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EXTENDED ABSTRACT

0. ABSTRACT

The main purpose of this dissertation is to present the proposal resulting from the exercise of the Final Project subject, of the year 2011 – 2012, as well as the elements of analysis and reflection that motivated and justified it. This exercise focuses on the North-West area of Lisbon - limited on the north by the municipalities of Odivelas and Amadora, on the west by CRIL (Circular Regional Interior de Lisboa), south by Monsanto and, finally, on east by the Eixo Norte-Sul. Through the road restructuration and conversion of some specific areas, this proposal aims to guarantee the urban continuity, especially when regarding smooth mobility (Non-motorized mobility).

The proposal is developed around three main premises. The various studies, proposals and projects still to be implemented, developed in the professional and academic context, were determinants for the very formulation of the problem and its resolution strategy. Lisbon's PDM (Municipal Development Plan) and its guidelines were crucial for the overall strategy adopted in relation to the different sections of the city; it retained the intention of re-establish the ecological network and increase its permeability, while promoting the cycling network. The current economic situation and inherent policies were also decisive when defining a minimalist strategy, which from the systematic identification of weaknesses, intended, to maximize the relevance of the intervention.

Therefore, the proposal aims to demonstrate the continuity and connection between Monsanto and Cidade Universitária, through a systematic re-characterization of urban segments. The proposed intervention intends to maximize the territorial permeability, redefining it.

Figure 1: Proposal's Diagram

KEYWORDS
URBAN CONTINUITY | PUBLIC SPACE | SMOOTH MOBILITY | MINIMAL INTERVENTION

1. INTRODUCTION

1.1. THEME BACKGROUND AND OBJECTIVES

The first phase of this project was done in group[1], a scaled characterization of the city was developed, along with an analysis of its history, geography and mobility. Afterwards, the North-East area of the city was studied on an intervention scale. Based on this detailed analysis, the problems related with the urban fragmentation, due to the mobility systems, that result in an urban discontinuity and inadequacy of the public space. Av. Lusíada was identified as critical, given to its weak connection with the surrounding area, just as the initial phase of the 2ª Circular that was also considered as physical barrier that is, slowly, being diluted. The group's strategy was based on a mesh with Av. Lusíada as main axis that ramified, creating scars on the territory.

The second phase (where the answer to this exercise is presented) the proposals where developed individually and focuses on nucleus that have different types of problems.

The chosen case study is presented as a limit are of the city where, besides different amenities are located, there are isolated nucleus, with different degrees of consolidation. For the latter ones, a series of interventions, on the building scale, are predicted.

This is an area that lacks unity and for which the absence of a broad continuity strategy. It is deemed necessary to create a plan that, while taking in consideration the city scale, aims to validate it and correct it individually.

Through a critical analysis, this project intends to propose a solution that reflects the comprehension of the main constraints to its actions. This has the purpose of promoting improvements on the continuous process of the city's development; a proposal that, through the right identification of its existing problems and constraints, is able to maximize the benefits for the whole city.

1.2. METHODOLOGY

The individual phase presupposed the development of one of the parcels of the analyzed area with the group. For this wider area the same group developed a action strategy.

From this daily interaction with this urban area, resulted a perception of its constraints and its opportunities. This knowledge allowed to accentuate the area that should be developed during the individual phase of this project.

Despite its academic background, this dissertation intends become a tool that aids to solve problems that in fact exist in that area.

Through the latter analysis and the identification of the valences of the territory, a more detailed reading of Lisbon's PDM was done. At the same time, research was carried as to understand what projects might be under development, or on study phase, might be assigned to this intervention area. Furthermore, the information concerning the registration of two land parcels near Torres de Lisboa, provided by Lisbon's Municipality (CML), was deemed as important.

The research process involved, mainly, contacts with various departments of the CML. Besides the

[1] Workgroup: Catarina Barroso, Diana Francisco, Inês Fonseca, Joana Leote e Pedro Paz.

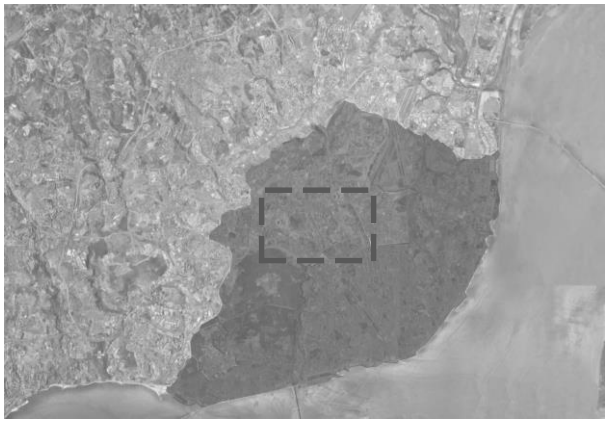
Department of Planning and Urban Regeneration and the Department of Planning for Mobility and Transport also Falcão de Campos' architecture atelier stand out.

