

BARCELONA

An Ongoing Experiment in Public Space Making

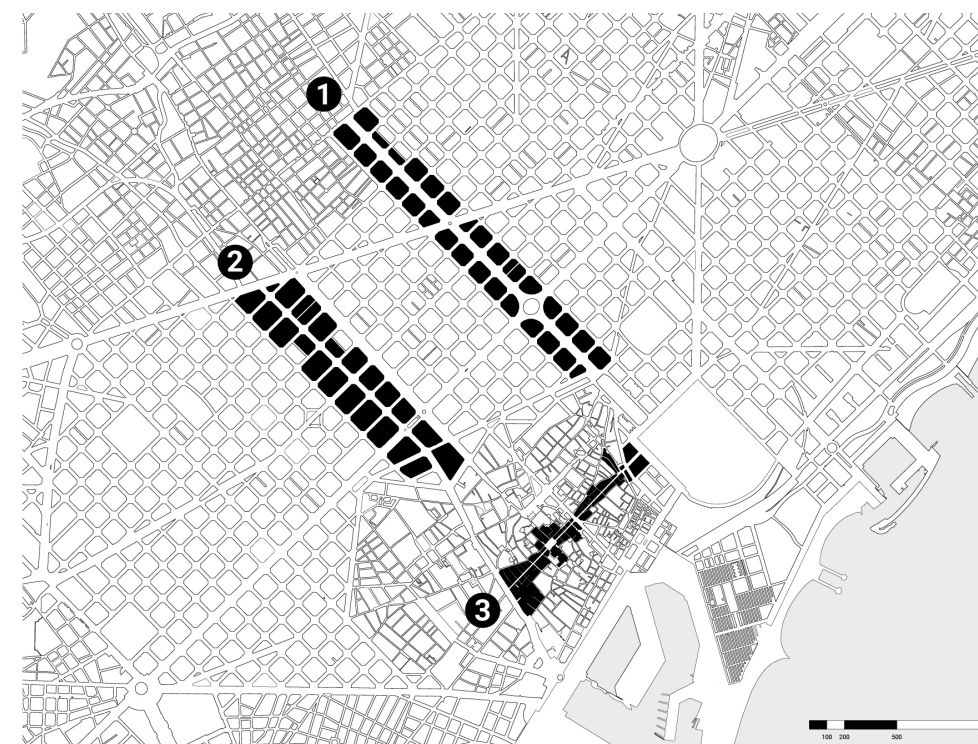
John Dutton explains the history and evolution of streets in Spain's second largest city

The city of Barcelona is a virtual laboratory of street typologies where for centuries urban designers, planners and city officials have constantly reinvented and fine-tuned existing street designs, their rights-of-way continuous works in progress. Today, Barcelona is making more radical adjustments to the design of streets and street systems than any other global city, emphasising them more as public spaces for its citizens rather than conduits for cars. Cities around the world would do well to study the diversity of these linear open spaces and adapt some of the designs and visions, perceiving Barcelona's experiments as possible multi-modal solutions and livable alternatives to the car-centered city.

What is remarkable about the streets throughout Barcelona is the variety of spatial iterations across

similar street sections as well as the many ways in which residents have occupied these streets or adjusted them for neighbourhood needs. To take the common street width of the Eixample distinct, for instance, one can find different scenarios of use and layout along similar rights-of-way. There are bike lanes, boulevard medians to stroll, wide ramblas to dine under tree canopies, places to sit and pause or walk rapidly toward one's destination. These streets equally accommodate children walking to school, elderly couples strolling, skateboarders getting across town, workers grabbing a quick coffee on the way to the office or friends sharing a leisurely glass of wine at the end of the day. The streets are for active and passive use, hurrying and pausing, going to work and celebrating with friends, finding a sunny spot to read or a shady spot to escape the summer

Historically, streets were considered service spaces, not just for access but trash and sewage



Location Plan of Featured Streets

- 1 Passeig de Sant Joan
- 2 Rambla de Catalunya
- 3 Carrer de Derran/
Carrer de la Princesa

heat. There are streets with simple paving patterns and sparse landscape or more iconic streets with complex designs of paving and lush landscape under broad tree canopies.

This article will touch on the design and use of some of these street types, starting with one of the earliest designed streets in Europe, the Ferran-Princessa Axis, then look at two Barcelona streets from the 19th century Eixample and, finally, the current re-envisioning of the entire street network of the Eixample into a superblock system.

