

From Foz do Jamor to Tower of Belém

A Nautical Centre in Algés

[Extended Abstract]

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This report presents the proposal justifying the project elaborated in the academic year 2015/2016 for the course Projeto Final de Arquitetura I e II. The exercise developed in the scope of this Curricular Unit proposes the elaboration of an urban project between Foz do Jamor and Torre Belém.

The area under study, namely the reconversion of the Pedrouços dock in Algés, as an area of interest for its proximity to Lisbon and the Tagus River, took into account the strategies devised for the site by municipal entities and APL. These entities have as strategy the creation of a new "Atlantic Port" in this place. This is intended to rehabilitate existing infrastructures in order to serve the recreational and competition nautical activity promoted by the installation of the Volvo Ocean Race.

This project was divided in two parts, worked in different scales:

-The first part consisted in the approaching of the urban design, creating a program with different recreational spaces.

- The second part focus on the design of the architectural object, i.e., the Nautical Centre.

Both parts required analysing the area of study. In a first phase of more urban form and in a second phase, focusing on the architectural object designed in the area of Docapesca.

This project creates a functional program that targets all the contemplated requirements while also creating a new purpose to the territory and reinforcing its somewhat overlooked link to the Tagus.

Key Words: Nautical Centre | Dock | Tejo | Riverfront | Urban Regeneration

01 Introduction

This report is the theoretical justification for the proposal developed throughout the disciplines of *Projeto Final em Arquitetura I and II*. The intervention area extends from the Torre de Belém to Foz do Jamor. It provides for the creation of recreational spaces looking for new ways to improve the connection between the city and the Tagus River as well as improve the quality of life of the inhabitants of this area.

In the proposal, we take into account the existing strategies for the site in line with the objectives structured by the Institute of Mobility and Transport and the municipalities of Lisbon and Oeiras. We also thought of a new "Atlantic Port" to be implemented in the area of Docapesca,

planning the rehabilitation of the existing infrastructures in accordance with the CML and APL, which serves the recreational and competition nautical activity promoted by the installation of the Volvo Ocean Race. This is an area where several ephemeral events take place, as is the case of NOS Alive music festival. It is necessary to create spaces with a multifunctional character capable of receiving different types of events in the field of culture and leisure. In this proposal, we are looking:

1. To find new forms of continuity for the public spaces improving the quality of life of the surrounding population;
2. Improve the link between mobility infrastructures and the city;
3. Research new strategies and programs that take advantage of the potential of the area, especially the unique characteristics of Foz do Tejo to practice water sports;
4. Create new poles of attraction and urban revitalization, harbouring future activities, already targeted for this area.

Given the characteristics of the place, it is essential to requalify this whole area through the creation of programs that embrace pre-existences and revitalize ambiguous and unused spaces, currently existing, giving new points of interest to the population and a new meaning to the territory.

The motivation for this work has to do with the fact that from an early age the student experiences and enjoys, the proximity of coastal and riverine areas, in particular the Tagus River. This proximity to water has always aroused interest and in particular a reflection on the use of these areas to benefit the surrounding populations.

In the wake of these experiences, interest arises in the development of the Nautical Centre project in the part of Pedrouços Dock, making it possible to roughly modulate the relationship between the building, its uses and its relationship with water.

Allied to the interest of the student, the fact that it is an area, namely the Pedrouços Dock, which has already been studied for the creation of programs to strengthen the connection to the Tagus; the various programs proposed for the area were linked to culture, leisure and sport, which show the desire to take advantage of the potential of the place; the interest of the Volvo Ocean Race in the reuse and rehabilitation of this area for a sailing centre capable of housing its headquarters and regatta.

The intrinsic motivation coupled with the development of the proposal and the potential of the territory, strengthen the interest in the project.

The exercise was developed throughout the school year and was divided into two parts, both worked in groups and corresponding to different scales:

Phase I:

The first phase, developed during the course of *Projeto Final em Arquitetura I*, was where the embryo of the architectural object on which this report focuses emerged. This stage was elaborated at the level of urban planning and requalification with the objective of developing and creating new programs and activities, which had the capacity to give new uses and experiences to the riverside area, making this area suitable for being part of the daily life of the population.

