



Article

Outdoor Terraces in Barcelona and Milan: Configuration of New Spaces for Social Interaction

Emma Maev O'Connell ¹, Eulàlia Gomez-Escoda ^{2,*}  and Álvaro Clua Uceda ² 

¹ Department of Urban Design and Territorial Planning, UPC-Barcelona TECH, 08028 Barcelona, Spain; emmaoconnell21@gmail.com

² Barcelona Laboratory of Urbanism, UPC-Barcelona TECH, 08028 Barcelona, Spain; alvaro.clua@upc.edu

* Correspondence: eulalia.gomez@upc.edu

Abstract: This work approaches the phenomenon of the outdoor terraces of bars and restaurants, analysing the role of these privately owned collective elements whose layout has shaped the urban landscape at the pavement level for more than a century, and whose presence has become essential in the streets of many cities after a pandemic. The research highlights the interest of terraces as dynamic elements of urbanity: private domains in the public space where people eat collectively; they are apparently simple units that synthesise complex conflicts between individual behaviours and property boundary conditions. The investigation shows the increasing expansion that outdoor terraces have experienced since 2020, using the cities of Barcelona and Milan as case studies. A series of GIS maps show the image of both cities before and after the pandemic, allowing us to evaluate the amount of public space allocated to terraces, measure their increase in number and surface, establish the proportions of occupation of the street and find the patterns of concentration in the public space. Finally, the article offers some policy and planning recommendations based on the research findings.



Citation: O'Connell, E.M.;

Gomez-Escoda, E.; Clua Uceda, Á. Outdoor Terraces in Barcelona and Milan: Configuration of New Spaces for Social Interaction. *Sustainability* **2022**, *14*, 7837. <https://doi.org/10.3390/su14137837>

Academic Editors:

Thomas Panagopoulos,
Bruno Marques, Krzysztof Herman
and Agnieszka Olszewska-Guizzo

Received: 20 April 2022

Accepted: 22 June 2022

Published: 27 June 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: outdoor dining; terraces; pavement cafes; sidewalk cafes; parklets; public space; urban design; city; Barcelona; Milan; food; social distancing; pandemic; COVID-19

1. Introduction

The starting point of this investigation is the observation of some recent phenomena and transformations taking place in the streets of Barcelona and Milan triggered by the change of social interaction patterns related to the COVID-19 pandemic [1]. In order to cope with the economic losses in the restaurant industry and at the same time ensure a safer environment to socialise in, local authorities in both cities—as in many others worldwide—encouraged the expansion of outdoor dining through exceptional pavement licences, so that as long as it was not possible to meet in interior spaces for reasons of the necessary social distancing, it would be in outdoor terraces where the activity of eating collectively could be resumed. Terraces would bring eating from indoors to the street, thereby opening it to the public gaze. Consequently, and in relation to the case studies described in this article, since May 2020 the number of terraces in Barcelona and Milan has increased by 23% and 50%, respectively, compared to the terraces that existed a year before.

In May 2022, two years after the first national lockdown came to an end both in Spain and Italy, a walk through Barcelona and Milan, diverse in size—101.35 km² and 181.68 km², respectively—but equivalent in population—1,636,732 [2] inhabitants and 1,371,498 [3]—gives a picture of two urban landscapes with certain similarities, specifically in terms of the great presence of outdoor terraces in the streets.

1.1. Research Goals and Questions

This article aims to measure the visible increasing presence of outdoor terraces in the urban landscape since May 2020. To do so, two research questions are formulated to find

out: (1) how much the terraces have grown in number and area in both cities; (2) whether or not there are patterns of urban form that condition the concentration of terraces, or that favour their coexistence without interference with other collective uses in public space. To answer the first, the research quantifies this expansion through data analysis and maps the terraces to draw a global picture from which detailed readings can be drawn. For the second, this study presents a literary review on the limits between public and private in open space and tries to determine if terraces, places where people eat collectively and, therefore, dynamic elements of urbanity, are capable of diluting it.

Section 1 offers a first overview of the consequences the pandemic has had on a landscape so deeply intertwined with urban sociability and relates the analysed topic, terraces, to other phenomena of the transformation of the urban scene after the pandemic, such as new collective spaces and meeting grounds.

Section 2 relates the post-pandemic context to the evolution of different configurations of public space, building a framework in which to place this phenomenon, which allows one to understand the meaning of outdoor dining, how terraces have evolved and their role in the contemporary city. Although this section is not essential to understanding the specific research presented in this article, the authors consider it relevant to include it given the absence of an extensive epistemological framework on the process of consolidation of terraces and the manner in which they expanded in the urban landscape, especially in European cities.

Section 3—in depth analyses of the presence that terraces have on public spaces. The starting material for the investigation is the study of local regulations, the field work to verify in situ the materialisation of the terraces and the open data available online, which provides georeferenced information on ground floor activities and outdoor terraces for both cities. The elaboration of detailed cartographies of the phenomenon studied is one of the novel contributions of this research. The data processing, mapping and quantification of the extension of the phenomenon is based on QGis, Microsoft Excel and Power BI.

Section 4 takes several fragments of each city at the same scale and, based on these, analyses the different ways of occupying public space with pre- and post-pandemic terraces—those that have resisted, those that have grown and the new ones that have appeared. The patterns detected allow a qualitative evaluation of the studied phenomenon, which translates into future planning recommendations.

Section 5 reflects on the consequences of these new configurations of public space in post-pandemic times and offers some recommendations based on the two analysed case studies.

And finally, Section 6 adds some final considerations that highlight the importance of the need to reframe the phenomenon of the exponential multiplication of terraces, not only in the field of urban planning and in relation to the landscape they shape, but also related to the sociability or the economy of cities. The section highlights the novel findings of this research and offers some suggestions for future studies.

1.2. Post-Lockdown Context: A New Urban Reality

Measures to curb and later to prevent the spread of COVID-19 forced a new way of using cities on a daily basis. Among other sudden changes that the urban scene underwent, the transformation processes revolving around food came to an abrupt halt at the beginning of 2020. It was a turning point in the “gastronomic revolution” as defined by François Ascher [4], according to whom food determines time and space in modern cities as it is a constant reference throughout the day and it can allow understand the ways of eating, dictating opening times, journeys, meetings, time for friends and for work, holidays and weekends, domestic economy choices and cultural styles.

As a consequence of the lockdown, the relationship between food and the street took on a new dimension. On the one hand, the concept of proximity was re-examined and was given a crucial positive value, since the only justified reasons to leave the home during the first months were related to the acquisition of essential products—such as food.

On the other hand, bars and restaurants had to close in almost all European countries and for several weeks throughout 2020, as a consequence of the necessary limitation of social interactions and interpersonal contacts, and there were restrictions in the use of public spaces.

At the same time, other consumption habits that had already emerged in the last decade, but not so strongly, started to grow rapidly. These are all the phenomena related to the gig economy and, in the case of gastronomy, applications for ordering food at home but also ghost supermarkets for ordering groceries at home and applications that ultimately allow ordering anything anytime from anywhere [5].

The national lockdown enacted to curb the contagion curve that made Barcelona switch from hosting 2,337,104 people on 13 March 2020 to 1,634,957 two days after [6,7]. The home confinement would last until 2 May, when an “asymmetric de-escalation” began in the country, which, in a first phase, allowed citizens to use public spaces, and among other permitted activities, it was possible to go to restaurants and pick up prepared meals to take home. It would not be until 11 May that it would be possible to sit and eat in the outdoor spaces of bars and restaurants in groups of up to six people; at the end of the month, on 31 May, the use of interior spaces would also be allowed but such strict social distance restrictions in force and an aware collective conscience would lead most food-related premises to request permits to extend their terraces in order to continue their activity.

On the other hand, the case of Milan presents some chronological similarities. In the north of Italy, the first measures to halt the coronavirus outbreak were implemented on 23 February 2020 [8,9], amongst them the closure of schools and shops, and the closure of bars from 6 pm to 6 am. On 11 March [10] a national lockdown was imposed, with the suspension of all activities and the closure of bars and restaurants except for delivery. Bars and restaurants would open again on 17 May [11], provided they followed the new regulations to maintain social distancing.

At that time, many people decided to leave the city. On the one hand, the population of Milan went from 1,406,242 in 2020 to 1,374,582 in 2021—reaching 1,371,498 in 2022 [3], but what changed dramatically was the number of people that came into the city every day, or who lived in Milan on a temporary basis, either to work, to study or to travel. Since the start of the pandemic, remote working allowed thousands of people to choose where to work from; in autumn 2020, 70% of employees in Milan were still working from home. Therefore, many people were drawn to leave the city and live closer to their hometowns, in search of a better quality of life. New forms of working were promoted, such as South Working [12], a project aimed at reviving certain areas of the south of Italy, in the most marginalised part of the country.

While some saw in the great metropolises, the spaces from which to get away from looking for less dense and compact environments, others looked for places for decompression and socialisation in the city itself, and after the first months of severe restrictions, the gradual recovery of normality became very visible in the public spaces of the cities. At times when it was considered safer to go out in the street, to meet with a certain number of people and to go to bars and restaurants, people showed that they were keen to continue sharing sociable spaces. Terraces in various forms, improvised, temporary, exceptional or fixed, conquered the pavements and stimulated public debate regarding this new way of living collectively on the street.

1.3. Outdoor Dining and Post-Pandemic Streetscapes

At the same time that terraces have become a tool for individual expression and collective gathering in public space, they are related with the municipal strategies through which streets were pedestrianised and sidewalks were widened, to the detriment of the space intended for vehicles, to favour the greatest possible space for walkers. Adapting to the new normality has not meant, for many cities, to go back to the situation that existed prior to the pandemic but incorporating all those measures that are considered positive for

the community, such as providing more and safer space for pedestrians, which is related in its turn to improving the quality of public space and to the fight against the climate emergency, in which cities around the world find themselves.

In the case of Barcelona, the discussion on post-pandemic terraces is also related to the concept of tactical urbanism, which has gained a relevant role as a testing strategy in uncertain circumstances that require rapid low-cost and temporary nature responses [13–15]. The best-known tactical strategy carried out by the Barcelona City Council is the Superilles [superblocks] program, started a decade ago and launched through two pilot actions in the Poblenou (2016) and Sant Antoni (2018) neighbourhoods. This experience follows the general guidelines drawn up by the Barcelona Ecology Agency [16], in which it was initially considered that two out of three streets in the Eixample grid could be more peaceful and greener by concentrating vehicular traffic and restructuring the public transportation buses network in the perimeter. The strategy was imagined later for the rest of the city and adjusted to urban fabrics different from the regular grid, and the period immediately after the lifting of the lockdown was used to implement, through tactical strategies, some of the pacifications foreseen in the plan. In this context, in which pedestrian mobility is to gain prominence over the car, terraces were understood as an instrument that, through small acupuncture actions—insignificant on the surface if the total scale of the city is considered but of great impact when considering the neighbourhood scale—could contribute to the conquest of pollution-free space.

Post-pandemic terraces can also be considered an example of a citizen co-creation process given the uncertainty about the return to normality in social interactions in the public space, and given the long term that terrace licences granted exceptionally on asphalt could take, the City Council opted in September 2020 to make permanent all those that chose to be homologated in accordance with new municipal design guidelines. In this way, the Institut Municipal del Paisatge Urbà i la Qualitat de Vida (Municipal Institute of Urban Landscape and Quality of Life) launched a call for the design of urban furniture elements related to terraces that guarantee the conditions of accessibility, safety and quality in public space. The result was four platform prototypes designed to homogenise the landscape of the terraces but that, in return, seemed to aim to eliminate the domestication of the street through the outdoor dining spaces.

Tactical urbanism strategies promote citizen commitment to the design of shared spaces, reverting to a high social impact in terms of improving liveability in the public realm. The civic appropriation and the active participation of citizens in the construction of space has been proved to contribute to its vitality [17], and is related to the right to the city concept and the production of social space theories [18], according to which both the physical or material sense of the urban environment are based on subjective perception and spatial experience, so that an active participation strengthens the feeling of belonging to the place. Three degrees of citizen engagement can be considered regarding the new terraces in Barcelona: (1) that of the participants in the public call for the design of approved platforms intended to house terraces on the roadway; (2) that of the owners of the restoration premises, who in the first instance enclosed sidewalks and driveways with planters, awnings and nightstands and who, by adopting the approved platforms, continue to tame public space with those same provisional elements; and (3) that of the citizens who have made the terraces the place of socialisation *par excellence* in the city. The persistent use of terraces has not decreased after the lifting of the lockdown; these outdoor dining rooms have become the preferred meeting place.