Once all the information was gathered, the elaboration process of strategy that defines the suggested proposal started. It is important to mention that the current political and economic situation were taking into account at all times.

2. CHARACTERIZATION AND ANALYSIS

An urban scale project, intervening in one part of the city, is committed to the whole system of urban territory, making it complex to determine a delimitation of these areas due to the interdependent relationships that are established with its surroundings.

Considering this affectation system and spatial contiguity on historical evolution as well mobility vectors - a framework was set in place: report and environmental analysis, on Lisbon's Municipal Area, followed by zooming on the project location. (Figure 1Figure 2 and Figure 3).



Intervention Area

Figure 2: Lisbon Municipal Area | Intervention Area

The proposed project is set in a peripheral area of the city, considerably consolidated.

As regards to accessibility and mobility, the study area is confined (south) with Radial de Benfica (a radial thoroughfare); (north west) with the second ring, 2ª Circular; (east) with Av. dos Combatentes [Avenue]; being intersected by Av. Lusiada. And it is presented as a sequence of local access roads: Azinhaga das Galhardas, Rua Tomás da Fonseca, Rua dos Soeiros and Rua João de Freitas Banco; successively allowing the connection between various urban clusters of distinct morphologies and programs.

The intervention area is bounded, south and east, by two green fields: Monsanto and Cidade Universitária.

The cycling network has a section in Rua Tomás da Fonseca almost under implementation.

Figure 3: Aerial Photography 2013 | Intervention Area
Adaptado de: *Bing Maps*

In spite of these fragments, the green areas occupy a significant percentage of this area, highlighting: the Monsanto park, Bensaúde park and the Cidade Universitária. The connection of these areas with the surrounding environment becomes corrupted by barriers and consequently lack of permeability of the urban mesh.

The study area also covers a significant part of the cycling network and some roads for which the possibility and viability is being studied to make them part of that network, through reprofiling.

The segregation caused by the road network emphasizes the formation of nuclei, poles of variable homogeneity, turning the intervention area into an interstitial space from a mesh of buildings and structuring spaces.

It is an area that lacks of unity and for which, given the absence of a comprehensive strategy of continuity, it is necessary to generate a plan aimed for validation and occasional rectification, taking into account the city's scale.

2.1. STRENGTHS AND WEAKNESSES

Overall, São Domingos de Benfica is considerably consolidated, especially in the residential area that abuts with Monsanto, the knit narrows down to local access roads, of which some of the relevant buildings depend on. Being in its majority a residential area, however heterogenic, the dense web needs more spacious and organized parking areas.

The profile of two of the structural pathways – Rua Conde Almoster (Figure 4:A) and Estrada de Benfica (Figure 4:B), is being studied, by the GVFNS, with the purpose of investigating how it will be adapted to the cycle routes.

The lack of urban strategy of the Estádio da Luz plan (Figure 4:C) left the suggestion of a cycling link, from the platform of the stadium to the adjacent residential area, where it finishes with staircases that have 12 meters of unevenness, making the pedestrian connection to the main link of this mesh – Rua de Jõao Freitas Branco (Figure 4:D)

The opportunity that was considered consisted in the disqualification of the north block of the Rua Soeiros (Figure 4:E), and in order to resolve the traffic management problems, there would be the possibility of connecting the following streets: Rua Tomás da Fonseca and Estrada da Luz (Figure 4:F) – whose reprofiling is also being studied by the GVFNS.

The west facing area of the Torres de Lisboa (Figure 4:G) was identified as a structural element to the completion of the proposal.

The residential core adjacent to the Cidade Universitária is corrupted by traffic from both the Tomás da Fonseca street and the Combatentes Avenue towards the Azinhaga das Galhardas (Figure 4:H) – which presents an inappropriate profile for the functions that it is supposed to perform. This situation compromises both the permeability of the Cidade Universitária to the city, and the connections of proximity with its core.

