

Urban legacies
of the late 20th century

GRAND PROJECTS

CONFERENCE PROCEEDINGS

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Urban interstices on the Lisbon hillside

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ABSTRACT

With this paper it is intended to present the results of a research focused on urban interstices on the Lisbon hillside, taking as a case study the São Bento valley. It was sought with this research: first, to recognize the nature of these spaces and the circumstances in which they were generated; second, to characterize their current condition; and third, to consider their potential and the possibilities of intervention. Methodologically, the research followed a qualitative single case study, following two complementary readings: i) the historical and the vertical reading, considering both urban and geomorphological configuration; and ii) the horizontal reading, considering the direct observation *in situ*.

Keywords: urban interstices, urban voids, territory as palimpsest, São Bento valley.

1. Introduction

The contemporary city is subjected to profound processes of transformation that are radically changing its structure, generating within itself and at the borders new types of spaces that are difficult to interpret and define (Sieverts, 2003). Among these spaces there are the urban interstices, undeveloped spaces within urban areas, at different scales, where emptiness prevails over fullness and naturalness prevails over built, characterized by the relationship with the surrounding spaces, from which they are divided by unclear boundaries or thresholds.

With this paper it is intended to present the results of a research focused on urban interstices on the Lisbon hillside, taking as a case study the São Bento valley. The research was conducted according to three main objectives: first, to recognize the nature of these spaces and the circumstances that have generated them; second, to characterize the current condition of these spaces according to their limits, surfaces and relations; and third, to consider their potential in the local urban environment and the possibilities of integration into the Lisbon urban system. Methodologically, the research followed a qualitative single case study. The study object – i.e., the urban interstices – was approached through two complementary readings: i) the historical and the vertical reading, considering both urban and geomorphological configuration; and ii) the horizontal reading, considering the direct observation *in situ*.

2. Background

2.1 The nature of the urban interstices

The border of the city, the architectural mass of the city, is cracked
(Pier Paolo Pasolini, *La forma della città*, 1974)

The contemporary urban settlements are subject to profound transformation processes that are radically and rapidly changing their physical structure and all their immaterial and symbolic relationships (Sieverts, 2003). The city of today is a complex and constantly changing organism, so complex that it is difficult to define it through the old concepts and tools (Mazza, 1995). Many authors have attempted a definition for this new urban form, such as *zwischenstadt* or intermediate city (Sieverts, 2003), *città diffusa* (Secchi, 2005), or generic city (Koolhaas & Mau, 1995).

Some of the common points of all these definitions are: the urban and rural dimension interpenetrate, overlap and hybridize, creating blurred and indeterminate boundaries (Secchi, 2005; Sieverts, 2003); contemporary cities are the place where material and virtual relationships meet (Ascher, 1996), where local actions and regional, national, global decisions compete, according to globalized flows

and local demands; the city presents within itself and within its limits unedited spaces or urban voids (Careri 2004, Sieverts 2003, Solà Morales, 1995).

It is precisely these urban voids that seem to be the protagonists of most studies and interventions in the contemporary city (Solà-Morales, 1995). They have been defined in many ways, such as *terrain vague* (Solà Morales, 1995), *territori attuali* (Careri, 2004), *spazi interclusi* (Rossi & Zetti, 2018), *nuove terre* (Marini, 2010), spaces in-between (Spirito, 2015) or third landscape (Clément, 2005). Considering the character of the spaces under study, the definition of urban interstices (Brighenti, 2013), seems to be the most appropriate. It is possible to summarize the main features of urban interstices as: unbuilt spaces within urban areas, at different scales, where emptiness prevails over fullness and naturalness prevails over built (Careri, 2004); waiting, abandoned, marginal, underused, ambiguous spaces (Solà-Morales, 1995); spaces in-between, characterized by the relationship with the surrounding areas, from which they are divided by unclear boundaries or thresholds; lack of planning that causes a lack of identity, of precise functions, of aesthetic and visual value; absence of integration between them and between them and the city (Rossi & Zetti, 2018).

Artists seem to have been the first to perceive these spaces, to register and to use them as work material (Marini, 2010). Among others, the work “Reality Properties: Fake Estates” developed by Gordon Matta-Clark in 1973 is a paradigmatic example. In this, the author brings together a set of unused and unusable interstitial spaces, “waste derived from the subdivision of land, too small to do anything with it, yet real and registered as such”, spaces that are real but “without any value, use or exchange, non-places, non-goods, non-commodities” (in Marini, 2010, 141-142).



