REUSE AND URBAN **TRANSFORMATION** IN EASTERN LISBON

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Master's degree thesis
academic year of 2019-2020

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POLITECNICO DI TORINO

Architecture Construction and City
dicember | 2019

Abstract

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The work contemplates the need for changes in the urban and architectural fabrics of a city. Throughout the industrial time, areas far from the center of many cities were taken as the spot to accommodate equipment, workers, and infrastructure of that period. During the years, many of these localities did not have the required attention and investments to be able to follow the development of the city. Many of them compose, until the present day, situations of obsolescence on the urban design and in the architectonic fabric with abandoned buildings.

The research and the project were conducted in Lisbon, more specifically the eastern side, due to its bads conditions after years of negligence after the industrial period. The project is focused on the South part of the neighborhood called *Marvila*, which has a big potential to boost an alternative center in Lisbon but nowadays does not attend to the contemporary needs and habits of people.

The project was made following bibliographic and urban-architectonic references and was based on maps of study of the area. The studied regarded, among others, the mobility to achieve the area, full and empty spaces, green and cultural spaces, and typologies and uses of the buildings.

After considering the main precepts of the urban transformation, it was proposed the creative adaptive reuse of an industrial building inside the zone of intervention. The concept of the project was developed mainly considering contemporary usages but also how to preserve as much as possible the main elements of the building.

To conclude, it is defended and showed by the project the potentialities of changes in the cities and their importance. It is possible, and essential, to create an innovative concept to attend these abandoned spaces so they are not forgotten by the city.

keywords
Lisbon; Urban Transformation; Adaptive Reuse

Special thanks

I thank my home university, University of Brasilia, which provided me the opportunity for a double degree at Politecnico di Torino and gave me the necessary foundation to complete this step. I appreciate the institution of Politecnico di Torino for all the learning I got here.

I thank all the people who were part of this journey and the friends that I made in Turin who became my family in these two years. I am thankful also for the friends that I made in Lisbon and made me feel home in such a short time, especially Beatriz Lisboa that besides friend is a very talented photographer, and conceded great photos of the city of Lisbon for the work. I appreciate as well the help of my friend and flatmate Alan Malta with the graphic design knowledge for the presentation and the work.

Above all, I am grateful for the unconditional support of my family, especially my father, who always had the patience and willingness to help me even from a distance.

I thank Professor Sérgio Padrão, from the University of Lisbon, who received the project with joy and was indispensable for the realization of this work. I thank Professor Silvia Gron, from Politecnico di Torino, who was always very solicitous and made possible the conclusion of the work.

Index

0.1. THEMATIC FRAMEWORK AND GOALS

Under the Master in Architecture and City at the *Politecnico di Torino* Institute, a proposal for the urban-architectural design was developed in a neighborhood of Lisbon named "*South Marvila*", with the support of the University of Lisbon. The purpose of this work is, therefore, to justify the choices and strategies used in this project following the proposed theme, called *Metamorphosis*.

The theme *Metamorphosis* is based, in the present work, in the form of an urban-architectural proposal supported by the perspective of the constant change of obsolete urban fabrics, in the change of the city, as well as the advantage of the reuse of buildings without functions, that represent the identity and the local history. The theme aims to explore the possibilities of transformation of these abandoned urban fabrics in the attempt of a city reinvention.

In the work part of the eastern riverside of Lisbon is studied, located in the neighborhood of *Marvila*, an area that has an urbanism disconnected from the rest of the city and a very particular architecture. It is marked by religious houses, farms, and convents along with obsolete manufacturing units and abandoned buildings. This area, over the years, has suffered from municipal negligence and, after a long time, is now the target of investments in buildings that not always prioritize the human scale and the well-being of residents.

That being said, the main goals of the project are: to present an urban proposal that integrates the dock of the chosen part of the riverside with the consolidaded part of the city; develop an urban-architectural project capable of returning the coastal region to people; boost the development of a new urban center in the south of *Marvila* in a way that does not annul its local identity.

0.2. WORK STRUCTURE

The work is organized in 7 chapters: Chapter 1, concerning the context, explains the concept of the city of Lisbon, made by residents and tourists. Focusing on the context of the work approach, some information is given about the East side of Lisbon during the pre and post-industrial times, and also about the Expo'98, remarcable times for the definition of local urbanism and architecture.

In Chapter 2, the attention is focused on the are of South *Marvila* and the *Poço do Bispo* dock, which is the project site, studies of existing urbanism and architecture are shown. There is a brief description resulted from the research of the urban area under study and how it affected the local changes. It was also made characterization of the South *Marvila* regarding the mobility, buildings and green and public spaces.

The third chapter regards the theme of the work: *Metamorphosis*: reuse and urban transformation, and explains how the theme fits in Lisbon and what is its purpose in the project. Four references of urban and architectural transformations are adopted in Chapter 4 and they will serve as the basis for the formulation of the project concept of the *Poço do Bispo* dock.

Chapter 5 covers the urban-architectural project itself: a proposal of an intervention adapted to real conditions and pre-existing urbanism and architecture. The chapter 6 brings an adaptive reuse of one of the buildings in deuse in the area. The new functions are specified, as well as the accesses and the internal organization of the reused building.

Finally, the sixth chapter approaches the final considerations of the work. It summarizes the initial goals of the project and evaluates if were accomplished. The positive aspects of the project are emphasized.

0.3. WORK DICTIONARY

Names of neighborhoods in Lisbon:

- Castelo
- Baixa
- Alfama
- Bairro Alto
- Carmo
- Encarnação
- Olivais
- Chelas
- Alvalade
- Graça
- Santana
- Campo de Ourique
- Estefânia
- Alto de Santo Amaro
- Belém-Alcântara
- Parque das Nações
- Marvila
- Beato

Names of regions in lisbon:

- Poço do Bispo - region inside the neighborhood marvila

Names used to denominate public spaces in lisbon:

- Rossio - square
- Cais do Sodré - train and metro station
- Terreiro do Paço - square
- Passeio Público - old walkway
- Ribeira da Naus - walkway next to the river
- avenida da liberdade - street

Name of Urban Planning:

- Pormenor da Matinha - detailed plan in South Marvila

chapter 1
Lisbon historical context

LISBON'S LOCATION IN PORTUGAL

1.1. LISBON

A traveler that arrives in Lisbon in 2019 is surprised by its natural beauty: it's easy to marvel at the river that gives birth to its coast, with the movement of travelers who admire the view and also the Lisboners that leave the station and go towards their work; the unevenness that creates different landscapes and provides different perspectives of the same horizon. At the end of the day the same sunset can be observed from countless points of the city, each one with a characteristic panorama of the space.

It is also the man-made beauties that attract travelers: the public spaces that house so many street arts and become the stage for music, magic and culture shows; monuments and historic buildings that show the memorable trajectories, not only of the city of Lisbon but of the whole country. Everything seems to emanate history. Perhaps this is why Lisbon has the talent for making the foreigner feel perplexed, admired, and at the same time welcomed: through the cultivation of the local wealth and precepts. The pictures of the next pages are two big examples of strong cultural elements of the city: the first is the tram, which started to work in Lisbon around 1872 and became a mark in the capital. The second and the pink street, a historic street that was reformed and is now part of the nightlife of Lisbon.

This was already one of the goals of Frederico Ressano Garcia, notable for directing the urban expansion and renovation of the city of Lisbon in the late nineteenth century. According to José Manuel Fernandes, architect and professor of History of Architecture and Urbanism at the Faculty of Architecture of the Technical University, "gave the city an urbanist-educated dimension, as Garcia was also able to adapt to the specificity of Lisbon, through the ability to articulate a "Foreign knowledge" with "local values" ". And he also cites as an example: "(...) by the fate that gave the narrow and consolidated pre-existing avenues in the area of *Novas Avenidas* - sometimes overflying them with viaducts and tunnels support of the new infrastructure (and thus preserving it) now integrating them with new and wide geometry (...)"[1].

[1] Silva, R. H. da. (1989). *Lisboa de Frederico Ressano Garcia: 1874-1909., p.39.* Lisboa: Fundação Calouste Gulbenkian. Commented made by José Manuel Fernandes.


CASA LEGE
WI-FI

1.1.1. CITY FORMATION PROCESS

In the territory of Lisbon different forms of settlement have been emerging since ancient times, initially along the valleys and hills on the Tagus river. The occupation began on *Castelo*'s Hill, with the establishment of a fortified settlement during the Iron Age. This prehistoric nucleus was the first historical heritage of a well-protected historical and geographical site, marked by riverside proximity and a natural pragmatism by adaptation to topographic conditions.

During the Middle Age the city was formed by two nuclei: of Christianity, in the fortified place of the Castle, and in the Medina. The city of Christianity relied on the Muslim city structure and expanded as it gained importance as an administrative, population and economic center.

FIG 3- Plan of the city of Lisbon with the configuration of the ancient fortifications, dated 1761.
Source: CM Lisboa 2017. Author: Guilherme de Menezes

The city's growth begins to accelerate when Lisbon, in the mid-13th century, becomes the capital of the kingdom and the main port of Portuguese foreign trade. The *Baixa* Valley begins to be occupied with residences and businesses and, at the same time, the port structures begin to attract a new population in the eastern zone of *Alfama*. Around the 1500s the first subdivisions were made, starting with *Bairro Alto*: small vegetable gardens give birth to housing lands and later neighborhoods.[2]

[2] Lamas, José M. Ressano Garcia. (2010). *Morfologia urbana e desenho da cidade.* Lisboa: Fundação Calouste Gulbenkian, Serviço de Educação e Bolsas.

Later, progressively, occupations close to the riverfront were being consolidated and, over time, they became autonomous nuclei. Among them stood out *Rossio* (the popular square) and *Terreiro do Paço*. However, this historical phase of the city would later be characterized by a new urban process due to a tragedy: the 1755 earthquake.

The earthquake followed by fire affected the entire Baixa area, the *Castelo* neighborhoods, and the *Carmo* zone, the most urbanized parts of the city until then[3]. It devastated much of the streets and many houses. Although this event was unfortunate, on the other hand it gave birth to an urban plan that would be extremely remarkable in the history of Lisbon: the Pombaline urban plan.

FIG 4- Topographic plan of the city of Lisbon, after 1780.
Source: CM Lisboa 2017. Author: Augusto Vieira da Silva. Editor: Lithograph Portugal

Marques de Pombal was the main responsible for the urban plan after the earthquake. People needed to be relocated, and the necessity of a fast and cost-effective architecture gave rise to a practical, military-style plan. An urbanism based on planned directions of lined streets where buildings are based on construction regulations, with respect to the basic concepts of resistance to seismic actions. Symmetry governed the urban plan and articulated the traces and axes of Lisbon's composition. This growth in Lisbon can be noticed on Figure 17, that shows a clear difference between the years of 1750 and 1800.

[3] The pink zone represents the pre-earthquake urban mesh while the yellow is the reconstruction of the city areas affected by the earthquake plus new areas that were then intended to be urbanized.

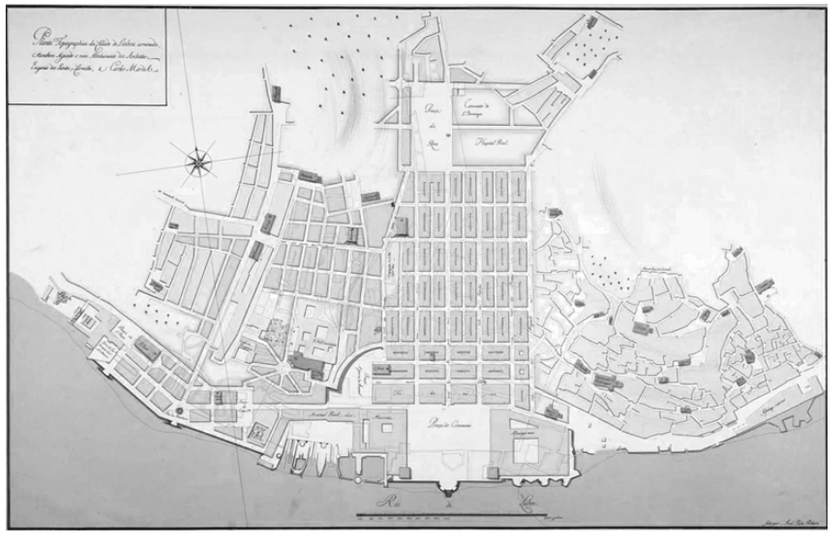


FIG 5- Plan of the "Baixa pombalina", dated 1758.
Source: CM Lisboa 2017. Authors: Eugenio dos Santos Carvalho and Carlos Mardel

After the Pombaline plan, the city continued its growth in a circular form, centered on the downtown area. The roads took disorderly shapes since they did not follow any clear path. They conformed to the disposition of the houses built over the years. The next major urban change was the *Passeio Público* in the *Rossio* region in 1764, which breaks with the vision of the development of Lisbon in the concentric way that was taking place.

The *Passeio Público*, translated as Public Walk, was a construction of a new genre at the time in Portugal: a public park in the Enlightenment way[3]. But already in the late nineteenth century the public walk no longer satisfied the residents, who sought for other entertainment. It also prevented the city from expanding further north. Thus, it was destroyed and a new venue, called *Avenida da Liberdade*, was built in its place.

The *Avenida da Liberdade* itself, built in the place of the public walk, would create a new axis of development of the city, thanks to engineer Frederico Ressano Garcia. The destruction of the Public Walk allowed the opening of *Avenida da Liberdade* with the adjacent orthogonal traces followed by the extensive *Avenidas Novas* plan, a true nineteenth-century expansion plan[4].

[3] França, J.-A. (1987). *Historia da Arte Ocidental 1780-1980.* Lisboa (4th ed.). Livros Horizontes.
[4] Salgueiro, T. B. (2012). *Fenómeno urbano e desenvolvimento social na região de Lisboa.* Finisterra, 7(13). doi: 10.18055/finis2417

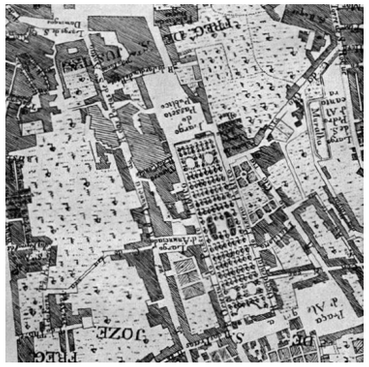


FIG 6- Location of the *Passeio Público*

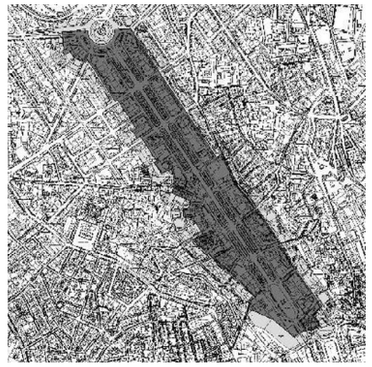


FIG 7- *Avenida da Liberdade*

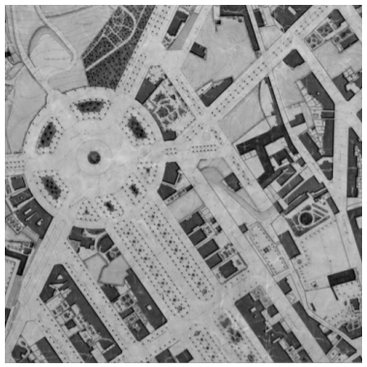
FIG 8- View of *Passeio Público* after 1834

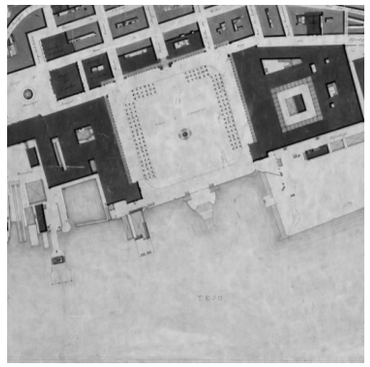
FIG 9- View of *Av. da Liberdade* in 1886

Frederico Ressano Garcia's general plan for the improvement of the Capital began in 1879 when he designed and led the construction of *Avenida da Liberdade*. The intervention zone was known as *Novas Avenidas* and the plan was quite complete: it included sewerage, water supply, railways, and ports, etc. The focus of the plan was to connect *Terreiro do Paço* and *Baixa*, already considered the center of Lisbon's life since the Pombaline reform, with the new neighborhoods to the north. For this, he decided to abandon the public walk and create the *Avenida da Liberdade*, an avenue that interconnected the urbanized and to be urbanized areas.

The Ressano Urban Plan was the true template for today's Lisbon. The *Novas Avenidas* he created unburden the public spaces of the capital and the dispositions of the created neighborhoods remain the same until nowadays. This was the last plan to really transform the city. Contemporary Lisbon was filled with the empty meshes resulting from the tracing of the new avenues, and *Avenida da Liberdade* presents itself as the primordial axis of the new city.

FIG 10- Plan of Lisbon dated 1899. Source: CML. Author: Augusto Vieira da Silva





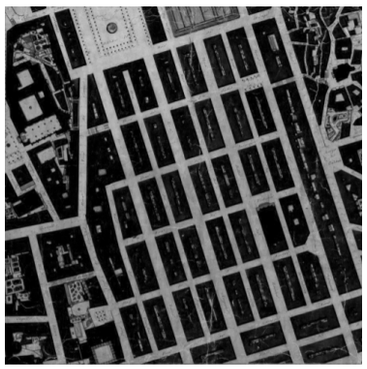


FIG 11, 12, 13 e 14, respectively: beggining of *Avenidade da Liberdade* marked by the square Marques de Pombal; *Terreiro do Paço* with *Praça do Comércio* and its docks; Baixa's region; Castelo's region - all of them dated of 1911. Source: GEO/ CML. Author: Silva Pinto

From 1930 to 1943 Lisbon experienced major architectural interventions. Duarte Pacheco, the mayor and later the Minister of Public Works, gave architects more power to act, such as the opening of the Dom Afonso Henriques Alameda, designed by João Guilherme Faria da Costa, Lisbon's first urban architect. The city grew considerably between 1900 and 1950, as is showed in Figure 17. At this time, new neighborhoods were beginning to be designed by urban planners, who were already in charge of developing their projects. These projects are largely made of wide streets and facades with homogeneous design.

Great examples of new neighborhoods developed in contemporary Lisbon are *Encarnação* and *Alvalade*, followed by *Olivais* and *Chelas*. Most of them follow an urban design based on closed block typologies, circumscribed by continuous streets[5]. It is also from this time the landscaped arrangement of squares that result from the urban composition, with the aim of creating leisure areas and children's games. The influence of garden cities had already arrived in Lisbon and this concept inspired the planning of *Olivais*, *Serafina*, *Madre de Deus,* and *Encarnação*, with their free residential blocks detached by green areas.

