

BARCELONA
harbor city of resistance, paths to the sea

0. Introduction

This document investigates the history of the harbor front of Barcelona, and the city's struggle to gain a relation with the ocean through the ages. The fascinating growth of Barcelona's waterfront interested me more than analysing a single public space, and examining the various disasters, designs and destructions through the years have taught me more than I would have learned by only focusing on the Rambla, which has not changed much throughout the centuries. The Rambla as a symbolic and functional object however plays an important role in Barcelona, and is examined in slightly more detail at the end of the report.

1. Foundations

The Carthaginians founded a small city at the Mediterranean sea, protected by two mountains, the Montjuic and the Tibidabo, not far from what was to become the french border, and all was well, until the Romans walked over them around 15 BC. Typical roman city planning generated a fully walled city (fig 1.2), of which some evidence can still be found today in the *Barrio Gotico*. In these times the harbor was of little importance to the world, besides providing local supplies to Barcelona. The location of the city, with strategic mountain ranges which protect it from the weather and enemies, and provide the city with ample fresh water, was largely determined by the location of freshwater streams that flow down into the Barcelona plain towards the ocean (fig. 1.3). Protection from the sea and attackers drifting on it demanded a rampart (fig. 1.2).

After the fall of the Roman empire the city became the capital, and subsequently the trading hub, of the prosperous Catalan empire, where it flourished as a harbor city. Because Barcelona had no real quays or piers to dock the ships onto, it substituted them by manpower to carry the goods onto the land from what was at that time the city beach. It needed large amounts of man power to manage this, and thus Barcelona became a famous haven for foreign immigrant workers of all kinds of plumage. These workers typically settled in a part of the city called *Barrio Ribera*. During this time the city kept expanding outside the roman city walls in a concentric pattern.

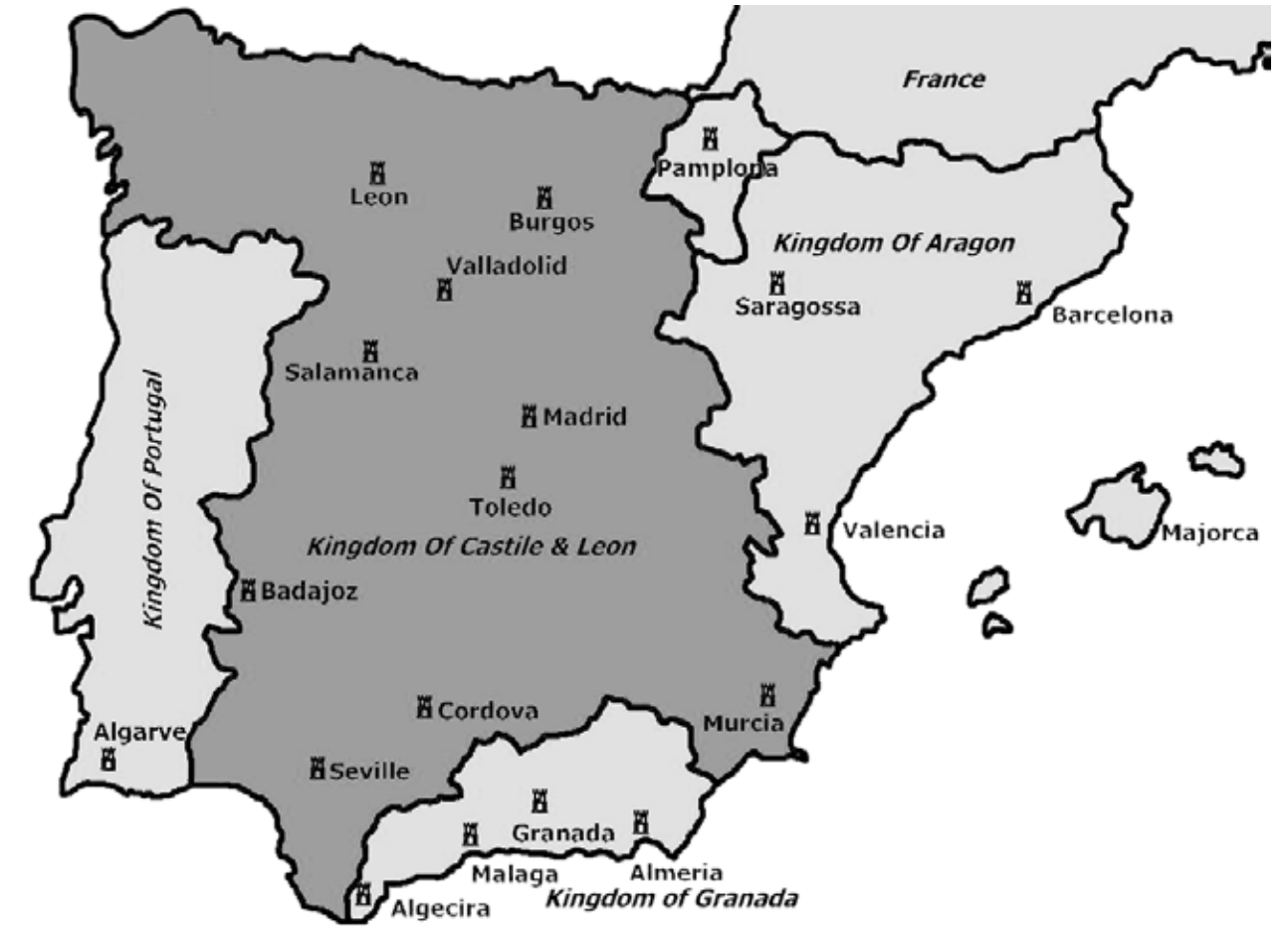


fig 1.1 Medieval Spain



fig 1.2 Roman Barcelona

(source: Stad en Haven, Meyer)

fig 1.3 Streams and rivers on the Barcelona plain

(source: Stad en Haven, Meyer)

2. Medieval times

The population growth of the city in the fifteenth century demanded further expansion of its border. The city's southern border was expanded, and what was until then the city's main water supply became a separation between the 'old' and 'new' city parts, and was converted in a large boulevard, the *Rambla* (stream), finally providing the city with an orientation to the sea, which it had lacked before. Not only did the *Rambla* become the main traffic artery of the city, it also welcomed visitors and traders from inland with a suitable symbolic entry to the city. The *Rambla* soon developed into an important street with markets, monasteries, the university and palaces for rich merchants.

