e-ISSN:2316-9834

GeAS

Revista de Gestão Ambiental e Sustentabilidade
Journal of Environmental Management & Sustainability

Received: 30 Dec. 2023 - **Approved:** 18 Jan. 2024
Responsible Editor: Andreza Portella Ribeiro
Evaluation Process: Double Blind Review
Section: ANAP - Associação Amigos da Natureza da Alta Paulista
https://doi.org/10.5585/2024.25795

Check for updates

The “Superilles” strategy in Barcelona, Spain: people-centered planning

Geise Brizotti Pasquotto and Rosio Fernandéz Baca Salcedo[2]

[1] PHD. Post-Doctoral at Postgraduate Program in Architecture and Urbanism in Júlio de Mesquita Filho State University – FAAC/UNESP. Bauru, São Paulo, Brazil.

geise.pasquotto@unesp.br

[2] PHD. Associate Professor at Júlio de Mesquita Filho State University and Postgraduate Program in Architecture and Urbanism Coordinator – FAAC/UNESP. Bauru, São Paulo, Brazil.

rosio.fb.salcedo@unesp.br

Authors' notes

The authors have no conflicts of interest to declare. Correspondence regarding this article should be addressed to Geise Brizotti Pasquotto, who thanks the São Paulo State University "Júlio de Mesquita Filho" (UNESP), which, through the postdoctoral fellowship (PROPG/PROPe - Edital 05/2022), enabled the international internship in Barcelona at the Universitat Politècnica de Catalunya (UPC), allowing for various research on public policies and urban resources used in the city

Cite as - American Psychological Association (APA)

Pasquotto, G. B., & Baca Salcedo, R. F. (2024). The “Superilles” strategy in Barcelona, Spain: people-centered planning. *J. Environ. Manag. & Sust.*, *13*(1), 1-31, e25795.

Summary

Objective of the Study: Present and investigate the impacts of an innovative strategy called superilla, implemented in Barcelona city (Spain).

Methodology: The research is divided into two stages: i) Theoretical exploration of the superilla concept and its sustainable principles (pedestrian priority, reduction in vehicle traffic, urban mobility, creation of open spaces and green areas, urban furniture, reduction of air pollution, among others) and ii) Impacts analysis of the superilla implemented in Barcelona, through case studies: PobleNou and Sant Antoní.

Originality/Relevance: Although the superilles strategy in Barcelona represents a milestone for sustainability, there is a scarcity of discussions on the subject in the Brazilian context.

Main Results: The study outlined the implementation phases of the superilles and highlighted six key points of the intervention, such as: i) modal hierarchy; ii) regional issue, iii) coordination between projects; iv) popular participation, v) exportable model and vi) renaturalization of the city.

Contributions: This research focuses on investigating the processes occurring in the urban intervention of superilles, making their understanding more in-depth and disseminating this process in Brazil, in order to contribute to the new urban strategies dissemination.

Keywords: superblock, Barcelona, mobility, open spaces, public policies

A estratégia das “*Superilles”* em Barcelona, Espanha: planejamento centrado nas pessoas

Resumo

Objetivo do Estudo: Apresentar e investigar os impactos de uma estratégia inovadora denominada *superilla,* implantada na cidade de Barcelona (Espanha).

Metodologia: A pesquisa está dividida em duas etapas: i) Exploração teórica do conceito de *superilla* e de seus princípios sustentáveis (prioridade dos pedestres, diminuição do tráfego de

veículos, mobilidade urbana, criação de espaços livres e áreas verdes, mobiliário urbano, diminuição da poluição do ar, entre outros) e ii) Análise dos impactos da *superilla* implantados na cidade de Barcelona, por meio dos estudos de caso: PobleNou e Sant Antoní.

Originalidade/Relevância: Ainda que a estratégia das *superilles* em Barcelona representem um marco para a sustentabilidade, há uma escassez de discussões sobre o assunto no contexto brasileiro.

Principais Resultados: O estudo delineou as fases de implantação das *superilles* e ressaltou seis pontos-chave da intervenção, como: i) hierarquia modal; ii) questão regional, iii) articulação entre projetos; iv) participação popular, v) modelo exportável e vi) renaturalização da cidade.

Contribuições: Esta pesquisa tem como foco investigar os processos ocorridos na intervenção urbana das *superilles* tornando seu entendimento mais aprofundado e divulgando tal processo no Brasil, de forma a contribuir para a divulgação de novas estratégias urbanas.

Palavra-Chave: superilla, Barcelona, mobilidade, espaços livres, políticas públicas

La estrategia Superilles en Barcelona, España: planificación centrada en las personas

Resumen

Objetivo del Estudio: Presentar e investigar los impactos de una estrategia innovadora denominada superilla, implementada en la ciudad de Barcelona (España).

Metodología: La investigación se divide en dos etapas: i) Exploración teórica del concepto de superilla y sus principios sostenibles (prioridad peatonal, reducción del tráfico de vehículos, movilidad urbana, creación de espacios abiertos y zonas verdes, mobiliario urbano, reducción de la contaminación del aire, entre otros) y ii) Análisis de los impactos de la superilla implementada en la ciudad de Barcelona, a través de estudios de caso: PobleNou y Sant Antoní.

Originalidad/Relevancia: Aunque la estrategia Superilles en Barcelona representa un hito para la sostenibilidad, hay escasez de debates sobre el tema en el contexto brasileño.

Resultados principales: El estudio describió las fases de implementación de las superilles y destacó seis puntos clave de la intervención, tales como: i) jerarquía modal; ii) cuestión regional, iii) coordinación entre proyectos; iv) participación popular, v) modelo exportable y vi) renaturalización de la ciudad.

Contribuciones: Esta investigación se centra en investigar los procesos que ocurren en la intervención urbana de las superilles, profundizar su comprensión y difundir ese proceso en Brasil, con el fin de contribuir a la difusión de nuevas estrategias urbanas.

Palabras clave: superilla, Barcelona, movilidad, espacios abiertos, políticas públicas

Introduction

More and more people live in cities, consuming more energy and accounting for global CO2 emissions. Contaminant gases have been one of the biggest problems that require sustainable urban policies and projects from public governments.

According to Leite (2012), a sustainable city must meet social, environmental, political and cultural objectives, as well as the economic and physical objectives of its citizens. Furthermore, the sustainable city must act according to an efficient urban development model, which balances the resources necessary for its operation, both in input (urban land and natural resources, energy, water, food, etc.) and output sources (waste, sewage, pollution, etc.).

Air contamination not only harms the health of inhabitants, but also contributes to global warming. Therefore, the fight against climate change and improving air quality has become one of the government action axes.

To create sustainable cities, it is crucial to adopt an integrated approach that considers several fundamental criteria. These criteria are based on multidimensional principles that aim to balance urban development, environmental preservation and improving the inhabitants quality of life (Newman & Jennings, 2008).

Among the criteria for combating air pollution in cities are: i) integrated urban planning, ii) local governance, iii) sustainable mobility promotion, iv) changes in behavior and attitudes, v) energy efficiency, vi) waste management, vii) green areas preservation, viii) social inclusion and community participation.

