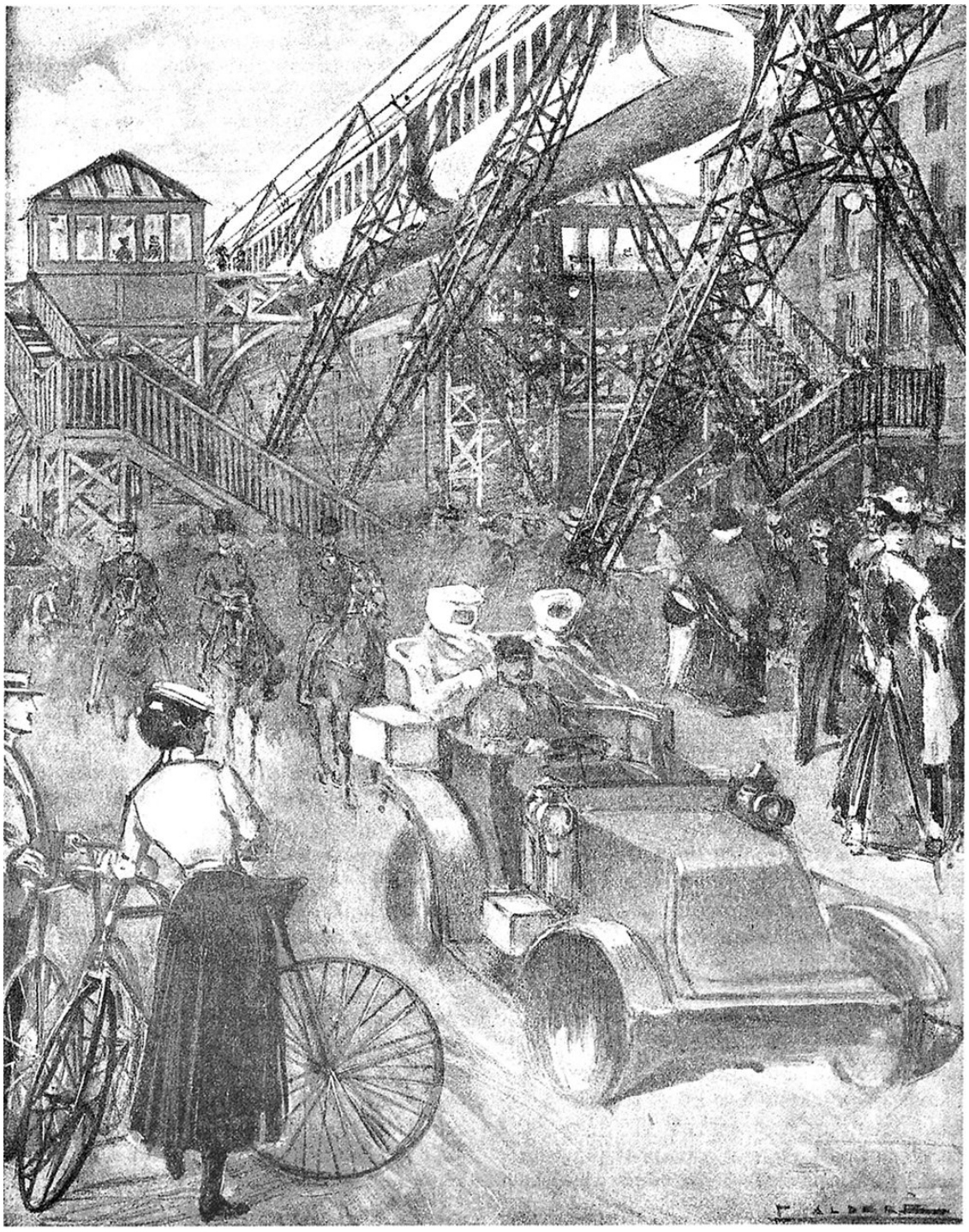
Chapter 4 – Projects and influences in the Lisbon waterfront



1. Above and previous page: During the construction of the Industrial Port of Lisbon the engineer Melo de Matos has produce images which reveal a futuristic vision for the site.

Transition models

The river is before/in front of and after/behind the city. It goes through the city, which is 'the image of time in history', the ' image of time in nature', a time where past, present and future exist together. Such permanent presence of a time that remains the same, actually the river, seems to wash out the differences imprinted before and after in the objects located along the river.

Carla Esposito, Vedute del Tevere nella Graphica dal XVI al XVIII secolo

The space located between city and river became a void. The area created by the construction of the Industrial Port of Lisbon now faces emptiness and longs for the creation of a large public space, a special space. To understand Lisbon as a port city, one can address cultural issues, and analyse a number of circumstances and of projects developed for the waterfront. Plans produced throughout the centuries relate to the geography and topography of the site. They generate an urban geometry that deals with specific natural conditions and the effort to control them. River Tagus estuary is the reason for the city existence, as well as the base for a variety of activities engaged by generations of Lisbonians.

The theme of urban waterfront projects has been and still is widely discussed, and the built projects are mostly described as a successful achievement. Samperi (1986, 47) explains that 'in comparison with other forms of urban development – by almost any measure you wish to choose – the waterfront is the most difficult and complex area to develop'. According to Hall (1993, 13) this is due to three major factors: 'the availability of large under-utilised land areas in the heart of cities; the tremendous surge in the service sector of the economy; and the near-magnetic relationship between the waterfront and people'. Breen and Rigby, founders of the Waterfront Centre (Washington, D.C.), share the aforesaid view. While agreeing that many urban waterfront projects are successful, mainly because they are 'an exercise of community will to make things better', Breen and Rigby (1996, 12) also point out their 'dark side':

'New waterfront development, however beneficial, by no means constitutes a replacement of the blue-collar jobs that once existed in these areas. The waterfront turnaround then, may be seen as a success story with an

> underlying consequence that constitutes one of today's most fundamental social problems in developed countries – lack of job prospects for unskilled workers. There is also the related issue of gentrification. In some cases resident neighbourhoods of predominantly poor people have not been well served in the name of waterfront development.'

To imagine the future one may need to be informed about the past and the present. However, such knowledge would be incomplete without a reference to the projects that were never built but provided futuristic visions in their timeframe. As we have argued before the waterfront development is the result of a combination of projects, individual and collective will, political interests, financial instruments, technical requirements. The complexity involved is such that it is hard to grasp it all. In the sense that there are so many aspects concerned, to enlarge the range of cultural contributions does not seem an incoherence, and that is why excerpts of the Lisbon's waterfront narrative made by three authors of different times are included herein. These writers perception is profound and shows a deep interest about the site. Their words will be quoted further on.

Today we may have lost an industrial complex, a railway intersection, an harbour or a commercial settlement. That is to say, a strictly functional relationship with the water vanished from people's life. Meanwhile a new financial and business centre, tourism and hotel industry facilities, a marina, an airport, an ocean park, a festival market, and a leisure area for cultural events were constructed. A cosmopolitan image of modernity, combined with international references and almost 'copycat' versions of solutions already implemented in other parts of the world – sometimes by the same creators and builders – are repeated until they reach complete banality (Portas, 1998, 11). And thus resemble the previous phenomenon that occurred with the construction of industrial ports worldwide. This perspective creates an haunting shadow that darkens and undermines the process of transformation of the Lisbon waterfront.

Modern means of transportation

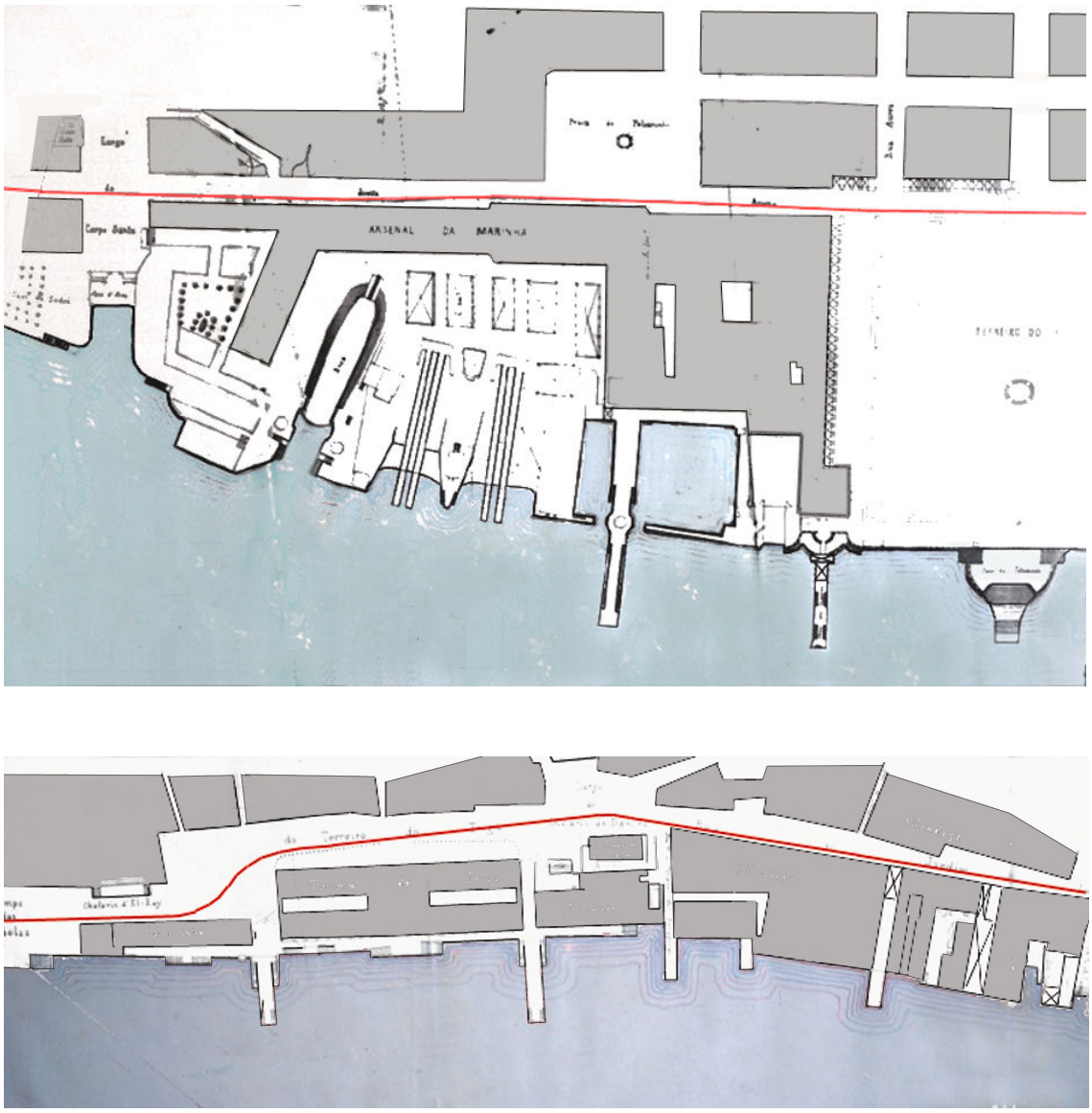
Railway and road traffic has expanded intensively in the last century, and has evolved into a faster circular flow flanked by the port and the city. Public accessibility and

transversal connections from the inner city to the water are affected by the 'cut effect' created by these contemporary infrastructures. The Port Authority argues that a number of their present activities can be transferred elsewhere, and thus the river could be returned to the urban life. Although the waterfront is now available, the city remains separated from the river by the above mentioned barriers.

In the 1890s landfill allowed to incorporate new railway lines establishing another connection between the port, the city and a larger territory around it. On the other hand, when railway infrastructures grow, ports behave like independent industrial units ignoring the city, therefore the transversal 'cut effect' must be considered. When freeways displayed this pattern (between the 60s and 70s), the need to enhance easy access between the existing city and the port became clearer, and in many cases the mentioned criterion was applied (Telje, Torp, Aasen, 1991)[1] The traditional relationship city/port through major infrastructures is in the center of a great struggle involving the design of the contemporary city. In Barcelona the 'by pass' that suppresses cars on the waterfront – with Moll de la Fusta by Sola Morales – allowed the pedestrians to recover the ground level and to access the historic town. This was in the 1980s. In 2001, Catalan architects proposed for De Boompjes, Rotterdam, the remodeling of the four lane road 'in order to integrate it with the pedestrians spaces, enlarging sidewalks and adding traffic lights at every crossing to establish transverse permeability and reduce traffic speed (Henrich and Forjas, 2001, 48).'

For the reasons described above the city of Lisbon kept a direct relation with the water from *Sta. Apolónia* to *Cais Sodré*. In each of these sites there is a train station. The construction of a railway track to connect the aforesaid stations – as originally planned for the industrial port – never took place. Midway between the two stations and along the waterfront, the city's main square touches the river. Lisbonians never lost their visual and physical contact with the water in this small area of the waterfront. Meanwhile, traffic has increased enormously after the construction of Av. *Arsenal*.

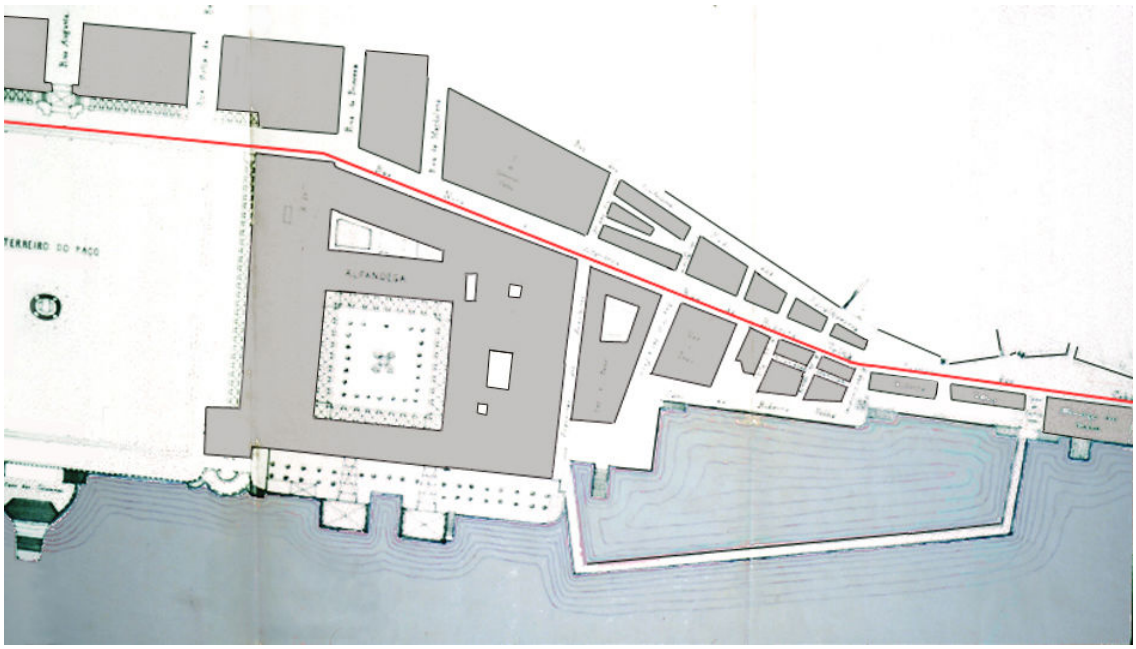
[1] Architects who were involved in the urban renovation of Oslo. They submitted a project (1980-90) for the development of a new central area in Oslo, in which they explained the will to remove the thoroughfare traffic on a highway between the bay and the city. This has been a trend for most historic city-port areas, although the latest projects include automobile traffic under tight restrictions.



2. The Lisbon Tramway Project by Louis de Lennen, 1862, AHMOP.
The line to be created along the river does not interfere with links between river and city.

Consequently, the physical link with the water was broken. Since then the improvement of this small area of the waterfront was held back and still waits further definition of what it may become.

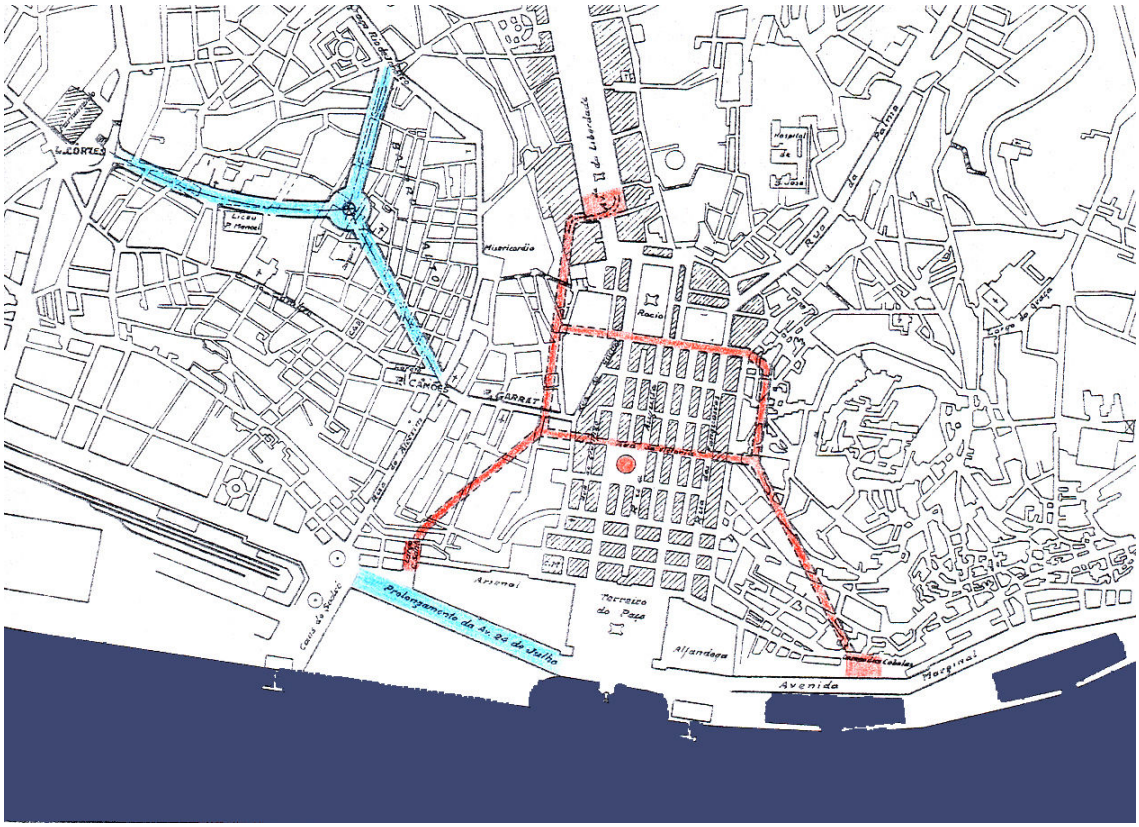
Luiz de Lenne's tramway plan is the most detail and rigorous document of the city relation with the river before the transformation occurred with the construction of the industrial landfill of the port. The drawings remain a record of an urban reality that vanished shortly after their execution (see plate 2). They covered the riverside distance



2. (cont.)

from *Sta. Apolónia* to *Ajuda*, from the most eastern to the most western city limits. Further out laid the countryside. It is in the central area that the relationship between docks, quays, piers and the streets, the squares, gardens and shipyards are particular relevant – the urban fabric extends to the river and vice versa. The diversity of urban spaces at the waterfront is carefully traced in Lenne's plan as they register an 'intimacy' between the urban spaces and the water. The tramway linked the railway station standing at the time at the city edge, passed *Cais do Sodré* and went along the railway up to *Ajuda*. *Cais do Sodré* was the city's most central station at the ground level, and not an underground one like *Rossio* railway station. Such presence has created a problem that the city has never been able to solve.

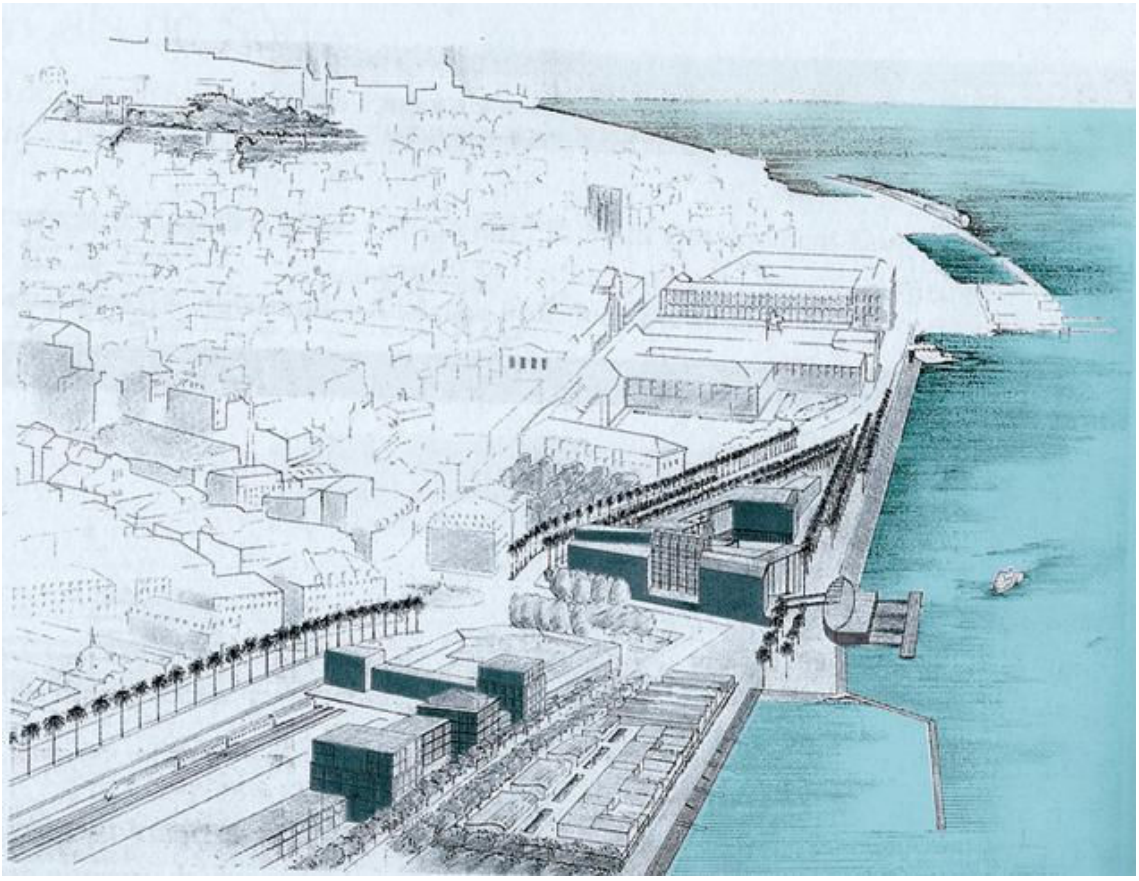
The *Arsenal* avenue was built privileging the automobile and longitudinal road movement (see plate 3). The traffic flow grew every year at a speedy rate originating a related urban problem. Traffic itself became an obstacle for the city to maintain a peaceful relationship with the water. In 1994 another plan was commissioned by the Town Hall, the Port Authority and the Portuguese Railway Co. shared rights over the territory. Finally they agreed to commission a project to a group of international architects – Terry Farrel & Partners (British), T+T Design (Dutch), Miguel Correia (Portuguese) and Prof. Juan Busquets (Spanish). The solution was characterized for



3. Central area of Lisbon: project (Belo, 1936) for traffic flow improvement. Red lines represent the scheme for underground tramways. The study also presents sections of tunnels under a jammed town area and where trains could move fast. Blue circles show underground ways for road traffic under the historic town. The waterfront avenue on landfill, in front of *Arsenal* facilities, was still under discussion at the time.

being a consensual one and one shared by the several parts involved. The project establishes a relationship, using the palm tree element, to unify two large avenues that were built in different centuries (one in the 1870s and the other in the 1940s), but it did not present an urban design that could re-link city and water (see plate 4). The visual continuity between avenues would privilege the intense traffic flow that threatens any possible solution for street life and improvement of urban spaces.

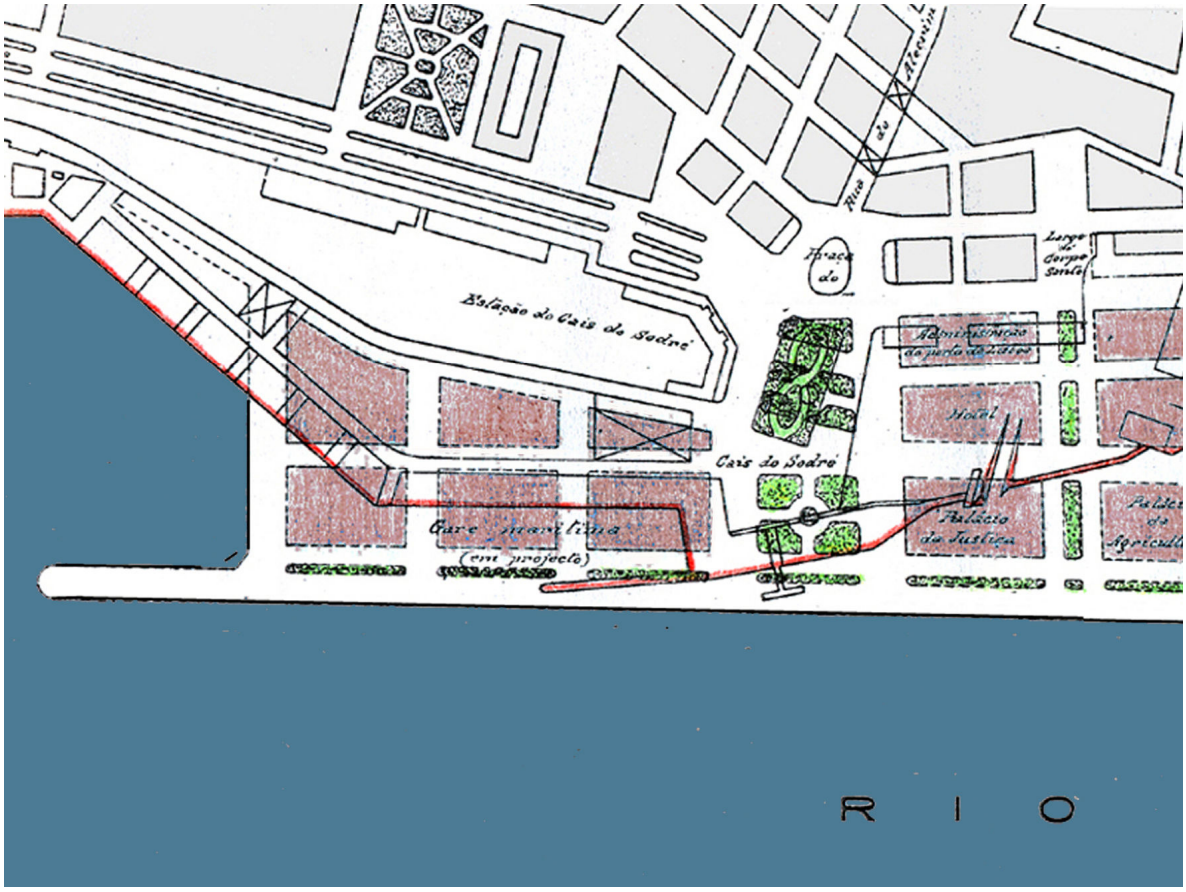
Busquets presence in the team could have brought the discussion about the traffic on the site but no question was raised about the traffic flow that jeopardizes any solution for the area. Busquets expertise and previous experience with *Moll de la Fusta* designed by Sola-Morales.did not influence the other authors, and the site kept the same character, a gap between the existing buildings and the river, shaping a piece of land that is some kind of leftover or a backyard, and yet the most unforgettable site.



