

# **THE SPANISH CITY DURING THE INDUSTRIAL REVOLUTION**

**19<sup>th</sup> century**





B A R C E L O N A .



BARCINO, que vulgo Barcelona dicitur, urbs est apud Hispanos celeberrima, mediterranei maris  
litus, situ nobilitate, miranda, antiquitatem redolens. A Romanis in Hispaniam transgressis, Faventia  
dicta Albius dein seculis, cum diversae exterarum nationum manus, sese per Hispanias effunderent,  
hanc etiam urbem, inter alias solo aequarunt, que proin vasta perseveravit, donec eam nova  
incolae iterum instaurarent, ac veteri illi reddito nomine, Barcinonem rursus appellarent.  
Durat etiam nunc hac nostra tempestate inter urbis appendices vestigia veterum murorum,  
neque, magnae sane, neque, spatiosorum. Quod si ipsam fuerunt, quos construxerat Hamilcar, cohaere  
eos in amplitudine tantum quatuor habuisse portas, furrum, vicinas, in quibus celaturae quaedam  
cernuntur Hispani gerentes capitum bubulorum, quibus veterum nonnulli, significari pacem arbi-  
trantur, aut laborem, et exercitationem, quae omnium humanorum honorum habentur in  
strumenta. Usque adeo vero aucta et promotae sunt aedificia, quae priores muros cingunt,  
ut caput hae urbis esse coeperit. Et nunc etiam sic Catalonia, vnaque sit ex pulcherrimis  
urbibus ditioribus, amoenioribus, ac potentioribus Hispaniae civitatibus. Hac Florianus  
de Campo





*Cum Priuilegio.*



# SOCIAL AND POLITICAL BACKGROUND

- Europe is embedded into changes
  - political (1830, 1848 revolts)
  - economic (Industrial Revolution)
  - social (growing of the working class).





# SOCIAL AND POLITICAL BACKGROUND

- ❑ Europe experiences a rapid urban development
- ❑ Cities became the symbol of the social inequities e.g Vienna
  - **Old city**:
    - Cathedral (religious power)
    - Aristocracy residences (social power)
    - The Imperial Palace (political power)
    - Administrative buildings (economic power).
  - **First crown (Ring)**: residential neighborhoods for the wealthiest
  - **Second crown**: working people neighborhoods close to the industry.





# THE INDUSTRIAL REVOLUTION IN BARCELONA

- Period of **great economic revitalization** → which in turn led to a cultural renaissance.
  - Pioneering in **manufacturing procedures** imported from UK.
  - Starting: textile (clothing) industry (150 factories around 1800) → In 1849 the *La España Industrial* complex was opened in Sants (first industrial slum).
- Followed by the **iron and steel industry**, boosted by the railway system and steam navigation.
  - The first factory: Nueva Vulcano (La Barceloneta, 1836).
  - La Barcelonesa, antecedent of La Maquinista Terrestre y Marítima (1855), one of the most important factories in the history of Barcelona.





# THE INDUSTRIAL REVOLUTION IN BARCELONA

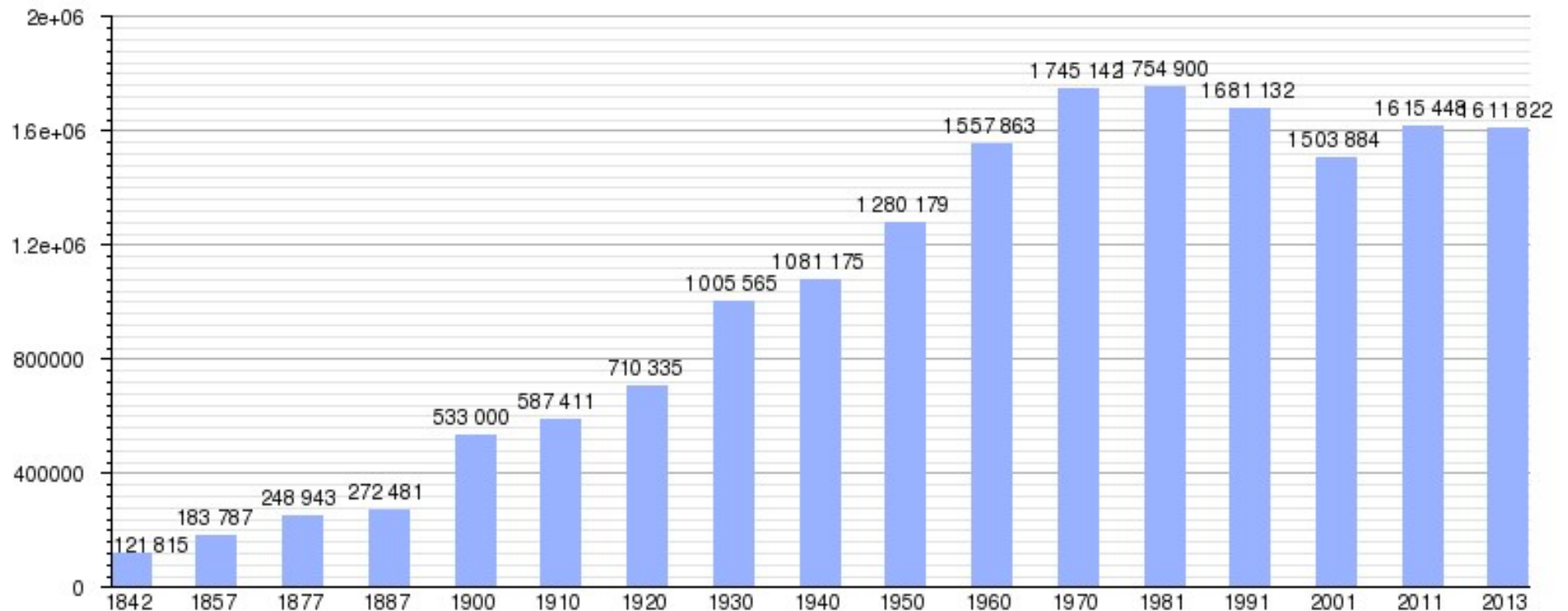
- ❑ The industrialization brought important **changes in the urbanism of the city**, due to the needs of the new economic (capitalist) system
  - Required a strong concentration of labor and auxiliary services.
  
- ❑ Barcelona thus underwent an important **leap to modernity**, characterized by:
  - **Migration** from the countryside to the city (several waves).
  - **Linkage between industrial and urban developments.**
  - A new **articulation of the territory** through a wide network of roads and railways: Barcelona became a "colonizing" metropolis of its surroundings.



# SOCIAL CHANGES

## □ Migration to Barcelona

- Mostly by peasants from the surroundings rural areas.
- Increasing size of the working-class neighborhoods → increase in population density (850 inhabitants by ha) → substantial worsening of health of the citizens.





# SOCIAL CHANGES

- ❑ **Densification of the old city** → The old houses grew vertically to provide housing for the new population → Hygiene problems.
- ❑ Former artisan neighborhoods became, in many cases, areas of working-class residence (“slums”).





# TECHNOLOGICAL CHANGES

## □ Technological changes.

- Coal and petrol.
- Vapor machine solve the problem of energy and power.
- Began in Northern Europe, appeared in southern Europe around 1850-1870



# TECHNOLOGICAL CHANGES

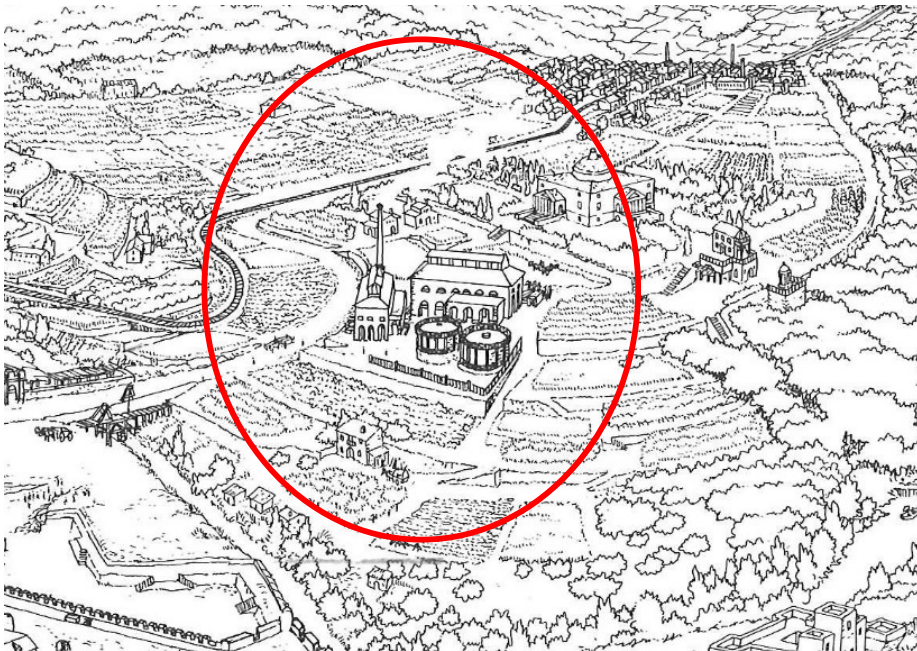
## □ New Infrastructures

- Street illumination: **gas factories** from coal distillation.
- **New transportation system**
- **Extinction of fires** and systematic **collection of garbage**.
- Generalization of the **sewer system**.
- **Stone paving**.
- **Public bath and washing places**.



# Gas factory

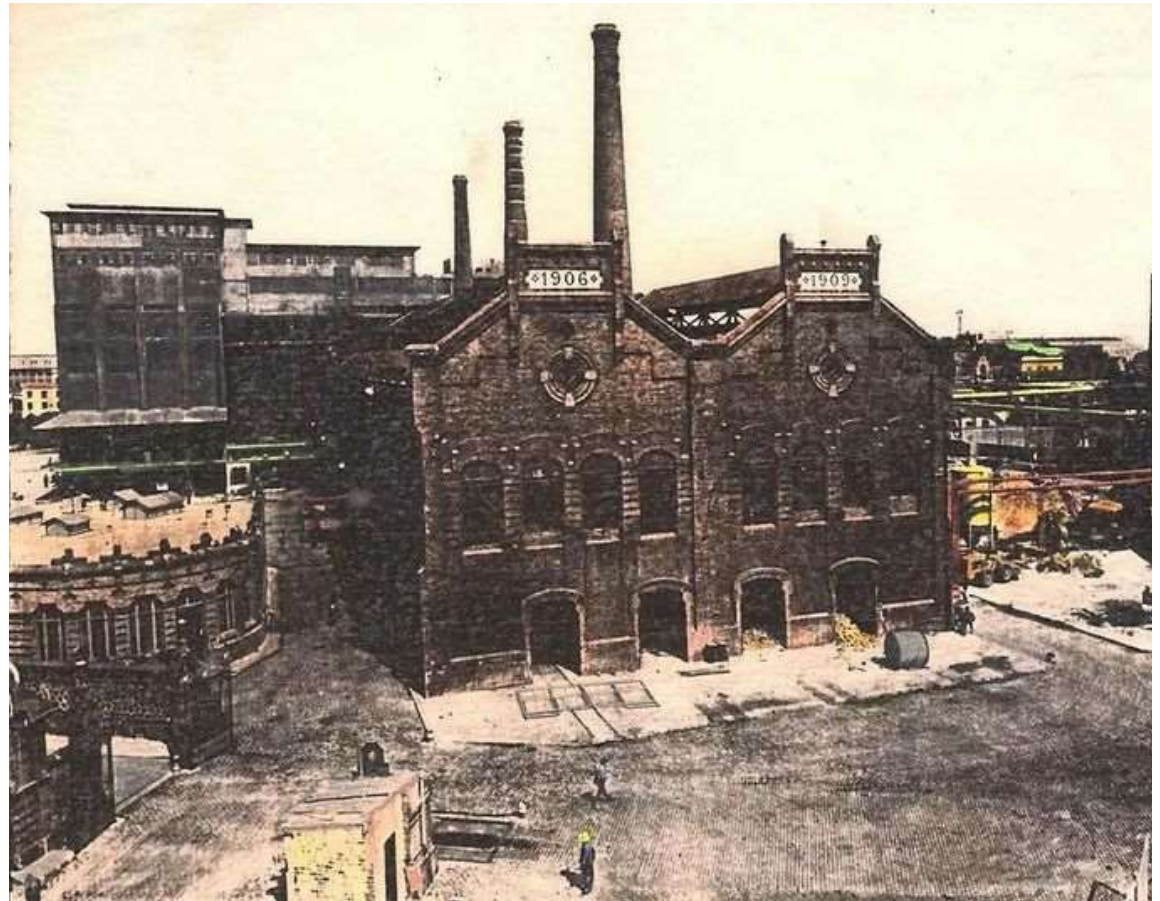
- ❑ An important element in the city, as provided illumination.
- ❑ Symbol of modernity derived from scientific advances: gas produced by dry distillation of coal.
- ❑ Underground pipes took the gas until their destination points.





# Gas factory

- ❑ The first illuminated streets were the Rambla, Calle de Fernando and Plaza de San Jaime (1842).
- ❑ The same year: creation of the *Catalan Society for Gas Lighting*, renamed in 1912 as *Catalana de Gas y Electricidad* and today *Gas Natural*.
- ❑ In 1856 was applied to kitchens and domestic heating.



