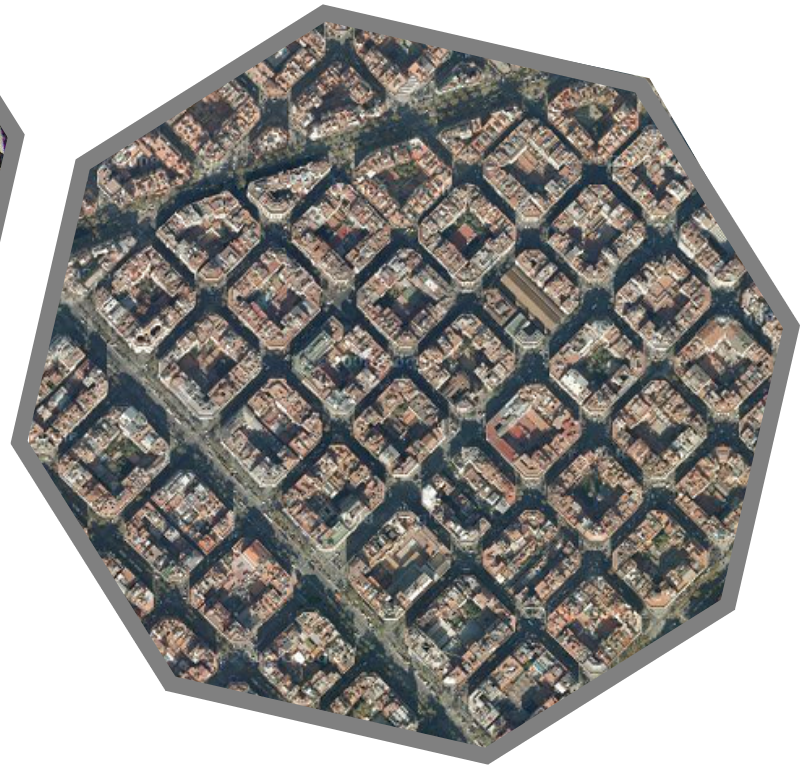


Plan Cerdà

A model of urbanism

Quadern de treball

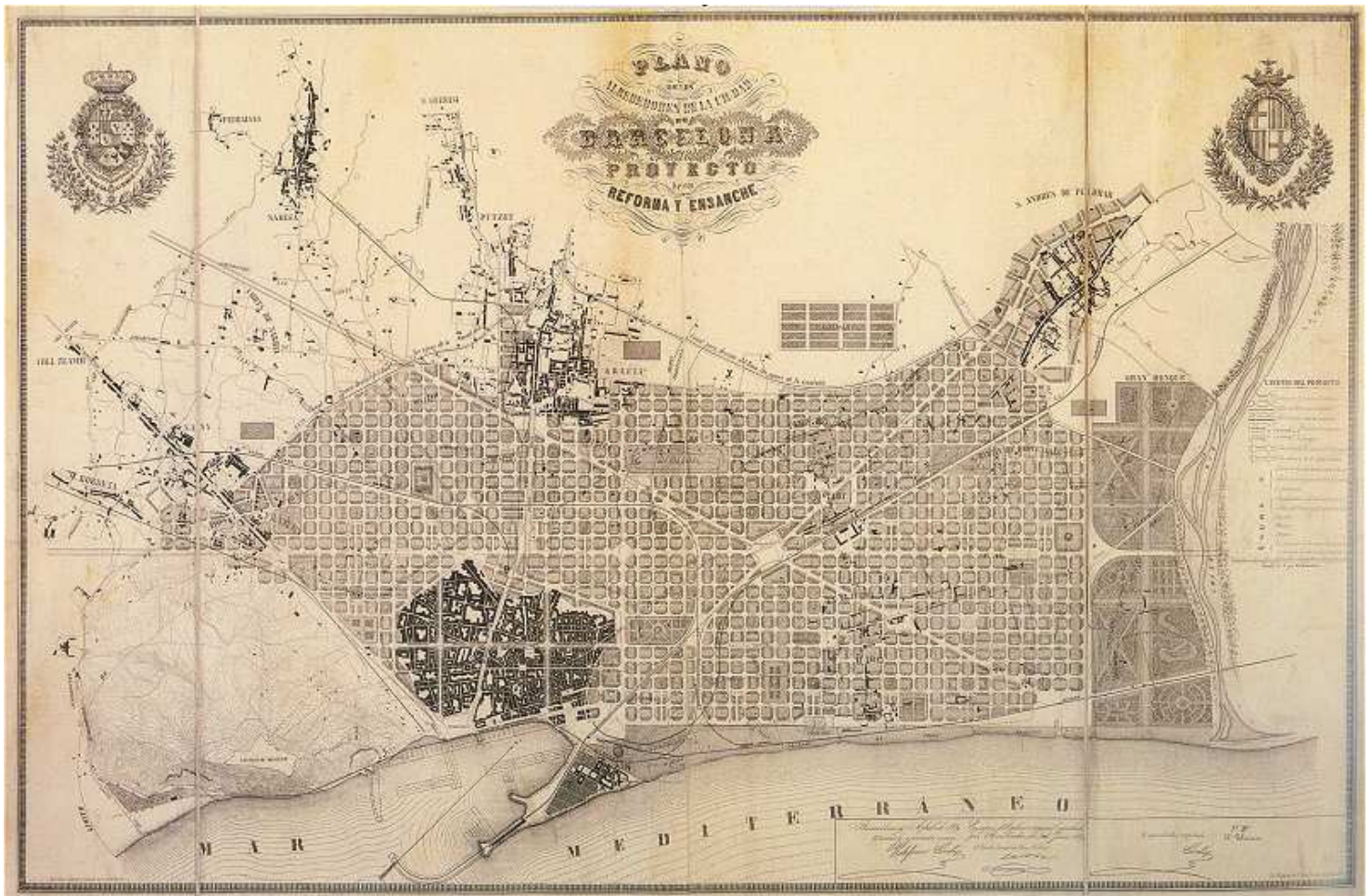


First / Second

Camp d'Aprenentatge de Barcelona

Name:

ESO



MAP OF THE SURROUNDINGS OF BARCELONA AND ITS PROPOSED TRANSFORMATION
Ildefons Cerdà. 1859

Educational material developed by the Camp d'Aprenentatge de Barcelona and published for educational purposes. Copies of the material can be made towards that end.
Edition: October 2008

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BIOGRAPHY

(Centelles, 23 December 1815 - Caldas de Besaya, Santander, 21 August 1876)

An engineer, urban planner, architect, lawyer, economist, politician, militant... multifaceted man who is remembered for his urban reform project in Barcelona of the 19th century, a reform known as the Cerdà Plan, which resulted in the Eixample neighborhood. He was one of the founders of urban modernism.

Born in Cerdà de la Garga, a property that had been in his family's possession from the 14th century on, in Centelles (la Plana de Vic). Despite his rural ascendancy, the Cerdà were a cosmopolitan people; both his grandfather and father formed part of those generations that, in readdressing the Catalan economy, directed their interests towards the American model of trade, which doubtlessly inspired the open spirit and mind of the young Ildefons, together with his progressive beliefs.



Ildefons studied Latin and Philosophy in Vic, where his family took refuge during the Malcontents' War. They moved to Barcelona afterwards, where he began his studies of architecture, mathematics, nautical studies and drawing at the Junta de Comerç. In 1835 he moved to Madrid and studied at the School of Civil Engineering, from which he graduated in 1841. After completing his studies, he began his professional life as a state engineer performing jobs in Múrcia, Teruel, Tarragona, València, Girona and Barcelona. In Barcelona he got in contact with the utopian socialist doctrines of Étienne Cabet and began to socialize with Narcís Monturiol and Ramon Martí Alsina.

His ideology led him to participate actively in public life, becoming a deputy at the Courts to Barcelona in 1850 as part of a progressive campaign, together with Estanislau Figueras, Pascual Madoz and Jacint F. Domènech; during the Progressive Biennium he became the battalion commander of the pioneers of national military and administrator to the city of Barcelona.