Integrated urban planning is an essential element for urban sustainability, emphasizing efficient use of space and connectivity between different parts of the city (Barros, 2017). This type of planning encompasses a diversification of urban areas, prioritizing green areas and ensuring accessibility to all essential services.

Local governance is very important for sustainability actions to happen. Although urban needs must be understood from the “bottom up”, it is important that the public authorities are interested in the actions so that such interventions actually come to fruition. According to Leite (2012), successful renovations in cities have two essential factors for the success of transformations: i) Efficient, continuous and long-term planning and management and ii) Implementation of specific urban-economic redevelopment agencies.

Promoting sustainable mobility is one of the sustainable cities pillars, encouraging the use of efficient public transport, the creation of infrastructure for pedestrians and cyclists, thus reducing dependence on motorized vehicles and mitigating air pollution.

Another issue is the change in behavior and attitudes of the population. It must occur in parallel with sustainable urban actions. There is no point in forcing the population to reduce car use if the city does not provide an efficient public transport network. However, the population must support sustainable actions, which are often in opposition to customs commonly understood as traditional.

Another crucial criterion is energy efficiency and the transition to renewable sources. Sustainable cities seek to reduce energy consumption through efficient buildings and cost-effective public lighting systems, while promoting the adoption of clean energy such as solar and wind (Deakin & Allwinkle, 2007).

Waste management and promoting recycling are central aspects in building sustainable cities, aiming to reduce waste and promote the materials reuse. Effective waste management strategies are essential to minimize environmental impact and foster a circular economy.

The preservation of green areas, the promotion of biodiversity and the care of natural spaces are equally important for urban sustainability. These elements not only contribute to the city's environmental health, but also offer places for leisure and social interaction (Bolund & Hunhammar, 1999).

Furthermore, social inclusion and community participation are considered fundamental for cities sustainable development. The citizens active participation in urban decisions guarantees equity, accessibility to basic services and promotes a more inclusive city.

In Barcelona, according to the air quality report from the Barcelona Public Health Agency (2022), the average annual levels of air pollutants during 2021 were similar to those in 2020 and lower than before the pandemic. At all measuring stations, annual averages of NO2, PM10 and PM2.5 during 2021 remained below the maximum legal levels established by the European Union, but well above the health protection guideline levels established by the World Health Organization (WHO). In 2021, the average exposure of the city's population was 13 µg/m3 for PM2.5 and 27 µg/m3 for NO2. These values are almost the same as in 2020, and 23% and 28% lower, respectively, than before the pandemic. Nitrogen dioxide (NO2) affects the lungs and inhibits some of their functions, causes irritation of the bronchi and reduces resistance to respiratory infections, affects children and especially people who suffer from chronic respiratory diseases such as asthma or Excessive Post Oxygen Consumption. -exercise (EPOC, from English Excess Postexercise Oxygen Consumption) (Mas, 2020).

According to the Barcelona Public Health Agency (2022), air contamination produces more than 1,200 premature deaths per year, 110 deaths from lung cancer and 750 cases of childhood asthma.

Barcelona City Council, faced with challenges arising from high levels of air pollution, high density in blocks, scarcity of public spaces and intense vehicular traffic throughout the urban network, adopted a series of continuous and varied measures to address these issues. These include the implementation of the Mobility Pact and the introduction of the superblocks (*Superilles in catalan*) initiative as solutions to such challenges.

Pact for Mobility in Barcelona

In 1998, a mobility pact was created in Barcelona (*El Pacto por la Movilidad*). This pact is made up of several working groups (representatives of local administration, associations and public agents), whose task is to analyze the different scenarios established in the diagnosis and prepare concrete proposals based on consensus. Since then, the pact has helped to promote initiatives and agree on actions to improve mobility and urban road safety. The Counselor for Mobility, Rosa Alarcón, highlights that the mobility pact forced the sectors to reach an agreement with legitimate interests, committing themselves “to build on the pact and the agreement” (Blanchar, 2021, online).

According to Barcelona City Hall (Ajuntament de Barcelona, 2023a), the pact is governed by the following principles: i) Mobility must be guaranteed, today and in the future, that reduces aggression towards the environment and citizens, and that increases planning efficiency, saving resources and respect for the environment; ii) Mechanisms must be established to defend everyone’s right to mobility; iii) The quality of life of all citizens must be guaranteed, iv) It is advisable to promote a change in attitude among administrations and citizens, with systems that guarantee road safety and discipline; v) New urban actions must be planned based on the mobility needs they will generate.

According to the city hall, the pact has ten clear objectives: i) Reduce air and noise pollution and the effect of mobility on the climate; ii) Promote change in travel to more sustainable, peaceful and safe means; iii) Increase and revitalize public space dedicated to pedestrians, urban quality and accessibility; iv) Integrate the use of bicycles in the city; v)

Achieve efficient, accessible and integrated public transport on a metropolitan scale; vi) Improve road safety and coexistence between users of different means of transport; vii) Improve the efficiency of logistics and urban distribution of goods; viii) Promote the use of renewable energy and moderate the energy consumption of vehicles; ix) Comprehensively manage the provision of parking spaces for all vehicles; x) Incorporate new technologies in mobility management: training, information and signage (Ajuntament de Barcelona, 2023a).

The objectives of the mobility pact in Barcelona fall within three Sustainable Development objectives developed by the UN (United Nations Development, 2023): 3 (Health and Well-being), 11 (Sustainable Cities and Communities) and 13 (Action Against Change Global Climate).

Another important issue was the “*Ley de Movilidad de Catalunya*” (Boletín Oficial del Estado, 2003), a pioneer in Europe, which shifted the importance of the circulation of vehicles to the mobility of people and goods. In this way, it begins to legislate, act and plan based on mobility, to the detriment of means and routes of transport. The basic objectives of the law are: i) Integrate urban and economic development policies with mobility, to minimize habitual travel; ii) Establish coordination mechanisms for maximum use of public transport; iii) Reduce congestion in urban areas through measures to encourage and promote the use of public transport and actions to dissuade the private vehicles use; iv) Prioritize and make public transport more attractive and sustainable; v) Establish tariff integration formulas for public transport in metropolitan areas; vi) Adjust transport systems to demand in areas of low population density; vii) Increase safety and combat congestion and pollution; viii) Prioritize intermodality; ix) Introduce new technologies to have more efficient and safe transport and better inform citizens; x) Promote on-demand transport systems in industrial parks or large concentrations of work activity (call centers, hospitals, airports, etc.). The law approved by Parliament established three levels of planning: National, Regional and Local. Therefore, the