In the case of Milan, the expansion of terraces has not only been a financial support in an emergency phase but has also resulted in an important change in the way of living in the city, which has revived many neighbourhoods, bringing citizens closer to the “European idea of public space” [19]. In terms of air quality and quality of life, thanks to parklets, i.e., converted kerbside parking spaces, many square metres of road space have been gained from cars. Many streets have become Zone 30 (30 km/h zones) areas where the maximum speed limit is 30 km/h, and some have become residential areas, with a limit of 15 km/h,

within the framework of the *Strade aperte* (open streets) programme of the City of Milan to rethink mobility and urban space [20]. Despite this, the perception of many others has been of a veritable invasion of terraces. Residents have mainly complained about: insufficient walking space on the sidewalk, especially on pavements with a heavy flow of people, where the two metres established by the regulations are not available; the difficulty for neighbours of finding an available parking space, since the parking spaces occupied by terraces have not always been replaced by other parking spaces in nearby areas; the occupation of gardens and green areas.

While in other European cities the expansion of outdoor terraces had already been a matter of debate in the last decade [21–24], in Milan the discussion became particularly relevant in 2020, as a result of this rapid expansion in the time of the pandemic. A debate between different social parties, citizens and traders, but also between urban planners with different views on the subject: those who see the expansion of terraces as an opportunity to re-appropriate urban space to citizens and to gain road space from cars, and those who see it as an “invasion” or the definitive privatisation of public space.

2. Historical and Cultural Context

Although building a social, cultural and historical framework is not strictly necessary for understanding the information or discussing the results presented in this article, it is important to note that outdoor dining spaces are normally discussed from a purely quantitative [25–31] or energetic [32] point of view, leaving aside a theoretical understanding that would link them to the shape of urban landscape.

2.1. Historical Context in Europe

The deep-rooted custom of eating and drinking outdoors has developed over the centuries. Made up of tables and chairs accompanied by various auxiliary devices—sometimes with protective functions in relation to traffic, such as railings or planters; others, for the domestication of climatic conditions to ensure comfort, such as stoves, awnings and night-stands; also, to facilitate the final preparation of the dishes before they are served (to the tables)—terraces tame the street space and contrast the fast pace of passers-by with the conversation and stillness of those who sit in them.

The first terraces appeared in Europe at the end of the 19th century, first in parks and promenades, then on ordinary pavements [33]. At that time, cafés were rapidly becoming very popular in Paris: in 1843 there were more than 3000 cafés and, in 1939, 15,400 [34]—figures that give an idea of the number of cafés from the Second Empire onwards. It was a time when the urban setting was changing in several respects, turning into a modern city; the inhabitants of Paris began to stroll through streets and parks and the figure of the *flâneur* appeared. One of the features of that urban modernity was the cafés and their natural extension towards the street, the terraces. A privileged vantage point from which to view the city, the terrace was the place to see and be seen, where the consumer-*flâneur* changed roles and became a *voyeur*.

Manuel de Solà-Morales describes Parisian cafés as places “[that] share more or less the same structure: the cavernous interior, more or less illuminated, extends onto the pavement by means of a terrace which, on sunny days, is sheltered by a large awning.” [34]. Terraces enabled the extension of the café’s usable space towards the street and, at the same time, replicated a quotidian custom in urban settings with a mild climate, where the street and the pavement have traditionally been natural extensions of the living room: that of taking a chair out onto the balcony, garden or street to enjoy the sun, to chat with neighbours and watch the world outside.

The cafés of the late 19th and early 20th centuries were the meeting places of aristocratic and intellectual life, not only in Paris but also in many other European cities. In Barcelona, the first terraces were linked to the first pavements and are, therefore, were placed in the first spaces to have them, in the very core of the old town: in Las Ramblas—which concentrated in its length of about 1.2 km more than twenty cafés with their respective terraces, such

as Café de Barcelona, on the ground floor of the Teatro Principal (since 1788), Gran Café Continental (1884), Café Cuyás (1862), Café Pelayo (1886), or Café de la Perla (1877), in the perimeter of Plaza Real Square—a regular space in the Gothic plot formulated in the space previously occupied by a convent; under its porticoes were founded El Suizo (1856) and L'Espanyol (1850); and in Plaça Catalunya Square—at the north end of Las Ramblas, at the hinge between the old city and the Ensanche, which would multiply the size of the city by ten from 1859—where it was possible to find the Gran Café del Siglo XIX (1888), Café del Circo Ecuestre (1879), or the Cantina La Catalana (1862) [35,36].

Some of Milan's most historic cafés also opened at that time: Café-Restaurant Biffi (1867) was the first to occupy Galleria Vittorio Emanuele II when built; Café-Restaurant Savini (1867) was a meeting place for Milan's aristocracy after going to the theatre, La Scala or Teatro Manzoni; Camparino opened in 1915 as the “younger brother” of Caffé Campari (1867) and gathered intellectuals, politicians and artists.

It was after the Second World War, with the “economic miracle” of the 1950s and 1960s and the rapid rise of the consumer society in Europe, that this elitist venue—the café or bar—radically changed its clientele; by then, many more people could afford to go to the bar for a coffee. From that moment on, bars and restaurants started to appear on every street; the bar became a popular, democratic and ubiquitous meeting place, a “third place” as defined by Oldenburg [37], that played an important role in the construction of sociality and the relationship between individuals, city dwellers and the city [38].

A few decades later, at the end of the 20th century, the expansion of mass tourism meant the multiplication of bars and restaurants both in urban centres and in areas close to tourist attractions, so that the ground floors of the city largely became a monoculture dedicated to restaurants. Terraces then surrounded the public spaces with the best views over the city, and eating in the street became related to the temperate climates and to the consumption of public space, in a new formulation of the nineteenth-century *voyeur*. This coincided in both cities with the beginning of the decline of the use of automobiles in urban centres; squares ceased to be occupied by cars—both circulating and parked—to become oases reserved for pedestrians.

The last precedent in the changes of the urban landscape related to terraces took place with the implementation of strict non-smoking regulations for indoor collective spaces in Europe at the beginning of the 21st century (Italy, 2003; Spain, 2010), which led to an exponential growth of ambiguous collective places in the threshold spaces between building facades and sidewalks, and multiplied outdoor terraces in the city streets regardless of seasonality, climate or sights. Even without it being known then, a decade later, during the COVID-19 pandemic, similar reasons would bring dining spaces to the streets to escape from, as described in the previous paragraphs the restaurants of the 19th century, those dark and poorly lit caves, in search of air, sun, and the social contact lost in the first months of lockdown.

2.2. Street and Food

Terraces are thus related to public space but also to the role of food in the construction of urban space, to the social role of gastronomy in consumer society and, ultimately, to how the city eats [39–42]. The ability of gastronomy to revive the space around it is indisputable; food has always been capable of activating and transforming space, testing it, dynamising it, temporarily or definitively modifying its perception and use [43].

Outdoor dining spaces are one of the many ways food has made itself visible in the public space throughout history. Together with terraces, it is worth mentioning, on the one hand, popular festivals, in which fellow citizens gather around long tables for collective meals; on the other hand, food in motion, materialised in take-away or delivery meals, which far from being a contemporary phenomenon finds its roots in the first urban nuclei; and finally, raw edibles exhibited in food markets, which went from having their activity in the open air to being covered in large monumental halls at the beginning of the 19th century.

Numerous popular street-based festivals existed—and in some cases still exist—all over the Mediterranean. In Catalonia, *festes majors* [local celebrations] have been celebrated since the 13th century and are a collective, socially cohesive event. On these occasions, communal meals are usually held in which the street is transformed into a large communal dining room [43]. Similarly, in Italy, many of the traditional street festivals and *sagre* [local festivals] dedicated to the tasting of a specific food or dish have survived to this day. Here, it is easy to see that the still-close relationship between the urban public domain—in this case, mainly medium-sized and small towns, as well as villages—and the rhythms determined by agriculture and the seasonality of food has survived to this day [44]. In these and other events, it is the citizens who take over the street to eat together; these are special occasions that speak of the role of gastronomy within the urban landscape, in which the duality between public and private, between indoors and outdoors [45], is overcome naturally and immediately and people are able to inhabit public space.

Street vendors and shops that prepare food to take away or eat in the street, on the other hand, are not a product of modern cities [46]. In Pompeii and Herculaneum, next to places to consume—as well as to buy—food and drink, such as shops, bars and taverns, there were places on the ground floors of the city that served take-away food to the inhabitants of the *insulae*, residential buildings that were not equipped with kitchens [44]. There is evidence of this kind of activity related to mobile food—street food and take-away food—also in historical recounts and photographs of old Milan. Often related to street markets, it was possible to buy varied groceries, such as frogs, prawns, anchovies, lemons, nuts, hot coffee and ice from street vendors, or prepared meals, as is the case of the “*polentatt*” [traditional polenta sellers], from the stores and kiosks that sold (take-away) hot polenta directly on the street.

It was from the great industrialization of the late nineteenth century onwards that the city undertook a process of “modernization” and, consequently, started moving away from many of its traditional customs. The historical street markets were displaced to covered and semi-closed structures and together with them also the street vendors disappeared [47–49]. In the first half of the twentieth century, at a time when Milanese gastronomy was suffering a downturn, the stores and kiosks of the “*polentatt*” also disappeared. Similarly, to what was happening in Milan, during the first third of the nineteenth century, market spaces in many cities were extracted from streets and transferred to regulated and specialised sites. Until that time, they were located near the city gates; temporary food stalls occupied access roads linearly, so that as the amount of farmers supplying food increased, stalls branched out through the street layout. When vendors began by number to strangle the circulation, they were relocated to sheltered places. With the subsequent construction of canopies, markets ceased to be open spaces and food gained protection from sun, rain, cold and heat, and soon adopted a non-sensory and aseptic condition, losing seasonality and, consequently, physical and cultural proximity to the territory that once fed the city [50,51]. Despite this current detachment from the street, market halls are to be considered, in the words of Susan Parham (2015) [44], “outdoor rooms”, positively designed spaces, with a clear function and clear volumetric boundaries, with the right proportion between the floor area and height of the surrounding buildings that provide the conditions for them to be convivial and vital urban places.

Market halls, food in movement, collective popular meals, terraces. All of them bring people together and, through the presence of food on the street, activate the public space. William Whyte’s (1980) [52,53] research on the intensity of life in public spaces analysed when and why some squares in New York were empty and others were usually very busy, coming to the hypothesis that what attracts people to a place are, in general: the presence of other people, the presence of suitable places to sit, and the presence of food—street vendors, kiosks, bars and restaurants and their terraces. In his own words, “Food attracts people who attract more people.” [52] (p. 52). In this sense and in relation to this research, it can be said that terraces attract people to sit down to eat and drink, which, in turn, attracts other people and activates the street around.

2.3. Social Distancing, New Collective Spaces and the Domestication of the Street

Terraces have strengthened, in times of social distancing, their role as “urban living rooms”, becoming meeting places par excellence in the city and symbolising a new form of urban conviviality that does not replace, but coexists with, the traditional places of socialisation—civic spaces, public transport and other facilities.

Although part of the force of these outdoor dining venues lies in their historical roots, as both eating in public and eating in groups was a common practice in the past; for many decades eating outdoors and in public spaces, as is the case of a terrace, was frowned upon, because it was linked with an obligation or a lack of money [43]. Today, on the contrary, eating and drinking in the street and seeing other people eating and drinking in the street is for many a daily activity. It is not unusual to see the city streets filled with furniture: tables, chairs, parasols, pergolas and canopies, planters, heaters. The boundaries between what is done at home and what is done outside have been blurred, redefining the public–private threshold. According to Steegman, “streets, occupied by the terraces of bars and restaurants, host private spaces for public use that extend into the interior of the premises, becoming, especially at mealtimes, an ambiguous and complex urban element that highlights the progressive domestication of the city.” [54] (p. 32).