In 1867 his "General Theory of Urbanization" was published, which attempted to solve the problems of urban and industrial development. This work reinforced the theories that, to a great part, had already been applied previously in the Interior and Exterior Reform Project of Barcelona.

The 1868 revolution led to his vice presidency of the Barcelona Provincial Council, where he contributes to the proclamation of the first republic in 1873. He was elected president of the Council, yet in 1874 he was forced to resign because of the coup organized by the general Manuel Pavía.

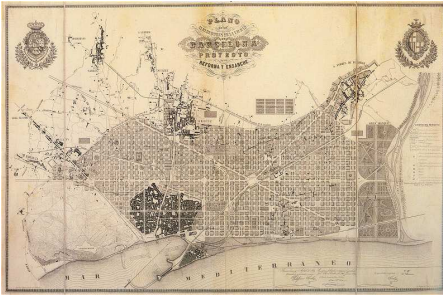
Sick and in financial shambles, as the government owed wages to many of the engineers, he died at the spa of Caldas de Besaya, at Santander, on August 21, 1876.

Principals obres:

- 1859 - Theory of the Construction of Cities
- 1861 - Theory of Urban Viability and Reforming Madrid.
- 1863 - Theory of the Enlace of the Movement of Land and Maritime Ways.
- 1867 - General Theory of Urbanization.
- ? - General Theory of Ruralization.

Source: Institut Cerdà (<http://www.icerda.es/>)

PLAN CERDÀ



Throughout the first half of the 19th century, industrialization had caused a great need for man power in Barcelona. The city developed into a cramped enclosure where the quality of life degraded to such an extent that the discontent of its citizens erupted in numerous revolts. The density reached 890 inhabitants/hectare, which was about three times as high as in cities such as Paris or Madrid, and twice the population density of London. The streets had an average width of 4 meters and the buildings were often close enough so that one could pass directly from one roof to another. In order to create more space, new apartments were set on top of buildings

that were already in bad conditions, as well as living space between buildings on either side of the street like a bridge. Sanitation and hygiene were practically unheard of.

The city was surrounded by a wall outside of which, for military reasons, there was a construction ban. A terrible cholera epidemic in 1854 was the spark that caused a protest movement under the slogan “Down with the walls” that demanded the demolition of the existing and the authorization for the construction of a new city or neighborhood. In that same year, benefiting from the favorable position of a progressive central government under O’Donnell and the support of the governor of Barcelona (a friend of Cerdà’s), the demolition of the city began.

Cerdà had made a topographic map of the Barcelona plan and used it to publish the draft of an expansion project of the neighborhood of the city in 1855. That draft already outlined the general guide lines of what would be the “Reform and Expansion Project of Barcelona” (1859), commissioned directly by the Ministry of Fomento. The city proposed by Cerdà would be decentralized, without distinction between center and periphery; open, with wide streets, open islands, gardens, low and equal buildings; without any class separation. Cerdà wanted to give priority to the content (people) over the continent (streets, buildings...).

The Project of 1859 organized the city in an orthogonal pattern of streets that were 20m wide (40 years before the car was even invented!) and with 50 meter wide roads (which he called transcendentals) that served to cross and communicate between the neighboring villages. The space between vehicles and pedestrians on the street was also divided into equal parts: pavements of 5m and carriageways of 10m. To facilitate the movement and circulation at corners, intersections were introduced so that the individual housing islands had a square or octagonal shape. The buildings were designed as multi-family dwellings of a maximum of four floors, erected on only two of the sides of each island and with garden spaces in between them. To achieve egalitarianism between the different zones, he proposed the division of the city into groups of neighborhoods (5 x 5 islands), districts (10 x 10 islands) and sectors (20 x 20 islands) in a manner of which each of these areas had the same services and facilities (gardens, schools, markets...) independent of their location. The new urban center was placed at the Plaça de les Glòries (corner between Diagonal, Meridiana and Gran Via), removing it from the historic center of the Old City.