The area of interest is scattered by a series of pathways that tear the urban mesh. These

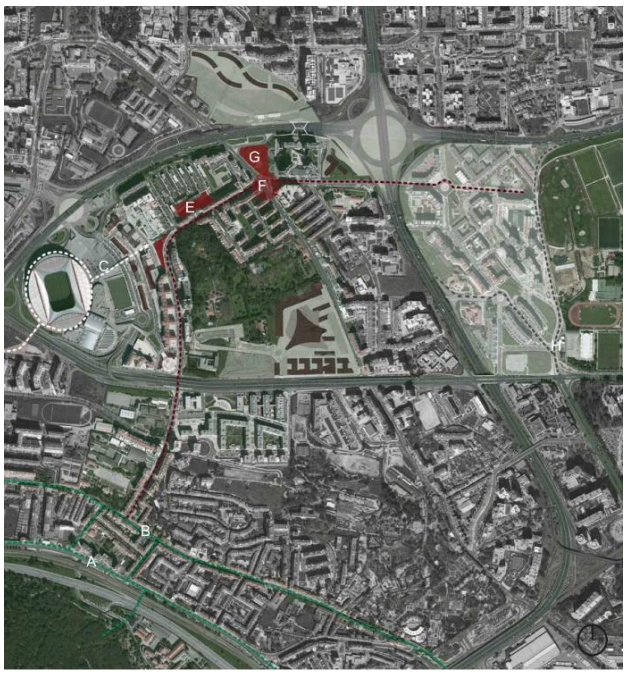


Figure 4: Strengths and Weaknesses

discontinuities become obstacles in the fluidity and permeability that is intended in the public area.

3. PREMISSES

The chosen intervention area is situated at the edge of the city and contains several relevant utilities and some notable stranded nodes, with different stages of development, which have new interventions planned, both to the buildings as to the city. The proposal tries to integrate, in its solution, an answer to the following three premises:

- There are several projects still in development, both professionally as academically. Examples: Alto dos Moinhos Urban Plan, the 2ª Circular Reprofiling Plan devised by CML (Lisbon City Hall), the urbanization project for Parque Maria Drost, by Arch. Falcão de Campos and the bridge project by Maximina Almeida. On an academic level, Joana Lacerda's master thesis is a relevant proposal, connecting Centro Comercial Colombo and Estádio da Luz.
- The guidelines expressed in the PDM (Municipal Development Plan) concerning the global strategy to adopt in what concerns the different urban nodes; the intention to connect the Ecological Net and to intensify its permeability, promoting both the pedestrian and cycling net.
- The current economic and political situation is also significant in the definition of a minimalist strategy that maximizes the pertinence of the intervention by identifying the frailties.

4. PROPOSAL

4.1. CONCEPT

Through the recharacterization of the successive urban segments, the goal is to create a new urban axis, and making the existing continuity and connections (The edges of São Domingos de Benfica and Cidade Universitária) more relevant, promoting, along the path, the permeability with the adjacent urban mesh, redefining it on occasion.

Figure 5: Concept's Diagram

4.2. EXTENDED STRATEGY

The proposal, in its essence, translates into a continuous profile that adapts to the existing paths, presenting this way a variable morphology along its length (Fig. 5.2). This desire can be expressed as a reconfiguration of the oversized roadway into public and parking space, correcting the observed deficiencies. The choice of making this profile, taking into account the cycling net, was made due to the implementations already in place by the CML (Lisbon City Hall). The intervention area spans several tracks that are subjected to reprofiling in order to integrate this network.

This sequence of paths (Rua Tomás da Fonseca, Rua dos Soeiros e Rua João de Freitas Branco) is the missing link of the current project, that allows the transversal connection with this net, reinforcing the green areas net connection (Monsanto - Parque Bensaúde - Cidade Universitária) with the two urban nodes (São Domingos de Benfica e Cidade Universitária).

Figura 4.1: Proposal's Floor Plan View

4.2.1. STANDART OUTLINE

The proposed outline aims to adapt each path to a certain standard that imbues the space with continuity and legibility, safeguarding its hierarchy based on the frailty of each element: pedestrian, cyclist and drivers.

One intends to reduce the number of paths in each direction from two to one 3 m wide, and, always as possible, longitudinal parking (2.25 m x 5 m), and transverse parking, at 45 degrees (2.40 m x 4.40 m) in a way to disencourage second row parking. The remaining space is returned to the sidewalk. We have, thus, a sidewalk with no less than 2.30m, a roadway with 6 m, a variable parking space from each side and trees every 15 m. This last element, more than just reinforcing the continuity, provides comfort and shadow, both for the pedestrians as for the cyclists and the parked vehicles.

Even though different paths have different TMDA (Average Anual Daily Traffic), which would suggest different implementations, the proposed cyclepath, 2.40 m wide, is isolated both from the sidewalk and from the roadway. This solution is justified by: being placed together with the existing mesh; in the connection it tries to establish with the urban nodes; the required flexibility to stand out from the roadway and to properly connect lost bits in the territory; the fact that it protects the cyclepath from the inevitable car maneuvers and, by foreseeing changeable variables, predicting an increase TMDA due to the connection established between Rua dos Soeiros and Rua Tomás da Fonseca.