Terraces are not public spaces in the traditional sense—such as squares, streets and parks—but they are nevertheless collective spaces understood as places where community life takes place and, incrementally, these are not public nor private but both things at the same time [55]; they can be considered public spaces absorbed by private uses, or private spaces that acquire a collective use. Solà-Morales defines this overlap between public and private as the place where “the axes of private and the public, of the individual and the social, are, then, superposed in gastronomy as in so many decisive fields of urban space”, also stressing the collective character—“a defining condition of the urban phenomenon” [4]—of the forms of contemporary gastronomy.

Ugo La Pietra worked in many of his works on the idea of breaking down the barrier between public and private space and replacing the concept of “spazio da usare” [space to use] with that of “spazio da abitare” [space to live in], where “living means being at home everywhere”. To give shape to these ideas, La Pietra used apparently trivial, everyday objects and customs that undertook a process of “design reconversion”. In his installation Urban Living Room in Via Sant’Andrea in Milan—Soggiorno urbano in Via Sant’Andrea a Milano—from 1989, La Pietra placed pieces of house furniture in a street, recreating a domestic scene, a “living room”. Looking at those images now, the similarity between the space conceived by the artist and the outdoor terraces scattered along the city streets seems evident. Constructed with all kinds of urban artefacts and closing elements, sometimes furnished with simple furniture, sometimes even with armchairs and traditionally domestic furniture, places to eat, drink and gather, they are in short “urban living [dining] rooms”, and they express a new way of being, of occupying and inhabiting the city [56].

The need to reconnect socially after confinement turned outdoor terraces into new meeting grounds. During the first months, exterior spaces were perceived as safer than interior spaces, and at the same time, households did not have exterior spaces of sufficient size to hold large gatherings. Although the shortcomings in the domestic space become apparent, the proliferation of terraces and the homogenization of the elements that make them up—standard tables and chairs, usually provided by beverage brands—and that perception that the habit of use turned them into “urban living rooms”, made many owners endow them with domesticity in their formalisation adding planters; candles and lamps; cushions and blankets, reconfiguring, with these small gestures of the appropriation of space, the urban landscape on the pavement level.

3. Materials and Methods

The following sections approach the phenomenon of terraces in Barcelona and Milan in the period 2019–2022, focusing especially on those resulting from the exceptional licences granted post-pandemic. This section is divided into two subsections, each responding to

one of the case studies. Each subsection begins by reading the pre-pandemic municipal ordinances and the exceptional regulations that appeared during and after the pandemic to understand the logics of occupation of public space. Next, two maps are constructed to depict the location of the terraces by comparing two moments, 2019 and 2022, and establishing patterns of evolution in the occupation of public space.

The reading of the ordinances allows one to see how the regulations have been modified to accommodate new forms of occupation in public space—in the case of Barcelona—or have remained in disregard of the need to standardise the appearance and position of the terraces—in the case of Milan.

For each city, a novel cartographic representation adjusted to the existing databases has been made. The maps presented in this section have originally an A4 format at a scale 1:30,000, so that they include the most central 2000 hectares of each of the two cities. Whereas this section shows the transformation in the central area of both cities, the following section—Results—discusses some fragments on a larger scale.

3.1. Two Looks at the Terraces in Barcelona: Before and after the Lockdown

Regarding Barcelona, two groups of contributions have been basic references to frame the analysis: (1) studies on perception in the street layout of Barcelona, which provide interpretations of the visual and perceptive proximity in public space [57]; and (2), research that analyses the general logics of retail in Barcelona [7,33]. In addition, recent research related to the energy consumption of the terraces in the city, has been of great relevance for this article [32].

3.1.1. Four Types of Occupation of Public Space, Two Types of Tactical Interventions and a Designed Long-term Strategy

The current Terraces Ordinance regulation [58], initially approved in 2013 and modified punctually in 2016 and 2018, was amended again in a process started in September 2021 after the most restrictive confinement. In its preamble, the rule “provides as one of its objectives to favour the balance between the uses of the terraces and the collective uses of public space, guaranteeing on the one hand the quality of the spaces for citizens and the neighbourhood and citizen coexistence and, on the other, the support and promotion of the economic activity of restaurants and similars”.

The original ordinances allowed different types of terraces according to their relationship with the public space—on the pavement or other urban spaces reserved for pedestrians, establishing some basic rules for each of the categories that guarantee coherence in the urban landscape in the same street or even neighbourhood: pavements, squares and ramblas [promenades]; pedestrian streets; porticoes.

In all cases, a free space for pedestrian passage must be left between the facade and the terrace of no less than 50% of the width total of the sidewalk, with a minimum of 1.80 metres. The distances between terraces, to building entrances, to urban furniture elements, to public transport stations and stops and to trees are also regulated in the ordinances. In addition, dimensions and appearance are specified, setting a maximum module size—table plus two or four chairs—and prohibit advertising beyond the logos printed on the furniture or parasols, so that there is room for each terrace to express itself to the street of a particular way—although in the pre-pandemic city, in the vast majority of cases the furniture was standard and common to a few models, offered in most cases by a few beverage distribution companies.

There are also some specific regulations for some neighbourhoods, such as those defined in the ordinances as (1) areas of territorial criteria—with a high concentration of uses, especially squares, boulevards, promenades and avenues; and (2) areas of excellence—that stand out as a “uniques area of the city, either because of the characteristics of the road or roads affected, the architectural environment, the tourist concentration or the intensity of the commercial offer” [58]. These special regulations regarding colour, materials and design of the elements composing terraces are fundamentally aimed at controlling gentrification in

pedestrianised environments, such as the old town and in Gracia or some particular streets, such as Rambla de Catalunya Promenade.

Additionally, in May 2020, the City Council began to promote exceptional licences for the occupation of public space by terraces to favour the economic reactivation of restoration and at the same time to promote a new socialisation conditioned to social distancing. As a consequence of that public decision that implied the rethinking of the configuration of the urban landscape, the 2022 revision of the ordinance incorporates a new possible location for terraces: on the roadway, in a place used until now exclusively by cars, freeing up parking spaces protected from traffic by means of Jersey bumps or temporary bollards, in a first instance, and on approved platforms in a second phase.

As a result, since May 2020, Barcelonan streetscape was linked to the terraces in diverse forms: to the existing units in 2019, new terraces were added on the pavements, squares or ramblas or pedestrian streets, and, exceptionally, on the roadway. Additionally, some of the previously existing terraces were extended to the pavement and others, to the asphalt. Figure 1 compiles a series of photographs that show this variety of positions, the ones in the two last rows being those related to this new location on the roadway.

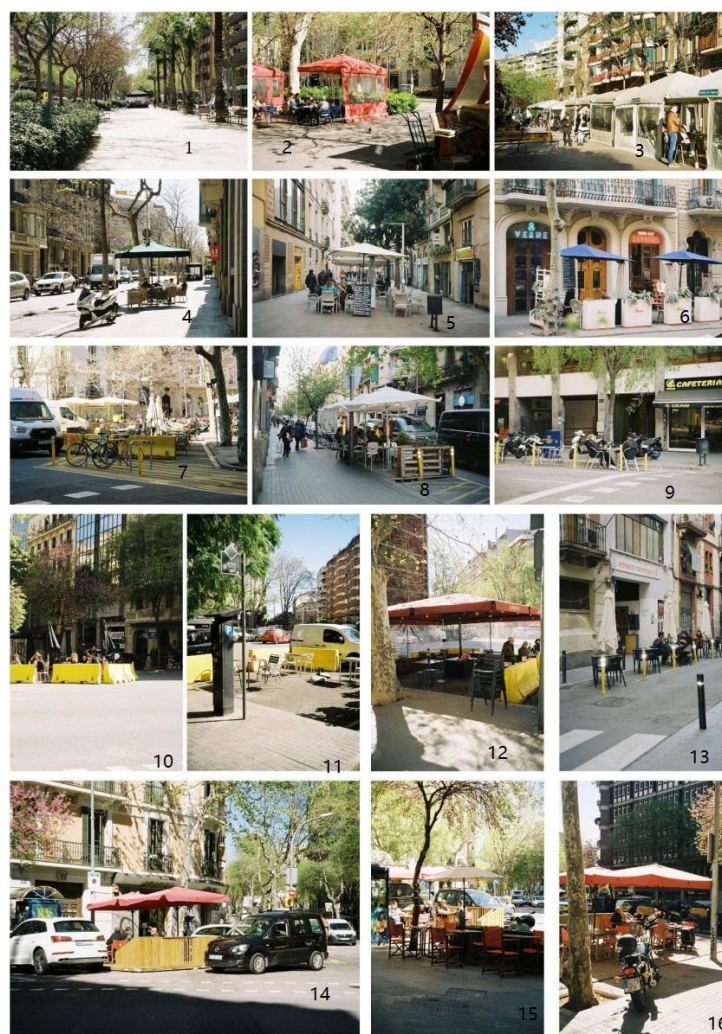


Figure 1. Terraces in Barcelona and different relations established with the street (2022). On boulevards (images 1–3), sidewalks (4,6) and pedestrian streets (5), as they were being arranged before the pandemic; on chamfers protected by Jersey bumps (7,10–13); in parklets protected by bollards (8,9,14); on the new approved platforms (15,16). Source: Author’s elaboration.

Later, in accordance with the aforementioned initiative to consolidate exceptional terraces launched in September 2020, four platform prototypes were designed and began to fortify some of the terraces that appeared on the asphalt. The platforms are to have, according to the new regulations, a range of standard dimensions related to the measurement of the table with chairs module, and they must respect certain relative distances between them. However, these prefabricated elements—made by wood or concrete—are the only ones to remain visible in the public space for 24 h: in accordance with the ordinances and already as required and the pre-pandemic regulations, the owners have the duty to remove the basic and accessory elements from the space for public use on a daily basis when the premises are closed, to always leave the pedestrian itinerary free of obstacles. A decision that frees the urban landscape from the daytime domestication to which the streets are subjected, and that is the biggest difference with the case of the terraces of Milan, which are explained below.

Another distinctive fact compared to Milan is that regardless of the type of street in which they are located, the regulations require terraces to detach themselves from the facades, so the number of tables they can have is maximised; if they were attached to the facades, there would be less because they would have to be interrupted at each access door and each shop window. The facade of the building would protect the terrace and awnings and sides would easily make it an extension of the interior.

3.1.2. Mapping Pre- and Post-Pandemic Conditions

The first series of maps produced for this research compares Barcelona in 2019 and in 2022, before and after the lockdown (Figures 2 and 3). They have been elaborated by the geolocation of datasets available at the Open Data Barcelona repository, namely the Authorizations for Ordinary Terraces on Public Ground in the City of Barcelona (second semester 2019 and 2021) [59] and the Authorizations for Exceptional Terraces (decree 21/5) on the Public Ground in the City of Barcelona (December 2021) [60], which provide information on the location of the terraces, their position in the public space and the number of tables and chairs they have.