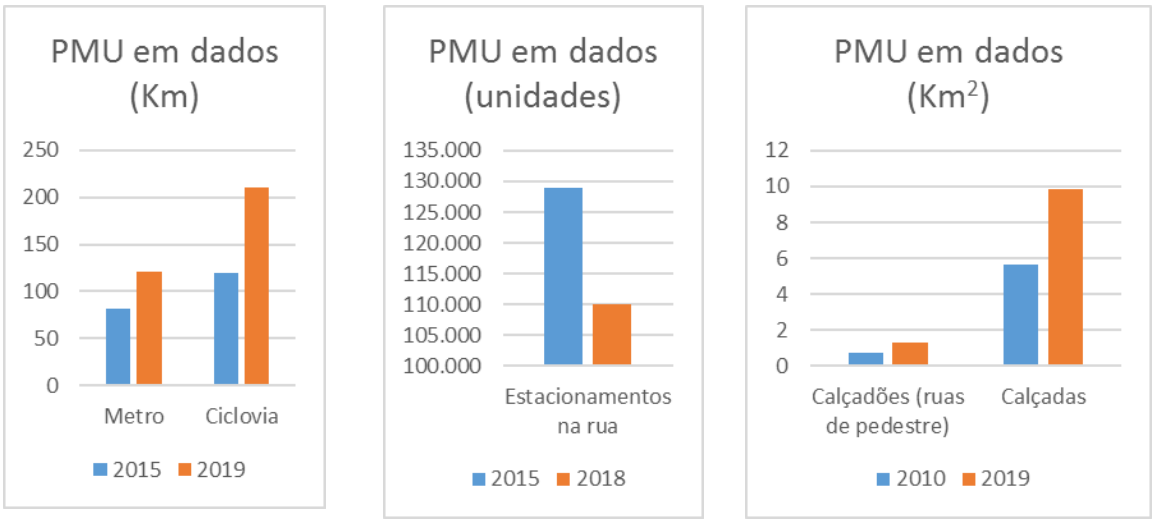
integration of territories was one of the issues defended in this new law (Comissão Obrera Nacional de Catalunya, 2005).

According to the director of Mobility Services, Adrià Gomila, another important milestone is the recent connection between mobility, urban planning and everyday life. She reports that beforehand, a street was designed and when everything was ready, the circulation plan arrived. Now there is an articulation, where circulation takes into account the flow it will generate and what impact it will have on public space and pollution (Blanchar, 2021). Àngel Lopez, who has worked in the sector for 30 years, reports that administratively, within the City Council, mobility belonged to the same security area as the Urban Guard. Later, he moved to the area of urban planning and ecology (Blanchar, 2021).

From these legal frameworks, initiatives such as the 2013-2018 Urban Mobility Plan (PMU) were possible, which had a bold objective: the reduction, in five years, of 30% in the circulation of private cars (Figure 1). To achieve this, the measures do not focus so much on prohibitions, but rather on incentives for the public transport use and facilities for pedestrians and cyclists. In other words, the PMU “seeks to increase the efficiency of urban mobility which, in turn, contributes to safety and improving the quality of the environment” (Baratto, 2013, online).

Figure 01

Graphs of mobility data



Source: Prepared by the authors (2024). Data from Blanchar (2021)

In 2011, according to Montaner (2023, p. 65), to comply with the mobility pact, Barcelona had to take multiple, constant and diverse measures, one of them being the “star” solution, the “*superilles*”.

The *Superilles* of Barcelona

Throughout the process of implementing the Cerdá Plan, changes were observed in the dimensions, depths of buildings and the nature of open spaces within the blocks, resulting in an extremely dense city with an insufficient amount of public spaces available. These changes, together with an intense and uniform flow of vehicles throughout the urban network, have contributed significantly to the high levels of air pollution in the contemporary city. Faced with the challenge of the scarcity of public spaces and the pollution issue, one of the strategies adopted was the superilles implementation.

The super island (in Catalan: *superilla*, in Spanish: *superisla*), also called superblocks (in Spanish: *supermanzana*, in portuguese: superquadras) is a strategy that is being used in the Barcelona city in parallel with the mobility plan.

According to the person responsible for the theoretical planning of the proposal, Salvador Rueda Palenzuela, the implementation of this system can solve most of the city's problems linked to mobility and the use of public space (Podjapolskis, 2017).

Some interesting points of the project are:

- Transformation of streets into priority areas for pedestrians;
- Leisure and sports activities;
- Implementation of more afforestation and public furniture;
- Reduction in parking;
- Cars are not completely prohibited from entering that zone, but they travel at very low speeds, with a limit of 10 km/h;

The superilles model organizes the city in such a way that pedestrians have real priority, followed by bicycles and public transport. In this way, the street regains other functions, which are not just for traveling. This hierarchy of flows also appears in the Brazilian National Urban Mobility Policy (PNMU), although the actions carried out in this regard in the country are small.

The circulation reformulation plan, based on the Superilles concept, aims to restrict rotating traffic in areas of approximately 400x400 meters, (equivalent to approximately 3x3 blocks in the Cerdá project areas). The objective is to move distribution traffic to the peripheral streets of these structures, within these 3 blocks only vehicles for residents, people with disabilities, emergency services, ambulances and firefighters are allowed to pass, in addition to loading and unloading activities (Figure 2).

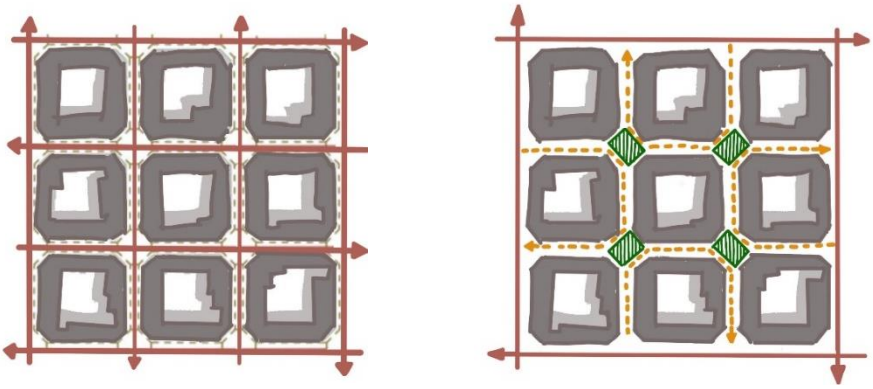
The central idea is to restructure the entire flow of the city of Barcelona based on this scheme, diverting traffic to the peripheral roads that delimit these new "urban cells". In this way, the purpose is to transform the interior of these areas into pleasant pedestrian spaces, isolated from noise and pollution from motor vehicles, intended for the enjoyment of residents.

Circulation within these spaces will be organized in such a way that passing traffic will not be able to cross the Superilla through its entrances, forcing vehicles to turn at the first

intersection to return to the peripheral distribution streets. This change results in the release and conversion of the internal chamfers of the Cerdá lot into squares measuring approximately 40x40 meters. Such areas can be transformed into green spaces, contributing to the improvement of environmental conditions (Figure 2).

Figure 2

“Superilles” model: a) Before the intervention, b) After the intervention



a) Traditional model of Barcelona’s urban fabric. b) Model designed for *superilles*.