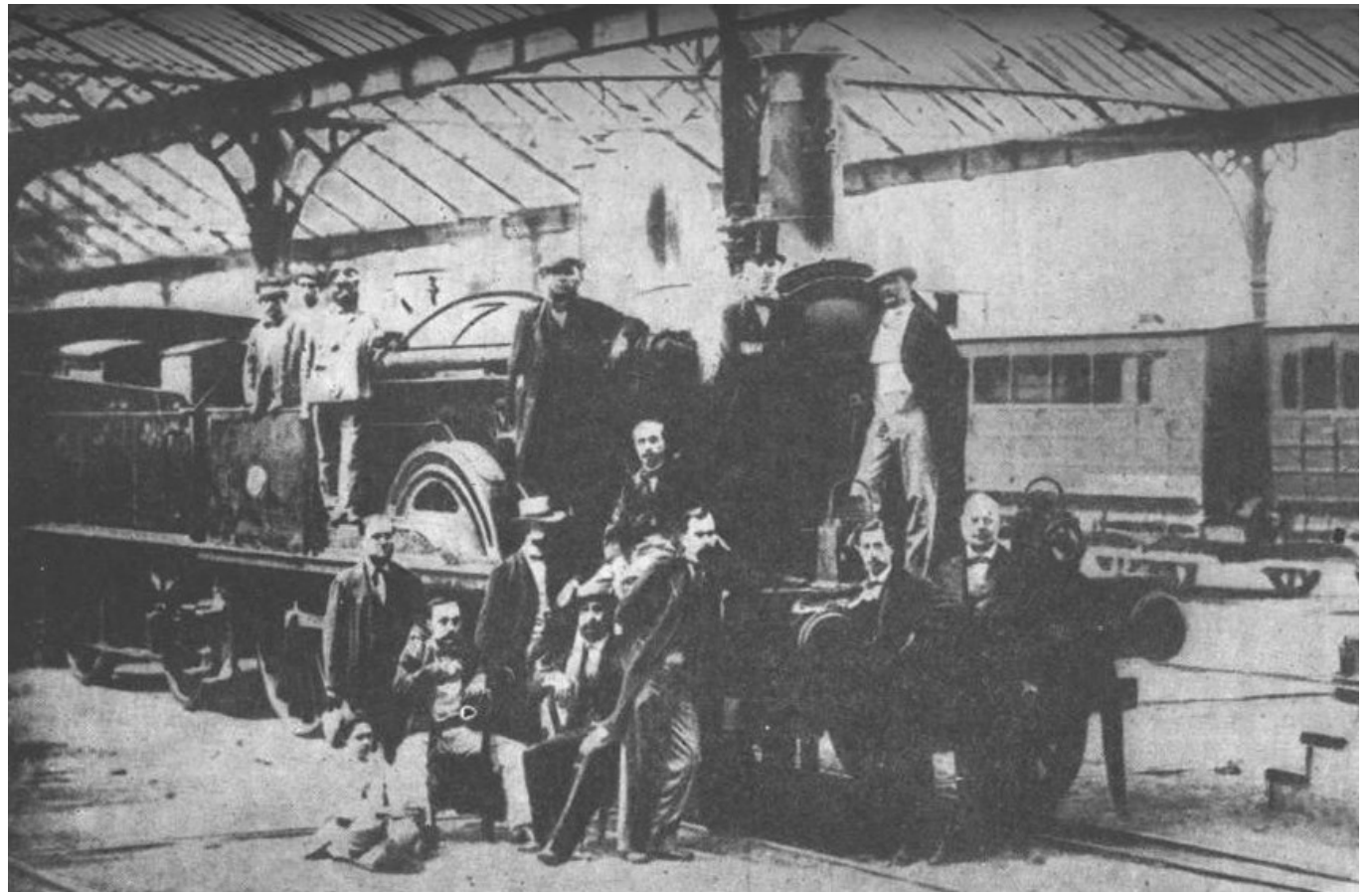
La Barceloneta Gas Factory



# New transportation system

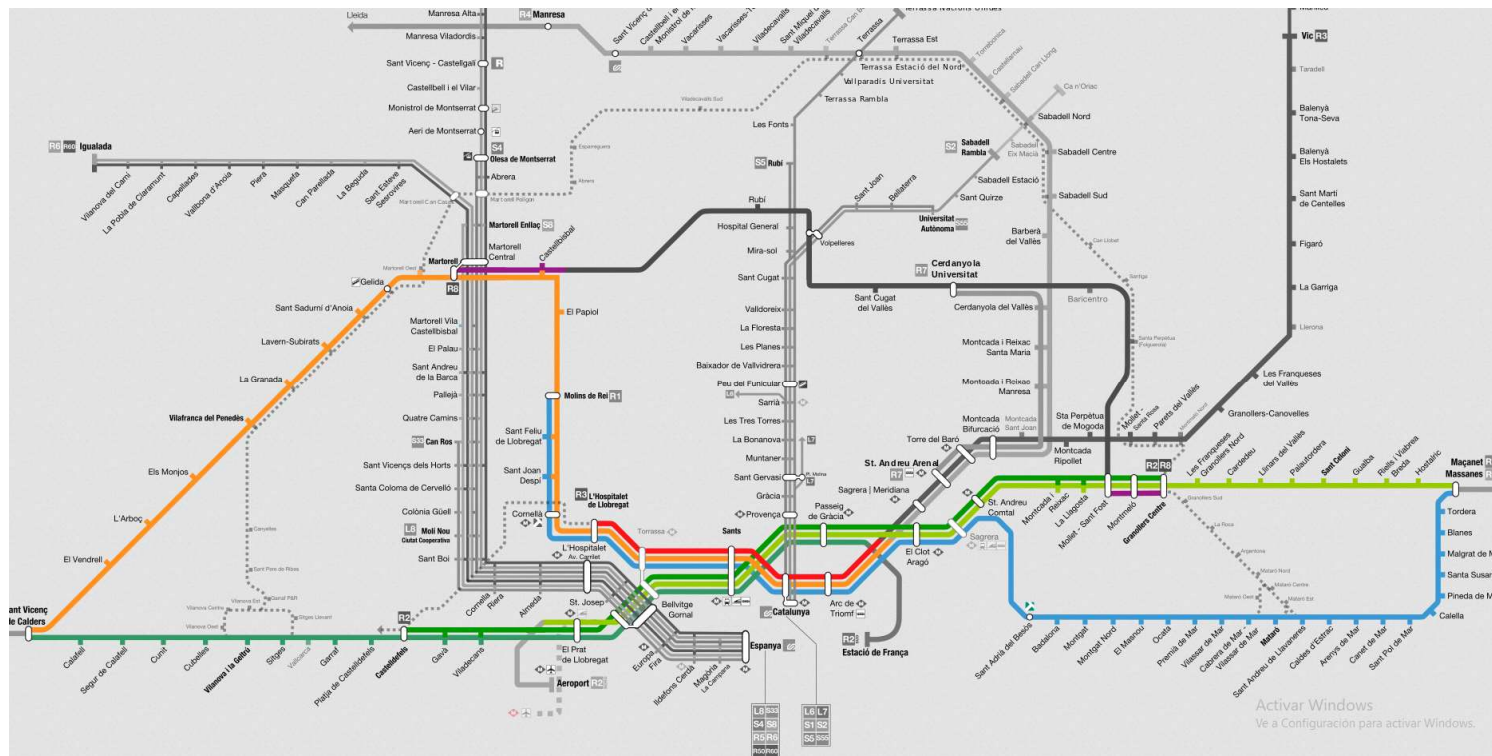
- ❑ The railway: one of the greatest factors in the revitalization of the city as the capital of a large metropolitan environment.
- ❑ Symbol of the progress, motor of the industrialization of the XIX .

- ❑ The first railway line of mainland Spain connected Barcelona with Mataró (1848).

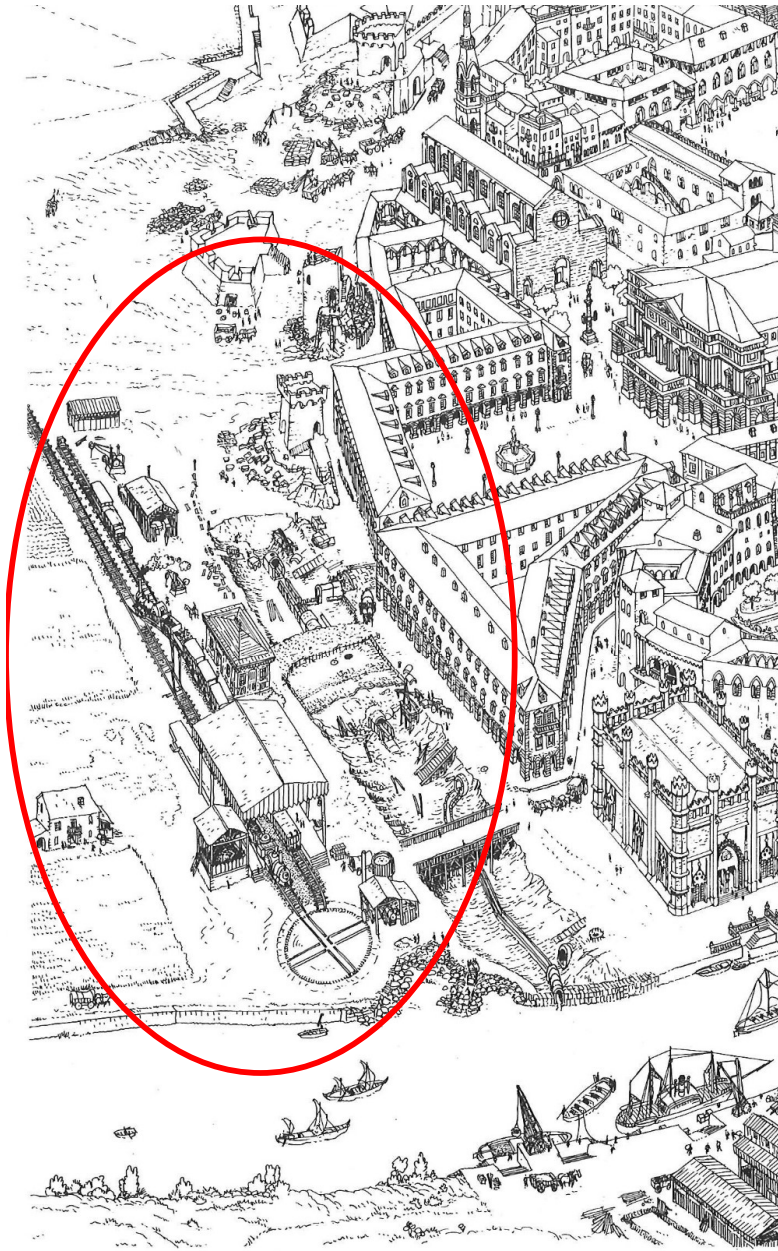


# New transportation system

- ❑ Barcelona become a hub: the center of a railway network – the so-called "**Catalan eight**" – formed by two rings that intersect in the city.
- ❑ In the 1880s there were already links with France, Madrid, Zaragoza and Valencia, in addition to the rest of the Catalan provincial capitals.







11: CALLES VIEJAS, FÁBRICAS NUEVAS (mediados del siglo XIX)

## Railroad station

- ❑ Estación de Francia (1854), Sants (1854) and Estación del Norte (1862)
- ❑ Contributed to the transportation of people and goods

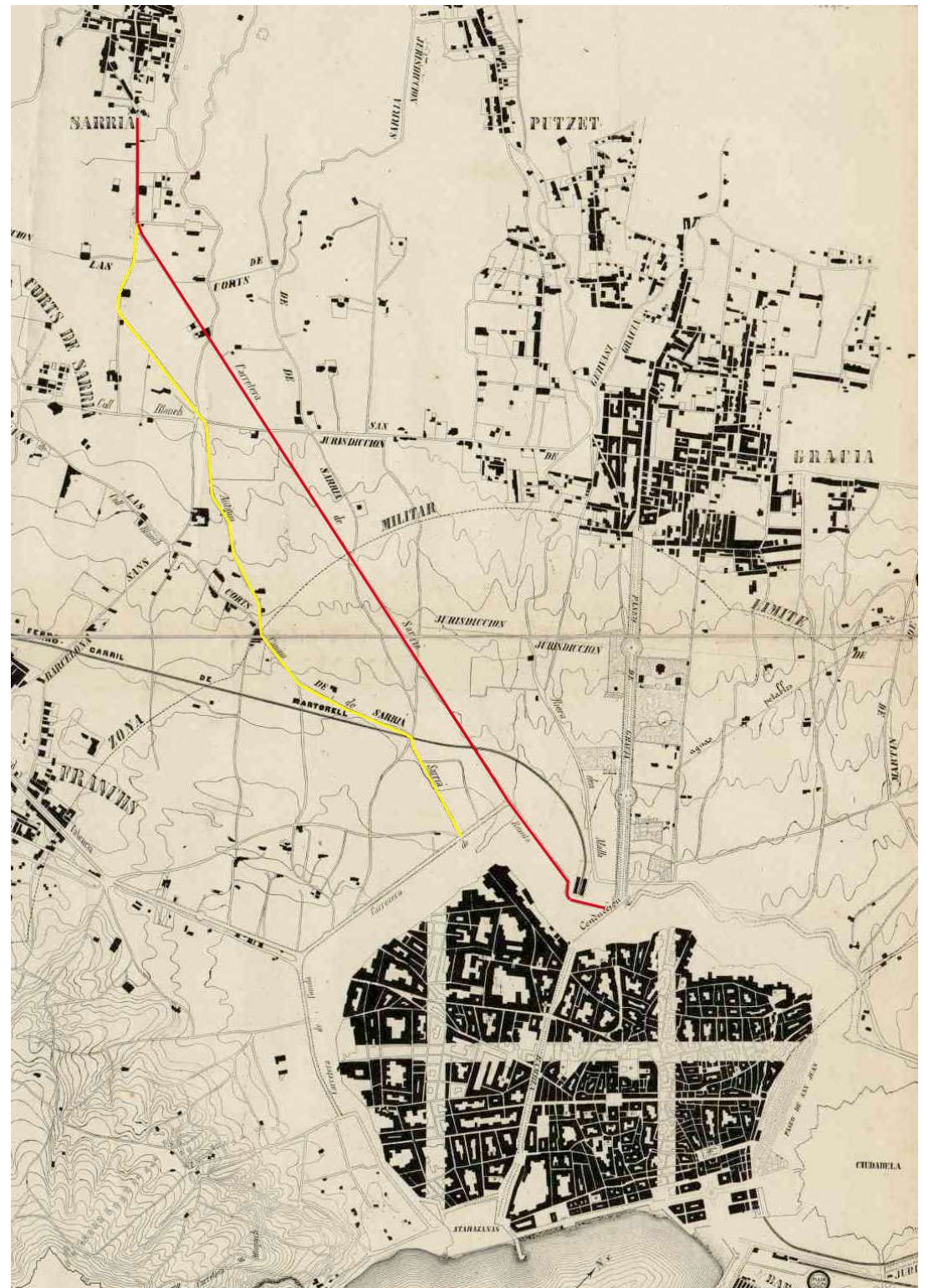




# New transportation system

## □ New terrestrial (road) routes:

- Sarrià road (Sarrià avenue) between 1850 and 1853
- Road from Sants to Les Corts (1865-1867).
- Road from La Sagrera to Horta (1871; currently Garcilaso Street).





# New transportation system

- ❑ **Enlarging the harbour:** allowed the arrival of large amounts of raw materials -especially cotton and coal-
  - Construction of a new dock.
  - Dredging (after 1859).



# Fire and police services

## □ The first fire and police services of the city.

- **Guardia Urbana** (originally in charge of citizen`s security; later assumed control of traffic and urban circulation) 1843
- Sociedad Mutua de Socorro contra el Fuego (1849) emerged as a private company.
- Replaced in 1865 by the “Sociedad de Extinción y Salvamento del Fuego”, the first public fire service managed by the City Council.





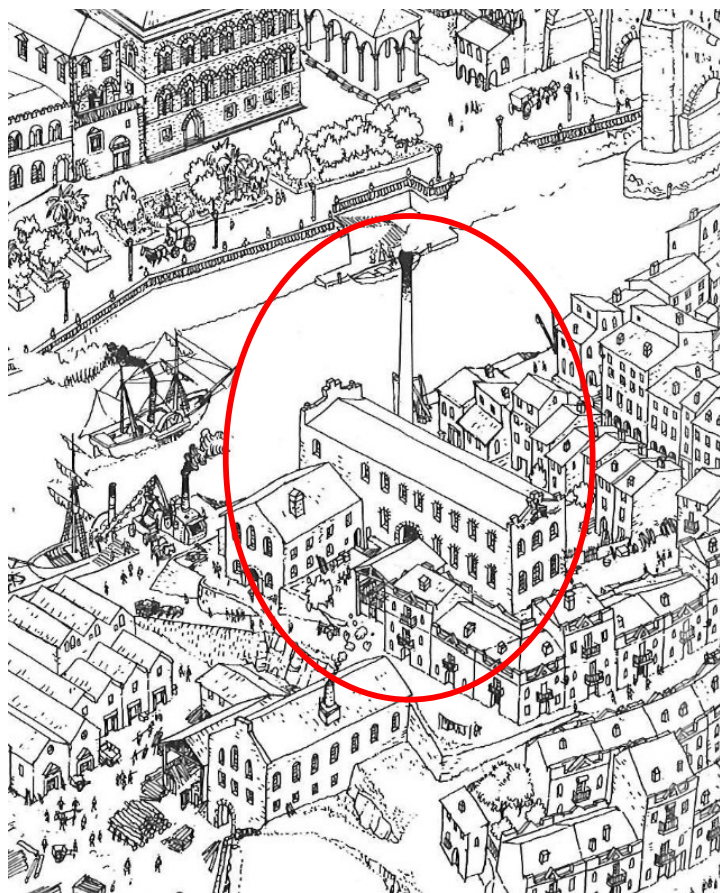
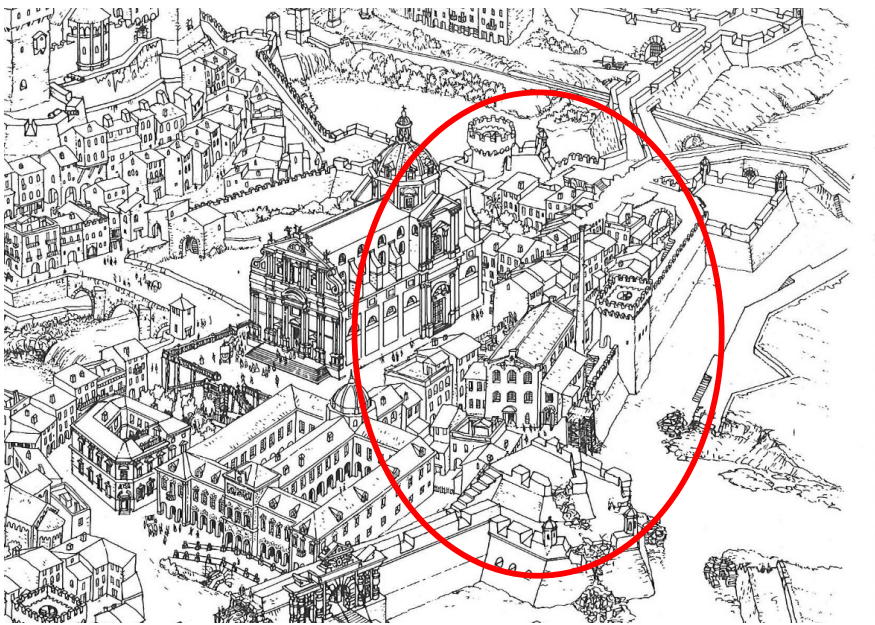
# Sewer systems and stone paving



# Public washings







# Factories

- ❑ Characterized by high chimneys and large buildings
- ❑ In most of the cases constructive models and machinery came from british experience and technology.