These prosperous times came to an unfortunate end when in 1474 Barcelona's independent attitude was punished by the newly formed kingdom of Spain, created by the marriage of the princess of the kingdom of Castile with the prince of Aragon (fig 1.1). The city was put under military rule, and all growth was inhibited. For almost two centuries Barcelona was constricted, and all the plans for the creation of a suitable harbor front were halted. In the 17th century King Philip IV loosened the leash on Barcelona and the city was allowed to grow again.

A fort was built on the south side of the city, on top of Montjuic, reducing the military role of the rampart, allowing for an overhaul of that area. The rampart was demolished and a peninsula created instead by reclaiming land. The immediate waterfront of the city was raised to make a quay, but proved much too high to allow ships to dock (fig. 2.2). Port activity was resumed north of its original location, on the reclaimed rampart. This in effect created an urban terrace linking the city with the sea, as there were no ships or activity to obstruct this connection.

However Barcelona would not be able to enjoy its new waterfront pleasure for long.

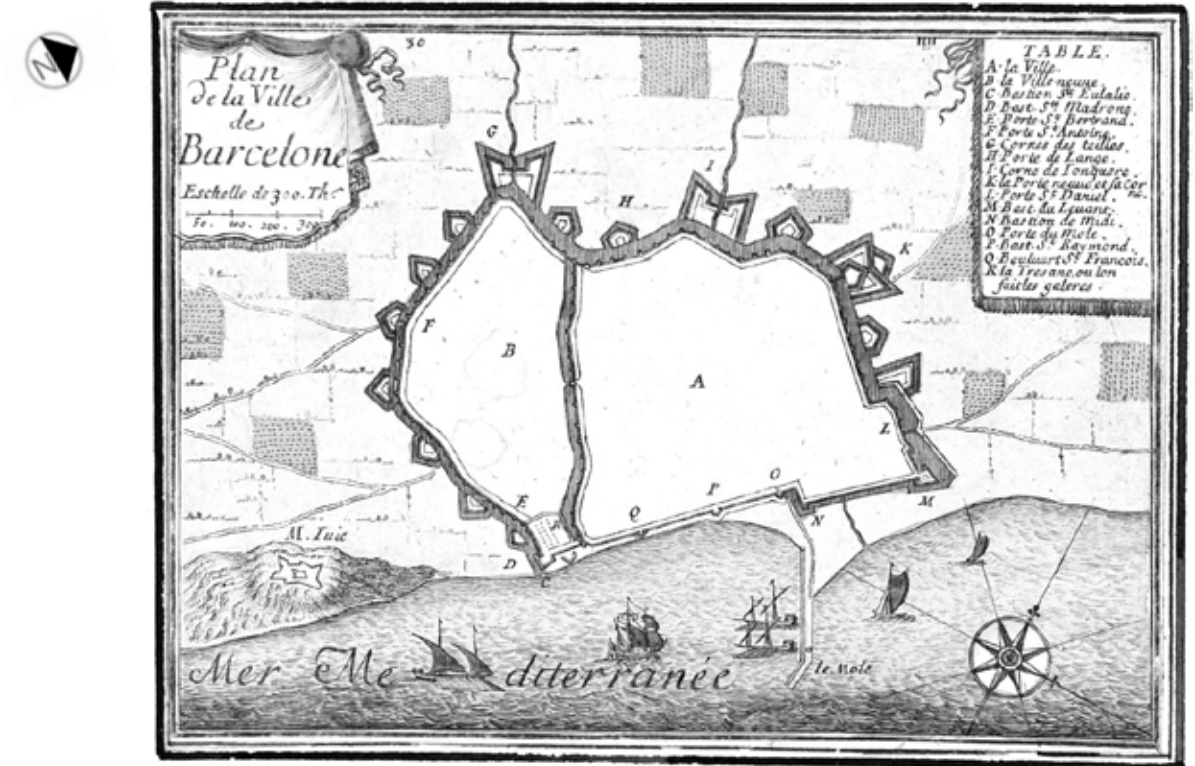


fig 2.1 Barcelona in ca. 1700

(source: Hebrew University of Jerusalem)



fig 2.2 Barcelona sea front 1865, Isodore L. Deroy Lithograph

3. Second Oppression

In 1714 a war ended in which King Philip V emerged as a victor, the side to which Barcelona was opposed since the war started in 1702. Severe countermeasures were taken to keep Barcelona under the thumb of Madrid. A new defense structure was constructed north of the *Barrio Gothico* (fig 3.1-A), and using the new fort, the old one on top of the Montjuic and the large city walls, the city was constricted completely, and governed as under colonized rule. The new defense structure north of the city displaced most of the workers of La Ribera. They were relocated to an area designed according to Spanish colonial city planning on the reclaimed land of the Rampart; Barceloneta (fig. 3.1-B). This part of the city was designed by Belgian Prosper Verboon to prevent uprisings by its (rowdy) population, in direct shooting range of the two forts and by its street layout, and to block some of the eastern winds. Over time this area was expanded to the edges of the rampart, following the grid as established, and precise rules laying down the expansion and materials to be used. This is the reason Barceloneta is still today highly uniform. The city was restricted in its expansion in a building sense, but its population wasn't. Growing from 37,000 inhabitants in 1717 to 190,000 in 1855, without expansion of the 250 hectares on which the city was built, this was almost an increase of six times. Spain realized that Catalonia provided for more than a quarter of the country's income, and wasn't planning on cutting itself in the fingers. When in the middle of the 19th century, after one and a half century of oppression, Madrid loosened the noose around Barcelona's neck, the city was a miserable place, bursting out of its seams with people, being the densest populated city in Europe at the time, and raging sickness and crime, resulting in, among others, the yellow fever epidemic of 1821.

