

Great Cities: Barcelona's unloved planner invents science of urbanization

By Marta Bausells, The Guardian, adapted by Newsela staff on 05.20.16

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Barcelona's Eixample district, with Antoni Gaudí's Sagrada Família in the foreground. Photo: Alhzeia/Flickr. MIDDLE: Plan of the Eixample development in Barcelona (1859), by Ildefons Cerdà. Illustration: Wikimedia Commons. BOTTOM: The Sagrada Família Cathedral in the Eixample district today. Photo: Wikimedia Commons

Editor's Note: Trapped inside its city walls, Spain's Barcelona was suffocating. Unknown engineer Ildefons Cerdà developed an innovative plan to expand the city. His plans were criticized at the time, but he ended up changing how we think about cities.

In the mid-1850s, Barcelona, Spain, was in serious trouble. It had many factories, a busy port and a very dense population. The industrial revolution had pushed the growth of its cloth-producing industry as well as its population. However, there was no space for these people to live.

The city's 187,000 people all lived in the same tiny area, surrounded by medieval walls.

People in Barcelona were practically living on top of one another. The city was twice as dense, or crowded, as Paris, France. In fact, Barcelona was so crowded that it was affecting people's health. People there were dying younger and younger. Average life spans dropped to 36 years for the rich and just 23 years for the working classes.

Bringing Down The Walls

The city could not expand, and its walls were becoming a health risk. They were almost literally suffocating the people of Barcelona.

In 1844, people began to tear down these walls. However, tearing down the walls created a new problem. Now the city needed a plan to manage the overflowing population.

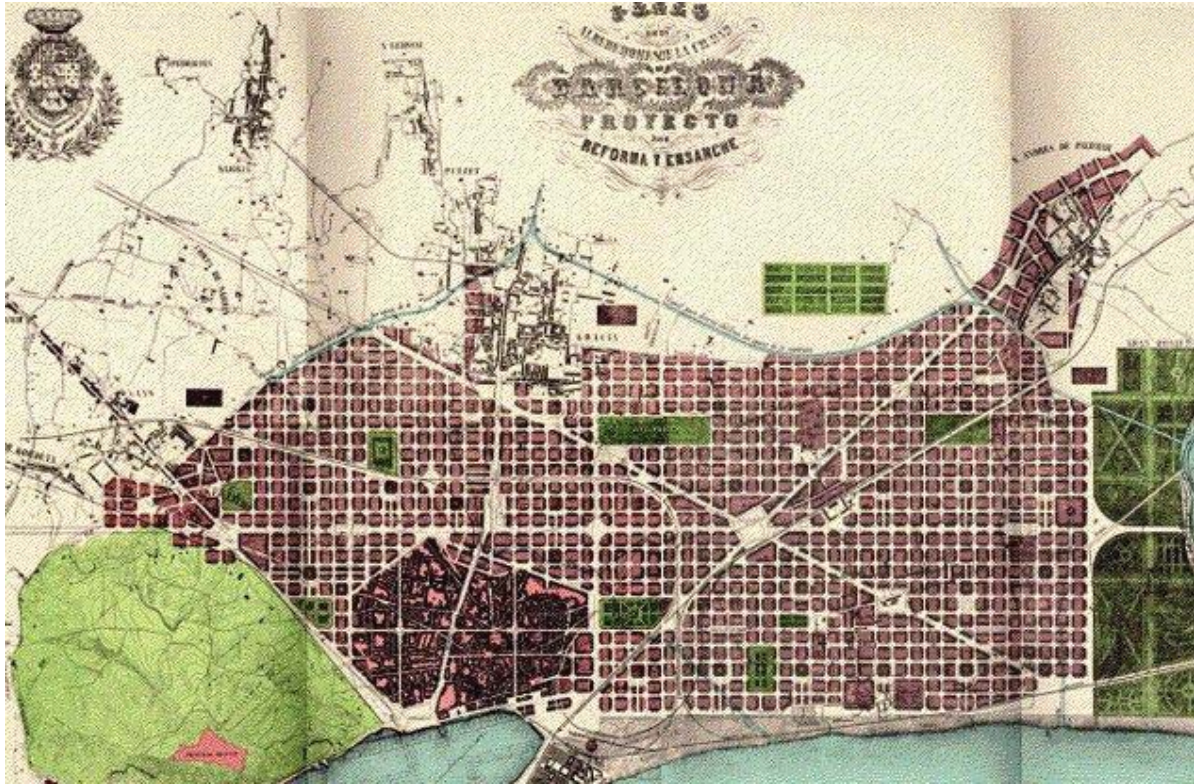
Ildefons Cerdà was chosen for this difficult and complicated task. At the time, he was an unknown engineer from Catalonia, the region in northern Spain where Barcelona is located.

Cerdà developed a daring plan for how to expand the city. The plan featured a large, grid-like area outside of the old walls. This new district was called Eixample, which literally means “expansion” in Catalan.

By the early 1800s, the old walled city of Barcelona had become very crowded. The working class, middle class and the city's factories all occupied the same streets. There was simply no more land left inside the walls to build new neighborhoods.

Houses Upon Houses

People in Barcelona were forced to build houses upon other houses. This continued until fresh air could no longer reach down to the city's streets.



Traffic from horse-drawn carts caused problems as well. Many of the city's streets were too small for these carts. The city's narrowest street was only 3 1/2 feet wide. Many were less than 10 feet across. On a sunny day, even these small streets would be full of people, all day long. All of this made an already dirty city even dirtier.