Over the years, urban planning has become biased towards environmental concerns, such as the 1992 Master Plan, which includes regional environmental issues for the implementation of Expo 98, which will be discussed later. Lately, there are also municipal initiatives that act in conjunction with private urbanizations in some specific locations, which fill the most unoccupied places of the city.

FIG 15- Alameda D. Afonso Henriques, 1938

FIG 16- Alameda D. Afonso Henriques, 1938

[5] *História de Lisboa.* (n.d.). Retrieved from http://www.cm-lisboa.pt/municipio/historia.

The Lisbon metropolitan area underwent an accelerated growth process between 1950 and 1980, resulting in a large housing shortage, lack of urban infrastructure and environmental degradation.

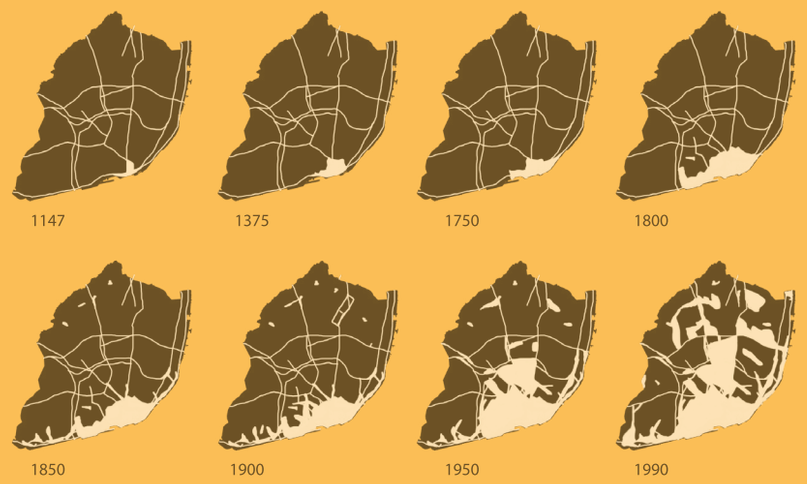


FIG 17- Lisbon's urban growth
Source: Salgueiro, T. B. (2001). Lisboa, periferia e centralidades. Oeiras: Celta.
Edited for this document by its author

1.1.2. DIVERSITY OF URBAN FORMS

FIG 18- Urban fabric - *Bairro do Castelo*

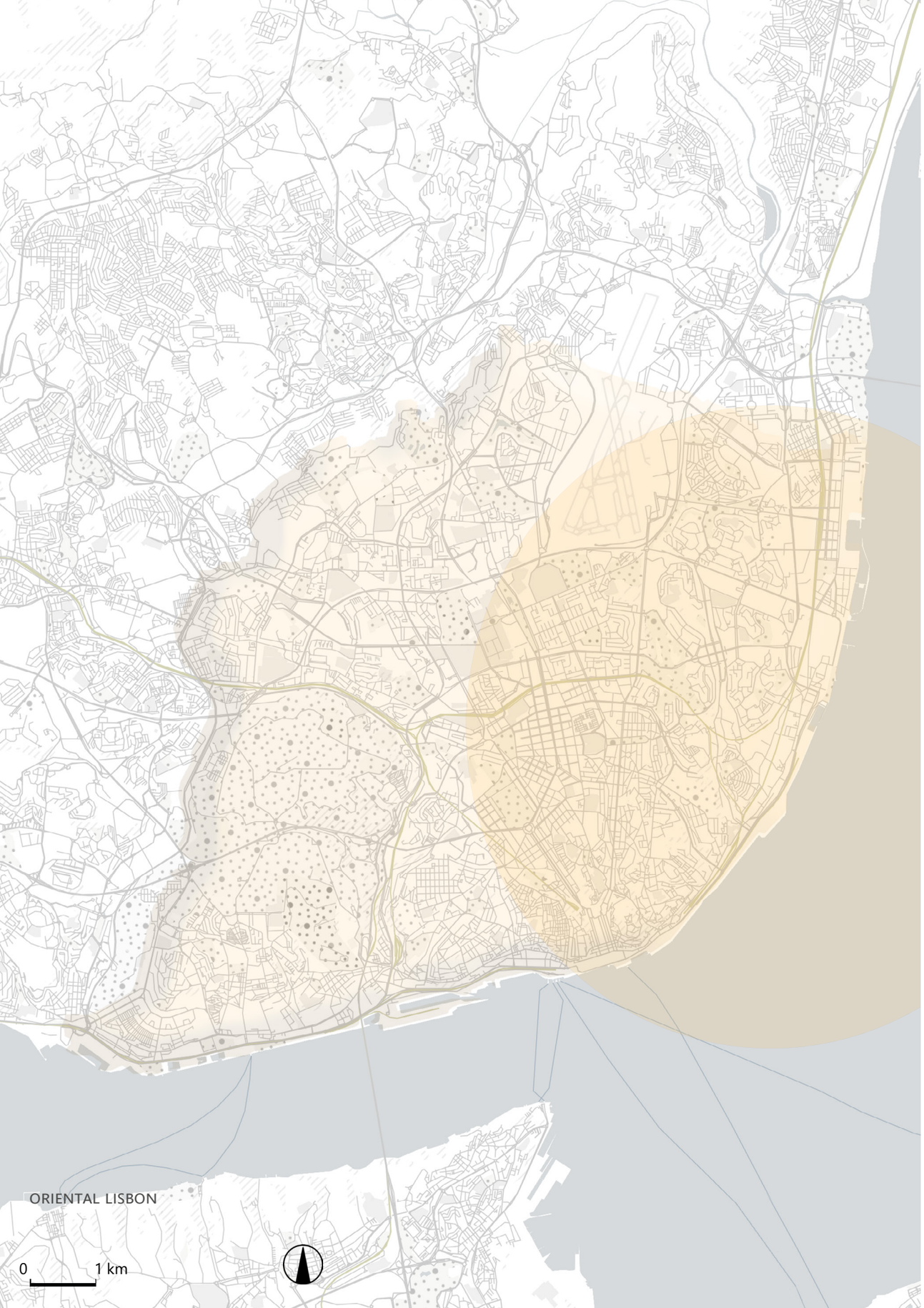
Old nucleus - corresponds to the first neighborhoods of Lisbon: *Alfama, Colina do Castelo*, the neighborhood of *Graça* and *Santana*. This urban form is the result of an ancient occupation and the hillside topography. The fabric is irregular and is composed of narrow streets and winding shapes.

FIG 19 - Urban fabric - *Baixa*

Orthogonal fabric - shows planned urbanization. As the main example, we have the reconstruction of *Baixa*, in the Pombaline period. There is also in this group *Bairro Alto*, the first regular fabric urbanization. In the late nineteenth century, as in the first half of the twentieth century, there are other examples of urbanization of orthogonal traces: *Campo de Ourique, Estefânia, Alto de Santo Amaro*.

FIG 20- Urban fabric - *Olivais*

Modern urbanism - The main marks resulted from the principles of the Athens Charter and modern urbanism has been applied to the *Olivais* and *Chelas* plans more fundamentally. This urbanism is characterized by the separation of residential areas, leisure, and work. It also outlines that a city should be composed of high buildings inserted in big green spaces.



1.2. ORIENTAL LISBON

A traveler who arrives in Lisbon at the *Oriente* Station recognizes a panorama of businesses, real estate developments, hotels and a wide variety of leisure and consumer establishments. It is noticeable that, in the zone, an alternative urban center was developed, mainly because it's an area often frequented by tourists. But the scenario was not always this. The project for the *Oriente* Station of Lisbon was part of a series of major space interventions for Lisbon at the occasion of Expo'98, held in the post-industrial Lisbon.

1.2.1. PRE AND POST-INDUSTRIAL

The post-Restoration Lisbon, the period defined by the Portuguese autonomy after years of the Iberian Union, was a city increasingly dominated by Catholic religious orders. The eastern zone, in particular, was made up of many farms and coves. With the 1755 earthquake and its catastrophic consequences, some of these religious orders were extinguished and left room for others typologies to be installed.

The area was strategic regarding transportation: near to the port and also to the railway line (which was to be built in 1886), factories and industries began to settle in eastern Lisbon. This led to a lack of proximity of the area to the rest of the city. Therefore at the same space coexisted some religious typologies remaining after the earthquake along with factories. Besides, workers' houses also began to occupy some of the halting spaces, either through tents or later with collective workers' housing. As expected, the construction of industries caused a devaluation of the urban area. The environment was full of noise, smoke, and pollution, causing these noble spaces to be abandoned or bought by the owners of the industries[6].

[6] Melâneo, P. e Moreira, I.(2018). *Epicentros pós-industriais Um futuro a Oriente.,* Jornal Arquitectos, 4.

Paula Melâneo and Inês Moreira wrote an article with the title translated as "Post-industrial epicenters: a future in the East" for the Jornal Arquitectos, a big magazine in Lisbon. This edition of the magazine shows how the population is now looking at these areas of industrial past, where activity has become obsolete, analyzing how they are now absorbing urban growth and new economic activities.

In 1938, the Lisbon Urbanization Master Plan was developed by the French urban planner of Groer at the request of Duarte Pacheco, then mayor of the city. The plan's policies included, among others, the simplifi-cation of the expropriation process, liberating in the eastern part a vast territory not previously urbanized. Urban models of economic housing in the new government were implemented over these territories: villages with row houses, hierarchically flattened by their different facilities, such as a church, barracks, primary school and market.

Over time, industries and ports became obsolete and outdated and began to close in the 1950s and 1960s. This culminated in the abandonment of many buildings, port infrastructures and industrial units. Expo 98 was then held as a possibility to rehabilitate the eastern part of the city with a new urban center, taking advantage of the infrastructure and the main equipment built for the exhibition.

1.2.2. EXPO' 98

Organized to celebrate the 500th anniversary of the Portuguese maritime conquests, Expo'98 was an exhibition held in Lisbon under the theme "The oceans: a heritage for the future". The availability of large public land and easy access from the north of the country and the airport made the eastern area the venue for the event. The Expo would create a great dynamic around itself and revive the completely forgotten railway and industrial area.

The exhibition was a project developed by Manuel Salgado and Vassalo Rosa and the enclosure had an area of approximately 60 hectares and 2 kilometers of riverfront. However, the entire project involved a much larger area of more than 340 hectares and 5 kilometers in front of the Tagus, which contributed to the creation of a new centrality.

The Oriente Station, for example, designed by Santiago Calatrava, was essential for the area to attract more people and have a new landmark. Other public constructions such as the Vasco da Gama bridge, which connects the area to the south of the city, also represented great articulators in this urban rehabilitation. *Parque das Nações* is still an important area of the city today, and its creation was responsible for the densification of houses in the surrounding area, since after the exhibition many of the areas of the Park were sold to offices and housing for a very lucrative price.

In urban terms, the Expo'98 had an Urban Plan in the Intervention Zone, coordinated by Vassalo Rosa, which aimed to create an unique and centralized urban structure that would simultaneously comply with effective environmental and urban requalification measures. Such measures were certainly the focal point of the urban plan since it was a space on the riverfront. Thus, green and public spaces were considered key elements of requalification and metropolitan and accessibility networks should respect these areas

Given this, the urban structure was defined as a regular orthogonal fabric with some changes of direction to adapt to the building land, crossed by large parallel axes and symbolic elements that mark these intersections. Detail Plans were created, which divided the Intervention Zone into other small areas to diversify the city's activity hubs and change its center of attraction.

Expo'98 was responsible for giving new unity in Lisbon. Whether for urban furniture or specific building designs, it caused a major transformation in city life. Most important of all, the habits of the inhabitants also changed with the city, according to Mega Ferreira, executive commissioner of the World Exhibition. People have discovered not only the enjoyment of the riverside area and the Tagus river, but also the open space where you can walk and circle, look at the sights, the buildings, and other people, and the gardens where you can take a long walk[7]. In fact, the relationship of the population with the public spaces in the Expo influenced new projects in the whole country and even in the world. The Expo besides an opportunity for urban and environmental requalification was also an occasion to improve modernization and the internalization of the city of Lisbon[8].

The example of the Expo contaminated the rest of the city over the time. The eastern area has come to convey an attractive and cosmopolitan image of Lisbon, housing new boutiques, galleries and ateliers. Is a great example of the creation of a new urban space with globalizing characteristics, but at the same time, an attempt was made to represent a unique and singular identity of the city.

[7] da Silva, R.H. A., Ziviani, P. (2016). *Cidade e Cultura; Rebatimentos no Espaço Público.* S.1.: AUtentica Editora

[8] Scherer, F. de V. (2003, July 4). arquitextos 038.02. Retrieved from https://www.vitruvius.com.br/revistas/read/arquitextos/04.038/666.

FIG 21- Made by the author

1 **Vasco da Gama Bridge** - connects the *Parque das Nações* neighborhood with the south of Lisbon, it is important to make the area more central and accessible.

FIG 22 - Made by the author

2 **Oriente Station** - designed by Calatrava, the station is Lisbon's arrival and departure point for trains and also the articulation point of the metro line.

FIG 23 - Made by the author

3 **Oceanarium** - installed on a pier surrounded by water, was a centerpiece at Expo '98 and is still one of the most sought after attractions in Portugal.

FIG 24

4 **Prata Living Concept** (under construction) - Renzo Piano project for the *Braço de Prata* that encompasses dwellings, businesses and green areas. It was approved in 1999 and resumed only in 2016 after the financial crisis.

FIG 25

5 **Braço de Prata Factory**- began operating in 1908 as an Artillery Projectile Factory. In 2007 its facilities were transformed and adapted to host a private cultural center that includes a bookstore, exhibition halls, movie theater, and restaurants.

FIG 26

6 **Municipal de *Marvila* Library**- building consisting of the restoration of Quinta das Fontes and the construction of a new neighboring building. Important to be located in an area of social neighborhoods and low employability.

FIG 27

7 **National Center for Nautical and Underwater Archeology** (under construction) - Refurbished building in a set of warehouses of the Old Tobacco Factory, project approved in 2018.

FIG 28

8 **National Museum of "Azulejo"** - founded in the old buildings of the Convent and Church of Madre de Deus, which gradually underwent repairs and alteration of spaces.

FIG 29 - Made by the author

9 **Santa Apolônia Station** - an important connection point between the East and the rest of the city and one of the largest works in the railway sector in Portugal.

FIG 30

10 **Cruise Terminal** - designed by João Luís Carrilho de Cruzeiros, in 2018, the building consists, for its architecture, of a tourist spot in Lisbon.

1.2.3. PROCESS OF URBAN FORMATION

After the Expo '98 there were then two parts of Lisbon disconnected: the neighborhood of *Parque das Nações*, completely new and modified by the attractions of the expo, and the rest of the city, which had as its center the regions of *Bairro Alto* and *Alfama*. However, with the growing of the metropolitan area in Lisbon accelerated, over the last century it has been necessary to consolidate the interiorization of the city to the river. The change in the view of the city-river relationship was certainly fundamental for the development of the eastern area of Lisbon. Much is due to Expo '98 and its Waterfront Planning Plan. The exhibition area constituted the third opening of Lisbon in contact with the river, the third window over the Tagus, along with *Belém-Alcântara* and *Cais do Sodré-Terreiro do Paço*[9].

Just as this interiorization took place, the riverside area was also gradually occupied by rail and road, activities that depended on this accessibility and the availability of cheap land, creating a strong urban segmentation. Then we have, in the last century, an intimate relationship of three defining lines of eastern urbanism: the present bank, the old bank, and the railway. Over the years, the waterfront has been shaped according to its uses and needs. In the east, another dock has been formed (*Poço do Bispo* Dock) and some trades have been installed. However, the area is still in a state of neglect with the presence of many obsolete port structures that block people's access to the Tagus river.

FIG 31- Coast line of the Silva Pinto's cartography (1991) overlapped on nowadays map. Source: CML. Edited for this document by its author.

FIG 32- Coast line of 1950 overlapped on nowadays map. Source: CML. Edited for this document by its author.

[9] Lamas, José M. Ressano Garcia. (2010). *Morfologia urbana e desenho da cidade. cit.*

1.2.4. CURRENT SITUATION

The banks of the river were one of the most important areas of commerce with steamships. Warehouses were built along the waterfront and consequently blocked the way between the river and the street. At this time of rapid development of the seafront, transportation and industry have become their only use. Direct contact with water, which had already been damaged by the construction of repositories, is now even lower because of railways and highways that create a barrier to public access[10]. Meanwhile, the waterfront has deteriorated because of industrial pollution. The water became dirty and the waterfront began to lose its natural appeal to many inhabitants.

Now after some years, the concern about the rehabilitation of the coastal zone is back[11]. Not only in Lisbon but in many cities that went through the same process. Waterfronts were rediscovered in the city because of the growing environmental consciousness and also with the demand for an upgrade in urban areas[12].

To improve rehabilitation of the coastal connection in Lisbon, along the riverfront were built types of equipment capable of attracting many people. In the east, were built the Museum of Architecture, Art and Technology (MAAT) and the Cruise Terminal, with the aim that people could return to the coast of City. These new buildings on the east riverside created a bond with the Lx Factory in Alcantara: project of reuse of an industrial area with companies of advertisement, communication, architecture, art, music. It created a big dynamic in an area that was before totally hidden in Lisbon. This connection of architectonic fabric along the coast is important to encourage even more the occupation near the Tagus river.

As for the other buildings of East Lisbon, they housed new activities after Expo 98, as expected by the government. Some new projects are appearing even more in the present days for the eastern neighborhoods to build an association between *Parque das Nações* and the rest of the city. Developping a new urban center and to providing riverside spaces are also other goals of these projects.

[10] Pekin, U. , 2008, as cited in Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture.p.170* doi: 10.5772/55759

[11] Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. cit., p.174*

[12] Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. cit., p.174*

The neighborhoods of *Xabregas, Beato, Marvila, Braço de Prata* and *Cabo Ruivo* are undergoing renovations: old warehouses are being renovated and taking on new functions such as bars, restaurants, and vintage shops. In Beato and *Marvila*, cultural projects for public and private investment now form a territory with creative coworking and hubs[13].

The current concern is choosing the target audience for the new projects. The requalification of spaces must be inclusive, and this requires a sensitive perception of space: the intention to create public spaces for the community must be prioritized over any private investment of economic exchange. The project should effectively satisfy the needs of the area's residents rather than prioritizing activities that aim only at the region's economic development.

Despite the increase in architectural reuse projects, the urban fabric of most neighborhoods in the region is still obsolete. The fabric has not changed according to the new needs of the population, therefore poorly integrated roads and misused and abandoned spaces are still very present. Green spaces are defectively maintained and often used as parking lots, there are no plazas for community integration and pedestrians are not prioritized.

[14] Melâneo, P. e Moreira, I.(2018). *Epicentros pós-industriais Um futuro a Oriente., cit.*

chapter 2
project area

SOUTH *MARVILA*'S LOCATION IN LISBON

0 1 km

2.1. CONTEXT - THE NEIGHBORHOOD AND THE SURROUNDING

2.1.1. *MARVILA*

To understand the context of the project it is first necessary to understand the history and reality of the neighborhood known as *Marvila*. *Marvila* is an area of eastern Lisbon situated on the riverfront, bordered by *Parque das Nações*, to the north, and *Beato*, to the south, still characterized by situations of ruin and abandonment. The area today has a territory with obsolete industrial buildings, residential spaces in degradation in comparison with palaces, convents, and factories.