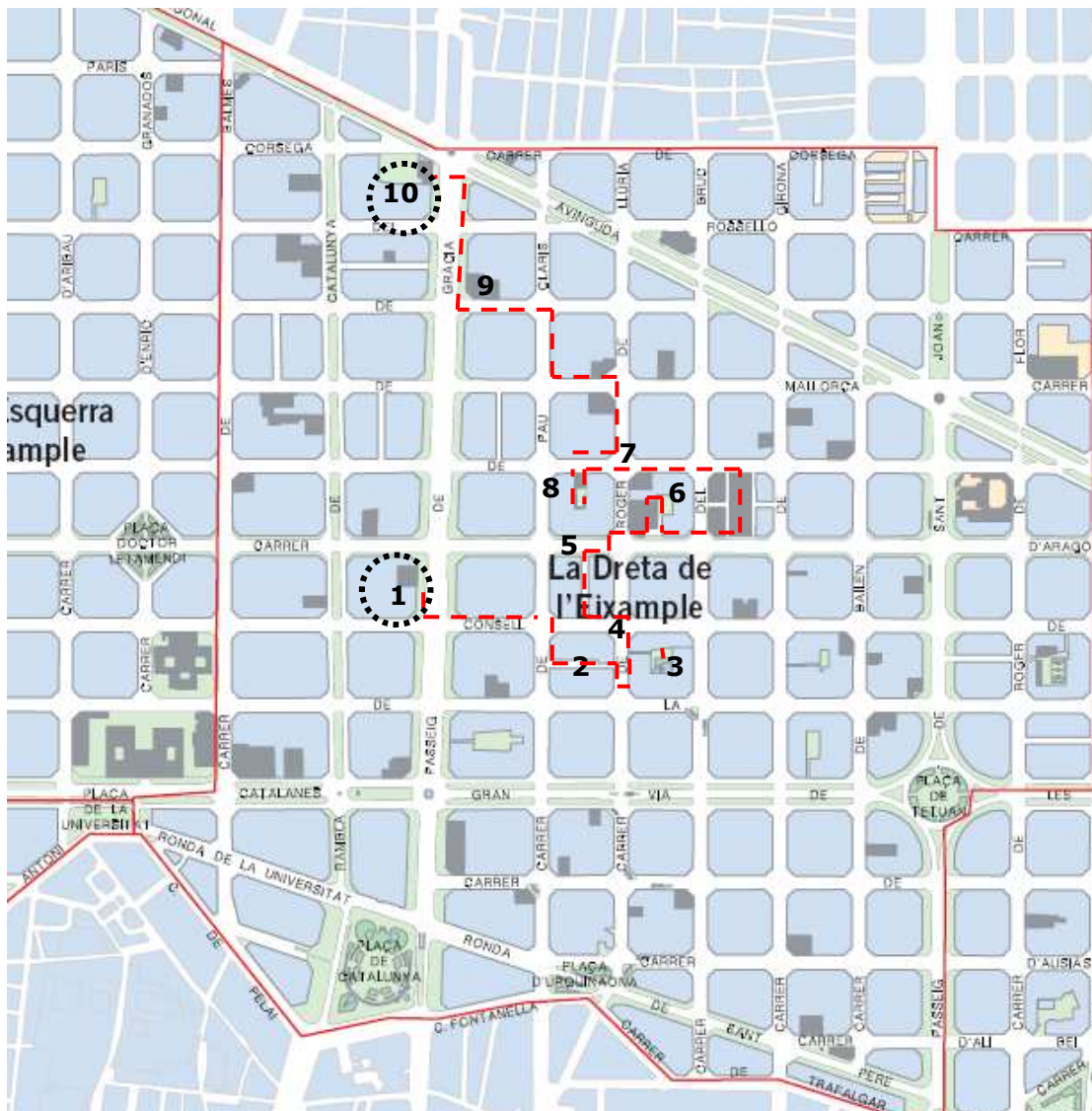
Cerdà’s project was not well received, neither by the municipal authorities nor the owners of the land where it was supposed to be realized. In 1859 the City Council organized a contest of Neighborhood Projects that Antoni Rovira i Trias won, with a proposal very different from that of Cerdà. He envisioned a monumental city, with streets of a maximum width of 12m that converged towards the top of Las Ramblas and was thought to be inhabited by the upper classes only. The owners, for their part, considered the low constructability of the Cerdà Plan a barbarity, a poor use of space and therefore an unnecessary impediment to achieving maximum benefit. Fellow architects, on the other hand, accused him of being monotonous. Despite of the opposition, the central government ratified the Cerdà Plan in 1860 for urbanizing the new Barcelonan neighborhood.