Roads marked, literally, the founding of Barcelona. This was originally a Roman city, created at the intersection of two perpendicular streets, the cardus and decumanus -- the standard Roman system of urban organisation which would govern much of Barcelona’s future development. The global city to this day reflects the geometry of these initial streets. Every time citizens meet in the grand Place Jaume (which contains this intersection) to protest or celebrate in front of the Catalan government building, they are assembling in a place that has hosted similar congregations for over 2,000 years.

Ferran-Princessa Axis

As with other European cities in the Middle Ages, streets were not formally designed per se, but were rather the narrow, leftover spaces between buildings. These unplanned, informal voids enabled access to buildings, whether a group of large mansions (Carrer de Montcada), smaller houses or a side street of a particular collection of artisans (like silversmiths, in the case of Carrer de l’Argenteria). Streets were considered service spaces, not just for access but for trash and sewage. These crowded, dark, narrow, polluted and undrained medieval streets were certainly not places for leisurely strolls and enjoyment.

That changed with the design of the Ferran and Princessa streets (two contiguous streets that can really be understood as one long axis). This is arguably the first street designed in Barcelona as a unified entity in terms of layout and spatial form and the goal of enabling social interaction. In fact, it was one of the first designed streets in Europe; London’s Regent Street predated it by only a decade or so.

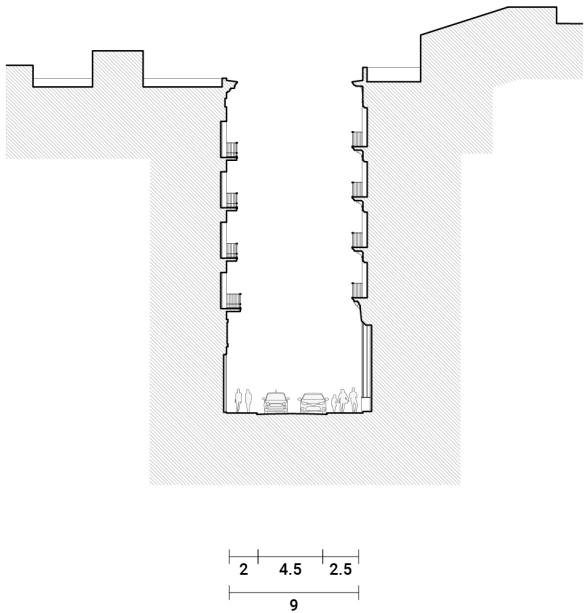
The Ferran-Princessa axis was laid out as a straight, almost surgical, cut through the organic medieval city. It is just over a kilometre long, connecting Las Ramblas in the west to what is now Park Ciutadella in the east (at that time, still a military fort). It passes through Place Jaume, the main plaza and seat of local government. The streets were designed to have a uniform width and street section and there were codes for

consistent building frontages that further enabled the understanding of the street as one designed space. There was also the novel introduction of the apartment block type, not the usual series of contiguous individual houses. This new building type contained stores at the street level, along with one common entrance to the floors of apartments above. The effect created was an elegant street that invited leisurely, social interaction, where people could stroll and window-shop in a convivial urban atmosphere. It was a new place for the bourgeois to “see and be seen” (these days it is more of a tourist street). The straight axis also opened up uncommonly long vistas, where the totality of the street could be perceived. In contrast to the neighbouring haphazard, dark and narrow streets and alleys, Princessa and Ferran streets were a new kind of wide, uniform, light-filled urban space welcoming residents. Although the development began in the western part to code, near the Ramblas and the entrance to Placa Reial, the architectural development was never realised across the entire length; so, while the buildings along the eastern half do not conform to the standards, and are now a relatively informal collection of structures, the axis still cuts true and straight the entire length.

Eixample: Rambla Catalunya and Passeig San Joan

In 1859, Ildefons Cerdà, a civil engineer, was commissioned to design the extension of the city of Barcelona. His rational solution proposed a continuous grid of 113 square metres and the use of chamfered blocks, connecting Barcelona to the village of Gracia, and extending in theory to the Besos River at one end and Montjuic at the other. There were a few exceptions to the standard street sizes defining the blocks, such as the grand Passeig de Gracia and the Diagonal (which cuts acutely across the Eixample to the water). Much of Cerdà’s design was invisible, below ground, concerned with modernising the utility infrastructure and increasing sanitary conditions. At the street level, the chamfered corners of the 113-metre-long block created a square plaza at every intersection, with the four facades facing the intersection, and one another, on the diagonal. The repetition of the continuous zero lot-line buildings, and the adherence to some key design details and horizontal courses (especially with the early 20th century modernised buildings) produced a relative uniformity. Yet the system also allowed for experimentation and easily absorbed more iconoclastic buildings into its fabric (like the famed “Illa de la Discordia”).