The railway lines physically divide *Marvila* into what may be called "North *Marvila*" and "South *Marvila*". It is an informal name, but it fits well with the current context of the neighborhood since they are separate parts, not only physically, but also in the manner that the buildings are occupied. North *Marvila* is predominantly composed of social residences while in the south is common the occupation and reuse of old warehouses for commerce, mainly by the street *Rua do Açúcar*. The southern area will be the focus of the study: it consists of an area on the riverfront in which the *Poço do Bispo* dock is located.

FIG 33 - Limits of *Marvila* and the separation of north and south

The rehabilitation projects of some spaces in South *Marvila* highlight the complexity of the local metropolitan situation: although much of the area is in damaged condition, the chances of a future rehabilitation are, for the most part, based on investments that aim to promote upscale housing[14]. The location near the Tagus river is a factor that increases the wrong interest in the production of high investment private projects. That leaves aside the true goal of accessibility in the rehabilitation of the coastal zone.

As a paradox with the reality of this area, which is home to a high rate of underprivileged people, *Marvila* currently receives architectural interventions that do not primarily target the welfare or even the needs of this group of residents. If, on the one hand, the construction of large enterprises is important because it is a motor of capital circulation and investments, on the other hand, it can create gentrification.

Gentrification is the process of real estate appreciation of an urban area due to the construction of large new buildings, and directly affects the dynamics of space composition. Many low-income residents have no choice but to move to more economically and remote areas of the city. This causes relations between former residents, workplaces and working families in this area to be lost in history.

Fortunately, at the same time as *Marvila's* threat of gentrification, a new urban planning discourse also emerges, which does not concern major architectural projects frequented by high-income people and is not intended to increase the urban value of the area[15]. This discourse encompasses artistic and cultural productions that allow new experiences in the area, and that value the collective memory of space and residents. A good example of this is the reconversion of the *Braço da Prata* Factory, which between 1908 and the 1990s functioned as an armament factory and today is a space for welcoming artistic creation, its dissemination, and cultural debate. Programs such as concerts, shows, exhibitions, and workshops are often held in space and the local population is present. The *Marvila* Municipal Library also follows the cultural discourse. When it was installed it was asked if it would be useful to have a library in one of the lower literacy areas, but nowadays neighborhood residents take care of the place and already feel the space as their own.

[14] Melâneo, P. e Moreira, I.(2018). *Epicentros pós-industriais Um futuro a Oriente., cit.*

[15] Melâneo, P. e Moreira, I.(2018). *Epicentros pós-industriais Um futuro a Oriente., cit.*

2.1.2. *POÇO DO BISPO*

Poço do Bispo consists of the riverfront. On its banks there were convents, palaces, and farms that supplied the city, especially from the sixteenth century. Before the advent of industry, waterfront areas were strongly used and prospering with people and activities[16].

The big transformation arrives in the mid-nineteenth century with the, as already said. The area was well connected, and from 1856, with the railway and river nearby, it became an industrial hub with factories, warehouses and housing for workers. As a consequence, the relationship of the population with the water was interrupted[17].

FIG 34 - Area of *Poço do Bispo*

The *Poço do Bispo* dock is currently abandoned. The area, instead of being used by the community, houses a parking lot used by cargo trucks and many misused spaces. A spontaneous and not community prioritizer occupation takes over the dock's urban fabric and the whole adjacent neighborhood. As for the buildings, 70% of the architectonic fabric near to the dock is made by unused warehouses and structures. This calls for a transformation of the urban and architectonic fabric. Furthermore, the connection with *Parque das Nações* is not yet consolidated neither by the urban design nor by architectonic equipment that maintains continuity with the river coast.

[16] Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. cit., p.172*

[17] Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. cit., p.177*

FIG 35- Doca do *Poço do Bispo*, 1938. Foto: Eduardo Portugal, in a.f. C.M.L.

FIG 36- Doca do *Poço do Bispo*, 2019
Made by the author

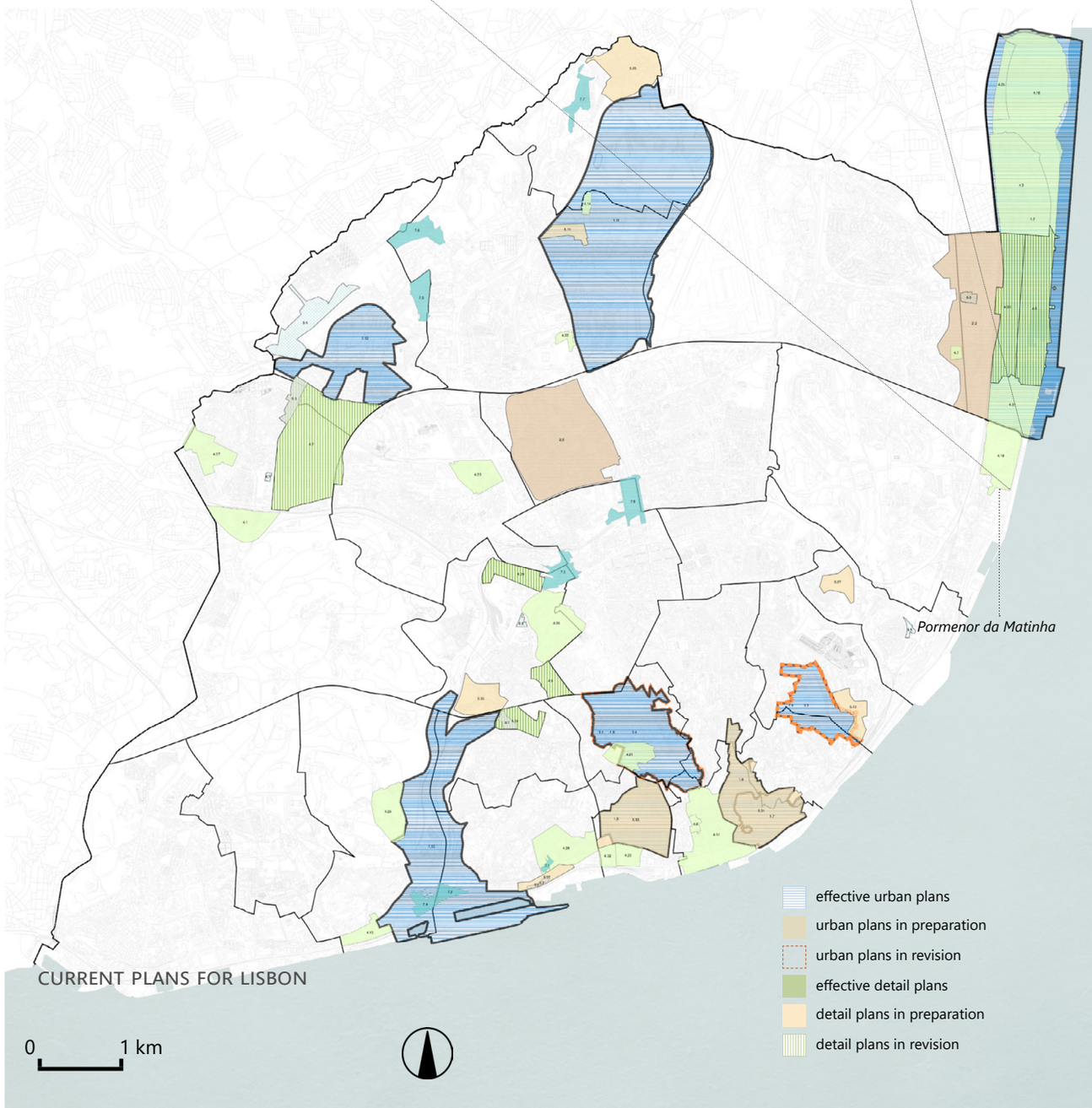
2.1.3. URBAN PLANS FOR THE ZONE

The territory of Lisbon is regulated by the Municipal master plan which is divided into Urban Plans. These plans structure the land use, coordinate the implementation of urban policies, and define the location of major infrastructure and collective facilities.

Each Urban Plan is divided into Detail Plans as the Expo'98 had during the intervention. The Detail Plans develope the proposed occupation of the urban plan of an area. It establishes rules on the implementation of infrastructures, the volume and the rules for the buildings and the regulation of their integration into the landscape, the urban insertion of collective use equipment and the spatial organization of other activities of general interest.

Regarding the study area, the Municipal master plan of Lisbon predicts a revitalization of the coastal zone in front of the Prata Living Concepts, the residential complex, with a public park. It is called in the Municipal document as "Parque Ribeirinho do Oriente" and the Urban Plan is called: Urban project Vale Fundão – Matinha – Poço do Bispo. There is only one Detail Plan that concerns part of the field of the project, which is called "Pormenor da Matinha". It is located at the end of Marvila, next to the Expo area, as shown on the map of the next page, and it was created in 2011.

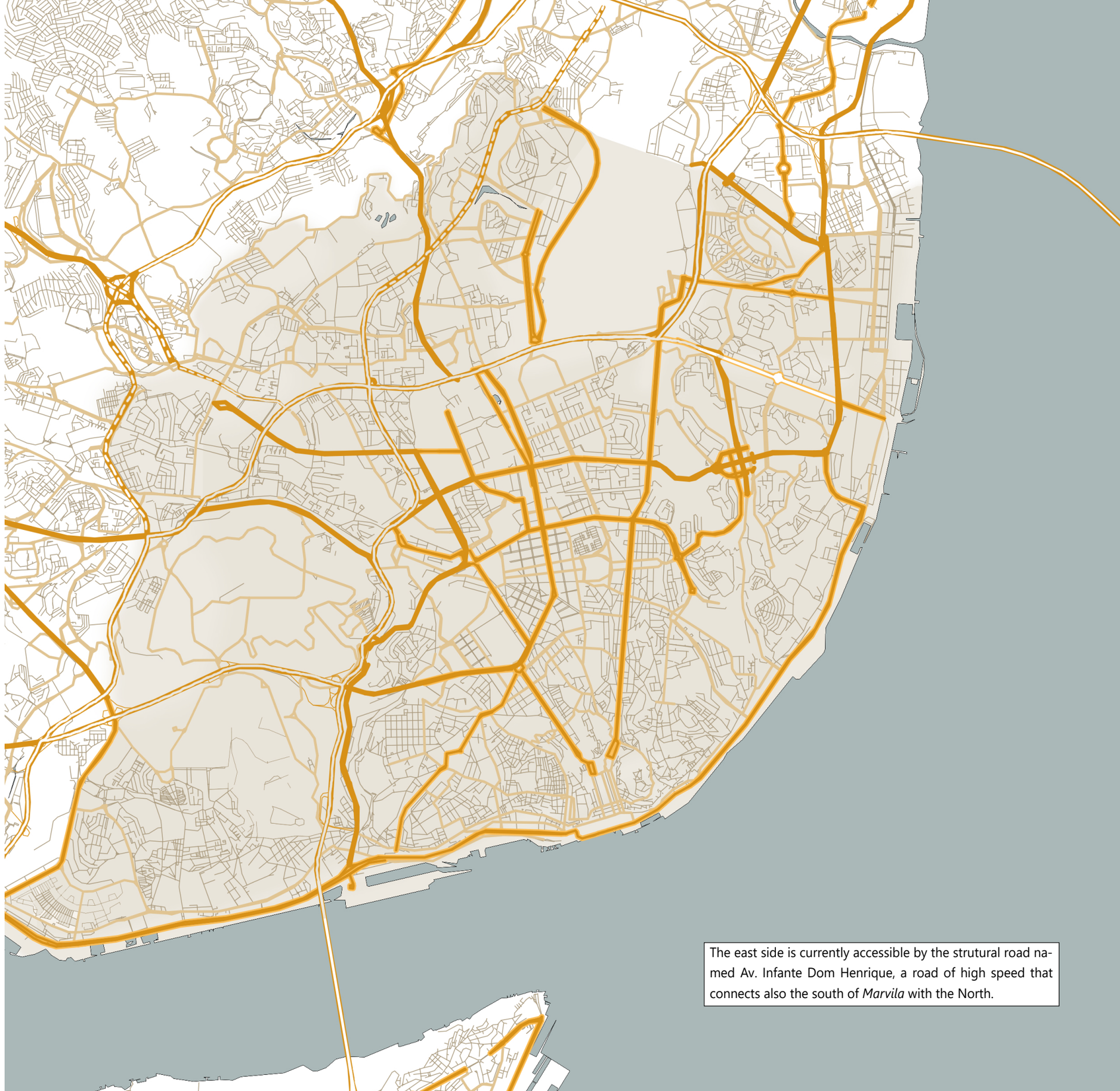
The spatial organization of the "Pormenor da Matinha" is based on the distribution of lots designated for the implantation of buildings for housing, commerce, and services uses, according to the characteristics of architectural and functional homogeneous proposals; and on the distribution of spaces intended for the installation of equipment and green areas. The plan is also responsible for changing the road structure that crosses the zone and goes to the Expo, as will be shown on the next pages.



CONNECTIVITY

SCALE 1

0 1km

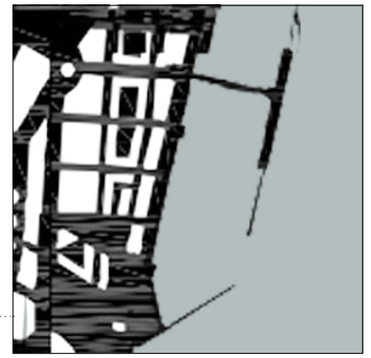


of local access
secondary
primary
strutural
to be implemented

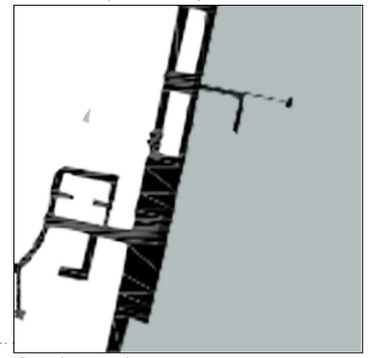
The east side is currently accessible by the strutural road named Av. Infante Dom Henrique, a road of high speed that connects also the south of *Marvila* with the North.

CONTINUITY, URBAN FABRIC
SCALE 2

0 1km



Marina *Parque das Nações*



Cais da Matinha

Poço do Bispo dock

Matinha`s dock

The connection is always made by broad pathways that continue along the coast. At the *Poço do Bispo* dock and in *Cais da Matinha*, both areas of the project, ther's still a lack of infrastructure to the people that walk by.

FIG 36- Made by the author

FIG 37- Made by the author

FIG 38- Made by the author

FIG 39- Made by the author

CONTINUITY, BUILT ENVIRONMENT

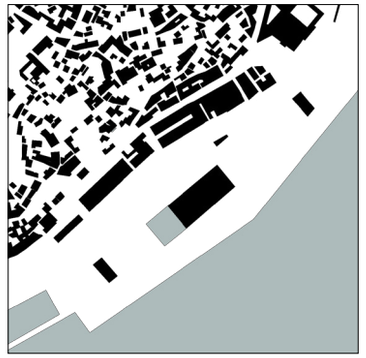
SCALE 2

0 1km

Expo' 98

Project of Braço de Prata - Renzo Piano

Criative hub of Beato



Cruise Terminal - Carrilho da Graça Arquitetos

The coast is connected by remarcable buildings since the West of Lisbon, following the *Praça do Comércio*, the Art Museum (MATT), the Cruise Terminal, the Creative HUB, Prata Living Concept and finally the Expo'98.

FIG 40- Made by the author

FIG 41

FIG 42

FIG 43

PROJECT AREA: SOUTH *MARVILA*

FULL AND EMPTY SPACES

SCALE 3
1:10.000

Francisco Fino Gallery

Baginski Gallery

Musa (tourist pub)

Aquele Lugar que Não Existe (tourist restaurant)

Bruno Múrias Gallery

Underdogs Gallery

Square David Leandro

public green spaces

400 m distance (5 minutes walking) from the culture offer

SCALE 3
1:10.000

GREEN PUBLIC SPACES,
CULTURAL AND TOURIST OFFERS

BUILDINGS IN DESUE

SCALE 3
1:10.000

low level

medium level

high level

SCALE 3
1:10.000

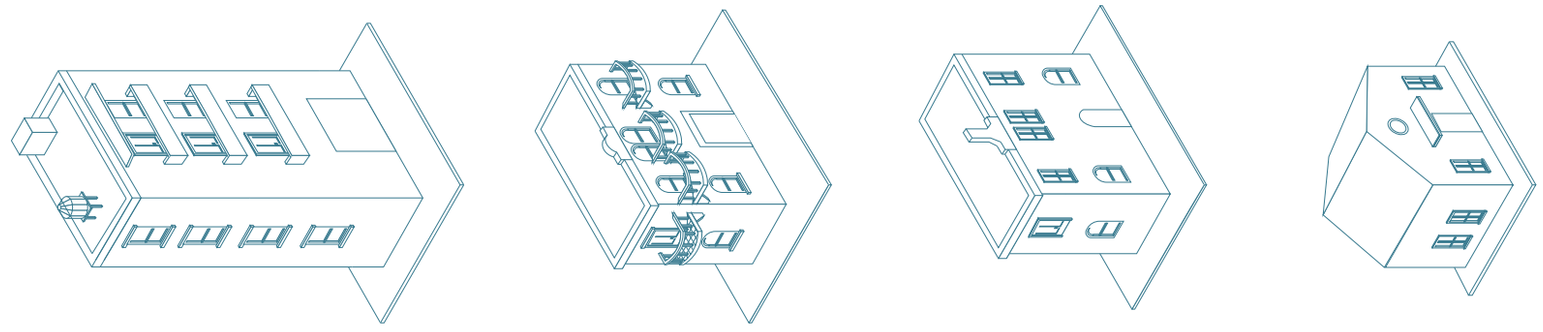
LEVEL OF DEGRADATION OF
ABANDONED BUILDINGS

Residential buildings

Industrial buildings in desuse

Village buildings reused

Industrial buildings reused



① **Warehouses** - used to be a restaurant but is now in desuse.

② **TMPB** - Terminal Multiusos of *Poço do Bispo*.

③ **Metal structure -** used as cargo storage space.

④ **Warehouses** - 2 buildings used as Center of inspection of cars and other 4 in desuse.

⑤ **Wharehouses** - unused.

⑥ **Concessionaire**

2.4.4.1. THE *TABAQUEIRA*

The building was started in 1928 by the industrialist Alfredo da Silva. The construction still reveals its industrial structure of the late nineteenth century, in iron and brick, and glazed cover, marked by the portico at the main entrance.