That same Cerdà revised his plan in 1863 and incorporated variations such as the construction of three- or four-sided islands and the integration of the railway into the urban network, letting it pass in a semi-underground manner through streets of twice the width. He also considered the creation of macro-islands of 4 x 4 where the necessary infrastructures of trains, factories and gardens would be located.

The final implementation of the Cerdà Plan was slow, and the difficulties and opposition it was facing would result in its partial distortion, allowing the construction of four-sided islands, increasing the number of permitted floors and dismissing the idea of public garden spaces inside of the islands.

Today, 150 years after the approval of his urban project, Cerdà has the unanimous recognition of his almost visionary achievement.

EXPLORING THE NEIGHBORHOOD: AN ITINERARY



Throughout this tour we will be able to see some of the most important elements of the neighborhood today, which originate directly in the planification conceived by Cerda in his project. Despite of the dismissal of some important aspects, we can confirm his validity even 150 years after.

POINTS OF INTEREST:

1. **START:** PG. DE GRÀCIA - MANÇANA DISCÒRDIA (<M> Pg. De Gràcia)
2. PASSATGE PERMANYER
3. INSIDE OF ISLAND: TORRE DE LES AIGÜES
4. CASES D'EN CERDÀ
5. PASSATGE MÉNDEZ VIGO
6. RECTOR OLIVERES GARDENS / CLOISTER LA CONCEPCIÓ/ MARKET LA CONCEPCIÓ
7. CASA JOSEFA VILLANUEVA / QUEVIURES MÚRRRIA / CASA JAUME FORN
8. INSIDE OF ISLAND: CASA ELIZALDE
9. PG. DE GRÀCIA – LA PEDRERA
10. **END:** PALAU ROBERT (<M> Diagonal)

WORK PROPOSAL:

Along the route we will be doing a photographic essay, everybody taking pictures of the highlights. Using the material you compile and the information obtained during the tour, as well as other means, you as a group can prepare an audiovisual presentation.

[1] PASSEIG DE GRÀCIA – LA MANÇANA DE LA DISCÒRDIA



In Roman times, Passeig de Gràcia as we know it today was a road that connected Barcino with the Via Augusta (which coincides apprx. with Travessera de Gràcia now). Later on it became the road that led from Barcelona to the Villa de Gràcia (independent until 1897).

When the walls were demolished it became the natural exit of the city and as soon as the Neighborhood Project was approved, the urbanization of the area began, concentrating the most important buildings of the time there; an area selected by the high society of the city to see and be seen. It was this competitiveness of having to demonstrate who was more powerful and had better taste that resulted in turning the Passeig - and its adjacent streets - into a veritable museum of architecture, above all modernist, and allows us to find some of the most spectacular and representative works of that movement today.

Cerdà had proposed that the road would be urbanized by isolated constructions surrounded by gardens. We can see two houses built according to this criterion: the Palau Marçet (corner of Gran Via), where the cinema Comèdia is found, and the Palau Robert (corner of Diagonal). The first lost its garden so that a new building could be erected, while the second still retains it. In general the owners failed to heed to Cerdà's proposal and built around the facade up until the sidewalks .

Between the streets Consell de Cent and Aragó, three works can be found, together with La Pedrera, which best represent the competition that developed between the rich and bourgeois of Barcelona to be able to boast with the most spectacular buildings of the city. The buildings are the works of three of the leading architects of Catalan modernism: La Casa Lleó i Morera (1905) of Domènech i Montaner; La Casa Amatller (1898) of Puig i Cadafalch and La Casa Batlló (1904) of Antoni Gaudí. Interestingly, the three houses came about in renovating preexisting buildings.

- **OBSERVE** the building next to Casa Batlló. Do you believe that its current height already existed when Gaudí designed this building? How would you explain this fact? Take a photo of the upper part of both buildings.