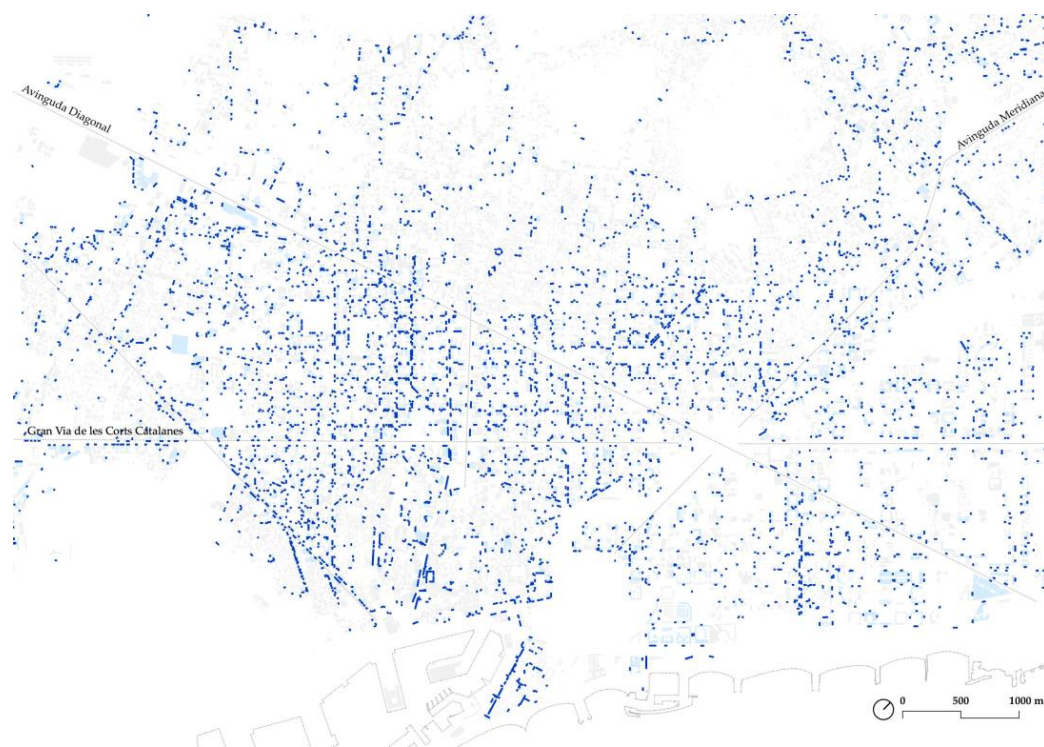


Figure 2. Map of restaurants, bars and other premises with terraces in Barcelona (2019). Source: Author's elaboration.

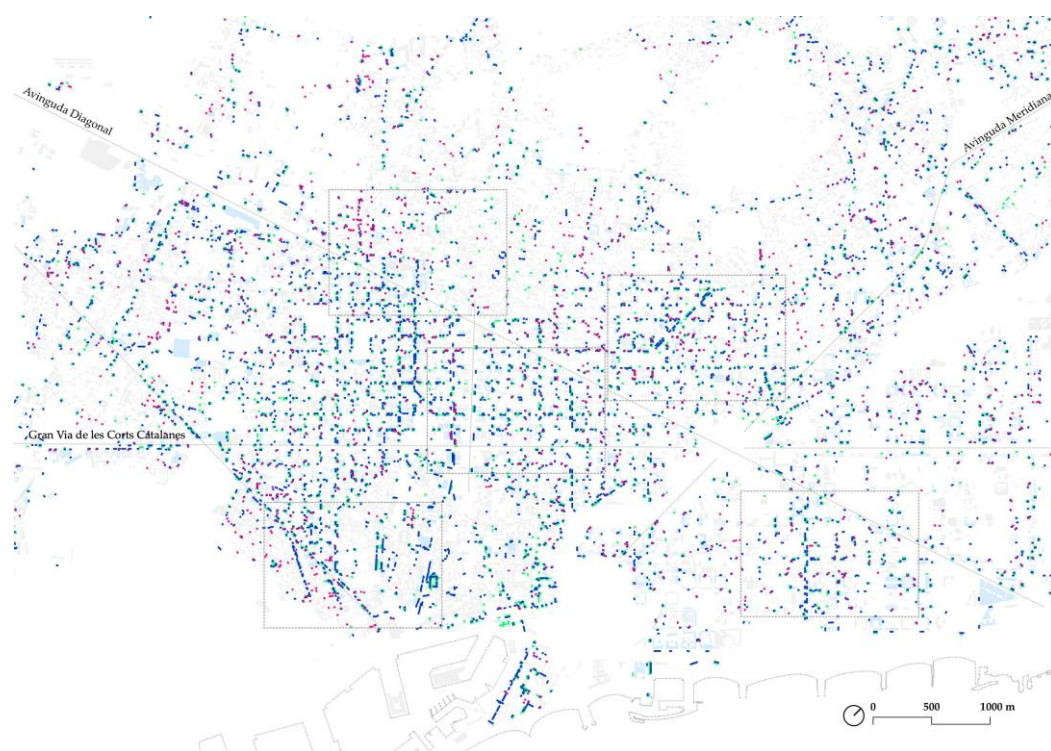


Figure 3. Map of restaurants, bars and other premises with terraces in Barcelona (2022). In green and red, exceptional terraces appearing since Spring 2020 on pavements and on the asphalt, respectively. Source: Author’s elaboration.

The aforementioned databases have been the basic materials to produce cartographies. To start with, duplicates by location and attributes have been cleaned and plotted in the format of a shapefile geospatial vector data file (SHP), ETRS89. This layer has been linked with food premises registered at the Economic Activities Census on the Ground Floor of the City of Barcelona (2019) [61] that geolocates activities at the ground floor level in an open database. The resulting dataset offers a single point-layer gathering the existing data on terraces—surface, tables, chairs and location—together with the type of economic activity. Each terrace has been linked with the nearest facade and sidewalk, thus giving a more precise cartography of the location of the terraces within the street section. The shape and size of the depicted terraces in the series of maps is a simulated rectangular area proportional to the number of tables and occupancy ratio— 2.25 m^2 per table. Finally, information coming from the Authorizations of Exceptional Terraces has been used to adjust their location on the street section.

Figure 2 maps by blue dots all commercial premises related to food—bars, restaurants and hotels, but also bakeries, delicatessens and other types of premises likely to have an outdoor occupation registered—and highlights those having a terrace in 2019. Figure 3 shows the same situation in 2022, with some nuances to take into account:

- The map distinguishes the terraces with an ordinary licence (blue dots) from those with an exceptional licence (red dots for those placed in the roadway; green dots for those on the pavement). In the case of terraces on the pavements that may have occurred between 2019 and 2022, some of them are new terraces and others are extensions of the existing ones. Those are graphically represented next to the previous terrace in blue.
- The terraces officially registered in 2022 have been assigned to the establishments registered in the 2019 census, as far as this research is concerned, as an updated census of activities has not yet been published. Therefore, those new terraces that did not coincide with a food establishment have been classified in the “other” category (see Section 3) even though it may be some other category of premises.

3.2. Two Looks at the Terraces in Milan: Before and after the Lockdown

As for Milan, the literature regarding the food system and retail in relation to the urban space is not as extensive as in the case of Barcelona. Notwithstanding, since EXPO Milan 2015 there has been a growing interest in some of these issues; the theme of the World Exposition—Feed the Planet, Energy for Life—helped stimulate the discussion on food, its aesthetic, symbolic and cultural importance, and on sustainable, organic and proximity agriculture, such as the case of Carlo Ratti Associati's Pavilion for the exposition, Future Food District (FFD), a real supermarket where people could interact with and buy food.

Following an evaluation of existing urban policies and organisations, the City of Milan encouraged various institutions, companies, universities and citizens to take interest and became more active in the field. One of the legacies born out of Expo 2015 was Food Policy Milan, a tool to support city government, built through the active contribution of a wide range of social, economic and institutional actors. Together with the research centre Està—that had started researching this subject back in 2014—Food Policy published in 2018 a report on the city's food system [62], in order to provide institutions, communities and the private sector with a clearer picture of the subject.

3.2.1. Terraces in Milan: Five Types of (Un)Occupation of Public Space

The regulations used—as a reference—are the Regulation of the Right to Occupy Public Ground, (...) [63] published by the City Council of Milan in 2000 and amended in 2015, and the Regulation on Temporary Public Ground Occupation Authorizations [64] published in December 2020. Contrary to what happens in Barcelona, in the case of Milan, the position of terraces is not always fixed by the regulations, but of course depends on the structure and the section of the street. According to their location and form, terraces in Milan can be classified in:

- Pavements: attached or separated from the facade—when the width of the sidewalk allows it. By regulation, they cannot exceed half the width of the pavement and have to guarantee a free passage space of more than 2 m. Therefore, they are usually placed on sidewalks wider than 3.5 m.
- Pedestrian spaces, such as squares and single-platform streets; there is more freedom in terms of where to place the terrace, and, therefore, there is usually greater variation in the typologies. In these cases, terraces usually do not have fixed structures; that way they can be removed more easily and allow for another use—for example a weekly market.
- Roadway: when the pavement does not support a terrace—due to its width or an intense flow of people—or to extend an existing terrace. They are often placed using a platform that guarantees accessibility and a certain separation from cars. This typology, known as parklet space, is the one that has become more widespread since 2020 thanks to the temporary licences that have allowed terraces to occupy parking spaces.
- Dehors stagionali e controventature [seasonal enclosed terraces and fixed structures]: enclosed structures are attached to the facade when the width of the sidewalk allows it and this does not impede the passage of pedestrians. By regulation, they cannot exceed half the width of the sidewalk and have to guarantee a clear passage space of more than 3 m. Therefore, they are usually placed on sidewalks wider than 5 m. In other cases, the structures are separated from the facade and placed either on the sidewalk or other pedestrian spaces, or on the roadway.
- Kiosks and other isolated elements: placed in free pedestrian spaces, detached from other buildings—usually parks and squares—or in empty and unused spaces, such as traffic islands and roundabouts.

Despite this categorisation, and contrary to what happens in Barcelona, it is important to note that this classification is independent of the layout of the street so that in the same public space different ways of occupying it could be found in the pre-pandemic city. If several conditions apply at the same time, establishment owners can decide independently which typology to use. In other cases, even with only one terrace on the sidewalk, hybrid

situations occur. When the position of the premises allows it, people will take over—seated or standing—the space on the pavement, the street, the park or the square in the vicinity of the premises—beyond the perimeter of the terrace.

What is most characteristic of the Milan case study is that in many establishments the terraces are not removed after closing. In others, the chairs are simply stacked and left in the street, sometimes protected from the rain by the terrace roof. In some cases, the furniture is tied up, in others it is not. In addition, in autumn and winter they are enclosed and semi-permanent structures begin to multiply and become a new urban artefact.

Terraces, as well as commercial spaces, streets and squares, have a moment of activity—and they are usually designed according to the peaks of intensity of use and flows—and a moment of inactivity, when they are unused and empty. The city in the way it is understood, and the streets as they were described by authors of the last century, such as W. H. Whyte [52], are dynamic places, centres of social, cultural, commercial and economic life. Yet, this is not true at all times of the day, nor on all days of the week or in all seasons of the year.

Empty terraces, as shown in Figure 4, embody this contrast: when open, they are the ultimate expression of social life in the contemporary city; when closed, they become mere artefact objects, almost the ruins of sociality, the expression of the inactive city.

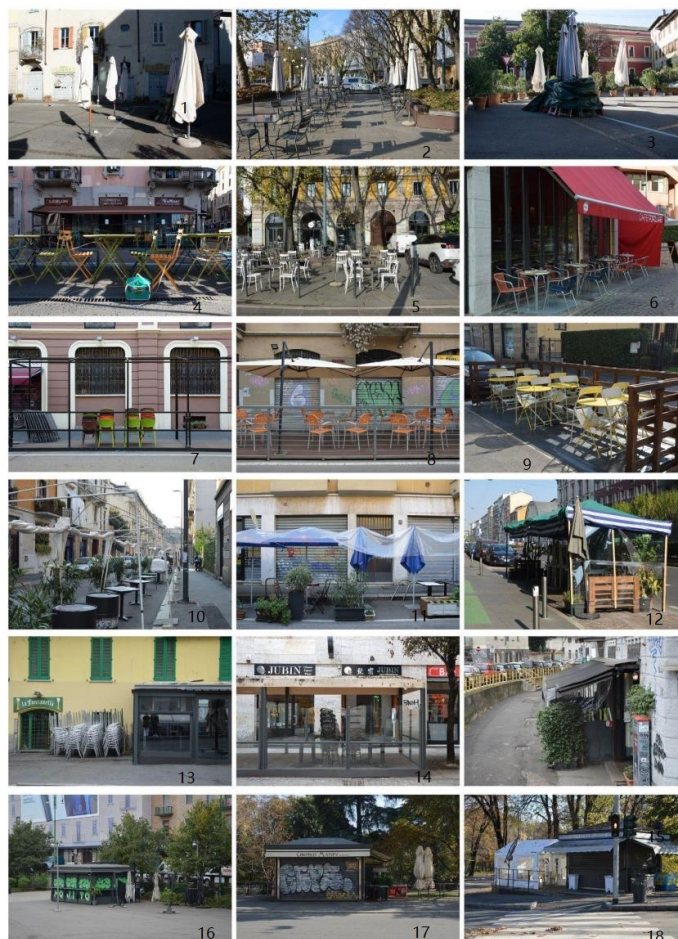


Figure 4. Terraces in Milan during closing hours (2021–2022). The photographs are arranged according to the type of terrace and their position in the street: the first and second rows show terraces on pedestrian spaces (1–3) and on the pavement (4–6); in photographs (7–12) roadway terraces are represented, placed with (7–9) or without (10–12) a platform; the last two rows show enclosed structures, in (13–15) enclosed terraces (*dehors stagionali e controventature*) and in (16–18) kiosks, i.e., isolated structures placed close to parks or on pedestrian spaces. Source: Author’s elaboration.