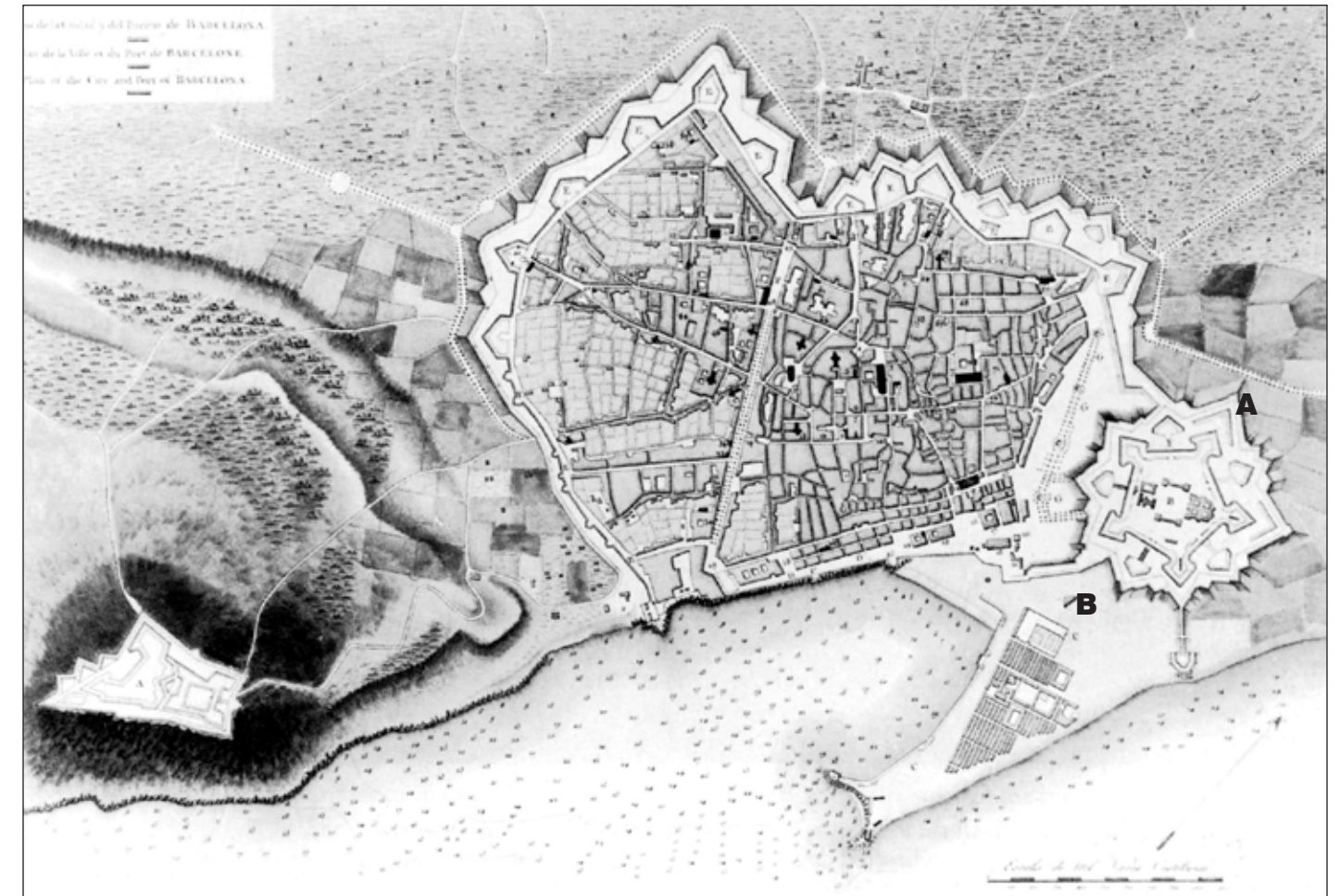


fig 3.1 Barcelona in 1806

(source: *Stad en Haven*, Meyer)

4. End of Second Oppression

Before the large city restructuring was started in 1856, several large tree lined avenues were already allowed to be constructed. The Passeig de Gracia connected the city of Gracia, out of shooting range on the plain of Barcelona, with the city. Also Las Rondas, a boulevard on the Rampart surrounding Barceloneta and the Cami del Cementiri, running along the coast. The economical importance of Barcelona, combined with repeated aggressive uprisings in the beginnings of the 19th century slowly created a stronger base for a more liberal government of Barcelona. When in 1848 military importance shifted away from Barcelona due to a change of balance elsewhere in the country, the fortress to the north was destroyed along with the city walls. The site of the fortress became the location of the 1888 World Exhibition, and afterwards converted into an uneasily sited part. This area remained troublesome as a mental barrier between the northern part of the city and the old center, and as an unsuitable pivot for the Barceloneta corner. City renewals was imminent and a lot of energy and focus was directed at improving the waterfront. An important railroad connection with France was established, running along the seaside, and the world fair of 1888 allowed for a number of city renewals, such as a tree lined seaside, and a beautified Rambla. However the Port Autonom, an agency independent of the city administration, that owns and controls the harbor and under Spanish rule, planned to create a large strip of industry on the shore of Barcelona, and quays from the central part, where the Rambla ends. Although the last part was never executed, a large part of the shore north of the rampart was converted to industrial zone and wrecked the shoreline and the connection of a large part of the city with the sea. It also negated the small but nevertheless positive effect the *Eixample* city restructuring of 1859 of Cerdà had on the coast.



fig 3.1 Barcelona in 1920, showing the affected area by Port Autonom's intervention

5. Eixample

In 1859 the city of Barcelona initiated a competition for the urban expansion of Barcelona. It was won by Antonio Rovira i Trias, who proposed a plan which grew concentrically out of the existing old city fabric. However Spanish rule intervened, this time without apparent reason, and appointed the runner up, Ildefonso Cerdà as the planner for the new city expansion. Cerdà's design has been heralded in time as revolutionary, although hardly appreciated in his own time. It is said that no other single individual has had such a profound influence on a European city as Cerdà has had on Barcelona. His plan provided the city, and continues to provide today, air, light and flowing traffic, combined with ample living opportunities and a refined balance between public space and private property.