[2] PASSATGE PERMANYER



One of the best examples of a street integrated into the Cerdà grid. It was built in 1864 under the direction of the architect Jeroni Granell.

Comprising detached single-family homes (with separating walls) of English style, with two floors (basement and elevated ground floor) and a small front garden. Its eclectic decoration corresponds to the taste of the era and can be found on many other buildings of the neighborhood.

According to the islands that Cerdà defined in his project, this zone was not to be constructed upon. We therefore find one of the first dismissals of the public space envisioned by the engineer here.

Currently the properties are turned into offices and their businesses.

- At the beginning of the street we can find information about its name and the year of construction. Copy down this information and take a photo of it.
- Describe the structure of the road (pavement, street, width) and its habitation (plants, cranes, gardens...) from the homes that are available here. Take a photo of the street in general and one of one of the houses in detail.

[3] THE INSIDE OF AN ISLAND: THE WATER TOWER

The abundance of ground water found in this zone resulted in that this area of the Eixample neighborhood was one of the first to be built, after that of the territory enclosed by the (round) walls. If we access the interior of the island through C/ Roger de Llúria 56, we can see an interior patio -open to the public- hallmarked by a 24m high water tower, a construction that served to store and elevate water so it could be distributed to the farms with sufficient pressure. In order to lift the water, a steam machine of 20hp was applied. Josep Oriol Mestres designed it in 1867, commissioned by the Society of Credit and Development in Barcelona. It was later on bought by the "Association of Water Owners of the Ensanche". In 1987, the inside of the island was returned to public use through the City Council. In the summer it presents a pleasant city beach.



- Take a photograph of the sign of the door that gives way to the inside of the island and write down the text.
- Observe the height of the buildings that surround this interior patio. Describe what you see.
- If necessary, could this tower-reserve provide water to all the buildings around it nowadays? Why?

[4] THE HOUSES OF CERDÀ

At the junction of the streets Consell de Cent and Roger de Llúria we can see three of the first building blocks that were built in Eixample, built between 1862 and 1864 by Antoni Valls i Gali (master of the works). Josep Cerdà i Soler promoted it.

They are a stunning example of the construction line that followed the neighboring houses of the middle and working classes. They look simple, with no other decorative complications than the facades painted in tempera with allegorical motifs (nature, art, science...) by the Italian Beltrami as pointed out by a plaque on one of the buildings. The fourth building, which completed the set, was torn down in 1960.

Both its height (five floors) and the limited depth of the buildings at 14m allow that, just as Cerda had envisioned it, all the rooms are very sunny.



- Take pictures of each of the three houses. Take a general and a detailed one.
- Complete the following table:

(1) Make use of the conventions sea / mountain and Besós (right) / Llobregat (left)

Building	Location (1)	State of conservation and today's use	Use of corner (2)
1			
2			
3			

(2) Loading-unloading, parking, reservations...

[5] ALLEYWAY MÉNDEZ VIGO



Inaugurated in 1868, as can be seen on the entrance portals, it followed the spirit of the Permanyer alleyway, although a greater variety of building types can be found here, with single-family homes in the shape of small palaces without dividing walls. It is currently occupied by several Italian institutions, the reason for which it is known as the “Italian Alleyway”.

- On the entrance doors, find information about the name and date of construction of this alleyway.
- Take a general photo of the alleyway and another one of two of the buildings, and judge whether they come from different époques and architectonic styles.
- Compare this alleyway with that of the Permanyer: explain one difference and one similarity.

[6] CHURCH OF CONCEPTION / GARDENS / MARKET



The unity formed by the island of the Conception Market, including a school, the Municipal Music Conservatory and the Head of the District Council, as well as the neighboring island containing the Church of Conception, constitute a good example of what had been the facility centers of the neighborhoods that Cerda provided.

Between 1871 and 1888, the Church of Conception (15th century) and its cloister (15th century) were displaced from their original location, to the area that comprises the Urquinaona plaza today. The church received the church bell of San Miquel, which is found at the plaza with the same name today (behind the town house).