# SEARCHING FOR NEW URBAN SOLUTIONS

□ Barcelona, as most cities at the XIX century:

- Occupy more less the same space that the medieval cities (surrounded by walls).
- Previous reforms can be considered “cosmetic”: small and marginal.

□ **Collapse of the urban space within the city** → ¿where to find space to build new factories, housings for workers, residences for the high and middle classes?

□ **Solutions**

- 1<sup>st</sup>: to expand the city outside the walls.
- 2<sup>nd</sup>: to modify the city layout



# SEARCHING FOR NEW URBAN SOLUTIONS

## □ Demolition of Barcelona's walls

- Initial regulations impeded new construction in the proximities of the wall ("less than the distance of a canyon shot").
- Strong **popular outcry** (a memoir *¡Abajo las murallas!*, defending the destruction of the walls to avoid diseases and epidemics).
- Difficulties → military authorities refused to demolish them because of:
  - Strategic importance of the city.
  - Need of controlling their turbulent population.

# SEARCHING FOR NEW URBAN SOLUTIONS

## □ Demolition of Barcelona's walls

- Medieval walls: between 1854 and 1859.
- The fortress of La Ciudadela (after the revolution of 1868; transformed into a public park).



## □ CONSEQUENCES:

- New public spaces: gardens, cementeries, theaters...
- The “Ensanche” project





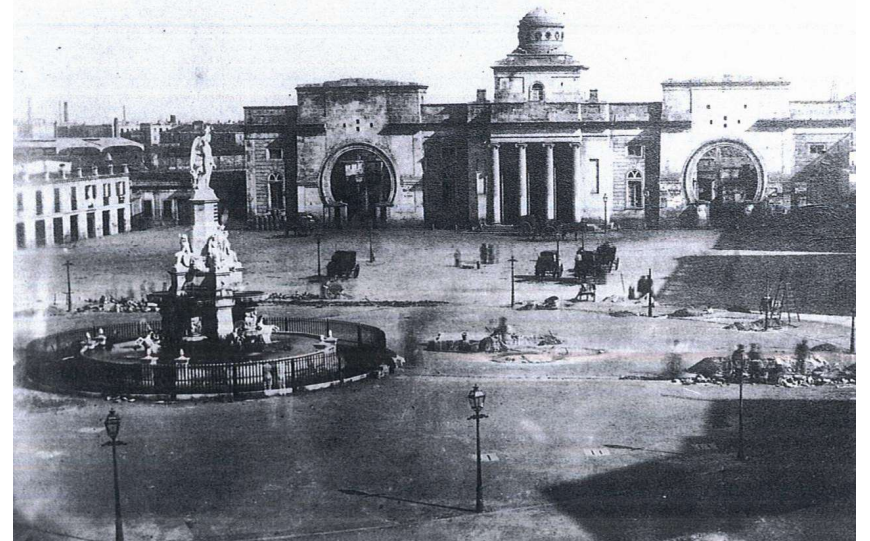
# SEARCHING FOR NEW URBAN SOLUTIONS

## ❑ Selling (Desamortización) of religious orders properties

- Civil war → liberals vs absolutist (carlists).
- The central government needed funding to continue the war.

## ❑ Numerous plots that were built or converted into public spaces:

- Markets of La Boqueria/Santa Catalina,
- Gran Teatro del Liceo
- Squares such as **Plaza Reial** and the Plaza del Duque de Medinaceli.
- Enlargement of previous squares: **Pla de Palau**, (in that time the center of the city).
- Opening of new streets (calle de Fernando en 1827).



# SEARCHING FOR NEW URBAN SOLUTIONS

- Appearance of **gardens and public parks** (until then mostly private), promoting landscape architecture.
  - The first public garden was created in 1816: the **Jardin del General** (closed of the Station of France), small (0.4 ha); destroyed in 1877 during the urbanization of the Parc de la Ciutadella.
  - Gardens on Passeig de Gràcia: **Tivoli Gardens** (1848) and Champs-Élysées (1853)





# SEARCHING FOR NEW URBAN SOLUTIONS

## □ New **sanitary regulations** meant :

- The **disappearance of parish cemeteries**, whose plots were urbanized as new public squares: Santa María, del Pino, San José Oriol, San Felipe Neri, San Justo, San Pedro and San Jaime.

## ○ Construction of **new cemeteries outside the city:**

- Cementerio del Este (Poblenou).
- Cemetery of the Southwest or **Montjuic** (1883).



# SEARCHING FOR NEW URBAN SOLUTIONS

- ❑ East, Poblenou or Cementiri General.
- ❑ An **old cemetery** was built in 1775, destroyed by Napoleon's troops in 1813.
- ❑ The Italian architect **Antonio Ginesi** was commissioned to rebuild it, in three sections
  - At the front, egalitarian **terraces of burial niches**
  - At the rear, **individual monuments and mausolea**.
  - A third, narrow section along the South wall mixed **niches, monuments and common graves**
- ❑ Poblenou's best-known monument: **The Kiss of Death**, sculpture above Josep Llaudet's grave



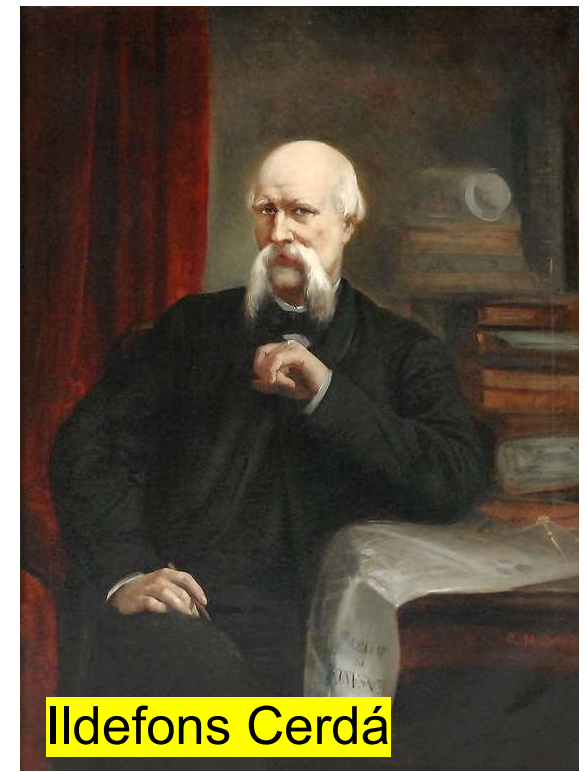


# “EI ENSANCHE” OF BARCELONA

- ❑ It was not the very first: Massanès was the author of a **widening plan in 1838** that did not come to completion.
- ❑ The City Council promoted a **competition** between urban development projects (1859) → won by Antoni Rovira i Trias → however, in Madrid, the government imposed the project of Cerdá



Antoni Rovira i Trias



Ildefons Cerdá

# “EI ENSANCHE” OF BARCELONA

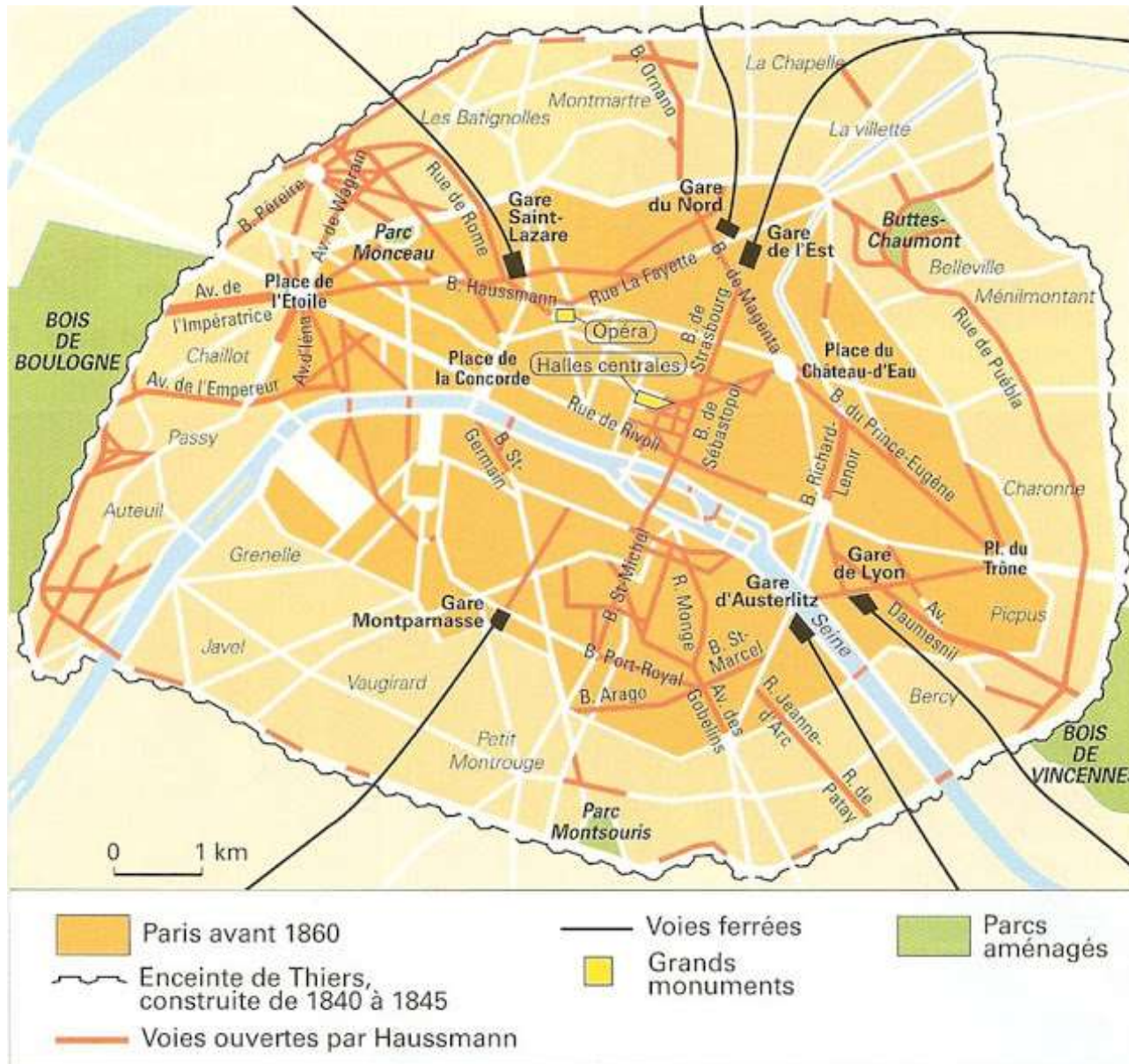
## WHY?

- Cerdá accompanied his project with **memoirs** developing a complete **urban theory**, based on three **ideas**:
  - **Hygienism**: the living conditions within the walled city – life expectancy was 38.3 years for the rich and 19.7 for the poor → proposal of improvements according to factors such as the climatology.
  - **Traffic**: to assure the compatibility of public roads between pedestrians and road traffic.
  - The **multipurpose design**, with an urban layout that would be extrapolated both:
    - To the new spaces to be built.
    - To those already existing, integrating the notions of "widening" and "reform".



# MODEL

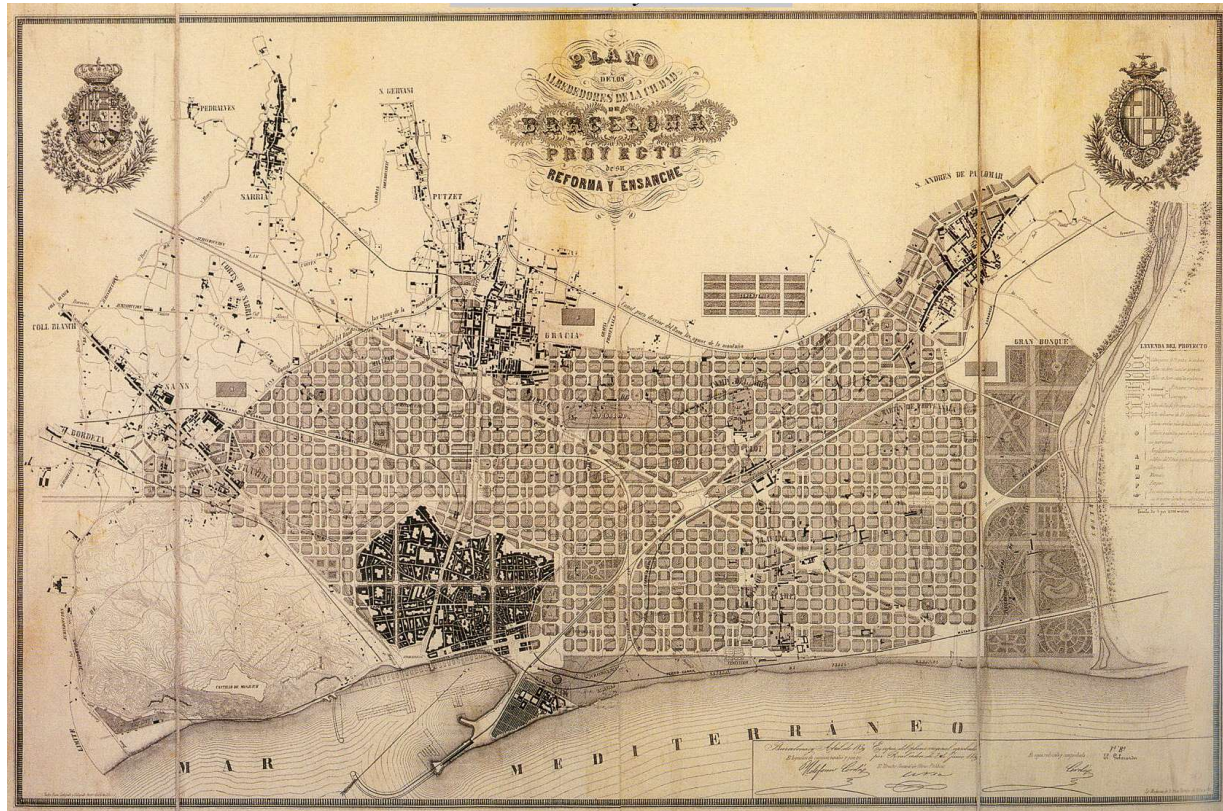
- ❑ Haussmann, 1853
- ❑ Remodelation of the historic Paris
- ❑ Following an urban Baroque model: aesthetics and perspective.
- ❑ Demolition of medieval buildings.
- ❑ Wide and straight avenues (“boulevards”) converging towards large circular squares → strategic value to defeat urban riots.