The *Tabaqueira* had a big history during the industrial time: first it took place the transformation of tobacco leaves and importation of the product until the middle of the twentieth century. The industry later merged with a company of the same name, the *Tabaqueira*, which now operates in the municipality of Cascais[18]. It was also used by the Factory *Braço de Prata* and purchased in the early 1990s by EDP, for the construction of a housing and service complex that had no follow-up. The building also played a fundamental role in the Braço de Prata space organization because modeled the new urban axes and the broad border. This matter was reflected in the very name of the neighborhood of Beato: Largo do Tabaco, Rua dos Cigarettes, Tabaco Street [19].

The *Tabaqueira* consists of a big contradiction in the city of Lisbon in many ways. At the same time that the building is very symbolic in Portuguese industrial architecture and very important for its history in the region, the government still seems to ignore its value. Although the building was considered a municipal heritage in 2016 for the maintenance of its memory, it is currently in a big state of neglect and degradation. The building is also very important to the local people and their identification with the local culture. When these kinds of great constructions are taken for granted by the city , the identity of the community is lost a little by little. Yet, nothing has been done to the maintenance of the structure of the place.

Furthermore, the Prata Living Concept, a luxury residential development complex, is located right next to the *Tabaqueira*. This evidences, even more, the carelessness with the building that was so important in the times that was still active with the industry work. There was the submission in 2002 to the CML of a project, encouraged by Renzo Piano and by the architect Grazia Repetto, to transform the *Tabaqueira* into a museum dedicated to Portuguese gastronomy, with commercial equipment and landscaped public space, but the project was never approved.

[18] Folgado, D., & Custódio, J. (1999). *Caminho do Oriente: guia do património industrial. p.182.* Lisboa: Livros Horizonte.
[19] Folgado, D., & Custódio, J. (1999). *Caminho do Oriente: guia do património industrial. cit., p.182.*

FIG 50- *Tabaqueira*'s old entrance

FIG 51- *Tabaqueira*'s facade detail

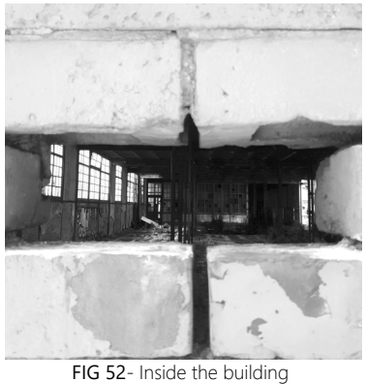


FIG 52- Inside the building

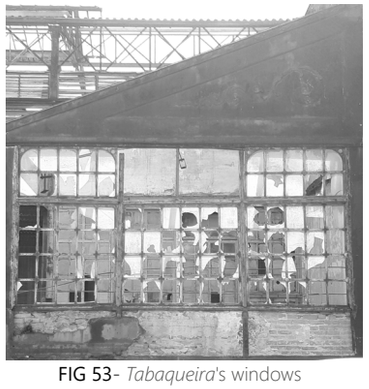


FIG 53- *Tabaqueira*'s windows

FIG 54- Inside the building

2.5. ARCHITETURAL AND URBAN INTERPRETATIVE SUMMARY

About the architectonic fabric, the typologies cover the coexistence of industrial buildings, military, palaces, and religious buildings make the area very heterogeneous regarding architecture. It is important that the project proposal does not nullify the zone identity and respects the influence of each typology. The coastal zone contains buildings of industrial origin. Intervention must, therefore, take into account the architectural characteristics of such typology.

Regarding land occupation, with the housing complex project designed by Renzo Piano, the area in front of the riverside has a residential character that was not predominant before. This means that the offer of activities and equipment must also increase to attend the new residents. Many buildings that have been disused or abandoned have a big potential to serve as shops, restaurants, bars. Thus have the eager to contribute to the creation of an attractive hub for residents and tourists.

Regarding the urban fabric, is visible that the open spaces are not well used: green areas are not many and do not have a logical distribution. Many times they are used as a parking zone because of their lack of maintenance. Besides, the need for more leisure spaces is noteworthy. There are very few playgrounds, public plazas and urban equipment for the neighborhood community. The cultural spaces are mainly limited to galleries, a theater and the Braço da Prata, a private cultural center. No sports centers or parks are present and there is only one square in the entire study area.

With that in mind, is important to take into consideration the central streets, areas next to the transport station and, mainly, the coastal zone. The green areas need to have the required attention to increasing the well being of the community. The public equipment should be placed in strategic spots where people can have easy access.

Regarding the architectonic fabric, the unused and abandoned buildings must be restored and must provide new uses and activities that support andconnects with the porpouse of the urban intervention. The ones that have no longer the possibility to be renovated because of their old structure and bad physical state must be recognized and can be eliminated of the project.

chapter 3
metamorphosis

3.1. GOALS AND MOTIVATIONS

The theme *Metamorphosis* is the subject of study by the Master in Architecture with specialization in Urbanism at the University of Lisbon. The theme makes an apology for the need for changing urban fabrics and architectural structures already in a state of neglect, rather than slowing their evolution by referring to historical times.

The main reason for approaching the theme is related to the importance of changing the city in order to work its current problems. Whether the issues to be solved regards overcrowding, excessive trafficking or abandoned areas, they should be taking into consideration and resolved with the resources available on the site. The fact is that the urban-architectural fabric must develop and evolve with the thinking of the population and character of the city.

The world population will increase considerably in cities in the coming years. This will lead, in urban-architectural terms, to accommodation problems and lack of infrastructure for this high demand[20]. So also from this perspective, it is necessary to think about the change of the city and its components. The reuse of old buildings, for example, works as a strategy to make cities resistant to these future issues. With this contemporary urban growth, filling, modifying and recycling existing structures are the key strategies for creating successful public spaces[21].

As said, not only must the urban fabric change over time but also the architectural must keep up with the dynamic needs of the population. The uses of architecture years ago are not the same as nowadays. Is important that we think how living conditions in cities could improved by revitalizing and rehabilitating historical institutions to meet current needs.

> "Rather than demolishing buildings and spaces and starting over, we can infill, modify and recycle these environments by adding missing urban elements based on the historically sound principles of mixed-used streets, enclosed squares and connected places"
>
> Trancik, R. (1986). *Finding lost space: theories of urban design. p.18.* New York: Van Nostrand Reinhold.

[20] Aytac, D. O., Arslan, T. V., & Durak, S. (2016). *Adaptive Reuse As A Strategy Toward Urban Resilience. p.524.* European Journal of Sustainable Development, 5(4). doi: 10.14207/ejsd.2016.v5n4p523

[21] Trancik, R. (1986). *Finding lost space: theories of urban design. p.7.* New York: Van Nostrand Reinhold.

In order to make these changes happen, it is necessary first to recognize which urban areas or parts of the urban fabric no longer attend the needs of the community or attracts attention to the zone. The same is worth for abandoned buildings that have the potential to be restored and transformed to host a different activity that matches with the habits and tastes of the population.

According to Roger Trancik's bibliography, "Finding Lost Spaces: theories of urban design"(1986) the most common examples of underused urban areas are public plazas located near not busy roads, poorly maintained parking lots and abandoned riverfronts and train stations. Even more commonly, industrial complexes that for some reason have not been rehabilitated. These, therefore, would be some areas of focus of an urban tranformation of a city.

The phenomenon of lost spaces inside the cities was increased in the 1950s and 1960s due to the sectorization of urban design. In this period the usual qualities of urban space were wasted with the division of land uses that do not go along with the habits and relationships of the community. Some big scale examples of that segragation are the structures of the plan of Brasilia, made by Lucio Costa, and Chandigarh, by Le Corbusier. They have the arrangement of tree: there is a central axis that divides the areas by sectors[22].

It is also common to notice this effect in smaller scales inside of a neighborhood or a quarter of a city. It happens in the areas constructed in the Contemporary Lisbon that rarely work as gathering spaces and miss the intimate link between life inside houses and activity on the streets[23]. This kind of organization does not reflect the dynamicity of people's lives in the city. The urban fabric must follow the new habits, technologies, innovations available in society, and so must the architecture.

The Department of Arts, Heritage, and Gaeltacht of Irland published a document about changing the cities shaping them for the future, "Shaping the Future. Case studies in adaption and reuse in historic urban environments". One of the main points approached regarding the needs of the new society would be the presence of mixed-use buildings: people being closer to the services needed for daily life. The mixed-used areas are the places with the most capacity of spontaneously changing, growing, and acting as a living city.

[22] Alexander, C., & Mehaffy, M. W. (2015). *A city is not a tree.* Portland, OR: Sustasis Press.

[23] Trancik, R. (1986). *Finding lost space: theories of urban design. cit., p.17.*

Jane Jacobs in her book "Death and Life in great American cities" talks about how diversity, mixed-use, and small blocks compose a vibrant urban fabric. Small-quarters create permeability and the best balance between density, daylight, and microclimate[24]. They are capable of creating the concentration of people demanded to maintain their vitality[25].For that, new interventions contemplate the idea that small-blocks can also be divided into even smaller units, with pedestrian paths to improve the permeability of the area. And can also be left empty to serve as gardens or public spaces[26].

The diversity in the urban-architectonic fabric approaches not only the mixed-use regarding activities but also different typologies and ages of buildings. A successful district has a natural building ground [27]. Year after year some of the old buildings are renovated or replaced by new ones. So over time, there is a constant mix of buildings of various ages and kinds. This is a dynamic process in which what was new ends up becoming old and is part of the city.

In the same book "Death and Life in great American cities", Jane Jacobs argues about the importance of having old buildings in neighborhoods to attract different kinds of activities. In the end, the architectonic diversity is closely related to the mixed-use of an area. If an area of the city has only new structures, business-es that exist there will be automatically limited to those that can afford the costs of new buildings[28].

Therefore, is very important that old buildings of a neighborhood receive the needed attention to help to provide the mixed-use of the area. The constructions with the possibility of restoration should be adapted to a new use.

[24] Jacobs, J. (1961). *The death and life of great American cities* [translated version] *p.140.* (Editora WMF Martins Fontes Ltda).

[25] Department of Culture, Heritage and Gaeltach. (n.d.). *Shaping the Future. Case studies in adaption and reuse in historic urban environments. p.6.*

[26] Department of Culture, Heritage and Gaeltach. (n.d.). *Shaping the Future. Case studies in adaption and reuse in historic urban environments. cit., p.7.*

[27] Jacobs, J. (1961). *The death and life of great American cities. cit.*, p.*131.*

[28] Jacobs, J. (1961). *The death and life of great American cities. cit.*, p.*161.*

> "The network of shops, restaurants, and banks set up in new buildings. But neighborhood bars, typical restaurants, and pawnshops settle in old buildings. Supermarkets and shoe stores often settle in new buildings; good bookstores and antique shops rarely do. Subsidized lyrical theaters and art museums settle in new buildings. But the informal arts developers - studios, galleries, musical instruments and hardware stores backrooms where low-income backyard businesses provide a long conversation - these settle in old buildings."
>
> Jane Jacobs, 1961. *Death and Life in great American cities. cit., p.132.*

The building reuse, known also like the term "adaptive reuse", approaches a revitalization strategy that recovers the experience of an existing building or structure through a new function. It is about giving new life to a place, rather than letting it stop it at a specific moment in time[29]. The new uses and activities given to the place must be chosen carefully. They need to match with the dynamicity of the modern community that surrounds it. But, at the same time, can not take away the identity and cultural history of the building.

In adaptive reuse is possible to add new structures but always respecting the older layers, and trying to preserve the most as possible of them. The changes become part of the structure, of the site and the fabric. They enhance part of the history of a certain place and people's lives that are somehow connected to the building.This is a way of maintaining the memory and landmarks of the city and also embracing the diversity of architectonic fabric, as said before. The adaptive reuse prevents the destruction of part of the story and provides its continuity.

It also demands less overall energy and resource consumption and has a lower environmental impact than the construction of new buildings. It consists of a sustainable way to create efficient urban environments, as it maintains much of the existing urban fabric[30].

Concluding, it must be recognized that the city is a living organism, which changes over time, as a result of the public as well as private decisions. There is no fixed urban nor architectural plan. To attend the new needs of society, the centers must change over time.

[29] Clarke, J. (2013). *Industrial Heritage Adaptive Reuse Case Studies.* Victoria: Heritage Council of Victoria. Retrieved from https://heritagecouncil.vic.gov.au/research-projects/industrial-heritage-case-studies/

[30] Aytac, D. O., Arslan, T. V., & Durak, S. (2016). *Adaptive Reuse As A Strategy Toward Urban Resilience. cit., p.527.*

3.2. THEMATIC FRAMEWORK IN SOUTH *MARVILA*

Having said about the importance of the metamorphosis of cities, urban fabrics, and buildings that compose it, it is necessary to think about the transformation process of Lisbon, a historical city that underwent many transformations.

Lisbon's changes, as already mentioned, have been abundant throughout history. In the 1950s the industrial neighborhoods moved to peripheries and mutually the ports were in disuse by the obsolete structures. The east side of the city was the most affected by this process: buildings in disuse and urbanism still as it was in the history of the area are the main features that underline the urgent need for change.

In the area of South *Marvil*a, the buildings are arranged in big blocks that allow no permeability for pedestrians. Although some adaptive reuse has been done in the neighborhood, many of these constructions are still in disuse or bad state of conservation. Especially the buildings that surround the train station of *Marvila* would have a big potential to attract people, but instead, they are all abandoned.

The mixed-use and adaptive reuse of some of the buildings of the area surronding the train station would turn the neighborhood much more vivid and engaging to the residents and tourists. As for the buildings that can no longer be restored because of their advanced stage of degradation, they could give place to pedestrian paths or public gardens as mentioned by Jacobs, 1961.

In addition, the open public spaces are forgotten by the community because of its bad conditions and not strategic locations. They create the "lost spaces" referred by Trancik, 1986. These underused spaces make *Marvila* look unpopulated because they do not go along with the dynamic of the neighborhood. For that, they need to be displaced in more attractive zones.

chapter 4
references

4.1. HAFENCITY

HafenCity is located in Hamburg, Germany, near the Elbe river which flows into the North Sea. The municipality is home to Europe's second-largest port covered by the Waterfront Communities Project (WCP)[31]. It of a partnership between nine inbound cities around the North Sea: Hamburg, Oslo, Aalborg and Odense, Schiedam, Gothenburg, Edinburgh, Gateshead, and Kington. This partnership was made to improve the development approaches of these riverside fronts that, like in Lisbon, suffer from the consequent abandonment of a port economy that no longer appears in the same way.

While the most important part of Hamburg's port is located on the south bank of the Elbe, most of the northwestern infrastructure has been disused. In the early 1990s became clear that an area on the northeast coast of the river south of "Speicherstadt"[32] would become obsolete for modern port uses[33]. Although surrounded by neglected housing estates, industry, port facilities, and rail lines, the location had great potential due to its proximity to Hamburg's commercial center.

Therefore in May 1997, the mayor of Hamburg announced the plan for the return of the city to the river Elbe, transforming the area that separated downtown from the river into a new neighborhood: HafenCity.

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[31] Soledad, G. F. M., & Smith, H. C. (2012). *Waterfront Regeneration.* Taylor and Francis.

[32] Speicherstadt: largest warehouse district in the world. It was built between 1883 and 1927 but during World War II had many structures hit. In 1991 it was listed as a protected heritage site and since 2008 is part of HafenCity.

[33] Antonucci, D. (2014). *Hafencity, Hamburgo, Alemanha.* ENANPARQ. Retrieved from https://www.anparq.org.br/dvd-enanparq-3/htm/Artigos/ST/ST-PCI-005-03_ANTONUCCI.pdf

The city aimed to generate a dense, mixed-use, economically and physically attractive extension of the city center. Strengthening Hamburg within the framework of major European cities was certainly also a great motivation for the project. The main aspirations of the City of Hamburg for the development of HafenCity were focused on the expansion of the city center by around 40%, intending to increase Hamburg's competition and other major European cities[34].

The winning team to carry out the project, Dutch / German group Kees Christiaanse / ASTOC, had reached the main points that would lead to this goal: good connection between the new HafenCity, the protected building complex of the Speicherstadt, and the historic center from Hamburg, both located north of HafenCity; wide range of contemporary and future-oriented neighborhood typologies; smart division of the whole area into eight mixed-use urban districts. Formed by public spaces, consumer spaces, entertainment, and cultural facilities and residences and offices, mixed-use ensures that the city is a good place to live and also to visit.

HafenCity's masterplan has relied on some basic principles that ensure the dynamism and quality of space, such as the integration of water with urban life and the mixed-use of buildings. Water accessibility was guaranteed even with the elevation of buildings. As a solution for the accessibility of water at all tides in the very high quays, it was designed a descending landscape of surfaces.

> "Among the principles of this masterplan were a strong interaction between buildings and the water, the elevation of buildings for flood protection, the public character of most of the ground-floor uses and the mix of uses."
>
> Soledad, G. F. M., & Smith, H. C. (2012). *Waterfront Regeneration.cit., p.113*

With the reuse of warehouses, the historic urban fabric and the waterfront were integrated into the rest of HafenCity, but a degree of flexibility was also incorporated into the master plan to adapt to possible future changes.

[34] Information gaven by the CEO HafenCity Hamburg GmbH. Chapentier, M. (n.d.). *HafenCity Hamburg, inspiring German initiative to develop green cities* - Construction21. Retrieved from https://www.construction21.org/articles/h/hafencity-hamburg-inspiring-german-initiative-to--develop-green-cities.html.

FIG 55 - Hafencity

The easy accessibility to the water is something that could be used in the project on the *Poço do Bispo* dock. The barrier once created by the industrial e port facilities could be removed and replaced by stairs that help the natural approach of the people to the river.

3.3.2. ELBPHILHARMONIE

The Elbphilharmonie Philharmonic can be considered as the focal point of the HafenCity masterplan, it is an interesting case of adaptive reuse by Herzog & de Meuron.

The new structure was part of the adaptive reuse of a 1960s cocoa warehouse that serves as a base formed with red bricks for an added 110-meter high glass panel structure. The old warehouse building provides a sturdy base for the new Philharmonic Hall.

The envelope of the oldest building was respected and maintained. This, like the other 19th-century port warehouses, reflects the architectural language of the city's historic facades: windows, foundations, ridges and various decorative elements that continue to portray the architecture of the time. Previously, the warehouse harbored consignments of cocoa, tea, and tobacco, after its rehabilitation works as a garage, administrative offices, music education center, and other small facilities. A narrow ravine - a free public walkway - separates the two volumes, and some arches complete the composition of the rebuilt building.

Elbphilharmonie in its project has a wide variety of mixed-use: it contains concert halls, residential apartments, a hotel, a public square, and a large garage. An 82-meter escalator will climb the six floors from the ground floor to the sixth-floor square, giving visitors breathtaking views of the harbor and city to enjoy during the climb.

FIG 56 - Filarmônica of HafenCity, Elbphilharmonie

The Elbiephilarmonic is an example of adaptive reuse that followed the urban transformation that happened in Hafencity. Some aspects of the project can be incorporated into the rehabilitation of the *Tabaqueira*, like the mixed-use and the addition of new elements without annulling the identity of the building.