Cerdà designed a system that can be continuously experimented with and improved



Rambla de Catalunya

The Rambla de Catalunya is in many ways an extension of the older Las Ramblas. While the latter has become more a destination for tourists, the Rambla de Catalunya remains mostly a place for Barcelona residents. It has the standard right-of-way width of Eixample streets, 30m, which is the same as Las Ramblas at its narrowest point. (Las Ramblas has a street section that varies and is over 55 metres at its widest.) The Rambla Catalunya feels more intimate, perhaps because of the narrow car lanes. It is an elegant street, lined by shops and cafes, with seating for the cafes in the median. The sidewalks are 3.5 metres and the median 13 metres. The relatively small sidewalks encourage people to stroll on the median where there are also benches in the shade of tree canopies and seating for the cafes and restaurants. A simple line of canopy trees runs along each edge of the median, which brings the scale down. The approximately 1:1 width to height section gives a sense of comfortable enclosure, a defined urban space that is ample enough to move through and intimate enough to pause and stay awhile.



The street furniture and relatively informal inhabitation of the median encourages a sense of neighbourhood use. It is not a formal throughway and indeed there is only one narrow lane of through-traffic and one lane of parking per side, discouraging vehicular movement. With the many shops and restaurants, and offices and apartments above, the street is like a lively pedestrian linear urban room, with people crossing the narrow lanes at a much higher incident than would be seen in other more vehicular-intense streets of the Eixample. The small-scale retail and restaurants are appropriate for the more intimate space, while one block over on the wide, grand Passeig de Gracia, are the larger, grander and more global hotel, retail and restaurant chains (as well as more tourists). Such a dichotomy represents an informal zoning, a way of creating identity to streets through urban scale and architecture, that encourages different kinds of tenants and users.

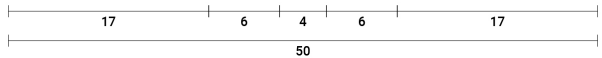
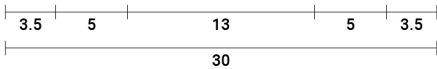
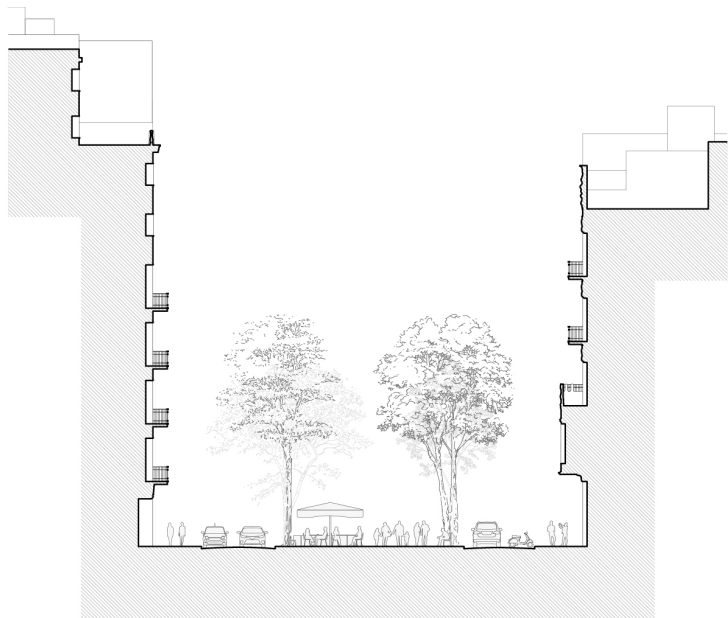
Passeig San Joan

Passeig San Joan is one of the wider avenues that

Left: Caller Ferran Street Section
Right :Caller Ferran

Cerda planned through the Eixample, at 50 metres. This grand street extends from Gracia through the Eixample, to the Arc de Triomf and into the Parc de la Ciutadella. A recent design renovation has won many awards and has been published widely in the media. While the right-of-way remains consistent, there are two fairly different sections: one which has narrower sidewalks and a wider median toward the north/top, by Gracia, and the other with wider sidewalks and a narrow bike lane in the median in the lower half, by Parc de la Ciutadella.