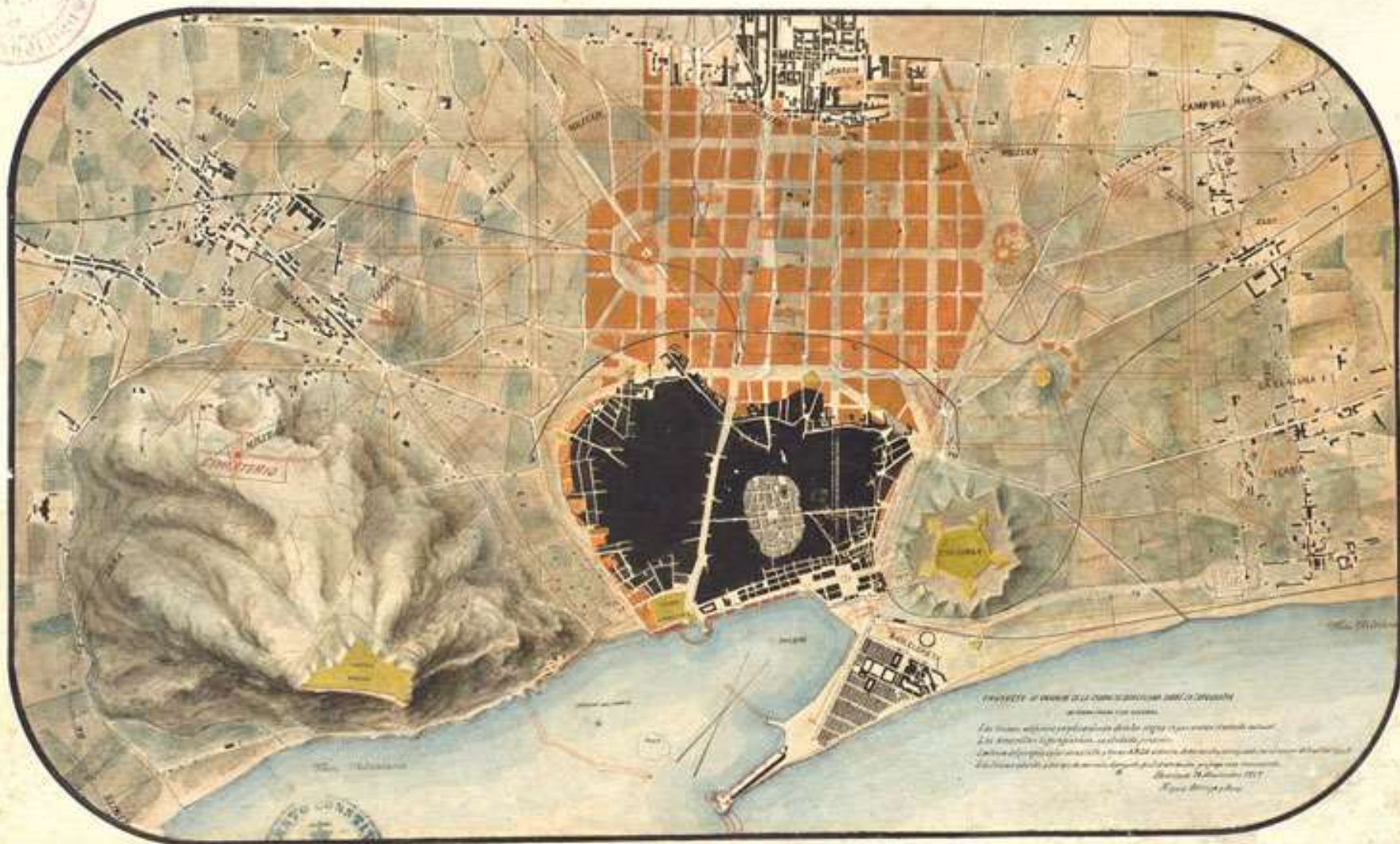
# BASIC ELEMENTS OF CERDAS'S PLAN

- Orthogonal route layout with a system of **rectilinear streets with two orientations**
  - **NW-SE** orientation (20 meters wide),
  - **SW-NE** orientation (parallel to the coast and the Collserola mountain range).





# Plano para el ensanche de la ciudad de Barcelona.



PROYECTO DE ENSANCHO DE LA CIUDAD DE BARCELONA EN 1859  
El plano para el ensanche de la ciudad de Barcelona, aprobado en sesión de 6 de abril de 1859, se publica en este plano.  
Las líneas que se ven en el plano indican el terreno que se ha de ensanchar.  
Las líneas que se ven en el plano indican el terreno que se ha de conservar.  
Las líneas que se ven en el plano indican el terreno que se ha de destruir.  
Las líneas que se ven en el plano indican el terreno que se ha de reservar.  
Las líneas que se ven en el plano indican el terreno que se ha de vender.  
Las líneas que se ven en el plano indican el terreno que se ha de alquilar.  
Las líneas que se ven en el plano indican el terreno que se ha de donar.  
Las líneas que se ven en el plano indican el terreno que se ha de regalar.  
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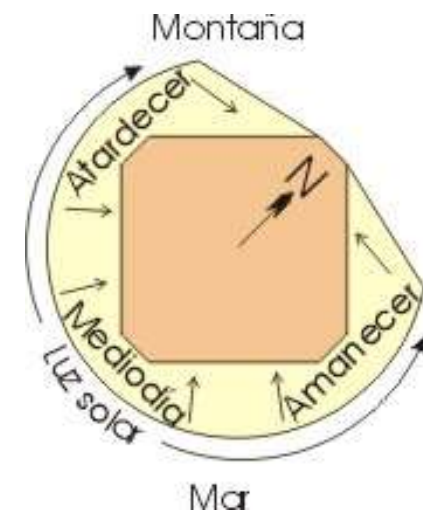
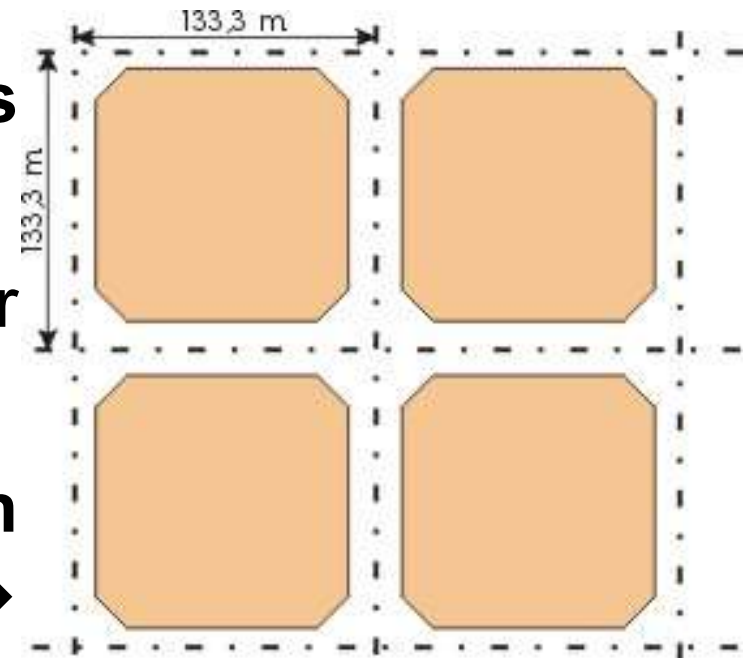
Aprobado en sesión de 6 de abril de 1859.

Mariano Ponsoda  
Arq.<sup>to</sup>



# BASIC ELEMENTS OF CERDAS'S PLAN

- ❑ The streets delimited **square blocks** of 113.3 m on one side.
- ❑ **Built only two sides**; the other spaces left for gardens.
- ❑ Considered **traffic and transport with sunlight and ventilation** → characteristic **octagonal blocks**: “**chamfered corner**” to facilitate crossings (named “illes” in Catalan).
- ❑ **Streets broaden at the intersections** for greater visibility, better ventilation and (today) some short-stay parking space.





# BASIC ELEMENTS OF CERDAS'S PLAN

- ❑ The buildings were to have a **height of 16 meters** (ground floor and four floors), and a **depth of 10 to 20 meters**.
- ❑ The distribution would be
  - **sectors** of 20 x 20 blocks, with a park, and industrial and administrative facilities.
  - divided into **districts** of 10 x 10, each one having market.
  - **neighborhoods** of 5 x 5, on each including a church, a civic center, a school, a nursery, an asylum and other welfare centers



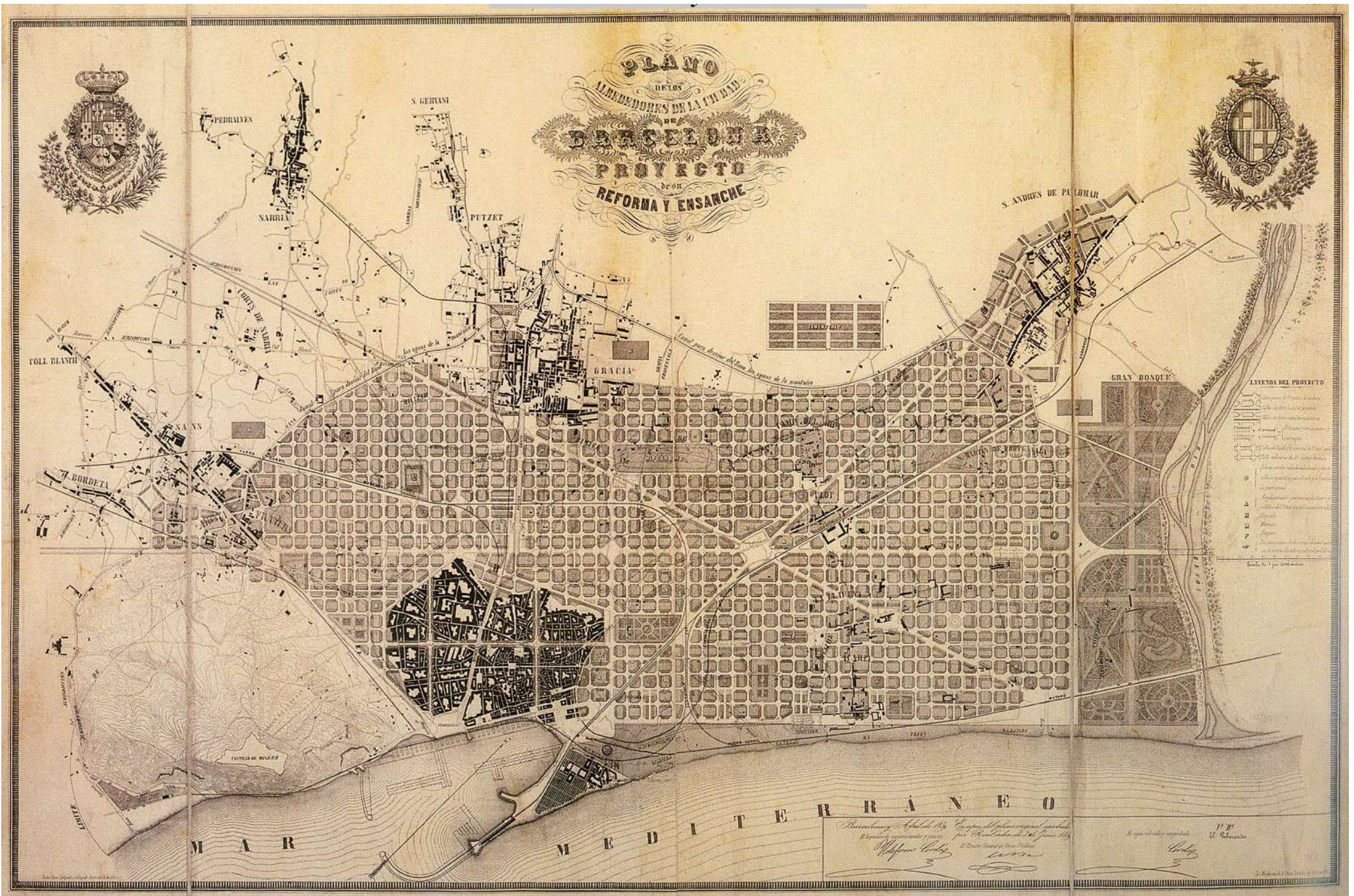
# BASIC ELEMENTOS OF CERDA'S PLAN

- ❑ **Main avenues:** Diagonal, Meridiana, Parallel, Gran vía and paseo de San Juan.
- ❑ **Large squares at its intersections:** Tetuán, Glorias, España, Verdaguer, Letamendi and Universidad.
- ❑ **Opening of three large avenues in the old part of the city:** two that would connect the Eixample with the coast (*Muntaner and Pau Claris*) and another in a perpendicular direction that would connect the Citadel with Montjuic (*Avenue of the Cathedral*).



- ❑ **New rings** surrounding the old city (placed where the walls:
  - **Rondas** de San Pablo, San Antonio, Universidad and San Pedro.





Original Eixample concept from 1859



# BASIC ELEMENTS OF CERDA'S PLAN

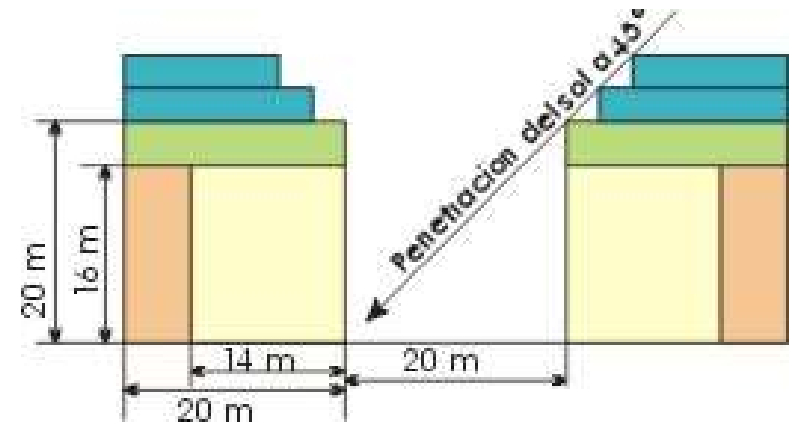
- ❑ A tangential aspect to the new layout was the **toponymy** → there was no tradition when it came to naming the new streets.
  
- ❑ The nomination was commissioned to the writer Víctor Balaguer, who was inspired by the history of Catalonia:
  - **Territories** of the old Crown of Aragon, such as Valencia, Mallorca, Aragon, Provence, Roussillon, Naples, Corsica, Sicily or Sardinia;
  - **Institutions** such as the Catalan Parliament, the Provincial Council or the Council of Hundred...
  - **Relevant characters:** Enrique Granados, Rafael de Casanova, Roger de Flor...
  - **Battles and historical events:** Bailén, Lepanto, the Bruc or Caspe.



# BASIC ELEMENTS OF CERDA'S PLAN

□ However, most of his basic provisions were **ignored**:

- Construction of the 4 sides of the blocks and the inner space.
- Narrower streets.
- Only one of the two diagonal avenues was carried out.
- High class population than a mixed composition.