4. *Cais do Sodré* area from the railway station to the main square. New buildings are represented in dark. The project was designed in 1994.

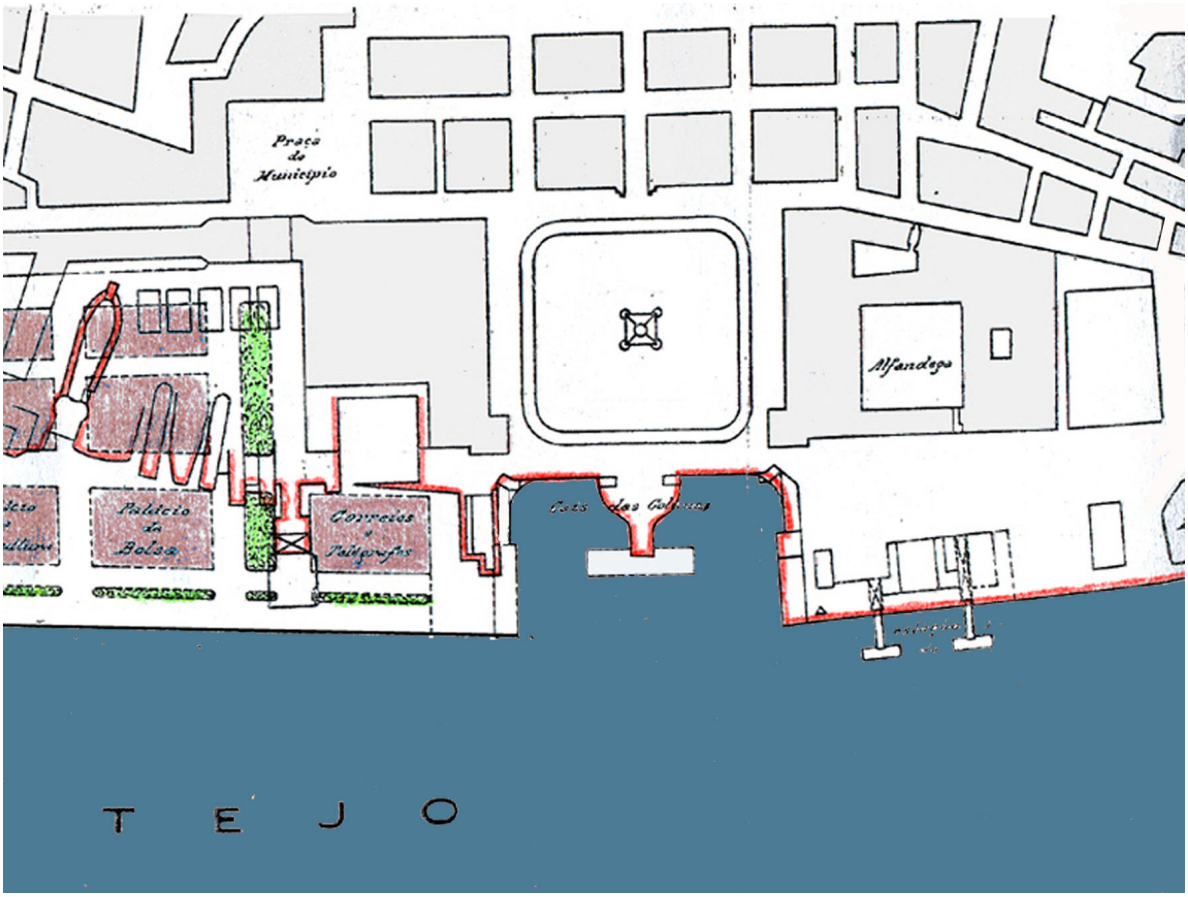
The monumental image

In 1936, the engineer António Belo (1936, 47) published a study meant to improve traffic flow in the city by connecting the downtown area and the water using perpendicular tunnels to the river. At that time, most of the traffic was concentrated along the tramway line. 'Electric trams and bicycles, introduced at the end of the 19th century, gave people a wider range and allowed the city to expand significantly in area' (Gehl and Gemzoe, 2000, 13). There was no vision of a circular road that could run external to the city and along the riverside. Main traffic problems occurred between the lower and the higher parts of the city. A series of underground tunnels for private cars and public means of transport were proposed. Most important is the transversal access the study proposes. The unsolved conflict opposing *Arsenal* (the Navy) and the Port Authority allowed the very central part of the city to remain linked to the river.



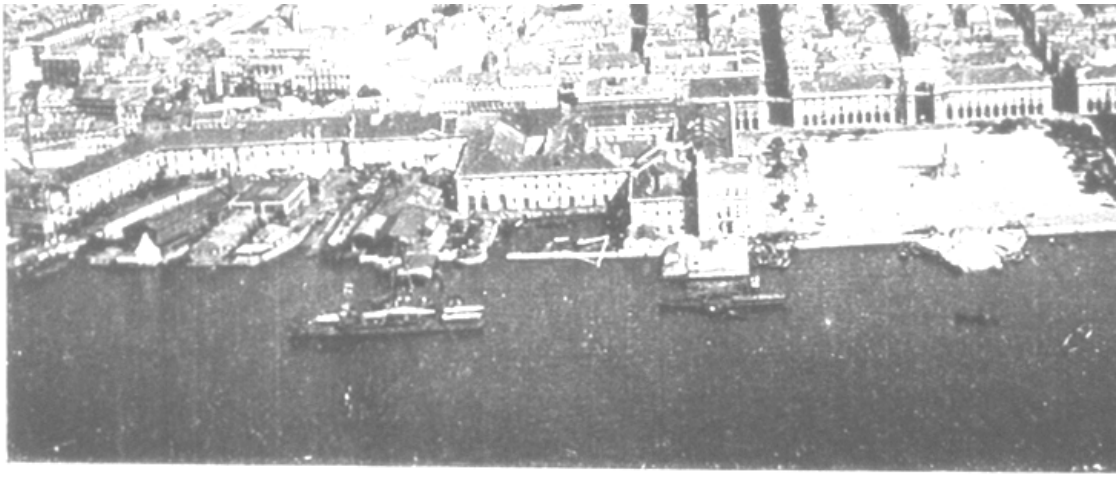
5. Juxtaposition of two drawings: one of the existing situation (red line), and the project (in blue) for the *Cais do Sodré/Arsenal* area proposed by Perestelo in 1931, which included a maritime avenue . A series of public and significant buildings: the Stock Exchange, the Central Post Office, Court House, Port Authority headquarters and other administrative buildings. An hotel would be facing the waterfront.

This small waterfront area formed the only gap in the barrier along the industrial port – it was like a window opening into the river. Perestelo presents the project at the opening of the International Engineers Congress and provokes a strong impact at the audience, as he suggests an alternative to the central area of Lisbon: a new façade for the city. The importance given to the image of the city perceived from the river it is suggestive. The program proposed the construction of monumental buildings separated from each other by green corridors that would allow visual contact with the river (see plate 5). Temporary buildings at the Navy facilities cast a precarious image, of an operating shipyard used by working class worker's. Next to it, the main square of the city with its century old magnificent architecture. The 'ensemble' breathed contradiction.



5. (cont.) The work for the construction of landfill was to be paid through the sale of its new land.

The city's 'reception room' – lined with monumental buildings that were (and still are) occupied by government departments – and industrial artifacts were side by side (see plate 6 and 7). Those unfinished artifacts made of cheap materials looked more like 'shanty town'. The capital of the Empire was worth of a carefully constructed image in tune with the bourgeois culture of the time. The conflict opposing several government institutions and the Navy expressed the different visions of independent political forces with power over and acting on the same territory. Thus, during the construction of the industrial port there was a lack of coordination while each institution remained independent. That policy had a physical reflection on reality: the industrial port remained unfinished till today. During the dictatorship period there was a well succeeded attempt to centralize power, with a rather negative impact in the Navy controlled area and in the city.



6. Air view of Arsenal (photograph taken before 1940).

7. Aerial view of central Lisbon (photograph taken in the 1940s); the *Arsenal* facilities have direct access to the river and to the large public space; the Royal Square faces the river, without the road barrier.[2]

Terreiro do Paço, the royal square, was the official entrance into the city. In the past, the water has been the main gateway to access waterfront cities, and even today if one visits them by boat one comes ashore not on their periphery but in their center. Until the construction of the first bridge, people arrived to the city of Lisbon mainly by boat, and so the town was first perceived from the river. Belo's project intended to channel passengers arriving from overseas side by side with local passengers crossing the river by boat. To that purpose, the river and sea terminals were placed right, left and in front of the main square. Belo's plan overlapped existing buildings at the *Arsenal* site, and

[2] The rapid road was designed during the dictatorship period. At that time, power was heavily centralized and the government imposed his scheme for the Navy facilities. Although the Navy had always claimed their right to access to the river.

proposed a new urban fabric that would generate an updated image of the city. A renovated space of nine hundred meters of new buildings facing the water. The railway station would be hidden behind the new buildings, erasing the periphery traits of the site. The plan did not favor road traffic, for Marginal avenue was located along the riverside and was used as a 'reception dock' for cruise passengers. An existing square, *Corpo Santo*, would be extended to the river through a green corridor perpendicular to the riverfront.

The writers' perception

Three books about Lisbon, written by three different Portuguese authors, describe the waterfront as the most privileged site in the city. *Lisboa – Livro de Bordo* (1998) by José Cardoso Pires. *What the tourist should see* (1925) by Fernando Pessoa. And *Urbis Olisiponis Descriptio* (1554) by Damião de Góis.

Pires chose to end his book with a chapter titled *Finis terrae* where he describes a café by the river. The author is sitting at one of the café's tables and wonders why such a privileged place remains unknown. Pires (1998, 113) writes his delight at the following scene: 'Boats that arrive, boats that departure, people coming in and out to eat and drink at the counter, and I am seating on top of the Tagus. My back is turned to the city. Trade, crowds, Europe, everything behind my back. (…) While in this forgotten shelter the time of the day is measured by the changing shades in the colour of the river.'

Pessoa (1992, 32-35) starts his description saying: 'For the traveler who comes in from the sea' (…), which was the most common way to arrive in Lisbon, at the time. Then the poet suggests the road that goes along the waterfront, pointing out public gardens, public squares, palaces, the Town Hall, Naval Arsenal, Naval College to finally 'reach the largest of Lisbon squares' (…). And Pessoa continues 'The general aspect of the square is of a kind to give a very agreeable impression to the most exacting of tourists'. Further on the author gives us a detailed narrative of buildings and public spaces, blending in several remarks about historical events. Pessoa extensively describes some of the national monuments located by the river, using words like 'magnificent stone jewel', 'astonishment and growing appreciation', or 'in all its details there is an

exquisite perception of proportion and effect.' Apparently the poet was not interested in the recently built industrial facilities/buildings at the port because he never mentions them, as if they simply weren't there.

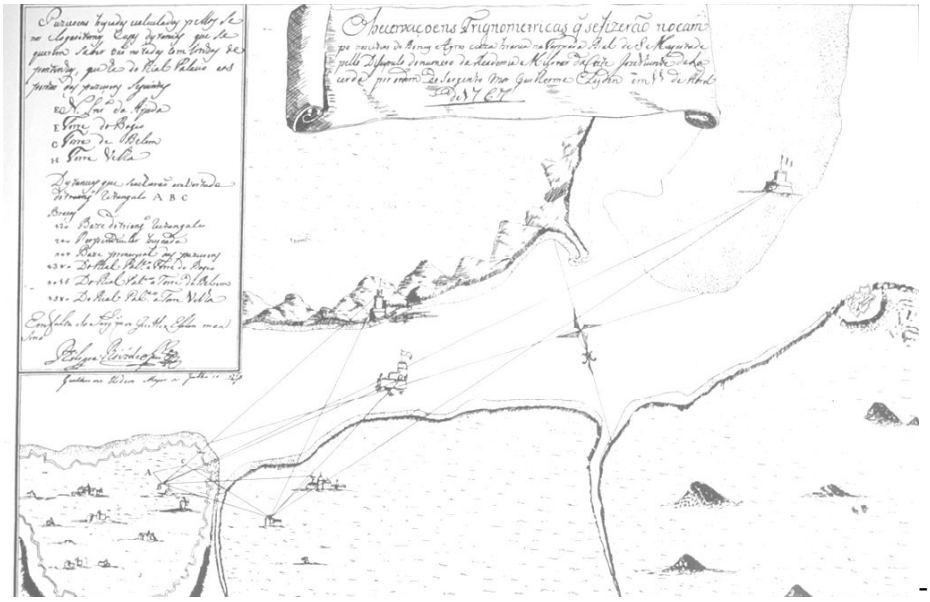
Gois divides his book in four parts. Book II is titled *Around the City Walls, from Belém to the Gate of the Cross,* and the author dedicates special attention to the riverfront. About the overall appearance of the city Gois (1996, 22) writes: 'it would no doubt be verified that the shape of the city resembles that of a fish bladder. If the ground were entirely flat it would appear from that side to have the form of an arch.' The city kept this shape – a linear strip along the river – until the mid 1800s. This is confirmed by written descriptions by Lord Byron, and other authors, as well as drawings representing the city before the industrialization. The urban expansion inland following plans by Frederico Ressano Garcia occurs simultaneously with the construction of the industrial port.

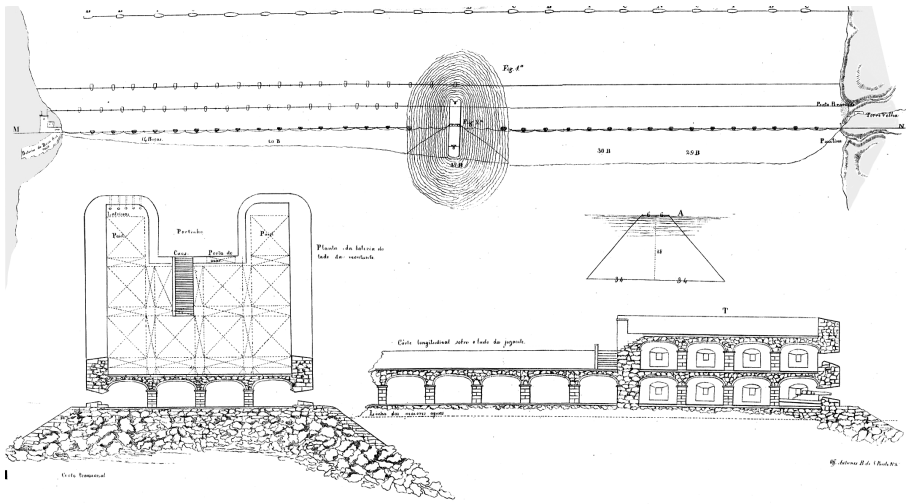
The perception of a territory is influenced by several factors. The topography, the geography and the geometry are aspects that influence the cultural landscape. Accoding to Kostof (1992, 41) there is a clear conflict between people who use the river as a working watercourse for trading activities and those who 'would turn it into a work of art'. We could say that there is a disparity of interests and a lack of communication conditioning views on the waterfront as expressed in a way by the words of Joseph

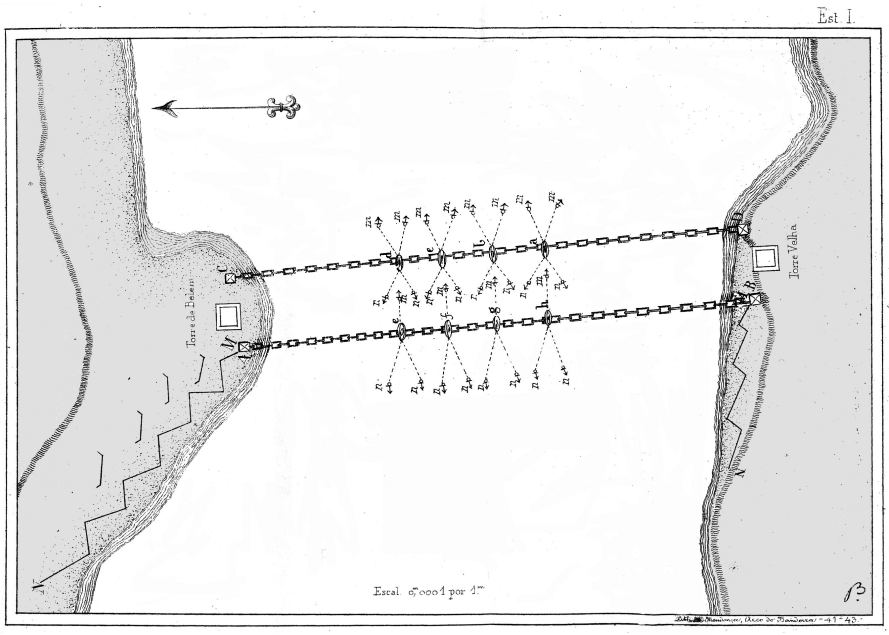
8. Title of the drawing: *Trigonometric observations that were made in the site*, produced by the Military Academy's Sergeant Guilherme Clyden, in 1767 Legend:
F – Ajuda Church E – Bugio Tower C – Belém Tower H –Old Tower

9. Project for the third tower. The plan, section and elevation of both river and tower.
Other drawings had shown the entrance to the harbor closed with chains and a series of boats blocking any access through the harbor to the city.

10. The drawing shows a system of parallel chains that would create a physical barrier in case of invasion by sea. The entrance to the city was gated between the defensive towers. The chain that linked both banks was supported by the ships in the middle of the river. The solution was never tested

8. 

9. 

10. 

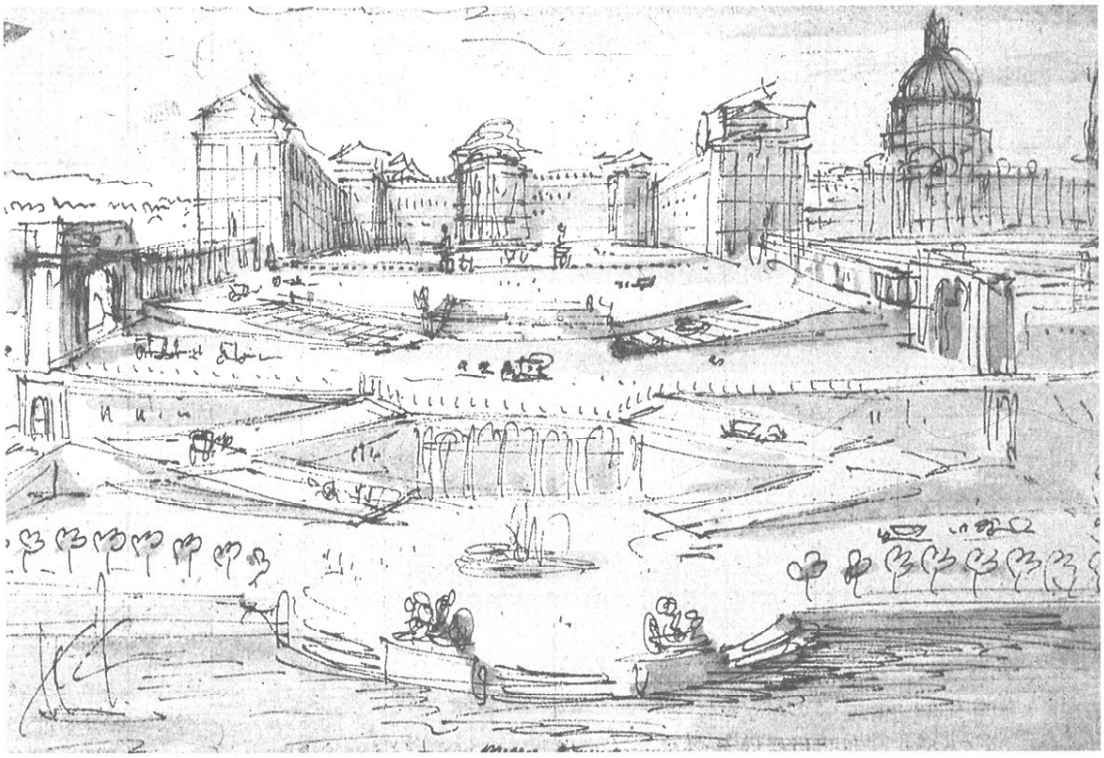
Konvitz: 'those who operate the maritime world and those who grant cultural significance to its artifacts (…) belong to two separate cultures (…) which have little to say to one another.'[3] And yet in Lisbon the mixed use or *métissage* has always been present, and stands out as a determining feature of the waterfront.

A large collection of ancient maps representing Lisbon harbour was published by Baldaque da Silva, a military engineer working for the Port Authority. Navigation and safety were of major importance. The book presented a map of the Lisbon harbor revealing geometric connections between several elements, such as towers, fortresses, etc. It was a forgotten drawing, but one which provides a complex or a more detailed reading of the site. The location of those buildings was subject to the requirements of

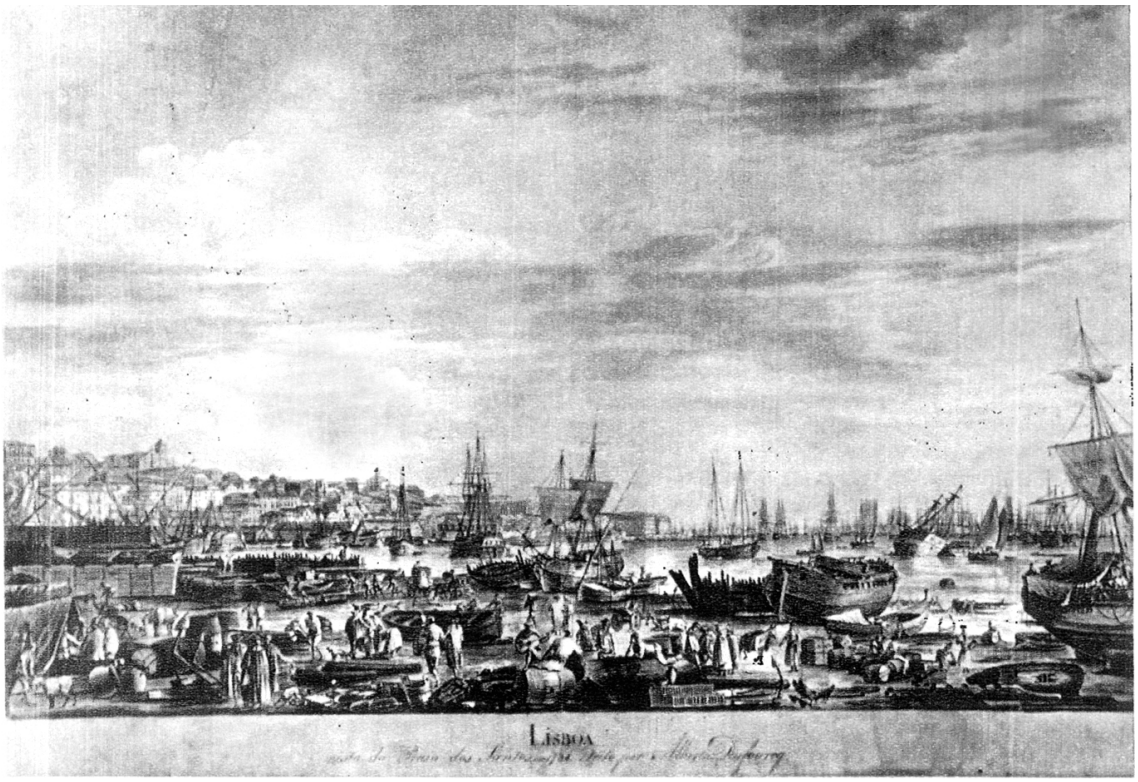
navigation and defense techniques. That is to say, another layer that is not perceivable to most, and yet is fundamental for the understanding of the territory and the specific placement of exceptional buildings. Several studies were presented during the 1850s by P.J. Pezerat regarding surveys and studies for future docks and industrial port facilities. This represents the shift from defensive strategies to trading necessities. In his book about Lisbon maritime defense line, Francisco Soares, (1847) shows a new tower for defensive purposes, as mentioned in the previous chapter. The existing *Belém* Tower and the old tower guarded the entrance to the harbor. Between those two towers, the project proposed a third tower placed on an artificial island. According to the description this would provide a more effective protection to the city, although it was never built. Defensive strategies were presented throughout the process of the creation of the industrial port since another book by António Freitas (1868) also shows a drawing with a chain block to prevent access to the city when needed.

These drawings reveal concepts and ideas that stimulate the collective mind to read the territory's memory and to realize different readings are overlapped offering an alternative understanding of the site.

[3] Konvitz, quoted in Spiro Kostof *The City Assembled*, T & H, London, 1992, p. 41.