Fig. 1 - Urban interstice in Lisbon, 2020. Source: Image of the authors.

2.2 The origin of the urban interstices

There may be a tendency to think that urban interstices have been randomly generated. However, the marks left in the territory to which these spaces belong show that their origin is not random at all (Clément, 2005; Corboz, 1985). If explored carefully, urban interstices “often allow the reading of the different times and the different components of their territorial palimpsest”, highlighting the structure of “the historical and geomorphological persistences of the territory, inspiring, as visible witnesses of an implicit project, the rules for their redesign” (Rossi & Zetti, 2017, 10-11).

Two main causes for the generation of urban interstices can be identified: the geographical and the anthropic cause. According to the theory of Saverio Muratori and his followers (Ravagnati, 2016), the original structures of the settlements are strongly affected by the presence of ancient connecting paths, which in turn were built considering geomorphological elements – that is, topographic, hydrographic and geographic elements.

Lisbon is a clear example of this. The rough topography of the territory has strongly influenced the current shape of the city, which has developed along the ancient paths of the ridge and valley. In fact, as referred by Carrilho da Graça and Sequeira (2019, 14), the study of historical cartography and the current urban morphology allows to clarify: on the one hand, “the enormous geographical and landscape strength of the city”; on the other hand, “that the structuring lines of the urban form coincide with the structuring lines of its topography”.



Fig. 2 - Paths of ridge and valley in Lisbon, 2020. Source: Image of the authors.

Contemporary urban design is also one of the causes of urban interstices (Secchi, 2005). It is possible to observe a strange phenomenon: the more the design of the city intensifies, producing a copious number of plans, documents, and laws that seek to impose order through control, the more unused empty spaces are created. They are expectant areas without destination, the result of suspended interventions or the result of the myriad of micro-additions by private initiative, taking advantage of the fragility of the urban regulation instruments (Rossi & Zetti, 2018).

Returning to the work “Reality Properties: Fake Estates”, Sara Marini (2010, 55) mentions that Gordon Matta Clark, “by proposing cadastral documents, maps and photographs of a territory as works of art [...] makes explicit the relationship between the different levels of planning and perception of reality”, in such a way that “these experiences on waste mark how the order process that governs the territories can be the main architect of marginalized or useless areas”.

2.3 The potential of the urban interstices

Despite representing a residual and problematic part of the contemporary city, the urban interstices are simultaneously precious spaces with great potential. As referred by Solà Morales (1995, 75), the “emptiness, therefore, as an absence but also as a promise, as a contrast, as a place of possible and hopeful waiting”. This presents a new design challenge, since the intervention in the existing city, “in its most interstitial parts, can no longer be either easy or effective, as instead postulated the efficiency model of the enlightenment tradition of the modern movement” (Solà-Morales, 1995, 78).

It seems necessary to develop a new approach to these spaces: no longer an approach based on land consumption, mono functionalism of spaces and zoning, but a more flexible, dynamic and reversible approach focused on urban relations systems (Rossi & Zetti, 2018; Solà-Morales, 1995). A new way of designing based on diversity, which represents the greatest resource of these spaces: social diversity, functional diversity and biological diversity (Clément, 2005).

It seems possible to find solutions in these spaces for the unresolved problems of the contemporary city. Since these spaces suggest new design perspectives (Sieverts, 2003), they can be the site of new experiments in the field of urban design, through participatory planning or self-construction, but also of new innovative business and recreational experiences (Rossi & Zetti, 2018). Moreover, it is important to emphasize the importance of these spaces in the ecological dimension of the city. Most urban interstices have a permeable surface, in many cases with vegetation, thus playing already a role in the ecological system. These spaces can be left uncultivated (Lynch, 1992), in order to continue to support biodiversity, or they can be converted into small gardens or farms within the city (Clément, 2005).

3. Methodology

The research that produced the results presented in this paper was developed according to a qualitative single-case study design, focusing on the São Bento valley on the Lisbon hillside. The rationale that determined the choice of the case was the representativeness factor, that is, the significant presence of interstitial spaces in this area. In view of a holistic approach to the case study and its context and considering the particular complexity of this type of space, the process of data collection and analysis implied multimethods and multi sources of evidence (Creswell, 1994). Thus, as argued by Brighenti (2013), the recognition of urban interstices in the São Bento neighbourhood required two different readings.

