Requalification of Social Housing: Ingote plateau (Coimbra)

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Abstract. Social housing neighbourhoods are issues for several approaches and studies in all domains, the architectural scope and the urban scale. There are several examples of academic research focused on this topic. However, there is still much ink to spill regarding the scientific interest of peripheries, such as in the case of Ingote plateau, a suburb at the Portuguese city of Coimbra. This suburb is the result of three housing developments from different periods of time, according to the national policy to provide social houses: the Ingote (1970s), the António Sérgio (1980s), and the Rosa (1990s) suburbs. These residential areas are associated with the problems related to the suburban social housing, such as scarcity of social and economic means or shortage of urban conditions. Social housing suburbs are complex entities and their rapid growth has contributed to change the spatial identity of cities, leaving room for new questions about the concept of neighbourhood and its role at the urban scale. As this article aims to show, the geographical location of Ingote plateau makes it a target of territorial and social exclusions. Therefore, an urban design solution was proposed in order to rethink this area, developing strategies for its integration in the urban fabric. As the main conclusion, the project maintains the number of dwellings, improving the quality of public spaces, facilities, greenery and leisure to serve not only the local community but also the city as a whole. The main goal was to reinforce the identity, promoting the safety of locals, making them proud of their suburb.

1. Introduction

This research sets out to summarize the problem of the growth of suburbs in the city of Coimbra (central part of Portugal) and, consequently, the emergence of social housing.

According to the literature [1], disorderly and excessive growth in modern cities caused a serious housing crisis along to the 20th century. The author states that an imbalance of urban expansion showed up the inability of public authorities of responding to the housing problems. 1960 can be considered a landmark year in Portugal, having the first Colloquium of Architecture, aiming to debate and raise the population’s awareness of the right to housing. The rigidity of traditional architecture was based on models of housing reduced to blocks of flats. Therefore, these residential areas did not respond to the needs of the population, making necessary to think out a form of architecture that would include the needs of the urban society. Typologies of evolutional housing arose, being strategies that not only ensured the evolution of the urban fabric according to an organization system, ordered by the architects, but it also allowed the qualitative evolution of housing, socially and culturally.
2. Influence of urban design on the suburban issues

One of the most determinant issues of suburb studies is the inhabitants’ perception of safety. In the history of the city, this question arose with the “placement of physical barriers in order to protect and control the community from threats mostly from the outside, and from the inside (...) these military barriers have gained relevance in the shape of cities, where gates, walls and palisades, battlements, drawbridges and watchtowers” [2].

Jane Jacobs [3] addressed the development of housing in the United States of America, criticizing the urban models created in the post-war period and advocating a return to the traditional street model, with functional diversity and landscaped spaces, to reduce crime rates. She refers to the permanent presence of residents and citizens in movement and social contact, to provide natural surveillance of urban space, being the eyes on the street.

For Newman [4] the intensity of a large number of people in a particular place influences the reduction of crime. On the opposite, the low flow of people in a place can create critical points of crime. In view of these strategic approaches, it can be concluded that urban design influences neighbourhoods’ safety, including those of social roots. In the present case study, Ingote plateau in Coimbra, the creation of social suburbs on the outskirts of the city, occurred in discontinuity with the urban fabric, far away from jobs and services, and without any community equipment or facilities. Consequently, they became more likely to trigger situations that labelled them in problematic suburbs. As mentioned by Jane Jacob, the permanent presence of residents on the move and social contact, contribute to a natural surveillance of space.

3. Feature of the Ingote Plateau Suburbs

The Ingote Plateau in the suburbs of Coimbra was the chosen area in order to propose a requalification project, starting with the following question: Which is the most vulnerable issue of this neighbourhood? The answer reveals its peripheral location, as well as for its original condition of having affordable accommodation for low-income families. These facts are present at all parts of the urban fabric of this Plateau, the Ingote, António Sérgio and Rosa neighbourhoods, which are currently places of social and economic exclusion and isolation, which are difficult to change.