# OTHER ENSANCHES

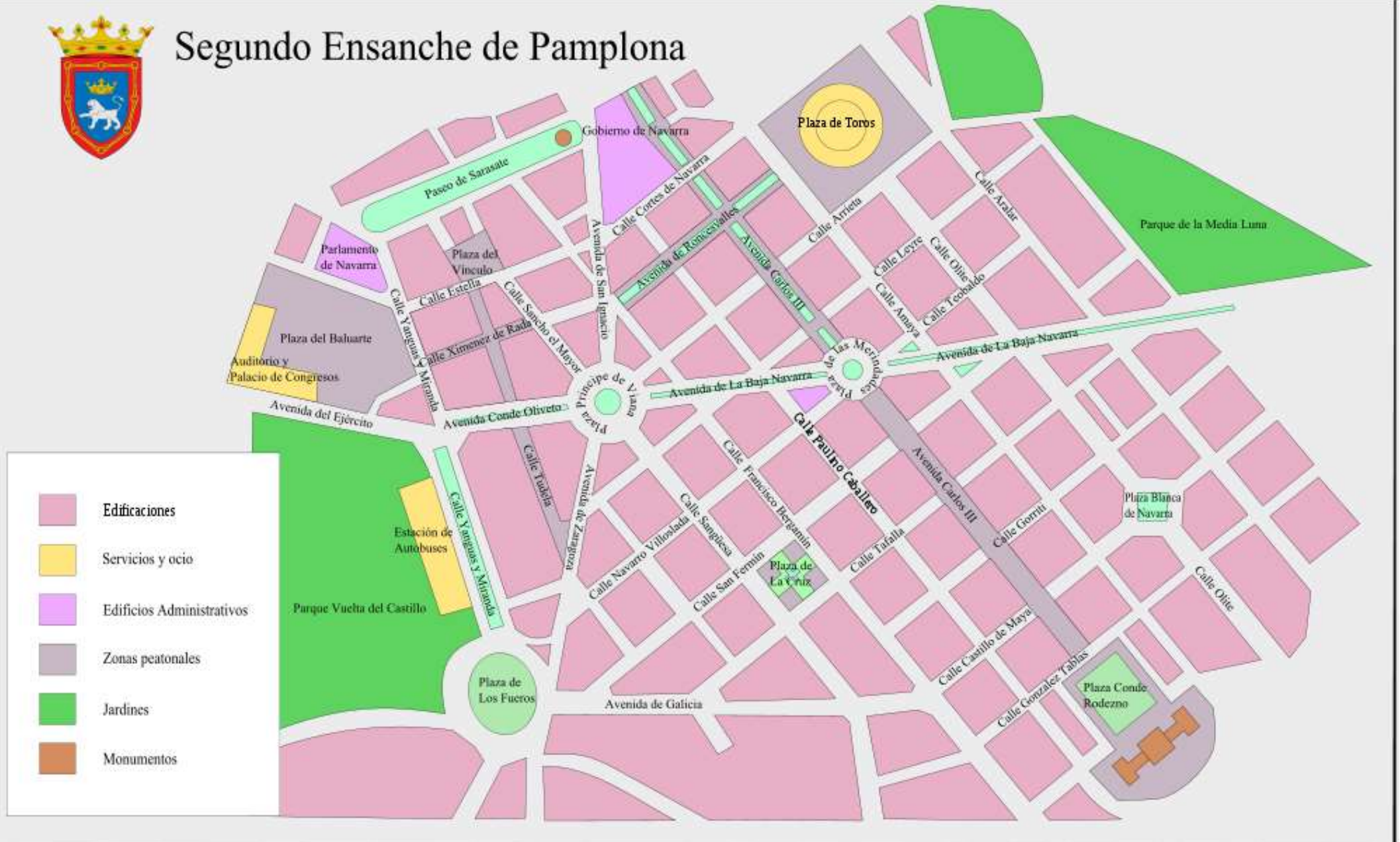
- ❑ Cities with large “Ensanches”: Barcelona, Madrid, Valencia.
- ❑ Cities with small “Ensanches”: Palma de Mallorca, Bilbao, Vitoria, Alicante, Pamplona (in fact, 2), Santander, Málaga...
- ❑ Others: San Sebastián, León, Mataró, Miranda de Ebro, etc.
- ❑ During the last years of the 20<sup>th</sup> and the beginning of the 21<sup>th</sup> centuries: Alcorcón, Vallecas, Alcalá de Henares...



# OTHER ENSANCHES



## Segundo Ensanche de Pamplona











**THE GREAT REFORMS OF  
THE BEGINNING OF 20<sup>th</sup>  
CENTURY**



# MAIN FEATURES

- ❑ The 20<sup>th</sup> century: **convulse political situation** of Spain
  - End of the monarchy (1931).
  - Second Republic (1931-1936).
  - Civil war (1936-1939).
  - Franco's dictatorship (1939-1975).
  - Restoration of the monarchy and the arrival of Democracy (1975- ).
  
- ❑ Each of these periods left evidences of its **ideological foundations** in the urban space of Barcelona.

# MAIN FEATURES

- ❑ At the beginning of the 20<sup>th</sup> century, the relative prosperity of the city restored its role as a **cultural hot spot**,
  - as is witnessed by the architecture of Antoni Gaudí still visible around Barcelona.
  
- ❑ A desire to place Barcelona in the first international line, at the level of cities such as Paris, New York, Berlin or Vienna.
  - "Imperial Barcelona" (Prat de la Riba).
  - "New Paris of the Midday" (Puig i Cadafalch)



# International events

- ❑ Barcelona's cityscape underwent major changes during some international events
  - .Exposición Universal de 1888.
    - Expansion of the urban area from Parc de la Ciutadella to Barceloneta.
  - Exposición Universal de 1929
    - Urbanization of Montjuic Mountain



# MAIN FEATURES

- **Annexion to the municipal term of smaller towns** around the city.
  - Expansion of the urbanized surface
  
- **Substantial transformation of the urban landscape:**
  - **Novelties** → replacement of the coal by electricity → illumination and transportation → electric trams.
  - The new constructive technologies based on the use of the **concrete** and **steel**.
  - **New aesthetic currents** → art nouveau and modernism.



# Electrification of Barcelona

- Initially, electricity was obtained from the hydraulic resources of the Pyrenees (Tresp (1915) and Camarasa (1920) reservoirs).



- However, the growing demand in the industry, transportation and urban services boosted the building of **power plants** (Fígols and San Adrián de Besós).
- Electricity was obtained burning large quantities of coal.
  - Barcelona began to excel in sectors such as metallurgy, chemical and automotive, consolidating itself as an industrial and commercial center.

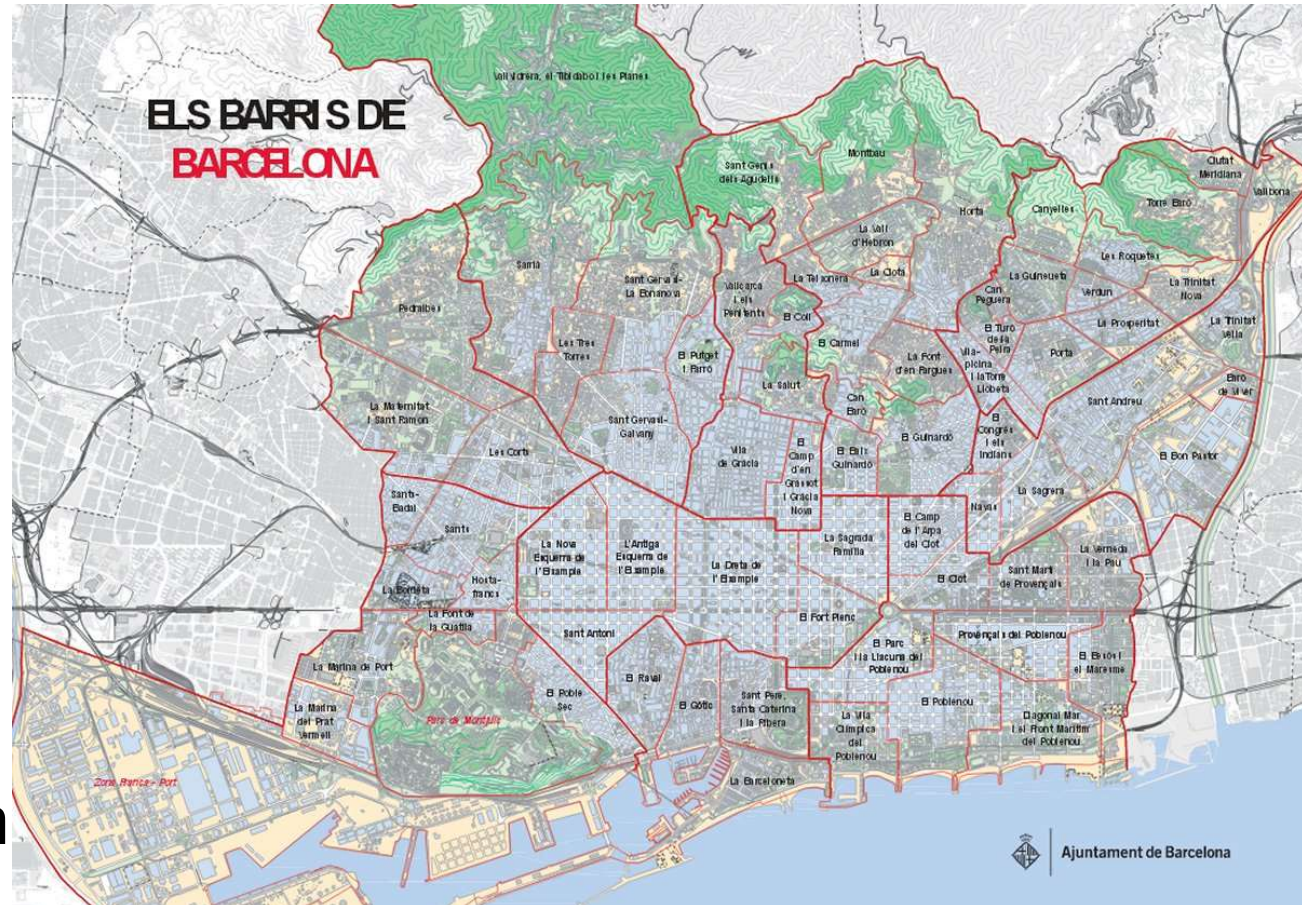


# Expansion of the urbanized space

❑ In 1897, the city absorbed several surrounding municipalities: Sants, Les Corts, Sant Gervasi de Cassoles, Gràcia, Sant Andreu de Palomar and Sant Martí de Provençals.

❑ Horta was annexed in 1904 and Sarrià in 1924.

❑ The city went from 15.5 km<sup>2</sup> to 77.8 km<sup>2</sup>, and from a population of 383,908 to 559,589,125





# Transportation network

□ A larger city increasingly required a wide and rapid transport network, based on:

- **Electric trams.**
- **Buses.**
- **Taxis** (color black and yellow hallmark of the city was established in 1931).
- Construction of the **Barcelona Metro** (1920) → beware of the arrival of the trains, which is opposed to Madrid.



# Markets

- ❑ To supply from foods and daily products
- ❑ Concentrated all type of stores.
- ❑ Metallic structures





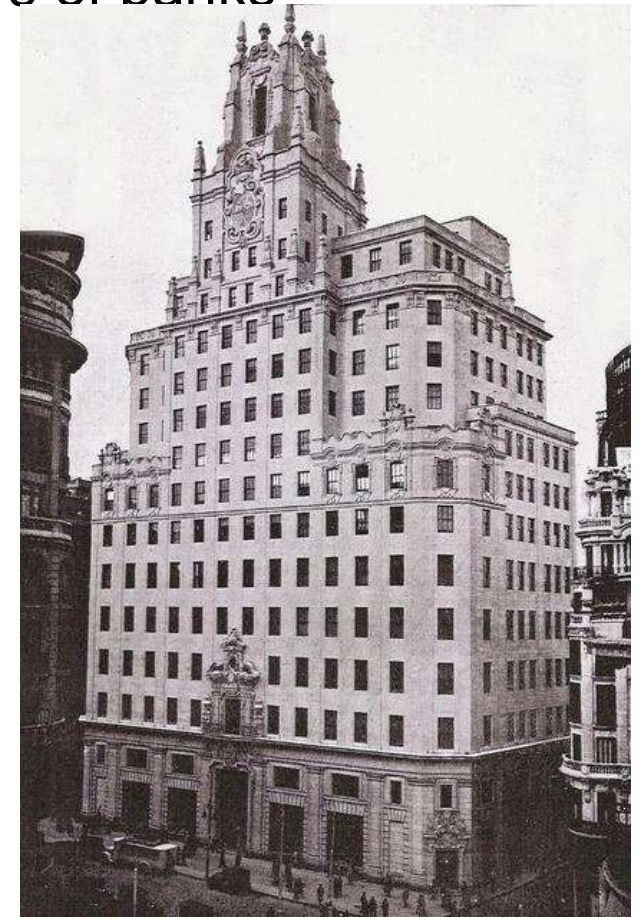






# New buildings

- ❑ No previous existence in the urban landscape
- ❑ Prisons (replaced the old medieval ones).
- ❑ Cinemas,
- ❑ Central services (phone, telegraphs...  
Headquarters of banks





# Soccer field



- The growing interest for practicing sports impelled the creation of specific urban spaces
- The spread of the passion for football.



# Expiatory Temple Sagrado Corazón

- ❑ At the highest point of Barcelona (top of Mount Tibidabo).
- ❑ A neo-Gothic style temple, designed by the architect Enric Sagnier at the beginning of the 20th century (completed by his son in 1961).



- ❑ Includes:
  - the structure of the Sacred Heart, which stands out in its frontal facade.
  - The Church.
  - An interior crypt.





Palau de la Música Catalana



# PARQUE GÜELL





CASA MITLLA







LA SAGRADA FAMILIA



**BARCELONA DURING THE  
2<sup>nd</sup> HALF OF THE 20<sup>th</sup>  
CENTURY**

# MAIN FEATURES

- ❑ The second largest city in Spain.
- ❑ The industrial heart of Spain, relatively industrialized and prosperous.
- ❑ During the Spanish Civil war, the city suffered air bombings: demolition of some blocks.
- ❑ The most important factor of transformation in the center of the city was **land speculation**.
  - Rise of prices in the central area and surrounding avenues.
  - Moving of factories headquarters to periphery.



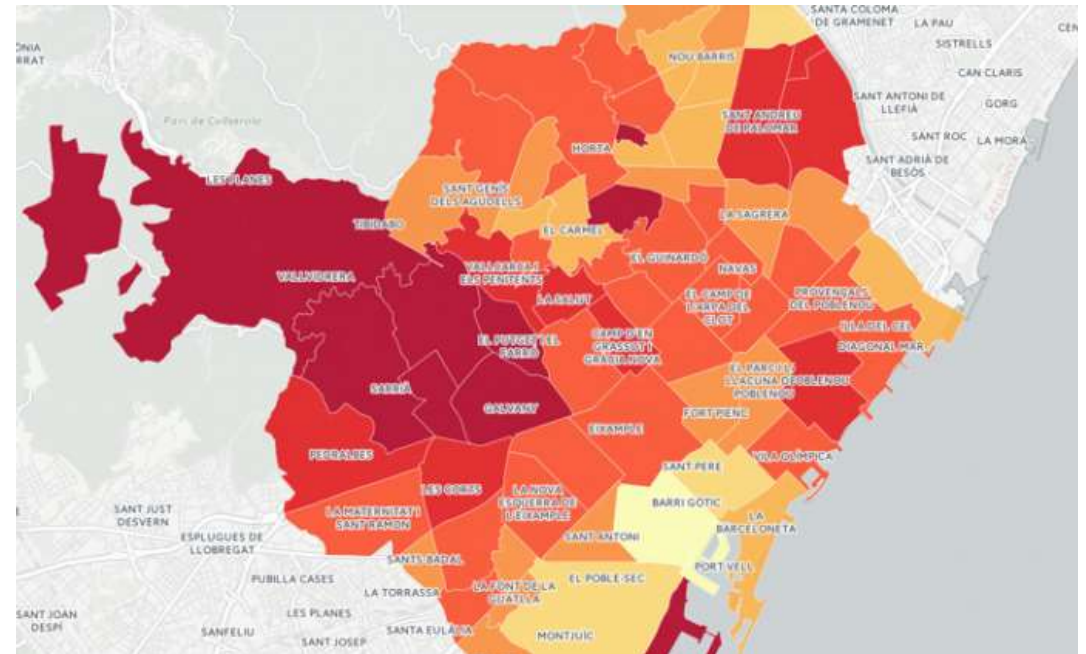
# MAIN FEATURES

- ❑ Large-scale immigration from poorer regions of Spain (particularly Andalusia, Murcia and Galicia) → rapid urbanisation and new districts within Barcelona:
  - District of Congrés: developed for the International Eucharistic Congress in 1952,
  - Districts of El Carmel, Nou Barris, El Verdum and Guinardó were developed later in the 50's
  
- ❑ Growing of Barcelona's suburbs: L'Hospitalet de Llobregat, Bellvitge, Santa Coloma de Gramenet, Sant Adrià de Besòs, and Badalona.