First, the historical and the vertical reading were combined, in order to reconstruct the territorial palimpsest (Brighenti, 2013). On the one hand, with the historical reading, it was intended to clarify the phenomena involved in the production of the urban interstices. On the other hand, with the vertical reading (in Rossi & Zetti, 2018), that is, the traditional survey “from above”, the urban and geomorphological configuration of the case study were considered. Second, with the horizontal reading (in Rossi & Zetti, 2018) it was intended to approach the case study through direct exposure to the impulses and contingencies of the site (Careri, 2004). The practice of walking, as an “itinerant method over the ground, with a notepad and a camera” (in Rossi & Zetti, 2018, 76), proved to be a fundamental complement to the interpretation of the particular characteristics and values of the urban environment in the case study (Braz Afonso & Sousa Santos, 2019).

4. Results and discussion

4.1 Recognition

Two elements could symbolically represent the São Bento valley: water and stone. Over the years, the development of this area was based on the coexistence of functions related to the presence of water, such as agriculture and the aqueduct, and the presence of monumental masonry buildings, such as churches, convents and palaces. This area was one of the first expansions of the city outside the ancient walls, and while the valley retained its agricultural and rural character, the hills began to be occupied by houses, such as the Bairro Alto, built around the mid-seventeenth century with an orthogonal grid. São Bento also started to be occupied by convents.

The presence of convents was decisive in the urban character of the São Bento valley, due to the large and important buildings and the walls that limited the large areas of land for agricultural purposes. Thus, the large areas occupied by the convents determined the development of this area: with the continuous expansion of the city, the construction of new buildings and residential neighbourhoods

extended to the São Bento valley, consolidated territory, but leaving the areas of the convents untouched. In 1834 it was decided to extinguish the religious orders and expropriate all assets, including buildings and land.

Reading the historical cartographies, it is possible to recognize that, in most cases, the new neighbourhoods filled the old properties surrounded by the walls of the convents, while the large buildings of the convents assimilated important public functions. During the eighteenth, nineteenth and twentieth centuries, alongside the large country palaces and convents, residential districts, industrial settlements.

For the geomorphological reading of the case study area, it is necessary to start with some extended considerations. Carrilho da Graça and Marta Sequeira (2015), based on the comparison between ancient cartography and the current urban morphology, argues that Lisbon was born and developed from ancient routes based on the geographical context of the ridge and valley. This influence is so strong that most of the ancient routes persist as contemporary city streets.

Lisbon, unlike many other cities, had a linear development along the ridge and valley. This particularity emphasizes the absolute harmony between the growth of the city and its topography. In line with Muratori's theory, Carrilho da Graça and Sequeira (2019) refer two conditions for the first occupation of the territory determined by topography: "in the highlands, narrow and more arid lands, the first settlements and urban life originated; in the bottom of the valleys, wider and more fertile lands, agriculture and rural life took place".

The current São Bento Street coincides perfectly with the old path of the valley, which was situated on or near the riverbed. The valley is located between the hill where Bairro Alto rises and, to the west, the hill where the Estrela Basilica stands. These two hills were part of the ancient ridge paths of the city, a conformation that generates significant differences in elevation between the valley floor and the peak of the hills. To the two fundamental conditions of ridge and valley, an intermediate condition was added: the hillside condition. It is possible to verify that the hillside line, drawn with a graphic method, occupies the intermediate areas between the ridge and the valley. In these areas, since the slope is steep and therefore difficult to build, it is likely that mostly empty spaces will be found, divided by high earth retaining walls.

