

Urban plan for Santa Apolónia – Xabregas

Interventions on the existing urban fabric

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Abstract

The objective of this report is to present the work done within the discipline of the Final Project included in the Master of Architecture. The exercise develops an urban planning for the harbour area between Santa Apolonia station and the valley of Chelas.

Nowadays, the area is affected to a large number of infrastructure that creates a fault line between the buildings and the river. Due to the deactivation of the harbor, this area of Lisbon becomes available for thinking about solutions for structuring the territory that is today disqualified.

The area has many potentialities that are taken into account for the proposal of urban plan, firstly, the potential of the Tagus river. In the area, there are also several municipal heritage buildings that have a social, historical and architectural value.

In order to develop the plan, it has been done a first analytical phase as a base for the interpretation of the place. Based on this analysis and interpretation, there are different architectural solutions proposed for the reactivation of the eastern area of the city of Lisbon. The plan develops various urban themes, with different scales, and inquires possible and different solutions for this area.

Keywords

port

reactivation

heritage

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1. Introduction

The main objective of this report is to present the strategies developed during the year 2013/2014, in the field of Final project. The proposed exercise focuses on the eastern waterfront of Lisbon and proposes a reflection on the restructuring of the urban fabric.

The intervention area is a strip that extends from Santa Apolonia station to the convent of the Santa Madre. This area includes the space occupied by railroads, Avenida Dom Henrique and the port. In this sense, the area is heavily marked by the presence of infrastructure that change the relationship between the city and the river.

The area, already in the process of transformation with the cruise terminal and Campo das Cebola, is currently under study by the city of Lisbon, which is evaluating architectural solutions. In fact, the proposal of the proposal Camera Municipal is moving part of the port (the container terminal) in Trafaria. This reordering of the port of Lisbon, opens new opportunities for the city and especially for new relations with the river with the possibility to create new solutions for the riverfront.

On the other hand, the Municipality proposes to eliminate a considerable part of the space now occupied by the railway by keeping only two lines. The municipality allows also to create new railway station or extend the metropolitan of Santa Apolonia till the Railway Station of Oriente. Furthermore, the profile of Dom Henrique Avenue can be reconsiderated. The possibility of reducing the infrastructure that today mark this area creates the opportunity to deal with the issue of rehabilitation of the riverfront already developed with Expo '98 and the projects to Belém and Ribeira das Naus.

In this sense, the aim is to find alternatives to the reformulation of this territory, dealing with the river and its potential for the development of the area proposing solutions that restore harmony between built space, open space, infrastructure and the Tagus River. Taking into account all possible modifications of pre-existing, the plan may propose a new green parque with equipments (hotels, restaurants). There is also the possibility of project new equipment for the city as a civic center or the new auditorium of Lisbon according to the directives of the municipality.



Figura 1 - Studying area

2 Characterization of the studying area

2.1 Historic characterization

The Tagus River is a key element for Lisbon, from the beginning with the founding of the city providing a natural defense for the city. The river kept being important throughout the development of that city. From the first development, the harbour has a great impact for Lisbon and the urban development of the city was linked to the increase of the harbour itself. The first area affected by the harbour was Baixa, then Santos and Santa Apolonia. The function of the harbour brought also the creation of infrastructure such as new roads (Caminho do Oriente and av. Dom Henrique) and railways with Santa Apolonia as a new train station. At the same time, in the area close to the river there was the installation of industries. These new equipments and the infrastructure changed the riverfront of the Tagus. The industrial function of the riverfront kept till the 70s of the XX century, when parts of Lisbon harbor became obsolete. This phenomenon required a strategic reflection in order to make a new plan for the high potential area of the harbour. The major step was with the plan of Expo '98 that created a 4 km new public space in the riverfront. From the 80s, the river front has been a recurring theme in the debate and recognized as an element for qualification of the city.