A steam train used to circulate down the Aragó street until the end of the 1960s. The consequent emissions went straight into the air and produced a staining and degradation of the stone.

Next to the church, on the right side, the Rector Oliveras gardens are found. This gardened space with playgrounds demonstrates that it is possible to find a place of recreation and relaxation in one of the busiest (and therefore noisiest) parts of the Eixample.

The **Conception Market** was constructed in **1888**, conceived by Antoni Rovira i Trias. The owner of the territory was Joan Pla i Moreu, who ceded it to the City Council (he was the owner of 26 houses in the Eixample).

- Take pictures of signs with the name of different facilities in the area-
- Localize and annotate the various facilities of this zone on the following map:



[7] CASA JOSEFA VILLANUEVA / GROCERIES MÚRRIA / CASA JAUME FORN

At the intersection of the streets Roger de Llúria and València three elements representative of modernism in the Eixample can be found. These are the apartment buildings of Josefa Villanueva and Jaume , as well as the showcase of the grocery store Múrria.



Casa Josefa Villanueva (València 312) was built between 1904 and 1909 by the architect Juli M. Fossas. Its most remarkable part is the stone gallery covering the balconies on one corner, topped with a crown of needles. At the other corner we find an identical one.

Casa Jaume Forn (València 285) is also an apartment building designed by Jeroni Granell and built in 1909. Highlights are the windows that cover the English galleries. If we turn towards the top we can clearly see the most recent apartments that were added later on, one of many alterations that were authorized by the Ajuntament predemocratically under the pressure of the speculating owners.

On the opposite corner we find the establishment of the grocery shop Múrria (Roger de Llúria 85), interesting due to its facade covered with windows, signs and modernist adds, like that of Anís del Mono, designed to replicate the original by Ramon Casas. Until the mid-20th century a good part of the commercial windows in the zone had a similar appearance.

- Look at the top of the Forn building. How many floors were added to the original construction? Take photos.
- Observe and comment upon the elements you find the most remarkable about the Múrria shop.

[8] JARDINS CASA ELIZALDE

One accesses the interior patio through the main gate of the building (València, 302). The house was constructed in 1886 by Emili Sala. It is an urban palace designed as family residence with basement, ground floor, main floor, attic floors and a garden. Its architectonic style is classic, elegant and sober.

The common element of these types of buildings in the Eixample can be easily recognized when accessing the interior: a central courtyard and a grand staircase that connects the ground and first floor.

After the first owner died (Francesc Jaurés) the building was inherited by Arturo Elizalde, his nephew, who founded an automobile factory in 1909 (“Biada, Elizalde y Compañía”).

After the building declined for a while and even ruin became likely, the Ajuntament finally bought it in 1981. Despite its restoration, many of the original elements could not be recovered, such as the gallery that closed the central balcony and most of the handmade wrought iron and glass. Its patio was one of the first interior islands that was recovered for public use, just like Cerda envisioned it back in the days.



- Find information about the current use of Casa Elizalde. Write down three activities that should take place there in the very near future.
- Take a photo of the exterior and interior patio. Describe and compare aspects of the two.

[9] PASSEIG DE GRÀCIA – LA PEDRERA



A result of the marriage of Milà-Segimon to Gaudí, who constructed it between 1906 and 1912. Apart from its architectonic value, which is well-known and self-evident, it is a building that perfectly represents the type of home intended for rental by the owners that occupied the first and leased the upper floors, for which reason it was called the Principal. Contrary to the contemporary situation, the higher the flats the cheaper they were (there were no elevators). In case of La Pedrera the Principal floor occupied the entire ground floor of the building (1.300 m²) and the others were divided into apartments of 400 m².

The basement, currently occupied by a tailor, the shop of La Pedrera and several offices, used to be a coal stock. Many homes in the Eixample still have these in form of a window at ground level. When coal was substituted by current fuels they were converted into stores, shops and bars.

Arriving at the end of our journey, at the junction of Pg. De Gràcia and Avinguda Diagonal, we can see the Joan Carles I plaza, commonly known as the Pen because of the obelisk that it holds in its midst. The urban change that took place here becomes clear as the plaza constitutes the boundary between Eixample and Gràcia, a formerly independent village annexed by Barcelona in 1897.