"The ingenious character of Cerdà's plan is found in his ability to combine a mathematical, orthogonal, organisational pattern with geographical and topographical constants, and to make all elements agree..."

Han Meyer

Cerdà based his design on an extensive statistical study of the city's demographics, which he performed, and was the most extensive to date. Much like Engels in England at around the same time, hygiene, crime, death and disease were his primary concerns. He felt most of this could be accomplished by a regulated density. He favored the freestanding house with garden but the density requirements of an urban environment did not allow this. He created a design based on a chamfered square, with a minimum street width of 20m. He pioneered rules for the size of a street-block, a maximum building height and depth, inner courtyards, minimum street frontage and a ratio for height versus street width. His eroded corner provided for better traffic flow at corners, visibility, air and light penetration and an obvious place for communal services, as well as a unique design for a city in dire need of its own identity. Several large avenues (Diagonal, Gran Via, Meridiana) created redundancy in traffic flow to smooth out the plan, and to allow for traffic growth. Where these three streets met, a new governmental center was planned.

Several key squares were designed, among which the Placa de Catalunya, which buffered the one block shift in grid from the Passeig de Gracia to the Rambla. This eventually turned into the current heart of this city.

In contrast to the old city, the new city had 37% space reserved for roads and plaza's, versus 17%. It had streets that were 20m wide versus 3m. Also, the grid was nondiscriminatory, as opposed to Rovira i Trias' design. It would provide a suitable democratic backdrop for a city that was profoundly socialist.

Since the introduction of Cerdà's plan, changes were

made to the regulations governing it. Since 1859 a steady increase in the building height was implemented, resulting in a maximum height of 24.75m and 7 stories as opposed to Cerdà's 16m and 4 stories, as well as modifications to the rules for the courtyards. Most of these have been reverted to near-original in 1988.

Cerdà's plan (fig 5.1) provided for an expansion that was directed north and west, for the Montjuic blocked expansion to the south. North received priority as it would generate a large number of avenues down to the sea (which was negated by the Port Autonom intervention).

The plan failed to create a strong connection with the sea however, and Barcelona's relation with the sea remained thin, only somewhat developing through the by now ancient Rambla. The plan also did not extend to the north as much and as fast as was anticipated, but rather eastward, as commercial interest lay to the south-east of the city. This created the center east rather than north of the old city, and made Passeig de Gracia more important than was anticipated. A planned north-south intersection of the old city therefore was not executed, and only the Via Laetiana was cut through the old city as an east-west passage.