A continuous element is proposed, broken only by crosswalks, separating the roadway from the cyclepath. This is a concrete element, triangular in shape, incorporating a LED system that stands out and iluminates the path, instead of the usual separating kerb, appearing as a physical barrier too severe, that promotes falling to the roadway side.

4.2.2. PARKING

The proposed outline intends to increase the parking space in the residencial areas. In some places, this area was slightly reduced, due to the fact that more emphasis was given to the legibility of the morphology's continuity. This is corrected by balancing the adjacent segments.

4.2.3. SLOPE

Some of the decisions made were constrained by the slope inherent to the intervention area.

The properties of the existing Rua dos Soeiros profile (constitution and slope) made it impractical to add a track of smooth mobility. It is suggested, then, that the cycling path be made parallel to this road, following the interior of the north block. The slope is overcome through a succession of plateaus.

One of the connections this proposal tries to establish is the continuity of the cyclepath suggested in the Estádio da Luz project, into the height where the proposal is applied (Rua dos Soeiros), with a gap of 10.90 m. Taking into account the dimensions of the terrain gap, it is suggested a system of plateaus, framed by stairs in both extremities.

PROPOSED EMBIENCES

Figure 6: Photomontage | Rua Tomás da Fonseca

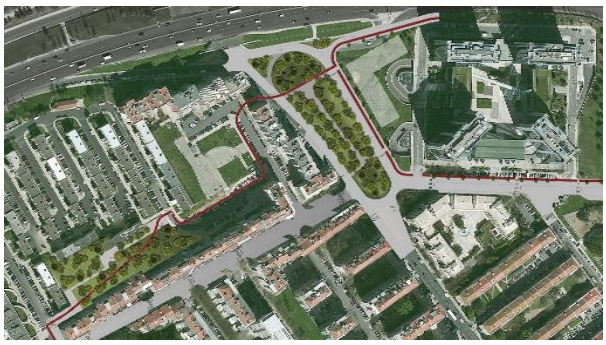


Figure 7: Floor Plan View | Proposal's Square

Figure 8: Photomontage | Proposed Square

5. FINAL CONSIDERATIONS

The wounds created by the extent of the historic city are a matter of reflection and intervention, even more so than the growth of the urban mesh. The living organism - the city - reacts sensitively to the changes it is subject to, its reactions rippling across its several layers and characters. With the knowledge of the susceptibility of this system, and complexity of its several dimensions, the idea of intervening triggers mixed feelings; if, on one hand, it appears as a challenge, on the other it is of staggering magnitude, as the architect Ricardo Zuquete would say: "... os erros dos médicos enterram-se, os nossos podem durar decénios!" ("a doctor's mistake is burried, but ours can last for decades").

Taking into account the present economic situation, and associated politics, interventions have restrained themselves to the sphere of rehabilitation and repurposing of existing structures, through a strategy of validation and action inspired by acupuncture and minimal intervention. Adding to that, it is not easy to pinpoint the key elements to change, reaping the benefits of the domino effect, and neither is it easy to identify and properly manage the several functions, impact and role that elements play; if

they should be kept, rehabilitated, or reformulated to the benefit of the whole.

The paradigm resulting from the permissivity and elasticity of the urban mesh has created new centralities: new organs that, by its growing evolution and expansion, demand independence. These aspects of fast growth lack the qualification to be granted autonomy, requiring mechanisms to validate what they are, by creating or reinforcing their meaning.

The initial conditions defined the general strategy to follow, propagating on particular levels, in each project decision. The answer to this case study aimed to transform the frailties of the intervention area into oportunities, suppressing the shortages identified. The moments of doubt assailing this project dealt mainly with the art of managing information from different sources, not because they are contradictory, but due to their ambiguity, leaving the possibility for subjectivity, what turned out to be the most challenging, but also most gratifying part.

This workflow made possible to identify the importance of the definition of a global strategy, properly mixing comunication, implementation and monitorization, required to manage information at such a scale, guarding against the damages of the specialization process, namely, the isolation and segmentation.

Another important aspect was the implementation of all the minute changes in the urban territory, delicate and multidisciplinary. Even if the interventions need to be applied in phases, they must not compromise: a future benefit should not require a damaged present.

"A obtenção da harmonia do espaço organizado, resultante afinal da harmonia do homem consigo próprio, com o seu semelhante e com a natureza, será longa e difícil, mas porque a consciência da sua necessidade deverá sobrepor-se a todos os obstáculos, ela deverá constituir um dos mais destacados objetivos do homem contemporâneo."[2] (Távora, 1999, p. 46)

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[2] "The road to the harmony of the organized space, the end purpose of the harmony of man with itself, with its equals and with nature, will be long and hard but, because its consciousness should overcome all obstacles, it shall constitute one of the highest of purposes of the contemporary man."
(Távora, 1999, p. 46)