3.2.2. Mapping Pre- and Post-Pandemic Conditions

The second series of maps (Figures 5 and 6) for their part, show frames comparing outdoor terraces in 2019 and in 2022, before and after the lockdown. They were elaborated using the geolocation of terraces available on the Open Data Portal [65] of the City of Milan: the Authorizations for the Exceptional Occupation of Public Ground (2020 [66] and 2021 [67]), i.e., pavement licences granted in accordance with COVID-19 regulations, which provide information on the number and the location of these temporary terraces.

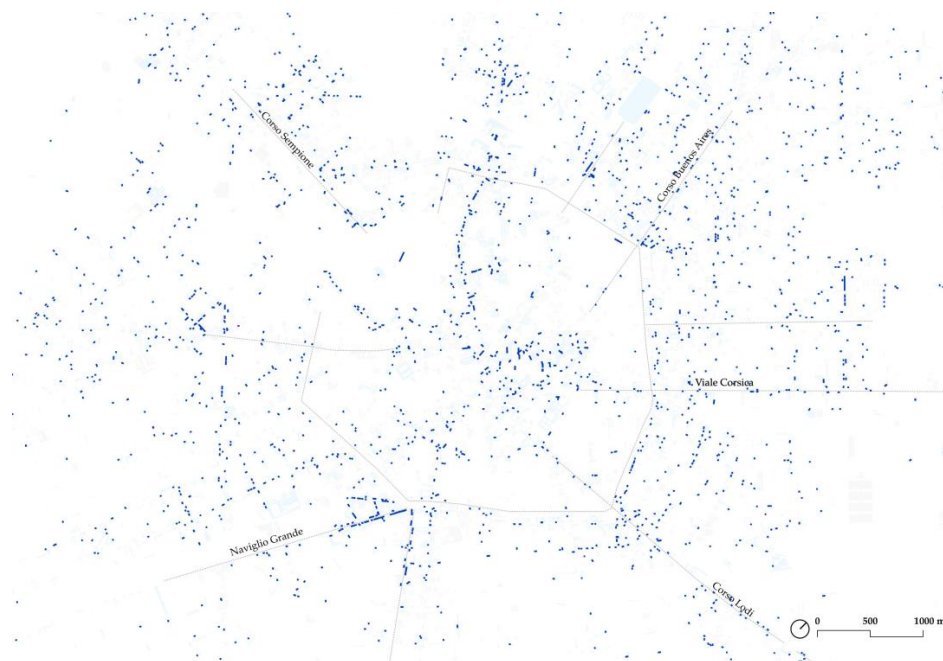


Figure 5. Map of restaurants, bars and other premises having terraces in central Milan (2019). Source: Author's elaboration.

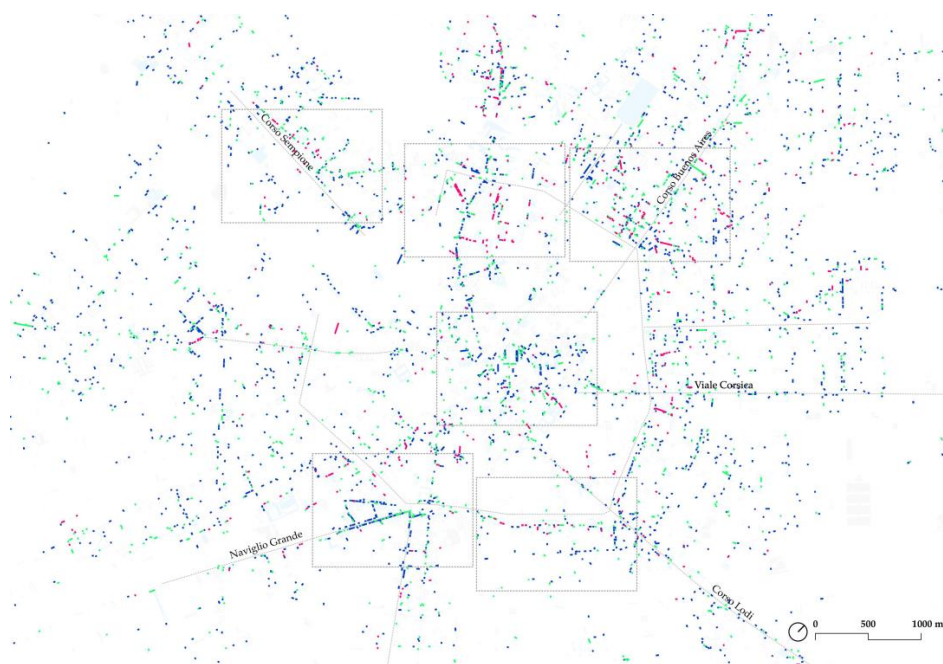


Figure 6. Map of restaurants, bars and other premises with terraces in Milan (2022). In green and red, exceptional terraces appeared since Spring 2020 on pavements and on the asphalt, respectively. Source: Author's elaboration.

In addition to this data, information regarding the number and position of ordinary terraces in Milan in 2019 and 2021 was obtained thanks to the *Unità Occupazione Suolo e Sottosuolo Pubblico, Area Pubblicità e Occupazione Suolo* (Milan City Council). For these two layers, an automatic geolocation using *geopy* Python libraries and Google Maps Geocoding API using the address information provided. In the section “Stato” [State] of the tables, the terraces are divided into active and inactive. For the purpose of this study, those that are “inactive” have not been considered. The information provided in this dataset also gives information regarding the typology of terraces according to the label “tipologia”.

These layers have been linked with food premises registered at joint food activities census elaborated for this research from the sum of a number of open databases published by the municipality in 2018 [68]: Commercial Activities: Public Establishments [69], Artisanal Activities: bread production and distribution [70], Artisanal Activities: food sector [71], and Small scale Commercial Activities [65]. The resulting novel dataset offers a single point-layer gathering the existing data on terraces—occupied surface, type of terrace and location—together with the type of food-related activity. Each terrace has been linked with the nearest facade and sidewalk, thus giving a more precise cartography of the location of the terraces within the street section. Finally, the size of each terrace has been simulated by considering an area proportional to the total licensed surface registered at the database.

The graphic criteria are the same as those described above for the case of Barcelona and the terraces with an ordinary licence are represented in blue dots, those with an exceptional licence placed in the roadway in red dots, and finally, those that extend pre existing terraces on the pavement in green dots. As in the previous case study, in terrace extensions that may have occurred between 2019 and 2022, they are represented graphically merged with the terrace they extend so the green dot is seen above the blue dot it overlaps.

4. Results

The results are based on the reading of the prepared maps, which show the image of both cities before and after the pandemic and relate them to the number of restaurants. The elaboration of the maps allows, on the one hand and as described above, to eliminate duplicates in the databases and to quantify and qualify—in terms of units, location, surfaces and proportions—the terraces in both cities; and, on the other, visually analyse the image of the city and detect some patterns of concentration or dispersion.

Although the inequality of the starting data has not allowed a mimetic comparison between both cities, it is possible to verify some starting hypotheses that allow framing the final discussion.

4.1. Terraces in Barcelona: Almost a 25% Increase in the Presence of Terraces in the Public Space

According to the quantification of activities established in the Study of Commercial Activities in Barcelona 2019 [72], there are a total of 55,824 active premises on the ground floor occupied by shops and services, which represent 90% of the total of activities. Food suppliers represent around 12.8% (7851) and restoration and hospitality 18.1% (11,155), which means that at least 30% of the commercial premises on the ground floor in the city are likely to have an extension to the street in the form of a terrace.

There were 5585 terraces in Barcelona in 2019, which means that 16% of all premises likely to have them (34,173) had an official licence to extend their activity to the street. This figure increased to 6699 in 2022, which implies almost 20% of the premises are considered likely to have them. In addition, it is noteworthy that 40% (2270) of the existing terraces in 2019 were extended through exceptional licences in the period of three years.

These general data are nuanced and explained in the following graphs. On the one hand, Figure 7 represents the number of the terraces corresponding to each category of the premises that offer the possibility of drinking or eating on the street. If terraces have increased almost 25% in the period 2019–2022, bakeries and prepared food plus take-away establishments are the two types of food-related premises that show the greatest growth in number of terraces, with a presence of 430 (a growth of 26%) and 379 (22%), respectively.

They are followed by restaurants and bars, the most numerous on the streets, with 2728 terraces (with a growth of 18% in the triennium) and 1855 (growth 14%).

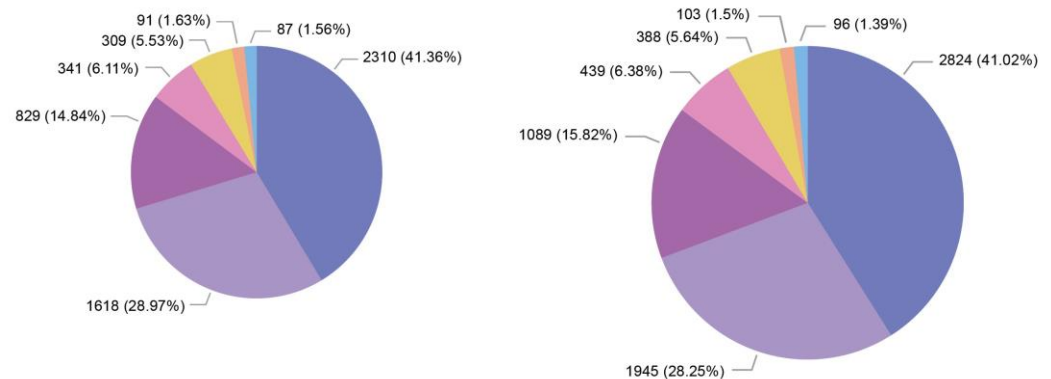


Figure 7. Types of street commerce with terraces in Barcelona (2019, **left**, and 2022, **right**). Dark blue: restaurants; lila, bars; pink, bakeries; yellow, take-away; orange, deli stores; light blue, hotels; purple, others. Source: Author's elaboration.

On the other hand, Figure 8 shows data according to the position of the terraces in the public space. If in 2019 the 5585 terraces occupied 61,793 m² of pedestrian space, in 2022 this area would have grown to almost 75,400 m² (an increase of 22%). In addition, almost 10,500 m² of asphalt have been occupied with terraces, which represents 12% of the more than 85,000 m² of public space dedicated to terraces. Ongoing research by the authors, not yet published, works on the hypothesis that Barcelona has 16,486,518 m² of pedestrian space—including sidewalks, squares and parks—so that this total figure occupied by outdoor dining venues would represent a very small proportion, less than 0.5% of the total extension of urban pavements.