3.3.3. CRUISE TERMINAL

By architect Carrilho da Graça and his team, The Cruise Terminal, Lisbon, is inscribed within the walls of an old docked area, seeming to barely touch the ground. The building has a large public terrace that has incredible views of the Tagus river and the whole of Lisbon

The Cruise Terminal consists of an architectural project responsible for a coastal urban transformation at the Jardim do Tabaco dock, west of Lisbon. With the construction of the building, the adjacent areas were upgraded and reconstructed. The dock was before totally abandoned and the surrounding equipment and buildings completely degraded. After the construction of the terminal, a number of old warehouses in the surrounding area have been converted into restaurants and shops.

This project also included the construction of a new docking platform in the pier area of Jardim do Tabaco. The work carried out in two phases: the rehabilitation of the existing pier, with the construction of a new pile structure advancing about 45m into the river in order to obtain the more extensive service funds needed by the large ships; it also included improving the geotechnical characteristics of the soils in front of the piers. In the second phase, the works covered a front of 475 m. This new platform should, in a third phase, be expanded upstream, connecting to the *Santa Apolônia* dock, which will reach a total of 1586 m of a berth.

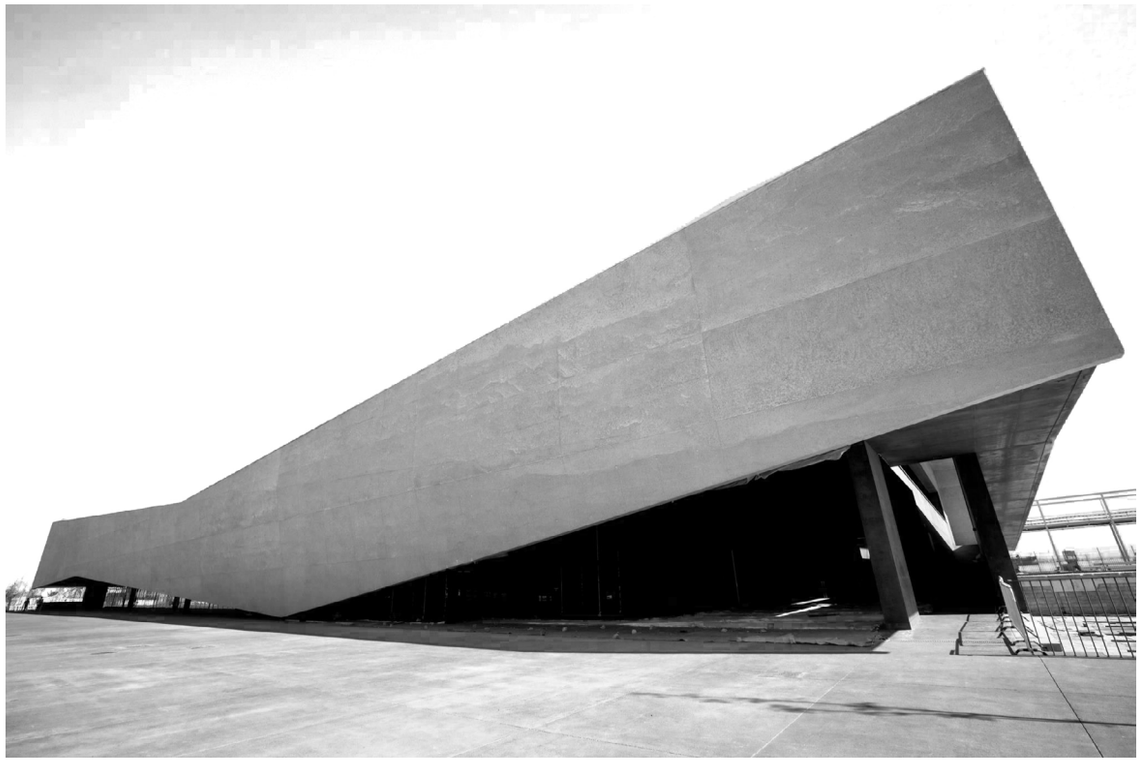


FIG 57 - Cruise Terminal, Lisboa

This is an example of the architecture transforming actively the urban fabric. The Lisbon cruise terminal is part of the coastal connection of the architectonic fabric of the city. It shows how one building is capable of making the surroundings more pleasurable and of giving life to the neighborhood. The *Tabaqueira* could give continuity to this link and improve even more the changes in the west of Lisbon.

3.3.4. MARITIME MUSEUM

The Maritime Museum of Denmark is located in a historical place in the north of Copenhagen, among the most important and famous buildings of the country. It was built on a 60-year-old dock without modifying it, only with the architectural and functional reuse of space, and is now a new and aspiring cultural center. It attended very much the regional characteristics of its insertion.

The museum's galleries were arranged underground around the walls of the space, making the dock itself a centerpiece of the exhibition. The spot has three bridges that work as an urban connection and concurrently as an internal connection in the museum between the various exhibitions.

The history of the Danish Maritime Organization develops in a continuous movement inside and outside the dock and seven meters under the ground. All decks connect the exhibition spaces with the auditorium, classrooms, offices, cafeteria, and dock access levels within the museum[35].

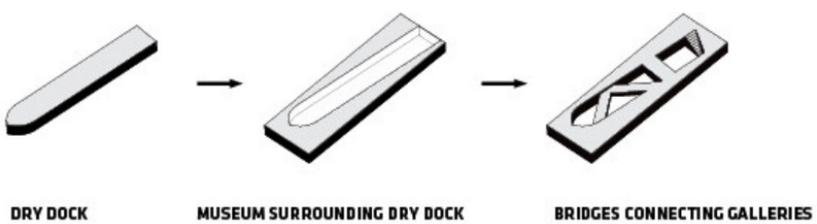


FIG 58 - Scheme of the museum structure

[35] Sánchez, D. (2013, November 21). *Museu Marítimo Nacional Dinamarquês / BIG*. Retrieved from https://www.archdaily.com.br/br/01-154807/museu-maritimo-nacional-dinamarques-slash-big.

FIG 59 - Maritime Museum, Dinamarca

The rehabilitation of the dock is an inspiration for its respect with the surroundings and with the structure of the building. Also, the fact that the walls of the own construction are the very new use of the building is exciting and could be used in the project.

chapter 5

urban-architectonic project

5.1. PROJECT'S MAIN GOALS

The urban transformation will approach the area of south *Marvila* that is above the *Poço do Bispo* zone and the *Poço do Bispo* itself, contemplating the dock and the pathway that arrives at *Parque das Nações*. The architectonic rehabilitation on *Tabaqueira* aims to fortify the connection with the riverside to make it become a zone capable of gathering people.

Riverside urban rehabilitation encompasses an intersection between different aspects of urban life. The river represents a heritage of the community and its riverfront has a great capacity to become a central axis in a public space when it is well articulated. The *Poço do Bispo* dock has enormous potential to become an environment of permanence and contact with the Tagus river. However, because it is in an area that is disconnected from the rest of Lisbon and does not receive the proper investments, *Poço do Bispo* is not seen as an attractive spot by Lisbon people, nor by tourists.

Thus, the project's objectives at the dock are to present an urban proposal that integrates the *Poço do Bispo* dock with the *Parque das Nações* neighborhood, to the north - part of the city that is already consolidated; develop an urban-architectural project capable of returning the coastal region to people; boost the development of the region of South *Marvila* in a way that it does not nullify its local identity.

Some benefits aimed at the architectonic- urban project are: preservation of historical and local heritage through the reuse of buildings no longer functioning; provide opportunities for new uses and activities; attract tourists and locals; provide new jobs; intensify the relationship between water and the city; encouraging economic investment in degraded areas.

5.1.1. PRECEPTS

The precepts adopted in the project are inspired by the bibliography of the urbanist Umut Pekin Timur, from the book "Advances in Landscape Architecture"[36], starting with the following 4 basic principles:

1. Waterfronts are part of the existing urban fabric

Waterfront development plans must ensure that waterfronts are reconnected to urban fabric. Riverside areas should be considered as an integral part of existing urban fabric, thus contributing to their vitality. The waterfront and its green areas are part of the same system as the rest of the city.

2. The historic identity gives character

Collective heritage of water and city, of events, landmarks, existing architecture and nature should be utilised to give the waterfront redevelopment character and meaning[37]. Especially the preservation of the industrial past such as the area of study should be considered as an integral element of sustainable revitalization. The built environment must be constantly adapted to accommodate new social needs and requirements while maintaining the qualities and values linked to its history and the collective memory of its locality. This approach makes the local community feel supported in their quest for development and adaptation to the new reality.

3. Mixed-use is a priority

Offering a heterogeneity of commercial, cultural and housing uses is a way to waterfronts dedicate its space to being around the water[38]. Mixed-use attracts residents, tourists, artists and therefore generates more dynamism and diversity in space. It thus helps the area to reach its potential - socially, economically, and environmentally - making it a more attractive place for Lisboners themselves, but also visitors and investors.

4. Public access is a prerequisit

Locals and tourists should have access, physically and visually, to the waterfront area. Visual access to the coastal region should be enhanced by corridors or spacing of vision. Pedestrian accessibility should also be maximized so that it provides physical links from central urban areas to riverside areas.

[36] Umut Pekin Timur is an architect-urbanist and professor at the Department of Landscape Architecture in Turkey. In the book "Advances in Landscape Architecture" he wrote the Chapter7, called as "Urban Waterfronts Regenerations" where he summarizes the main precepts of a waterfront regeneration. The references regarding the precepts can be found in pages 190 and 191.

[37] Giovinazzi & Moretti, 2010 as cited in Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. p.190.*

[38] Giovinazzi & Moretti, 2010 as cited in Pekin, U. (2013). *Urban Waterfront Regenerations. Advances in Landscape Architecture. p.191.*

5.1.2. CONCEPT

The concept of the project was developed following the precepts. The first one, regarding the waterfronts, is the most relevant for the project. Since the urban-architectonic transformation will be focused on the riverfront, the concept adopted for the project can be summarized in "the Lisbon Riverwalk". A public and democratic space on the coast. It works not only as a place of movement in of urban connection between the *Poço do Bispo* Dock and *Parque das Nações*, but also as a zone of permanence, for attractions that will be proposed in the project.

Continuing to carefully attend the second precept, "The historic identity gives character", a research was made about some urban design elements in Lisbon. Chapter 1 mentions the *Passeio público*, the public walk, a boulevard that was present on Lisboners' lives in the past but was destroyed to give place to a big street of the city. Taking the identity of the old public walk as an inspiration, the urban project proposes a new boulevard but adapted to the modern city. Plus, for giving the transformation area unity and visual identity, the pavement chosen for the dock is the same as the one present in *Baixa* and *Praça do Comércio*.

The precepts of mixed-use and public access are contemplated by the idea of placing public plazas serving the most crowded streets and zones with mixed-use buildings nearby.

The project was divided into key areas that will have different development approaches and focus. The main areas to be analyzed are:

1. Plan Analysis - Two Key Areas
    1.1. *Poço do Bispo* Dock
    1.2. *Tabaqueira* and the Coast

2. Sectioned Analysis - Three Connection Spaces
    2.1. Tagus river and coast
    2.2. Coast and the riverwalk
    2.3. Riverwalk and interior zone

1. Plan Analysis - Two Key Areas

1.1. *Poço do Bispo* Dock

The area will be the main foucus of the urban transformation project for the relationship with the river.

1.2. *Tabaqueira* and the Coast

The old *Tabaqueira* building will be the object of a reuse project proposal, related to its historical context and urban insertion. Consequently, it is necessary to study its relationship with the shoreline, roads and adjacent buildings.

2. Sectioned Analysis - Three Connection Lines

2.1. Tagus and coast

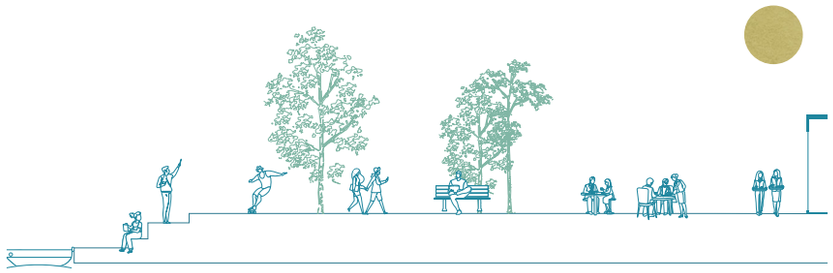
People's relationship with water is of most importance in the concept of design. The coast should be fully accessible, public and used by residents and tourists. It is proposed to extend the existing sidewalk downwards so that the contact with the river is even more visible and palpable. It was also intended to maintain a connection and identity of the Lisbon coastline, as the stairs are present at the *Ribeira das Naus* dock and the *Terreiro do Paço* dock.

2.2. Coast and riverwalk

The existing sidewalk connects with the coast and forms a space of transition but also of permanence, following the waterline boundary. The transition between the river and the interior and stability with the use of urban furniture, landscaping, and urbanism designed according to local dynamics.

2.3. Riverwalk and interior

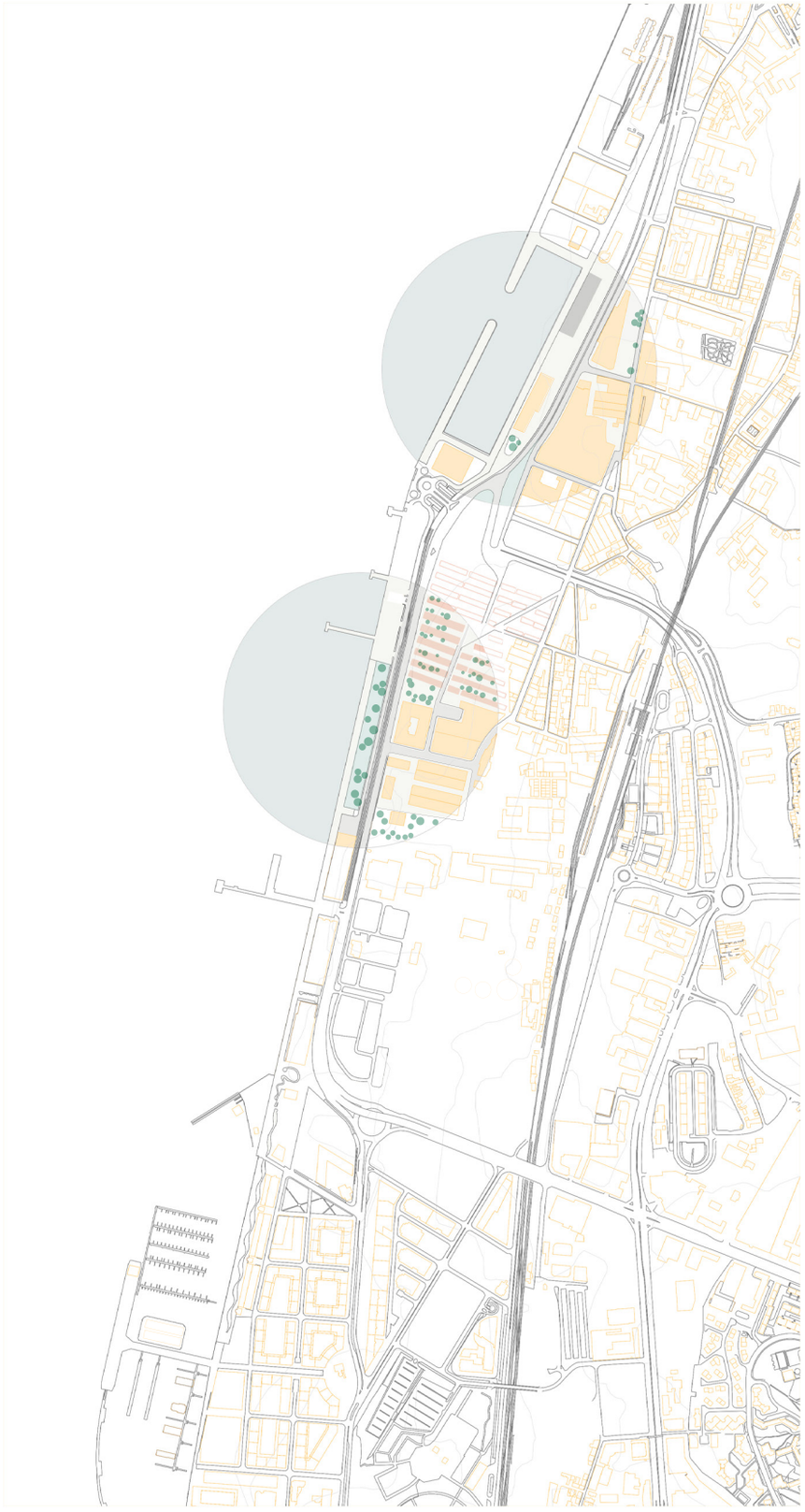
The relationship of the riverwalk with the interior may also consists mainly on the connection of the green spaces with the sidewalks, depending on the specific spot of the area that will be transformed.



Sectionated analysis

FIG 60

Plan analysis:



5.2. CONCEPTUAL ANALOGY BETWEEN PROJECT AND REFERENCES

The references explained were used at different times and scales as conceptual support of the urban project. Firstly, Hafencity's urban planning influenced the decisions made regarding the connection of the Tagus river with the interior of Lisbon. To explain this influence, it is necessary first to explain Hafencity's three subdivisions of public spaces. Hafencity urban planning was based on three altimetric levels:

1. The water level (0.0m) where a large floating platform provides access to small boats and ferries as well as play areas. This level was the inspiration for the project of the direct contact zone with the Tagus, which consists of a 4-meter increase of land towards the river. This terrain is uneven so that contact with the water is gradual, as occurs in other parts of the city. The gap is overcome by well-spaced steps that also contain green areas and leftovers

2. The lower ride level (4.5m), made mostly for pedestrians and houses small cafes, thus creating a relaxed stroll overlooking the water. This level is equivalent to the Riverwalk, which is the concept of the present project. The preference is given to the pedestrians and has the goal to create a riverside experience with the benefit of urban equipment and small kiosks aimed at enjoying the view of the city.

3. The street level (7.50m) with pedestrian areas to separate heavy traffic from walking people. The third level of Hafencity also equates to the project at the street and cycle level, as well as existing buildings that relate to this space.

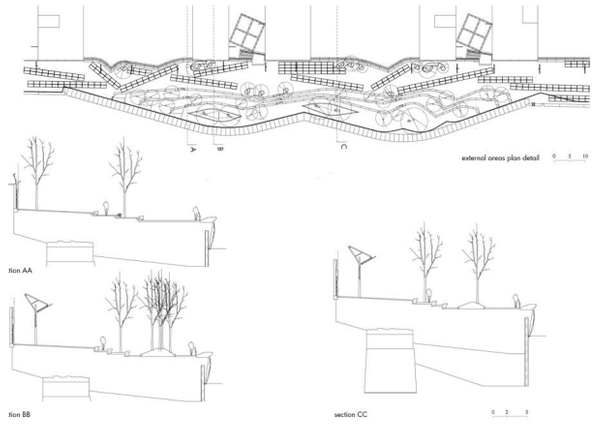


FIG 61 - Hafencity's schemes

5.3. PROJECT'S DECISIONS

5.3.1. WHAT TO REUSE


FIG 62


FIG 63


FIG 64


FIG 65


FIG 66


FIG 67

Warehouses that represent part of the industrial architecture and buildings with an average or low level of degradation.

