability. Thus, public space will have a role in filling politicoeconomic, social and environmental issues presenting some advantages as growth of local economies and wealth; equal rights, social inclusion and safety; and mitigation of climate change, conservation of habitats and public health (Future of Places, no date; UN-Habitat, 2016).

So, in spite of some challenges future planning will have to surpass, public space will have an extremely important role in healing urban life in both formal cities and informal settlements, as it has been doing over past ages.
“The public realm has ‘physical’ (space) and ‘social’ (activity) dimensions.”

Carmona et al., 2010, p. 109

The analysis of public space planning focuses here on its two most relevant dimensions. According to Gehl (2011): first is life (social dimension), followed by spaces (physical dimension). People “create and modify” spaces, as they are influenced by them (Carmona et al., 2010, p.106), making an analysis of the use of public space necessary.

The causes that inspire the human being to interact with the public space focus above all on a diversity of “things to see and do” (Gomes, 2011, 197). Gehl (2011) synthesized them in psychological needs - involving contact with others, interest in knowledge and social stimulation - and physical, such as eating, drinking and resting. The sequence of different environments, buildings, relaxation, temporary events, urban art and entertainment, commerce and climatic conditions are other factors that attract people into the public space (Chen et al., 2016; Garau et al., 2005). Gender, age, income level and marital status are, in turn, factors that affect the use patterns of public spaces (Chen et al., 2016). A wide variety of uses provide quality to the city both socially and economically (Jacobs, 1992) and activities and events enable interpersonal contact. Gehl (2010) distinguishes three main categories for activities carried out in public space: necessary (i.e. working or shopping), optional (i.e. walking) and social (i.e. interpersonal encounters). As it turns out, the use of public space is quite varied, including several actions. Two types of movement of an individual are analyzed: walking and rest (sitting and standing). Jacobs (1961) notes that sidewalks are fundamental in creating interpersonal contact; standing permanence, related to waiting, is preferably done “close to something” - edge effect (Gehl, 2011); as for the seats, both primary and secondary are relevant in contemplation and relaxation, as well as their location, number and polyvalence.

Although some studies point to a growing mixed environment in common spaces, there are still a number of challenges in achieving accessible and safe space for women. Crime, insecurity, harassment, violence, segregation and lack of action on the part of government entities are the main problems that encompass gender inequality, especially in emerging countries. Gaag (2014) has identified three levels of intervention - institutional, family and community and individual - that help transform this mentality.

Institutionally, it is necessary to review and improve laws and regulations, identifying urban design problems and its maintenance, improving the effectiveness of stakeholders and police, and including women in the planning process; at community level, awareness-raising campaigns; and finally, at the individual level, aid programs that make women psychologically stronger and able to overcome barriers and develop independently.

The different behaviors of women in the public space must be understood in order to improve it: more green spaces make the streets safer and more pleasant (Van Enis, 2016); better lighting in the streets, widening of the sidewalks and more w.c., among others, are measures that combat insecurity and harassment.

For the study of the physical dimension, the processes of public space planning were analyzed comparatively, emphasizing the participatory nature of the population. The participatory model allows
citizens to intervene in the various stages of planning, from the Objectives to the Evaluation of decisions, ensuring the sustainable and lasting functionality of the spaces and the union of the community by sharing common goals. It is a bottom-up process, rather than a top-down, in which the architect also learns from the population. Participation provides responsible ownership of the common space, reduces crime and vandalism, prevents unnecessary spending, improves public transport and green spaces, protects environmental and built heritage, and women’s participation ensures the improvement of their needs (Amado et al., 2008; UN-Habitat, 2013; Wates, 2006). There are disadvantages, however, such as the lack of participation of the population in general, disagreement among participants, exclusion of the most disadvantaged (in particular in emerging countries), interests, etc. (Project for Public Spaces, 2012).

Next, relevance is given to the response of the city to the major current issues - the increase in population density and urban density. For this effect, the sustainability principles for sustainable urban planning developed by UN-Habitat are analyzed and systematized the criteria of creation of pleasant and sustainable spaces (Table 1.1).