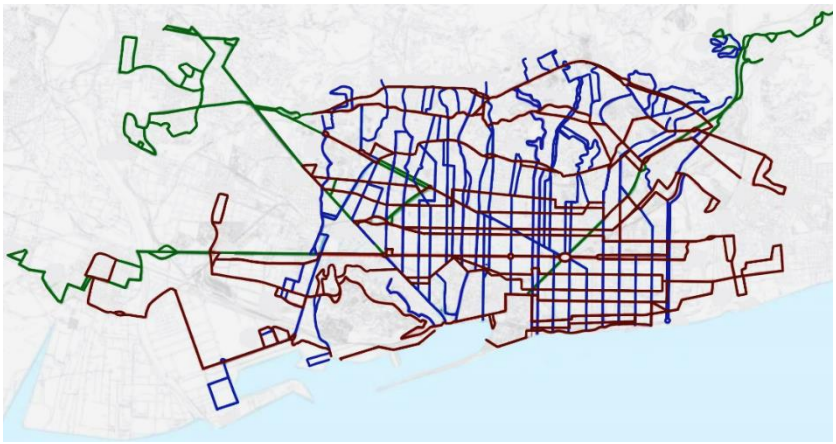
Source: Prepared by the authors (2024). Reference image: Podjapolskis (2017)

With this system, according to Palenzuela (2007), there would be a reduction of 61% in the length of streets dedicated to motorized vehicles and 45% of the space dedicated to sidewalks, incorporating this space for pedestrian use. Furthermore, some accesses to the interior of the “*Superilles*” will be adapted for the transport of bicycles.

This system must be complemented by an optimized network of buses that run vertical (sea/mountain) and horizontal (Besòs/Llobregat) routes, eliminating diagonal routes and allowing all service points to be reached with just one change (Figure 3).

Figure 3

Proposed orthogonal bus network (green – diagonal lines, blue – vertical lines and red – horizontal lines)



Source: Prepared by the authors (2024). Data: Barcelona Ecology Area

Janet Sanz, who held the position of deputy mayor of Barcelona in the Ecology, Urban Planning and Mobility sector, recognizes the ambition of the measure and its substantial impact on the surrounding area, demanding a cultural transformation. She notes that residents not usually involved in debates of this kind are now engaged. In this way, there is a positive perspective in the growing discussion among the Barcelona inhabitants about urban issues, allowing them to express their opinions about the desired shape of the streets. “It’s a project that will make sense when it reaches the entire city. It will reduce traffic not only in the superillas, but also around them” adds Sanz (Aguiar, 2017, online).

In 2022, 3 complaints were filed (two criminal and one administrative) against the superilles projects. In recent years, politics has been judicialized and this judicial war has reached urban projects, which, according to Montaner (2023), is called Urban Lawfare.

The first filed in April 2022, by the civic entity Salvem Barcelona, reported the city hall to the “Public Ministry” against the Superilles project. The alleged reason was the alleged crime against the planning of the territory of the Superilla del Ensanche. Salvem Barcelona demanded

that the start of works on the streets of Consell de Cent, Borrell, Rocafort, Enric Granados and Girona be temporarily halted. Environmental Prosecutor Antoni Pelegrín, who investigated the matter, considered that there were not enough elements to believe that a crime against territorial planning had been committed. According to the Public Ministry, to carry out the organization of public space, in the form established by the axes, it would not be necessary to previously modify the Metropolitan General Plan (PGM), as stated in the complaints. Therefore, in 2023 the investigation was archived (El Periodico, 2023).

The second, presented to the “litigation-administrative” court on July 18, 2022 by the Urban Property Chamber of Barcelona and Lleida, was defended by lawyer and former councilor Ramón García-Bragado. A precautionary suspension of the works was requested, but the judge rejected all arguments.

And the last, also criminal, was presented by José Antonio Acebillo, former city hall chief architect, who reported the superilla del Eixample project to the Superior Court of Justice of Catalonia, considering that the project violated urban legislation and asked for precautionary suspension of the works that had started in July 2022. According to Montaner (2023, p.69-70), it is regrettable that this phenomenon occurs in which Barcelona City Council former members, such as councilors and senior technicians, use their knowledge of the internal workings, urban planning regulations and their network of contacts created when they were municipal employees to attack them and defend private interests.

Still according to Montaner (2023, p.70) it is undeniable that the three legal proceedings faced by the Superilla Barcelona project in a short space of time reflect the notable difficulty of intervening in the Cerdá plan, whose plot is considered untouchable from conservative perspectives and a mythification of its essence as a central element of “*Barcelonity*”.

Confronting the concepts of tactical urbanism, complete streets and *superilles*

The concept of tactical urbanism has emerged as a contemporary phenomenon, characterized by its emphasis on the immediate dynamization of urban areas. This approach seeks to redefine and reimagine public spaces through short-term, low-cost interventions, responding quickly to the emerging demands and needs of local communities. These interventions, which can range from temporary installations to minimal structural modifications, are intended to generate immediate impacts on the urban environment, promoting a dynamic and flexible reconfiguration of public space. One of the tactical urbanism fundamental characteristics is its experimental and interactive approach. Through the implementation of smaller-scale interventions, which can be evaluated, adapted and modified according to the community's response, this model allows for constant reevaluation and adjustment of the strategies adopted. This enables a continuous learning process where solutions can be refined and improved based on practical experience and the changing needs of locals.

According to Fontes, Pina and Paiva (2021), tactical urbanism has four phases: i) preparatory, ii) ephemeral, iii) temporary and iv) permanent. The first is carried out by meeting with the community to identify demands or training and intervention technicians. The second, short-term, is the initial activation phase of the space and study of the proposals. The third, of medium duration, is the implementation and impact assessment phase. The fourth phase, not considered by some researchers as tactical urbanism, is the final phase, when the intervention is definitively constructed.

The genesis of the term "tactical" refers to the study by Michel de Certeau (1999), in which he establishes the distinction between the concepts of strategy and tactics. For the philosopher, strategy represents power relations from a perspective of domination, while tactics are characterized by the gradual less favored response, who take advantage of opportunities and gaps to act. Therefore, some authors argue that tactical urbanism is a movement mobilized from the bottom up (Brenner, 2016), a practice that involves occupying and remaking the logics

of power (Sassen, 2014). However, others believe that it is an approach that can be used by a range of actors (Lydon; Garcia, 2015; Fontes et. al., 2018; Barata, 2018).

The concept of Complete Streets emerged in 2003 in the United States, from the initiative of the "America Bikes" organization, with the aim of improving road infrastructure to include bicycles. The expression "Complete Streets" was proposed by journalist Barbara McCann to replace the previous "Routine Accommodation", aiming at more effective dissemination of the idea. Meetings involving several groups, such as the American Planning Association, the American Public Transportation Association, the American Society of Landscape Architect, among others, led to the definition of Complete Streets guidelines. In 2005, the National Complete Streets Coalition was formed, with founding members including the American Planning Association, Smart Growth America, and others, to promote the development and implementation of Complete Streets policies.

In this way, Complete Streets refer to urban streets planned to guarantee safety and comfort for a diversity of people, regardless of age or the means of transport used (WRI Cidades, 2017). This concept is based on the equitable distribution of space, recognizing that there is no single universal solution for its implementation. Instead, it is proposed to integrate different urban design alternatives that are appropriate to the local context.

When adopting this concept, several elements can be used, such as leveling roads with sidewalks, measures to moderate traffic, ensuring universal accessibility, clear signage focused on pedestrians, installation of urban furniture (such as trash cans, benches and streetlights), creation of safety lanes, reduction of crossing widths and creation of islands of refuge for pedestrians, reduction of free parking availability for vehicles, implementation of cycle paths or cycle lanes, allocation of exclusive lanes for buses and facilitation of access to bus stops, public transport stops, among others.

The concept of Complete Streets, therefore, seeks to disseminate the adoption of alternative modes of transport, exerting influence on public authorities to reevaluate cities' road planning processes (WRI Cidades, 2017).