5.3.2. WHAT TO DISMISS


FIG 68


FIG 69


FIG 70

FIG 71


FIG 72


FIG 73

Structures that block the walkability on the dock and have no function and buildings with a high level of degradation.

5.3.2. CURRENTLY AND PROPOSAL SCHEMES

The public spaces **CURRENTLY**

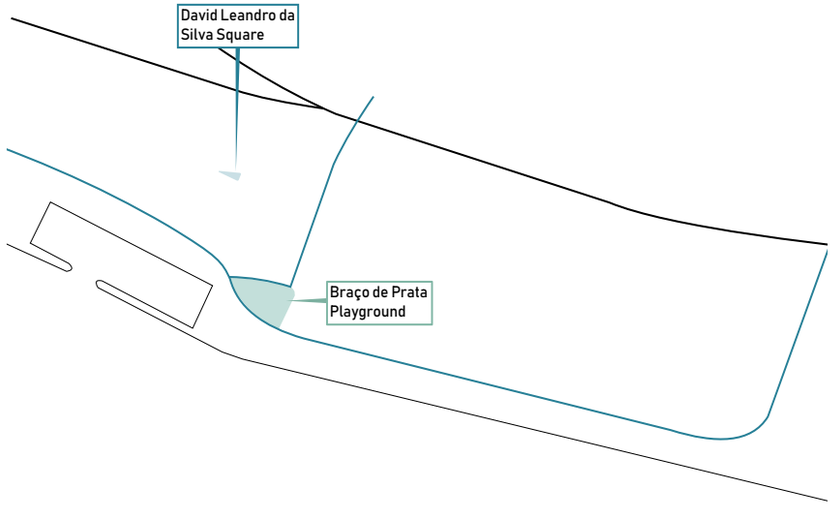
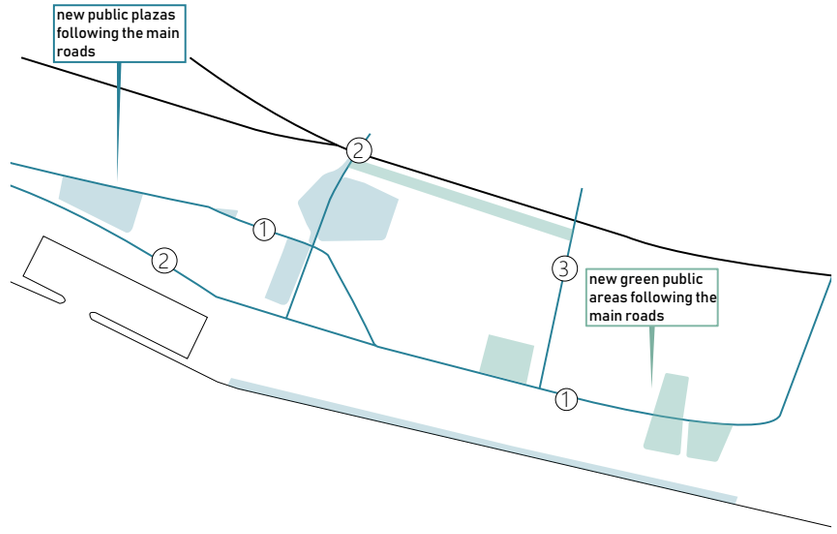



FIG 75


FIG 76

There are only two public and green spaces used by the community nowadays: a small and traditional square that is still very used by the old residents of Marvila called David Leandro da Silva; a green area with a playground next to the residential complex under construction. The rest of South Marvila is poorly occupied with public facilities and equipment.

The public spaces - **PROPOSAL**



The proposal includes the creation of public plazas following the new main roads and a big amount of public green areas that were already proposed by the urban plan *Pormenor da Matinha*. In the scheme the principal streets that were marked are:

① Alameda dos Oceanos - the road already existed but with the Matinha´s urban plan it was extended. It consists on the very main street because it makes the connection with the center of the city and will be part of a tram route that crosses the East part of Lisbon.

② Av. Infante Dom Henrique (north/south direction and east/west direction) - the north/south makes the connection with the Northern *Marvila,* and the east/west consists on the old connection to the center of the city.

③ New street proposed on Matinhas that will also make the connection after the train tracks, with North *Marvila*.

The station area - **CURRENTLY**

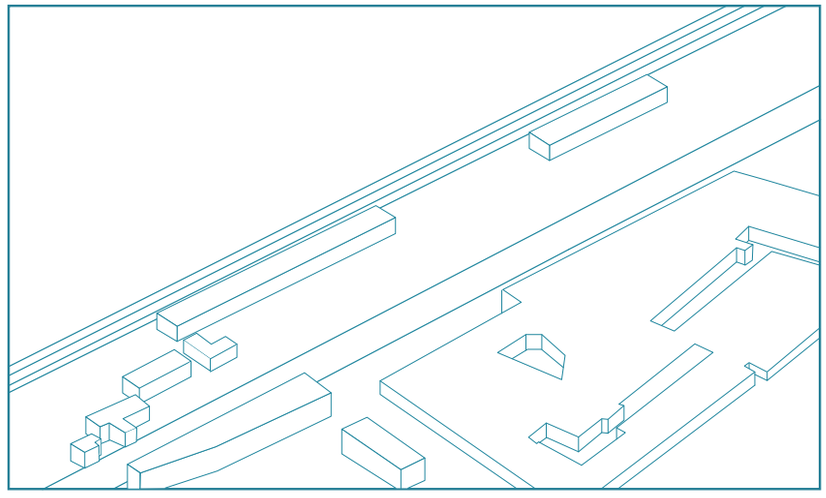
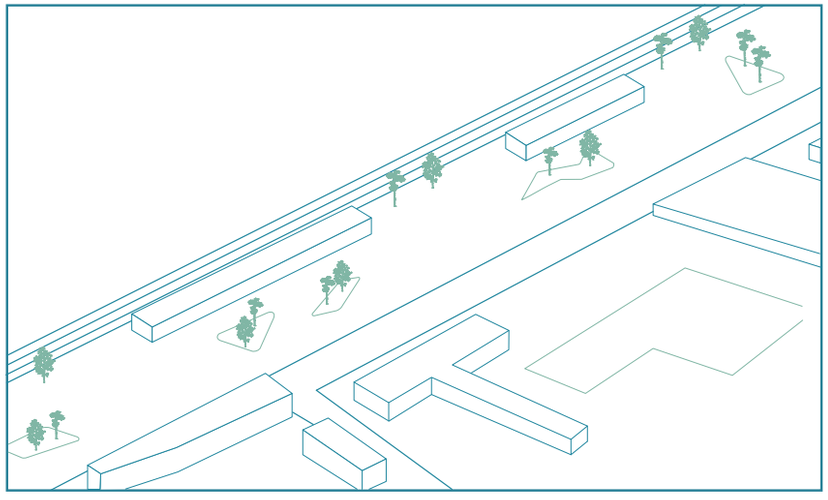


FIG 77

FIG 78

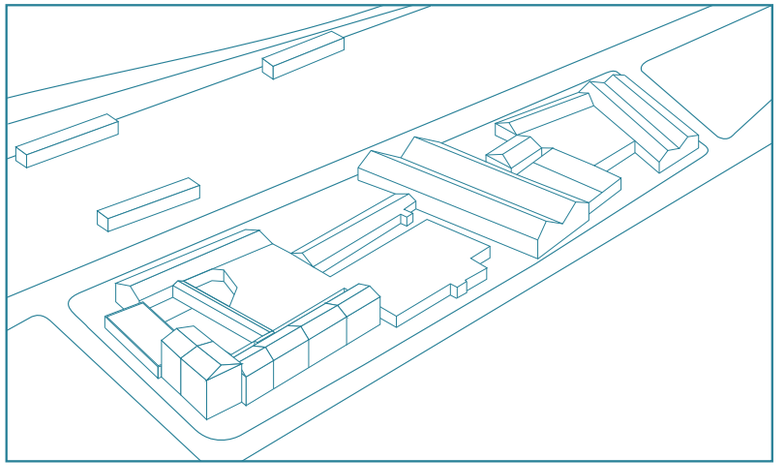
The *Braço de Prata* station is located in an area that is currently surrounded by some old and abandoned buildings. They can cause a bad printing of the region for those who arrive in the location. There is also some underused urban spaces that have a big potential to be revitalized.

The station area - **PROPOSAL**



Is proposed a big boulevard with green areas on the center that goes along with part of the train tracks until it arrives on the urban plan of Matinha. The boulevard is inspired by the old public walk of Lisbon and welcomes the tourists and residents properly into the region of South *Marvila*.

Buildings next to the station - **CURRENTLY**



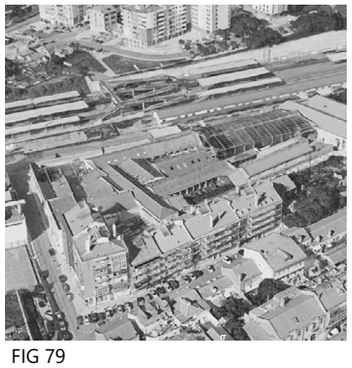


FIG 79

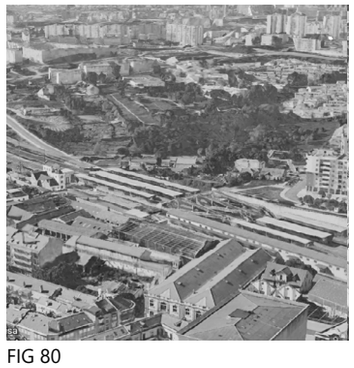
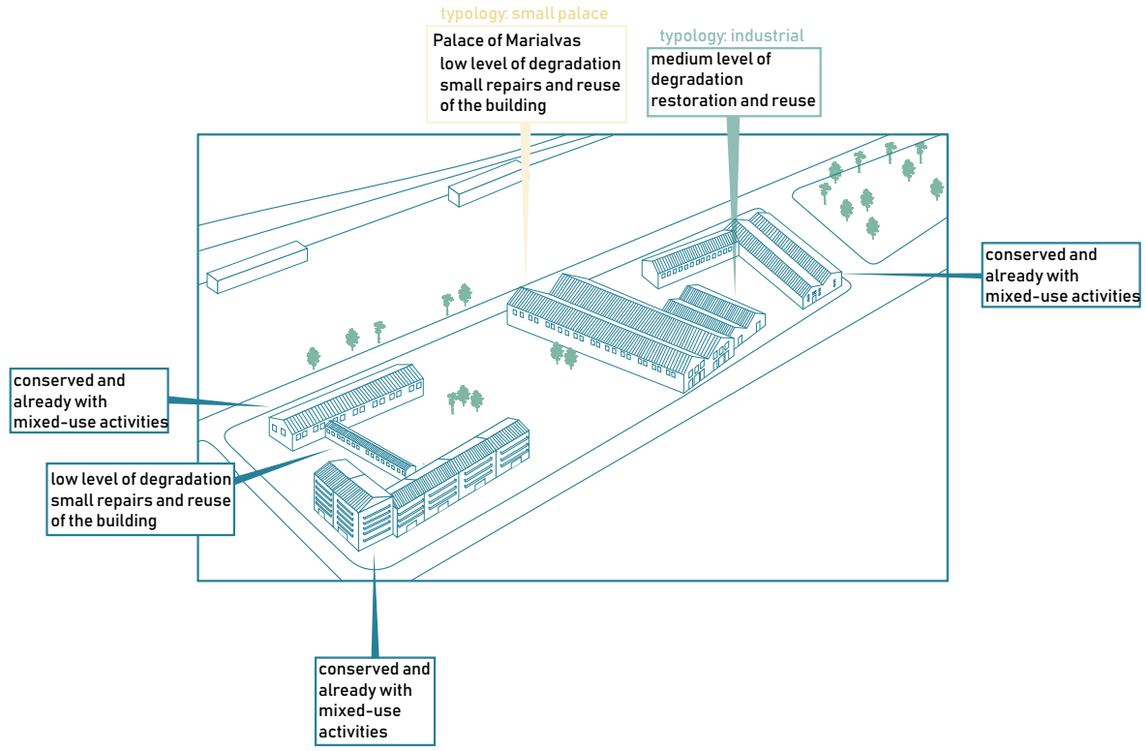
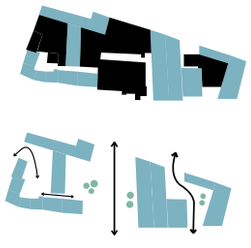


FIG 80

The buildings that surround the train station area are placed very close to each other that do not allow the permeability of pedestrians. Some of them have a low or average stage of degradation and can still be repaired. Others though are abandoned and totally degraded. The buildings of historical interest were not modified on the project.

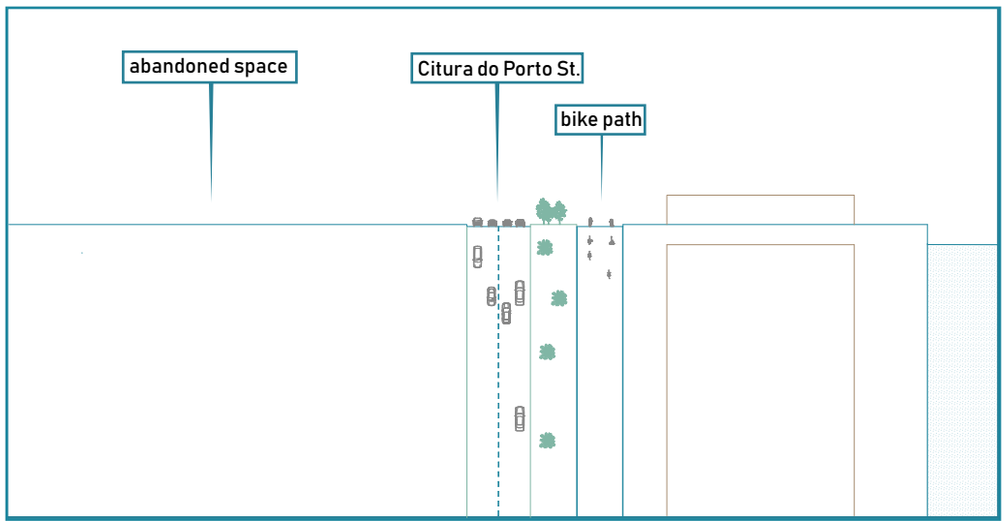
Buildings next to the station - **PROPOSAL**

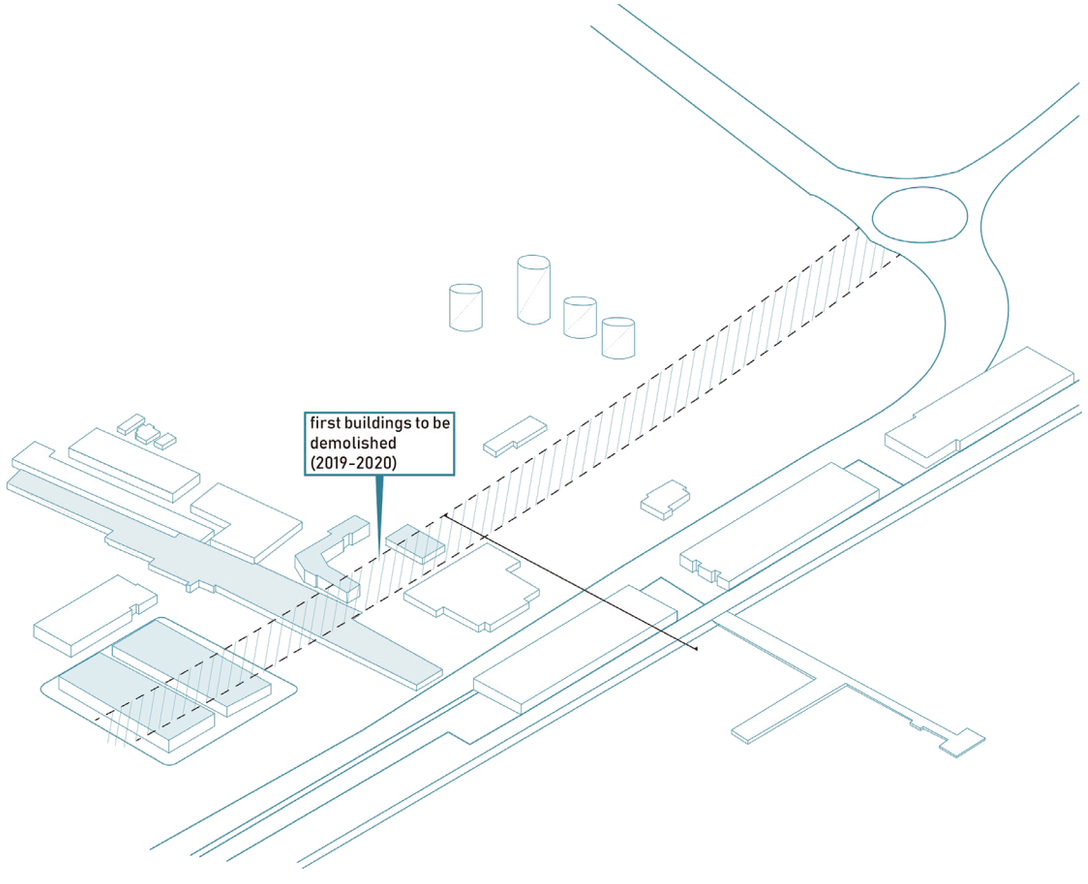




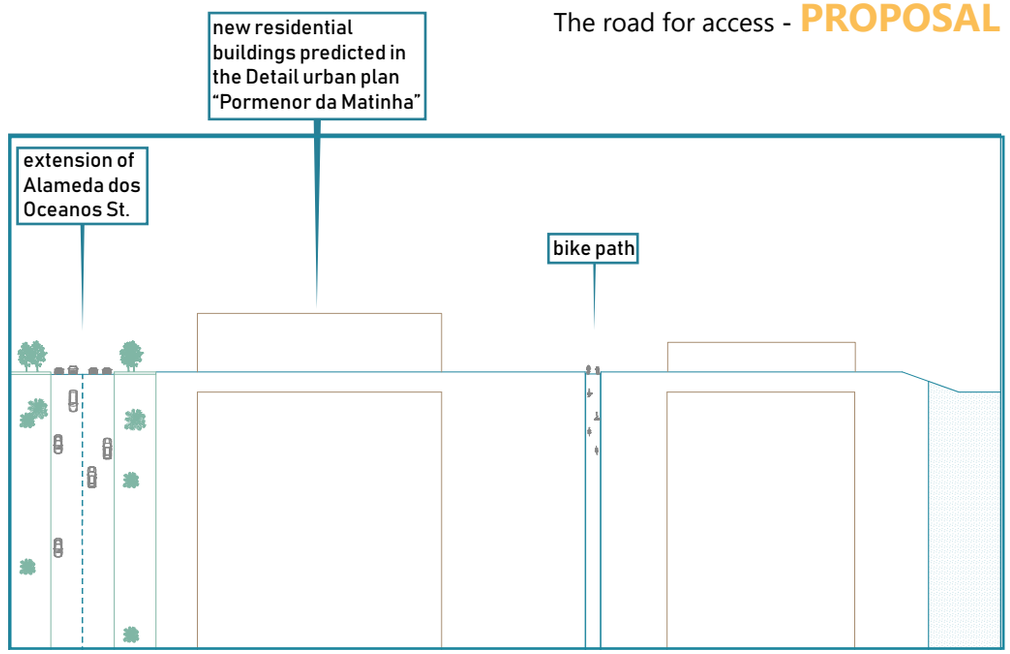
The demolition of buildings with a high level of degradation gives space to new green areas and public gardens that allow the permeability of the ones that arrive at the station. The mixed-use gives a new life to the zone and the difference of typologies contributes also to make the space vivid.