<table>
<thead>
<tr>
<th>Sustainability Principles</th>
<th>Pleasant Spaces Principles</th>
<th>Main features for a Pleasant Public Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Efficient space</strong></td>
<td>Comfort &amp; image</td>
<td>• Good first impression</td>
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<tr>
<td></td>
<td></td>
<td>• Quantity differentiated in gender</td>
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<td></td>
<td></td>
<td>• Adequate number of benches, well located and of varied choice</td>
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<td></td>
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<td>• Clean and safe space</td>
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<td></td>
<td></td>
<td>• Vehicles do not interfere with space negatively</td>
</tr>
<tr>
<td><strong>2. Diversified Soil Use</strong></td>
<td>Uses &amp; Activities</td>
<td>• Numerous and varied offer of activities</td>
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<td></td>
<td></td>
<td>• Variation in gender and age in activities</td>
</tr>
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<td></td>
<td></td>
<td>• Possibility for group and separate activities</td>
</tr>
<tr>
<td><strong>3. Social Diversity</strong></td>
<td>Sociable Environments</td>
<td>• Multiple people in group and separate</td>
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<td></td>
<td></td>
<td>• Constant eye contact and interaction between people</td>
</tr>
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<td><strong>4. Adequate density</strong></td>
<td>Access &amp; linkages</td>
<td>• Good connection between space and adjacent buildings</td>
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<td></td>
<td></td>
<td>• Visible and easy entry space</td>
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<td></td>
<td></td>
<td>• Public space for people with special needs</td>
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<td></td>
<td></td>
<td>• Open space walkways</td>
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<tr>
<td></td>
<td></td>
<td>• Good articulation between spaces</td>
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<tr>
<td></td>
<td></td>
<td>• Various transportation options</td>
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<td></td>
<td></td>
<td>• Transport stops located near possible destinations</td>
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</tbody>
</table>

Finally, the seven factors of CABE’s analysis (2006) as a support for the design of public spaces, both for technicians and for the community, are restructured and complemented by different literatures.
“Public participatory processes give residents the opportunity to help plan and design their city and its public spaces.”

Future of Places, 2016, p.1

This chapter comprises the analysis of six recent case studies, where the transformation of the public space, regarding the city regeneration, has been successfully achieved in various global contexts. It is also intended to understand the strategies and measures adopted for each case taking into account their context and main characteristics based on participatory processes.

The selection of the case studies considered the category of public space (streets, squares...), its theme/qualities (gender equality, identity...), type of intervention (consolidation, activation...), type of case study (isolated, part of a larger program), its localization (by continent), context (formal, informal), duration (temporary, permanent) and scale. In this sense, three case studies were analyzed in an informal context and another three in a formal context. In both contexts, it was attempted to look for unique situations with innovative approaches to community involvement (Villa Clorinda Park case study, Figure 1.1), technology (Dandora Model Street case study, Figure 1.2), planning for women (Gerehu Market case study, Figure 1.3), alternatives to the transformation of public space (Pavement to Parks case study, Figure 1.4), the introduction of communal gardens in vacant lots (“Heavenly Hundred Garden” study case, Figure 1.5) and the pedestrians (Republic Square case study, Figure 1.6).

The method of analysis was based on the one by Karssenberg et al., (2016), thus each case studied is structured by its context; problems and challenges; objectives and solutions; approach, methods and tools; environmental, social and economic impacts; and, at last, the conclusion for a better comparation between case studies.
The Table 1.2 summarizes the main findings in this analysis.