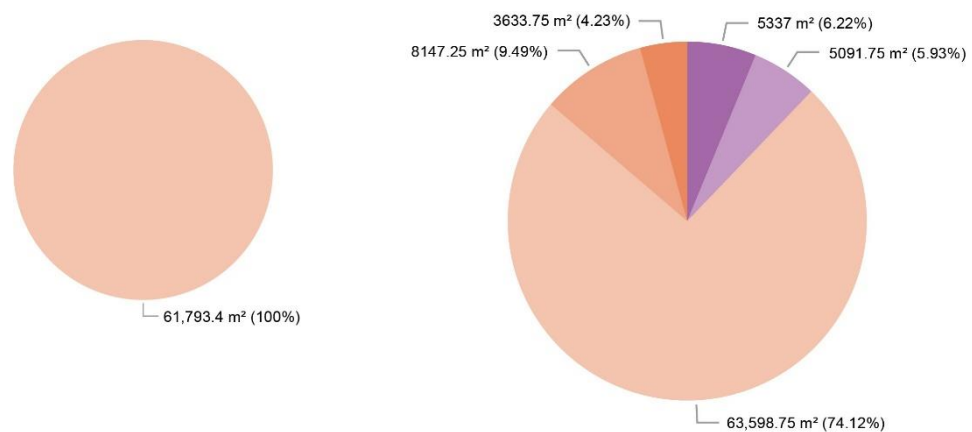


Figure 8. Types of terraces in Barcelona according to their position in the street (2019, **left**, and 2022, **right**). Light orange, pavement terraces; medium orange, pavement extensions; dark orange, new terraces; dark purple, roadway extensions; light purple, roadway new terraces. Source: Author's elaboration.

Beyond the numbers that indicate the multiplication of the terraces in all categories, the variety of restoration services that extend their activity through a terrace also implies a diversity of outdoor gastronomic offer and overlaps in hours of use. In addition, the type of position implies a diverse easement in relation to the pavement and the different modes of circulation; the occupation of roadways, which can be explained by the very proliferation of the number of terraces, has made the debate about the privatisation of public space by terraces lean towards the discussion about the conquest of space by cars over pedestrians.

In addition, according to the Oficina Municipal de Dades [Municipal Data Office] [73]—which offers data on bank card purchases from the sector of economic activity—not only

have terraces multiplied but consumption in bars and restaurants has also increased. The information, presented as percentages of variation over the same period of the previous year in a weekly data collection, shows a growth trend in consumption in restaurant establishments of around 30% month-to-month between 31 December 2018 and 2 March 2020, with spikes of 42% (18 March 2019); 63% (25 March 2019); 50% (1 April 2019); and 47% (7 October 2020). The spending growth before the lockdown on 2 March 2020 was 26%; from 9 March 2020 a negative growth streak began that will last one year. In this period, the maximum decrease in consumption in restaurants was registered on 23 March 2020, with 93% less income than the same date of the previous year. The recovery began on 31 May 2021, reaching a maximum of 207% of spending on 1 November and stabilised in positive growth figures, with some lower peaks coinciding with the waves of resurgence of the pandemic. The variation in income of 89% on average in restaurants and bars shows an increase in the use of these restoration establishments above the losses they had suffered during confinement.

These data are even more revealing when compared to the evolution of expenses in other sectors: for 23 March 2020, the reduction in expenditures was a 57–60% lesser decrease than in the hospitality sector, and the average increase in expenses since 24 March 2021 has been 35.57%—more than 2.5 times lower than in the hospitality sector.

4.2. Barcelona beyond the Eixample Grid: New Main Streets and Squares

This section displays a topological reading through different zooms into fragments of the city in which it is possible to observe with detail the information displayed in Figure 3. In them, while the blue hatch represents ordinary terraces—both those already existing in 2019 that remain active three years after and the new ones; green hatches represent the extensions of pre existing terraces that appeared in the pavements and red hatches those installed on the roadway. The comparison between fragments allows highlighting patterns of concentration—linear, clusters, scattered but constant—and intensification in the process of reconfiguration of the urban landscape in post-pandemic times.

Figure 9 shows an heterogeneous fragment of central Barcelona comprising the old town, the Eixample grid and Poble Sec neighbourhood in which it is worth mentioning:

- The “silence” in the old town, due to the aforementioned specific regulation to which the occupation of public space in the heart of the city is subject. According to this ordinance, it has four unique spaces: Rambla del Raval, Plaça Reial Square, La Rambla, Plaça Comercial Square and the surroundings of the Born former market. In this sense, while La Rambla was already at the limit of its occupation and has not undergone transformations between 2019 and 2022, the Rambla del Raval and the Plaça Reial Square have expanded their sidewalk terraces.
- The ordinary terraces under the arcades of Plaça de Sant Josep, around La Boqueria Market, also stand out in the image; although they have not increased in number or area, they are a complement to the emptiness of terraces on the nearby fragment of La Rambla.
- The image also shows some scattered patterns of terraces in the old town, most of which have not been enlarged. The intersection between the Doctor Dou and Pintor Fortuny streets stands out, a regular fragment in which most of the terraces have an exceptional licence and are placed on the asphalt.
- Poble Sec neighbourhood presents a differentiated behaviour. Blai Street, which for a decade before the pandemic was the core of the suburban fabric because of its concentration of terraces, has now found echoes in both sides in Vila i Vilà Street and Sortidor Square, former pedestrian spaces whose terraces have been extended. Simultaneously, many terraces—especially in cross streets—have appeared, and due to the narrow-facade plots, they provide an image of a new scattered intensity. It should be noted that, due to the size of the sidewalks and the lack of pedestrian streets beyond those mentioned above, these new exceptional terraces that dot the neighbourhood do so by occupying space on the roadway.

- The triangular fragment of Eixample visible in this frame stands out for the large number of terraces it has in all its formats: ordinary, ordinary extended on the pavement, ordinary extended on the asphalt and exceptional both on the pavement and on asphalt. It could be said that this small piece of the grid is representative of the diversity of occupation in the post-pandemic public space. The streets bordering this triangle, Paral·lel Avenue and Ronda de Sant Pau Boulevard, are also representative of this variety.



Figure 9. Central Barcelona: Poble Sec neighbourhood, a fragment of the Eixample grid between Paral·lel Avenue and Ronda de Sant Pau Boulevard and the old town (with Rambla del Raval, La Rambla and Plaça Real Square) as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

Additionally, in the map of pre-pandemic Barcelona (Figure 2), some linear patterns of concentration of terraces can be read that respond to various reasons: to the centres of neighbourhoods with high residential density—such as Paral·lel and Fabra i Puig Avenues or Joan Güell Street; places where public space has been redeveloped to give preference to pedestrians—such as Marià Aguiló, Rogent, Blai, Vila i Vilà, Enric Granados streets, Rambla de Catalunya or Carretera de Ribes; or spines in tourist places—such as Las Ramblas, Passeig Joan de Borbó or Avinguda Gaudí.

The comparison between 2019 and 2022 (Figures 2 and 3) shows that while some streets translated into linear patterns of terraces were already at the limit of their occupation before pandemic and have remained practically the same—as in the case of Passeig de Joan de Borbó or Rambla del Poblenou—in other cases, the exceptional terraces have filled the continuity in the axis—as in Paral·lel, Avinguda Gaudí or Enric Granados street.

In this sense, a close zoom to Sagrada Família neighbourhood (Figure 10) shows an asymmetrical pattern, with terraces on the roadway on Padilla Street between Provença and Rosselló; with extensions around the Sagrada Família temple, especially on the pavement—which can be understood as an intensification of the presence of ordinary terraces, while preserving the asphalt for the loading and unloading of visitors to the monument; and with exceptional extensions to the terraces along Avinguda Gaudí. The image also highlights Mallorca Street, tangent to the south of the temple and which has a horizontal bus line,

where the already very intense presence of terraces has been intensified with extensions to the pavement.

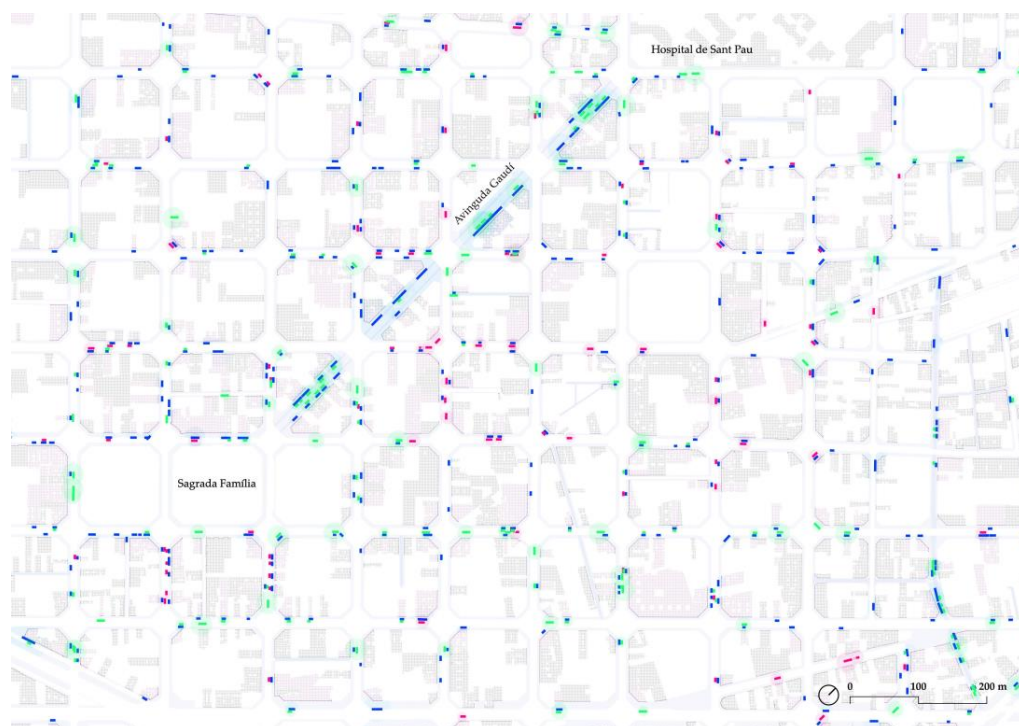


Figure 10. Sagrada Família neighbourhood between Sicília, Sant Antoni Maria Claret, Rogent and Aragó streets as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

Another interesting frame is presented in Figure 11, which shows the contrast between Gracia, a neighbourhood whose streets and squares are traditionally attributed with vitality—many of them pedestrianised—and Sant Gervasi. Whereas in the former, the post-pandemic landscape has not changed the configuration of the terraces, limited to the plazas—such as La Virreina and Plaza del Sol, in the image—to the southwest exceptional terraces have proliferated on the roadway in the Amigó, Laforja and Marià Cubí streets.

Also highlighted in the image is the linear concentration pattern on Tuset Street, the natural continuity across Diagonal from Enric Granados Street—one of the first experiments in widening pavements and pacing traffic in the city. As with the squares of Gracia, here the terraces have not increased and maintain the pre-pandemic layout. In other cases, the intensification of terraces occurs in those axes whose traffic has slowed down after the pandemic, as commented in Section 1.3, and restaurants have taken advantage of an environment more receptive to slow mobility to deploy their activity towards the street.

This is also the case of Consell de Cent Street (Figure 12) where the terraces do not occupy the asphalt but take advantage of this new greater distance from the car—materialised in a 2.5 m-wide pedestrian lane on the roadway—on the west pavement, and on a bike lane (existing pre-pandemic) on the east pavement. These streets, in which the reduction in the presence of the car translates into a greater presence of outdoor dining spaces, are an example of the success of the superblock implementation strategies. Somehow, these axes could be defined as “contemporary main streets”, in which the presence of terraces could catalyse the intensification of other daily activities.



Figure 11. Gràcia neighbourhood framed by Diagonal and Via Augusta Avenues as in 2022, 1500 × 1000 m. Source: Author's elaboration.