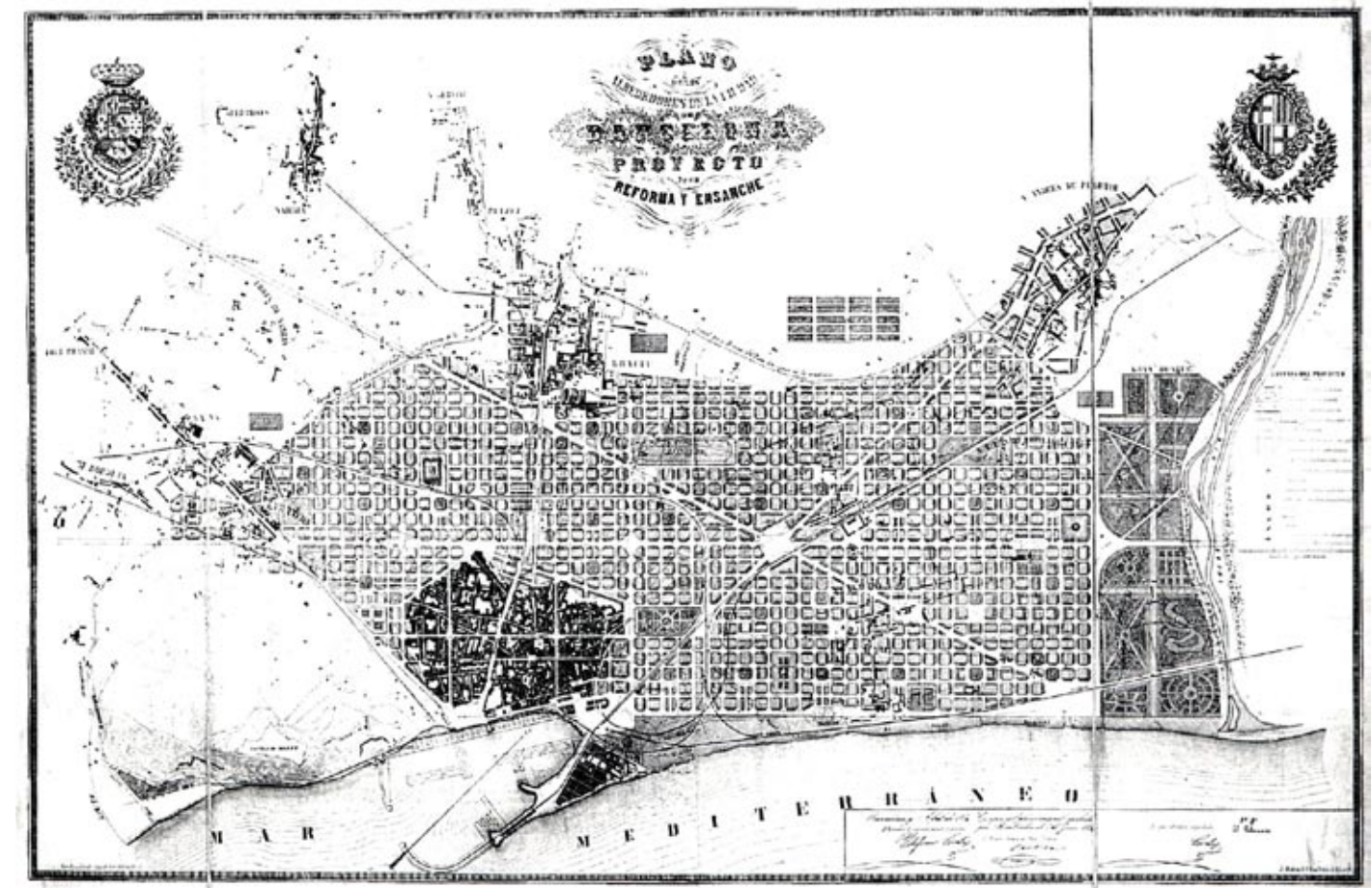


fig 5.1 Expansion plan of Barcelona, by Ildefonso Cerdà, 1859

(source: Stad en Haven, Meyer)

6. Third Oppression

In 1932, GATCPAC (*Grup d'Arquitectes i Tècnics Catalans per al Progres de l'Arquitectura Contemporània*), riding on the modernist train in the tracks of CIAM, made many plans to revise parts of the city, and especially the river front, and even a plan for the whole of Barcelona, boasting a superblock based on an expanded grid version of Cerdà's design. Typical of modernist design of that era, lacking the delicate scale of successful urban plans and providing for buildings alone rather than urban fabric, these plans would have probably been worse than the unplanned jumble that was created instead due to the oppression of Franco's rule.

When in 1939 Franco won the civil war that started in 1936, investment in the city was halted and the city was left to the forces of market economics for its growth. This era is typified by increased density in various new parts of the city, wild growth urban planning outside of the Eixample, a decay and deterioration of the city as a whole. The city front along the ocean turned into a twelve way freeway (fig 6.1), and Barceloneta was surrounded by industrial constructions.

When Franco's rule slowly grew weaker in the 1960's urban plans were reevaluated. The GATCPAC plans were found to be too internationalistic, and to not express the individuality of Catalonia enough, as well as not being delicate enough for the urban problems and fabric of Barcelona. when Franco died in 1976, a whole group of architects from the university of Barcelona had had ample time to investigate the city and its structure. The Barcelona school of urban design, led by Bohigas, Manuel de Sola-Mores and Busquets, launched an effective counterplan to former GATCPAC member Antoni Bonet's plans to reform the troublesome La Ribera area. Bonet's plan catered for the commercial interests of the power company who owned most of that land, which was slummed down to light industrial use and shanty housing for economic immigrants from the countryside. The government who was finally willing to reform the harbor side of the city was going to succumb to the purely commercial interests of raising land value for the power company under the guise of a former GATCPAC plan called the Macia plan. The counteroffensive headed by de Sola-Morales provided for a preservation of La Barceloneta's historic structure, and a new, non destructive beltway. Also, emphasis was placed on preserving the Eixample and its character. The industrial area taken over by the Port Autonom was supposed to make way for revitalisation, and the industry moved out. The city eventually used the Olympics and the Forum to completely reconstruct these areas of the city.



fig 6.1 Waterfront of Barcelona, and Harbor (Moll de la Fusta), ca. 1950

(source: *Stad en Haven, Meyer*)

7. Current harbor

Amidst all kinds of city plans affecting the airport, and the outside regions, such as the beltway (centurion), the city's new socialist government placed priority in the restructuring of public space. Having just missed the last of the modernist city restructuring era's, Bohigas as head of Urban Development assured that interventions would not upset the social livelihood of the city, the way the GATCPAC plans and later the conservative Catalanian government's PMG plan would. Sola-Morales, drawing on the humanistic-modernistic urban design as typified by Quaroni in the 1960's, laid the foundation for the redevelopment of the waterfront in four distinct projects. The first was to be the city harbor front, the second Barceloneta's harbor and ocean front, the third project the industrialised zone north of Barceloneta, and the fourth the part of the city that terminated at the ocean north of that.

The first project received priority. The 12 lane freeway was replaced by a system of delicate interventions that would produce a landscape grand enough for an ocean to city transition zone, while preserving both the human scale and detail and the traffic flow, which was vital for the city's economic traffic, and of high political importance (fig 7.1). Using a tunnel underground, and a four lane road system on top, the waterside stepped down from this. Several promenade lanes, with different scale and height were established to buffer this difficult area. The heightened walkway referred back to the old raised quay, and allowed for views across the harbor.

In the second project (fig. 7.2), at Barceloneta's harbor front the old harbor structures were supposed to be converted to public buildings such as libraries and community centers, and small illegal fish restaurants were supposed to be rehoused into legal quarters to be built upon the beach. Both aspects were eliminated by the Port Autonom who was afraid of high operating costs of the warehouses and forbade building on the beach. The waterfront was then redesigned as large public promenade and beach by Olga Tarasso and Jordi Heinrich, which proves to be highly successful, and is now one of Barcelona's prime attractions.