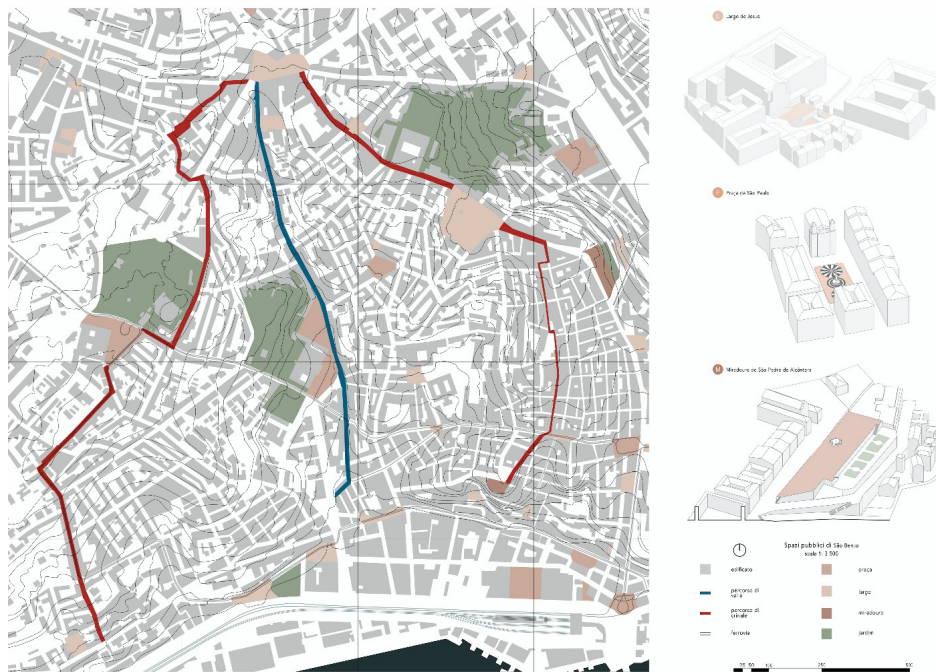


Fig. 3 – Urban morphology and spaces for collective use of São Bento, 2020. Source: Image of the authors.

4.2 Characterization

The urban interstices characterization was based on six different parameters: 1. the causes that generated these spaces; 2. the type of surface, whether it is permeable or impermeable; 3. the presence of trees; 4. their limits, whether buildings, property walls, retaining walls or break lines; 5. the presence of public buildings; 6. the potential for connection and integration in the network of spaces for collective use.

An important aspect that became evident in the process of characterizing urban interstices is that these spaces are not flat. In fact, within the limits of these spaces it is possible to identify marked changes in elevation, which is a direct consequence of the complex topography of Lisbon. Most of these spaces are located in the hillside condition or in an intermediate geographic condition between the valley and the hill. This particularity makes it difficult to build in these spaces or to convert them into spaces for collective use. Another similarity between these spaces is the abundance greenery: most of them have large areas of permeable surface, a valuable feature in this part of the city, and also a considerable presence of trees and vegetation.

It is possible to identify a correspondence between the cause that originated these urban interstices and some of their characteristics, such as the size and the presence or not of public buildings, important elements to consider in an urban regeneration perspective. In fact, it was recognized that spaces c and h – spaces

located in the hillside condition, which originated from the limits of the old conventual fences or *cercas conventuais* – are significantly larger. These spaces extend over the large area between the valley and the hill, and contain within their limits large public buildings and important cultural functions. All the other interstices – i.e., spaces a, b, d, e, f, g, i, j and l – appear as block or *quarteirão* voids, closed-shape building sets with a large open courtyard in the centre. These spaces are important for the presence of greenery and because they offer light and area to the surrounding buildings.