# MAIN FEATURES

## □ CONSEQUENCES:

- An extremely dense population (1,557,863 inhabitants, 15,517 per km<sup>2</sup>, in 1970)
- Poor-quality housing.
- Social segregation.
- Gradual decline of the catalan culture of Barcelona





# SOCIAL SEGREGATION

Luxurious residential area



# SOCIAL SEGREGATION

- ❑ Large neighborhoods in the periphery (immigrants) without basic services.





# CENTRAL BUSINESS DISTRICT

- ❑ Concentration of white collar jobs (trade services, offices, banks).
- ❑ Flagship buildings.





# Industrial estates

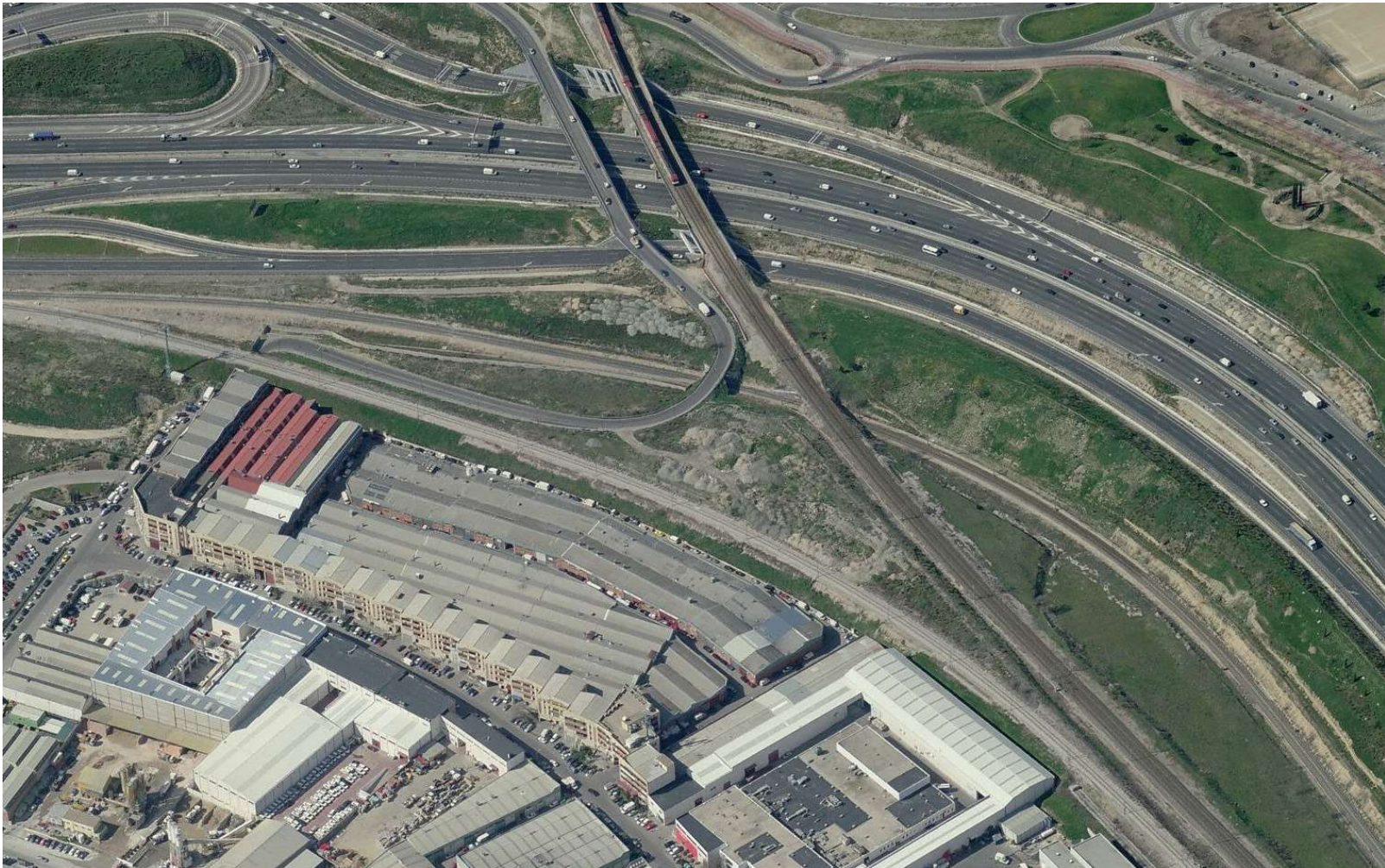
- ❑ Moving away from downtown (searching for cheaper and larger spaces).
- ❑ Contrarily to the 19<sup>th</sup> worker (could go walking to its job), the 20<sup>th</sup> worker moves to cover large distances.





# Traffic belts

- ❑ Problems of accessibility due to the increase and densification of the automobile circulation





# Green and recreational areas

- ❑ For the improvement of urban life quality.
- ❑ Green areas, parks or open spaces to facilitate the citizen's relax.







# Communications tower

- ❑ The appearance of television, radio, mobiles
- ❑ Construction of high towers for reception and emission.

# Cultural or sport civic spaces

- ❑ The configuration of a society of the leisure
- ❑ Necessary to adapt multiple and different spaces.





# Buildings with new uses

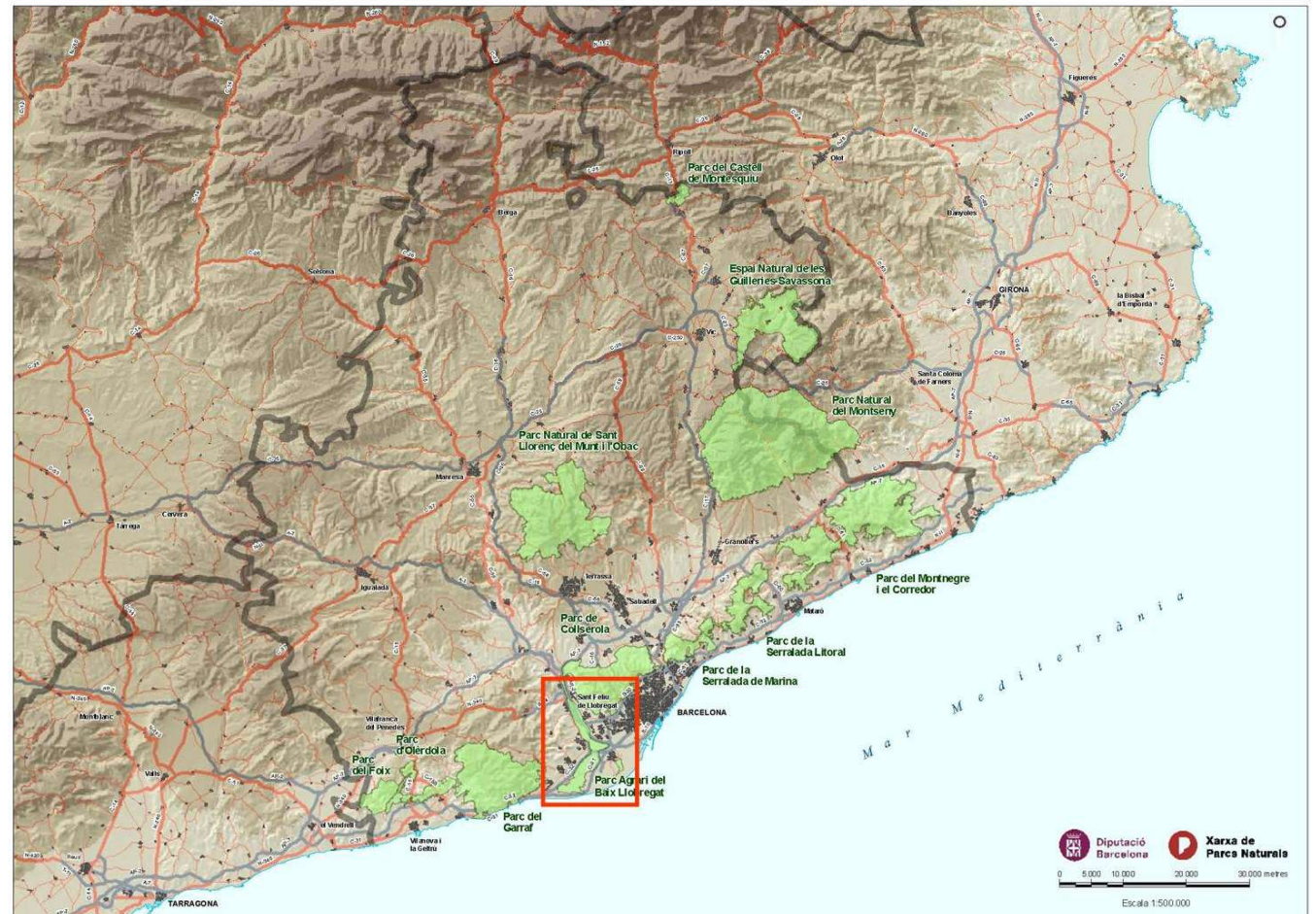
Some buildings that had lost their original function

Reconditioned for different purposes (cultural)



# Natural parks

- ❑ Mountains, formerly far from the urban, now close because the new motorways
- ❑ Important “green lung” in the proximities of the city.





# THE RECENT URBAN RENEWAL



# The urban renewal of Barcelona

## □ Boosted by two events:

- Spanish accession to the European Community (1986)
- Barcelona's designation as host city of the 1992 Summer Olympics.

## □ 1992 Summer Olympics



- Implementation of an ambitious plan for urban transformation.
- The after-effects credited as the driving force of changes in what had, up until then, been a largely industrial city.
- The outside perception changed making, by 2012, Barcelona the 12th most popular city destination in the world and the 5th amongst European cities.



# The urban renewal of Barcelona

- ❑ Barcelona was (newly) opened to the sea
- ❑ Industrial buildings along the sea-front were demolished and 3 kilometres (2 miles) of beach were created.

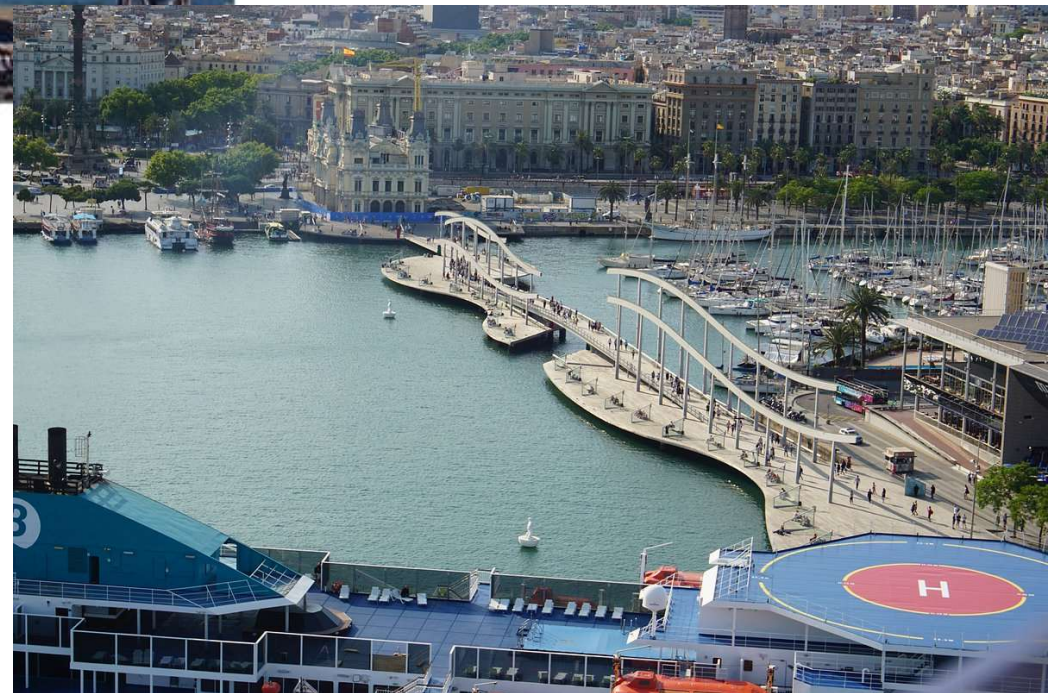






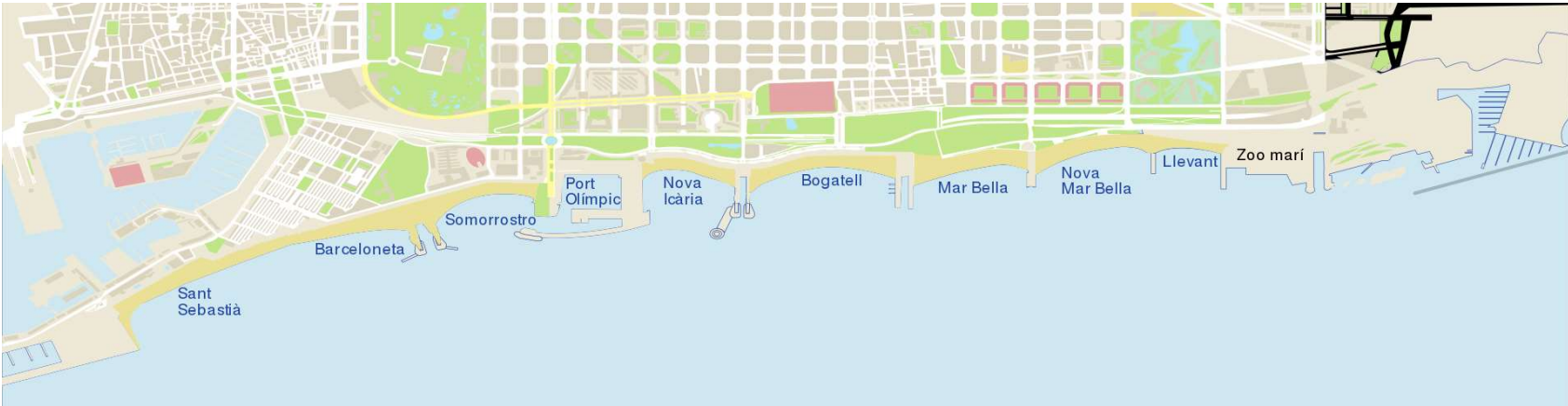
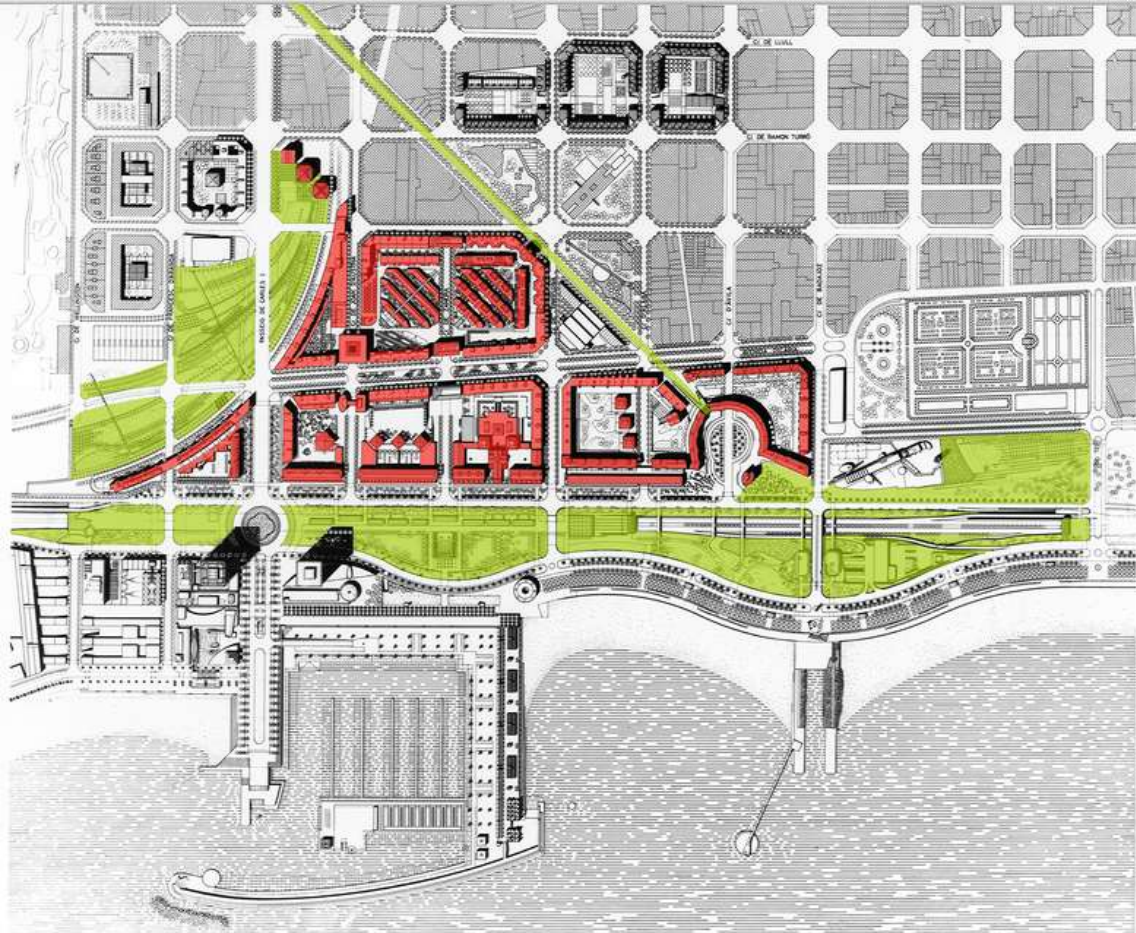
# OLIMPIC PORT