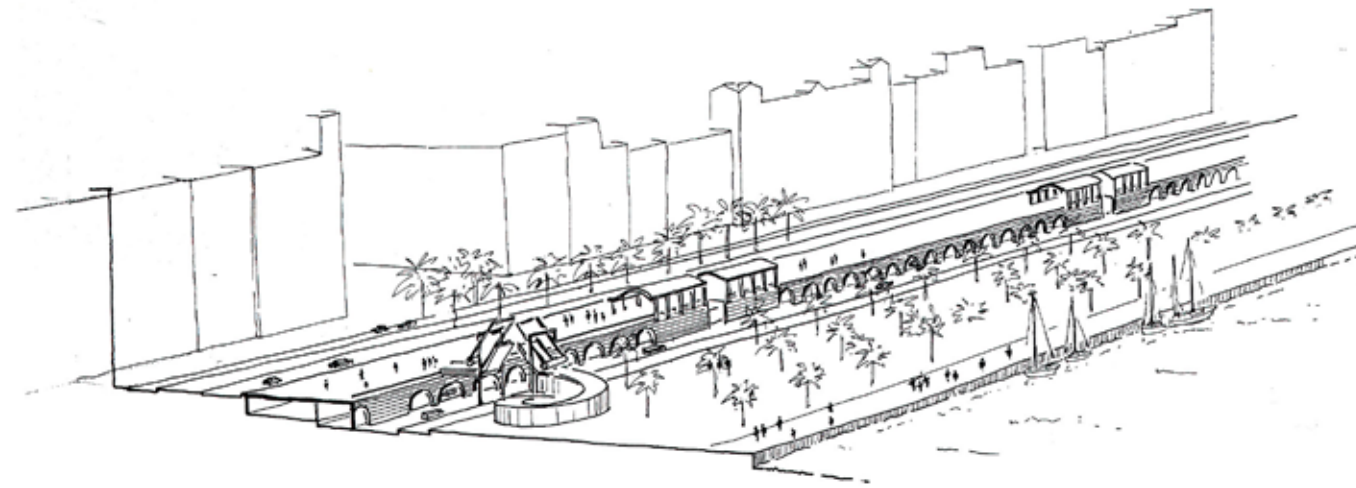


fig 7.1 Project 1 - Moll de La Fusta

(source: Stad en Haven, Meyer)

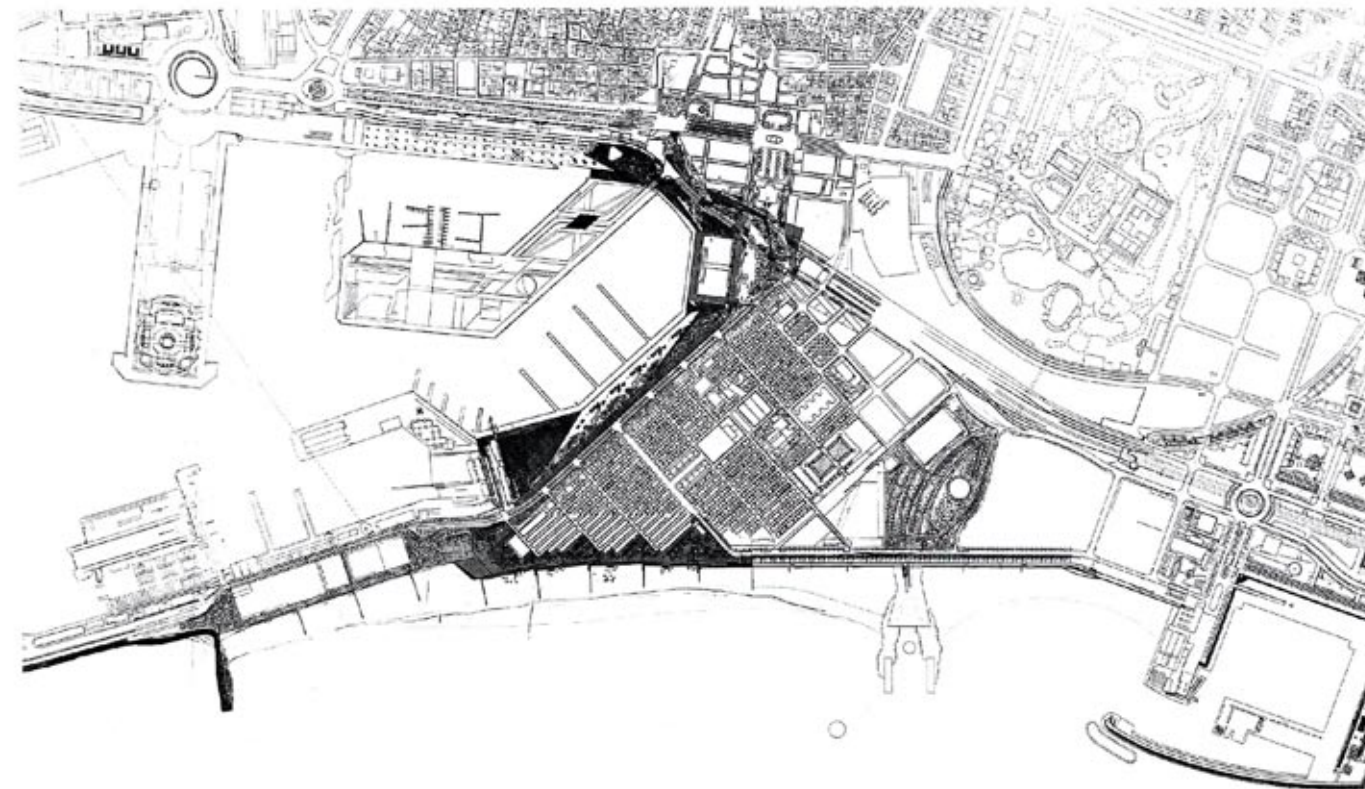


fig 7.2 Project 2 - Barceloneta Waterfront

(source: Stad en Haven, Meyer)



The third project was realised by planning the Olympic city on top of it. Bohigas designed the area with a new seafront, continuation of the Eixample and new housing opportunities. Two large towers crown the design either side of the Passeig de Charles V. However due to changes made to the plans by the Ministry of Housing, none of the housing was built, and the Ministry of Transport almost doubled the traffic requirements for the road through the plan, eliminating all pedestrian access and increasing noise levels. A Wall was hastily built to protect the environment from noise, and subsequently cut off the city from the seaside once more.

The fourth project (fig. 7.3), not yet fully executed, provided for the city sea front north of the olympic park. Not part of the original plan, but already executed is another world event called the Forum, which was held in 2001, which created seafrontage, revitalisation of older buildings, hotels, and an extensive marina with restaurants, entertainment centers and an exhibition center designed by Herzog & de Meuron.

The plan provides for the connection of the centurion with the city, and the creation of a green belt along the coastline that connects existing greenspaces, much like Olmsted had done in Chicago with the Emerald Necklace, but on the coast.