In this context, Zavestoski & Agyeman (2015) highlight that Complete Streets attribute broader functions to the street, not limited only to circulation, but also serving as a space for social interaction, meetings, commercial activities and leisure. In Brazil, the movement was initiated by the World Resources Institute (WRI) - Brazil and the National Front of Mayors (FNP). Through the National Network for Low Carbon Mobility (also called the National Network of Complete Streets), in 2017, eleven cities developed pilot projects and began discussions about the challenges and solutions for adopting the concept in the Brazilian context. By 2020, the movement covered 21 cities (Figure 3 and 4). In May 2021, the *Ruas Completas SP* network was announced, which will support road safety projects in 20 cities in the state of São Paulo.

“*Superilla*” uses principles from the two concepts listed above, however, it also has several differences (Figure 4).

For example, “*Superilla”* from Poblenou used Tactical Urbanism at the beginning, with temporary actions. This method of “testing” tactical urbanism, and then transforming it into something permanent, is defended by Jan Gehl in “A Mayor’s Guide to Public Life”. This guide describes five strategies on how to promote public life: i) measure, ii) invite, iii) do, iv) develop and v) formalize. In the “do” strategy, the guide recommends that one should start with temporary interventions that improve existing places, but also work towards systematic and long-term changes (Gehl Institute, 2017).

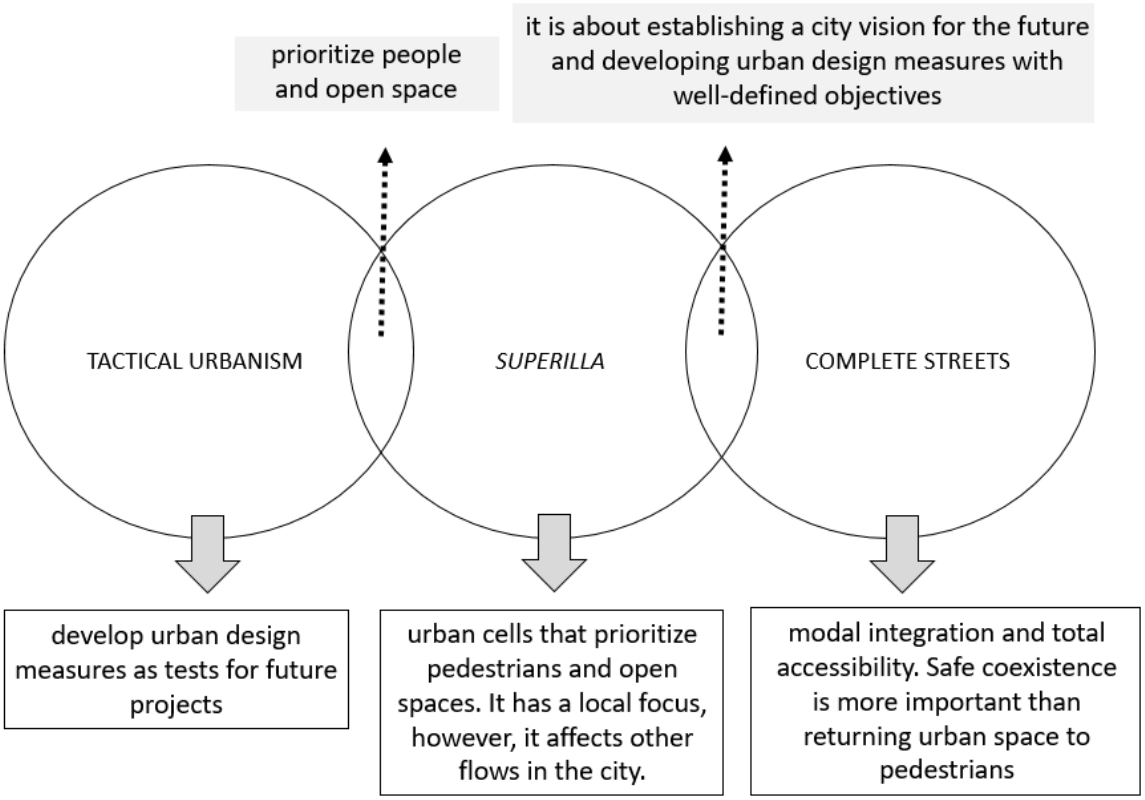
The *superilla* also works to improve mobility, however, it prioritizes pedestrians, unlike Complete Streets.

Another extremely important issue that differs from the others is the regional relationship that the superilles have. Although they are designed in modules (islands or intervention cells), it is not possible to think about the project in a specific way. Its degree of influence and scope are

not just local, but demand a change in mobility across the entire area (neighborhood) and even the city.

Figure 4

Tactical urbanism x Superilla x Complete streets



Source: Prepared by the authors (2024).

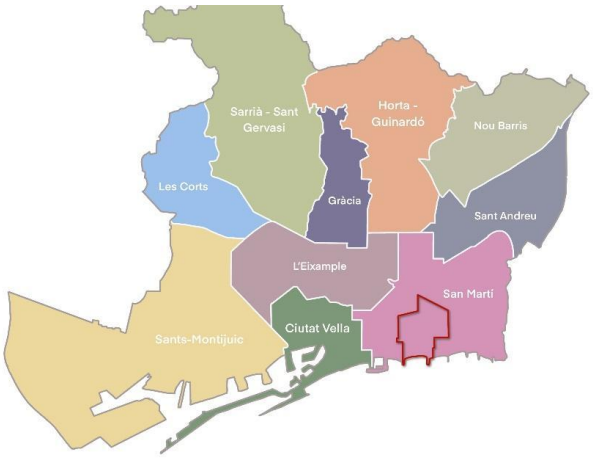
Superilla case studies in Barcelona: PobleNou and Sant Antoní

Pilot Project: Superilla de PobleNou (2016)

The *superilla* pilot project was implemented in PobleNou, in the district of San Martí, a neighborhood of industrial origin that is in a process of urban transformation (Figure 5).

Figure 5

Barcelona divided into districts (highlighted – PobleNou neighborhood)

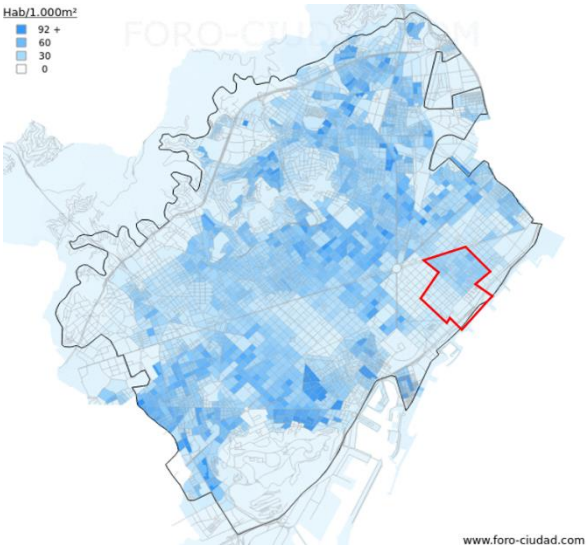


Source: Prepared by the authors (2024)

It has 34,010 people (Departament D'estadística I Difusió De Dades, 2022) and, currently, the neighborhood still has a low/medium population and circulation density, contrasting with the city center, which is characterized by a high density and intense flow (Figure 6).