We began by making a characterization analysis of the territory in question, by witnessing experiences, diagnosing urban problems and carrying out a photographic survey. Subsequently an analysis was made of the physiographic conditions of the territory, of the urban regulations in force for this area and of the road network and transport. In this way we could have a greater proximity to the place and realize their needs and contingencies and how we could fill them. At the same time, we also did a survey of previously proposed projects for the site, as well as references to the intentions that have been defined.

It was thus possible to arrive at a design of the urban space, which includes the proposal of various types of activities, programs and spaces, both exterior and interior.

Phase II:

In the second phase, it became essential to understand the strong and structuring elements of the proposal, in order to understand which of the sites previously created would have more relevance as a project exercise and that it was sought to have feasibility in a real context. Thus, we came to the conclusion that the Nautical Centre would be able to generate a greater number of valences constituting one of the strengths of the urban project.

After this choice, it was necessary to re-analyse the territory, this time in a more approximate way, namely at the access level, in order to achieve a cohesive interaction between the existing and the created. We also felt the need to deepen the program in question and the project to be feasible in a real context. It was essential to study some projects and we opted, as a complement, to visit buildings that presented programs similar to those intended, namely the Viana do Castelo Sailing Centre and the High Income Centre of Montemor-o-Velho, achieving a greater sensitivity on the subject in question.

In spite of the apparent contradiction that exists between both worked scales, it is their interaction that gives the project sense of cohesion, because the two end up being finished and fused among them.

02 Analysis

The proposal's intervention area is located in the district of Lisbon and consists of a horizontal strip that extends between two landmarks, Belém Tower and Foz do Jamor. It is a zone of transition between two great counties, Lisbon and Oeiras.

The main accesses are made by the A5 motorway, CRIL and Avenida da Índia, Avenida Brasília, Avenida Dom Vasco da Gama and Avenida das Descobertas.

It is important to mention that this area is close to the touristic centre of Belém. Belém includes recreational and cultural activities. Factor that will influence the territory of the project because, through the new created program it is possible to strengthen the connection between Belém and Algés and ensure a continuity of the urban dynamic between the two areas.

In this sequence, it is convenient to make the historical and regulatory framework. Namely, Lisbon is born from its advantages at the geographical level, mainly because of the proximity to the Tagus river. Also, Reguengo de Oeiras and part of Reguengo de Algés, both belonging to Lisbon, formerly formed what is now known as the municipality of Oeiras. (ANTUNES; 2011)

Over the centuries, along the Orla, this area was a place of religious orders, as well as defence fortifications and maritime control, left between the 16th and 19th centuries XVI-XVIII. (SA; 2013) It is between the XVII and XVIII centuries that palaces and farms linked to agriculture and recreation start appearing. (ANTUNES, 2011) The relationship between the city and the estuary is significant and important in terms of the economic activities it provides, using the riverside zone for port and naval activities from an early age.

The county of Oeiras arises in 1759 and its limits were quite different at the time, in particular Algés was part of the capital. (ANTUNES; 2011) Only in 1886, the definitive boundaries of the county were established, and the ring road, IC17, was established as the border between Oeiras and Lisbon. (SA; 2013)

During the XIX century agricultural activities decline and new industries and factories located in Cruz Quebrada begin to appear. (SA; 2013)

Being the riverside zone a fundamental zone for the economy of the city, only at the end of the 19th century the concept of leisure began to be associated with it. At that time, the construction of the railroad and the Port of Lisbon were already under way. This prevented the access, to the borders of the estuary, at the edges of Lisbon, beginning to appear seasonal migrations for the county of Oeiras. (SA; 2013)

Associated with the dynamics of bathing and tourism, in the 20th century, the construction of the marginal road Lisbon-Cascais, and with it the growth of the urban centre of Algés related to the proximity to Lisbon. (SA; 2013)

We are facing an area with several historical connections and strong connection to the Tagus. Algés turns out to be a place that develops quickly because of its proximity to the capital. The creation of the railway line between Cais do Sodré and Cascais ends up changing the relationship between the city and the river, as it becomes a barrier. Today in the counties of Algés and Dafundo / Cruz Quebrada the connection to the beaches and the estuary is weak and devalued.