11. Proposal for Lisbon by F. Juvarra in which the civic and representative image of the waterfront is emphasized, as previously done for Messina, Sicily.



12. Title «Lisboa – Vista da praia dos Santos em 1788» by Albert Dufourcq.

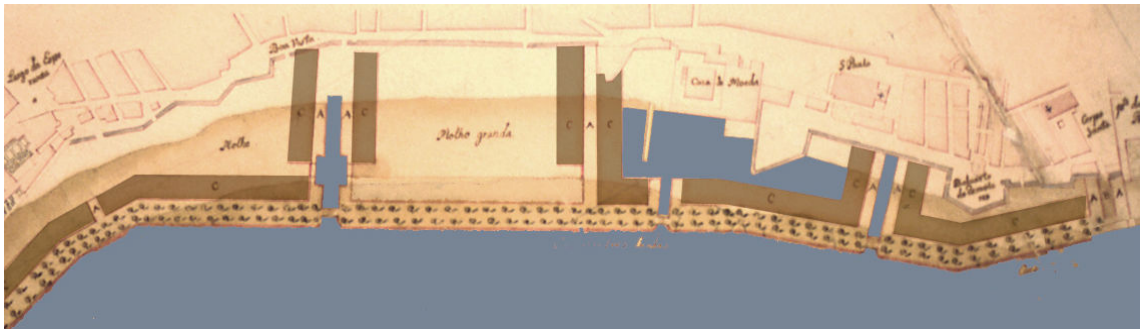
Large squares at the waterfront

> 'Juvarra's presence at Lisbon allowed King D. João to transform his plans for the new Lisbon into a precise image, a true scenario of power characterized by three essential components: to expand the city towards the west, concentrate his own symbols of actual and spiritual power in a platform over the river; restructure all the waterfront as the city's face.
>
> The aristocrats in Lisbon understood it very soon. Many palaces were immediately built along the roads coming from the city centre towards west.'

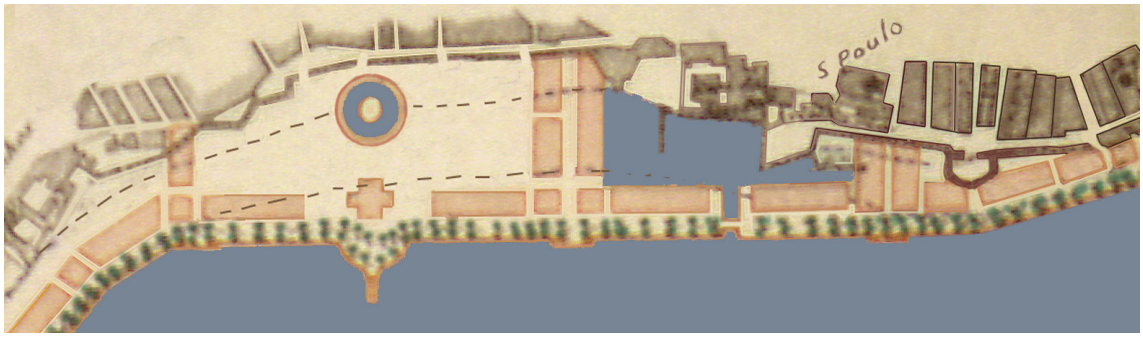
Either inspired by D. João V plan or vision for the waterfront, the Italian architect F. Juvara designed a large square with wide stairways descending to the water, as shown in plate 11. Juvara's drawing was the visual three-dimensional representation of a new square. Squares on the waterfront are shown in both plans mentioned above. The 1727 plan commissioned by D. João V contained at least one new square clearly traced at the Belem area.

The Mardel's plan presents a large square next to the main one (*Terreiro do Paço*) at the *Santos* area (see plate 13), and a third new square with a church and a public fountain at Belem. Access to the river was probably provided through large stairways. New docks and piers would be built along the river. Mardel's plan anticipated a continuous landfill along the waterfront with a promenade for public access with new buildings, thus transforming the image of the city. Such waterfront square would clearly offer an alternative to the central but congested area where the royal palace square was located. This plan, which was commissioned by D. José, was never put into practice because a violent earthquake occurred shortly after. Following the 1755 earthquake, Marquês de Pombal, who was the ruling Prime Minister at the time, gave full priority to the reconstruction of the destroyed city. Great effort was put into the production of new plans for the Enlightenment city. Meanwhile the initial plan, i. e., Mardel's, probably influenced other authors and provided some ideas on the urban relationship with the river.

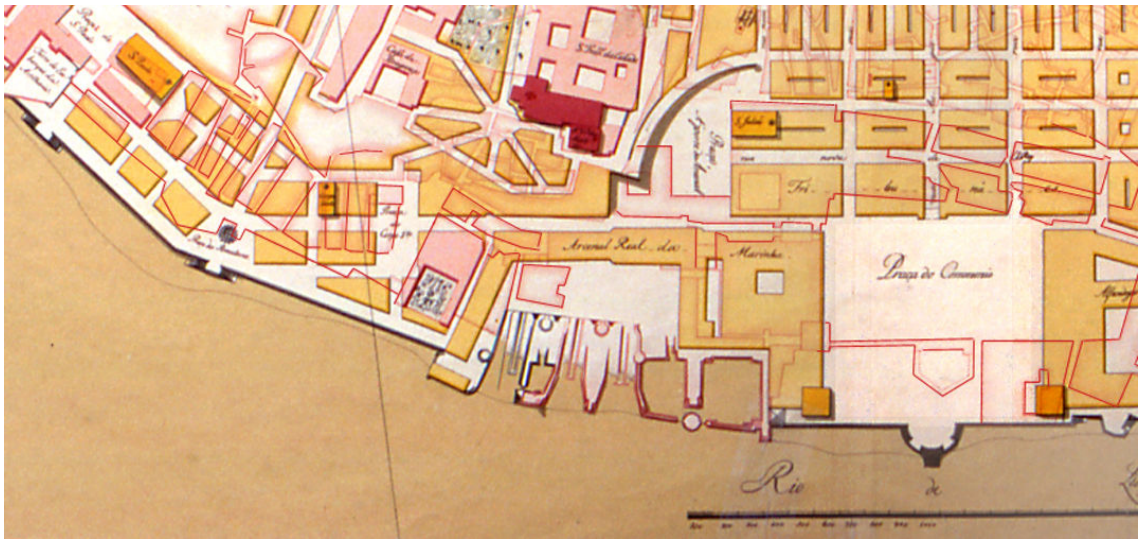
Pombal's reconstruction was primarily aimed to impose order over chaos, to control the territory and make the water edge a manageable limit between the known land and the wild ocean (see plate 15 and 16). In this planned city it was sought an harmony between form and function, and an attempt to achieve it took the shape of redesigned and improved new public spaces facing the river. The philosophy for the waterfront was for it to extend the street from the town on the hill to the level of the landfill. A new topography lead by the creation of new public spaces. Both plans we have mentioned plans - Mardel and *Pombalino* addressed de idea of squares, large spaces for public activities at the waterfront. Although the idea of Molho Grande to the area of Aterro da Boavista (see plate 14) had been abandon after the earthquake, Loureiro brought back the idea and published the drawing in 1907. The square is now called *Praça Nova na Boa Vista* it is larger, presents a circular fountain in the centre, stairways to the river, closes the square towards the river with a cross plan building, but the legend still mention Mardel as the author of the drawing.



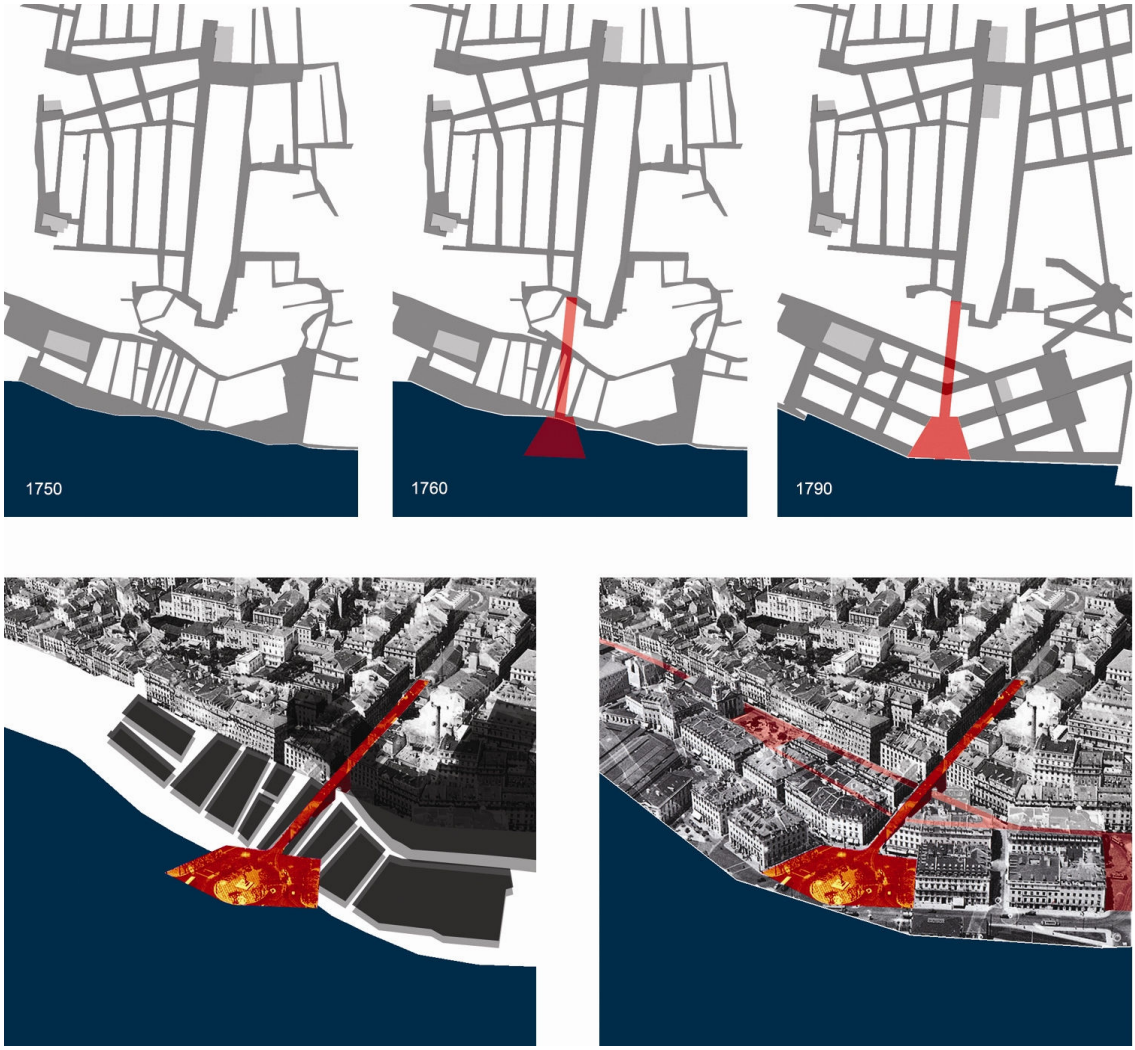
13. Detail of Mardel's plan (1750s) that presents a large square – named *Molho Grande* at the Boavista area. The landfill over the river had transversal canals designated by 'B'.



14. Loureiro's perception of Mardel's plan reshapes the square, enlarging and enclosing it and eliminates two transversal canals.



15. Plan view overlapped two realities that illustrate Pombal's ideas for the riverfront.



16. Plans show the evolution of urban design from 1750 to 1790.
Perspectives: analysis of public space (red) that links the higher level to the landfill.

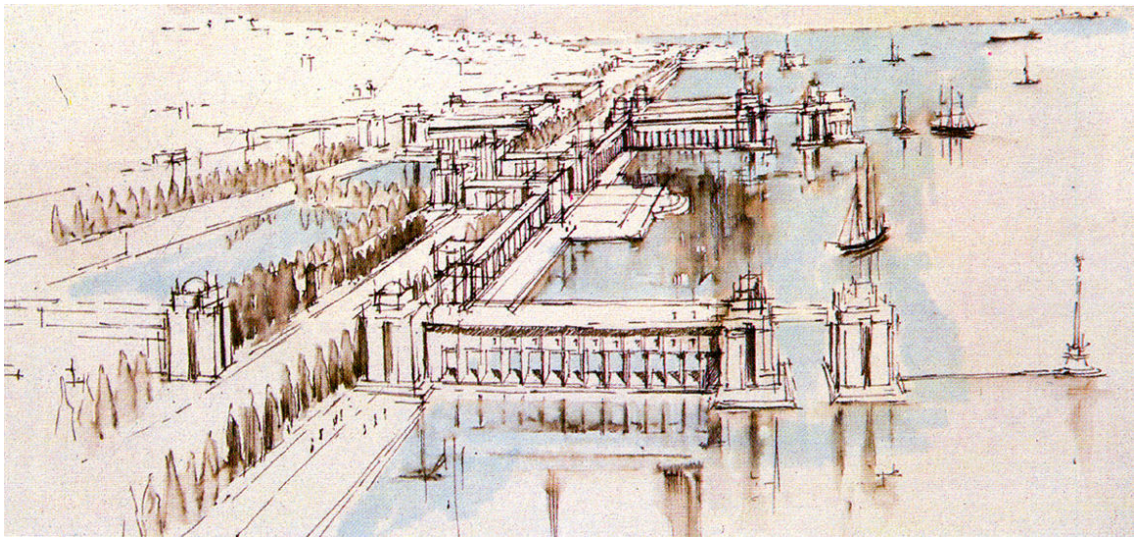
Last projects

In 1988, with a series of projects and drawings, rules and laws, visions and conflicts of ideas, the Lisbon waterfront was again in the centre of a passionate debate promoted by the Architects' Association. A competition was set that attracted a lot of proposals and ideas for the waterfront renovation. Some teams took it very seriously and presented ready-to-build proposals. Other teams addressed issues that approached in new ways the city's accessibility and physical relation to the river. A series of projects, that will never be built, provided an alternative vision and a different understanding of the area. There were creative proposals, some historically based, creating public spaces and local infrastructures, re-evaluating the relationship between the urban fabric and water (see plate 17).

Architects and landscape architects, students and professionals, all got together to confront their ideas and discuss the future of the city. This time they were not oriented by financial constraints.

Several workshops have been taking place since the 1988 Architect's Association competitions for Ideas concerning the waterfront of Lisbon. Mainly promoted by local universities, they gather students and architects oriented by national and international teachers. The theme originates great enthusiasm among architects and urban planners, because the situation is obviously problematic. *L'Association International des Villes et Ports*, AIVP, based at Le Havre the port of Paris, in partnership with *Área Metropolitina de Lisboa* AML, chose to realize its 9th International Conference precisely in the city of Lisbon and its estuary.

The city underground water has been and still is in the center of discussions. Constant landfill changed the geography of the town through the centuries. The technology of Enlightenment used wooden pillars to build on wetland. The ground level of the city at the waterfront was constructed over wooden pillars, so this territory has a shaky equilibrium. From the technical point of view water is needed below to keep the buildings foundations in good conditions and stable. But these foundations are currently in danger due to the excavation for underground tunnels and parking lots, also due to heavy road traffic on the waterfront.



17. Perspective drawing by Ricardo Faria Blanc and Francisco Marinho of a project awarded with a FLAD prize in 1988[4]

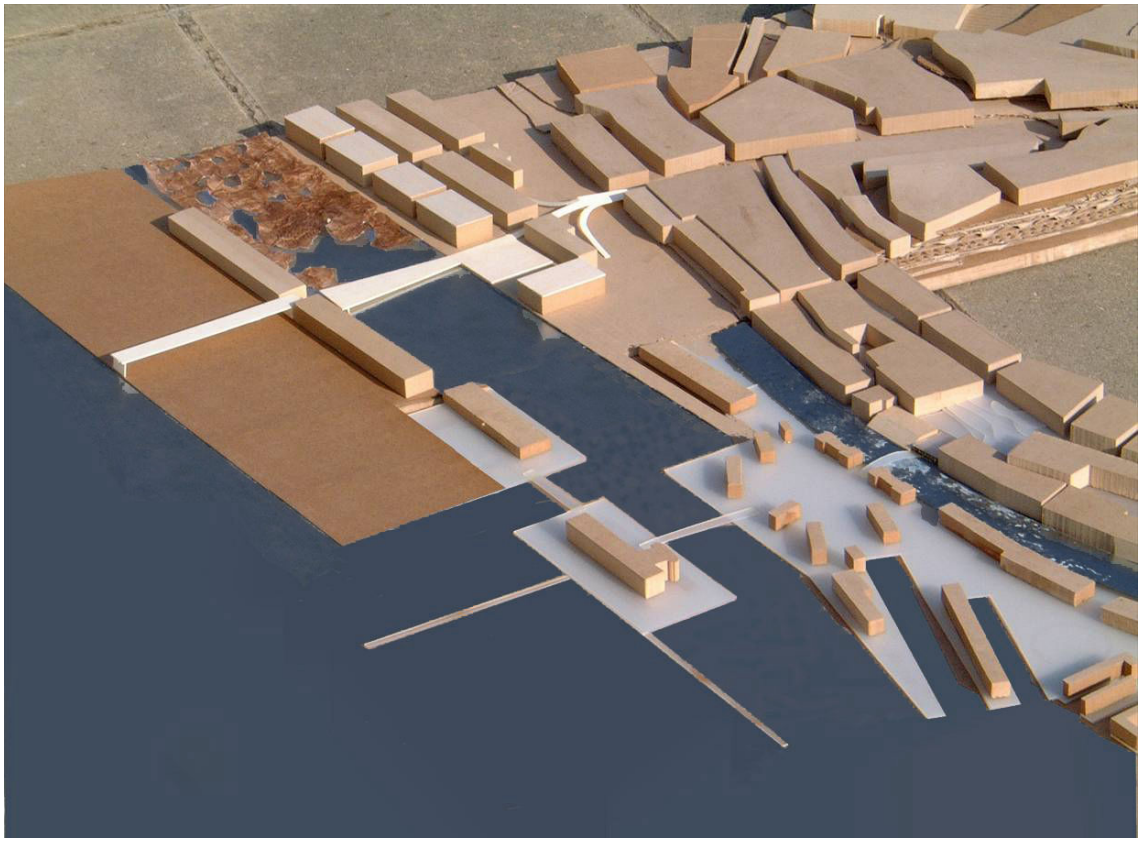
Contemporary necessities and goals for the city point to public use of the site and access to the river. Where the obsolete industrial port was located new activities are taking place. Refusing the Expo model the Port Authority is 'cleaning up the deck'. According to new policies, docks and piers are and will be used for other purposes, mainly restaurants and leisure activities. Neither housing nor office buildings and retail shops will be placed along the port area. This strategy disrupts the continuity of the mixed uses and deteriorates urban life.

The dialogue between the Transportation Co., the Port Authority, the City Planning Office and other governmental institutions is not coordinated by any supervisory organization. The current policy does not promote the dialogue with the city civil forces and is incapable of delineating a structured coordination of the various institutional

[4] In his final report, the jury commented on this project as follows: *In a powerful formal composition, this work presents a model of city and of relationship with the river based on the interplay of Built Space/Free Space/Canal/River. The Architectonic and Urban morphologies add new values and protect the pre-existing heritage, stitching the whole frontline in a vigorous re-creation of the Mediterranean urban tradition – the semi-closed public space, the large square, the yard, the free ground in neighborhoods, the small square, with the ever present water in the foreground.*
The proposed project daringly defends the need to construct, to re-build the city, with special emphasis in a 'social' behavior: simultaneity of different uses, the city intercourse with the river, of the new with old, of the city with memory.

powers involved. The lack of coordination stands out as one of the main obstacles to the carrying out the rehabilitation process of the port area.

The permanent transformation of the territory inspired some students to design projects that proposed alternative views criticizing the present situation (see plate 18). Having a critical attitude towards the industrial heritage, in these proposals a part of the platform appears torn down to reshape the territory, and try to recover the natural tidal volume that has been seriously altered at the site. Shrinking the river section has brought changes in the tides and flows that may cause unpredictable problems for the ecological balance. A solution for the problem was postponed, and the question remains of what to do along the waterfront in the future.



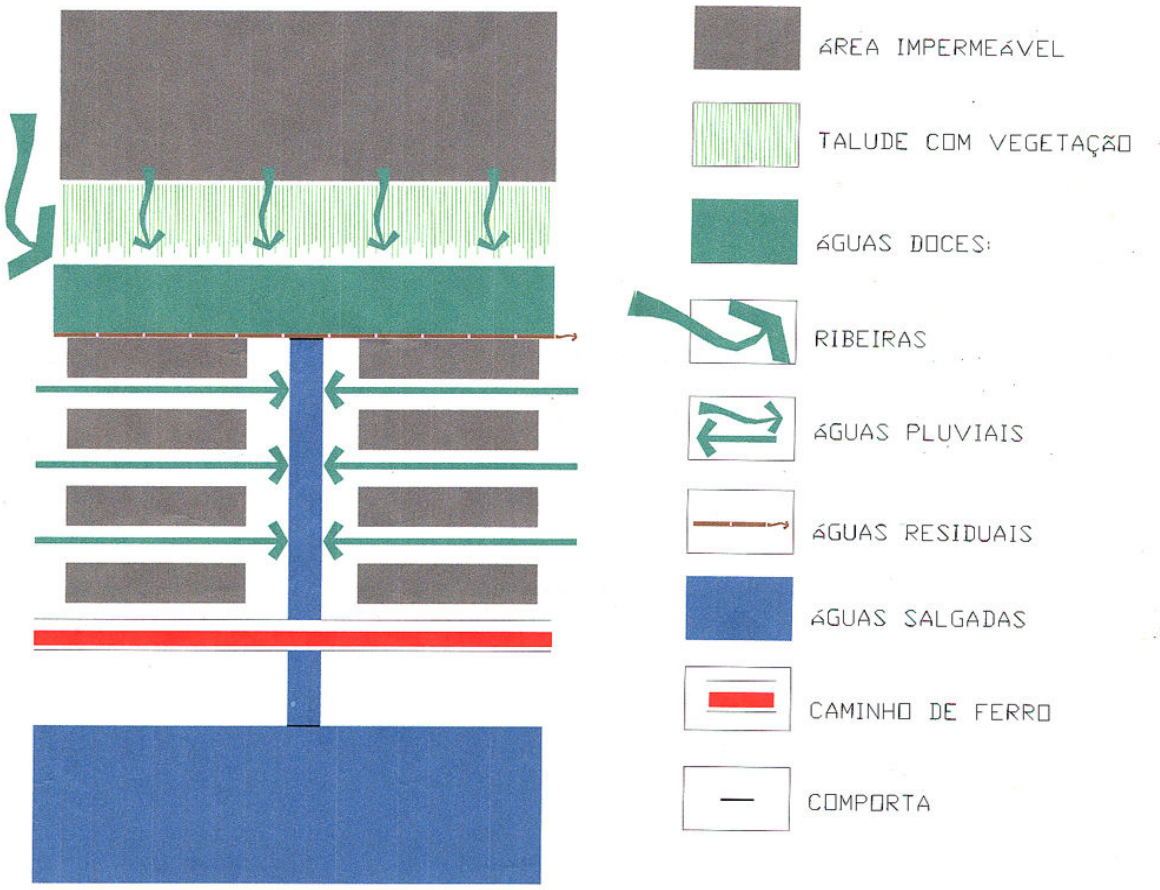
18. Composition by Pedro R. Garcia, based on two models presented at a workshop by students of Architecture and Landscape Architecture from CALA University of Minnesota together with Faculdade de Arquitectura da Universidade de Lisboa, March 2002.

Reflecting on the importance of architects taking position, Elia Zenghelis says: (…) 'participants should declare a very strong view and develop concepts that they could defend in projecting a future for the city'. Then the author comments the Marseille waterfront transformation: '(the city) is now involved in the process of acquiring a new façade, a new sea front, which in turn gives rise to the opportunity to discuss architecture and the iconography of architecture as a kind of theoretical, symbolic aspect'. And he adds: 'This also leads to the idea, very strongly illustrated, perhaps by default, of architecture not being contextual, but always generating context.'

Remesar vision perceived that 'man-made landscapes would be correlated with nature's landscapes and all the elements would combine in terms of the new and vast facade, sometimes extending for many miles, which has been revealed to us by the air view. This could be contemplated not only during a rapid flight but also from an helicopter stopping in mid-air. Monumental architecture will be something more than strictly functional. It will have regained its lyrical value. In such monumental layouts, architecture and city planning could attain a new freedom and develop new creative possibilities, such as those that have begun to be felt in the last decades in the fields of painting, sculpture, music, and poetry'.

On the waterfront the future objects of architecture should compose a new result that one perceives as a coherent whole, objects where one can always identify the precedent structure, as a narrative constructed in time. Any intervention in this area must make use of the potentialities of architecture, as in the of the industrial mechanisms that became buildings to develop their own expressive presence as urban projects.

Gonçalo Ribeiro Teles, is one of the contemporary personalities in Lisbon that became an activist promoting the understanding and respect of the landscape. While carrying out his hydro study of the industrial port landfill at *Poço do Bispo*, Teles found out that the landfill acts as an impermeable layer of land (see plate 19).