Figure 6

Population Density of Barcelona (highlighted – PobleNou neighborhood)



Source: Foro Ciudad, 2019 (emphasis added)

The pilot project was implemented in the nine blocks bounded by Badajoz, Pallars, Llacuna and Tánger streets, which are located two blocks from Avenida Diagonal and Praça das Glórias.

Initially, basic mobility measures were applied, with temporary, reversible and quickly executed actions, which, according to the city hall (Ajuntament de Barcelona, 2023b), made it possible to visualize the new uses that could be achieved (Figure 7).

Figure 7

Streets of the PobleNou superilla

Source: Geise Brizotti Pasquotto (2023.

After this first phase, evaluation processes and proposals were carried out with the community to work together on the necessary adjustments to improve functioning and reinforce potential. The Superilles consultative processes began in 2015. “Re-imagine your little piece of Barcelona. Program to re-think, re-do and re-generate the city” was the publicity campaign of Barcelona City Hall.

As field work, students from several Architecture faculties carried out the first transformations of the space in PobleNou. One of the supervisors, architect Iñaki Baquero, from the Confederation of Architectural Project Workshops (CTPA, in its Catalan acronym), says that for ten days the students painted and changed the furniture in the superilla with the intention of eliminating cars from the street and humanize cities, making this action an opportunity for people to use public space again. According to Baquero, the implementation is functional, not urban planning, started by taking advantage of what already exists on the asphalt, using tactical urbanism. Later, when the superilla is consolidated, according to the architect, residents will be able to transform it into forests or theaters (Aguiar, 2017)

In Poblenou, the project received a lot of criticism from residents and traders, who created the Platform of “Affected by Superilla” (PASP9). They demand the right to decide on the

use of the streets. The group's main complaint is that some streets have become exclusive to pedestrians and others in the surrounding area have not. Another complaint is from traders, especially restaurant owners, who believe that the reduction in traffic could harm their businesses.

Jordi Campins, spokesperson for the PASP9 platform, reported for Metropole Abierta (Alegre, 2017a) that the superilla failed to resolve the issues it was supposed to address. For him, its implementation resulted in a series of inconveniences and deterioration in the quality of life, along with a decrease in demand for services within this area. Campins argues that the superilla did not achieve its main goal of reducing global pollution, but also contributed to its increase. He explains that circulation has been distorted, leading to longer routes and congestion in peripheral areas. Furthermore, Campins highlights the opposition of some residents within the superilla, pointing out the nocturnal desertification of the place, which occasionally becomes the scene for disruptive behavior.

Faced with criticism, residents came together to form the collective "Superilla Poblenou", with the aim of supporting the intervention. Carlos Peña, spokesperson for this collective, also emphasized in an interview with Metropole Abierta (Alegre, 2017b) that the superilla contributes to a more welcoming city, with better air quality and more sustainable. Silvia Casorrán, a 37-year-old resident, expressed a positive assessment of the project, arguing: "I am convinced that the city needs to change the mobility model to reduce the pollution we breathe and change our movement patterns" (Aguiar, 2017). In turn, Salvador Clarós Ferret, leader of the PobleNou residents' association, noticed a significant transformation in mobility and the urban scenario with the implementation of the plan. He highlighted that the superilla introduces a different dynamic from that adopted in most cities and argued that the solution to congestion does not lie in expanding roads, but rather in reducing vehicle traffic and promoting a change in travel patterns (Aguiar, 2017).

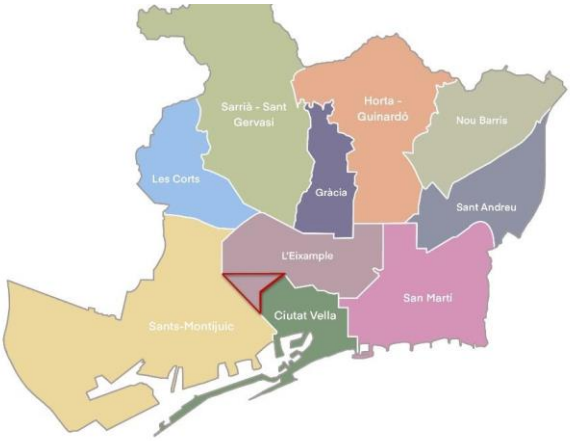
The experience in Poblenou served as a pilot project for replicating the *superilla* in other areas of the city.

Sant Antoní Superilla (2019)

Sant Antoni is a neighborhood in the city of Barcelona in the district of l'Eixample (Figure 14). It is limited by the Gran Via de les Corts Catalanes (in its section from Plaza de Espanya to Plaza de la Universitat), Ronda de Sant Antoni, Ronda de Sant Pau and Paral•lel (until Plaza de España) (Figure 8).

Figure 8

Barcelona divided into districts (highlighted – Sant Antoni neighborhood)



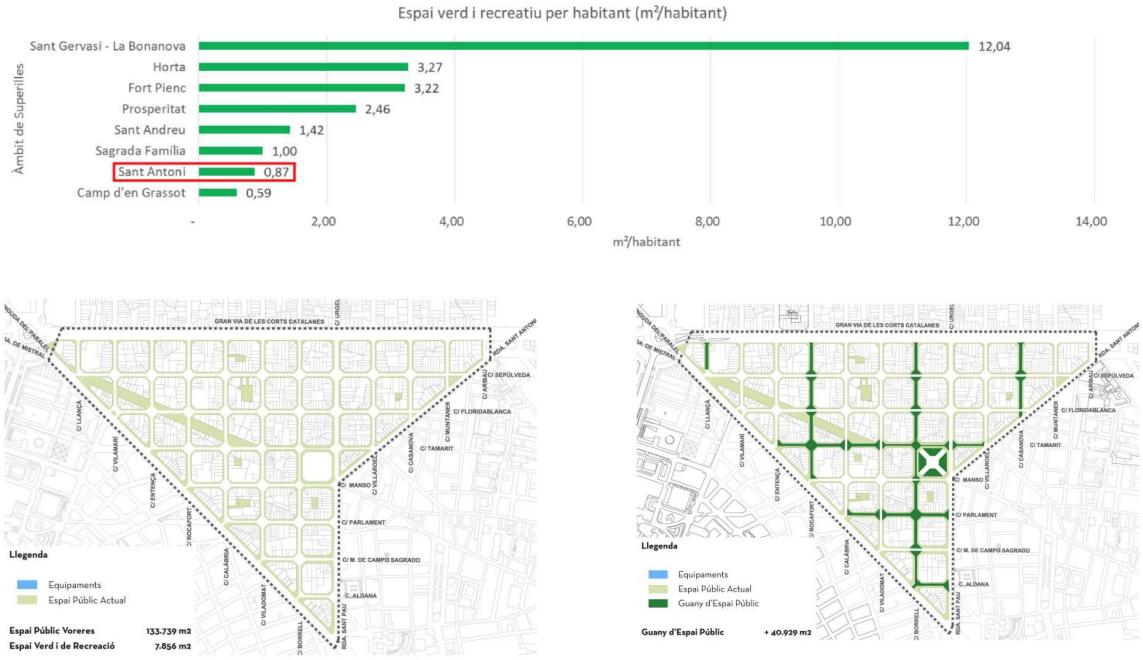
Source: Prepared by the authors (2024)

The heart of the neighborhood is the Sant Antoni market, which was built at the end of the 19th century and is very popular due to its weekly fair of old books and collector's items that takes place every Sunday morning. Mistral Avenue, which since 1995 has been converted into an exclusive space for pedestrians, is the neighborhood's liveliest and most dynamic artery.