The recent renovation of the lower half of the avenue is quite beautiful with its emphasis on pedestrian comfort. The new plan standardised the outside pavement at 17m, with 6m dedicated as a pedestrian sidewalk and a generous 11m under rows of trees devoted to recreational uses. Traffic lanes were reduced in size, and the bike lane is segregated in the median. The paving for the recreational areas has a linear layout, with porous gaps for planting and drainage. In this way, the sidewalk is continuous, but the adjacent shaded recreational areas create an assortment of pocket parks of different sizes and scales for people to step away



Left: Passeig de Sant Joan
Street Section
Bottom: Passeig de Sant Joan



PHOTO: JOHN DUTTON



PHOTO: ADRIA GOULA

from the sidewalk and pause. There are also tables for the adjacent cafes in these zones.

Further up, beyond the Plaza de Mossen Jacint Verdaguer, the sidewalks narrow and a 28m wide median hosts an assortment of adaptable uses -- children's playground, parks, etc., that give the sense of a linear green open space at the scale of the city, but is dedicated more to neighbourhood use. The continuous section of the Passeig thereby gives a uniform urban consistency to the boulevard while bold deviations within the section accommodate many different needs and create many different kinds of usable open spaces. Ultimately, this is an excellent example of a beautifully designed street, that has a reduced vehicular traffic lane, abundant open space for leisure, safe and segregated bike lanes and greater consideration for shading and biodiversity through trees and plantings.

Superblock Plan

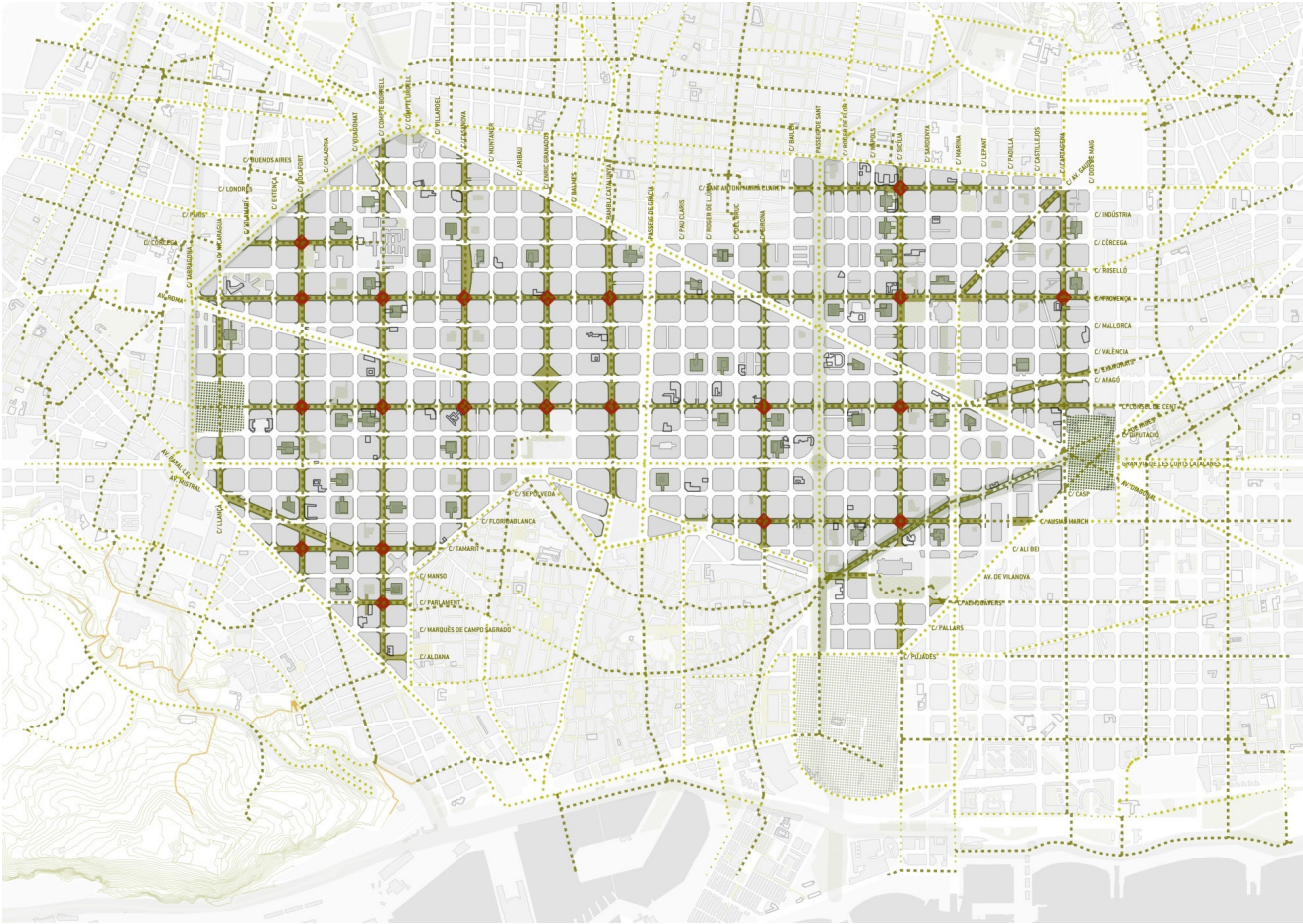
Part of the power of Cerda's seemingly relentless