In order to fit the elaboration of the project in the current legal context, it was necessary to make an analysis of the different norms foreseen by the Municipalities of Lisbon and Oeiras. In this sequence, the Lisbon Strategic Charter and the Lisbon and Oeiras Municipal Director Plans were studied.

The Lisbon Strategic Charter gives us a set of four guidelines to be taken into account when drafting the proposal. This document aims to reach, in 2024, a rejuvenated, inclusive, safe, innovative and participative Lisbon, affirming its identity in a globalized world.

There are two orientations that have had the greatest impact, as references, in the preparation of the proposal: the second one, which aims at returning the city to the river and opening it to the world through nautical constructions along its margin - that goes against the relation that our project establishes with the Tagus, that is, with the creation of a new Atlantic Port, The Nautical Centre; And the fourth, refers to Lisbon, as a city that should not stop its development, combining it with its pre-existences - defining the concept of the whole proposal, with special impact in the design of the urban park, by creating new programs that can complement those already existing in this territory.

The Municipal Master Plan summarizes the proposed objectives for a given municipality, establishing guidelines and standards to be based on urban development projects so that they converge, managing to bring new adjustments and filling existing fragilities.

From the analysis of the Municipal Master Plan of Lisbon emerge with greater relevance for this project the following aspects:

Regarding the qualification of the urban space: the aim is to create leisure, culture and sports activities for the area in question, which is in line with the programs designed for the Pedrouço dock. The Nautical Centre not only takes advantage of its location and proximity to the river, but also meets the regulations of the APL, making the reconversion and rehabilitation of the old buildings of Docapesca, a Canoe Centre and a Rowing Centre.

Regarding the Municipal Ecological Structure: it is aimed, for the area in question, to ensure the continuity and concretization of green corridors, which is in line with the proposal for the creation of a green lane next to the Champalimaud Foundation and of tree corridors that connect it with the Urban Park created for the Passeio Marítimo de Algés; And ensure both the functional and landscape aspects of the preservation of water courses and of the banks themselves, by means of space requalification projects - in the project the Praça de Algés and Belém are equipped with a reservoir of water retention during the epochs So as to control flooding in the beds and possible floods in the area.

Concerning the Systems of Views: it is intended, for the area in question, to safeguard the necessary conditions for pedestrian crossings and enjoyment of the panorama along the banks of the river.

From the analysis of the Municipal Direct Plan of Oeiras arises with greater relevance:

Concerning the classification and qualification of the use of the ground: the purpose is for the area in question, the public use, more specifically tourism, being stimulated the creation of spaces and equipment that create attractions for this purpose - the Urban Park responds as a response , In the maritime promenade of Algés, which includes several recreational activities linked to leisure, integrating in its plan two housing poles in order to make the project viable; And for the riverside range is the dominant use of recreational activities linked to tourism, leisure or sports - against this comes the Nautical Centre, which in addition to sports activities also provides elements linked to tourism as is the case of a Museum Of the Discoveries, a riverside hotel and a recreational marina.

With regard to the road network, it is organized and hierarchized according to different levels, depending on the intended functions and the connections that it ensures, starting from those with a higher level of mobility to those that guarantee better accessibility to the place.

Classified as a first-level road network we have the IC17, which is located at the border of the Municipality of Lisbon; Av. De Brasília parallel to the railway line, as well as Av. Dom Vasco da Gama, which "drains" at the roundabout of Algés, are both classified as second-level road network, and finally there is Av. Da Índia Which is classified as a third level network, these being the main routes and accesses in the project zone.

Although there is a hierarchy for different routes and accesses, its operation is not efficient, causing great difficulties and delays in traffic.