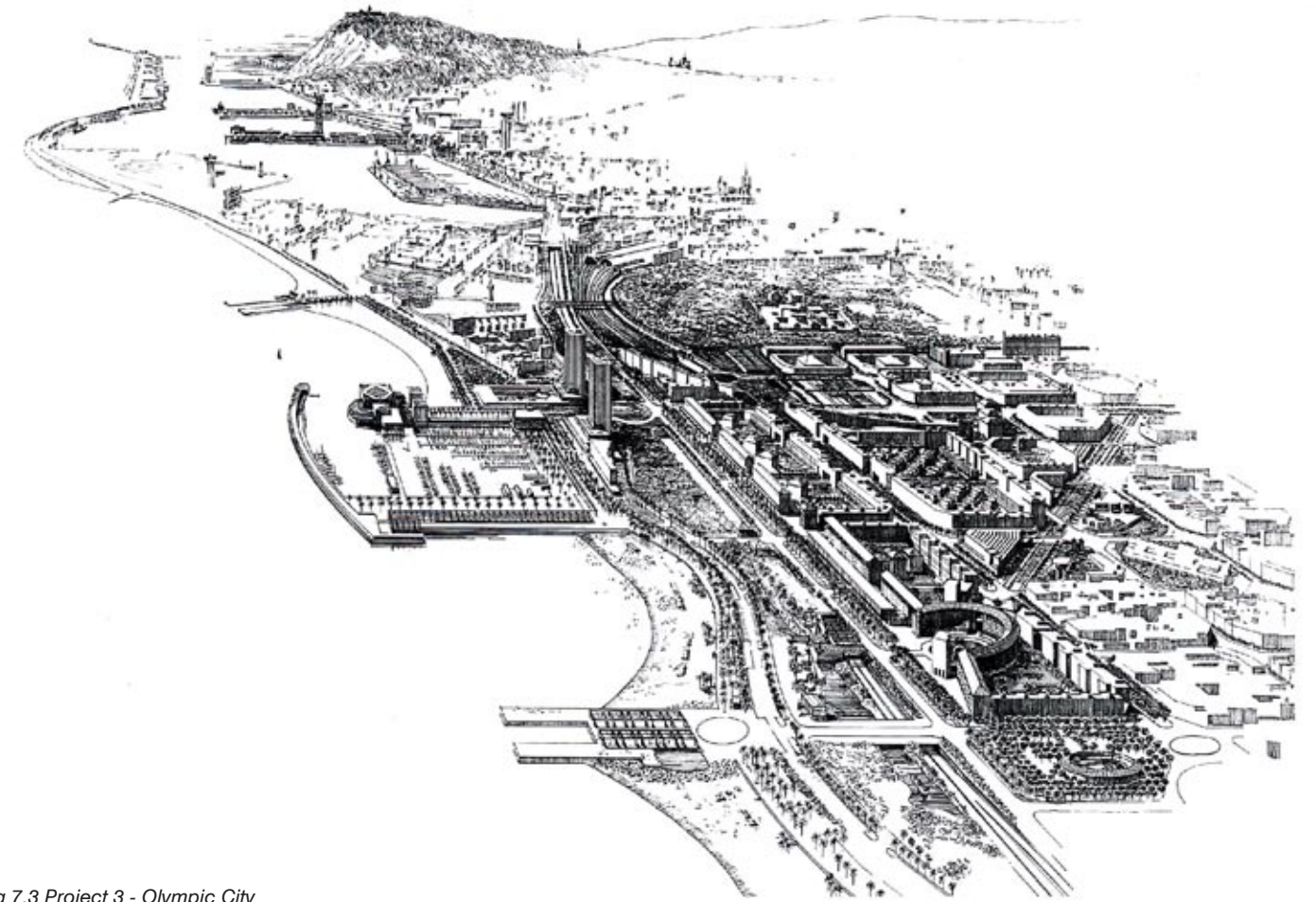


fig 7.3 Project 3 - Olympic City

(source: Stad en Haven, Meyer)



fig 7.3 Project 4 - Connected parkways and waterfront

(source: Stad en Haven, Meyer)

8. Las Ramblas in detail

As history reveals, La Rambla grew out of an existing condition, and has maintained its role throughout the centuries. Its location has hardly changed, and its function has only shifted from main street to main promenade. This is of course because of its strength as an organizational element in the city, the pleasure it has given the millions of strollers that went down to the sea, and the spatial quality it provides. Around 30 meters wide, its contrast with the narrow streets of the *Barrio Gotico* could not be stronger. The Eixample, giving equal importance to the pedestrian as to the vehicle, is best traversed on foot, and in the Barrio Gotico one is not allowed to drive, if a vehicle would fit through the narrow streets at all. Since the introduction of the automobile, La Rambla has been kept relatively free from traffic, and during the last century it has only provided for a very limited number of vehicular traffic. It is a pedestrian street, for a pedestrian city.

La Rambla today (fig. 8.1) is a wide boulevard, with on either side a single vehicular way (8.1 C). Usually it is faster walking down La Rambla than driving along it, but this access way is important for servicing the stores and restaurants along La Rambla. The stores are usually placed underneath an arcade structure, giving limited shelter on rainy days, but also providing shade for the window fronts to be visible. At irregular intervals cafés and restaurants exist at either side of the Rambla, populating the sidewalk (B/F) with furniture and activity.

The Rambla is a place for people. If you like people, you will like the Rambla (fig. 8.2). I don't like people, so I generally avoid it, but late at night when the masses have disappeared it is a wonderful stroll. The reason why the Rambla attracts so many people is that it employs a number of tools to attract people. First of all, it is the main pedestrian connection from an important place (Placa de Catalunya, fig 8.4, 8.5-A) to an important place (The harbor, fig 8.3, 8.5-B), in addition to providing additional circulation to the bordering city districts (the Roman city north of it, and the medieval city south of it). Badly copied versions of La Rambla, such as the unsuccessful Rambla del Raval (8.5-C) are often unsuccessful because they go from nowhere to nowhere. Second, the Rambla generates its own attractions by providing exclusive stores, restaurants, museums, cafés of all types, small kiosks (fig 8.1 D), pet stores and street entertainment (8.1 E). Lastly, it generates a pleasant walk by allocating a large space for thoroughfare, and shade from the sun by the buildings surrounding it and the tall trees. In winter the trees lose their leaves and the sun is allowed to penetrate to warm up the pedestrians.

