

LuZ-Lx

New Sports - Cultural Center

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Resume of the dissertation for the Master's Degree in Architecture

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INTRODUCTION

The approached theme comes from the continuation of the project accomplished in the discipline of Final Project II of the Master's Integrated degree in Architecture of the Instituto Superior Técnico, that is developed between the Belém Tower and the mouth of the river Jamor in the district of Lisbon and the district of Oeiras along the river Tejo with the purpose to build spaces, as support to the new urban values, of services and equipments, of business and restoration, of exhibition and logistic, according to the treated program, in the urban and architectural (re)configuration of the area, with the supervision of the Professors António Ricardo da Costa and António Barreiros Ferreira.

The report is centered in the project of the Cultural and Sport Center - "Luz-Lx", a great polyvalent center, with a mainly sportive use and with the potentiality to receive a big number of people and to welcome cultural exhibitions during the numerous events of the whole year.

The aim is to highlight the importance of the natural landscape as primary resource and the safeguard of seashore and river bank, preferring the natural use of the riverfront for recreation and leisure activities and with a slight architectural impact integrated with the seascape, giving priority to the horizontal lines. With this idea the pavilion "Luz-Lx" doubles the horizon line where you can go up in a great public space in front of the river, that takes the form of the modern viewpoint.

The Light was the source of inspiration of the project, immaterial icon of the city, where the colours are mixed and reflected in the calcareous, pure and clean white surfaces, typical of the architecture of the country.

THE AREA

The urban project grows inside of a very wide territory, from the Tower of Belém to the mouth of the river Jamor, belonging to the metropolitan area of Lisbon. Marked by the river front, this territory, has a coast line with an extension of about 4,5 km, for that the proposal will have a great economic, environmental, social and architectural impact, as each of these areas contributes to a great diversity of resources, heritage and equipment offers.

The location of Algés give a position of transition among the mediterranean seasoned climate, characterized by a hot and dry summer and an irregular rainy soft winter and the mediterranean seasoned climate of Atlantic feature, with moderate summer and soft and wet winter.

As for the regime of winds, a predominance of the winds of the North quadrant is verified, namely of Northwest, North and Northeast, as well as in the Southwest direction and whose higher values of medium speed and frequency are recorded mainly during the summer.

The intervention area is characterized by elements of strong identity by the natural point of view, with the river front and the urban parks. By the geomorphological point of view, Algés is characterized by a soft and low waving. The altimetry width varies among 0 m, along the big river front, and 85 m in Monsanto.

In the territory there are also many historical valences, like the Tower of Belém, the Monastery of Jerónimos, the Monument to the Discoveries; of urban and cultural interest, like the Cultural Center of Belém, the National Museum of cars, the Champalimaud Foundation, the Doca Pedrouços, Vasco da Gama's Aquarium, etc.

The urban infrastructures also have a strong identity, with the rail and road line, and the knot of Algés, being at the same time points of force of the area, allowing the arrival through different kind of transports, and constituting a limit, a strong architectural barrier that has to be solved, putting in relationship and giving continuity between the city and the river.

THE PROJECT

Walking on the river front, from Terreiro do Paço to the Champalimaud Foundation, the historical and natural scenery infuses a peacefulness sensation that, the architecture cannot go beyond, but to accompany with a discreet gesture that allows to enjoy this walk thoughtful, almost spiritual.

The great Portuguese architects' architectures, Eduardo Souto Of Moura and Álvaro Siza Vieira teach us about the relationship between architecture and landscape, creating atmospheres of awesomeness.

The project "LuX-Lx", new sport-cultural pavilion, was born from the study of the area made by the students of the last year of the Master's degree in Architecture in the Final Project in Architecture I, 2015/2016, Josibel Lima, Micaela Pinto, Soraia Paiva.

Their proposal foresees the requalification of the river front and its integration in the urban space. It wants to create a strong pedestrian connection among all the new point of reference reorganizing urbanistically the strip in contact with Avenida Brasília at level of uses, accessibilities, equipments and green spaces.

The program foresees:

1. Resolution of the knot of Algés, creating an area for the people and not for the vehicles, with an underpass for the other side of the railway.
2. Nautical center and Equipments
3. Extension and Restoration of the Garden of Algés
4. New Station of Algés and Restoration
5. Space of Show _ Nos Alive
- 6.Space of Entertainment
7. Space of Readings
- 8.Space for Phoenician Arts and Performances
9. Space of Work
10. " LuZ-Lx " - sport-cultural pavilion
11. New Station of Cruz Quebrada leaning in a hospitality area

The different spaces are defined by the existent urban fabric, the streets of the city and the leading lines are prolonged after the railway, to give space unity to the area, that links directly to the urban area on the other side of the railway, marking the will of creating a strong connection between the river and the urban fabric.

The different pavilions in the Oeiras area create a series of squares, of public spaces that sometimes look on the river, sometimes on the city.