The design of the proposal changes the entrance and exit of CRIL as a way to improve traffic in the center of the city of Algés, also diverting the existing flow on Av. Da Índia, which is exclusively used for pedestrian and public transport.

With regard to public transportation and accessibility, Algés is a great node because, apart from the automobile and the pedestrian, it includes different types of public transport, the train, the electric and also a bus terminal.

Although public transport is beneficial to cities as mobility increases, in this case it also generates major points of conflict, such as the railway line, which eventually becomes a physical barrier.

In terms of pedestrian mobility, we are facing a territory of great movements, being the main point the bus station of Algés, creating a knot of road and pedestrian conflicts. With regard to the passage between the city side and the riverside area, accessibilities are conditioned because there are few points with passages, and there is no continuous and integrated system. There is also a bicycle lane located on the coastal side, which is also difficult to reach from Algés.

In the exercise, both problems are dealt with, in relation to the barrier created by the train line through the creation of several pedestrian crossings providing greater accessibility to the riverside

side. Regarding the Algés node, the solution is to change the road to the Cruz Quebrada zone, where it would become an intermodal station, making a decentralization of flows.

It is important to mention the fragilities and potentialities identified:

Fragilities

- Physical barrier created by the train line and the marginal line;
- Problems in the area's mobility and access;
- Discontinuity between the north side of Algés and the riverside zone;
- Riverside area that has not been used and has points of interest;
- Connection with the lost river.

Potentials

- Proximity to the Tagus;
- Diversity of spaces, experiences and environments in the surroundings;
- Belém as a tourist area - center of activities and historical and cultural heritage;
- Ground;
- Climatic situation;
- Area that aims to create revitalization programs;
- Area with events, for which it is expected to create spaces capable of covering them.

This translates the project path into the four main objectives previously mentioned in the Introduction (see section 01).

03 Case Studies

For the preparation of the project were also studied cases of projects and programs that serve as reference to the work, which are comparable or other types of hypotheses already thought for the place and able to illustrate the state of art. Examples are: Marina Tejo project by Arch. João Pedro Falcão de Campos or the Portas do Mar project in São Miguel from Risco Studio.

As a complement to the case studies we also visited two Portuguese Nautical Canters, the Viana do Castelo Sailing Centre and the Montemor-o-Velho High Performance Centre.

All the projects contributed to the elaboration of the proposal, some of them in a more technical or practical way, at programmatic level or of modelling of the space, and others through ideas and concepts, at the organizational level, that were adapted to our case.

In this chapter, the project for the Nautical Centre is revealed, and more specifically for the building of the Sailing Centre and the Health and Wellness Centre developed on the scale of the architectural object.

The Nautical Centre is constituted by five buildings that appear at the level of the ground floor, creating different moments and spatiality.

With the composition and modulation of these volumes the various squares are configured in a relationship with the river and a new coast line made in a set of advances, retreats and breaks between the full and empty of the soil and water.

The five volumes serve different uses, such as: a Sailing Centre, a Health and Wellness Centre, an Internship Centre, a Maritime Museum and a Hotel, are linked by a basement, and a raised square with a new Perspective and the building itself. As access to three of these buildings there is still a square with a restaurant and a co-working space.

The new marina draws on a large arm with three inflection points and connects to the shore via a walkway near the hotel. This bridge divides the marina into two parts: one linked to recreational boating and another linked to the sports boating located next to the Pedrouços dock, with a total capacity of 332 moorings.

The project assumes a dynamic character, for the advances and setbacks that the margin establishes with the Tagus. The user may have an active role in the use of space, or a passive role, observing and relating to the surrounding scenarios from different perspectives.

The two buildings of the Nautical Centre with emphasis in this report were the ones that were developed on the scale of the architectural object, the Sailing Centre and the Centre of Health and Welfare.

The Sailing Centre is designed in a volume similar to a parallelepiped. At the interior level, it is developed on 3 floors, the ground floor makes up the building occupancy area, the rest of the floors being developed in mezzanines on the opposite side of the river, with access between the first floor and the different mezzanines Made through stairs or lifts, with the roof terrace.