The Ingote plateau is located between other social housing suburban areas; Lordemão and Pedrulha; where the previously nature elements (flora) barely resisted to the pressure of urban growth. It is a place from which is possible to enjoy a wide view of this famous university city and the Mondego river. Its urban morphology comprises a linear structure of roads accessing to the plateau. It is close to the city centre but, at the same time, far away from daily urban life, surrounded by urban voids, in a disperse peripheral territory. It is one neighbourhood where there is a lack of resources, evidence of social marginality, insecurity and the perception of exclusion by its inhabitants. It has built intangible walls and invisible barriers that feed social conflicts and promote the degradation of physical space (housing and public). The lack of social assistance and community facilities, the shortage of services and urban activities, the low educational level, the high level of unemployment compared with the most central parts of the city, reveals a panorama with few opportunities, building a problematic scenario.

The diagnosis of social problems has confirmed what was already known. Severe economic hardship with consequences of unemployment, drug trafficking and addiction, lack of professional qualifications and school failure or absenteeism, allied to the degradation of housing and public spaces [5], based on large social housing complexes with blocks of flats of high density.

These kind of suburbs are present in all cities all-over the world. Thus, similar experiences have led in recent decades to the public authorities’ strategies, in many European cities to adopt inclusion
policies, social and urban integration actions, with comprehensive measures to provide diverse responses to the plurality of hard situations (physical, social and economic degradation) of these areas.

Several suburbs, such as the Ingote plateau in Coimbra or the South Polygon (Figure 1) in Sevilla (Spain), are resisting between marginalization and dysfunctional features, revealing themselves as opportunities wait for exchange, to be properly integrated into contemporary urbanity.

![Figure 1. Block of flats at the South Polygon in Sevilla (Spain)](image1)

The process of transition towards better conditions of living and housing requires the action of public authorities, facing these complex realities. It also requires adequate management structures that make urban regeneration viable by delving into the social roots of conflicts, implementing economic strategies, associative collaboration experiences, or labour insertion resources, which are pivotal aspects to reach new positive identities on suburban areas, such as Ingote plateau (Figure 2).

![Figure 2. Ingote Plateau in the city of Coimbra (Portugal)](image2)

Some of the referred actions were already been tried successfully in many case studies, to prove the necessity of combining strategies acting upon the socio-economic realm via urban regeneration.
projects. One of these examples is the Transformation Plan of the neighbourhood of La Mina (Figure 3) at the city of Sant Adrià del Besòs near to Barcelona in Spain. It was proposed by the architects Sebastià Jornet i Forner, Carles Llop i Torné and Joan Enric Pastor Fernández, and it articulates the regeneration of the La Mina neighbourhood around two basic axes, the urban and the social realms, which can be understood like the stone and the soul [6]. The project was developed around three basic principles [7]: the centrality, the diversity and the change. The centrality is an urban quality that confers identity to local communities. The diversity was applied in material and immaterial terms, and finally, the power to change against the ghetto stigmatization.

![Figure 3. Jornet, Llop, Pastor. Plan Especial de Reordenación Urbana del barrio de La Mina (Spain)](image)

In many cities, there is a little attempt from public policies to combat stigmatization and discomfort derived from situations of poverty, entrenched with aseptic actions of merely urban and architectural dimensions, with no social approaches. But it is equally true that when suburbs escape the control of the urban coherence, the unconnected fragments emptiness arises, and isolation comes up. Beyond the poetics of urban form, there is an inherent potential for architecture to transform the social realm using effective tools against monotony, estrangement and inadequacy. The potential of architecture to concentrate synergies by “creating centralities that carry meaning ambiguous territories manifests itself in its ability to create relationships between People and places” [8]. Architecture and public space as a continuous matter of built-up space [9] and plays an important role in those anonymous places in our cities. Places where the life runs outside, far from those other privileged urban environments where it can be said that the city “is the best place to live and where there are greater possibilities of work, social and educational progress, exchange and culture” [10]. In this sense, architecture plays a significant role in urban regeneration processes as an instrument of social exchange when it assumes its status as a spatial reference. The example of an architectural solution of João Luís Carrilho da Graça (Figure 4) for the Civic Center [11] of Ingote plateau combines the function of a local meeting place with the expressive force of the symbolic.
Figure 4. Project for Civic Center of Ingote plateau, arch. Carrilho da Graça, Coimbra - Portugal 2004

Ingote plateau sits on the higher elevation of the hill with a well-defined urban structure and a good accessibility by the road network. Three housing complexes, the so-called neighbourhoods of Ingote, Rosa and António Sérgio, make up its morph-typological unit. With differentiating nuances, these three areas share the physical and functional characterization that comes to confirm the perception of a forgotten territory: ghettoization, anomie, shortage of urban activity, absence of urban references and public spaces, or buildings and streets degradation.