- Construction of the
  - Olympic Village
  - Olympic Port in Poblenou.



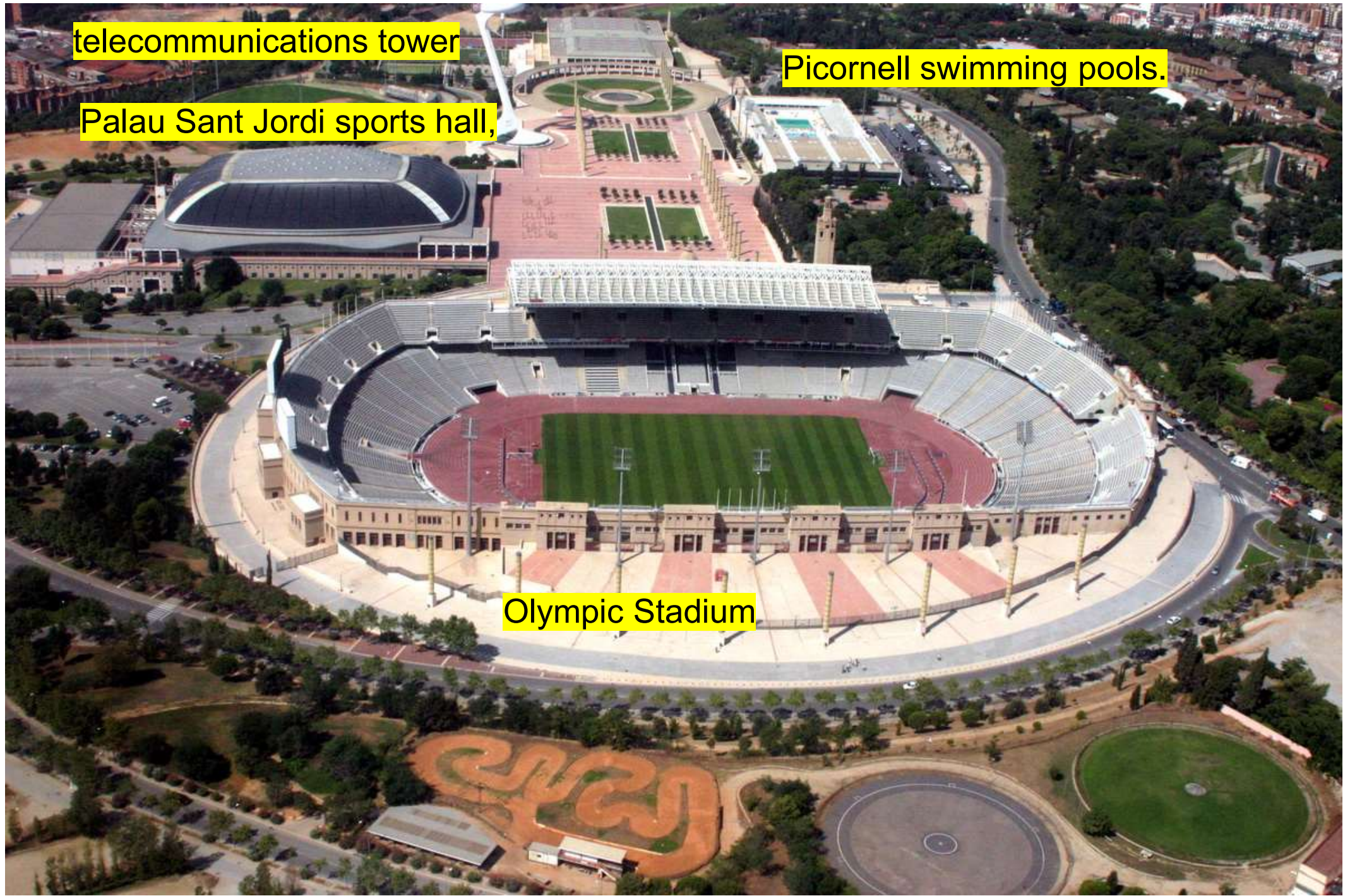


# OLIMPIC VILA AND THE NEW BEACHES





# ANELLA OLÍMPICA



telecommunications tower

Picornell swimming pools.

Palau Sant Jordi sports hall,

Olympic Stadium



- ❑ The construction of ring roads around the city helped to reduce traffic density: road capacity increased by 17%,
- ❑ El Prat airport was modernized and expanded with the opening of two new terminals.









# S.XXI

- ❑ End of the growth population → stability or even tendency to the drop.
  - Increased cost of housing led to a **slight decline** (−16.6%) in population (many families move out into the suburbs).
  - Reversion of the population decline since 2001, as a new wave of immigration (particularly from Latin America, Pakistán and Morocco).
  
- ❑ Accentuated Tertiary functions of the urban center (**GENTRIFICATION**).
  - Degradation process: rehabilitation and restoration of historical buildings
  
- ❑ New centers in the periphery, as industries moved far away.
- ❑ Accessibility to the city center became a huge problem: massive use of the automobile → air and noise pollution.

# S. XXI

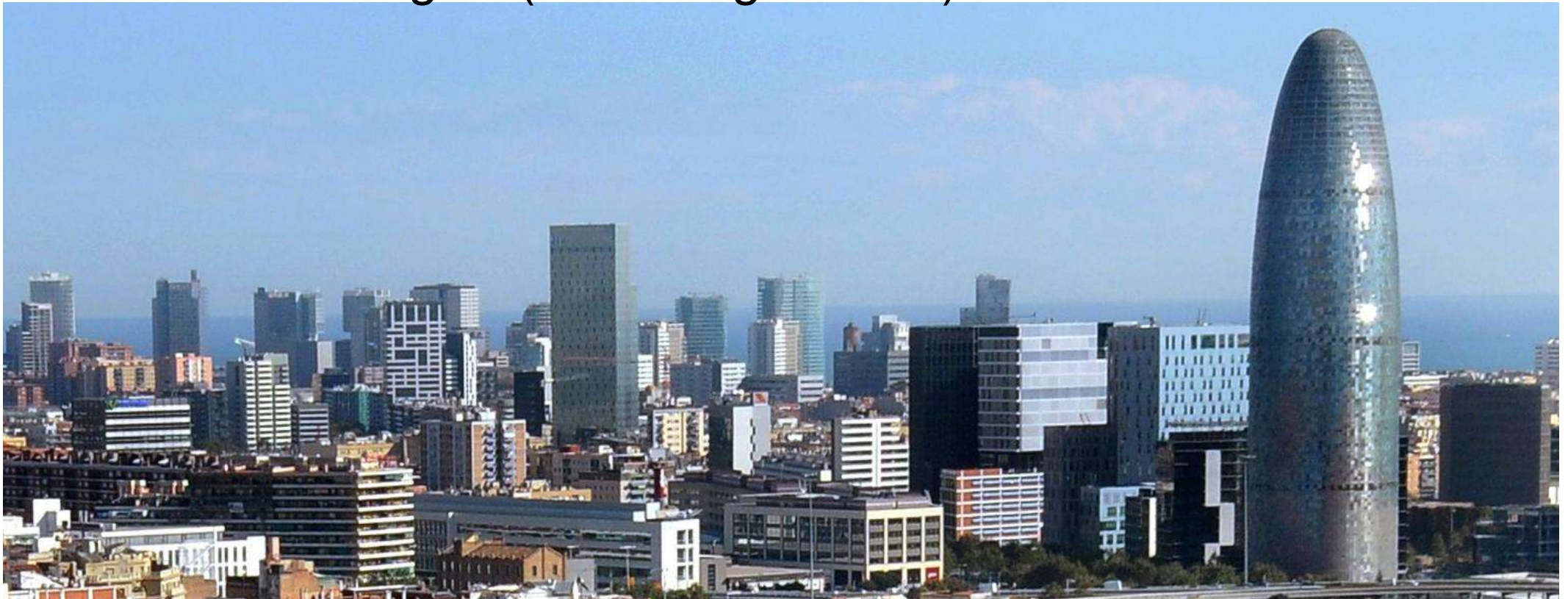
- Reinforcement of the **polynuclear** structure promoted since the 1990s: new urban centers such as
  - the Forum,
  - the 22@
  - La Sagrera.

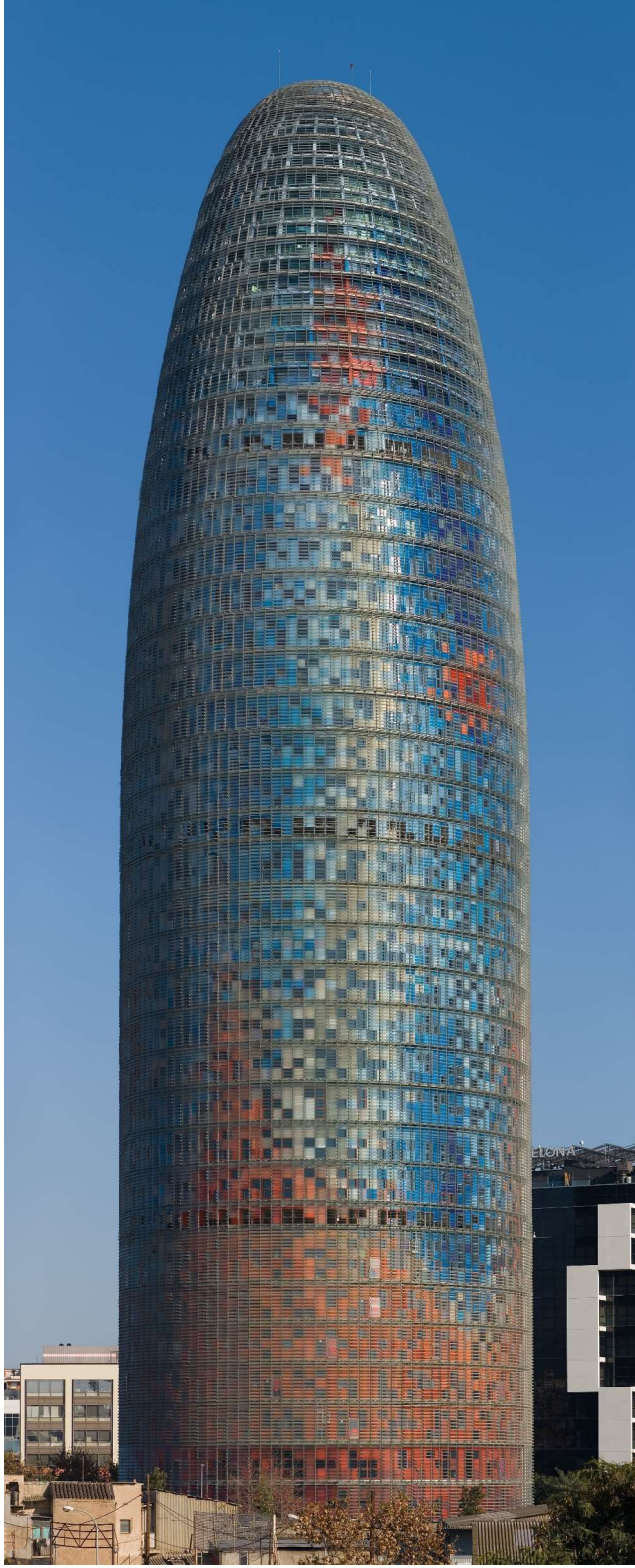




# District 22@

- ❑ One of the areas of greatest urban renewal in Europe at the beginning of the twenty-first century (115 ha).
- ❑ Industrial plots (Poble Nou), in decline due to the transfer of companies out of the city, replaced by companies oriented new technologies (technological hub).





## EMBLEMATIC BUILDINGS: Torre Glòries (formerly Torre Agbar)

- ❑ Poblenou.
- ❑ Gateway to the new technological district of Barcelona
- ❑ 38-story skyscraper
  
- ❑ Unusual shape:
  - According to the architect, it tries to recall the shape of a geyser rising into the air and it was inspired by Montserrat, a mountain near Barcelona
  - Popular known by several nicknames:
    - el supositori ("the suppository"),
    - l'obús ("the shell")
    - Some more ....



# Urban changes: the Universal Forum of Cultures (2004)

❑ Multipurpose esplanade culminated by large photovoltaic panel (became one of the emblems of the event)

❑

❑ In addition:

- Recovery of the Besós area (old factories)
- Regeneration of the Poble Nou neighbourhood.
- Construction of the new neighborhood: Diagonal Mar



# GEHRY'S GOLDEN FISH

- ❑ Sculpture with the shape of a fish that seems ready to launch itself directly into the Mediterranean
- ❑ It is actually a network of intersecting metal bars, with a structure that takes on a golden color when the sun's rays hit it and the "scales" gradually change tone.







During the first half of the century xx Barmí sigtíó experiencing a great growth and not few transformations. It grew their population that reached by the middle of century, vastly together with the suburbs and towns of the surroundings, the 250.000 inhabitants. Areas were urbanized more and more far from downtown, at the same time that the central area and the one gets wider they constantly transformed.

Diverse styles and architectural fashions were happened vertiginously along the century. The modernism and the eclecticism found answer in the rationalism, in turn answered by the classicism monumentalista that influenced with the peak of the totalitarian states. Starting from the years 30, Barmí saw grow its first and moderate sky-scrapers, reflection and pale echo of the North American architectural appearance. After the war the tendency of the singular buildings to the uprightness would be a constant.