In this panorama it appears "LuZ-Lx" - sport-cultural pavilion, that has the Station of Cruz Quebrada in the immediate proximity, so a privileged and easily accessible position. The east has offices, for that will be a good space also for workers. Public's flow is then guaranteed, because it is in a strategic position.

The city looks at the river, of the urban fabric the soil rises, the spectator can arise to arrive to a close great viewpoint near the water.

In a world scene of continuous consumption and construction of the soils, the project wants to give an answer and a sustainable proposal to the problem, the occupied soil is almost totally returned in the roofing that works as a great public space.

The pavilion will have:

- Covered swimming pool (total Area of 2332,32 m2)
- External Swimming pool (total Area of 874,55 m2)
- Gym (total Area of 2771,85 m2)
- Three fields for covered games / spaces for events or exhibitions (total Area of 6120,87 m2)
- Two fields of external games / spaces for events or exhibitions (total Area of 5470,141 m2)
- Restoration and Small commercial activities (total Area of 1282,77 m2)
- Direction (total Area of 314,07 m2)
- Great public space in the roof / urban Park (total Area of 9807,26 m2)
- Parking (total Area of 1857,64 m2)

The different activities will be organized in three great volumes: the two lateral lines, at west the Covered Swimming pool, at east the Gym, that also includes access to the Restoration area and Commercial Spaces that surround a central patio with water and vegetation, and the central volume that count the three fields of games.

In "LuX-Lx" the pattern will mark the green areas of the square at the ground floor, close to the benches in wood, as well as in the whole upper roofing, creating suggestive light reflexes that move the land and mix the colours on the horizontal plan, contaminating little by little the whole space, that it turns, as in "High - Line NY", a great overhead urban park, a new contemporary viewpoint, modelled by the architecture, of only eleven meters of height, in the proximity of the river, where you can enjoy sport and leisure activities, to flee of the urban traffic and to admire from a privileged position the numerous nautical events that takes place in the river Tejo, being Lisbon the "Atlantic door of Europe", important stop for many nautical events, as "Turn Ocean Race" (VOR), the largest proof of the oceanic sailing of the world, for which Lisbon, in the Dock of Pedrouços, will pass to be probably thirst, with a significant financial impact in the life of the city and mostly in the project area.

The athletes have a space to relax before or after the training, the parents a place to stay and to wait, with privileged views forward the river. The two lateral parts of the building, the east one with the gym, and the west one with the swimming pool, will have a more private character, where to play sports during the whole year.

The pavilion has a capacity of 2000 spectators, only in the three central playing fields, beyond the standing room, the external fields, the lateral parts of the building and the roof. It can be the scenery for great events involving a huge amount of people with a great economic and social impact.

The pavilion "LuX-Lx", watched from the riverfront, has completely green opaque surfaces (project reference of the roof was the " Zentro Office Building and Commercial ", La Molina District, in Peru, 2012, made by González Moix Architecture team) and a great central glass looking forward the river Tejo. The lowered fields leave an open view to the big window.

On the south front the green is imperceptible, and "LuX-Lx" seems an immense pontoon that gets up from the sea and it bends, floating on the mirror of water.

The pavilion becomes a perfect part of the landscape, except for the false thickness of the roof, in rude concrete, that hovers on the transparent glass walls. This has to be a slight critical symbolism of the great architectures exhibited in proximity of the riverfront areas, that should be safeguarded and left the most possible free, trying to avoid vertical elements that can block the view or that are in competition with the natural landscape, where the architectural elements would owe support being and facilitation of the activities along the river, favouring the horizontal lines, the green and the landscape integration.

CONCLUSION

The backs are a great heritage of humanity and the architecture has to adapt to them. " LuZ-Lx " wants to approach this aim and have a light impact in "Skyline" of "Waterfront", with a horizontal development, that wants to follow the natural lines of the landscape, elevating it to facilitate the user in the promenade in recreation and leisure activities and simulating a space and a natural view from the walk, with a green space, that, a window on the river, giving an additional value to the landscape.

The area of the sport Pavilion wants also to evoke attention for the traditional characteristics of the city, the Light, which reflexes are even present and it is the inhabitants' and travellers inspiring source for the city of Lisbon. Suggestive element that artificially repeats in the urban drawing of the area where there is the typical calcareous paving of Lisbon, that will mark the whole river front.

The attention to the urban context is also maintained in relation with the actual urban fabric, being the pavilions in continuity with it, being born from the lines of the urban fabric, being configured as some great open patios where they open up different public spaces.

Another traditional element was the valence of the 'Miradouro', being the roof a wide space from where to look the river after a quick arising stairway.

Like this, the result that the project wants to reach, of an Architecture respectful for the landscape and of the urban context, in a such close position of the river coast, it was gotten with a maxim volumetric simplicity and a private attention by the urban drawing and above all for the river Tejo, soul and inspiring flow of the city of Lisbon where the citizens and the tourists will benefit of a great sport area of recreation and leisure and great green surfaces in direct connection with it.

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