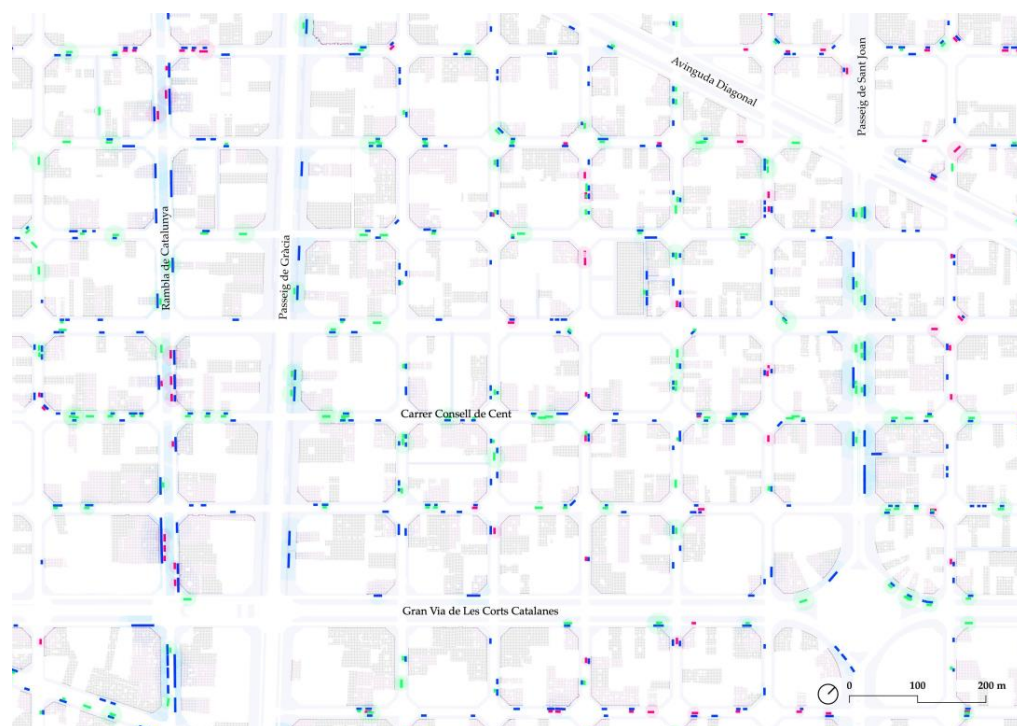


Figure 12. Consell de Cent and Girona Street between Rambla de Catalunya and Nàpols Street, as in 2022, 1500 × 1000 m. Source: Author's elaboration (Á.C.U.).

Finally, a look at Poble Nou allows one to understand how linked the presence of terraces is to everyday life. The fabric fragment shown in Figure 13 corresponds to a part of the 22@ district, in transformation for two decades. The terraces are concentrated mainly on the Rambla del Poble Nou, one of the densest residential axes in the neighbourhood,

while around it the terraces fade, becoming more and more dispersed, being placed both on the sidewalk and on the roadway without relative proximity or propinquity synergies.

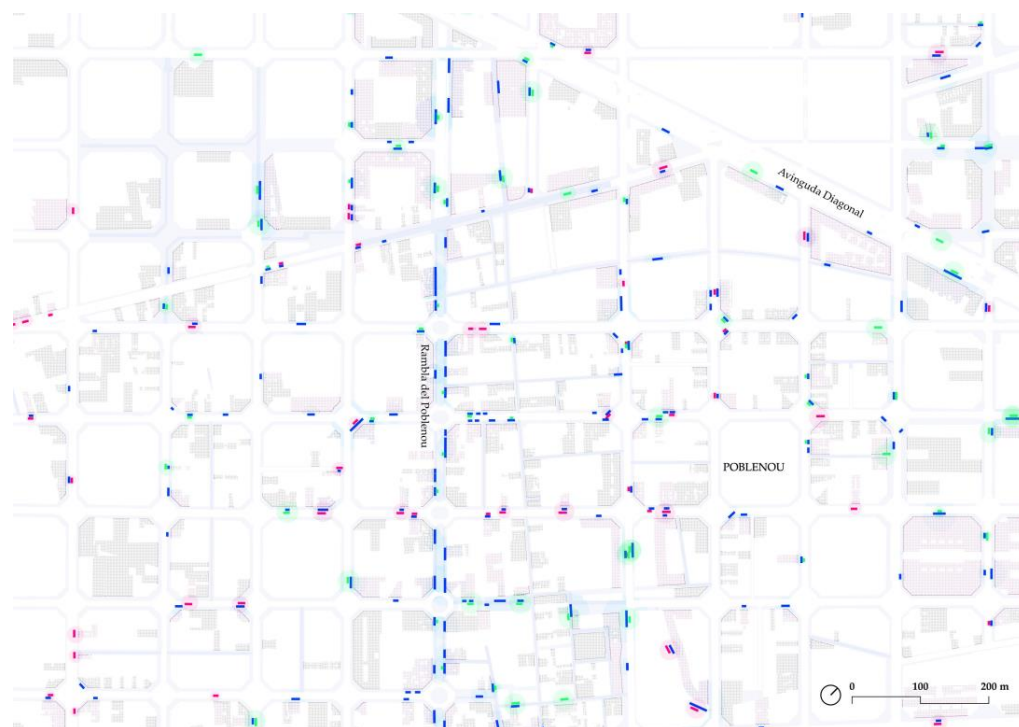


Figure 13. Poblenou neighbourhood, fragment between Badajoz, Fluvià, Marroc and Trueta streets as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

4.3. Terraces in Milan: A 50% Increase in the Occupation of Public Space

In the case of Milan, the number of active food establishments coming from the different databases used explained in the previous section is the following: around 8503 premises are considered in the list of establishments, such as bars, restaurants or pubs contained in the Commercial Activities: Public Establishments [69]; a dataset of 420 activities related to bread production and selling comes from the Artisanal Activities: bread production and distribution [70]; 1541 entities are registered, mainly related to food production activities, such as ice-cream, pizzerias, pastry shops, kebab and rotisseries, come from the Artisanal Activities: food sector [71]; and finally, a list of 27,258 neighbourhood businesses with a sale area not exceeding 250 square metres comes from the Small scale Commercial Activities [65] dataset. Of them, only 4299 are explicitly related to alimentary premises, either described as food establishments according to label “settore_storico_cf_preval” (2182 units) or with no further information than being described as “Alimentare” (2117 units). The sum of the aforementioned datasets gives a total amount of 14,763 active food establishments in 2018.

There were 3308 outdoor terraces in Milan in 2019, which increased to 7729 in 2022. This is the result of the sum of 4211 ordinary terraces in 2022 and 3518 exceptional licences granted in 2020 (774) and in 2021 (2744). Therefore, 45.52% of the authorizations that exist in Milan at the present time have been granted through exceptional licences.

Out of these, 1169 exceptional licences were considered extensions of existing terraces, as they refer to the same address of a previously established terrace. As a result, the net number of food establishments that own a terrace in Milan is 6560. These figures demonstrate the number of outdoor terraces has grown by 49.57% in the past three years (2019–2022), an increase favoured especially by the possibility to obtain a licence free of charge, either to set up or to extend an existing terrace.

The data show at least 814 out of the exceptional terraces are located on the roadway—as seen in Figure 8, in red—which would make up around 23% of the licences; roadway

terraces, in fact, were especially encouraged from 2020 onwards, as a means of facing the lack of pavement or pedestrian exterior space where food establishments could set up or extend their terrace. As for the remaining terraces (2704), they have been considered pavement terraces, which would include terraces located on the pavement or other pedestrian spaces.

Furthermore, the data on ordinary terraces provides additional information regarding the typology of terraces—in the section “tipologia”. Out of 4211 ordinary terraces in 2022, 3006 were made up of tables and chairs; 1038 by tables and chairs with screens; 119 by enclosed structures separated from the facade and 48 by enclosed structures attached to the facade. Therefore, only 4% of establishments had an enclosed terrace (dehors).

4.4. Milan: Terraces as Elements That Contribute Gaining Road Space from Cars

Figures 5 and 6 for Milan are also explained in detail through crops that show six fragments of the city in comparison; the graphic criteria is the same as that used in the case of Barcelona, explained in Section 4.2.

Through these figures, it is possible to see how terraces have consolidated their role as public spaces and contribute to gaining road space from cars, reviving streets that formerly had no activity. In this respect, it is important to mention the case of streets that have become Zone 30 [30 km/h zones] and Zone 15 [15 km/h zones] (see Section 1.3), allowing the expansion of terraces onto the roadway. Some examples are: Via Varanini and Via delle Leghe (NoLo neighbourhood) with narrow streets, which have become Zone 15, and where it was decided to substitute all parking spaces with terraces; and Via Borsieri (Isola neighbourhood), also Zona 15, where the existing terraces have expanded taking up two-thirds of the roadway, leaving only one car lane and no parking spaces.

The area of Porta Venezia (Figure 14) is densely occupied by commercial and food premises. A commercial area during the day, the great number of restaurants and bars open at dusk make it one of the centres of Milan’s nightlife. The axis of this nightlife are Via Lecco, a narrow street where the number of terraces has increased considerably, both on the pavement and on the roadway, and via Melzo—already densely occupied by terraces in 2019—where the growth can be seen mainly in the adjoining streets. It could be said, in fact, that these streets are the main axis, but the expansion of terraces is consistent throughout the area.

In the area around Bocconi University (Figure 15) between the more established areas of Porta Romana (to the right) and Navigli (to the left), terraces have expanded along Viale Bligny, a street with very narrow sidewalks where the new regulations have allowed commercial premises to extend onto the roadway, occupying parking spaces (parklet spaces).

In the area between Via della Moscova and Porta Garibaldi (Figure 16), it is possible to observe two different patterns; on the one hand, the case of Corso Garibaldi, a major axis of the city—connecting the areas of Garibaldi and Duomo—and a densely occupied commercial street, where there was already a great number of terraces, and, on the other hand, Via Alessandro Volta, an extremely narrow street, where there were no terraces before because the width of the pavements could not allow it, and which is now densely occupied by exceptional terraces located on the roadway (parklet spaces).

On the southern end of Corso Sempione (Figure 17), where the street meets the square—Piazza Sempione—around Arco della Pace, the number of terraces has grown considerably since 2019. This is a mainly pedestrian area with only one car lane and no parking spaces. Therefore, the terraces are all located on the pavement, because the space both in the square and on Corso Sempione is wide enough to accommodate a great number of terraces, including enclosed structures (dehors) and kiosks.



Figure 14. Porta Venezia as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

On the opposite end are the cases of Via Piero della Francesca, a narrow street where the number of terraces has grown considerably, especially on the roadway, and Via Paolo Sarpi, a pedestrian and commercial street where there has been a great increase in the number of pavement licences.

In the central area of Duomo—the main tourist attraction of the city, depicted in Figure 18—already densely occupied by terraces, terraces have grown mainly on the pavement, in squares and on pedestrian and commercial streets. In the Galleria, however, the number of terraces has remained practically unvaried, as it is an extremely consolidated commercial street with mainly historical establishments.



Figure 15. Viale Bligny as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

A different case is that of the Navigli (Figure 19), a south-western area of the city that develops around two canals, Naviglio Grande and Naviglio Pavese. As shown in Figure 5, this area already had, in 2019, a very high concentration of terraces; being these pedestrian or semi-pedestrian streets with no parking spaces, they could

not expand towards the roadway, and, therefore, there has not been a great growth in occupation in the years 2019–2022, as the streets had already reached maximum capacity. Notwithstanding, the crop shows there has been a certain growth of pavement terraces, especially concentrated in the side that faces the waterfront (Darsena) and in the area around Porta Ticinese (Piazza Ventiquattro Maggio).