On floor one, common area to all volumes with a co-working area, a restaurant and car park. On the ground floor, the hangar, storage areas of materials, areas intended for athletes' trainers and staff, spas and safety areas and technical support. On the 2nd floor, administrative areas, restaurant and an outside terrace. In the cover, a bench for contemplation of the river and observation of races. The internal organization of the Sailing Centre, the ground floor is designed to create a simple and direct route to those who will practice sports, similar to the concepts acquired during the visit to the Montemor-o-Velho High Performance Centre. In the hangar, the influences of the Viana do Castelo

Sailing Centre are quite visible. We have designed a building of greater width with two rows destined for the arrangement of boats. At the end, you get a space with great storage capacity and efficient for sailing. The building ends with a cover accessible through a small terrace on the 2nd Floor, where there is a lounge area, with a view of the park and the city.

The Health and Welfare Centre is the second volume worked on the scale of the object and is located between the Sailing Centre and the Internship Centre. This architectural object conveys at the same time an idea of lightness and also shows a more rigid and dry side. The floor -1, It has an area common to all volumes, a restaurant that gives access to the rest of the volume and a central area where the public spaces are located. The ground zero has an extension of the -1 floor restaurant, in the form of a bar and cafeteria. On the 2nd floor, for the exclusive use of athletes and trainers, there is a gym. On the 3rd floor there is an area reserved for employees, with an administrative area and an outside terrace.

05 Conclusion

In view of a program that is part of a real context, the project concretizes the interests shown by the various entities that protect this area.

The same goes against the objectives previously defined taking advantage of its location relative to the city of Lisbon and the Tagus river main stage of this project.

The previously abandoned and unused places have been transformed to create recreational spaces dedicated to the population. These spaces guarantee new continuity in the urban dynamics, bringing new experiences to this area of the city. In this way, a proposal is reached that aims to reduce existing conflicts in the territory and achieve the objectives that were initially proposed.

The creation of the Urban Park provides citizens and visitors with a new perspective of the riverside of Algés, allowing their enjoyment all year round and not only during the occasional events that are held here. The park is made up of a great diversity of uses and cultural programs to be developed, namely in the arts, leisure, sports, among others.

In terms of mobility infrastructures, the creation of a new pedestrian system with greater continuity and integrated in the surrounding environment, together with the transformation of Av. Da India into an area dedicated to the pedestrian, causes the physical barriers to the railway line and the marginal, Lose strength and become integral elements and aggregators of the landscape.

As the "Atlantic Port" that opens Lisbon and the Tagus to the world, the Nautical Centre appears in the Pedrouços Dock, becoming one of the strong points of the proposal due to its inherent characteristics:

- first by taking advantage of its location next to the mouth of the Tagus, bringing together unique characteristics for the practice of nautical sports;

- second for the capacity that the Nautical Centre has to establish different relations with the river through the advances and setbacks that establish with the water and the design of squares to different levels;
- third for the creation of a program that meets the interests established for the place, aiming at activities related to tourism, leisure, sport and culture;
- room for gathering a space dedicated to recreational and nautical competition, having the capacity to receive various events, namely the Volvo Ocean Race races.

The Nautical Centre is thus able to aggregate the interests of the various regulators of the site while taking advantage of the potential of the territory.

The proposal, globally, has the capacity to integrate into the city elements that were previously seen as a source of conflict or were found to be unprofitable, giving a new meaning to the territory. The project strengthens the relationship between the north and south sides of the line, breaking down the existing barriers in the city in order to establish new continuities.

We have reached a proposal that respects the conditions imposed by the place establishing a strong relationship with the place and its pre-existences. However, there are still a number of elements and programs to be developed and deepened to make this proposal a viable urban project. We can see this project and the program that it contemplates as a case study for similar situations or as a plan of strategies and guidelines to be taken into account when designing a project for this riverfront.

These results are intended to achieve in Algés a reclaimed and revitalized riverside area giving a new life to all those who pass through and inhabit it, through a project that fulfils the requirements that had been proposed and which reaffirms the old connection with the Tagus, long lost.

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