grid is that he designed a system that can be continuously experimented with and improved. Small changes to the system of the grid result in larger urban transformation when scaled up to the extents of the Eixample. As in most cities, the 20th century adoption of the private car as the preferred means of transportation has left Barcelona with congestion, traffic, pollution and noise, with most of the space in-between blocks dedicated to vehicular travel. There is also a slight relentlessness to the overall original plan. Certainly, there are formal variations and exceptions, some discussed above, but the repetition and expansiveness have emphasised larger urban moves over smaller-scaled neighbourhood ones.

In 2016, Barcelona introduced the idea of the superblock concept, or the superilla, that emphasised intervals of perpendicular streets to accommodate through vehicular traffic and dedicated the others to local traffic and open spaces for residents. A new cluster of approximately nine blocks will have streets that are single-section,

The plan aims to reduce air pollution as well as carbon emissions, noise pollution and summer temperatures

Barcelona Superblock Plan (Ajuntament de Barcelona)



Barcelona Superblock Section (Ajuntament de Barcelona)

curbless streets, prohibited to cars except those of residents, emergency vehicles and deliveries. Parks, gardens, play areas and thousands of more trees will be created within these superblocks. Intersections will be turned into neighbourhood squares. Indeed, the chamfered blocks of Cerda's plan have already created virtual squares at every intersection, rotated on the diagonal of the grid. Now the squares will be literal, places for neighbours to gather. The goals are to reduce pollution, engender new mobilities throughout the city and create new public spaces. As planned, the superblocks will create 16 new hectares of green space and 33.4 hectares of public, pedestrian space.

Just as Cerda's plan aimed to resolve physical and formal urban conditions, hygienic improvements (water, waste, etc.) and mobility, the new superblock plan addresses current problems of mobility and health -- in particular pollution and climate change. Ultimately, the plan aims to reduce air pollution as well as carbon emissions, noise pollution and summer temperatures, making the city more livable for its residents. These are goals all cities should be striving for given today's climate crisis and need for multi-modal alternatives to the car.

While it is a city-wide plan, the process began with input from neighbours on how to shape their particular superblock and is being implemented in phases. Such an approach is quite different

from the "top-down" imposition of street design by civil and traffic engineers in typical municipal departments. The process sets standards and 'rules' within which there is much democratic input at the citizen level. Ultimately this is a way to tactically customise the open space needs of a community. The scale of the 6-9 blocks of networked greenways anchored by a new square also helps break down the expansive, scale of the Eixample, while preserving its overarching formal system. The superblock plan is a complex, nuanced, and scaled series of interventions that address both the scale of the overall city, as well as that of the neighbourhood. The plan has already been widely heralded in the media and the urban planning profession and has begun to be emulated around the world. It could very much serve as a model for rebalancing the streets that make up a thriving, livable city.

Ultimately Barcelona understands that streets are public spaces, that they belong to its citizens. The city also understands that street design can be a part of a solution to climate change and extreme weather, while providing the ability for neighbourhoods to shape their own identities. Urban designers, civil engineers, landscape designers and citizen activists the world over can learn much from such an exciting real-life laboratory.