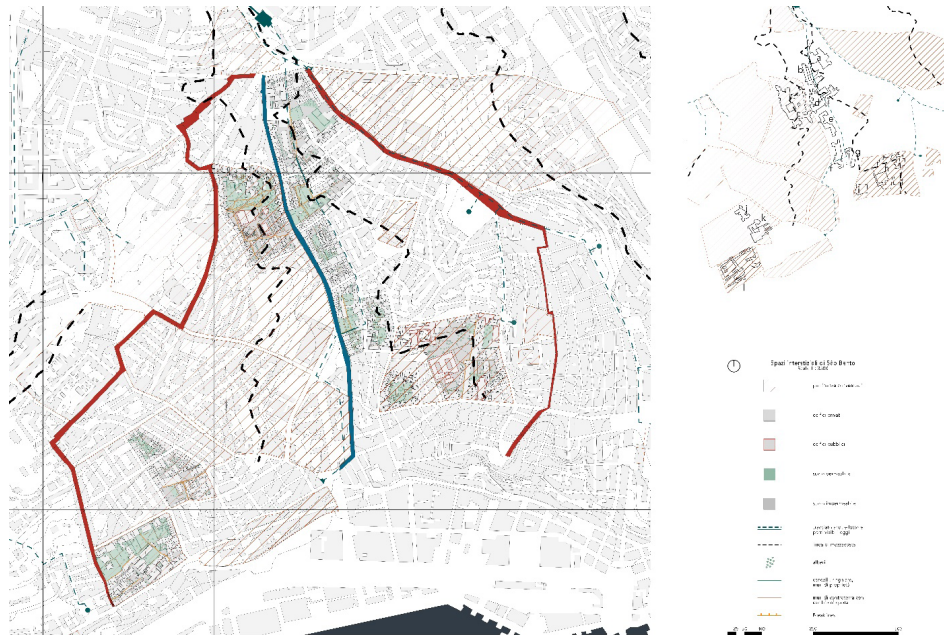


Fig. 4 – Urban interstices characterization, 2020. Source: Image of the authors.



Fig. 5 – Urban interstices a and b, 2021. Source: Image of the authors.

4.3 Consideration

It is possible to recognize a great value of urban interstices in the context of a historic or consolidated city. The value of the urban interstices comes precisely from their rarity: in the historic or consolidated urban centres, as in the São Bento valley, there is a shortage of empty spaces, and particularly a shortage of permeable surfaces (Magalhães, 1993). However, as referred by Nuno Portas (2012, 136), it is necessary to understand how interventions in these spaces, whether by the simple continuity of their presence or by the introduction of new functions, “can still feed access to new forms of life”.

Firstly, preserving these urban interstices as such represents an opportunity to enhance the urban environment (Brighenti, 2013): even if there are no interventions in the near future, it is necessary that these expectant spaces do not disappear. Secondly, considering the transformation of urban interstices through the introduction of new uses and functions, the measures to be implemented must be carefully studied, supported by an in-depth knowledge of each case and its particularities (Braz Afonso & Sousa Santos, 2019).

Most of these spaces are private in nature and, therefore, the change to a collective nature is a delicate operation and requires careful consideration. It is essential that the intervention does not create conflicts with the already established forms of life. It is possible to recognize in the Chiado recovery project of Álvaro Siza Vieira the potential of opening the interiors of the block, integrating them in the network of spaces for collective use. However, as Siza Vieira (in Costa Lobo, 2014) also underlines, this is a delicate decision that cannot be taken uncritically.

Thirdly, referring to the potential of urban interstices. In terms of improving the quality of life, there are advantages in terms of healthiness and restoration of building facades. The opening and cleaning of these spaces would allow: firstly, better exposure and ventilation of the buildings; secondly, the backs of the buildings would become a new facade with public character, being an opportunity to be repaired and requalified. In this way, a load of promiscuity, abusive uses and occupations would be removed from these spaces, ceasing to be a hidden and obscure space, but integrated into the network of spaces for collective use.

In addition, there is the possibility of introducing new uses, either by recovering or creating new paths and crossings. It is also possible to introduce new functions, either in the buildings – once the buildings have gained a new facade, they can receive a new program on the ground floor – or on the surface of urban interstices. The surface of these spaces can be used as recreational and leisure areas, preferably keeping the soil permeable with trees and vegetation – in line with the idea of Ecological Structure proposed by Magalhães (1993).

More directly, a generalized intervention in this area would contribute to the lessening of the flood problem in Lisbon. In some cases, when the area and conditions are favorable, the introduction of urban farms can also be considered, as encouraged by the municipality. In parallel, these measures would have a role in strengthening neighbourhood relations and local values, as spaces for socialization, meeting, sharing, building new bonds between residents – thus seeking to harmonize local and global demands.



Fig. 6 - Álvaro Siza Vieira, Chiado public space, 2021. Source: Image of the authors.

5. Conclusions

During this paper it was intended to approach the urban interstices on the Lisbon hillside, seeking to recognize their nature and origin, their current condition and their potential in the local urban environment. These spaces, even if abandoned, marginal, underused, ambiguous, are urban elements with great resources and with great potential for the city of the future, for the ecological and social function that they already perform or could perform. If in most cases these spaces are generated by urban sprawl and by the absence of a detailed urban plan, in Lisbon they have been generated also for geographical reasons, evidencing the profound relationship that exists between city development and its geography.

It seems that the main contribution of this research was to highlight a type of space that would otherwise remain invisible. The identification of the particularities and values of the urban interstices in the context of the consolidated city is an essential step for the recognition of its role and the possibilities for intervention. As stated in this paper, it is not possible to generalize a solution for these spaces, and therefore it is necessary an in-depth knowledge of each case to support the development of each solution.

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