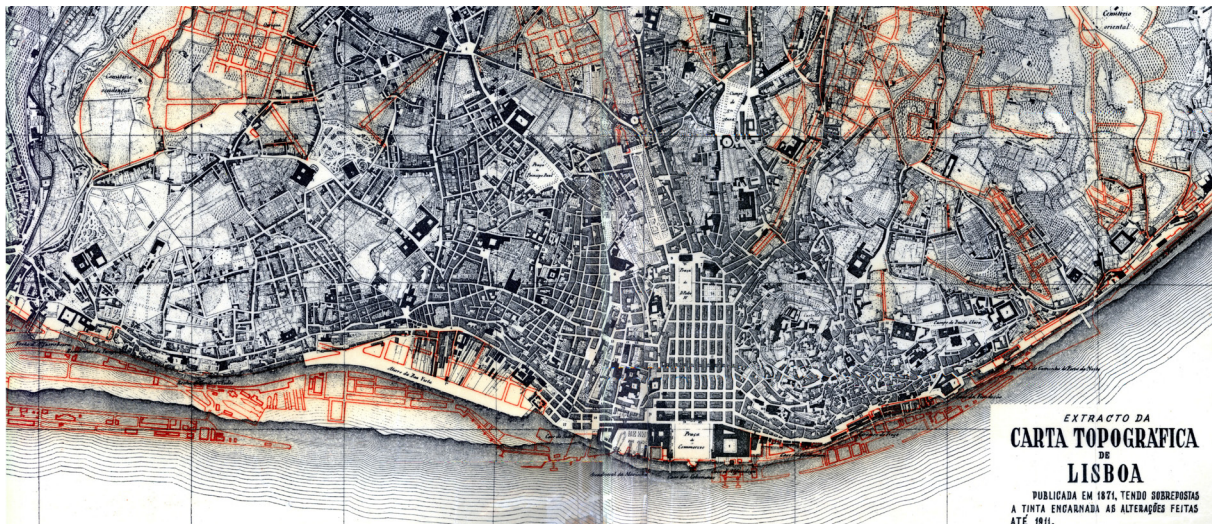


Figura 2 - Map of Lisbon (1871)

2.2 Biophysical characterization

The territory presents a steep topography being between Vale de Santo António and Vale de Chelas. Contrasting with the natural topography exists the harbour visually plan. It is observed that the area of lowest elevation is the main distribution having railways and road network. On the other hand, in the area of higher elevation, there are located monuments that have a privileged view over the city and the Rio.

The structure of the urban grid was extremely influenced by the slopes of the land: areas with more slopes appears more irregular having been planned by adaptation to the terrain; more regular grid where the slopes are less steep. Furthermore, it is observed that the riverside track is the least developed area: being the area closest to the river, here develops the infrastructure to support the industry and the harbour.

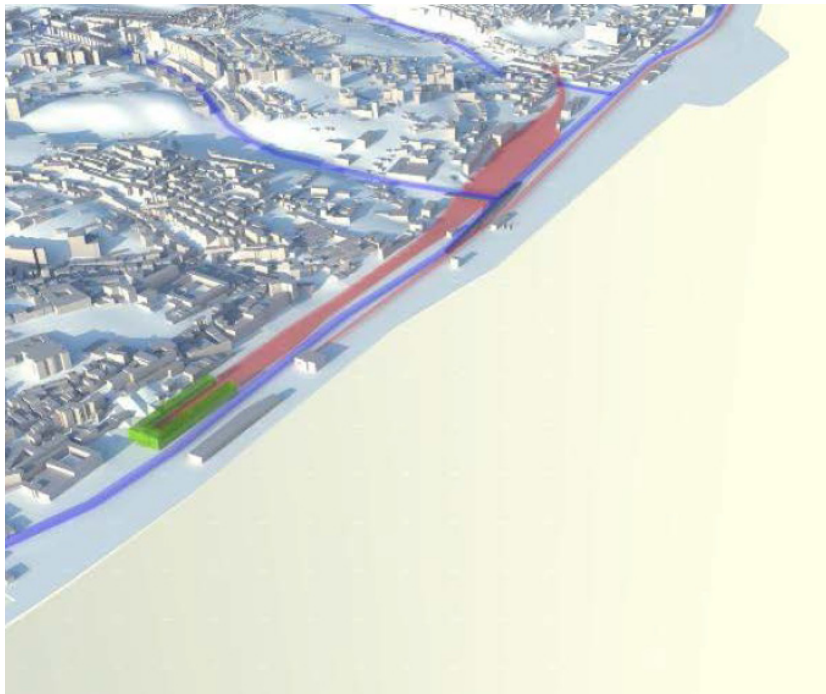


Figura 3 - Slope and infrastructure

The function of the harbour of Lisbon had a great impact on the organization of public space. Equipment and infrastructure necessary for the correct operation of the Harbour occupied most of the riverside zone. Only in specific places there are some public space on the riverfront. It is the case that the Praça de Comercio. Over time, the space for the harbour decreased due to its parcial disabling; these areas have immense potential for use in the public space. That is what happened in the area of Belém with the Portuguese World Exhibition that regenerate this district provinding new public space.