Barcelona's disease outbreaks were horrible. Each time one broke out, 3 percent of the population died, according to professor Montserrat Pallarès-Barberà of the Universitat Autònoma de Barcelona. Between 1834 and 1865, more than 13,000 people died from cholera alone.

These were some of the problems Cerdà hoped to solve. His plan was to build a grid of wide streets to unite the old city with seven nearby villages. These streets would allow for more air to enter the city and to make it easier to clean. The new, united area was almost four times the size of the old city and came to be known as Eixample.

Revolutionary Ideas

This plan was revolutionary, and so was how Cerdà thought of it. Cerdà wanted to avoid repeating the mistakes of past city planners. He wanted to design Eixample based on the habits of the people who would live there. To do this, he studied how the working classes lived in old Barcelona. No one had designed a city this way before.

He figured out how much air one person needed to breathe correctly. He looked at what jobs the people of Barcelona might have. He mapped the services they might need, such as marketplaces, schools and hospitals. His studies showed that the narrower a city's streets were, the more unhealthy they were.

Cerdà's studies became the foundation of "urbanization," the study of how and why cities grow. Cerdà did not just invent this field of study, he invented the very word. He published the details of these studies in his 1867 book, "General Theory of Urbanization."

Cerdà had revolutionary, even utopian-sounding ideas for Eixample. He planned gardens in the center of each block. He pictured rich and poor people using the same services. He even planned for smooth-flowing traffic. Many of these ideas have become important parts of the Barcelona we know today.

A Bad Reputation

However, none of these ideas was appreciated at the time. In fact, Cerdà was not even the first choice to lead the project to expand Barcelona. The regional Catalan council had chosen another architect for the job in 1859. Cerdà only gained control of the project because of the national Spanish government in Madrid. The government forced Catalonia to give Cerdà the project.

Cerdà's reputation in Barcelona never recovered from this. Not many people knew who Cerdà was in 1859, and Barcelona's architects did not trust him. Cerdà's rivals could not fight Madrid's decision to give Cerdà the job of designing Eixample. However, no one could stop them from attacking Cerdà's ideas.

Barcelona's leading architects said Eixample's streets were too wide. They called the grid boring. They even said the squares were something a communist would design.

Barcelona Becomes A Modern City



Cerdà's rivals may have turned their backs on him, but the middle class of Barcelona did not, at least not completely. Some members of the middle class were the first to buy homes in his new district. Wealthy families experimented with the designs of their homes. These experiments turned many homes in Eixample into beautiful buildings.

Even with this success, Ildefons Cerdà is rarely mentioned in books about urbanism not written in Spanish or Catalan. He finally began attracting more praise in the 1980s and 1990s, when Catalan architects started recognizing him. This process became "official" when Barcelona hosted the 1992 Olympic Games.

Barcelona is now seen as a successful city. Much of this praise is due to Cerdà's work. Lluís Permanyer, who has written about that period, believes that Cerdà changed Barcelona and helped turn it "from a provincial town where it was difficult to live, to a truly modern city."

Quiz

- 1 Which paragraph from the article BEST explains how Cerdà is remembered?
- (A) Ildefons Cerdà was chosen for this difficult and complicated task. At the time, he was an unknown engineer from Catalonia, the region in northern Spain that contains Barcelona.
 - (B) Cerdà's reputation in Barcelona never recovered from this. Not many people knew who Cerdà was in 1859, and Barcelona's architects did not trust him. Cerdà's rivals could not fight Madrid's decision to give Cerdà the job of designing Eixample. However, no one could stop them from attacking Cerdà's ideas.
 - (C) Cerdà's rivals may have turned their backs on him, but the middle class of Barcelona did not, at least not completely. Some members of the middle class were the first to buy homes in his new district. Wealthy families experimented with the designs of their homes. These experiments turned many homes in Eixample into beautiful buildings.
 - (D) Barcelona is now seen as a successful city. Much of this praise is due to Cerdà's work. Lluís Permanyer, who has written about that period, believes that Cerdà changed Barcelona and helped turn it "from a provincial town where it was difficult to live, to a truly modern city."
- 2 Which sentence from the article BEST supports the idea that the city of Barcelona was in trouble because of its rising population?
- (A) The city's 187,000 people all lived in the same tiny area, surrounded by medieval walls.
 - (B) People in Barcelona were practically living on top of one another.
 - (C) In fact, Barcelona was so crowded that it was affecting people's health.
 - (D) By the early 1800s, the old walled city of Barcelona had become very crowded.
- 3 How does the information in the section "Revolutionary Ideas" contribute to the MAIN idea of the article?
- (A) It describes Cerdà's studies of Barcelona and how narrower city streets were unhealthier.
 - (B) It explains how Cerdà's new and unique city design avoided past mistakes and saved Barcelona.
 - (C) It summarizes Cerdà's plan to bring marketplaces, schools and hospitals to Barcelona.
 - (D) It provides details about Cerdà's book, "General Theory of Urbanization."

- 4 Which answer choice provides the MOST complete summary of the section "Barcelona Becomes A Modern City"?
- (A) Cerdà's new district helped Barcelona become a modern city because some members of the middle class could afford houses.
 - (B) During the 1992 Olympic Games, Cerdà finally began to be praised for helping Barcelona become a modern city.
 - (C) Although he has not received much praise, Barcelona is now seen as a modern city thanks to Cerdà's work.
 - (D) Barcelona is now seen as a modern city and Catalan architects are recognizing Cerdà's accomplishments