The Sant Antoní *superilla*, opened in 2019, has an area of 16,180 m2. According to the city hall's action plan (Ajuntament de Barcelona, 2018), the neighborhood will have an increase in green and leisure areas, as its index for green and recreational spaces, of 0.87 m^2/inhabitant, is far below other neighborhoods of the city (Figure 9).

Figure 9

Green and recreational space, Sant Antoni



a) Public space for people – previous state (without the project).

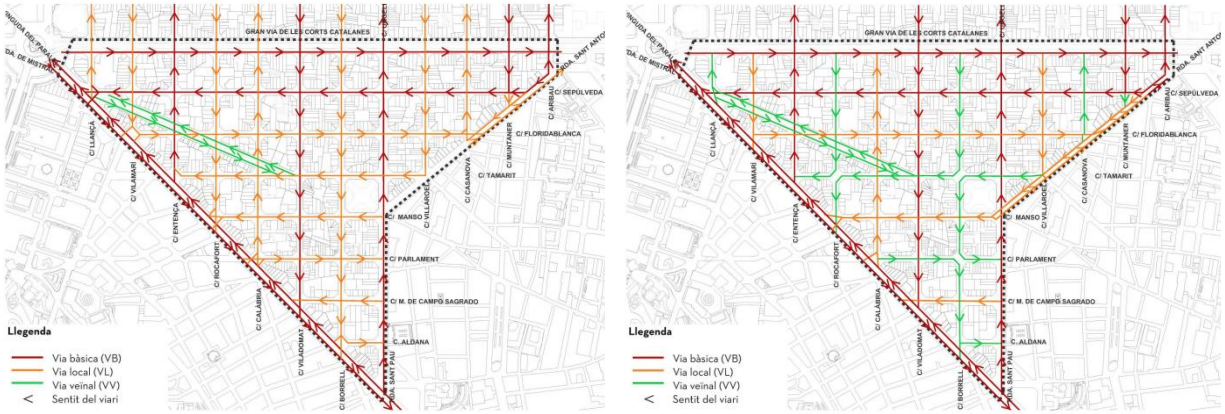
b) Public space for people – result of the project.

Source: Pla d´acció per a l´àmbit de superilles de Sant Antoni, 2018 – Ajuntament de Barcelona

To this end, road restructuring was necessary based on the identification of three types of roads: i) basic road (VB) – street of the city's basic distribution network; ii) local road (VL) – street of the local distribution network; iii) Neighborhood road (via veïnal - VV) – street where people take ownership (Figure 10).

Figure 10

Road restructuring, San Antoni



a) Funcionamento das vias (anterior ao projeto). b) Funcionamento das vias (posterior ao projeto).

Source: Pla d´acció per a l´àmbit de superilles de Sant Antoni, 2018 – Ajuntament de Barcelona

It is important to highlight the change in the relationship between the *superilla*'s implantation area. While in Poblenou the area was just nine blocks, in Sant Antoni the implementation took place much wider.

Leku Studio's design for the Sant Antoní superilla is based on the fundamental idea of total reversibility, adaptability and recycling of elements (Archdaily, 2020). The architects outlined a comprehensive strategy, incorporating a set of urban furniture elements, graphic guidelines and a specific methodology for implementation and management. A central aspect of the project was the definition of the graphic language, signage, color palette and module that, in an expandable network, establishes the basis for the new distribution. This structure serves as a guide for the implementation of urban patterns and elements, redistributing road spaces according to this network. The adaptive parts follow the modulation established by the base mesh, allowing easy integration and different combinations to create numerous arrangements.

These sets play an essential role in the integration of urban greenery, in addition to structuring spaces. The choice of materials in harmony with the environment, together with efficient irrigation systems, ensure the intervention sustainability.

Final considerations

From the investigations carried out it is possible to arrive at some key points that are interesting to highlight: i) modal hierarchy; ii) regional issue, iii) coordination between projects; iv) popular participation, v) exportable model and vi) renaturalization of the city.

The hierarchical structure of the superblocks concept is aligned with contemporary initiatives that seek a people-centered approach to urbanism. Although it resembles Brazil's Urban Mobility Plan, which prioritizes active mobility as a fundamental element in mobility projects (even if this guideline is not manifested in the majority of implemented actions), this practice encourages residents to reflect on urban space and the vision they want for the city.

The regional issue is extremely important, because even though the name given to the intervention seems somewhat specific and disconnected from the rest, the superillas are more like drops of rain that fall into the water and form mechanical waves that expand and influence the rest of the area. The action is not just local, as it influences the mobility of other areas. Therefore, regional analysis and the extra-local impact that the intervention needs to have are extremely important. In this category, it is also important to highlight the need to complement and articulate other public modals so that the music does not clash and becomes a symphony.

An additional point to consider is the interconnection between similar initiatives. Despite the focus of a project on a specific area, the interconnection of multiple projects of the same genre within the city and others of a similar nature can establish a network of green spaces and open areas, generating significant effects on the urban structure. As an illustration of this point, Montaner (2020) highlights the synergy between green axes and superblocks, exemplifying how such projects can complement each other.

Participation is another very important issue that has not been explored as well in the implemented superillas.

The superblocks concept can be considered a model that can be transferred to other locations. As emphasized by Sanz, numerous localities have the possibility of adopting this paradigm to revive their roads. The core of the proposal consists of converting the streets not just into commuting routes, but into places suitable for enjoying activities such as reading, eating and playing sports. These elements are fundamental to enriching the quality of urban life (Aguiar, 2017, online). The vice-mayor reveals that Barcelona has been approached by mayors from several cities around the world in search of information. "The purpose is common: to promote welcoming, healthy and sustainable cities, where breathing clean air is a reality" (Aguiar, 2017, online).

Finally, the urgency regarding urban renaturalization (Clement, 2017) becomes increasingly pressing, given the growing magnitude of environmental challenges faced by cities on a daily basis. In this sense, the superblocks aim to achieve this purpose, seeking, when integrated, to mitigate pollution and improve the collective health of the population.