The studies of public spaces between the two train stations, Cais de Sodré and Santa Apolonia, is done in order to understand the public space already present. On the western side, the station building defines a square overlooking the river. It follows a linear space that connects the square with the Ribeira das Naus and ends in Praça de Comercio. The eastern side of the Plaza de Commerce is still under re-structuring projects with the Campo da Cebola and the new cruise terminal by the architect Carrilho da Graça.

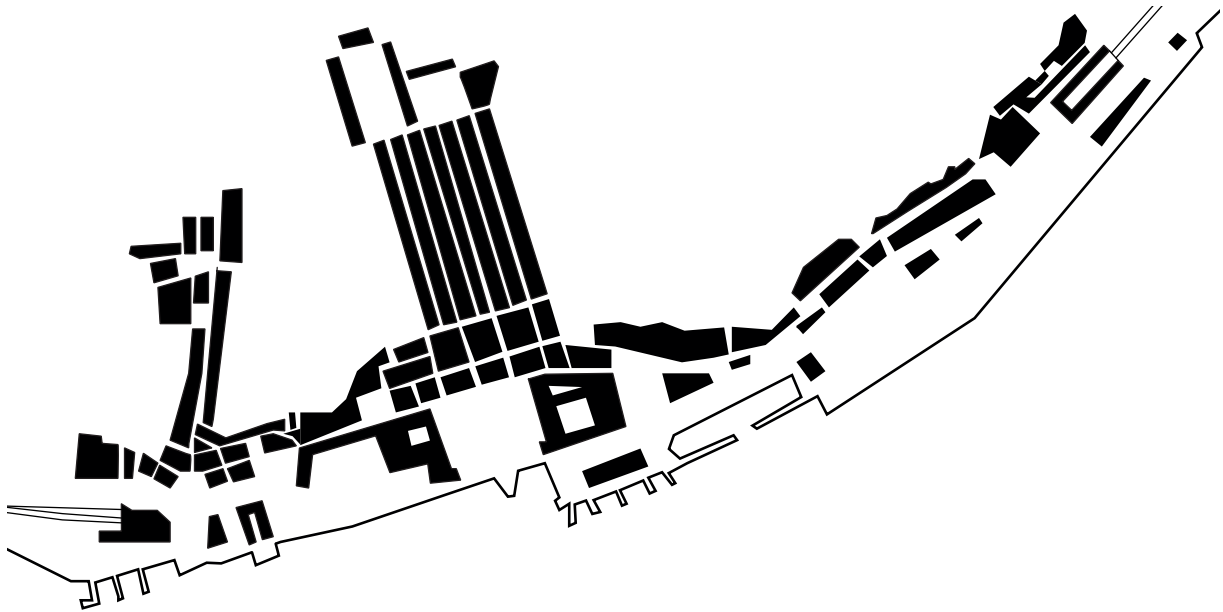


Figura 4 - Public space riverfront

In particular, regarding the public spaces in the studing area, their number is greatly reduced. The main one is the Campo de Santa Clara and the park of Botto Machado Feira da Ladra. The public spaces are almost non-existent or the gardens belongs to palaces and convents and at they are private. Considering the road network as public space, it can be said that the area raises serious issues in terms of pedestrian path; their improper width and the lack of space for parking leads to misappropriation by car, do not allowd to have comfortable and quality space for pedestrian. Those pathes can be upgraded in order to criate new ways to link the numerous building that are listed as heritage. Actually, this area has several remarkable buildings of ancient times as this area was the site of implantation of palaces and convents that nowadays are undervalued and in most of the case without a function.