The recovery of this area requires coordinated actions that help to build its own scenario of coexistence in the extensive and discontinuous periphery. Rebuilding a new urban structure, assuming the distances and silences of remote territories, in order to reproduce the city in the existent fragments reinforcing the material qualities of things that lead to the understanding of the place and the desire to live in it. The urban design solution (Figure 5) have to be able to fill the space with events that relate people to things in the neighbourhood and build qualified places that could be used, are main goals, because it is their intensive use that prints collective meaning and is the quality of the shared spaces which also determines that intensity of use.

Figure 5. The urban design strategy for Ingote plateau in Coimbra (Portugal)
The regeneration of this neighbourhood must be managed with its inhabitants and accompanied by cross-sectional studies from other disciplines - sociology and economic - that provide a global vision and seek integrated solutions. But in this intricate panorama, the project proposals in the field of architecture and urbanism are, without a doubt, effective tools for the construction of feasible physical and tangible scenarios through which urban life runs. The superposition of episodes upon the complexity of urban life occurs in the public space, mediating aspects such as the marginal and the formal, the permeable and the limits, the accessible and the remote, the diverse and the adaptable. The proposed urban project for Ingote transforms the unfamiliar features into the same urban language as the urban fabric of Coimbra, drawing contact spaces. At the urban scale matters to experience its materiality, physical sensations and suggestions, which are in the roots of any urbanity form [9].

This project explores the transformative effect of urban renovation actions in this suburb, relying on a new urban form as giving adequate support for future vital episodes that strengthen the identity of this place. In the confidence that unique solutions provide visibility to the neighbourhood and generate among its inhabitants the perception of a new shared identity, the proposal works on two main facets: the incorporation of urban references, such as an equipped park and facilities with city scale, the renovation of the most vulnerable public spaces and a great social renovation. Quality is entrusted to the superposition of urban actions based on new space, equipped and open to relations with the surroundings. It uses essential urban materials for the construction of a qualified territory, emphasizing the value of public space to forge a matrix of relationships among inhabitants, by the following solutions:

1. Facilities and management structures with an extraordinary value in the social cohesion strategy that provide the added quality of a new referential image, to make visible this suburb in the city as a whole;
2. Natural elements such as the urban park loaded with new meanings, bringing greenery and the sense of contact with nature to this suburb, having great utility to connect the existing heterogeneous reality.

There is a commitment to the integration of other populations, coming from outside, that contribute to the social diversity, occupying the projected new housing structures in a unitary block folded to the ground, which is open and accessible. Permeable to public-private horizontal relations the referred unitary block incorporates open and safe common places at the ground level, with visibility and coexistence, resolving the transitions private/public, or intermediate spaces/common terraces. Community facilities and shops are proposed to introduce promoting both urban activity and neighbourhood life. What is intended, therefore, is the construction of a new habitat, being a support of renewed social relations, being safe and recognizable, accessible and diverse, suitable for the inhabitants, the environment and new populations. So, what was considered to be a good urban form? In this project it was vital to promote sustenance, safety and consonance of the place; to be sensitive in the sense of identifiable, structured, congruent, transparent, readable, progressive and meaningful; to be well suited with good adjustment of the form and behaviour; to be accessible, diversified, egalitarian; and to be well controlled in terms of use and maintenance. The urban design solution aims to make Ingote plateau a continuous urban place, well connected, open and contributing to local development [12]. However, the most controversial decision of the project was the fact that the urban solution concentrates its potential on spatial and social renewal through a double strategy of implementation and substitution, as qualified transformation tools. Rehabilitation and improvement of the domestic space are proposed with solutions for accessibility, sustainability and adaptation to new family structures; requalification of public space with the solutions of redevelopment, accessibility, and energy efficiency; and reuse of vacant spaces for complementary uses including endowments, community activities, training, productivity or commercial. All this, from the reinforcement of the elements of resilience that are related to density, accessibility, space and landscape.
The limits of the architecture and urban planning in social exclusion scenarios are established by the dimension of the conflicts. Although, social inequalities are expressed, above all, in large urban areas and try to solve them is a task of urbanism, economic and social policies. Urban planning has important and precise responsibilities in avoiding the worsening of inequality and the city projects must be starting points of any policy aimed its elimination [13]. The complexity of suburbs is an issue that should be addressed in terms of an interdisciplinary approach making architectural projects to return to the quality of urban spaces, in fragmented and discontinuous contexts like Ingote. However, urbanity does not come determined only by socio-cultural criteria, but also by urban design qualities, physical aspects or urban forms. The challenge in urban regeneration processes consists in “Identifying those urban design tools that allow (…) to preserve urbanity, capture it, shaping an intangible quality (…) And doing with it using the physical, tangible means of urban planning (…) elements that are closely related to urban forms” [14].