Bibliographic References

Agência de Saúde Pública de Barcelona (2022). Avaluació de la qualitat de l’aire a la ciutat de Barcelona 2021. https://www.aspb.cat/wp-content/uploads/2021/07/Informe_qualitat-aire-2021_221124.pdf

Aguiar, L. (2017). Barcelona cria “superilhas” para tirar carros das ruas e reduzir poluição. *BBC Brasil,* 2017. https://www.bbc.com/portuguese/internacional-39036637

Ajuntament de Barcelona. (2023a). *El pacto.*www.barcelona.cat/mobilitat/es/quienes-somos/organos-de-participacion/pacto-por-la-movilidad

Ajuntament de Barcelona. (2023b) Superilla del Poblenou. https://ajuntament.barcelona.cat/superilles/ca/content/poblenou

Ajuntament de Barcelona. (2018). *Pla d´acció per a l´àmbit de superilles de Sant Antoni.*https://ajuntament.barcelona.cat/superilles/sites/default/files/pla_accio_superilles_santantoni.pdf

Alegre, P. (2017a). *Entrevista a Jordi Campins, presidente de la Plataforma d'Afectats per la superilla del Poblenou.* https://metropoliabierta.elespanol.com/quien-hace-barcelona/entidades/entrevista-superilla-poblenou-matrix_660_102.html

Alegre, P. (2017b). *Entrevista a Carlos Peña, portavoz del Col·lectiu Superillla del Poblenou.* https://metropoliabierta.elespanol.com/sant-marti/20170707/la-superilla-hace-la-ciudad-mas-amable-respirable-sostenible/229477109_0.html

Archdaily. (2020) Praça Superilla de Sant Antoni / Leku Studio. *ArchDaily Brasil*. https://www.archdaily.com.br/br/938818/praca-superilla-de-sant-antoni-leku-studio

Barata, A. F. (2018) *Do micro ao macro.* Urbanismo tático para transformação de espaços públicos. Dissertação de Mestrado. Rio de Janeiro: Prourb, 2018.

Baratto, R. (2013). Barcelona no caminho para baixar em 30% a circulação de carros. ArchDaily Brasil. https://www.archdaily.com.br/br/01-134169/barcelona-no-caminho-para-baixar-em-30-percent-a-circulacao-de-carros

Barros, F. S. (2017). Sustentabilidade urbana: análise do bairro da Liberdade em Campina Grande – PB. *GeoTextos*, 13(2), 112-129.

Blanchar, C. (2021). Barcelona: del tráfico a la movilidad. *El País*. elpais.com/espana/catalunya/2021-01-01/barcelona-del-trafico-a-la-movilidad.html

Boletín Oficial Del Estado [BOE] (2003). *Ley 9/2003*. Comunidad Autónoma de Cataluña. https://www.boe.es/buscar/pdf/2003/BOE-A-2003-14191-consolidado.pdf

Bolund, P., & Hunhammar, S. (1999). Ecosystem services in urban areas. *Ecological Economics*, 29(2), 293-301. https://www.sciencedirect.com/science/article/abs/pii/S0921800999000130

Brenner, N. (2016) Seria o “urbanismo tático” uma alternativa ao urbanismo neoliberal? E-

metroppolis – Revista Eletrônica de Estudos Urbanos e Regionais 7(27), 6-18. http://emetropolis.net/system/artigos/arquivo_pdfs/000/000/201/original/emetropolis27_capa.pdf?1485998522

Certeau, M. de (1999). *The practice of everyday life*. Berkley: University of California Press, 1999.

Clement, G. (2017). *El jardin em movimento*. Barcelona: Gustavo Gili.

Comissão Obrera Nacional de Catalunya [CCOO] (2005). *Ley de Movilidad de Catalunya 13 de Junio de 2003.* https://istas.net/descargas/Lloren%C3%A7%20Serrano%20i%20Gimenez.%20Opini%C3%B3n%20CCOO%20Ley%209-2003%20de%20la%20movilidad%20de%20Catalunya.pdf

Deakin, M., & Allwinkle, S. (2007). Urban regeneration and sustainable communities: the role of networks, innovation, and creativity in building successful partnerships. *Journal of Urban Technology,* 14(1), 77-91. https://www.researchgate.net/publication/232888042_Urban_Regeneration_and_Sustainable_Communities_The_Role_of_Networks_Innovation_and_Creativity_in_Building_Successful_Partnerships

Departament D'estadística I Difusió De Dades. (2022). *Estadistiques_per_temes*. Ajuntament de Barcelona. https://ajuntament.barcelona.cat/estadistica/castella/Estadistiques_per_temes/Poblacio_i_demografia/Poblacio/Xifres_oficials_poblacio/a2022/sexe/barri.htm.

El Periodico (2023). La fiscalía archiva la investigación sobre las 'superilles' del Eixample. *El Periodico*. https://www.elperiodico.com/es/barcelona/20230217/fiscalia-archiva-denuncia-superilles-barcelona-83102547

Fontes, A. S.; Pina, J. P.; Paiva, L. M. de (2020) *Urbanismo Tático*: X ações para transformar cidades. Rio de Janeiro: Ed. UFRJ.

Fontes, A. S. et. al. (2018) Táticas cidadãs para ativação de áreas subutiulizadas: o caso das hortas comunitárias do Rio de Janeiro. *Arq. Urb*, v.23, p.147-169.

Gehl Institute. (2017). A Mayor’s Guide to Public Life. https://www.micd.org/wp-content/uploads/2018/01/MAYORS_GUIDE_Complete.pdf

Leite, C. (2012). *Cidades Sustentáveis, Cidades Inteligentes*: desenvolvimento sustentável num planeta urbano. Porto Alegre, Bookman.

Lydon, M. & Garcia, A. (2015). *Tactical urbanismo*: short-term action for long-term change. Nova York: Island Press.

Mas, J. G. (2022) La contaminación atmosférica en la ciudad. *Barcelona Metropolis.* https://www.barcelona.cat/metropolis/es/contenidos/la-contaminacion-atmosferica-en-la-ciudad

Montaner, J. M. (2023). *Lawfare Urbano:* ofensiva judicial contra la Barcelona de Ada Colau. Barcelona: Icaria Editorial.

Montaner, J. M. (2020). Superilles, eixos verds i model de ciutat. *Ara.* https://www.ara.cat/opinio/superilles-eixos-verds-model-ciutat_129_1015854.html

Newman, P., & Jennings, I. (2008). *Cities as sustainable ecosystems*: principles and practices. Washington: Island Press. https://parfikh.files.wordpress.com/2012/01/cities-as-sustainable-ecosystem.pdf

Palenzuela, S. R. (2007). *Barcelona, cuidad mediterranea, compacta y compleja. Una visión de futuro más sostenible*. Barcelona: Ajuntament de Barcelona, 2007.

Podjapolskis, R. (2017). Supermanzanas Bajo Sospecha: El proyecto de Superislas para Ensanche frente a su alternativa. *IX Seminario Internacional de Investigación en Urbanismo*, Barcelona-Bogotá.

Sassen, S. (2014) Complex and incomplete. Spaces for tactical urbanismo. In Gadanho, P. (ed). Uneven growth: tactical urbanisms for expanding megacities. Nova York: MoMA, p. 40-47.

United Nations Development [UNDP]. *The SDGS in Action*. https://www.undp.org/sustainable-development-goals?gad_source=1&gclid=CjwKCAiAg9urBhB_EiwAgw88mQMnZCL7WteBJ-S2j3T__IS6HYiXzFEq5KTjsadudeI3K9f_f5hEfxoCN5YQAvD_BwE

WRI Cidades. (2017). Afinal, o que são ruas completas? *WRI Cidades*. http://wricidades.org/noticia/afinal-o-que-sao-ruas-completas

Zavestoski, S., & Agyeman, J. (2015). Complete streets: what is missing? In S. Zavestoski, & J. Agyeman (Eds.). *Incomplete streets*: processes, practices, possibilities. New York: Routledge.