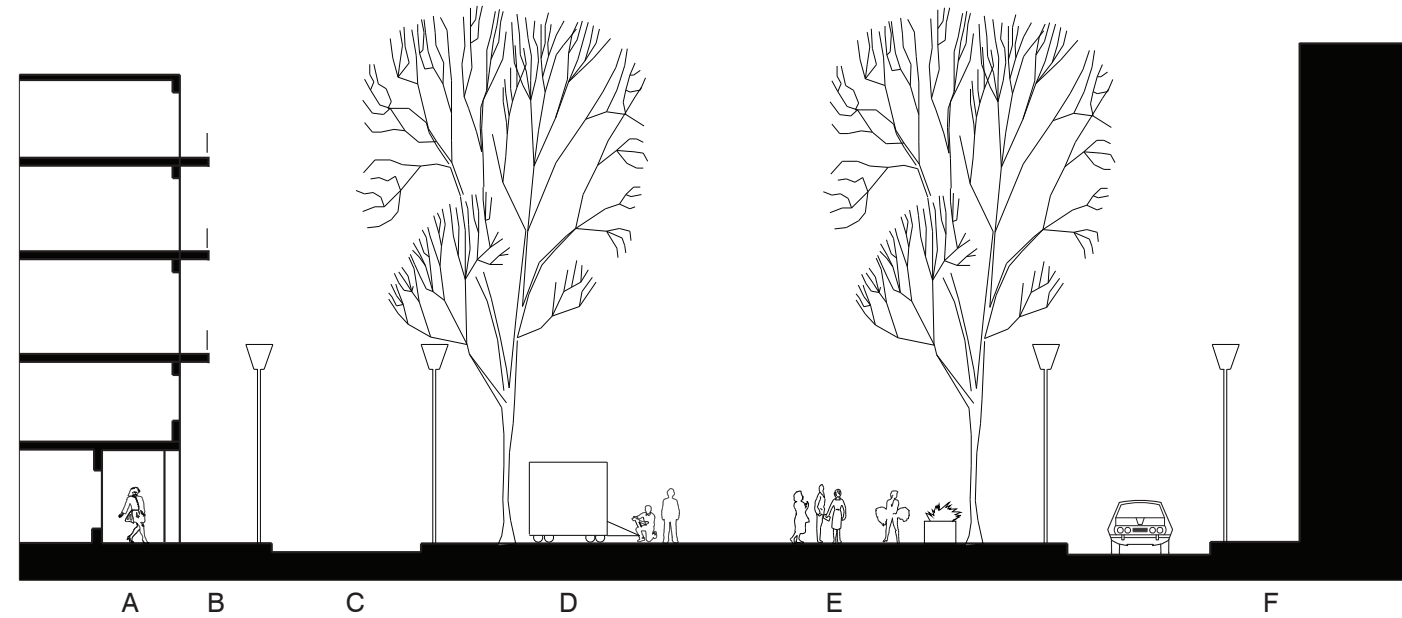


fig 8.1 Approximate section of La Rambla



fig 8.2 People everywhere



fig 8.3 From the harbor to Pl. de Catalunya



fig 8.4 From Pl. de Catalunya to the Harbor

9. The old man and the sea

There are also a number of important locations at various points along the Rambla. Obviously, these would not exist if the Rambla would not have been there in the first place, but now they can be seen almost as an extension of the Rambla. The most important of these is Placa Reial (8.5-C). This classical palm-tree-filled square, surrounded by café's and restaurants on the ground floor, and three stories of housing above, is one of Barcelona's premier high scene districts, and during the day is a big tourist venue. Also, the old markets (8.5-F) attract not only tourists but also local citizens for their shopping needs.

The harbor has now new attractions, built by the Port Autonom. Obviously, as the past has shown, this could not be done without interfering with the general urban renewal plan of the city. A big pier with a cinema, theater and an aquarium has been built right in the middle of the harbor (fig. 8.5-E). This too-large scale intervention in the harbor feels deserted and empty, and it takes away all views of the ocean from the harbor. Again, Barcelona is denied its visual connection to the sea. If this was not enough, the Port Autonom also built a non-functional hill on top of the pier (fig. 8.5-G). This inhibits any view from the harbor upon the historical Barceloneta, and vice versa.

It is obvious that Barcelona has not finished its long journey to establishing its relation to the ocean. Every century a new obstruction arises to prevent the hard work of the Catalonians to succeed. However, the way it looks now, it is better than it ever was before. Barcelona still has no connection to the sea, it is blocked by a floating entertainment island of the Port Autonom, ministry of Transportation's sound walls north of Barceloneta in the Olympic village and railroads and big freeways north of that. But, at least Barceloneta has its ocean front restored.

Opening up to the sea has been such an effort for Barcelona, it is hard to imagine Barcelona without the struggle to regain what it almost never had. Perhaps this is something that can be felt in Barcelona, and makes its inhabitants strive to make it such a unique place. One thing has never changed throughout the centuries, and that is the Rambla. The Rambla has always flowed down to the sea, and it will retain this position centuries to come just as effectively as the centuries past, Barcelona's one strong connection to the sea.



fig 8.6 Placa Reial



fig 8.5 Street map of Rambla and surroundings

Bibliography

Parts of this report gain their information extensively from Stad en de Haven by Han Meyer (1999). This book has been invaluable in understanding the complex and conflicting historical relationships. Other books used are:

Transforming Barcelona, Tim Marshall, 2004

Barcelona: The Civic Stage - Robert Goldston, 1969

Cerdà, urbs i territori : planning beyond the urban : a catalogue of the exhibition Mostra Cerdà, 1996