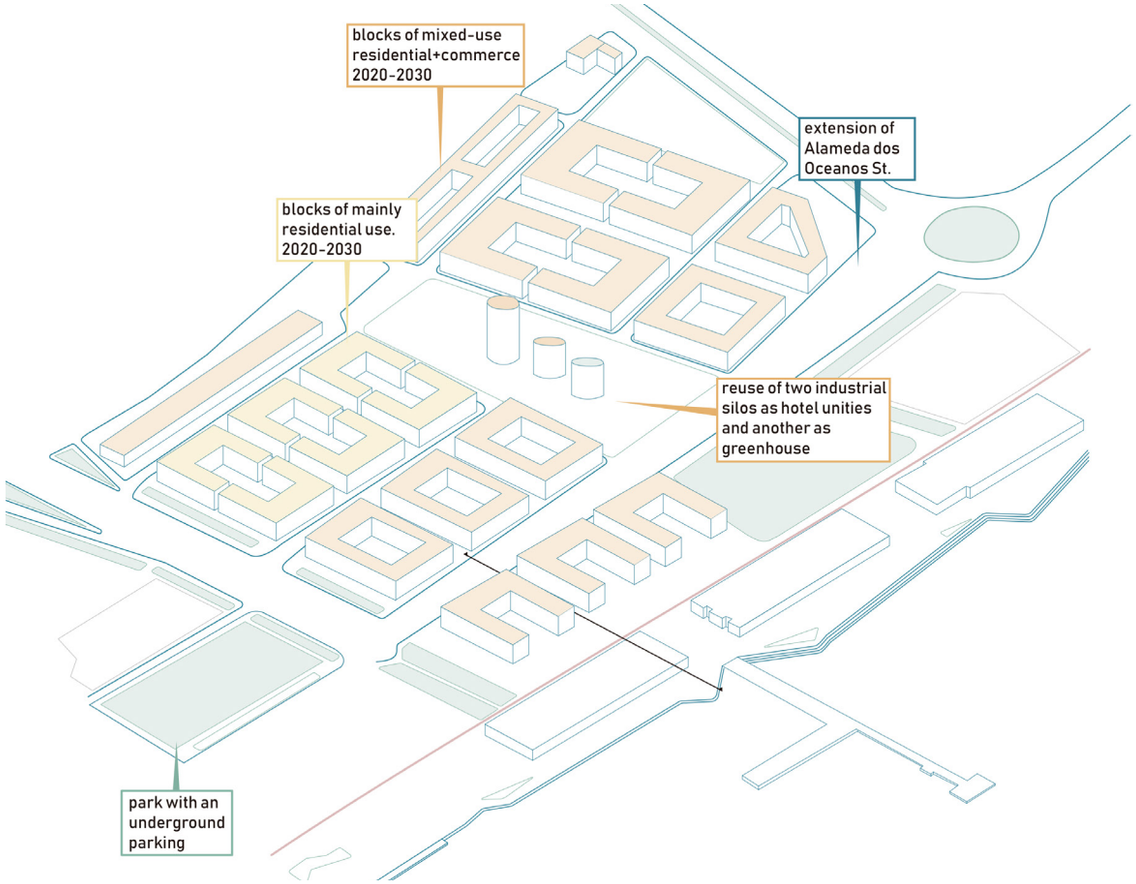
The road for access - **CURRENTLY**





The road for access - **PROPOSAL**





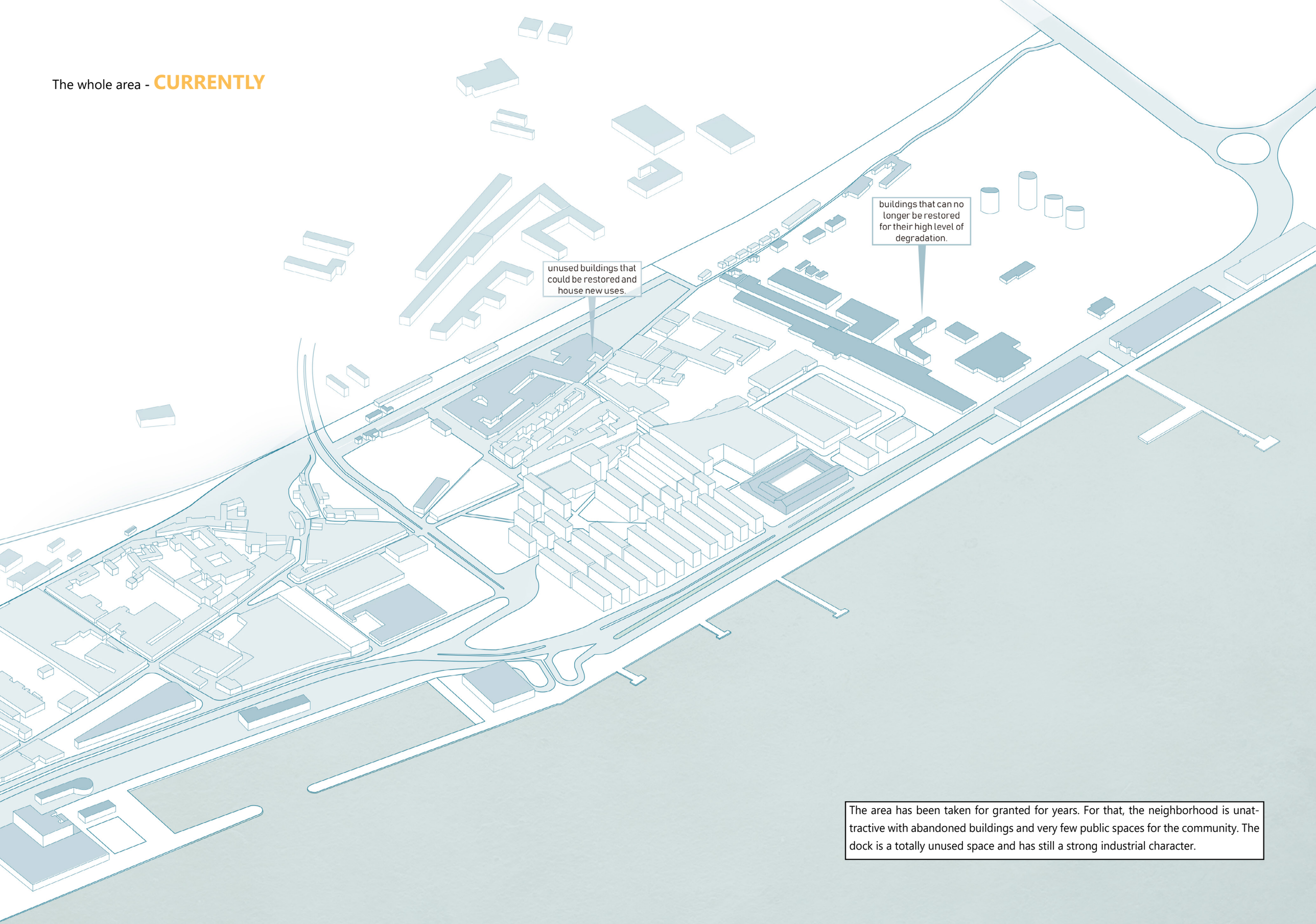
The dock - **CURRENTLY**

The trucks and ships are already elements of the urban landscape, even not being part of the reality of the area anymore. Since the port and industrial activities in the area ended, it has been used as parking spaces for big vehicles. There is no access and contact with the river and most of the warehouses are in disuse.

The dock - **PROPOSAL**

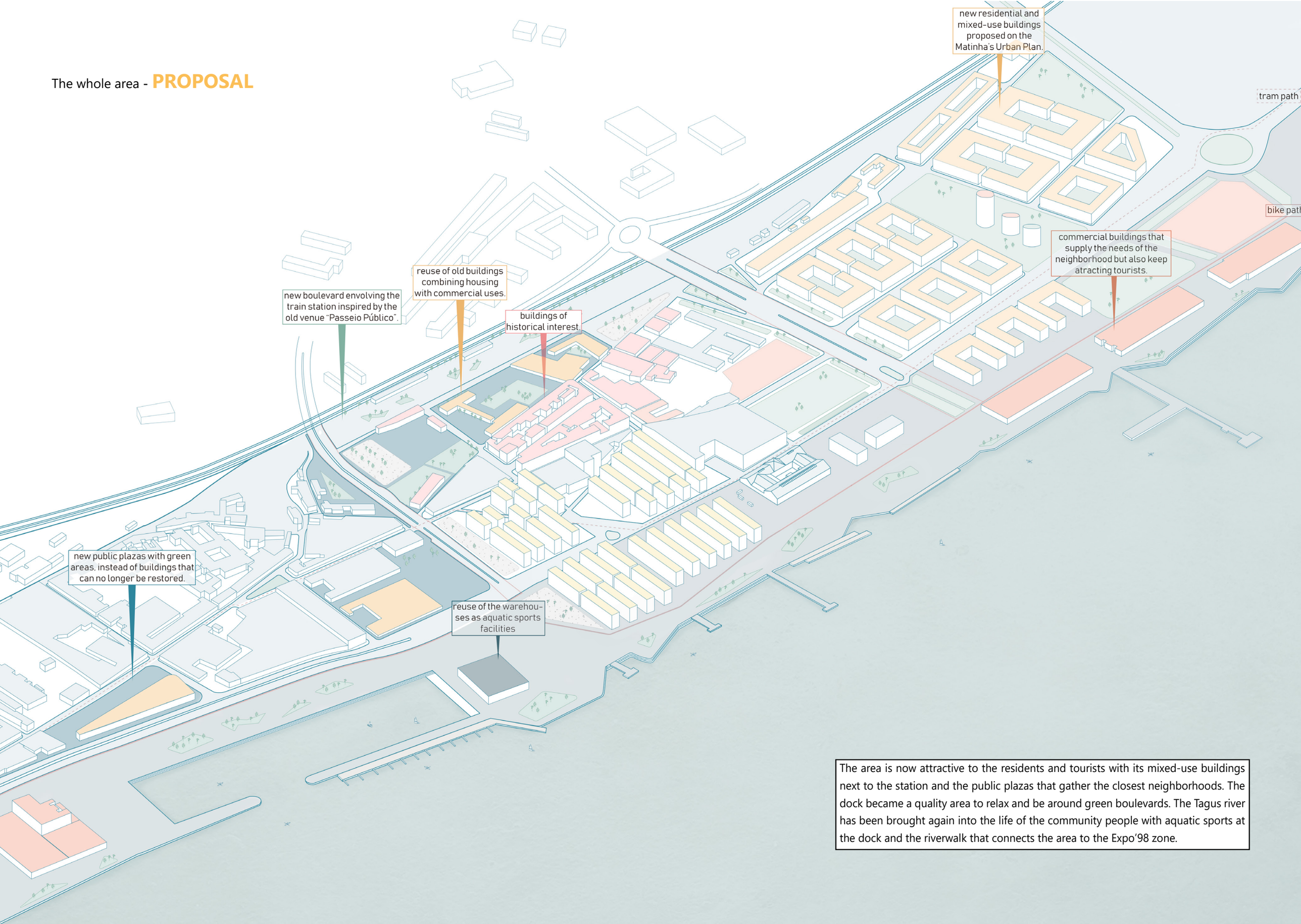
The dock has now establishments for aquatic sports such as canoeing and sup paddle to attend the neighborhood residents. At night, boat tours to the tourists and the restaurant and cafeteria change the atmosphere of the space.

The whole area - **CURRENTLY**

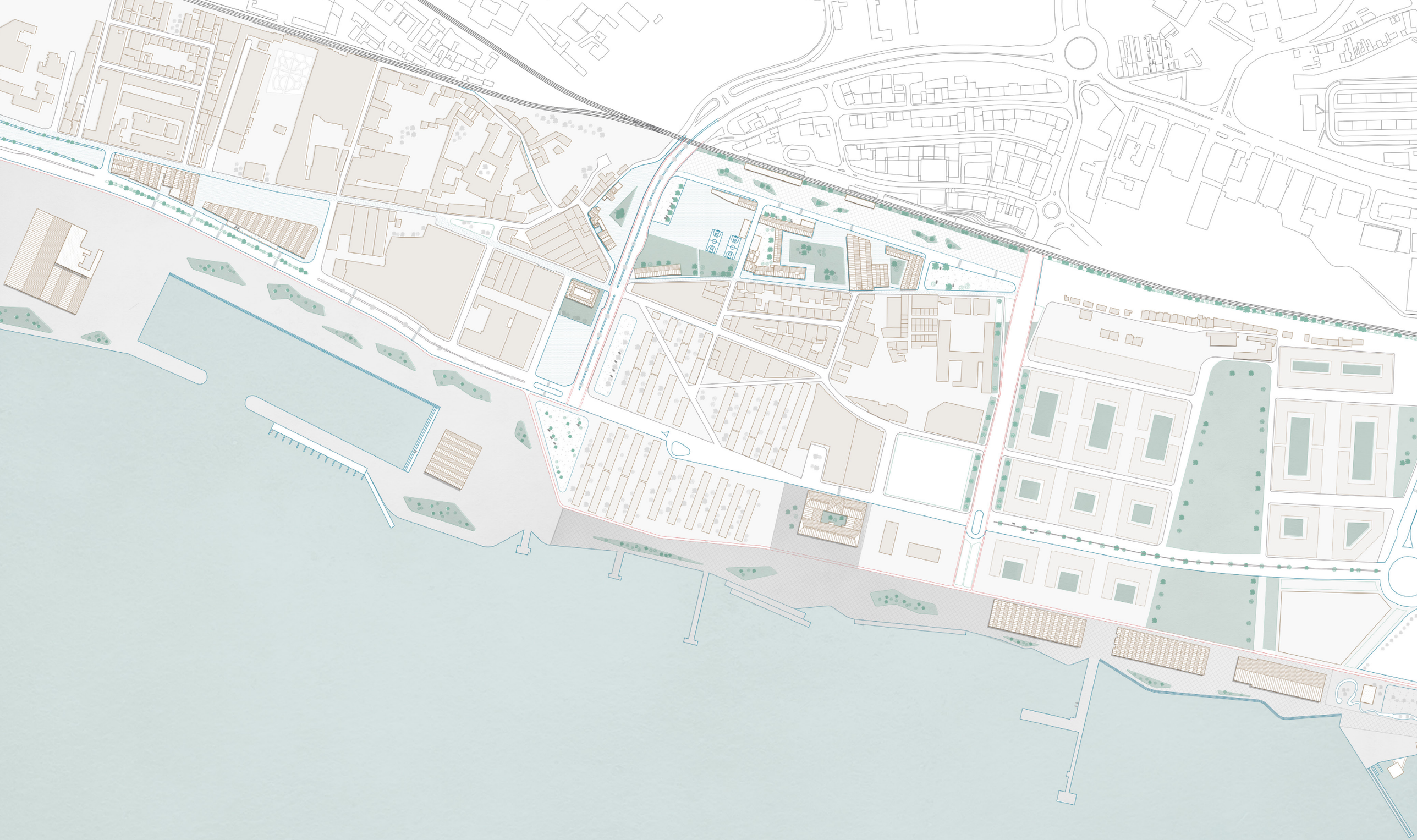


The area has been taken for granted for years. For that, the neighborhood is unattractive with abandoned buildings and very few public spaces for the community. The dock is a totally unused space and has still a strong industrial character.

The whole area - **PROPOSAL**



The area is now attractive to the residents and tourists with its mixed-use buildings next to the station and the public plazas that gather the closest neighborhoods. The dock became a quality area to relax and be around green boulevards. The Tagus river has been brought again into the life of the community people with aquatic sports at the dock and the riverwalk that connects the area to the Expo'98 zone.