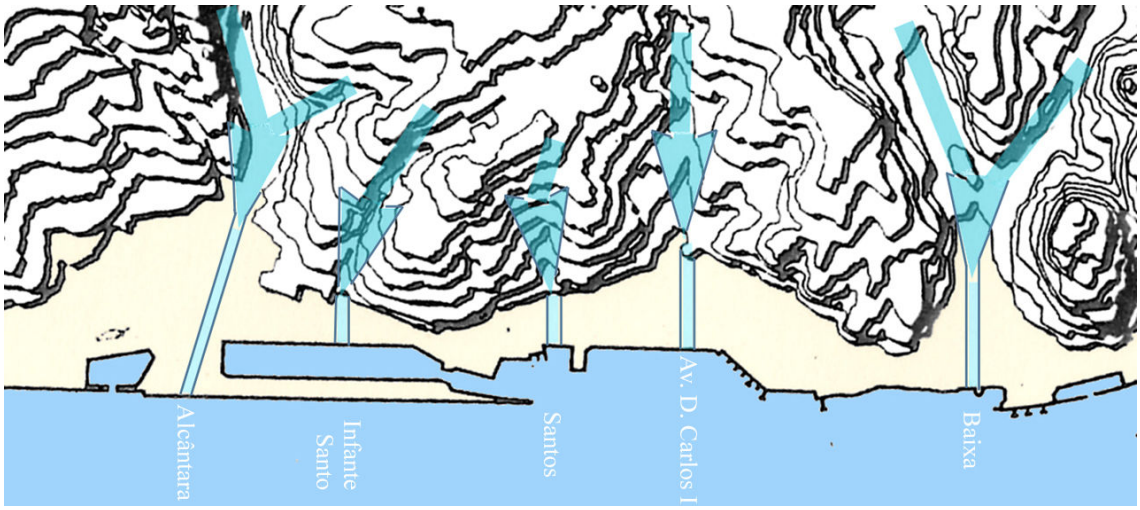
19. Diagram with graphic description of rainfall (green) and river water (blue). Designed by Landscape Architect G. R. Teles, the project relates present trends of holistic approach and proposes a future solution.

Ribeiro Teles landscape project seeks a sustainable solution for the landfill placed between the hills of the city and the river; at the present the landfill stops the rain water coming down from the hills to the river. If new buildings are to be build on the landfill area, the problem will increase. Furthermore, according to global weather changes, rainfall now is more intense over short periods of time, which means that a greater volume of water coming down from the hills will need to be conducted to the river. Ribeiro Teles, like Carlos Mardel did in the 18th century plan (see plate 6) proposes the creation of transversal canals that will go through the landfill, linking the hill and the river and respecting the natural topography of the hills and the artificiality of the landfill (see plate 20). Teles believes that future sustainable solutions should seek a cooperation with the forces of nature rather than their control. The presence of

transversal canals in this particular territory will inform about the artificiality of the land. Hudson (1996, 154) explains that,

> ‘most residents and visitors move between reclaimed areas and other parts of the city without being aware of any significant change in their urban environment. Problems such as structural damage due to fill subsidence or, more dramatically, that caused by earthquakes which are often most destructive to buildings on landfill and recent alluvial and marine deposits, might alert citizens to possible disadvantages of urban development on reclaimed land.’

The process involving the creation of landfill and its transformation is commom to most port cities. Such cities will have to deal with the rise of sea level of about one meter in the next 150 years (Bird, 1993, 125).The control of fluctuating water levels has been made in three main scenarios: adaptation, evacuation and building of walls.



20. Teles concept adapted to the object of this study shows five canals connecting the hills and the river through the industrial landfill of the port area, by Pedro R. Garcia.

1. Collage of the Expo'92 Seville project over Lisbon waterfront (1990)

Chapter 5 – Lisbon Expo'98 Public Spaces

2. View from south east of Expo’98 urban development in 2003

Background

The decision to construct the Expo'98 next to the riverside brought the transformation of obsolete industrial and port areas, and resulted in a very significant waterfront development project not just for Portugal. The first general ideas for the Expo area were submitted before the International Competition held in 1993 (see plate 1), and five proposals received an award, but none of them was put into practice. The process was initially supervised by Nuno Portas, major guidelines were conceived in the next year, and then several three-dimensional development plans were commissioned.

The institution Parque das Nações (PN) has been named by the government to take control of the area of the Port of Lisbon, and substitute the Port Authority. Currently the PN operates at the Expo'98 project, and it is partially autonomous from the local Town Hall. In general terms the whole Expo project was economically quite successful and socially well received, mainly because of the large public spaces created near the river. A large portion of land was used following a *tavola rasa* model. All industry was removed and a new town area was reinvented. One of the repeated criticisms falls upon the lack of passageways and accessibility to connections with the surrounding neighborhoods of low income housing.

Expo'98 waterfront development is both, in time and in space the closest city/port transformation to the object of study. It is a contemporary process and geographically very close to the port area. We will argue that some aspects of the strategy should not be applied at the port area and other aspects are significant reference as it presents already tested solutions that are worth to discuss. In the Expo'98 area it was developed a North American model of waterfront renovation, and priority was given to the creation of a new urban centrality. But the port area of Lisbon is already central to the city and it is a result of city/port complex strategies, memories, individual visions, collective will and fragments of juxtaposed intentions. Any future transformation of the port area will deal with the ancient urban fabric where historical heritage, industrial archeology and emotional legacy are intrinsically attached. The port area becoming a public space, an artistic space, must relate with memory, art, culture and historical context. Otherwise both space and public art would loose their quality and their meaning.

Meanwhile, the plan elaborated by the Port Authority for the Lisbon waterfront redevelopment, known as POZOR, was presented for public discussion in 1994 and

revised in 1995. POZOR critical revision occurred while the Expo'98 urban project was being designed, so the former strongly influenced the later. Both plans were using large areas of 'terrain vague' on the waterfront, and both created some connections with the surrounding neighbourhoods. Designers were aware of previous experiences that took place in other European port cities and of critical theoretical approaches by different authors. In fact several international conferences brought a certain number of experts to Portugal, such as Brian Hoyle (1997, 50), a co-founder of the Waterfront Centre based in Washington D.C., who explained that

> 'waterfront redevelopment has the effect of removing barriers between city and the sea, bringing people back to the waterfront once again – as individuals, groups, organizations, observers and participants in sporting events, customers, residents, and people who just enjoy being near or on the water.'

After the failure to implement Pozor, an active public discussion followed, and decision makers, politicians, investors, planners, architects and who else was involved in the process became aware of the potential as well as the difficulties of a future transformation. As it was pointed out by Matias Ferreira (1999, 31) 'through the centuries waterfronts, particularly port areas, were important town sites. Their actual centrality allows us to recognize those sites as active spaces where a great deal of interaction occurs.' Ferreira interprets these centres as a 'geographic space that concentrates several activities', easily accessible, and also as 'the result of a social process that reorganizes the urban space, i. e., it is a creation of society, the expression of its values, thus assuming also a symbolic importance.'

At the site where the Expo'98 was held, later on it was created the Parque Expo. About six years after the world Expo some qualities and problems of the urban development project are now apparent. The completion of important accessibilities to the site, such as a railway and the underground, the new bridge and freeways, was fundamental to materialize the concept of a new centrality. A couple of authors are pointing out the major problems of the operation. Chaline (1997, 26) establishes a comparison:

> 'It is clear that the Lisbon case has a lot in common with the London case, and that both national and international conjuncture define the perspectives of relations between old and new centrality poles.'

However each case is unique – the Dockland's extend over 5 000 acres, and the Expo'98 is much smaller and deals with specific Portuguese constraints and potential. The analysis of Parque Expo development is useful for the future transformation of the port area, including the study of geographic conditions, of the strategy used for development, and of the urban connection between the Expo area and the surrounding neighbourhoods. The analysis will compare the relation of the previously settled communities with the newcomers. Such analysis is particularly helpful to understand the potential problems involved in the Lisbon historic centre conquest of its riverfront.

3. Marketing material produced by Parque Expo office in 2003. Containers are selected to graphically explain the concept of 'terrain vague' that conducted the process of transformation. The publicity text announces how their office 'started the greatest challenge of environment and urban development in Portugal, from a deteriorated area to a world expo'.

According to the Parque Expo their projects have achieved good results at – social, environment and financial levels, and they are currently exporting their 'formula' to other expo organizations and are also being consulted to other waterfornt urban development in various countries. It is an international recognition for their successful achievement. What would be the strenghts and the weakeness if the same formula was to be used at the port area are the main purpose of this analysis.

So the discussion about Parque Expo should focus on four main aspects, as follows:

1- the access to the waterfront from the city;

2- the financial investment procedures and social integration;

3- the importance of large public spaces and their use;

4- the cultural significance of actively relating the city to the river.

4. View from the north side of the harbor; before and after the urban development at the expo

1. Access to the waterfront

Previously to the creation of Parque Expo the relation between waterfront and city was contemplative, and citizens had no physical access to the river except for the *Praça do Comércio* and the adjacent area where the industrial port of Lisbon was never built. Through the initiative of the Port Authority, Doca de Santo Amaro became also a place for people to 'flirt' with the river. The Expo'98 brought the most expected opportunity for the city to re-establish an interrupted relationship with the estuary (see plate 4). The site of The World Exhibit was located at the northern limit of the city of Lisbon and it stretched over the next municipality. It quickly expanded from a 50 acres development to a 330 acres one with approximately 4 km of riverfront.[1] Cabral and Rato (2001, 506) explain that

> 'As a process, the Expo'98 project had a discretionary nature in regard to the decision making, and it excluded the local communities interests, which have not been listened to. The same thing is happening with the new national urban program known as POLIS. Such a process represents a step backwards in the progress made relating to the legislation and the planning system which declare the rights for the public to participate, to be informed and to present their views, and they also promoted innovation regarding the plan execution which is carried out under permanent evaluation and follow up.'

[1] Expo'98 is similar in size to other waterfront redevelopments, such as Rotterdam, Kop van Zuid project – 308 acres; Yokohama, Minato Mirai 21 project – 460 acres; Sidney, Darling Harbour – 148 acres.

It was a kind of authoritarian response to the way the city is regenerated nowadays, as we live in a period when it is not possible to have absolute control over the process of making the city.

The complexity caused by private and public entities acting at the same time on the waterfront is such that in Minneapolis, for instance, the Mayor created a non-profitable organization to lead the process of urban regeneration. This organization, called the Saint Paul Riverfront Corporation, has a large and diverse board of directors that represents all sectors of the community, including city, county and state authorities, community and neighbourhood associations, foundations, businesses, companies, the Saint Paul Port Authority, the Saint Paul Area Chamber of Commerce and the Capital City Partnership. Through the active committee participation, board members assess key opportunities, set priorities and channel their passion and expertise into initiatives that are central to the rebirth of the city as a whole. 'The mayor led an effort to develop strong organizational relationships between interest groups, because he believed relationships are better than rules'(Seeb, 2003). The mayor tapped into the community interest and enthusiasm for riverfront development, called a group of civic leaders to participate, and gained financial support from cultural foundations, corporations and individual donations. [2]

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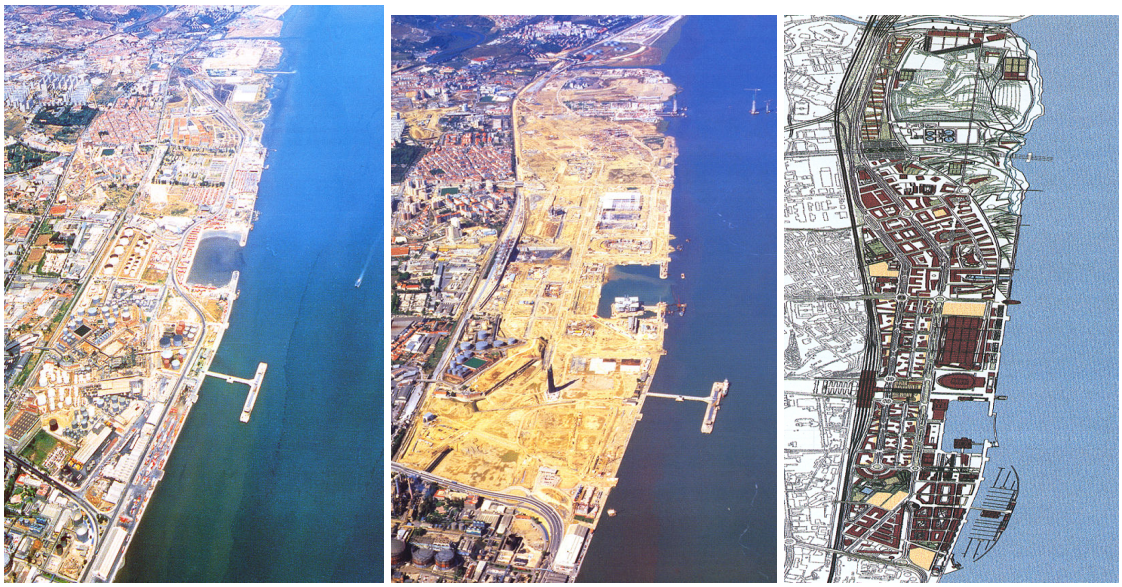
2 The Saint Paul Riverfront Corporation Board of Directors includes:
Minnesota Historical Society, City of Saint Paul, Unity Avenue Associates, Metropolitan Council, Ramsey County, Minnesota Life, University of Minnesota, Port Authority, Minnesota Wild, MN Legislature, City of Saint Paul, Independent Business Owner, Writer, Hotel and Restaurant Employees International Union, Civic Leader, Trust for Public Land, Saint Paul Pioneer Press, Johnson & Morrison, Xcel Energy, 3M, The Lander Group, Inc., U.S. Bancorp,Warland Singers, Bain Companies, Strategic Management Resources Inc., McKennesey Management Company, Jefferson Lines, Mairs & Power, Inc.
In addition to the above partners other are listed below to show the extent of the community's participation: Bicycle Advisory Board, Capitol River Council, Capitol Area Architectural and Planning Board Dayton's Bluff District Four Community Council, District Energy, East Side Neighbourhood, Development Corporation, Friends of the Mississippi, Friends of the Parks and Trails of St. Paul and Ramsey County, Great River Greening, Lowertown Redevelopment Corporation, Metropolitan Council, Metro East Development Partnership, National Park Service - Mississippi National River and Recreation Area, Neighbourhood Development Alliance, North End Area Revitalization, Phalen Corridor Initiative, Public Art St. Paul, Riverview Economic Development Association, Saint Paul Area Chamber of Commerce, Saint Paul Convention & Visitors Bureau, Saint Paul Heritage Preservation Commission, Science Museum of Minnesota, Swede Hollow Neighbourhood, Trust for Public Land, West Seventh / Fort Road Federation, West Side Citizens Organization.

In Lisbon several public entities controlled, owned or had legal rights over the Expo territory, although most of it was port area. In other Mediterranean Port Cities the problem was though differently. In fact, Bruttomesso explains that the Italian law regulating ports was profoundly altered in 1994. The new law introduced a clear distinction between the competences of public authorities and private sector. The Port Authority kept the programming and control scopes, held financial autonomy and remained under the Government responsibility. The commercial operation of the port activity was transferred to private companies. The legal instrument that separated powers allowed the execution of plans under the joint coordination of the municipalities and Port Authorities for the redevelopment of waterfront areas in Italy. In Lisbon, some argue that the Port Authority acts as an institution that restrains municipalities greed for land located at the waterfront, because some municipal authorities aim to obtain fast revenues from land and building taxes.

For a century citizens were denied access to the riverfront to the point they have forgotten it. Lynch (1960, p. 62) says the 'The harbour front, was also generally known, and remembered for its special activity. But the sense of water was less clear, since it was obscured by many structures, and since the life has gone out of the old harbour activities.' Kevin Lynch description could have been applied to the site where later Expo'98 was held, and is still valid for the remaining port area along the old town.

2. Financing and social integration

Expo'98 started with political decisions that created unique conditions for the event of the World Fair. The political conjuncture influenced the pre-requisites defined for the future development of the Expo area. The whole operation was expected to be self-paid, and this financial strategy oriented the process. Anyway, the project was mainly financed by selling the land to developers (see plate 5). Almost half of the Expo area was property of the Port Authority who sold the land to Expo'98 for a fairly low price. The agreement was possible because seller and buyer were both public institutions and somehow controlled by the central government. However the payment was never done, and this is just a hint of the complexity that involves the whole Expo'98 case, and reveals some contradictions.



5. Plate aerial view of site before the demolition of the industrial facilities, during the construction for the Expo'98 and the urban design project in plan view.

Lisbon had no precedents in such matters. The experience of 'the "free-hand" given to an administration that is in itself a public company and a political compromise, while acting as a *de facto* private developer, emphasizes the conflicting role of the capitalist state in urban planning' (Cabral and Rato, 2002, 217) *Parque Expo* is a stock company that seeks profability. Urban land became a major source of income for public institutions involved in the process, which for the most cases had no financial means to deal with large investments. Waterfront development became very profitable, and six years after the event the price of the square meter in the area was the highest in town. In fact this could be expected in the 90s since it had been true in most waterfront developments throughout the world. However, in the 70s potential investors and developers were not so confident in similar situations. – 'Given the financial risk associated with waterfront development, many lending institutions and investors are hesitant to participate in waterfront projects. Furthermore, the cost of regulatory delays encourages developers to follow the path of least resistance – in other words, to sacrifice project innovation and creativity by duplicating what has been approved in the past. More often than not, it is just too costly to pass a new idea through the permitting and review process' (Wren, 1983, 46) After the Parque Expo experience any potential

developer or investor can be certain of obtaining financial profit from waterfront developments.

Developers face great difficulties with Portuguese municipalities, which have in most cases contradictory planning regulations, and consequently are permeable to corruption. In fact municipalities are ranked as the most corruptible governmental institutions. To attract investors, Parque Expo was given administrative independence from Lisbon and Loures Municipalities, in order to create exceptional procedures for the approval of urban plans and construction permits without the usual delay. Cabral e Rato (2002, 215) describe that 'These conditions contrasted with the normal running of a municipal department for the submission of planning applications. Of course, for developers and builders the speeding up of the process meant significant financial savings.' It was a quick way to skip a major problem for a particular case without solving it nationwide. In fact the efficient proccess leading to the approval to construct new buildings attracted major investors who actually made their business in a short term. This is one of the reasons why the Expo urban development exceeded all the previous economic forecasts. In the proccess of attracting investors and at their request, the Expo granted the licence of 65 000 m2 for a shopping center concentrating two thirds of retail shops and restaurants in the very central part of the site. Thus street life is restrained in its commercial nature.

The improvement of the procedure proved to be economically successful, but the flow of investment is not necessarily directed to minimize social differences. On the contrary, as João Cabral (2002, 221) points out 'Parque Expo did not take the social characteristics of the surrounding districts into consideration. They were more concerned with the development of the riverfront than with the economic and social history of the eastern zone.' […]'Another argument points to the limited level of the development of social infrastructure such as buildings and facilities, these are low in relation not only to the needs of the new housing development, but also to those of the large, poor, surrounding communities.' The financial investment oriented by profitability in the short term imposes specific behaviours which clash with the way of living of economically less favoured groups dwelling around the Expo area. The Parque Expo residents, whose majority belongs to the upper middle class, have other social expectations which are very different from the surrounding communities ones.

It was neither written nor determined to isolate the area, but the idea gradually took shape, and the decisions that were taken have been quietly 'misguided' by the will to separate the Expo area from the surrounding neighbourhoods. And the actual situation is a physical representation of social segregation. As Duarte Cabral de Mello (2002, 63) points out that 'To achieve this not only the barrier formed by the railway line separating the Parque Expo from the western quarters was not removed, but also the links between the existing urban fabric and the new area were reduced to the minimum, and additionally the road traffic network was designed in a way that messes the transversal traffic. […]So, instead of the expected continuity of the city, an urban insularity curiously installed itself becoming a standard acting at several levels, and it finally imposed the third world model of a private condominium where only the electrified fences are missing.' Public spaces that were design from the beginning to be unusually generous and well equipped became dysfunctional and depreciated.

Mello, who was the architect responsible for three-dimensional development plan of the northern part of Parque Expo, first proposed to divert the railway line 60 meters towards the river. This railway line, which previously bordered the western side of the area creating a barrier, would be on a lower level. Therefore the planned area would integrate a continuous urban grid, with no barriers on either side of it and uninterrupted linked to the surrounding neighbourhoods. Such a solution represented an enlightened strategy to prevent the exclusion of the populations dwelling in the adjoining urban areas. But the plan was not approved. On the other hand, one bridge proposed in the approved plan was never built and thus the cut effect of the existing barrier prevailed. Mello (2002, 62) comments that 'Since the beginning, Expo'98 operation followed urban game rules that severely hindered the proclaimed intent to improve the city. […]Although it was unthinkable to carry out the operation at no cost at all (there is no notice of a town to have paid itself in one generation), it immediately became handicapped by the wish to isolate the new modernised area, thus benefiting the richer strata of the population and protecting them from the bad neighbourhood of the surrounding quarters.'

Near Parque Expo, the Olivais neighbourhood is an urban successful experience in terms of social integration of different groups. The urban plan for Olivais followed a strategy that discarded the logic of fast return of the financial investment in favour of the logic for a democratic city.

3. The role of public spaces

The city of Lisbon had never created so many public spaces all at once. Manuel Salgado was the architect who coordinated the design of public spaces at the Expo'98. The generosity of the space was a requirement for the visiting crowds attending the exhibition, and Salgado argues that the public spaces had to be that way. This formula proved to be successful, revealing that an urban design based on a concept of environmental quality, and making use of creative interventions in the public sphere is well accepted. Somehow the urban design strategy for the Expo site brought an added-value consisting of large public spaces that are now availabre for the users. In a detailed analysis about such a strategy, Brandão (2002, 131) argues that

> 'public space is an eloquent manifestation of urban life, life of people in the space between buildings, translated in the infinity and diversity of contacts in which city is manifested as a part in our lives. Public space is not only the biggest attraction of the city but also the place of the other.'

Artists intervention in the public space emerged as a key factor for the creative use of the urban habitat by the public.

Expo attracted millions of visitors during the exhibition period, and keeps receiving a large number of visitors who come to the site to enjoy wide and safe public spaces, which unlike any others in the city of Lisbon are unusually vast, well equipped and constantly maintained. Harvey (1990, 91-92) considers that

> 'Cities and spaces now, it seems, take much more care to create a positive and high quality image of place, and have sought an architecture and forms of urban design that respond to such need. That they should be so pressed, and that the result should be a serial repetition of successful models (such as Baltimore's Harbour Place), is understandable, given the grim history of deindustrialization and restructuring that left most major cities in the advanced capitalist world with few option except to compete with each other, mainly as financial, consumption, and entertainment centres. Imaging a city through the organization of spectacular urban spaces becomes a means to attract capital and people'[…].

The importance of urban quality became a global trend under the pressure of the mundane realities of capitalism, but nevertheless the clues so offered may be turned to

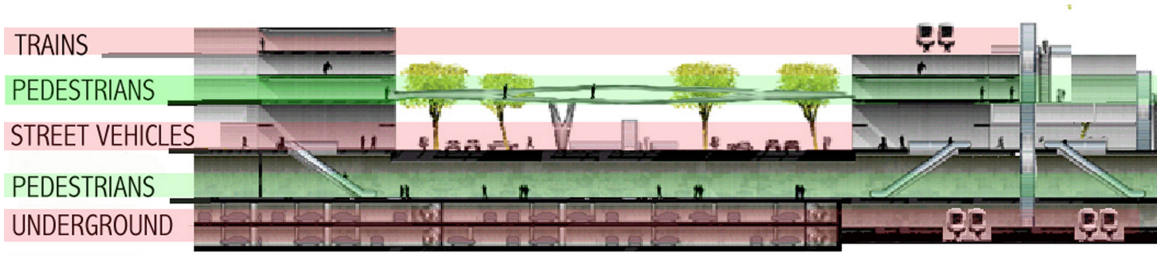
advantage if seen in a creative way for possible functions and fictions to reproduce social life. The pedestrian traffic in the city centre of smaller Portuguese towns is gradually taking over, but the same is not happening in Lisbon. Pedestrians and drivers fight a long term battle, and for peace to be restored strict regulations are required. The offer of the public space could be described as Jan Gehl (2000, 12) puts it when speaking about his own town

> 'On a summer weekday thousands of local people take advantage of the many opportunities the city offers for recreational urban activities. Children play, young people skate by on roller blades and skateboards, while street musicians, artists and agitators of many kinds attract crowds. (…)The city's new car-free space is used for a special form of social recreation, urban recreation, in which the opportunity to see, meet and interact with other people is a significant attraction.'

The importance of protecting urban life from the invasion of automobile became more present throughout the process involving the *Parque Expo*. As shown in the map below (see plate 6), the road network obeys to a grading criterium: the further way the roads get from the river the larger they are and thus carry more traffic. The street along the water is exclusively for pedestrian use; paralel to this one, the Expo main road (Alameda dos Oceanos) has four lanes; the busiest street (Ave. D. João II) has 8 lanes; past the railway station, there is the freeway. Six years after the Expo' 98 event, and against all odds in a city where the use of the automobile is still a priority, the central avenue (Alameda dos Oceanos) remains closed to road traffic. The reasons for such an unusual situation derive from a series of circumstances, and there are different opinions about the matter. In this case pedestrians were given priority over automobiles due to factors that surpassed the urban design itself. It seems, however, that marketing interests had a word to say once the agents involved have received evidence from 'consumers' that a traffic free environment was more attractive to users envisaged as 'active members' of a consumer society.

Contemporary urban culture which tries to use public space in a creative way (see plate7) creates different levels of circulation and blur the 'cut off effect' produced by the contemporary means of transportation, together with the capitalist logic and clever marketing aimed to profitable exploration have brought the waterfront developments to a successful stage in the financial realm.

6. General plan of the urban scheme at Parque Expo and the location of parking areas. It is relevant that only one parking area is located at the waterfront, the others are located further inland and are underground parking. This organization eliminates the presence of cars thus previliges the presence of pedestrians at the river front.



7. Cross section of Ave. D. João II at the train station and the shopping mall ilustrates schemeticly separation of cars at the street level and pedestrains that can go across at three different levels. Such spacially complex solution is successful in exploring the three dimension quality of public space, in which 'urban barriers at the ground level' are integrated in urban life.

The traditional uses of public space were till recently, and still are in many places, the following ones: meeting place, marketplace and traffic place (for people and vehicles). In almost all Mediterranean water cities 'downtown is related directly to the waterfront, and that represents the most ancient part of the town. […]The square facing the water was one of the favourite places for citizens to meet, to discuss and walk together' (Brutomesso, 1997, 121). The Parque Expo waterfront is a space of transition that hosts a number of social and cultural events, created to attract new people, mainly visitors. Its open spaces generate a new centrality for the city, rich in functions, that tries to reinterpret the ancient image of the port area as an urban heart, centre of activity open to all. Nevertheless, the Expo site can not fulfil the function of a true meeting place which is still alive at the waterfront areas connected to the historic centres of cities.