The project was organized in three parts: zone 1, zone 2 and zone 3 (Figure 6). In Zone 1, both buildings (1 and 2 in Figure 7) have 96 dwellings, with 8 floors, seven above the street level, with a construction area for the housing of 8940,00 m² and 1490,00 m² for commercial activities and services. Regarding housing typologies (Figure 6), three types of dwellings are proposed, the smaller with one bedroom (T1) has 36,00 m², with two bedrooms (T2) there are two versions, one with 67,80 m² and another with 85,00 m², and finally a three bedrooms (T3) flat with 85,00 m². The project creates 68,00 new job posts and parking in all buildings.

![Figure 6. Urban Project for Ingote plateau, Zone I- Housing](image)

In Zone 2 (Figure 8), there is a proposal for the creation of a green urban park that integrates leisure areas, sport circuits, a kiosk, a civic centre and a vegetable garden. The building of the civic centre has a construction area of 3368,99 m². This urban park aims to catalyse the residential area in order to
create a landmark reference for its residents. The civic centre is a multifunctional space, capable of hosting various cultural and educational events such as seminars, conferences, exhibitions or concerts.

Figure 8. Project for Ingote plateau, Zone 2- Green Urban Park and Facilities

In Zone 3, there is as well a proposal for the construction of a Fire Station (Figure 9), in order to promote safety among the inhabitants of the plateau. Its implantation is located in an Ingote’s main entrance, being an area with easy access to both the neighbourhood and the city of Coimbra in general.

Figure 9. Project for Ingote plateau, Zone 3- Fire Station
4. Conclusions
As far as it was possible to analyse in the scope of this article, in many European cities, of which Coimbra is no exception, the occupation of the urban fabric, as far as the residential function is concerned, has become progressively more fragmented and diluted towards the suburban areas. The urban mesh has undergone important changes, which have occurred in its territorial structure, such as the appearance of new housing types and the restructuring of roads, to adapt to changes induced by the fast moments of urban growth. In this context, the cities see their pace oscillate between periods of acceleration or slowdown, associated, respectively, with enormous growth or total abandonment.

More recently, globalization has brought with it the process of urban high density, but also, simultaneously, abandonment in other parts of the cities. Therefore, the suburbs ceased to be merely residential places and started being spaces of choice for fixing certain types of facilities and services, such as those of a commercial nature. This article has aimed to show the case of Ingote plateau is in line with the referred evolution. The urban requalification process has been slow and scarce in functional diversity regarding the Ingote plateau example. Such as many other cases, Ingote plateau began to appear as a territory of oscillations between the fixation of industrial infrastructures nearby, low-income housing, and later, more qualified places of commerce. Consequently, the population began to fill the suburban urban fabric owing to overcrowding in city centres, where housing is expensive.

As seen in the state of the art in Kevin Lynch’s reference, Ingote plateau was structured within itself. As it turned out, it was organized in three sub-neighbourhood sectors with a total of 734 dwellings. Rosa is the most recent with origins in the 1990s and still the most degraded. From the study of aspects, such as mobility and organization of the urban fabric, it was concluded that the access to the Ingote is considered good. However, this neighbourhood is isolated in terms of urban continuity with a weak diversity of activities. Thus, the urban project proposal created green areas, collective spaces, a Fire Station and a Civic Centre, which are landmarks, not only at the neighbourhood scale, but also at city scale. Finally, the option to locate on the ground floor new commercial and services was also planned to contribute to improving the functional diversity of this place.

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