The world postwar period, and the great economic dinamización that followed it also showed in Barmí. The old helmet and the one enlarges, now central areas, were configured like space of services and of trade, with great quantity of offices, stores and headquarters of companies. Parallely to the constructive frenzy of the central area, in the periphery they began to be built polygons industrial and gigantic neighborhoods, cities bedroom, for the new proletariat that arose of the industrial expansion of postwar period.

Many you are quiet they asphalted and he/she began to take protagonism the automobile like half of locomotion.

The water and the electricity, as well as the sewer system, you generalized to the whole city. Some tracts of underground railroad and suburban were also built.



adecuación de ciertos conjuntos de manzanas de la ciudad como «supermanzanas», unos espacios intermedios entre la manzana y el barrio, con tráfico de vehículos restringido para potenciar el tránsito peatonal, la circulación de bicicletas y el transporte público, ganando además espacios destinados al ocio y los equipamientos públicos. La primera prueba se hizo en un conjunto de nueve manzanas en el Pueblo Nuevo, donde se cambiaron las señales verticales y horizontales para señalar la zona. El tráfico está prohibido en línea recta, por lo que los vehículos solo pueden girar en las intersecciones, y se limita a 10 km/h. Ello deja libre el espacio interior entre manzanas, que será aprovechado para espacios públicos,

b) La herencia de la **primera etapa industrial** en el casco antiguo se refleja en las modificaciones que sufrió la ciudad preindustrial como consecuencia del crecimiento urbano entre mediados del siglo XIX y el primer tercio del xx.

En la primera mitad del siglo XIX, el casco absorbió el crecimiento de la población sin necesidad de extender el plano en superficie.

El crecimiento era todavía poco intenso por la escasa industrialización, y la desamortización liberal puso en circulación gran cantidad de inmuebles eclesiásticos con sus huertos, que ocupaban mucho espacio.

Apertura o ensanchamiento de calles y plazas

Reutilización de los edificios eclesiásticos para otras funciones que exigen ubicaciones en el centro de la ciudad: diputaciones, delegaciones del gobierno, cuarteles, hospitales, centros culturales, bibliotecas y museos.

Desde mediados del siglo XIX al primer tercio del XX, el inicio de la industrialización dio lugar a un notable crecimiento urbano, que obligó a ensanchar la ciudad fuera de las murallas y produjo notables transformaciones en la morfología del casco antiguo.

En el plano, los espacios más valorados por la burguesía experimentaron reformas, como

la apertura de grandes vías inspiradas en el modelo de París.

Se concibieron como una calle amplia y larga, jalonada de edificios majestuosos en los que se instalaron funciones terciarias (el comercio de lujo, la banca, sedes de empresas, casinos, teatros, cafés de moda, etc.). Así, estas nuevas vías se convirtieron en la calle principal y el nuevo centro de negocios, y a partir de ellas se renovaron las calles próximas.

En unos casos, las grandes vías rompen la trama del casco histórico, contrastando



C) El auge industrial trajo consigo el deterioro y la renovación del casco antiguo.

Desde finales del siglo m, con la construcción de ensanches, una parte de la burguesía abandonó el centro.

Ello favoreció un proceso de deterioro morfológico (calles\* y casas) y social (quédaron generaciones de adultos con escasas posibilidades económicas).

A esta degradación colaboró el sistema de arrendamientos, que impedía la actualización de los alquileres y hacía que los dueños buscasen el desalojo de los inquilinos mediante la declaración de ruina del inmueble. El deterioro del centro dio lugar en la década de 1960 a políticas de renovación, que se concentraron - en las zonas de mayor accesibilidad y rango. En el plano, con el pretexto de sanear el centro, se destruyó parte de la trama urbana antigua, ocasionando daños al patrimonio. En la edificación, se sustituyeron edificios antiguos - por otros de mayor altura, volumen y precio, cuya morfología no guarda relación con la tradicional de la zona. Sólo en algunos casos (Toledo, Salamanca, Segovia, Cáceres) se adoptó una política conservacionista a ultranza, que, al dificultar cualquier reforma, favoreció el progresivo abandono de los residentes. En los usos del suelo, las zonas y edificios renovados recibieron actividades terciarias, que necesitan accesibilidad y rango, y que pueden rentabilizar el alto precio del suelo (bancos, sedes empresariales, instituciones públicas, despachos y estudios de profesionales, centros comerciales y de ocio, hoteles, restaurantes, cines). Así, estas zonas del casco antiguo se consolidan como CBD (Central Business District) o centro comercial y de negocios, con el consiguiente desplazamiento de los usos residenciales.

En las grandes ciudades, el centro de negocios se ha ido desplazando hacia el ensanche; hacia las grandes avenidas externas del casco histórico, dejando éste

Se llama estructura urbana a la división de la ciudad en áreas con morfología y funciones características. Como resultado del largo proceso de urbanización, la ciudad española actual tiene una estructura compleja.

En las ciudades convencionales, bien individualizadas respecto al campo circundante, estas zonas son 'el casco antiguo, el ensanche y la periferia.

Sin embargo, la intensidad de la urbanización ha conducido a otras ciudades a conectar con núcleos de población próximos, dando lugar a la formación de aglomeraciones urbanas.



Es la parte de la ciudad urbanizada desde su origen hasta la época industrial. Ocupa una pequeña superficie de la ciudad actual, pero tiene un importante valor, pues suele poseer destacados conjuntos históricos y artísticos.

Por su larga historia en el casco antiguo se acumulan elementos muy dispares pertenecientes a diversas etapas, desde el nacimiento de la ciudad hasta hoy.

a) La herencia de la época preindustrial se concentra en el casco antiguo. Aunque las ciudades preindustriales responden a modelos distintos según las épocas y culturas, suelen presentar algunas características comunes. Casi todas estaban rodeadas de murallas, que tenían finalidad defensiva, fiscal (garantizaban el cobro de impuestos) y sanitaria (aislaban la ciudad en caso de "cuarentena").

El plano solía ser irregular, con calles estrechas y tortuosas (caso de muchas ciudades antiguas y medievales, tanto musulmanas como cristianas); pero también hay ejemplos de planos radiocéntricos (algunas ciudades de la Alta Edad Media), lineales (en ciudades surgidas en torno a vías de comunicación, como el Camino de Santiago) y en cuadrícula (en ciudades de nueva planta romanas, medievales o barrocas, como Tarragona, Castellón o Aranjuez, respectivamente). La trama urbana era cerrada y solía organizarse en manzanas pequeñas. En la edificación predominaban las casas unifamiliares, con corrales y huertos. También había edificios destacados, que varían según el periodo histórico (iglesias, mezquitas, palacios, ayuntamientos). Los usos del suelo eran diversos (multifuncionalidad): con las viviendas se entremezclaban talleres, comercios, almacenes y edificios públicos; ello no impedía una cierta especialización en relación con la profesión (barrios para los gremios de artesanos y comerciantes) y en relación con la raza y la religión (barrios para minorías marginadas: juderías y morerías). Desde el punto de vista social, en la ciudad coexistían diversos



cia que se encuentra en el hoy en la propia lengua. Co-mplo, habla de un mosaico bierto en el número 15 de la Avinyó en el interior de un io municipal con referen- la música.

cierto es que la Barcino ra- aín sobrevive en muchos s de la Barcelona actual, en ic. El crecimiento de la ur- vocó que muchos vestigios ran integrados en edificios riores y se han convertido te del paisaje, por ese moti- a unos desconocidos hasta muchos barceloneses. Y es- ómeno también ha permiti- nservar este patrimonio, si ha llegado hasta nuestros Su recuperación es ahora jetivo, como en el caso de la la; un proceso que es hasta ógico, puesto que, en pala-

Se encuentra en el tramo Baixada de Caçadors, Sots-tinent Navarro y plaza Traginers. En la foto, uno de los edificios que se derribarán, adosado a la muralla romana frente a la plaza Traginers



1 VÍA SEPULCRAL ROMANA Plaza Villa de Madrid

Tumbas de la época romana situadas a ambos lados de una de las vías de entrada a la ciudad de Barcino que conducía a la puerta septentrional, decumana, de la muralla

## A LA VISTA vestigios romanos incorporarán a los recorridos turísticos culturales

## IRTE A LA VISTA muralla romana pasado de ser monumento a monumento

Joan Roca, la antigua muralla pasó de ser un monumento a un monumento. un viaje en el tiempo, que va hasta el siglo I a.C. Antes el emperador en Roma y se emplazó al norte de Tarragona una colonia, que serviría para pagar a sus veteranos de las legiones y a colonizadores itálicos que se mezclarán también con los iberos que poblaban la zona. El nombre es Colonia Iulia Augusta Paterna Faventia Barcino. Se encuentra alrededor de una elevación que es el Mons Taber, a unos metros sobre el nivel del mar. Se conserva una parte de su estructura de la misma época que un campamento militar: forma hexagonal, dispone de cuatro puertas de acceso que corresponden a las dos calles principales, el *cardo* y el *decumano*. Se cruzan en un punto: el foro. En la plaza pública se encontraba un gran templo para glo-



2 ACUEDUCTOS Calle Duran i Bas y plaza Nova

Restos de cuatro arcadas de uno de los acueductos que llevaban el agua a la ciudad romana de Barcino (finales del siglo I a.C.). Actualmente, están integradas en la pared medianera de un edificio



3 PUERTA NORDESTE Y ACUEDUCTO Plaza Nova

Puerta de acceso a la ciudad a través de una de las calles principales. Se conserva uno de los pasos laterales para peatones y las dos torres semicirculares que defendían la puerta (siglos I-IV). Al lado se puede ver la reconstrucción de uno de los acueductos que llevaban el agua a la ciudad romana de Barcino (finales del siglo I)



rectilíneos, fueron construidos con piedra arenisca extraída de las canteras de Montjuïc

Altura aprox.: 9 m

Murallas aproximada entre 9 y 10 m

Separación entre torres entre 7 y 14 m

Ancho: entre 1,3 y 2 m

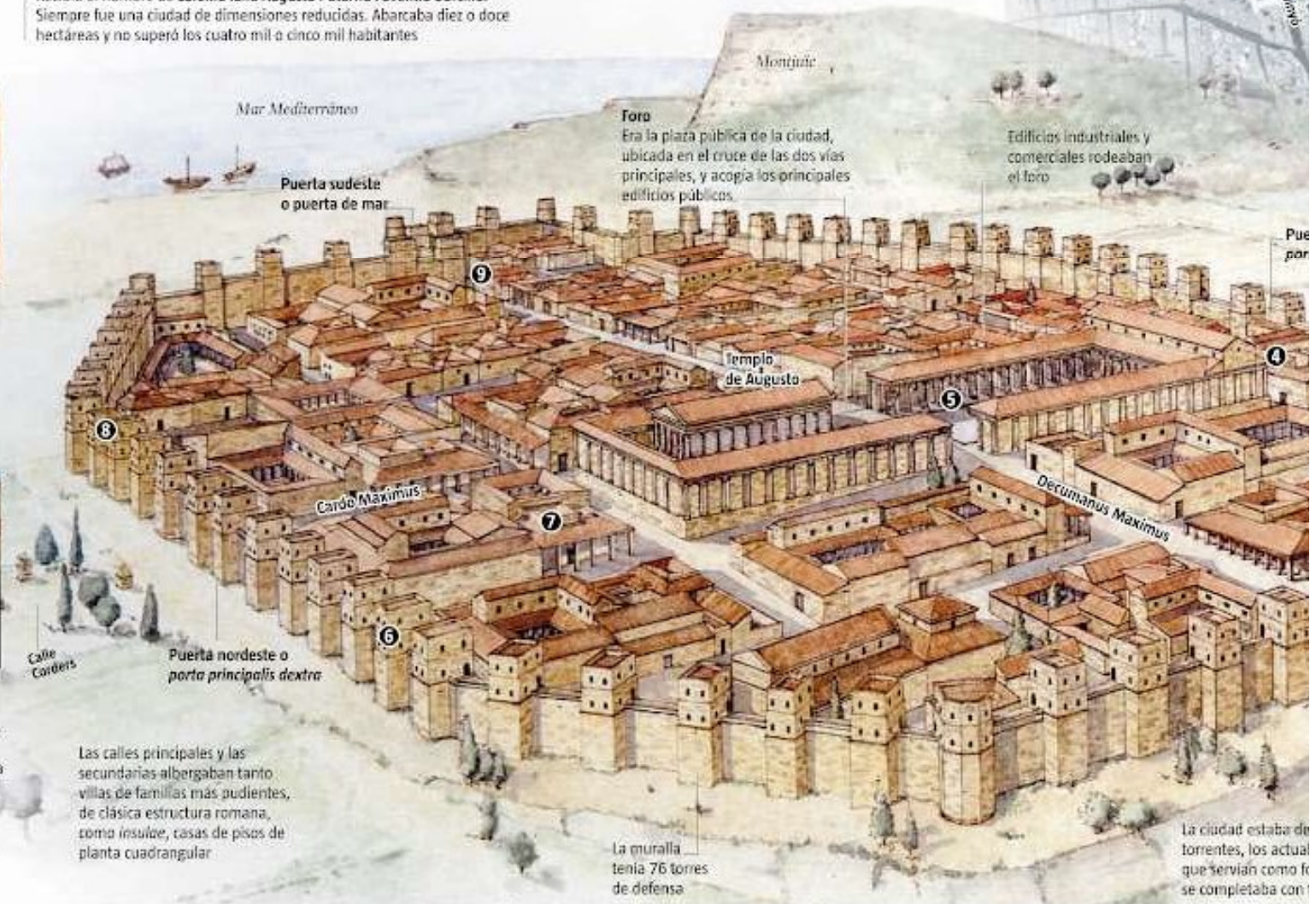
Ancho aproximado: 4 metros

La segunda muralla se construyó con materiales reciclados, procedentes de necrópolis y edificaciones extramuros

Longitud aproximada: 1.270 metros

## La ciudad se fundó durante el mandato del primer emperador de Roma, Augusto; seguramente entre los años 15 y 13 a.C.

Recibió el nombre de *Colonia Iulia Augusta Paterna Faventia Barcino*. Siempre fue una ciudad de dimensiones reducidas. Abarcaba diez o doce hectáreas y no superó los cuatro mil a cinco mil habitantes



Mar Mediterráneo

Puerta sudeste o puerta de mar

Foro Era la plaza pública de la ciudad, ubicada en el cruce de las dos vías principales, y acogía los principales edificios públicos

Edificios industriales y comerciales rodeaban el foro

Templo de Augusto

Cardo Maximus

Decumanus Maximus

Puerta nordeste o porta principalis dextra

Las calles principales y las secundarias albergaban tanto villas de familias más pudientes, de clásica estructura romana, como *insulae*, casas de pisos de planta cuadrangular

La muralla tenía 76 torres de defensa

La ciudad estaba defendida por torres, los actuales que se ven en la foto, que servían como faros y se completaba con 1



sometimes dominant social class with initiative and decision, to symbolize their to be possible made build mansions and daring palaces in consonance with the most advanced aesthetic tendencies in the moment.

### New religious buildings

The architects built spectacular churches. They used the dome and they imitated and they recovered some of the aesthetic reasons of the Greek and Roman temples. In some temples they were carried out reformation works or amplifications according to the new Renaissance approaches.

### You work public

The reorganization of the urban space and the same urbanization worried to the public powers during the Rebirth. They cleaned up services, they adapted streets and squares to facilitate the improvement of the city.

### Mint

The mint was the house of the currency. In Barmí different pieces of gold, silver or brass were coined. The mint had ovens for foundry and all the useful ones necessary to carry out these tasks.

### Agricultural villages

Some powerful landowners or noblemen tried to be modernized and to rationalize their properties. They built luxurious and functional residences that more they seemed palaces that you marry of farm.