The marketplace is now replaced by the mall, shifting what used to be public space to commercial space, (Crawford, 1992, 18) whose artificiality and consumerist purposes constitute an hostile environment to the interaction of the different strata of the population that, in spite of everything, flows to it in a kind of leisure peregrination. There is no alternative – the local commerce (street shops) is almost absent from Parque Expo. By contrast, in San Francisco the waterfront development has a marketplace for farmers to bring their produce and trade them without the costs of a rented space.

4. Cultural significance

Currently a high value is placed on heritage which became the means to define cultural identity. Heritage may reveal individual and collective urban experiences, however each social group selects them and reinterprets them in different ways. Charles Jencks (1994) argues that we all 'carry around with us a *musée imaginaire* in our minds', which becomes increasingly larger as individuals travel more and virtual spaces are part of our daily experience through film and media. What kind of heritage is to be preserved in industrial sites and how to deal with it are some of the questions discussed by Hewison. In his book *The Heritage Industry* the author states that 'the past is the foundation of individual and collective identity, objects from the past are the source of significance as cultural symbols. Continuity between past and present creates a sense of sequence out of aleatory chaos' (Hewison, 1987).

The physical space that we inhabit has the capacity to influence and determine one's perception of the environment, while 'structures as piers, cranes and barns are testimonies of an industrial era. This heritage, now useless for the ports, may increase the cities wealth, if those structures are reused for other purposes' (Brutomesso, 1997, p. 123). As we have seen in the Japanese case, architecture is intimately related to cultural issues that lead to the preservation of formers presences and to the reinvention of their use. Heritage is seen within an evolutionary process that transforms and reinterprets. On the other hand, nostalgia tends to freeze evolution. Conservative and protectionist positions do not welcome change that is, nevertheless, inevitable. Some authors compare cities to living organisms in permanent evolution, that have an unpredictable behaviour which nobody really controls.

It is a common idea that the cultural significance of the waterfront is intimately related to the identity of port cities, but according to Ariane Wilson (2001, 34) this remains an illusion. 'Projects are more likely to reflect fantasies related to the sea or to ships than the reality of port activities. Worse still, intentions of this kind often caricature the port in an attempt to link it to the city.' Wilson is one of the authors who agree that the urban design applied to waterfront renovation became a standard model importing ready made urban solutions. A model which is widely repeated with minor adjustments becoming a reflex of blind globalisation. Alternatives to the standard model are formulated based on critical reasoning. Remesar, for instance, says that this 'is only possible if we surpass the physical regeneration of the urban fabric. Symbolic and negotiated contributions to the city are crucial, so the importance of trying to think public art and urban design projects and policies from a new perspective'. Such new perspectives are only possible through another way of thinking, with the active contribution of a larger number of participants in the process of transformation. It is not a new plan that should be produced, but a new frame of thinking instead. Each section of the port area raises different problems related to the pre-existing conditions that are specific to each site and that have unique potential. In that sense Matias Ferreira concludes that 'there isn't yet a convincing project for the city. Lisbon as a water city is still an utopia, a no place, a paradox to the large and original *urban sea*.'

The Expo experience had a considerable cultural impact. It became a reference to copy in new coming projects. Although the attempt to actively relate the city with the river was well succeed, all 'previous lives' of the territory have been erased (see plate 8), and the transformation wiped out testimonies from the past that have given the site its identity. 'One of geography's main subjects, as it tries to explain the man-made landscape (physical, economical, cultural) is to develop a kind of a "landscape memory" – stratified, and by that way "historical" and "economical", through the identification of resources, whether they be vineyards, pinewoods, mines or the means of communication. The final perception of the "humanized landscape", is the urban construction.' The process at Expo'98 started from the concept of 'terrain vague' which requires the elimination of past traces, and this will originate a sort of blank in the minds of the future generations. Rehabilitation that mixes former and new presences not only maintains the ties between past and present generations but it also contributes to preserve signs of identity carrying them into the future.

8. Aerial view of Villa Expo, Zona Norte, PP4, by Cabral de Mello and M.M. Godinho de Almeida. Landscape project is designed by João Nunes + Hargreaves Associates who also design the Crissy Park in San Francisco.

9. View of Jardim Garcia de Orta by J. Gomes da Silva, L. Cheis, R. Salema, J. Adrião e I. Norton (1998) five rectangles represent the ecossystems of Macau; Goa; S. Tomé; Azores and Africa.

Section II – Other Case Studies

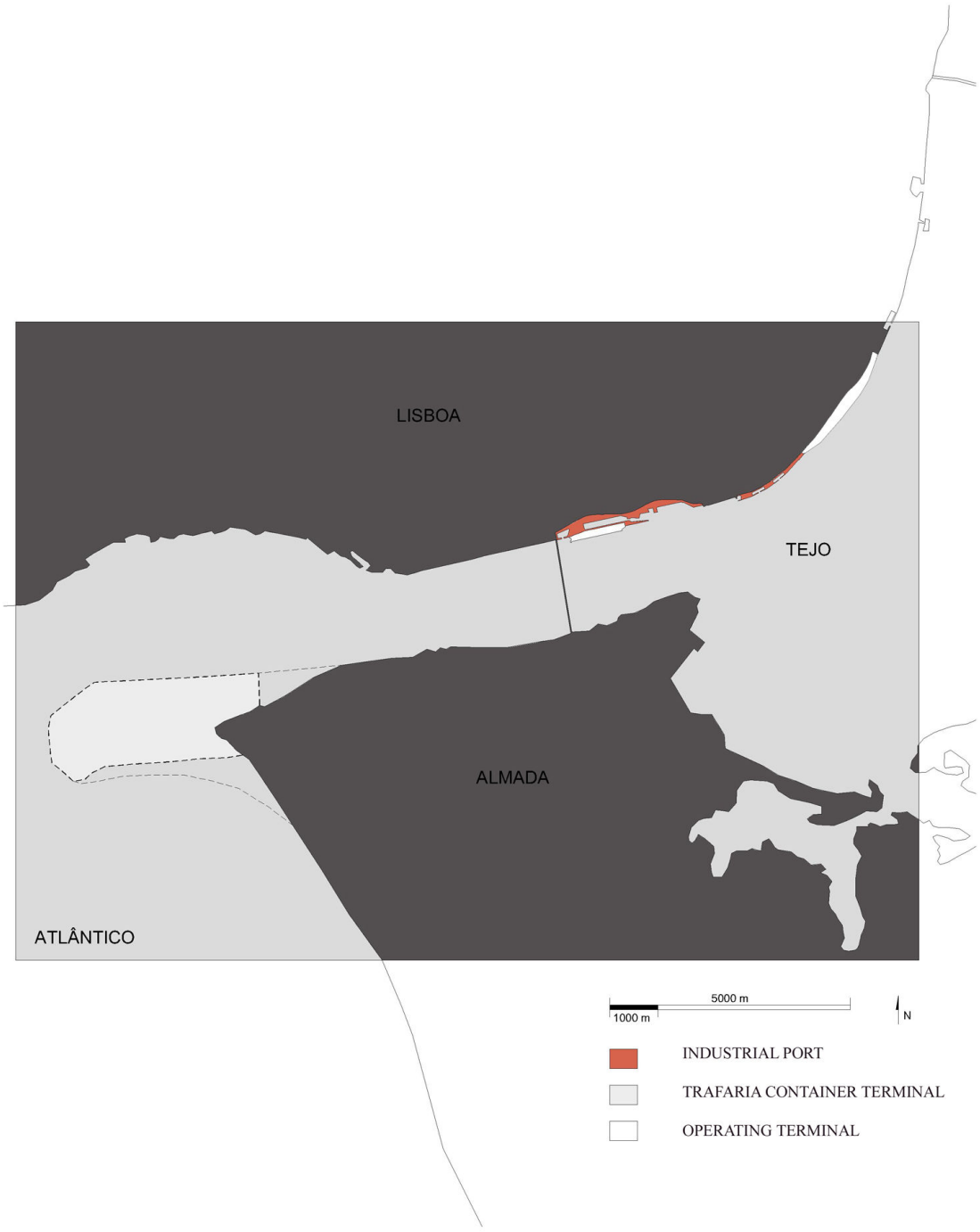
Chapter 6 –Urban Case Studies

Relocation of port facilities

Regarding the city-port relations there are two cities in particularly that bear strong resemblances with Lisbon. The criterion we applied to the selection of the two large case studies presented, Barcelona and San Francisco, was the successful process of transformation of their waterfronts. In both cases the city-port relationship has been deeply changed over the last three decades. They are both considered reference cases in the contemporary debate on waterfront development in historical context which is related to the port area of Lisbon. Both cities have been involved over long periods of time in the transformation of their historical port areas, and have been engaged on a public debate that has been rich and fruitful. They include urban operations similar to the ones that may occur in Lisbon.

San Francisco waterfront renovation started much earlier, in the late 50s, and it is referred to as a successful transition carried out in North America. The similar geographic features of the San Francisco Bay and the Lisbon Estuary make this analysis particularly relevant because both industrial ports were created around the same time, and have the shape of extended strips of landfill placed between the city centre and the water. The industrial ports had specific technical necessities that needed to be adapted to the new system of container terminals, and in both cases Port Authorities had to struggle with this transformation. The geography, the topography, and the features of the Bay Area are very similar to the ones existing in the Estuary: the physical conditions limited the access of container vessels as these require deeper waters, and consequently the port activity became restricted. Ports for container terminals depend directly of intermodal platforms located next to it. The Port of San Francisco did not have the means neither the necessary surface available to be adapted to the new requisites. The intensive use of containers modified the maritime activity, and as a result the Port of Oakland on the other side of the Bay is increasingly growing while the port of S. Francisco decays. Large areas of land have been reclaimed in the Port of Oakland to place container terminals and large intermodal platforms next to several railway lines and a direct freeway access for trucks transporting containers.

Barcelona is different. It was selected due to the cultural resemblances with Lisbon in the context of Iberian port cities. The Port of Barcelona is expanding to double its capacity, and is in the process of constructing new landfill for more container terminals. The map (plate 1) shows the relation between the old port, *Port Vell* that was very active during the industrial period, the operating new port that has expanded, and the future port that will have new terminals and intermodal platforms in order to meet the growing containerization activity. Initially, ports were adjacent to the city centres – the industrial port workers lived in the surrounding neighbourhoods. But larger surfaces needed by container terminals had to be found away from the cities, which also allows for the operators to profit from areas of low urban density. These new ports also need flexible hinterland connections. The map of Lisbon estuary shows the plan of the new container terminal at the mouth of the river, which presents good conditions for mooring and loading for deep sea vessels, although investments in the railway/freeway accessibility were needed. Map 2 shows the container terminal that APL intended to construct and that was included in the *1º Plano Estratégico 1990-1992,* but its construction seems most unlikely to be carried out.



2 – Map indicates the industrial port (red), the linear port along the city of Lisbon. Container terminals in operation (white) are located along 28 acres at *Alcântara* and *Santa Apolónia*. The new *Trafaria* container terminal (gray) was never been built (APL published a drawing in which the terminal may be extended up to 500 acres). The new terminal would be constructed over landfill in the same site where sand was removed 100 years before and used for the construction of the industrial landfill. The *Trafaria* terminal would reshape the mouth of the river to its original morphological shape.

3 – Map indicates the industrial port (red) along the city of San Francisco. On the other side of the Bay, new container terminals (white) were constructed on landfill. The Port of Oakland with its previous 665 acres expanded over former naval property with another 520 acres. These terminals use large surfaces and are connected to intermodal platforms of rail and road networks.

4 – Map shows the old port (red) transformed for public use. New container terminals (light gray) are under construction. The port area (white) occupies 786 acres and will double its surface towards south. Additionally, new intermodal platforms for railway and roadway transport systems are being built there.

Comparing Lisbon and Barcelona

Lisbon and Barcelona are like twin sisters in several aspects: they are both capitals located on the coast, and port cities. In the Iberian Peninsula only few cities have so much in common, and emanate such a similar vibration. Getting a breeze from a calm sea, they both face south. Walking through a city, passing by its facades, experiencing it is to feel its "soul". The urban design and public spaces are influenced by the territory topography, geometry and regulations. There is an overlapping of plans that created a fragmented urban fabric conditioned by restrictive laws. Such territories have memories of unfinished plans that influence decisions. Cities grow like a living organism with a surprising behavior. The analysis and report of their development are carried out in order to structure and if possible to control the city behavior, but its movements remain unpredictable. A city being such a complex reality it is difficult to clearly detect "cause and effect". Nevertheless there are known strategies that influence a part of their evolution and make it more predictable. Lisbon and Barcelona have grown around the peripheral areas during the last decades, but it is in the historical center, which includes the port, that both towns evolution took a different direction in the last couple of decades. Remesar (2001, 9) comments the similitude between Lisbon and Barcelona:

> "Anyway, the parallelism between the two cities was and is alive. In 1905, León Jaussely, a French Beaux Arts architect, proposed in his 'connections plan' for Barcelona the creation of a promenade endowed with monumental elements. Although with other expectations, the plan Le Corbusier - GATPCPAC 1934, well-known as Pla Macià, outlined the need to build up a modern "city" in the port front of Barcelona, by means of the displacement of the port toward the western sector of the city. In Lisbon, the PGUEL (General Plan of Urbanization and Expansion of Lisbon) in 1938 launched the idea that the tendency of the past years, those of tracing the city in opposed direction to the river must be corrected. As much in the Lisbon as in the Barcelona of the thirties it starts to be configured the 'idea' of opening again the city to the water."

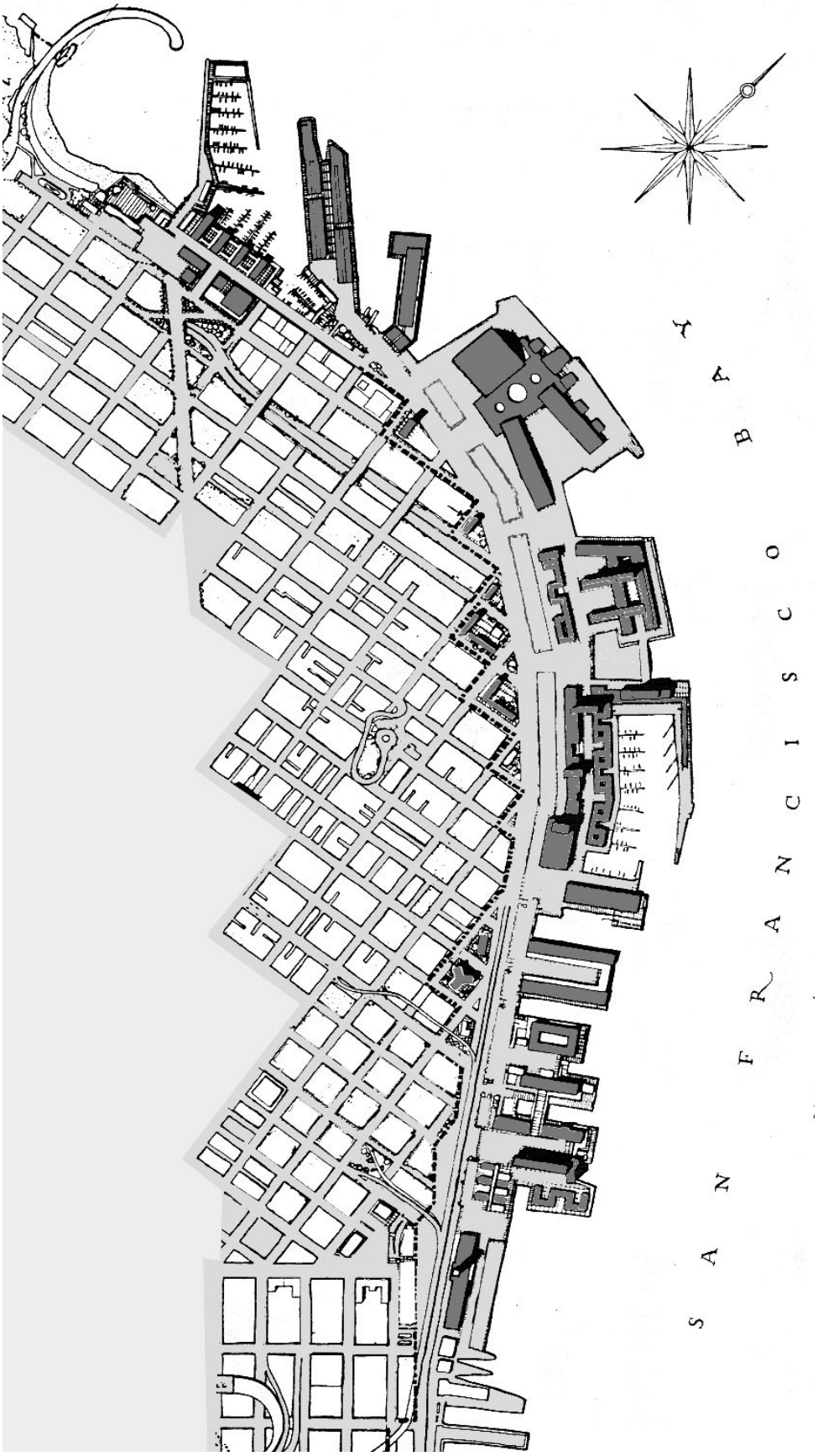
Further on his writings Remesar argues that in both cities the original relationship between the port and the city broke down because of industrialization, which started at the end of the 19th Century. A new territory was created through landfill for the port operation. And the main effect of this together with the related industry and transport system was a physical segregation between water/port activity and city/urban life.

Comparing Lisbon and San Francisco

San Francisco has geographical and topographical conditions very similar to Lisbon. Both are water cities that had extraordinary natural conditions for mooring and the shipping industry. Following the decline in their port activities**,** the Bay area and the Tagus estuary became central voids surrounded by urban areas. The process of transformation started long ago for the Port of San Francisco. Regarding the waterfront revitalization, Boston, Baltimore and San Francisco were the first main cities that saw the dawn of such renovation process in North America (Hoyle, 1997, 151). In view of the close physical characteristics of the Californian city and the Portuguese capital, San Francisco stands as an important reference for Lisbon waterfront future transformation. Besides, in San Francisco the transformation started as early as 1961 (plate 5), so there is an accumulated experience, a maturity revealed in the implementation of the renovation process that makes it almost a role model worldwide. San Francisco waterfront is also thought to be by some authors, the most sophisticated form of urban design in America.

Authors, such as Raymond Gastil (2002) and Hans Meyer (1999), have different but complementary approaches about the San Francisco waterfront redevelopment. Meyer explains that the City Planning Department created a framework in 1971 for designing guidelines that included 'scenic elements and transparency of the cityscape'. Even before, in the report dating from 1969 presented by the City Planning Department, areas for 'overlooking' and major views at the water level were indicated. Nevertheless the cityscape has changed with the construction of several skyscrapers during the 1970's and 80's. On the other hand, Gastil (2002, 96) defends the importance of the community political battle throughout the process, and explains that "San Francisco has heavy public involvement in waterfront planning and design decision making, usually more confrontational than the polder model of the Dutch(…) San Francisco has laid down the armature for future architecture and urban experience that is unquestionably pleasurable and could be culturally exhilarating."

In San Francisco the dialogue between Municipality and Port Authority promoted change, and a good one at that. This started at a political level, and contributed greatly to alter and reorganize mechanisms of power and planning policies of town management as the port joined the Bay Conservation and Development Commission.



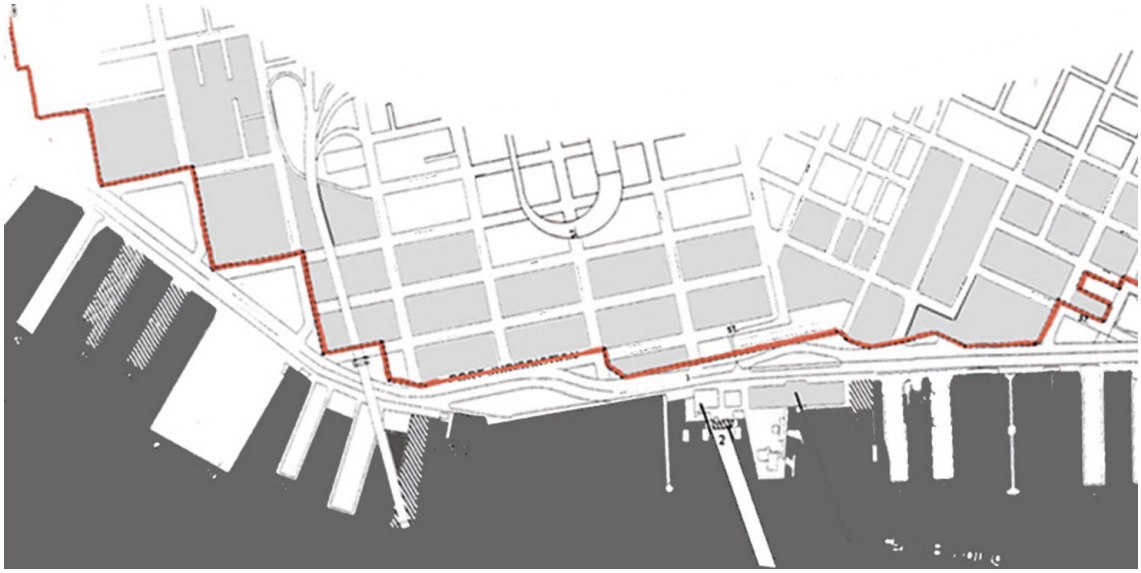
5. First plan for San Francisco waterfront renovation in 1961.

6. Aerial view of the city of San Francisco and the industrial port area in the 1980s.

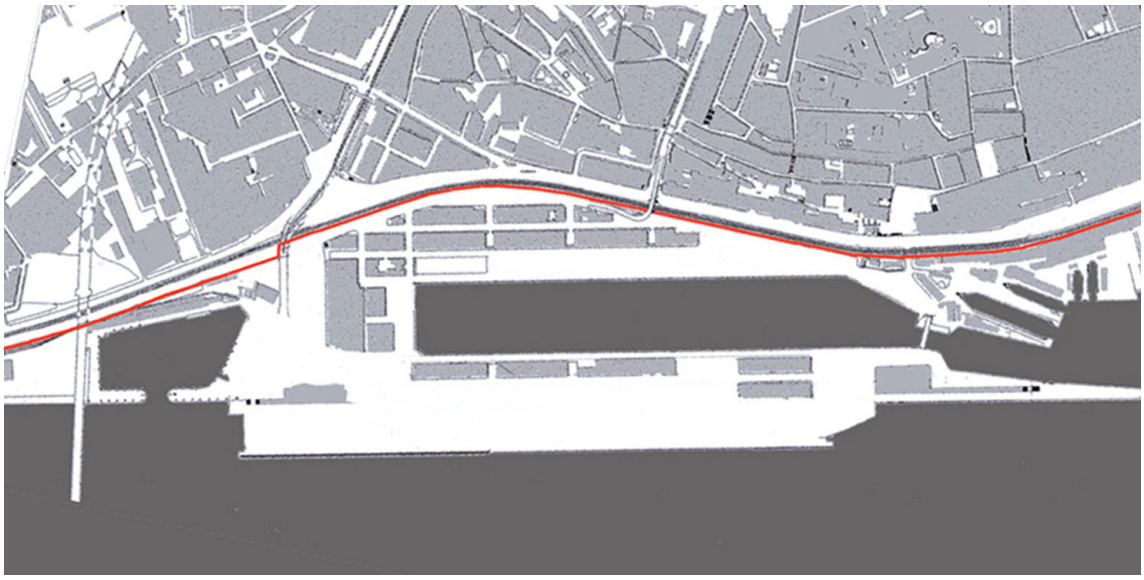
San Francisco

Jurisdiction

The city of San Francisco, like other port cities throughout the world, had to rethink the role of the port authority that controls the activities of the industrial port. The territory was artificially created over the Bay through land reclamation. The interconnectivity between two different geometries – piers/city greed – is made by the Embarcadero which is the main road along the port area. The frontier line between city and port is determined by the city blocks not by the road. The red line represented in the map on the right shows the limit between city and Port Authority territory.

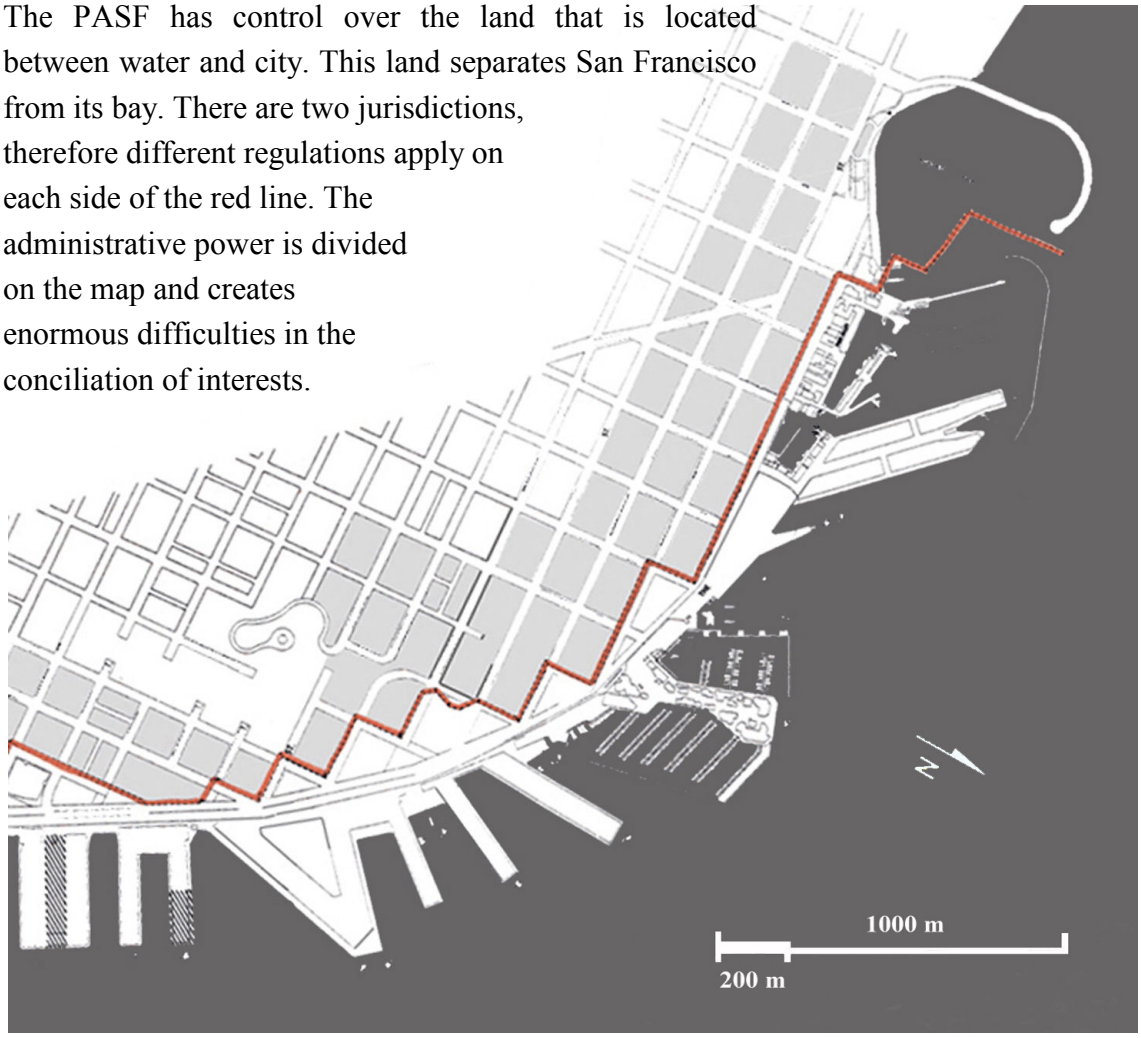


6 - Map showing the city and the port of San Francisco legal division of the land.