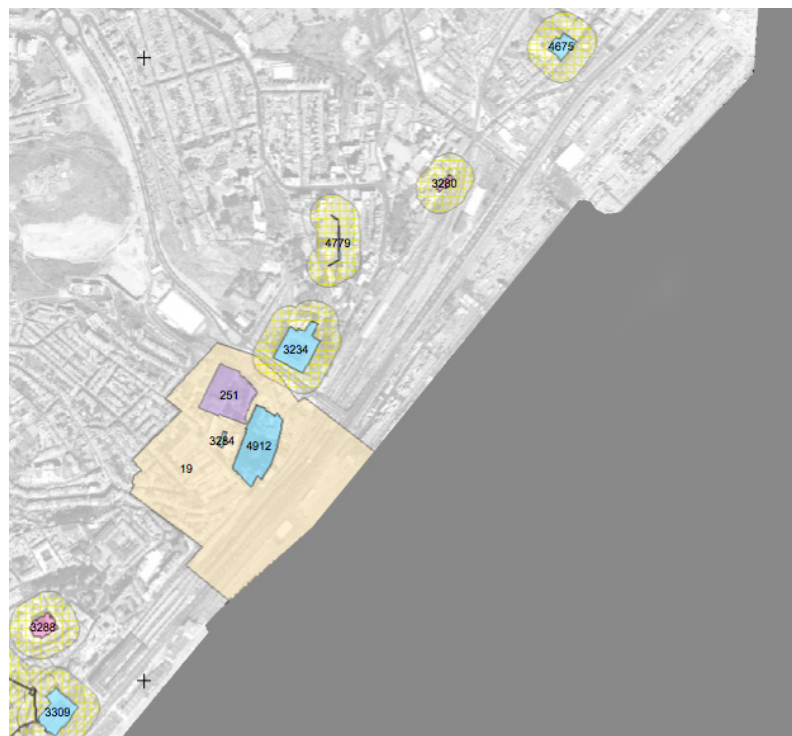


Figura 5 - Map with heritage

3. Studying case

For the realization of the plan it has been done a search looking for solution for the same issue that the studying area have

The main themes of the research was the relationship between the city and the infrastructure and solutions to create new space of quality in the space where infrastructures are disabled.

In this sense, the case of the city of Boston is very interesting. The major road artery was buried and in this way the city was provided with 27 acre of land. The solution adopted in this area was the creation of a linear park that replaces the roads and made a new connection between the neighborhoods. The solution was a realization of a public space with four different parks that develop in a curved corridor. It has been also studied the Ny case of High line by Diller Scofidio+Renfro and the case of parque da segresta in Barcellona.



Figura 6 - Before North End Park, Boston



Figura 7 - North End Park, Boston

regarding the study case in Lisbon, the project of Ribeira das Naus represent an interesting case. This area is a particular points of Lisbon where the city has a direct contact with the river. In fact the city presents infrastructural elements that do not allow direct link with the river, with the railway strating in Cais de Sodré and in the opposite side, the railway station of Santa apolonia. The central area between this two stations is an exception for the city of Lisbon which was recently object of planning with the requalification of Ribeira da Naus. The new riverfront front in Baixa proposes a re-thinking of infrastructure, with the advancement of margin that creates a new public space and a new relationship with the river.



Figura 8 - Proap, Ribeira das Naus, Lisbon

it was necessary for the proposal of the urban plan to understand the connection that the city of Lisbon Has in order to make easy the accessibility. Because of its topography, the city of Lisbon offers various mechanical systems to make the connection between sites that have different elevation that improve the accessibility in the city. The most common is the tram as connection: this is the case of the elevator of Santa Gloria that connects Praça dos Restauradores with the Jardim of São Pedro de Alcântara. Another solution is that the vertical lift as in the case of the Santa Justa elevator that connects the Baixa to Largo de Carmo. With the same objective was the intervention of the architect Siza Vieira. The project for the metropolitan station is not only a stop of public transport also the hinge enters the downtown and the Chiado. In this case the route is a covered corridor where are installed escalators that allow pass the gap between Baixa e Chado. Finally, the example of the elevator of the Castle of São Jorge by architect's Falcao de Campos that combines the rehabilitation of an urban street with the exploitation of a ancient building to instal a lift.

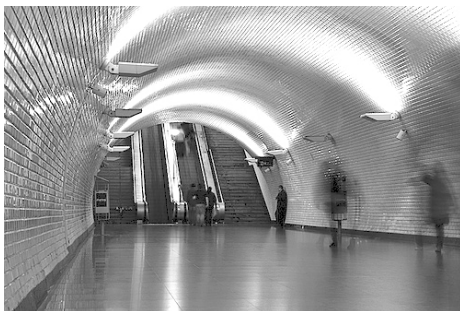
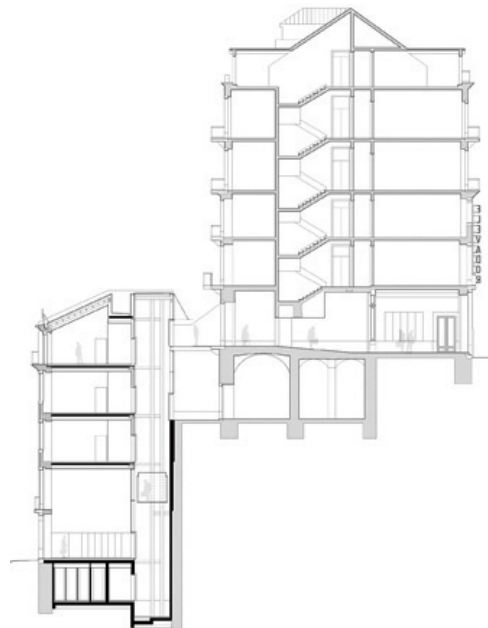