- Take a picture of the Pedrera complex such that you can see the different floors it is composed of. Annotate them. Compare the Principal floor with the others.
- One of the columns of the Pedrera exceeds the minimum distance towards the street which the street facades should have and therefore violates municipal regulations. Find and photograph it. Discuss this. What is your opinion?

[10] THE ROBERT PALACE



The Robert Palace was the private residence of the aristocrat Robert Robert i Surís. It was built in the style of other grand contemporary mansions located at Pg. De Gràcia, in a neoclassic architecture. It was finished in 1903, under the direction of the French architect Henry Grandpierre. The stones he used were brought from the mountain Montgrí, the place of origin of the owner.

After several attempts of private interest groups to demolish it and replace it by a hotel, it was taken over by the Government of Catalunya in 1981.

- Find out what the Robert Palace is used for today
- Take photos and explain the complex of the palace: the buildings it comprises; its space and distribution

REVIEW ACTIVITIES AND CONCLUSIONS.

1 Along the way, we were able to observe the different types of housing that can be found in the Eixample neighborhood. Give an example of each.

Multi-family homes:

One-family homes:

Individual urban home (without connecting walls):

Attached urban home (with a connecting wall):

Town house:

2 We were also able to observe buildings of different architectonic styles that dominated the Eixample during the beginning and height of the neighborhood expansion. Give an example each of those as well.

- Historic or eclectic:

- Modernist:

- Neoclassical:

3 Proper names. Find information and say who they were.

- Josep Batlló i Casanovas
- Arturo Elizalde
- Santiago Méndez-Vigo
- Pere Milà Camps
- Francesc Permanyer
- Robert Robert i Surís

4 Based on what we have been seeing and explaining, critically comment and illustrate the following aspects that make up the current Eixample:

- A) Width of streets. Proportions between roads and sidewalks.
- B) Corners: use and repercussions in terms of transit and general mobility.
- C) Housing: building density, height, quality and consistency.
- D) Recovery of public spaces: parks and resting spaces.
- E) Equipment and services: trade, cultural centers, urban attention, educational facilities.

5 Write a small conclusion comparing the Eixample of today with that which Cerda envisioned. Which of his orders were respected and which were not, and how did this influence the city and the life of its inhabitants.

Barcelona i jo

Joan Manuel Serrat

A mida que arriben homes
es va fent gran la ciutat.
A mida que els peus li creixen
se li fa petit el cap.
A mida que creix oblida,
inflada de vanitat,
que sota l'asfalt hi ha la terra
dels avantpassats.

A mida que perd la mida
es va omplint de presoners,
de robinsons d'estar per casa,
nàufrags enmig del merder
que viuen vides petites
en petits mons de formigó.
Així esten les coses entre
Barcelona i jo.

Mil perfums i mil colors.
Mil cares té Barcelona.

**La que en Cerdà somnià,
la que va esguerrar en Porcioles,**
la que devoren les rates,
la que volen els coloms,
la que es remulla a la platja,
la que s'enfila als turons,
la que per Sant Joan es crema,
la que compta per dansar,
la que se'm gira d'esquena
i la que em dóna la mà.

A mida que la camino
sota els plecs del seu vestit
i li repasso les arrugues
amb la punteta del dit
em xiulen les cantonades
aquella vella cançó
que només sabem la lluna,
Barcelona i jo.

L'estimo nua i sencera
relliscant entre els dos rius,
amb les seves fantasies
i les seves cicatrius.
Me l'estimo amb la fal·lera
d'un caloio enamorat
perquè és viva i perquè es queixa
la meva ciutat.

Mil perfums i mil colors.
Mil cares té Barcelona.

La que en Cerdà somnià,
la que va esguerrar en Porcioles,
la que devoren les rates,
la que volen els coloms,
la que es remulla a la platja,
la que s'enfila als turons,
la que per Sant Joan es crema,
la que compta per dansar,
la que se'm gira d'esquena
i la que em dóna la mà.