7 - Map of the city and the port of Lisbon.

The PASF has control over the land that is located between water and city. This land separates San Francisco from its bay. There are two jurisdictions, therefore different regulations apply on each side of the red line. The administrative power is divided on the map and creates enormous difficulties in the conciliation of interests.



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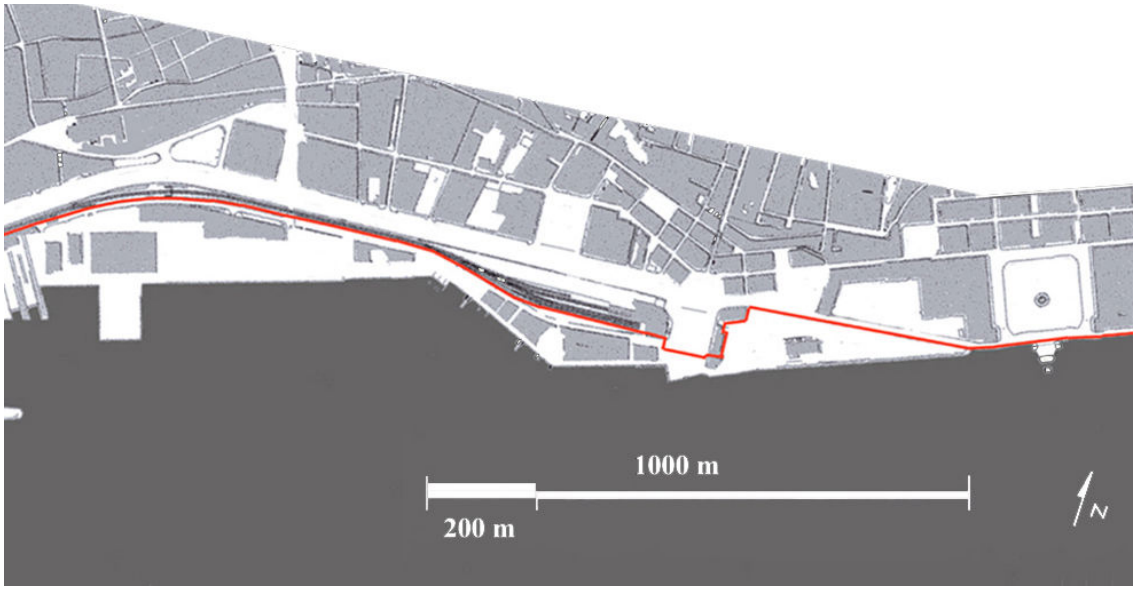
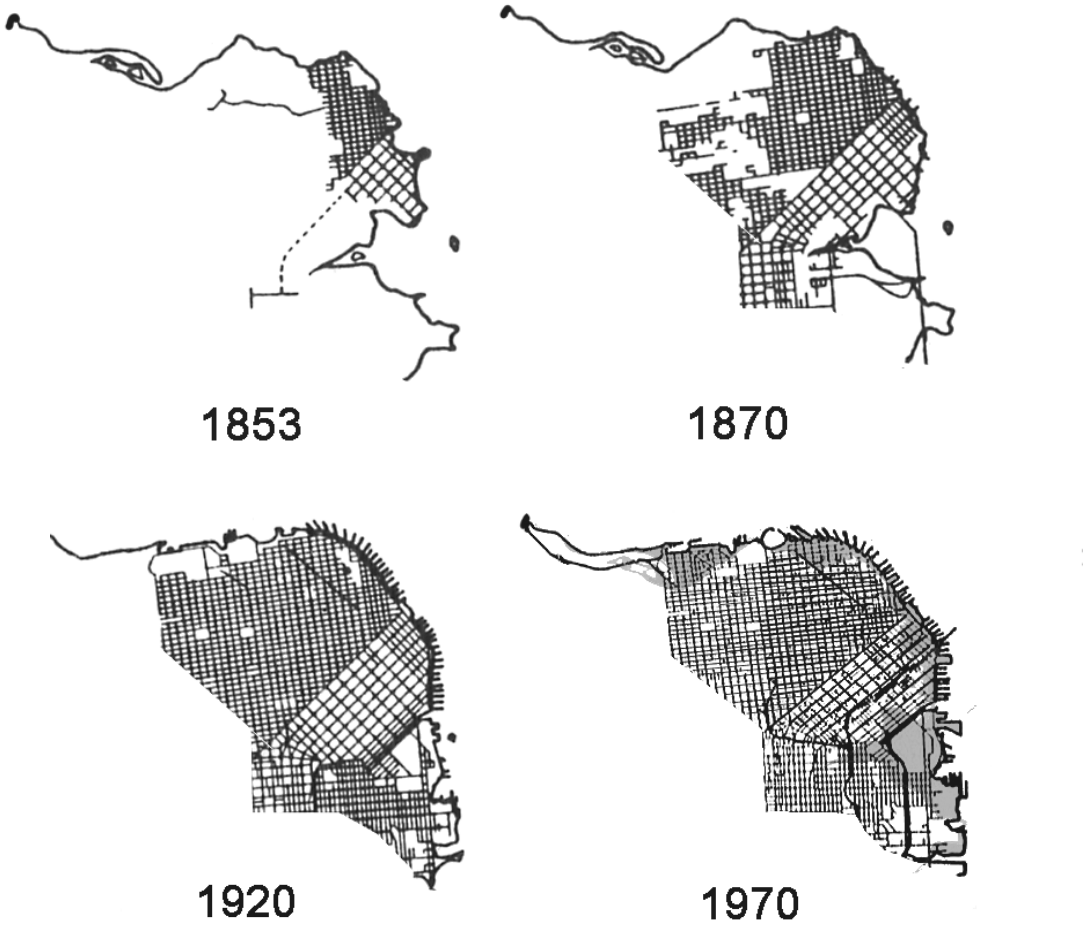


7. (cont.)

The red line in the image on the right separates the area under the jurisdiction of the port authority from the city of Lisbon. It traces the ancient territory before the creation of the industrial port. It circles the city perimeter. The land between water and the red line is landfill dating from the 1900s. Since then the city lost access to the water. The railway line took advantage of this new city edge and came all the way to a very central area of the city. The main road parallel to the railway line did not circle the city until the 1940s when another landfill (Av. Arsenal) came to link the western side of the port to the eastern side. In Lisbon waterfront the geometry of the urban fabric does not relate with the geometry of the port. In fact these neighboring territories did not maintain a continuous urban relation. Due to the functional procedure, the port has a longitudinal distribution of activities, not a transversal one. The sense of gated city was brought about by the modern means of transportation. The nearest pedestrian passage at the ground level is 2.9 km away from the railway terminal station.



8 - Evolution of City and Port through gradual landfill that transform the features of the waterfront.

The analysis of the port-city transformation in San Francisco followed a similar criterion. The legal division of the jurisdiction over the territory, the inevitable barrier and how it evolved were taken in consideration. Once the city experienced a decline in the port activity, plans for an alternative use of the port area were proposed by the San Francisco Port Authority. Those plans evolved from proposals of high urban density to ideas favoring public space and industrial heritage. The implementation of these more recent strategies had good results, such as the Ferry Terminal renovation that was completed in 2003.

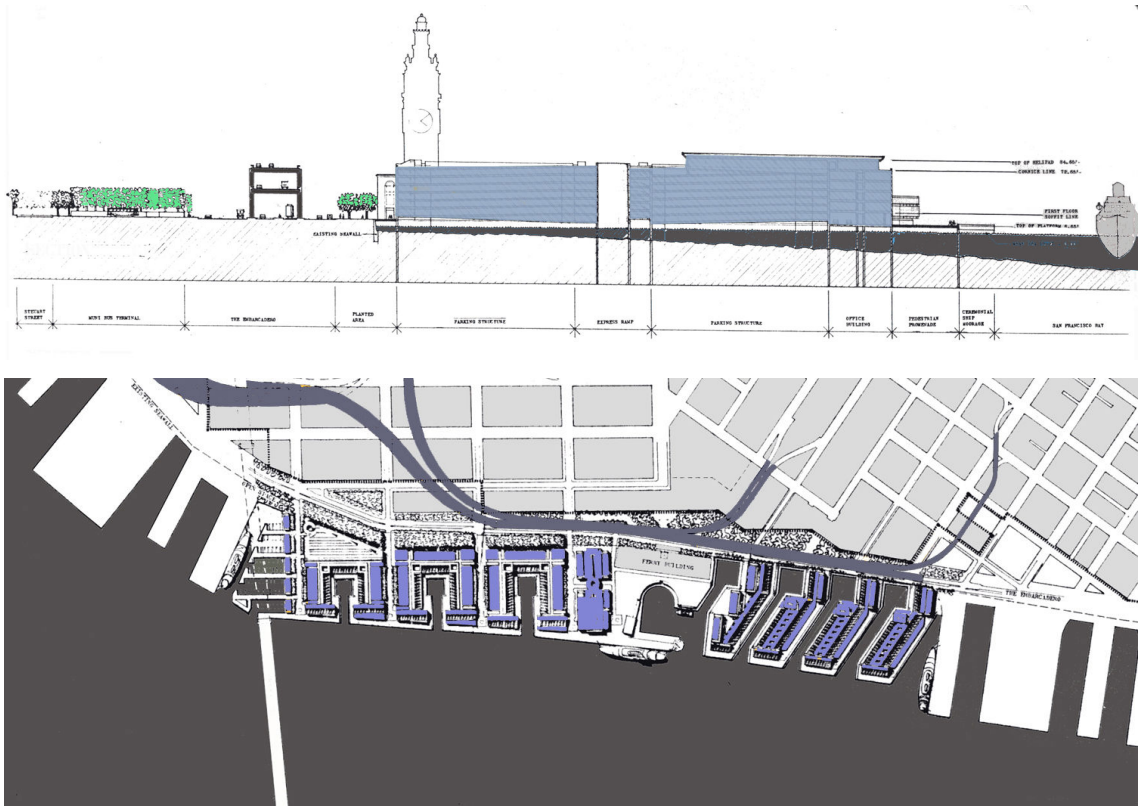
San Francisco waterfront renovation, being a pioneer case that experiences many alternatives, the understanding of its struggles and successes is crucial to elaborate better strategies. It has been a long process in which the image of the final result is less important than the process itself. The difficulties for PASF started with the geographical conditions, such as the network connection (the railway was on the other side of the Bay), lack of space (the port squeezed between water and city) and low tide (since the ships size increased enormously). In San Francisco, as Wilson (1986, 57) points out, "the waterfront was progressively reconstructed with land reclamation and with the six mile waterfront of finger piers (mainly supported platforms, except for pier 45) and wharves."

The Barrier

Referring to waterfronts as a urban priority, Joan Busquets says that the recent relation between Port/City has been disrupted by the presence of the modern massive infrastructures, mainly highways and railways. The infrastructures for the contemporary means of transport were frequently constructed at the city edge. In most cases it is not a physical edge but a jurisdictional limit where the administration and political control of the city end and the port authority starts. For the local community, such subtlety is not clear. The power over the territory is marked by an invisible line. In 1956 a decision to build an overhead two-level Freeway along the Embarcadero, between city and the port, created a great impact (plate 9). "In San Francisco, public recognition of the impact of a waterfront expressway resulted in a strong political movement.(…) In a well organized campaign, voters forced the Board of Supervisors to veto all further freeway plans. The

Embarcadero Freeway was left unfinished, with stub ends at mid-waterfront, and was never extended all the way along the waterfront to the Golden Gate Bridge as has been originally planned." (Wrenn, 1983, 46)

The Freeway favored movement to other parts of the city, while local access to the waterfront was compromised. Both pedestrians and vehicles passing around the columns and crossing below the elevated structures. The Freeway 'although halted from completion by community protests, introduced a new era to the San Francisco waterfront, exemplifying the attitude that the waterfront was a service area rather than a focal point of activities' (Dramoy & Fisher, 1997, 41). In the sixties, the city was involved with strong political activism. However protest was controversial and therefore did not accomplish to tear the double deck barrier down. There was no alternative and it was useful for drivers and necessary for the city. It was only in the eighties that clear alternatives were defined and submitted for public discussion.



10 – Above: Section of elevated Embarcadero freeway. The new construction on the water had the same height of the freeway. Below: Plan shows urban (residential, offices and mixed-use) development on the waterfront next to the Ferry Building, by Bolles Associates,1967

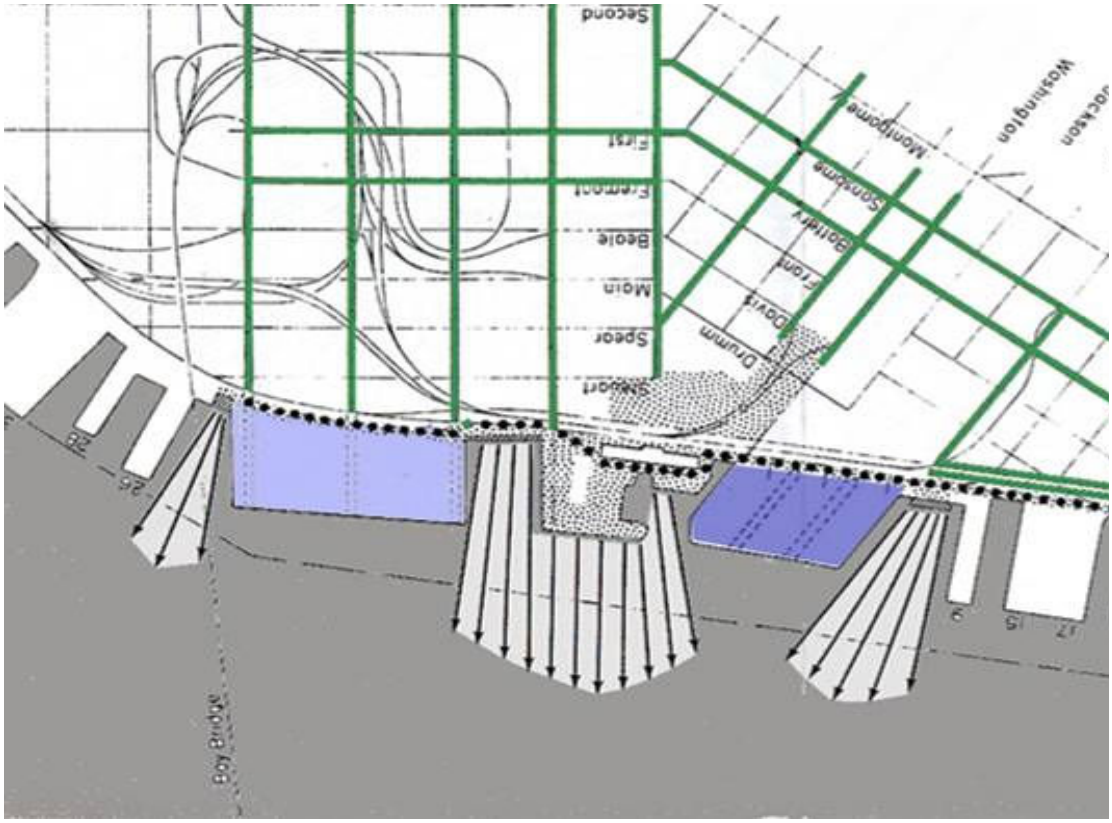
Anthony Wilson (1986, 57) argued that “elevated freeways and desolate parking lots divided the public spaces from the waterfront which was also obscured by the Embarcadero façade. Public concern at the effect of the elevated highway was expressed so strongly in Freeway Revolt that the new plans for the environmental improvement to the Embarcadero include the removal of the elevated roads.” In fact, the waterfront had been the most lively area of the city. In the beginning of the 20th century, it was the city guest room, with all the ships carrying people and goods from distant worlds. A truly cosmopolitan environment where travelers and locals exchange information. An open air street market with busy traffic all year long.

It quickly evolved to an empty space where (Gehl & Gemzoe, 2001, 13)“heavy car traffic does not coexist peacefully alongside the uses of the city as meeting place and marketplace. Uses that had been in balance for centuries were now in open conflict.” The removal of the barrier only happened following the *Loma Prieta* earthquake that “signaled for San Francisco a new opportunity to achieve multiple objectives related to transportation, urban design and open space.”(Dramoy & Fisher, 1997, 41) The earthquake that happened in 1989 damaged the freeway, but at that time city and port were already together searching for common goals. This collaboration has favored the argument against the whole process of reparation of the freeway structure, which apparently was not so damaged as some claimed.

At time is was announced that major investment was required to recover the double deck concrete structure, it was presented as an expensive work and city representatives argued that it was not worthy it. All the pressure that had build up throughout decades by the community and by the local administration together with the Port Authority achieved its goal and the idea to rebuild the freeway structure was abandon. The city representatives dropped it, and choose to remove the physical barrier. When the city faced the waterfront without the barrier the whole area started a new period. People got the perception that the site had changed and this would influence the coming projects for the waterfront.

Decline of the Port and alternative plans

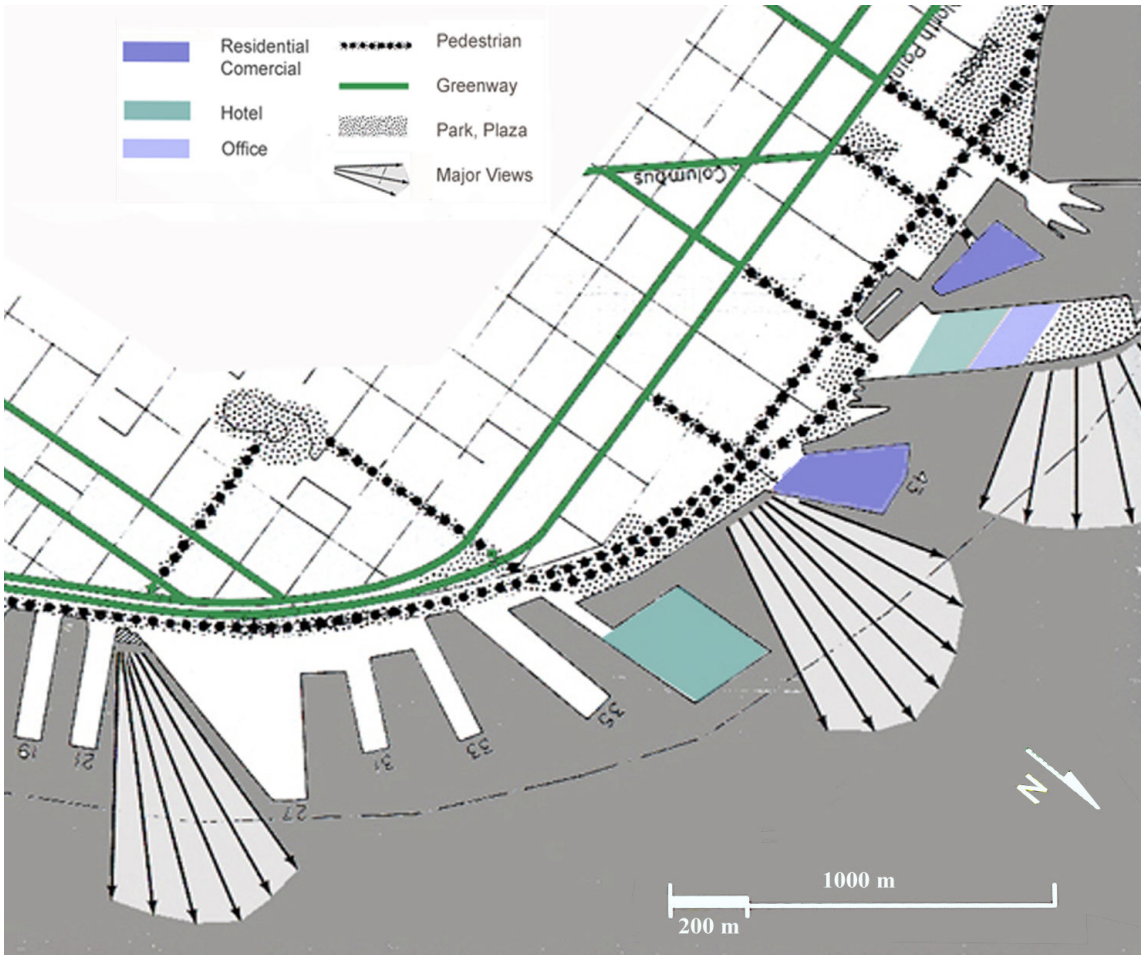
As the PASF kept losing every year an increasing percentage of the activity to the Port of Oakland, new plans were developed to challenge the future of the port activity and make use of the territory. Such plans shifted from highly profitable high rise to privilege public use of the waterfront. 'The existing functions would be encouraged in a way that aims to improve the environmental qualities. This would allow a promenade to extend from Piers 7 to 24, with the visual interest […] and moored pleasure craft' (Wylson, 1986, 58). San Francisco has been dealing with waterfront renovation for forty years, some options were carefully conducted, others were not. It is not a linear process and it is not finished. The development is environmentally concerned and socially oriented. The city relationship with water is regarded as a main opportunity for the citizens and the visitors. In the 1990's citizens of the city voted Proposition H, which decline the possibilities to build hotels on piers and later voted Proposition R against the plans the port authority had submitted and instead choosing the centre for education about the Bay.



11. Northern Waterfront Plan (1969) Landscape and Uses

Although San Francisco is known for its political activism such demonstrations of public involvement on the future of their waterfronts are not exclusive to northern Californians.

The first major project for San Francisco waterfront describes the replacement of existing structures “with modern high rise apartments” and the transformation of the segment ceased to work as a “fragment within the city framework.” The project also proposed International Pavilion, World Conference & Exposition Centre, International Science Centre & Arts Centre. The whole strategy was based on specific projects. In 1961, a plan for fisherman’s wharf was submitted by John Bolles who argued that “zoning, always negative, is not even possibly a solution. The area awaits creative and imaginative treatment on the design level.” The proposal is one from a series of plans. Some were quite controversial, as they presented a new face for the city, towards the bay!



11. (cont.)

Then in 1969, a preliminary report by the Department of City Planning published a series of existing plans and policies that included the waterfront. The proposed downtown design plan had two high rise buildings on the waterfront. The final report addressed the Northern Waterfront area relating port and city. Established several "points of major views at water level", more important, it presented city and port area in the same drawing. The waterfront was designed as part of the city, zoning was extended from the port authority land to the city.

Three years later another project was conceived, and it was described as follows: "the project is centered around the reuse of three piers. Pier 39 was reconstructed and contains restaurants and shops surrounded by a 24-foot-wide pedestrian walkway. Pier 41 was destroyed and replaced with a fixed breakwater and public fishing pier, and in the place of Pier 37 (destroyed by fire in 1976) a floating breakwater was constructed. Two marinas flank the main pier, one for a sport fishing fleet of 50 to 60 boats, and the other for about 250 private pleasure craft. The project also includes a five-acre public park and a thousand car parking garage located directly inland from Pier 39. The settlement of the sea lion community was unexpected. No one could have predict they would start using the area next to pier 39. Their arrival influenced widely the removal of private boats. The process of transformation, that involve cleaning and removing industrial infrastructures allowed the animals to move in and progressively use the site as their new 'home'. Environmentalists became enthusiastic of it and actively supported 'nature' coming back to industrial areas. Consequently, there was a shift in the public opinion that influenced the whole process of transformation.

An elevated walkway connects the parking garage with the pier area. According to Farrell, (1980, 25) 'The developer estimates that the planning and permit approval process for the project required five years (from 1972-77). This was a sizeable risk considering the investment had to be made before the developer actually knew whether or not the project would be granted approved.' Fisherman's Wharf at Pier 39 is an experience that became very popular among visitors but not really used by locals. Unlike recent projects, developed after the 'sea lion conquest' that are proving to be quite successful and popular among residents.