SCALE 1:5.000

MASTERPLAN

chapter 6

adaptive reuse conceptual project

The approach of adaptive reuse in the work was mainly based on the author Derek Latham and Hasnain and F. Mohseni. According to them, it is important firstly to study the building typology to know how the adaptation could go. Sherban Cantacuzino in his book "New uses for buildings" disserts about many types of typologies and their implications to the choice of the new use of the building. This factor has a big influence before the transformation and can be the key to a good adaptation: trying to leave the building with the original character as possible[39]. The new uses must support the original function of the building [40]

The *Tabaqueira* is an industrial building, a part of heritage conservation and with high potential to be reused. The industrial heritage was defined by TICCIH, the world organization that represents the industrial heritage:

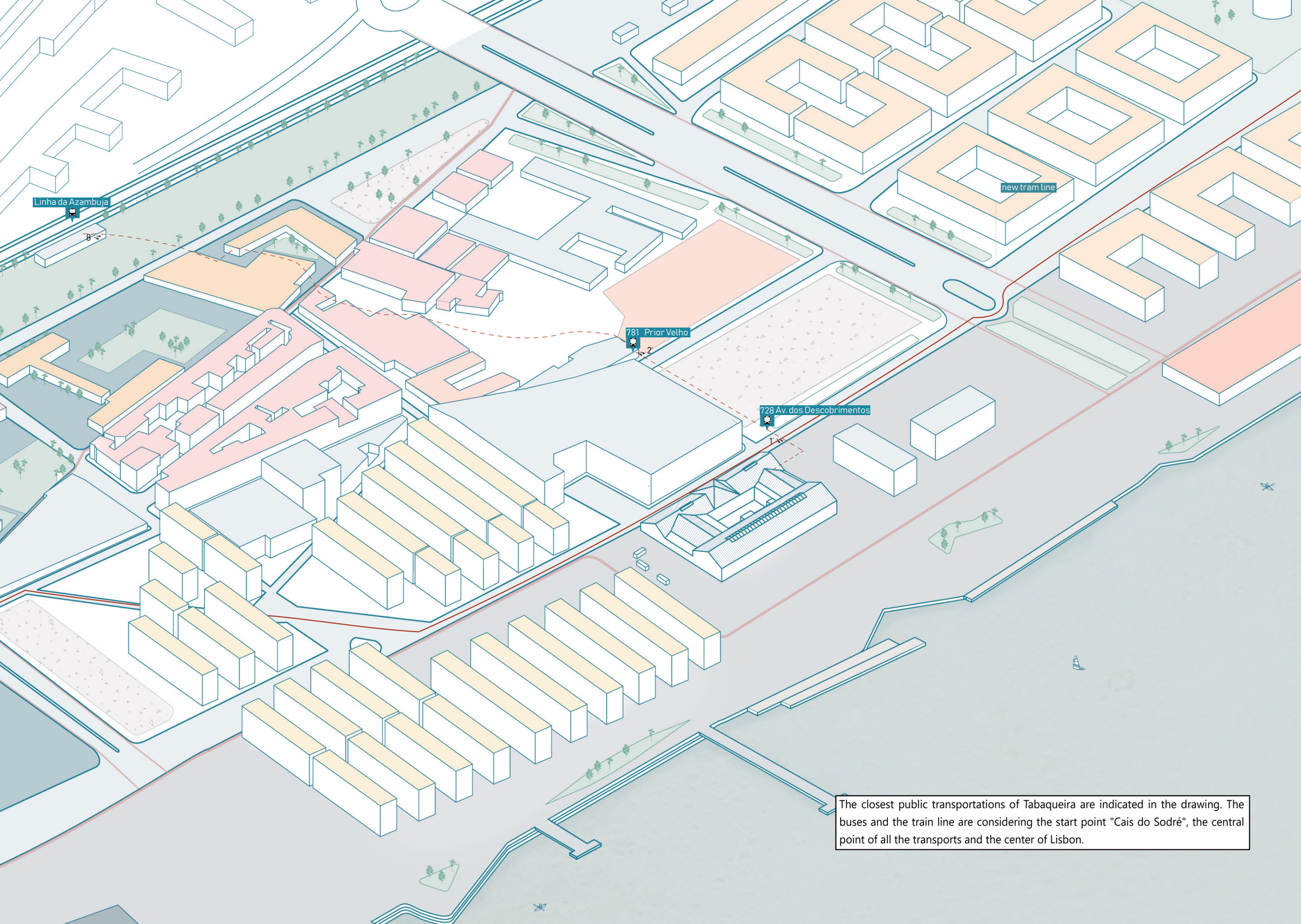
> "Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education."
>
> Nomine, S. (2003). *Nizhny Tagil Charter voor het Industrieel Erfgoed. p.1.* De Internationale Commissie voor de Conservatie van het Industrieel Erfgoed. Tijdschrift Voor Industriële Cultuur, 22(88). doi: 10.21825/tic.v22i88.8221

According to the article of Hasnain and Mohseni, 2018, about the creative reuse of industrial buildings, the main challenge of adaptation nowadays is finding a new use that integrates a creative approach and innovative concepts. With a contemporary usage, the heritage buildings can also develop new perceptions and significance of the place. Preserving the history, the heritage property in reuse is much more appealing as a place to frequent than new buildings[41].

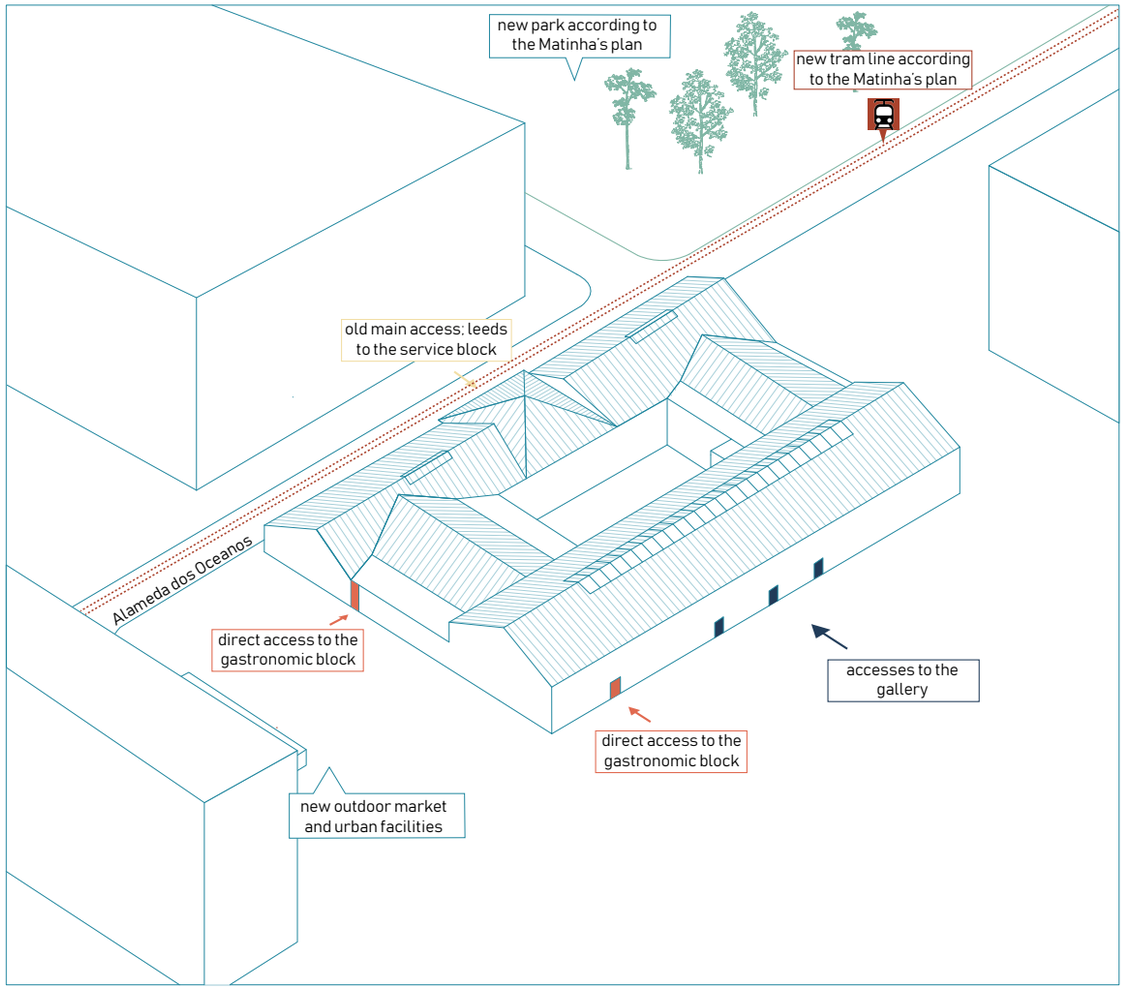
[39] Cantacuzino, 1977 as cited in Derek Latham (1999). *Creative Re-Use: Working with the Building*, Journal of Architectural Conservation, 5:2, 7-23, DOI: 10.1080/13556207.1999.10785240

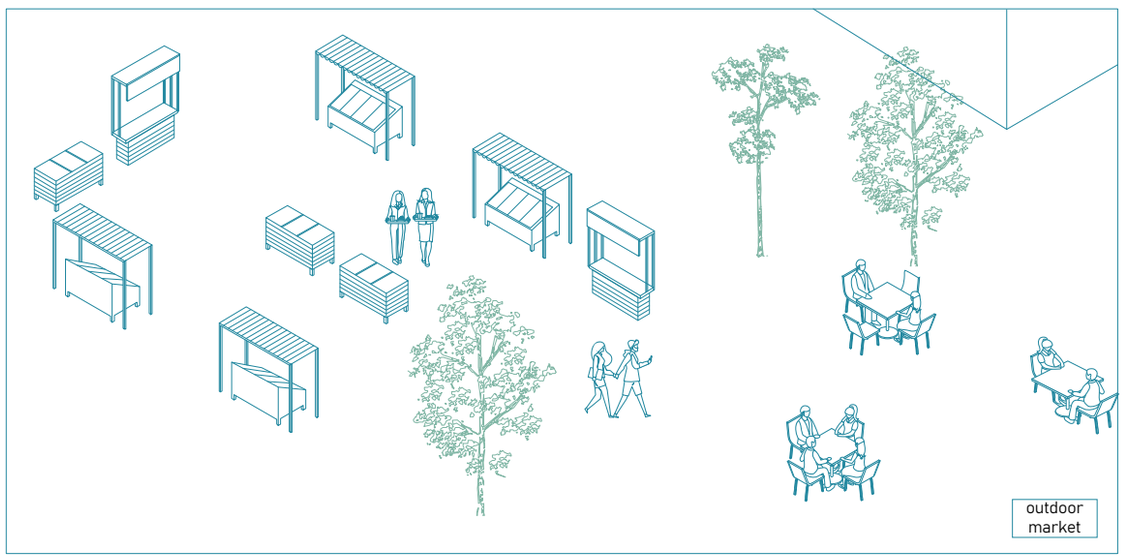
[40] Hasnein, H. & Mohseni, F. (2018). *Creative ideation and adaptive reuse: a solution to sustainable urban heritage conservation. p.3.* IOP Conference Series Earth and Environmental Science 126(1):012075. doi: 10.1088/1755-1315/126/1/012075

[41] Hasnein, H. & Mohseni, F. (2018). *Creative ideation and adaptive reuse: a solution to sustainable urban heritage conservation. cit., p.5*



The closest public transportations of Tabaqueira are indicated in the drawing. The buses and the train line are considering the start point "Cais do Sodré", the central point of all the transports and the center of Lisbon.





Derek Latham discusses the main motives that old buildings generate popular appeal: archeological, aesthetic, economic, functional, and psychological. I the case of *Tabaqueira*, aesthetic, economic and functional reasons, because of its regional and particular character since the building has its style and cultural value. The cultural buildings can be complex to readapt but, on the other hand, they try to reveal the contextual design picking up the threads of their story and of the time. It can be with the use of new technologies to reflect the aesthetic life of nowadays[42].

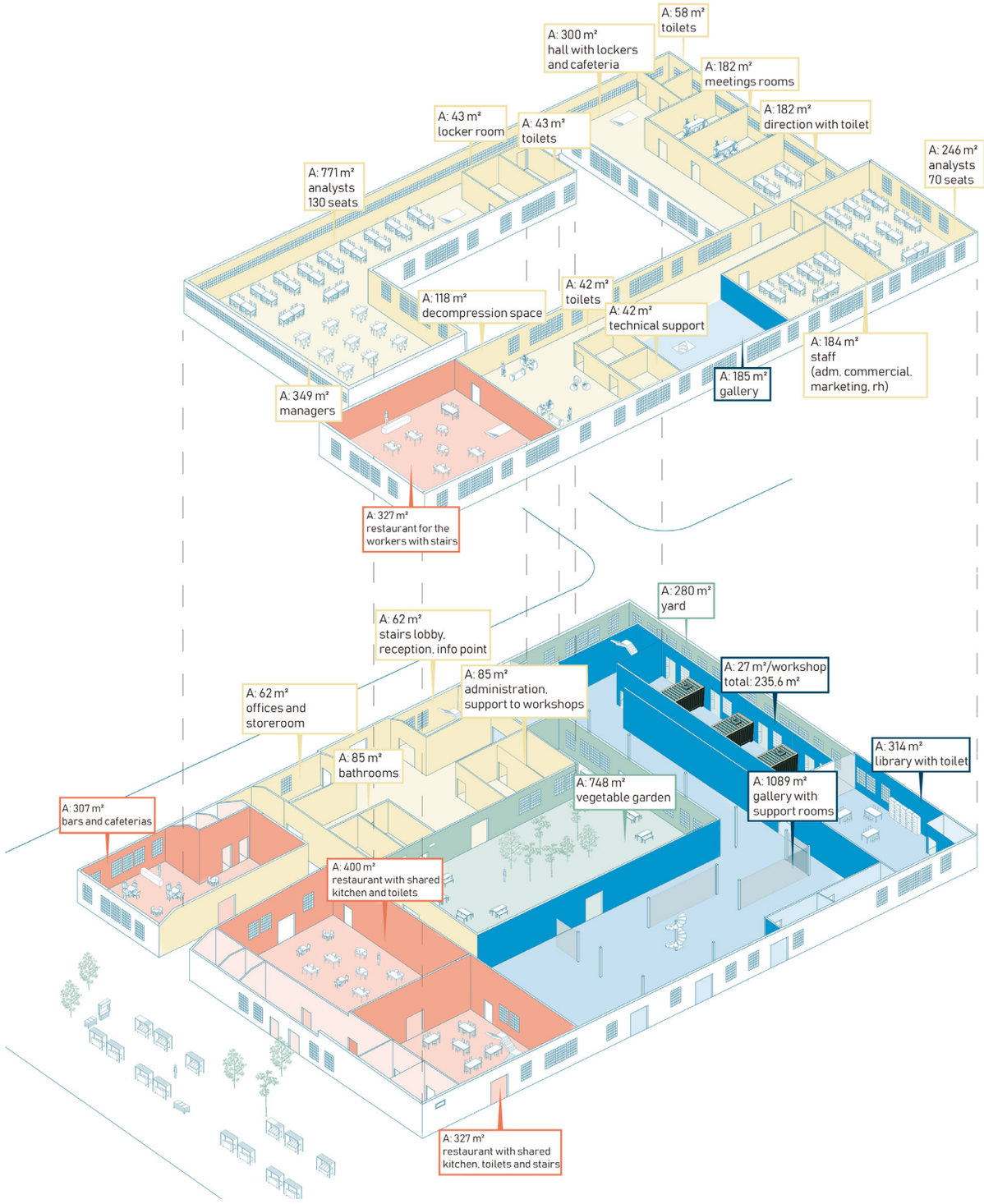
Therefore, taking into consideration the approach of typology, the compatibility of the new function chosen to the readaptation of a building can be estimated by its potential to have the tiniest interference in existing fabric[43]. The new usage needs to integrate simple changes to mean full elements of the heritage building and include new connections and applications in it.

The study of Hasnain and Mohseni, 2018 suggests that the inclusion of big brands or trendy places in the early phases of development projects is important to attract people. It can restore life, activity and the spirit of place in old structures and therefore contribute to the process of re-imaging heritage properties.

For the project of the *Tabaqueira*, a bio market was placed outside the building to get the attention of people, since the bio markets are in the present days highly frequented by the population. Plus, to facilitate access to the building to the people coming from the coast, a footwalk was installed to make the physical connection between the *Tabaqueira* block and the riverwalk. The accesses that already existed were maintained and new ones were added in the south facade.

With the same pavement of the dock and similar vegetation, the urban design creates integration and unity of the *Tabaqueira* block with the coast transformation. The building readapted has the potential to compose the architectural fabric that connects the riverside of the east of Lisbon. It creates a link between the housing complex and the expo'98.

[42] Derek Latham (1999). *Creative Re-Use: Working with the Building*, Journal of Architectural Conservation, 5:2, 7-23, DOI: 10.1080/13556207.1999.10785240
[43] Yildirim, M. (2012). *Assessment of the decision-making process for re-use of a historical asset: The example of Diyarbakir Hasan Pasha Khan*, Turkey Journal of Cultural Heritage 13 379–88



Following the precepts of adaptive reuse, the new usages given not only respected the original structure of the building but also gave it evidence. The big windows were preserved as well as the internal divisions and columns. The roof was also maintained for being typical of the industrial structure.

The ground floor was divided into blocks of culture, gastronomy, workshops, and services. The gastronomic block is supported by the owners of the restaurants, bars, and cafeterias. It is the block close to the outdoor bio market. These establishments can make use of the products of the market to make the food. Also, on the courtyard of the building is located a small orchard that the community and the employees of the gastronomic block can use to prepare the food.

The cultural block is divided into workshop spaces, one library, and a big gallery. The workshops rooms can be used by different cultural activities like dancing, painting, handicraft, theater, etc. The gallery uses the structure of the building to create an architectural walk through the works of art: some drywalls can be placed to enrich the exhibitions but can also easily be taken out. The helicoidal stairway also compone the artistic atmosphere. The gallery and the workshop spaces would be maintained by an administrator of the building that responds to the government of Lisbon. The programs would follow the cultural schedule of the city.

The services of the building include a reception, an administration, storerooms, offices, toillets, locker room, and hall with stairs. The other blocks also contain their own services rooms to support their activities.

On the first floor there is another area for the gallery with a view for the river, and a co-working space for the start-up company "Factory", a German organization. The company brings together startups, investors and corporations[44]. It is a way to attract young people and to create an innovative environment in the building. The choice of the Factory regards the fact that the company is already present in Lisbon, so the residents already have the information about it and know how it works. The space would function as an alternative unity of the company, working as a big generator of movement inside the building.

[44] Trajkovska, B. (2019, June 9). Berlin's startup ecosystem at a glance. Retrieved from https://www.eu-startups.com/2018/12/berlins-startup-ecosystem-at-a-glance/.

the gallery

the view from the second floor

chapter 7
final considerations

Accepting the change in the city fabric is extremely necessary to attend the new needs of society. The urban with the architectural fabric must walk along together with the new habits and technologies of the community instead of held in history. It is important, though, to preserve the cultural identity of the place: the different architectonic typologies, ages of the buildings, and the elements that give the city a sense of unity.

The project, though few urban and architectural transformations, has the goal to connect the city with the Expo'98, return the coastal region to the residents, and boost the development in *Marvila*. The main changes to make it possible were: giving new uses to the warehouses near to the dock, making it a place about tourism but mainly aquatic sports; "the Lisbon riverwalk" that made the connection with the Expo'98 through the coast; new mixed-use buildings and public plazas in strategic spots along the area of South *Marvila*, in a way that also improved the quality of the walkability in the zone.

With the improvement of the walkability and "bikeability", with new cicle and walking paths, the relationship of the people with the urban design of the neighborhood is also renewed. These are important factors that contribute to restoring the relationship between the healthy development of a city and the reuse of its abandoned centrality[45].

Regarding the adaptive reuse, it is possible to say that many buildings, not only in *Marvila*, but in the whole Lisbon, have a great potential to be restored and transformed into a place that reflects the Lisboner society. It is important that those buildings are not left in history. It is possible, and essential, to create an innovative concept to attend these abandoned spaces and give them contemporary usages so they are not forgotten by the city.

The *Tabaqueira* consisted of an example of one the many buildings, mainly in the west of the city, that had a great history during the industrial time or even before that, but that are now completely taken for granted by the authorities and even the society. But the accurate transformation of these buildings, and of the urban fabric, can certainly make the city a more inclusive and identity place for all the residents.

[45] S. Marshall Wheeler and T. Beatley, (2014). *Sustainable Urban Development Reader* (Routledge Urban Reader, 2014)

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* The figures not present in this list were made by the author
** The figures that open the chapters were taken by the photographer Beatriz Lisboa