Figura 9 - Connection in Lisbon

Finally, it was done an analysis of the project of the Cruise Terminal as it is located close to the area of intervention and representing a quality project.

The new cruise terminal in the eastern district of Lisbon was an opportunity to rethink the connection between the city and the Tagus River. Carrilho da Graça proposes a compact volume leaving the surrounding as public space for the neighborhood. The park has an extremely important role in the project being the element of mediation between the city and its buildings but also between the city and the river. This open space provides the opportunity to have a new way to interact with the river, a relationship which is currently absent due to the high number of equipment of the harbour.

4. Urban Plan

The area of intervention has many potentialities but nowadays due to the overlap of different layers of the city (the main road network, railway network, harbour) it was disqualified and is in a state of abandonment. Taking in account the analysis and the municipality's requests, there were defined some principle structuring the proposal. First, the choice of reducing the railway network in only line two. Secondly, the creation of two "poles" that are placed in the margins of the intervention area and that define the limits of urban park: the new green space, which is located on the riverfront, will be the new structuring element for the district. Other objectives will be connecting the new urban park with pre-existing network in order to create a new relationship between the city and the river.

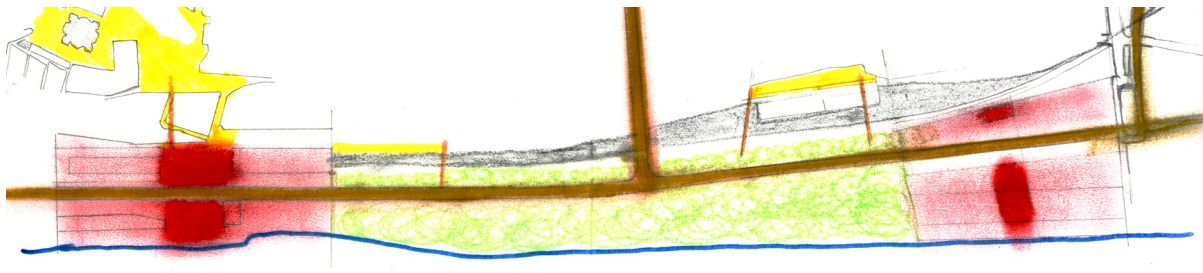


Figura 10 - Concept for masteplan

In relation to the mobility, the plan proposes to reduce the railway line with only two lines of conservation and to keep some equipment of railway. Also, it was chosen to create a new railway station that let to rethink a new function for the current station Santa Apolonia. About the road network, it is proposed a new section for Avenida D. Henrique reducing it into two lanes for each direction. The space thus gained by the change of the road and rail network, it is turned into public space creating a new urban green park. At the eastern side there are proposed some changes in the road network in order to trying to pass the users to use the new route in order to reduce car traffic along the riverfront and in the oldest part of the city. Simultaneously, with the reprofiling of roads, it is expanded the entry zone of the convents of Mother God and Xabregas. These changes still have consolidated the mouth of the chelas valley, with a small portion of housing and the proposed equipment.

The plan proposes an empty area, urban park, with very low density of construction; the built located on the margins of the area creating two poles that will define limits of the park. In the western area, it is creates a new railway station that with the station of Santa Apolonia creates a new square. This new square will be the point of access for the urban park. This query will be the new element that connect the urban grid with the river. In the eastern area, the pole is defined with the creation of a civic center that recreates the front of av. Mouzinho Albuquerque. In front of the civic center, a new block is built enjoying the view of the river and creates many interior patio.