10. Deck and pier were removed to free the view

11. Balcony at the Maritime Museum to gaze at the water.

Recent Strategies

A great variety of uses are described by Wylson (1986, 61) which "include aims to diversify and expand the period of use of each sub-area, to preserve the waterfront character by prohibiting activities that preclude possible future maritime development, to capitalize on the area's potential as a desirable living environment, to strengthen and expand the recreational character, and to facilitate the movement of people and goods but to minimize the adverse effect of traffic. The waterfront is to be made visually and physically accessible to the landward part of the city'(see plate 10 and 11). Ten years after the removal of the freeway, the San Francisco Port Authority is conducting a permanent dialogue with the city to transform the previous use of industrial warehouses into urban activities. In the site survey, we have registered that:

pier 1 – Ferry building, farmer's market, shops and restaurants all with street access, pier 1-14 – Lawyer's office, tennis courts across the street, pier 15-17 – transportation company, sailing program, pier 20-23 – Port of San Francisco, café and deck, pier 25-28 – Port of San Francisco Insurance, pier 29 – Zimzanne theatre, electric car rental, pier 31 – cable car charters, pier 32 – cruises, pier 33 – architect's office, pier 34-38 – public garden and deck, pier 39 – tourism/marina, two level bridge over the road to four stories parking lot (free 2 hours) next to Academy of Art College, street theatre, pier 41 (demolished) – cruises, bike rental, pier 43 – private recreational boats, pier 45 –

Museum of the city of San Francisco, chapel, Marina – for sport fishing boats. To the west is the Aquatic park with the Maritime Museum and the Wave Organ at the end[1].

The leading policy includes removal of some piers, construction of a pier for public access and fishing with a promenade offering views over the bay and the city. Each section has different requirements and is dedicated for specific purposes. The projects are not generally done through zoning policies but follow architects projects or detailed design strategy to be reviewed and commented by the public. The draft of Waterfront Land Use Plan includes the following discussions:

> New developments to focus on and further enhance the Pier 7 public access and fishing pier.
>
> Design new seawall lot developments in a manner that respects the rich architecture in the Northeast Waterfront Historic District.
>
> Include design features in any new commercial or residential development on Seawall Lots 323 and 324 that highlight the intersection of Broadway and the Embarcadero as an entrance to Chinatown and North Beach, and as an orientation point along the waterfront.
>
> Encourage publicly-oriented recreation and entertainment activities on Pier 9 which are compatible with the San Francisco Bar Pilots Association administrative headquarters, water taxi operations, and berthing of pilot, tug and tow, and ferry and excursion boat vessels.
>
> Maintain and enhance views of the waterfront from Broadway.
>
> Design transportation access to seawall lot developments so as to minimize congestion on Broadway and the Embarcadero."

In fact, the Bay Area transportation policy has encouraged more investments on private vehicles and the use of automobile rather than other means of transport. Reversing that sense the BART (Bay Area Railway Transportation) is the exception, although Dramoy & Fisher, (1997, 41) explain that 'the necessity for a multi-modal transportation system within our cities and regions has become increasingly apparent. The single-purpose highway facilities of the past have failed to fulfill regional mobility needs and have contributed in many cases to a deterioration in the quality of life and the urban environment." An articulation of alternative environment friendly transport by water,

[1] Though visually breathtaking, the wave organ was built not for the eye but for the ear. Created by the same people who brought the Exploratorium the organ was constructed to capture and amplify the undersea sounds of the Bay.

may connect all the settlements around the bay. The waterfront will recover its gateway character.

After all the plans and ideas have been discussed, it was with great maturity that city and port agreed to diversify uses on the waterfront which included housing.

> The 11 acre Pier 45, half of which is constructed on land fill contained by concrete bulkhead walls. To balance the existing uses (which generate activities during the summer, weekends and evenings) residential and office accommodation would be provided to promote activity all the year around. A high-quality environment is to be provided by public access for views of the bay (…).The proposed Hyde Street pier would have off-loading and fish-handling facilities, relocated uses currently on Pier 45, and provide for birthing along its entire length. (Wilson, 1986, 60)

13 – a. Pier 7 – fishing pier and public access/recreation.

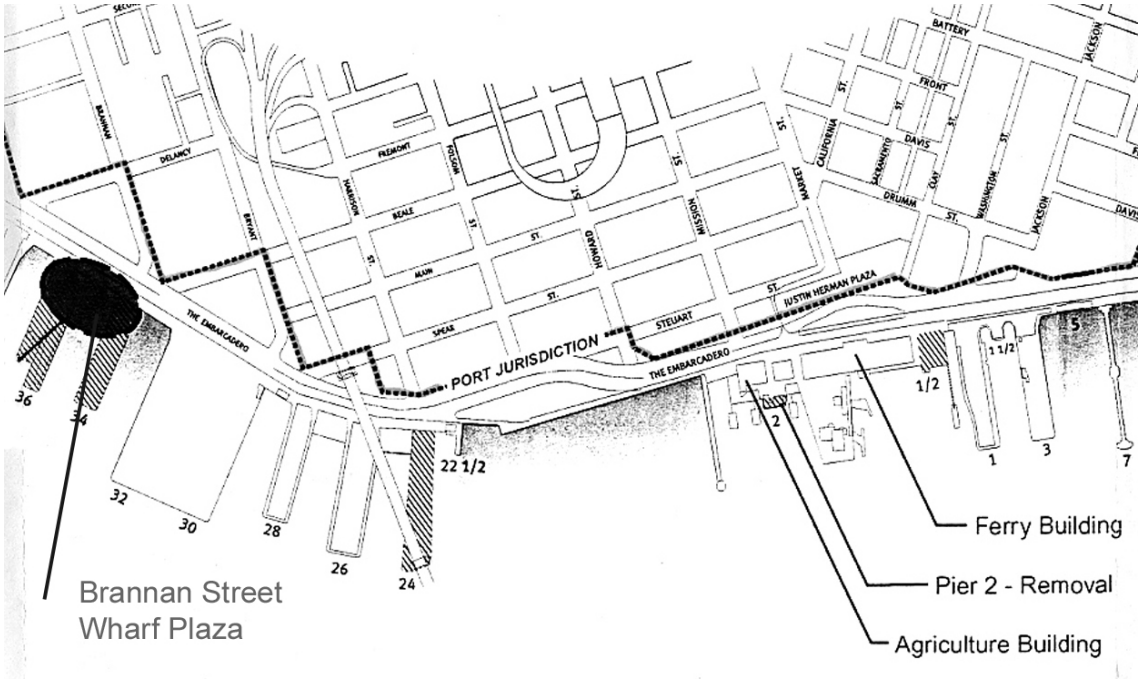
13 – b. Commercial fishing boats at Inner Lagoon.

13 – c. Electric rental car.

13 – d. Live collection of tramways at Embarcadero.

It is clearly no longer a financial operation directed to obtain profitability from deterioration in urban quality. It is a small scale project that comes to the conclusion that permanent presence will improve waterfront life (plate 13, 14). San Francisco waterfront renovation is neither spectacular nor its projects present a surprising urban image. Nevertheless it is a thoughtful approach that was able to privilege the city access, and the user, privileging people that will beneficiate of the financial investment, instead of privileging the investment over people. The land on the water is highly valuable and developers know it.

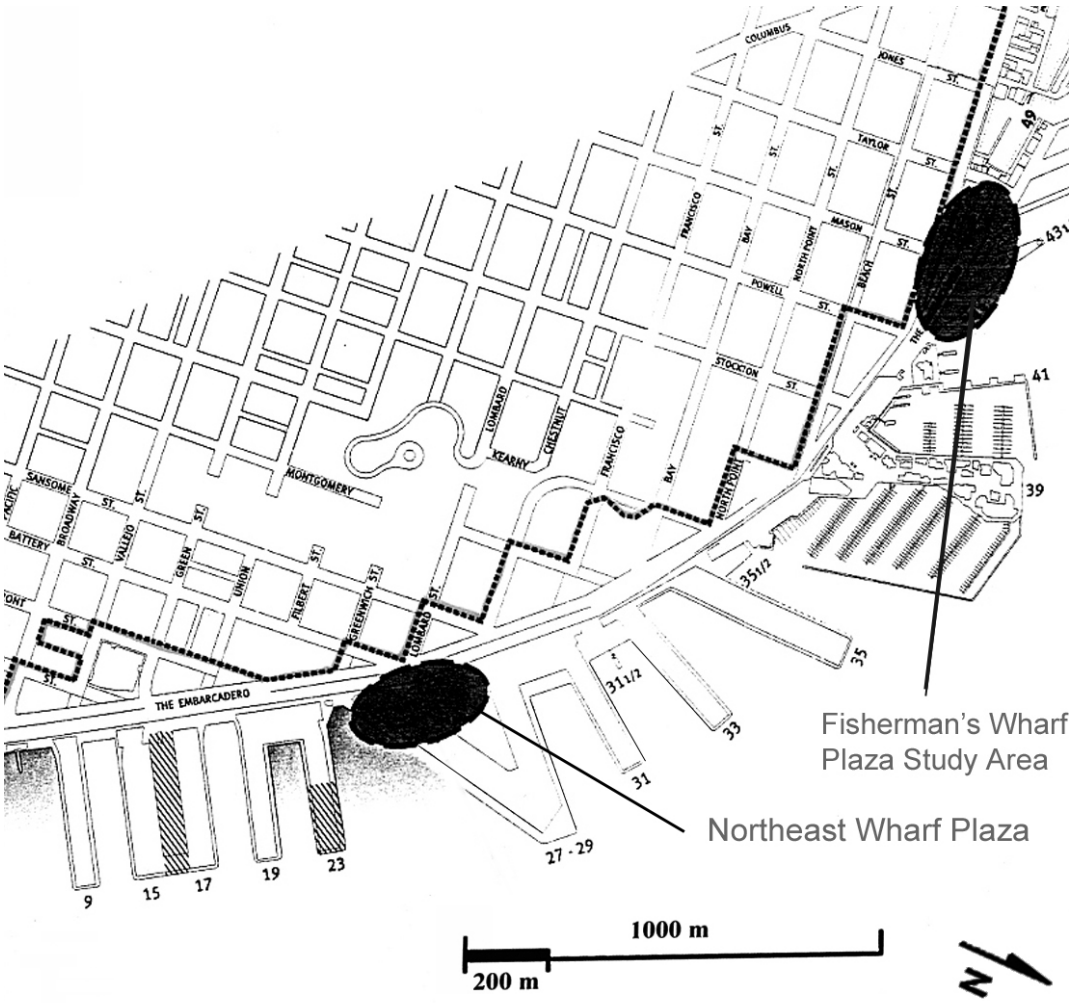
The city policy is described by Wilson as a good combination or mixture of private investment, public funding and the application of planning regulatory measures. They search for aesthetic qualities of water, topography, view of the urban landscape, by maintaining low structure near the water, establishing view corridors, retaining
significant historic buildings, controlling advertising and parking, removing undesirable piers. The land, piers and wharves are not seen as immutable features but as part of an evolutionary territory that supports new needs for the city. Artificial land was constructed for specific purposes in the same way it is now being transformed for new uses.



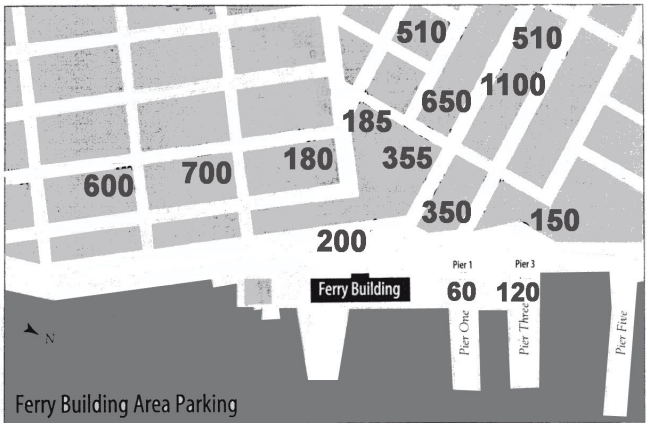
14. Drawing produced by the *San Francisco Bay Conservation and Development Commission*

Ferry Building

Opened to the public in 2003 the Ferry Building, which once was the city gateway, has experienced an extraordinary rehabilitation process. The project is a symbolic rediscovering of the waterfront by the city and vice versa. A couple of major goals were in view: "be a signature project which achieves a high level of public use and support; enhance the Port's ability to undertake other projects." A great acceptance from the public is an important aspect of the project that offers a great variety of retail shops, offices, art galleries, in an attempt to create public use throughout the day and along the week. A farmer's market also takes place recreating the idea of urban marketplace where producers come from the countryside bringing their goods to be sold. The program has chosen activities that have meaning to the site and not solely commercially driven.



14. (cont.) defines future areas for the public to access the water, location of marinas and public squares. (1975)



15. parking lots and the number of places available.

California has a car oriented culture and San Francisco is no exception. There was available space for parking at the site. However the port authority in the 'Draft for Public Review and Comment' (1996) decided that would

> "be the responsibility of the developer selected for this effort to secure any parking necessary for the project, including securing agreements for such use. The Port after discussions with the San Francisco Planning Department anticipates that zoning requirements for parking can be reduced quite significantly based upon the City's General Plan and 'transit first' policies, the concentration of transit service in the area and the extensive pedestrian use of the waterfront."

City and port know how damaging the invasion of cars can be to the city (see plate 15) and refer to the fragile balance between drivers and pedestrians. (Gehl and Gemzoe, 2001, 13). 'In the past, when most movement was conducted on foot, there was often a good balance between the three uses of the city. Pedestrians were able to walk where they needed to go, meeting, trading, talking and taking in the sights all in the same trip through town. The uses of the city were conducted simultaneously in the same public space.'In the 1980s Wilson argued that the ferry town area would be developed as an open waterfront, to contrast with the dense downtown development. The Ferry Building would be re-established as a major transit centre, an access point to the city, to recapture the lost identity. The land no longer needed for maritime purposes would be (Wylson, 1986, 58) 'converted to open space and water-oriented public recreation. The waterfront is to be reintegrated with the fabric of the city. It is proposed that the Embarcadero

should become a landscaped waterfront boulevard, with a rail transit system to reduce the need for cars and parking spaces.' Various trams were brought from most Europeans Cities, carefully restored, and are now in use. The longitudinal movement along the edge is a smoke free, noise free and a live collection of public transportation. It privileges a transversal movement improving public access where the main road connects the waterfront using the extension of the streets into urban squares, promoting pedestrian access from the city to the water. It took forty years since the first development projects were submitted to understand the importance of the void. If it is true that the waterfront is a territory whose open spaces are often more stable and more important than buildings (Boeri, 2000, 69) one can also identify major trends related with the waterfront development extensively reproduced as described by Sieber (1999,76-77)

> "The major guidelines of the development programs for North-American waterfronts reflect the taste and cultures of the new and more actively involved bourgeois user groups of these sites. The flux of these users to the present day city centers shows a tendency to grow. The aim is to recreate a genuine historic ambient. This would allow people to go back to a less complex life style amidst healthy and natural environments where they could have pleasant and democratic group experiences. This type of social life based on the human factor became gradually absent from cities during industrialization. Thus, the contemporary development solutions that were found match the users cultural interests rooted in the past. Those solutions engage all contemporary tools, technologies and forms of representation in order to provide new ways to re-build physical records or landmarks that speak of the past. This is an alternative to the North-American cultural obsession with modernity that permanently erases memories. Such cultural formulae have proven to be successful in practice, in the fields of both economic feasibility and popularity of waterfronts."

In short, San Francisco has developed an alternative to this mainstream process, here city port relations started from an urban design development for major residential, cultural, commercial but found short support. Through events, art and recreation the city connected back to the water and succeed to remove the existing barriers. There, the public have learned to enjoy the landscape and meet at the waterfront in this privileged public space.

16. Aerial view over the site of ‘Forum of Cultures 2004’ the year before. After the old port, the Olympic city, Barcelona continues to expand along the waterfront, through projects that create new centralities in the city.

Barcelona

Public space renovation at the waterfront

In Barcelona a major urban transformation occurred under the guidance of Oriol Bohigas and that strategy was further developed by others architects, like Juan Busquets and Sola-Morales. Multidisciplinary teams designed new public spaces and redesigned existing ones involving public art. This became known as the Barcelona Model. Bohigas developed a strategy that emphasized specific projects rather than general urban planning. The traditional long-term planning considering function and area gave place to a very precise series of projects through which a kind of 'author vision' could be built in a given place. The projects and construction were paid by public sector bodies. This policy allowed for a rapid execution of those projects and the transformation of the city did not take very long to complete, since they were not dependent of private developers for the implementation of planning decisions. Such an active city policy aimed to bring back quality to urban life, by designing dozens of new public spaces, parks and squares. 'Barcelona's architects have been nothing short of pioneers in elevating public space to the level of an independent architectural field, after this discipline had all but disappear under the influence of modernism.' (Gehl & Gemzoe, 2000, 29)

For twenty years the execution of a considerable number of projects changed the city and the waterfront. Much can be said about the Barcelona Model, but the main focus of this chapter consists in the process of transformation that took place in the old town and the old port in Barcelona. And how the evolution of the relation between city and port boosted the urban social and cultural environment and reinvented a past dignity of a degraded cityscape.

The street is of great value to downtown Lisbon because it structures public space. In Barcelona, *La Rambla* is the heart of the historic city. *Le Meridien* and the *Monte Carlo* hotels face one another in *La Rambla*, while in the nearby areas there is numerous cheap accommodation. Those two luxury hotels are located next to two important Catalan theatre houses: the *Palau de La Musica* and *Teatro Liceu*. And a few meters from there we find the big market *La Boqueria.* Entertainment, retail shops and accommodation are one step away from each other among offices and housing, all forming a close set sufficiently diversified to offer a live atmosphere to this historic centre. Lisbon had

these same characteristics: *S. Carlos* e *D. Luis* theatres are side by side, and down below we find the market. However the central historic zone of Lisbon has gradually lost its breath. The number of abandoned buildings grows every year and at the present hotel investors look for the new Avenues built in the 1900s.

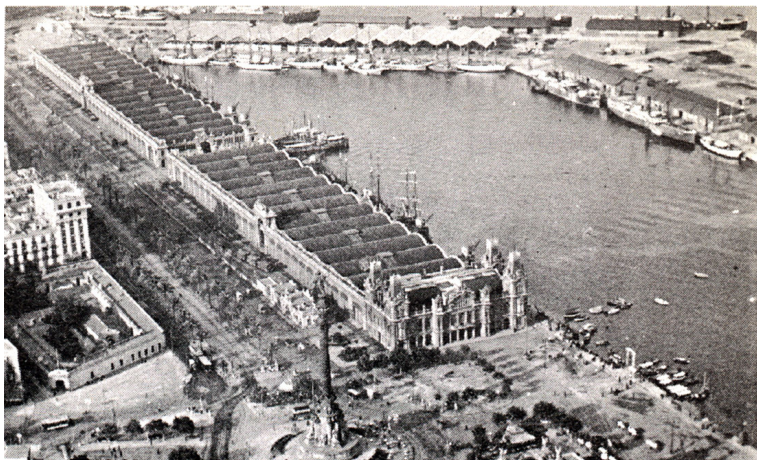
During the last two decades the Catalonian capital made a series of outstanding projects that led to the renovation of public spaces. The revitalization of the waterfront was another target. To ensure an equal use of the waterfronts by their citizens, besides the construction of new housing, sport, culture and recreational precincts, the city invested on public space as the main structural element of the new areas.[2] Projects such as F. Correa, A. Mila intervention in the *Plaza Real* in 1983 and the M. de Sola Morales in 1987 created enormous expectations in what concerns the *Port Vell*, the oldest port area. The city sprang up from the water edge, but in the 80s Catalan culture dealt with this contradiction: what used to be the urban core was now separating the sea from the city; during the last century the port blocked the relationship with the water, but now the area became obsolete and potentially available for new use.[3] Public space investment and valorization of emptiness were the new strategies to follow.

The problems cities are facing today have nothing to do with urban growth. In fact it became important for cities to grasp the opportunity for urban renovation and restructure from old industrial obsolete infrastructures. Referring to Barcelona, the Architect Busquets (1999, 89) argues that the new opportunities are 'where previously, urban restructuring and renewal were not applied until after the occurrence of dramatic events. (Wren in London after the Great Fire, Hebrard in Salonika, Pombal in Lisbon, Rotterdam after the second World War II).'

[2] For further information see *A transformação da frente de mar de Barcelona* by Nel.lo Oriol, in *A cidade da Expo'98*, Lisboa 1999

[3] The city of Barcelona received 54 hectares of land. This was possible due to an agreement organized by the *Colegio de los Arquitectos,* the Municipality, the local government - *Generalitat*., and the Port Authority. That area was transformed through vast demolitions and the subsequent construction of important public spaces.

17. Old Port during the renovation process in 1991



18. The industrial port operating during the 1920's

19. World trade Center restricted the public space.

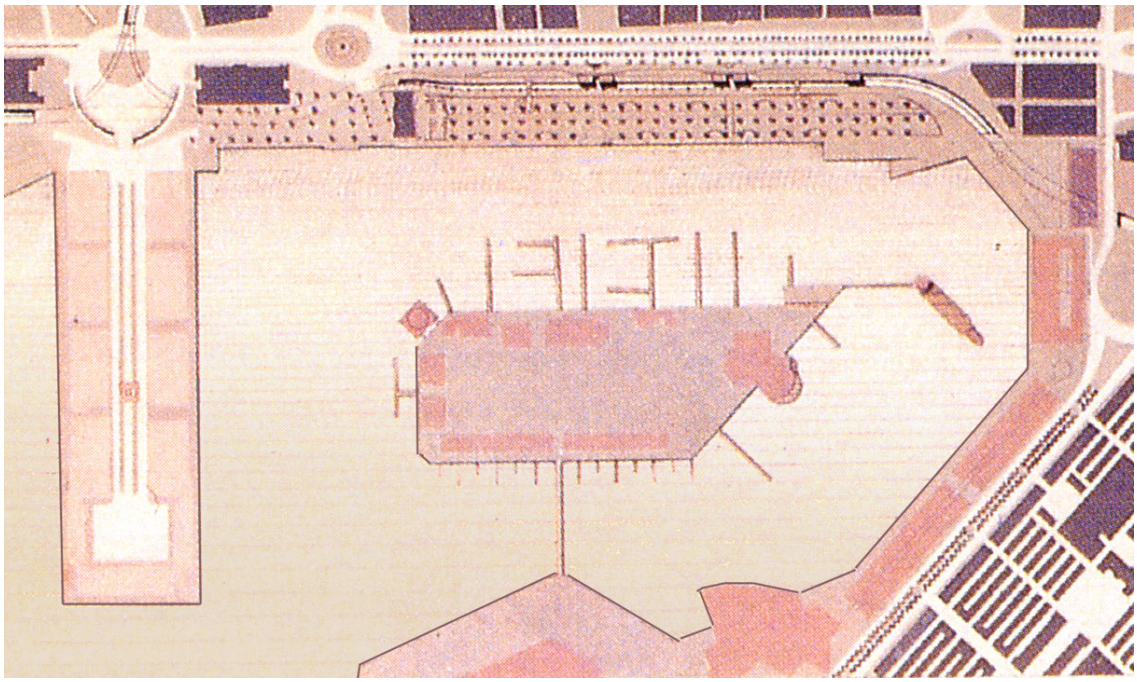
Ideas take decades to be fully understood and for people to get used to them. In Barcelona, many projects elaborated in the eighties were finished in 1992, when the Olympic games took place. Others were built in the following decade. These plans required the introduction of public art programs and an active cooperation between architects and artists. The planning for the city coast called international attention. An investment in public space without precedent was made in the historic center and the old port. The resulting works are:

- the pedestrian ways (*portal de l`Angel, Drassanes, Conde Barcelona e Ferran*), sea waterfront sidewalk ;
- five more *Ramblas* (*Catalan, Raval, Espane del Mar* and *Barcelona*), some of which are sidewalks over the sea;
- improvements in plazas (*Catedral, Reial Merce, Angels, Universitat*) with underground parking and automobile control.

These were strategic interventions that reinvented the public space and its use. It became more alive, more dynamic, improved street life, attracting new residents and more commerce.

The strategic investment in public area started in 1979, after the first democratic elections when Oriol Bohigas[4] developed a policy by which Architects were invited to participate in a process of city renaissance – a pioneering movement in contemporary urban design. His reaction towards the city policy is described by Michael Hebbert as "an excoriating attack on town planning" and he argues that "In his four years as a city functionary Bohigas aimed to *desplanificar* Barcelona." At that time, there was an important political shift: the City Council's Urban Projects Service (*Servei de Projectes Urbans*) initiated renewal by designing several new public spaces. During the next twenty years, twenty three projects for construction or valorization of public space were implemented in both, the *La Rambla* and *Port Vell* - the historic city and the old port area.

[4] BOHIGAS, Oriol was the Head of the School of Architecture and was appointed new city counsellor for Urban Design of Barcelona by the Mayor elected in 1979, in the first free elections since the Spanish civil war.



20 - Detail of the *Port Vell* Plan by Solà-Morales, proposed the transformation of the existing wharf (*Moll d'Espanya*) into an island, and the access to the mainland through a bridge.

21 - Plan of the Port Vell as approved in 1991, presents a pedestrian walkway *Rambla del Mar* by A. Viaplana, H. Pinõn, that is an extension of the main *Rambla* towards the *Moll d'Espanya,* and moves to give passage to the sailing boats.

The interest of these projects comes from their ability to transcend their own limits and become important elements of transformation of each neighborhood. In the process of recovering a tradition that had been forgotten for a large part of the 20th century since the invasion of public space by the automobile. The local residents were not driven out from their neighborhoods while new groups came to dwell in those same areas, and thus gentrification was avoided and part of the old character of the sites could be preserved. Manuel de Sola Morales 1987 project, whose execution was the sparkle that initiated the restitution of the waterfront to the use of the pedestrian in the area near the historic center of Barcelona. In this project local and regional traffic are separated, thus longitudinal heavy traffic moving between the port and the city is partially hidden underground, which recreates an urban balcony. Morales (1999) claimed that "culture is based on two important aspects: a *cartographic culture of the territory*, which is a condition for seeing and knowing the territorial characteristics of the region; and an urban planning culture, or *culture of working the territory*, which considers specific territorial features and uses them in the design of urban space."(see plate 22, 23) The citizens sensorial experience of his own city is mainly based in local characteristics which they learn to appreciate and simultaneously fulfill their aspirations for the place they inhabit.

Morales was the author of one of the initial interventions of the process of transformation, introducing winds from the sea, in a city that insisted on turning its back to the sea. "Architecture was made one of the main instruments of urban policy, and numerous public spaces were created. Every quarter was to have its own "living room" and park where people could meet and talk and children could play. Characteristic of Urban policy is that public spaces spring from the need for room for people to gather in true democratic tradition." (Gehl & Gemzoe, 2000, 28) In order to reverse the situation created since the implementation of the industrial port, Sola Morales argued that the waterfront was the city's most explicit territorial feature and the hub of major works of urban engineering.