<table>
<thead>
<tr>
<th>Case studies</th>
<th>Problems</th>
<th>Strategy</th>
<th>Implemented measures</th>
<th>Impacts</th>
</tr>
</thead>
</table>
| Juegos Villa Clorinda Park | - Social inequality  
- Insecurity  
- Vandalism | - Micro-interventions through the city in wateland  
- Participation of the population of all ages | - urban furniture and painting  
- low-cost, local materials  
- Different elements for a creative use of the space | - Inclusion and cohesion of the community  
- Increase in local economy (other cases)  
- Good relation between locals and authorities  
- Local revitalization |
| Dandora Model Street | - High criminality and unemployment levels  
- Young people are often excluded from participation processes  
- Bad street in general | - Participatory methods with the use of technology (Minecraft)  
- Inclusion of young people, women, people with disabilities and entrepreneurs in the participatory process | - Paving and drainage of streets  
- Lighting and treadmills  
- Colored facades and vegetation  
- Reuse of landfill materials | - Increase in young people’s interest in planning  
- Improvements to well-being of the inhabitants  
- Increase in local economy and jobs  
- Good relation between locals and authorities |
| Gerrehu Market | - Discrimination and sexual harassment of women  
- Violence and crime in the market  
- Consumption and sale of illegal substances | - Response to violence against women - security and equal rights  
- Participation of women in planning | - New staff, security, and special police  
- Improvement of the drinking water, rainwater and wastewater system  
- New structures allow more visibility  
- Strategic placement of benches | - Increase in safety, salubrity and hygiene  
- Increased use of public space by both sellers and their customers  
- More inclusive spaces  
- Increase in economic income |
| Parklets | - Parking spaces in great quantity | - Park (ing) Day to raise awareness of the role of the car in the city  
- Pavement to Parks as an activation of these spaces  
- Flexible construction and deconstruction of parklets | - Less parking space  
- Factor of portability of the parklet  
- Introduction of shaded places and benches  
- Introduction of vegetation  
- Introduction of urban art | - Increased quality of life  
- Improvement of the local economy  
- Reduced car pollution  
- Public awareness of the impacts of the car |
| “Heavenly Hundred” Garden | - Wasteland inside a block  
- Used by homeless people  
- Acts of violence during the Ucranian Rev. with various dead and wounded | - Intervention and starting idea of the community and its residents  
- Donations and volunteers without government interventions | - Vegetation & community garden  
- Recreation space for children  
- Leisure and rest area  
- Artistic mural and elements of homage | - Space with historical, sustainable and pleasant value for residents and citizens  
- Social cohesion |
| Republic Square | - Automotive space to a greater extent than pedestrian space  
- Difficult accessibility to the center  
- Few activities in the square | - Participation of the population through public events and workshops  
- Sensitization of the sustainable and ecological issue of space | - Vegetation and water mirror  
- Various benches and obstacles for skaters  
- Introduction of restoration space | - Increased used of the square  
- Increase in economy  
- Decrease in noise and air pollution |
5 | GUIDING PRINCIPLES IN THE TRANSFORMATION OF PUBLIC SPACES

(...) it is intended to promote the creation of coherent and inclusive urban spaces, with public space as a privileged element in achieving this goal. 

Pinto, Remesar e Amado, 2008, p. 2

This part focuses on a systematization and correlation between the different concepts, principles and criteria between the theoretical components analyzed in the first two chapters and the practical components of the case studies, which showed the impacts that the transformation of the public space has on the politicoeconomic, social and environmental. Likewise, it is possible to draw a parallel between these factors and the three pillars of sustainability, indicating it as the main objective to be achieved, given as well the current “state of affairs” (Figure 1.7).

![Figure 1.7. Criteria for a Quality Public Space](image)

Complementing these guiding principles, the process of public space planning is defined as well in Figure 1.8, having in mind the analysis made by PPS and Gehl and the findings from the last chapter.

![Figure 1.8. Process of Transformation for a Quality Public Space](image)
CONCLUSION

“The challenge now is for each profession to learn from each other how best to address the needs of the communities they serve, (...) to create a common language (...).”

Jackson and Kochtitzky, 2002, p.17

The main objective of this dissertation was to understand how the public space can be an essential tool in improving the negative conditions coming from the ideals of the past.

Given the various problems that currently exist in cities, there are more and more proposals and future projections for measures appropriate to the environment that reduce the impact of humanity on Earth. This work should not only be for environmentalists but should include every profession that has an impact on Nature’s resources. Architecture and urbanism are one of those services that can and should change your design capabilities. Public space has, in this sense, a relevant role in maintaining the well-being of cities as it has been throughout the writing.

In the introduction of writing, three main research questions were mentioned, which we tried to answer throughout the present dissertation.

1 | Can public space regenerate cities successfully?

Yes it can. Public spaces promises to promote the improvement of quality of life of any population, regardless of their income, religion, ethnicity, culture, through effective, inexpensive and durable methods as opposed to large real estate investments in pursuit of the same goal: the achievement of advantages at the political, economic, environmental and social levels that relate to the three pillars of sustainability.

2 | What are the guiding principles in the transformation of public spaces?

As it turned out, these are based mainly on their social, environmental and politico-economic components and allow, according to the analyzes carried out, to achieve the sustainability of public spaces in the creation of ecological, permeable, equitable and pleasant spaces in the reach of these spaces of quality.

3 | What are the most effective planning methods for transforming public spaces?

An aspect that have proved to be important in the planning of public spaces is its bottom-up process, which allows the inclusion of desires, needs and identification of the main problems by the users themselves at an early stage. It is clear that the involvement of women, children, young people, the elderly and anyone who is interested in it increases a cohesion of society and is directed towards the same objective: improving the quality of life of all citizens of the community. Another topic that is considered relevant is the influence that small interventions can have at city level. In fact, these smaller-scale interventions are more accessible, require fewer resources and can greatly alter the quality of public spaces.
REFERENCES