The urban park, new element of public space, settles in the area currently belonging to the harbour. The space is designed to create zones with different characteristics using various disposition of trees. Another structuring principle was the creation of multiple functions that can attract various public either younger or older, proposing different activity. The footpaths were also other generating element of the urban park. These pathways are intended to facilitate both the declivity and the transition from one

side to the other of the railway line. In general, the principle for the urban park were made to provide several activities. A ramp turns easy the access of the playground; integrated in the ramp, there is a building used as a gym. Among the more open space, such as a picnic area and eating area, there are more intimate spaces - such as reading space, protected by a more dense woodland. The park is also equipped with restaurant, hotels and a silos for car parking.



Figura 11 - Urban plan

The exercise of the second semester is located in the western area of the former urban plan. In particular, the project developed solutions for the area of Santa Apolonia taking into account also the military museum, the cruise terminal (currently unbuilt) and the higher part of the district with Campo de Santa Clara and park of Botto Machado.

The urban plan dela with the issue of connection of old and new part. Due to its characteristics, the footpaths represent an issue of relevance for the context. Small dimensions of the streets and topography of the place does not allow to have comfortable routes for pedestrians. So, the project rethinks about these paths as new connector between the new and the old area that has many elements of cultural and social heritage (National Pantheon, Flea Market, Garden Botto Machado, old convents); this new path will revitalized the area. The proposal for the new path is setting in two different ways: improve the already existing path that lead to Panteão Nacional and create a mechanical connection installing an elevator. These new links provides a continuity with the network of the metro blue line (Santa Apolonia station) and makes easier the overcoming of the gap.



Figura 12 - Pathes



Figura 13 - Section

The urban plan create also a new square between the two railway stations that will define the western limit of the urban park. this plaza besides being access by park also represents the hinge element that connects the metro (current station Santa Apolonia) with the new the train station.

Reating a new train station, it was necessary to project a new function fo the current railway station of Santa Apolonia. In the building it is created a new shopping centre and an hotel un the first and second floor. The project keep the structure and insert “boxes” exploiting the double-height of ground floor.

The new connection with the elevator give the possibility to restore the cortyard of Hospital da Marinha as well as the building itself that currently is abandoned.

The hospital da Marinha is located between Santa Apolonia station and Campo de Santa Clara.

Originally belonging to the religious orders, the building was turn into an hospital in 1806. The demands of new espaças for hospital activity led to construction of annexes around the ancient building and also within the courtyards that change the antient image of the building.

Taking into account the ancient maps ant tryng to make hypotesis about the ancient plan, it has been decided to make an intervection for restauring the building preserving the ancient structure and removing the afterwards annexes. Besides this, it has been restaured the antient green space -located in the south side of the build – linking it with the elevador than make the connection between Santa Apolonia Station And the high level of the district.

The building is meant to be a new housing that offer different typologies of accommodation. In general, the plan was based on the principle that let to exploit the interior height (5.50 m). using a platform it is reduced the height for the serving space (kitchen, bathroom) keeping the double-kitchen for the living room.

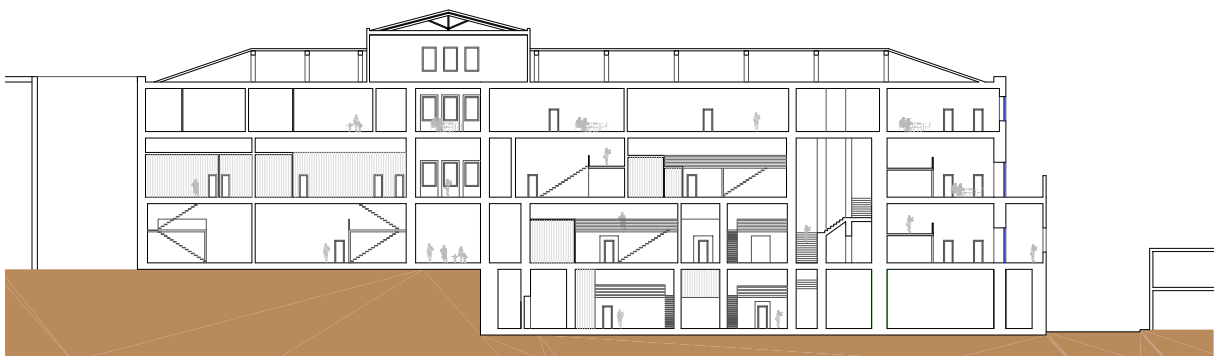


Figura 14 - Section of Hospital da Marinha

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