Given the complexity of the waterfront transformation, the Barcelona model was only made possible through an unconditional political support for the architects to coordinate the several public works to carry out their projects.

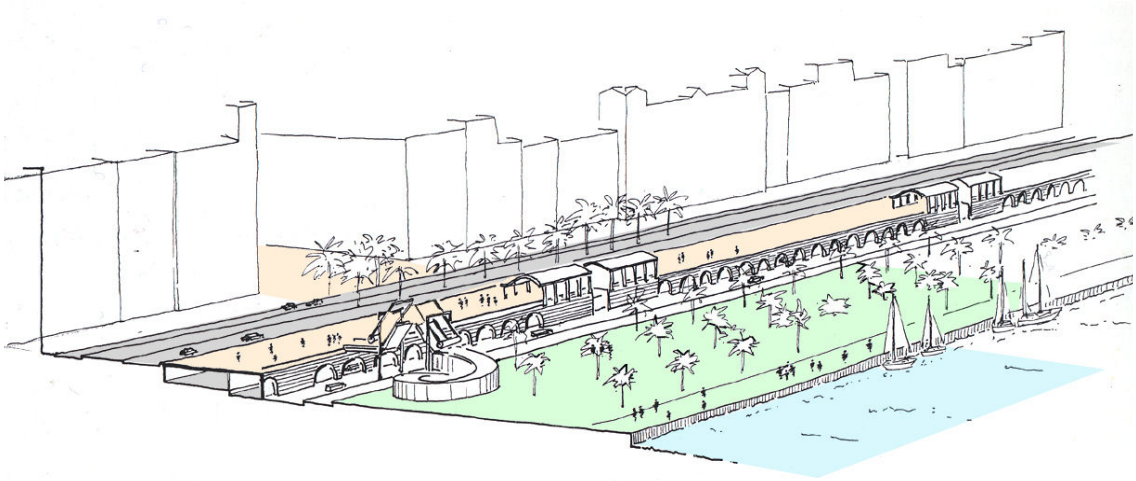
The *Moll de la Fusta* project was the first resulting from a process that involved several entities simultaneously. Olympic Holding (AOMSA, IMPUSA, and VOSA), The Port Administration of Barcelona, the city urban planning services, residents associations, others institutions and Urban Design and Architecture offices. The waterfront development became an allegory, representing a shift, revealing possibilities, offering a vision for the future of the city. The dreamy vision of Morales showed the port as a central open area with emphasis on visual openness, (see plate 20) and a perceptible connection between the city and the port. It started a social and cultural movement towards the sea and changed the orientation of urban development.

The territorial artificiality of the waterfront was the base of Sola-Morales proposal for Barcelona *Port Vell*. The pier was to be demolished in part and the remaining island, 'floating' in front of the city, would provide better views and a more complete understanding of its artificial condition. The island would centralize maritime activities, but such plan was never concluded. Real estate developer Enterprise Development Corporation (EDC) proposed the creation of a complete fun city on this pier, the *Moll d'Espanya*. A grateful Port Authority approved the construction of such a profitable investment and kept the whole pier for the creation of a new urban 'fragment' at the port, creating density where the dream was to create public space with strong cultural significance.

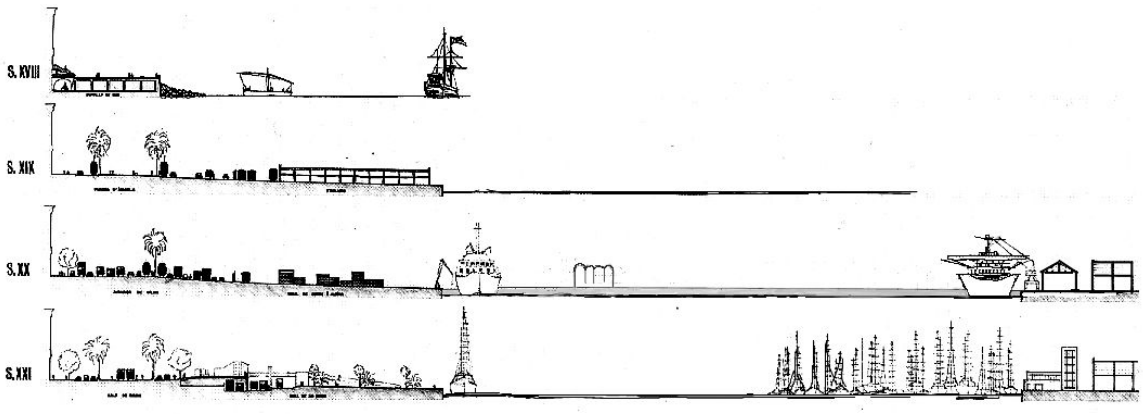
Barcelona and Spain piers, *Rambla del Mar* and *Conde de Barcelona* Avenue, and maritime side walk were built. The thorough transformation was prepared together with the Port of Barcelona Administration. They began by converting the old port into large public areas, (see plate 21) making deep modifications that recreated the boundaries between the city and the waterfront. From 1995 to 1999, with the construction of the World Trade Center (see plate 19), there was a 'concentration of private investment consigning new business and recreational activities oriented towards consumption. In the tradition of *North American Models* this project clearly drives away from the experimental processes about urban planning' (Portas, 1998, 34) developed under orientation of the Barcelona Urban Projects Services, in the eighties.

The next significant urban development is being carried out at the *Besòs* river, it is an urban regeneration project that involves 50 hectares occupying 2.5 kilometres of

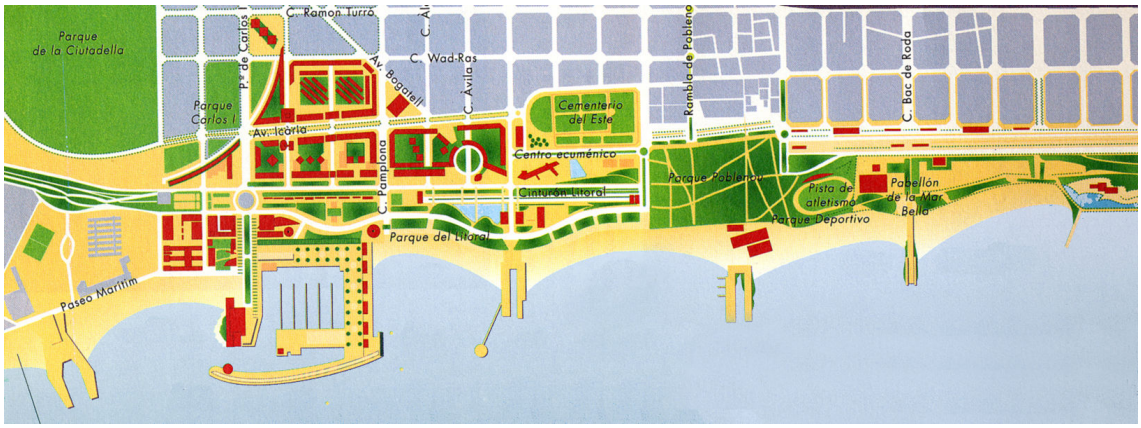
coastline north of the city centre. It is a new area away from the city. This project will rehabilitate the waterfront at *Besòs* for the Universal Forum of Cultures to be held in 2004. It is the most important urban and architectural intervention in the city since the 1992 Olympic Games. The intervention, Forum 2004, has been planned in detail by Mayor Joan Clos and it is criticized because 'whereas many of the 1992 projects sought continuity with Barcelona's urban traditions, the emphasis in Forum 2004 is on a rupture with the urban grid, with signature projects by 'star' architects […].' There is an exceptional concentration of architects that are known for the production of exceptional buildings. The new development does not seek to integrate but rather to create a new urban centrality. The relations between city and port are not to be considered in such developments because it is an urban expansion. The city previous experiences are not repeated, also because the new development is located far away from the city pre existent neighbourhoods. (see plate 25)



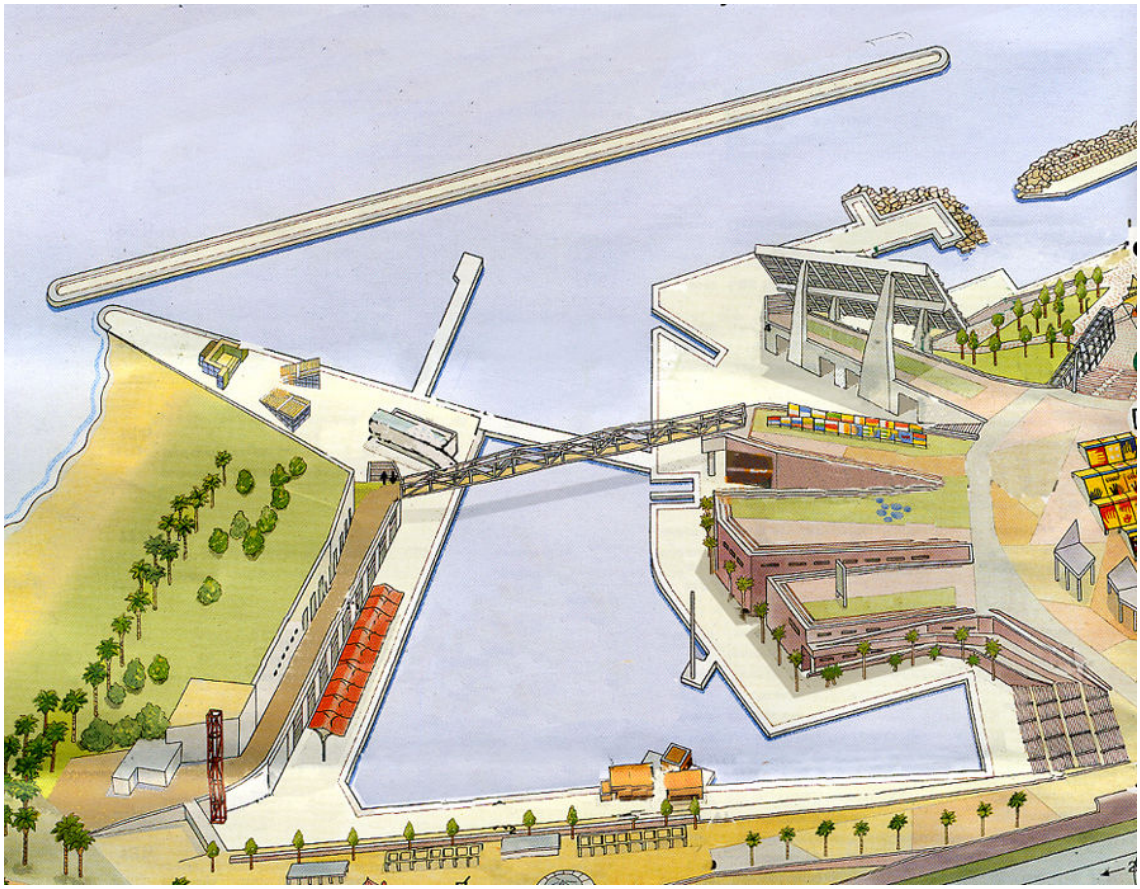
22. Axonometric of the project by Sola-Morales at the old port



23 - Harbour-front sections, from the 18th century to the 21st century.



24. General plan of the Olympic Vila designed by Oriol Bohigas. It was implemented over former industrial facilities on the outskirts of the central hub of the city.



25. At the Forum 2004 the urban flows of traffic – pedestrian, vehicles and maritime – cross at different levels so that each one continues without barriers.

The 1992 Olympic games took place in Barcelona and preparations required a lot of effort and patience of the city inhabitants. There was dust, street works, screens and more dust. Main constructions were underway and ready to transform the *Ciudad de los Prodigios* which became again a contemporaneous international reference (plate 24). Creating a strategy of evolution, the Barcelona Model introduced *avant garde* urban design ideas and has influenced the transformation of all port cities. As it is argued by Gehl and Gemzoe (2000, 29) 'Experimentation made Barcelona an undisputed leading laboratory in the design of city spaces in terms of imagination, variation and volume of solutions. In no other city is it possible to see such a large number of innovative designs for public space.'

In Lisbon the waterfront development at the Expo'98 has similarities with the Olympic Vila in the conversion of industrial polluted areas into urban environments. The strategy used by the promoters was to built a new financial and business center with new accessibilities, a marina, hotels and other tourist facilities, an *oceanarium*, a thematic park, a leisure area, residential buildings: it was described as (Portas, 1998, 11)'An image of cosmopolitism and modernity , combining references, local contexts and international styles and repeated solutions – how many times proposed by the same creators and constructed by the same builders until its becomes banal.'

Repopulation policy

To attract to and settle the population in the historic area and adjoining waterfront, two parallel strategies were followed to improve public space: pedestrian mobility and social gathering. The new urban projects brought great dynamics to previously degraded areas. This successful formula promoted investments in new buildings as well as more flexibility in reusing existing buildings. The site became the stage of a peaceful and healthy community of lower income families that already lived there, although in bad conditions, and new social groups attracted by good conditions offered by geographic centrality – all sharing the same space.

The flexibility in the regulations applied for recovering and reconstructing old buildings attracted new residents that wanted to live and invest in the city center. Special financial

conditions were also applied. The improvement of public transportation and the creation of parking areas for residents liberated some streets from vehicles. This policy allowed more people to move around without being dependant on private cars. Streets and squares were free for pedestrians, both residents and visitors. The reconstruction boom in the historic city center brought many building yards, therefore the Municipality regulated scaffolding should not occupy the public area, and had to end one level above ground – the pedestrian came first!

In the cultural Iberian context both cities, Barcelona and Lisbon, inherited heavy administrative procedures in the eighties, any project for the city and its urban space would face major difficulties to be developed because of such bureaucratic complexity. The Municipality of Barcelona, (Ajuntament) managed to conciliate different sectors making these services much more efficient. 'Traffic, illumination, swage or green areas are no longer seen as separate elements but part of whole, that is bigger than the sum of those parts.' In a ten years period mayor Pasqual Maragall relocated about 76% reducing the Municipality employees. Partnerships were made with other institutions and city agents, overcoming administrative difficulties.

Previously the Town Hall services would overwhelm landlords and tenants with bureaucracy. Discouraged, the potential investor would look for alternatives in the periphery. Large economic groups would rather invest on large surfaces, which were rarely available in the historic zones. This increased the number of abandoned buildings, as well as a visible degradation of the neighborhood and the public space around. Ironically the Municipality itself was a big obstacle to the investment in and consequently to the maintenance of the historic areas.

This procedure was reversed with a policy change. President Maragall policy introduced new simple procedures and more flexible regulations to attract small investors interested in renovating the central areas. This shows Barcelona's authorities were aware that a large number of small investors generates bigger investment than a few developers with more money driven only by profit. The program "Barcelona get pretty" – created in 1986 and extended for many years – attracted a continuous flux of investments for the buildings and areas in urgent need of restoration. «In Ciutat Vella there has been a large amount of rehabilitation by private owners.(…) which made it possible to obtain loans

for restoration work, at rates of interest considerably lower than market rates.(…) 80% of the investment in private restoration has been carried out on the basis of agreements (…)Private rehabilitation work between 1988 and 1997 accounted for a total private investment of more than 14,000 million pesetas and subsidies in the form of grants of 3,150 million pesetas, affecting 14,800 commercial premises and dwellings, a figure that represents more than 20% of the private buildings in the district» Investments in public security and improvement in accessibilities were equally relevant for the historical waterfront neighborhood, reversing the loss of residents registered in the eighties. Local commerce was at risk and also benefited from the waves of change.

During the same period (1980-2000), Lisbon lost about 200.000 inhabitants, and continued to loose population while new neighborhoods grew in other directions away from the river. There was not a beneficial dialogue between the Port Authority and the Municipality. During periods of economic growth big private investments are made in private condominiums and shopping centers. These constructions occupy dense urban areas near the historic center. Shopping centers duplicated the space for retail commerce. Four shopping centers, *Colombo, Vasco da Gama, Alvalade* and *Chelas*, include underground stations, connect services, commerce, entertainment and attract crowds. Flocks of people who get caught in the illusion of enjoying public space, although it is a much private one. Margaret Crawford argues that the phenomenon fulfills three important needs of our society, consumption, voyeurism, and show. The window shops define space, corridors just like streets, car free, and the show is complete with the sparking lights of a world without garbage or poverty. This is the victory of consumption as spectacle. Most public spaces either do not exist or are frequently an ambush serving commercial purposeswhich characterize nowadays situation. The worst part of *form follows capitalism* becomes apparent in many private condominiums as they are designed according to the developer financial interests.

26. View of the Av *24 de Julho* at the *aterro da Boavista* area and the estuary in 2004.

Public Space as Cultural Reference Barcelona Vs. Lisbon

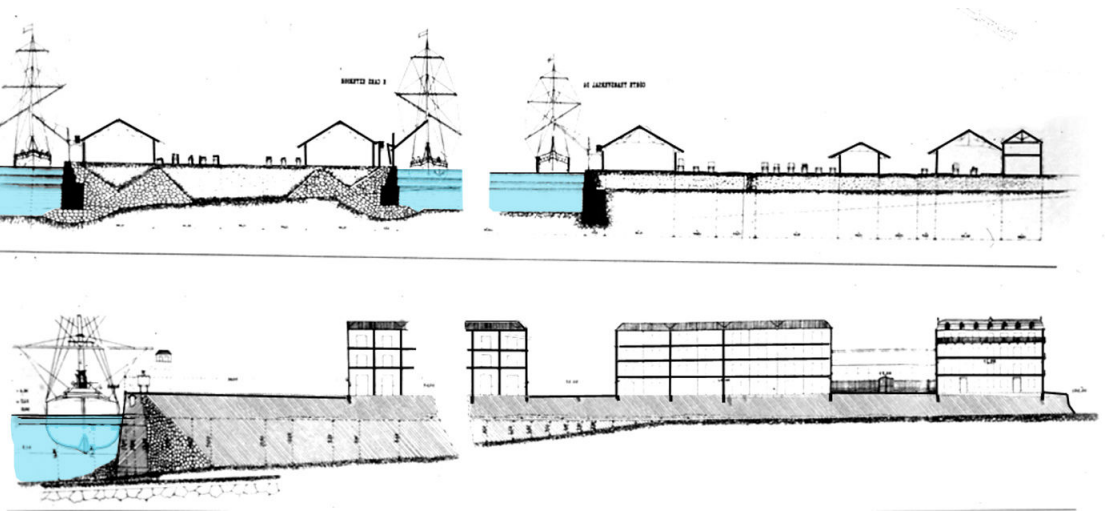
Up to the 1960s, in Lisbon most streets were the public space by excellence. Today they are loaded with cars. Architects, urban planners and activist citizens complain against a growing loss of public space, with parks and squares surrounded by heavy traffic ways. The investment on public space at the historic center of Lisbon has been criticized by architects like Alvaro Siza (1998, 47). 'Nowadays there is an obsession to bring the city lively, through the creation of pedestrian ways, urban furniture, decorative pavements and all sort of other things. It seems that the city needs to be supported to be able to live. These ideas have invaded the historic centers. There are interventions in which lots of money is invested, however they are useless as well as damaging.'

Public transportation either using roadways or railways have less users, while the number of private cars increases[5]. Lisbon Municipality has invested more in road structures privileging the use of private cars, namely tunnels, flyovers, ring roads and avenues, for fast traffic located along the river (Ave. *24 de Julho*, Ave. *Infante D.*

[5] According to *Inquérito à mobilidade na AML - Área Metropolitana de Lisboa (1998) individual transportation using private car(80%) register a dominant position among other means of transportation available at the AML, to access the city of Lisbon.*

Henrique). The land under the Port Authority jurisdiction is currently used for port and leisure activities as ruled by *Plano Director Municipal* - PDM (Municipality Master Plan) which also establishes the port area can not be used for traffic network functions. APL intended to prevent that future projects included road traffic in the port area because their aim was to value their land, either for the port activity, rental spaces or the implementation of urban plans. Through this isolated measure APL was not improving the relationship between port and city and defending the city from an increasing 'cut off effect' barrier, but was taking care of their own interests as a future urban developer. The only transversal walk-way that was built out of the six whose construction had been projected (see the map below) is located at *Infante Santo*, but is not more than a sidewalk which is part of road flyover where traffic is increasing the 'cut off effect'.

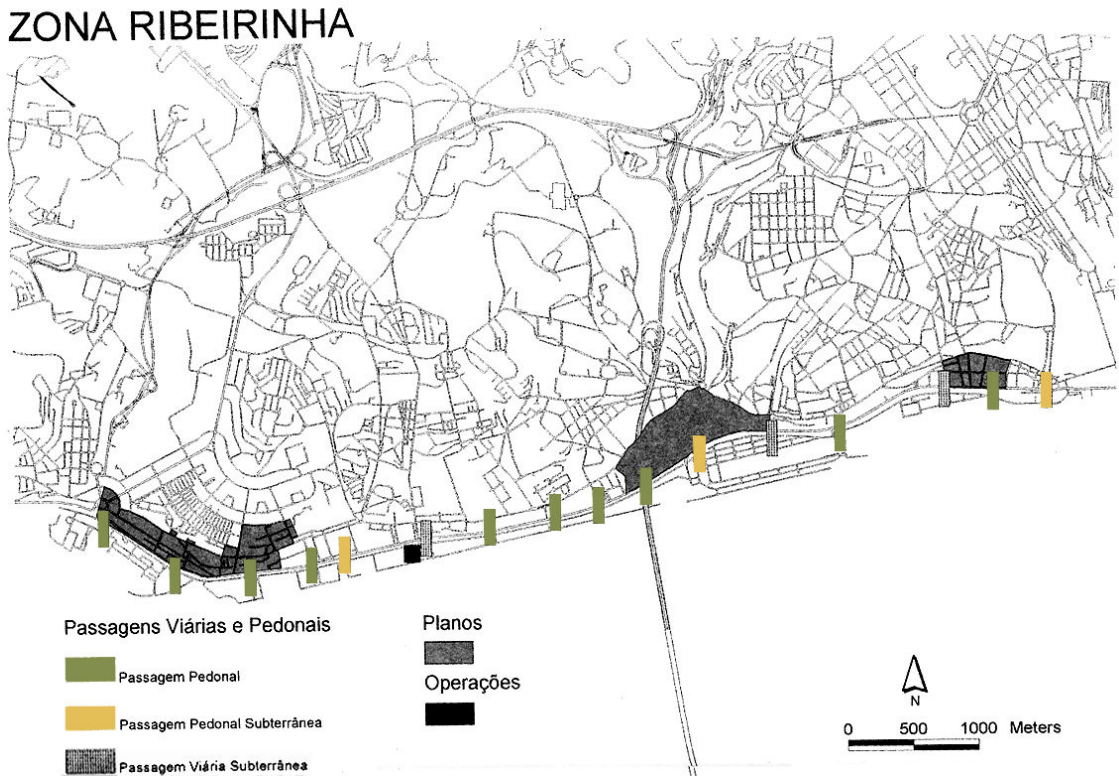
The project that was warded the first prize of the competition for the *Alcântara* junction redesign presents a solution focused on road and railway traffic thus driving the city further away from the river (images were shown in the introduction - plate 3, 4). The second prize was won by the team of Manuel Salgado (who was responsible for the public space design at the Expo'98) presented a project where pedestrian connections and accessibility were valued which involves a bigger investment on public space. However the policy followed in the latter proposal was rejected by APL whose preference went to the project guided by a strategy to increase traffic fluidity.



27. Section of the industrial port landfill constructed during the 1890s in Lisbon, Alcântara and Santos.

Railways and highways are elements of big modern structures which aggravate the separation between the city and the waterfront, creating a 'cut off effect'. However in the beginning they were not meant to do so, on the contrary they were supposed to be an improvement on the city life (plate 27). The current challenge for Mediterranean cities is to eliminate the linear barriers that grew between the city and the waterfront. As argued by Busquets (1997, 39)'The urban project should give meaning to new functions solving the conflict between a linear use of the waterfronts and the transversal accessibility from the residential neighborhoods, and to do this the crossing traffic system should lose some protagonist or should be reorganized through other solutions to avoid the longitudinal barrier." In this sense the historic center of Lisbon, which is being freed from cars and returned to pedestrians, is gradually more distant from the river. The actions undertaken are timid, the transversal accesses to the waterfront were not built, (plate 28) the rail/road traffic increases, so the present situation is very aggressive between the industrial port and the historic city next to it.

7 - (Mapa) Zona ribeirinha. propostas de Intervenção CML/APL, 1995



28. Map of Lisbon Waterfront – flyovers, tunnels and walkways proposal by the Municipality and APL, 1995.

In the last twenty years a number of accidents were registered in the public space of Lisbon. There are several obstacles to achieve quality in urban space. Shopping centers create the illusion of public space. Cars took over the streets, and modern structures for the automobile deteriorate urban life. The lack of public space is such that many Lisbon citizens use Expo'98 area where they feel comfortable and safe: senior citizens can walk easily, children do not run the risk of being run over by cars and young people find space to gather. In Barcelona, many things went differently for the past twenty years, as the various strategies we have discussed were implemented and are now visible and usable. Tim Marshall, who edited «Transforming Barcelona» starts by arguing that «Barcelona has in the past 10 to 15 years become the outstanding example of a certain way of improving cities, within both this Mediterranean world and in Europe» and ends by stating that «whatever the direction taken, the action will play out in a city which was comprehensively transformed in the last quarter of the twentieth century, in one of the most sustained bursts of planning and conscious governance seen anywhere at the urban level. Probably that burst will not be forgotten for a long while. It may then generate its own legacy»

The so-called 'Barcelona Model' that has been a reference to other cities worldwide, was particularly successful at the old port connecting it to the historic city, but this does not mean the 'Model' can be borrowed elsewhere because it is a burst based on a set of circumstances that values the investment of public space in central areas of historic neighbourhoods, promote pedestrian mobility and mixture of social groups but that can not be endlessly repeated either in time or space. (plate 29).

29. Map of Central Barcelona, includes *Barceloneta*, Old Town and *Ensanche*; the large public spaces (red) created during the last twenty years; previously existing public spaces (green).