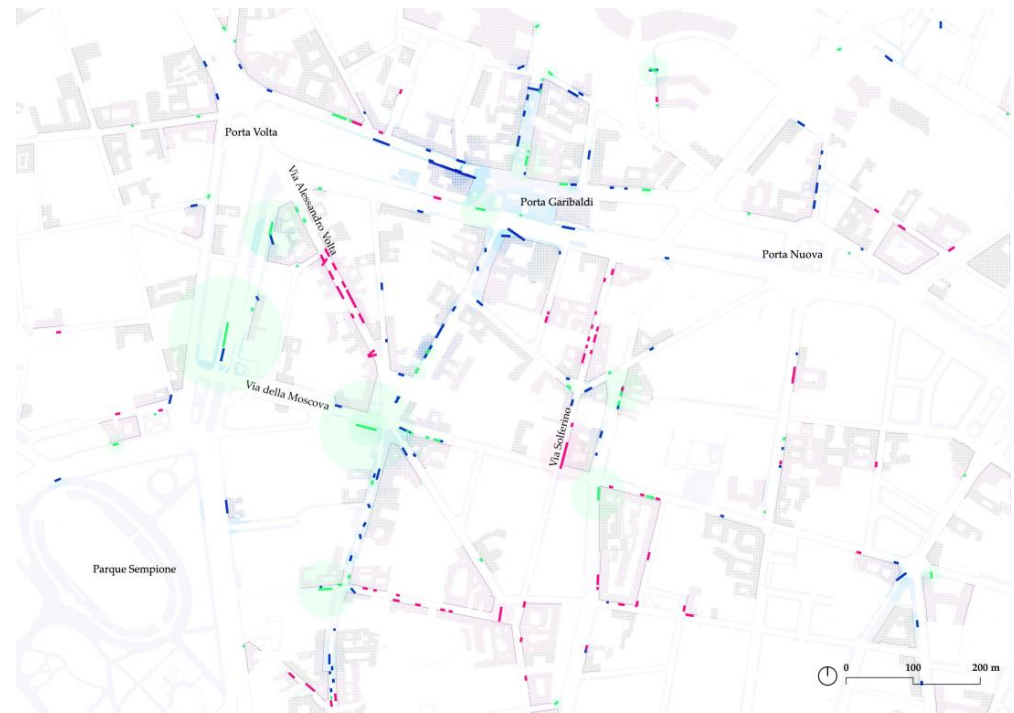


Figure 16. Via della Moscova and Porta Garibaldi as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

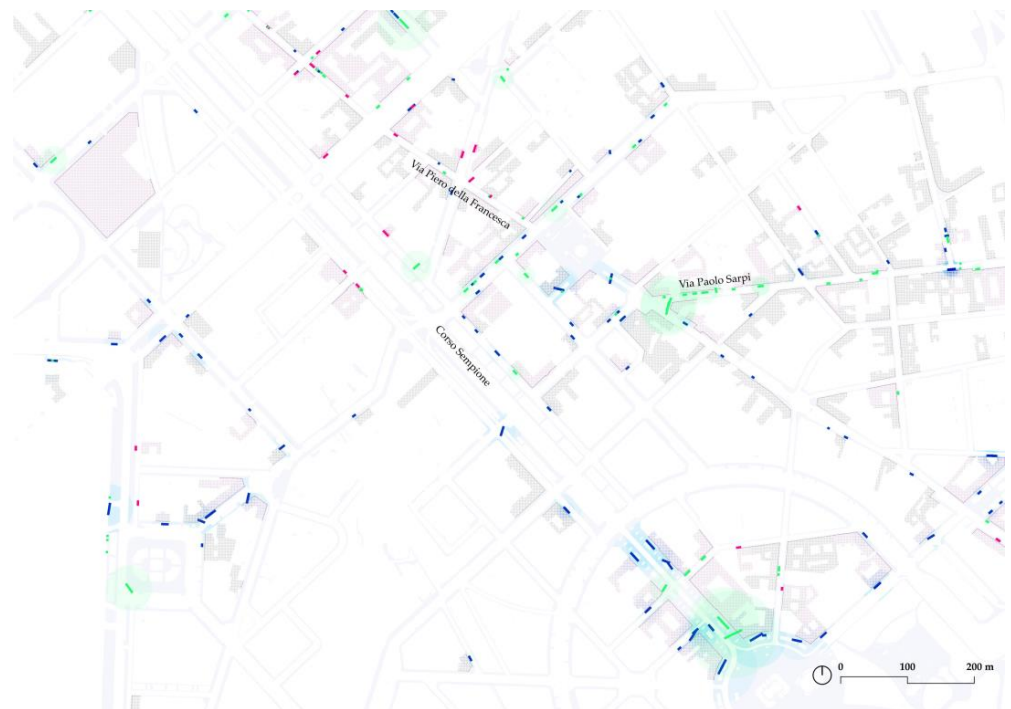


Figure 17. Corso Sempione and Arco della Pace as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

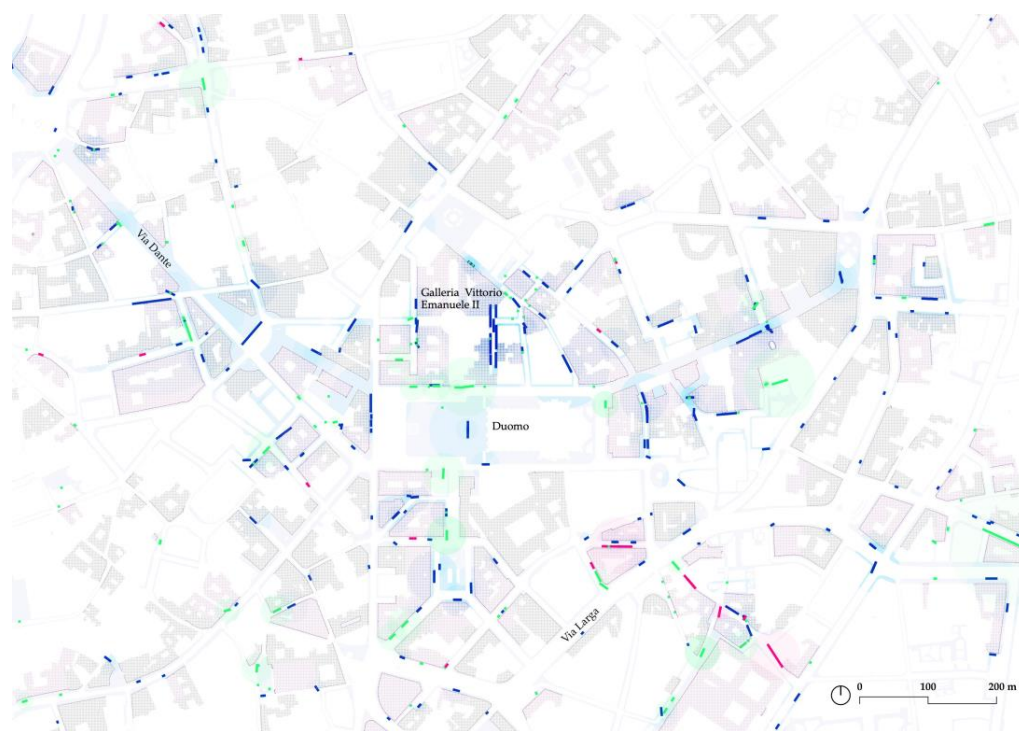


Figure 18. Central Milan around Duomo as in 2022, 1500 × 1000 m. Source: Author’s elaboration.



Figure 19. Naviglio Grande, Naviglio Pavese and Porta Ticinese as in 2022, 1500 × 1000 m. Source: Author’s elaboration.

5. Discussion

There are different reasons that make this research a sum of case studies rather than a comparison between one and another. On the one hand, the starting data are not equivalent for both cities but rather respond to the availability of open information or to that provided for the investigation by the municipalities in each case. Despite the asymmetry of the

data managed and described, the information collected allows some parallelisms to be made and common hypotheses to be drawn up. On the other hand, according to the figures obtained, the proportional growth in the number of terraces in Milan in the last three years has been two times greater than that of Barcelona and, therefore, the two cities present different patterns of transformation of the urban landscape. Finally, the on-site observation documented in the photographs in Figures 1 and 4 does not capture mirror situations but instead focuses on the uniqueness of the phenomenon in each city, that is, on the formalisation of terraces through tactical urban planning actions or the homogenization through participatory design in the case of Barcelona; or on the overwhelming presence that terraces continue to have on the sidewalk when activity has ceased, in the case of Milan.

Terraces are not acts of pure occupation of public space, but in many cases, they represent the possibility of the economic survival of a restaurant or a bar. The reasons for this include the following: because the terrace becomes a tool to compete with nearby restoration premises by being visible to the street; because of the standardisation—despite the variety—of the terrace layout makes it equal to any other establishment, and the dimensions, the lighting conditions, the appearance, the music at the indoor space, do not condition what happens in the terrace; because the Mediterranean climate allows one to sit outside all year round; because drinking in the street is prohibited but drinking sitting on a terrace is not; because smoking in restaurants is prohibited but smoking on a terrace is not; and, ultimately, because sitting on a terrace means seeing who passes by and being seen by passers-by, as has been the case for two centuries.

In view of the fact that many of these terraces have consolidated their presence and that exceptionality can become permanent, it would be worth outlining some policy recommendations:

- Regarding the urban form and following the Smithsons' interpretation which separates urban elements into fixed and transient [74], shops and commercial premises are transient elements and are, therefore, considered spaces with a relatively short life cycle; terraces, as extensions of transient elements, are even more ephemeral. Temporary extensions, transitory by nature, are conditioned by the weather and the seasons, as well as being subject to constant modifications depending on changes in regulations. One could thus consider, according to this hypothesis, commercial and food premises as transient elements, terraces as transient of a transient, being then the global regulations that ordain the urban space and determine its development at the macro level the fixed elements. In the case of terraces, these general regulations would have to delimit perimeters and establish the surface area that terraces can occupy in the street without interfering with pedestrians or bicycles or hindering other activities that take place permanently or occasionally in that place. Within this general regulatory framework, terraces would be considered transient elements not fully controlled by planning regulations, free—as far as possible—to have their own development. Following the Smithson's premises, what are now considered to be regulatory gaps, would simply become an expression of the free character of these spaces, since the conflicts that most affect the public are related to the implementation and effectiveness of the rules themselves. It would be unnecessary, therefore, to standardise the furniture, the urban artefacts, the enclosed structures, the platforms—in short, to turn the overall image of the terraces consistent in an attempt to make the streets appear more “orderly”.
- However, in the formalisation of the terraces, the criteria of their exterior character should prevail; when heating or protection against the wind elements, or storage units to set the tables in a more agile way are necessary. and when the fortification is accompanied by an increase in the number of terraces, they cease to be a temporary occupation that allows collective uses to become a privatisation of public space.
- This work itself shows the result of a “regulatory gap” that must be questioned: the moment when terraces are closed in Milan, as the municipal ordinances do not establish how business should proceed at closing time, and all sorts of different situations and solutions appear in the streets. In this case, the moment of closure or inactivity of terraces is not to be understood as another expression of the transitory

character of these spaces since they have lost their essence: the link with the fact of eating in the street as explained in Section 2.3. It would be another matter if the furniture spread out on the street when the premises are closed were not always stacked or chained and civic and safe formulas were found by which they could become informal public meeting places, capable of being used by everyone without the need to consume. Some terraces could be thus imagined as places to sit outside and talk, play or work.

- Terraces have the ability to colonise all those spaces in which they did not have a prohibited presence, adapting to a wide variety of urban fabrics with disparate intensities of activity. The width of the pavement or the dimension and location of a street is a reason to allow or not the installation of terraces in it, prioritising the comfortable movement of pedestrians. Likewise, the regulations in force in both Barcelona and Milan intervene on opening hours and control the level of noise emitted from the exterior terraces in a pertinent protection of the private domestic sphere of the neighbourhood against these occupations of public space. However, the regulations do not put it in the spotlight, and could do so, the subjects sitting on terraces.
- The speed of the cars next to the pavement directly influences the safety of the customers on the terraces. In this sense, the Superilles in Barcelona or 15 and 30 km/h zones in Milan, in the same way they form part of an urban-scale strategy to gain space for soft mobility and reduce car space (as explained in Section 1.3), are also qualitatively better places, in terms of security, to set up terraces. Additionally, the speed and intensity of traffic is linked to noise and to emissions, and as many cities today have maps of air and noise pollution, one could think of a few healthy minimums that could be considered to determine the presence of terraces in some streets; or even in specific regulations that prohibit their deployment on days of greater presence of harmful particles in the air. Although these would be measures that could be considered interventionist in relation to the individual rights of each business and on the capacity of individual choice, they would manage to involve more agents in the construction of a healthier city project.

6. Conclusions

Notwithstanding the ongoing debate that will undoubtedly contribute to modify and adapt existing regulations to the demands of both citizens and food establishments and will, therefore, contribute to build the image of the urban landscape in the immediate future, it could be said outdoor terraces have changed the use of public space in a permanent way. As shown in Section 4.1 for the case of Barcelona, not only has the presence of terraces in public spaces increased, but also consumer spending in restaurant establishments; so outdoor terraces have consolidated their role as collective meeting grounds in post-pandemic times.

Given that they form part of the construction of urbanity and that their presence intermediates between the public and private spheres, this study considers terraces as one of the essential elements in the construction of the urban landscape rather than as elements to be manipulated in the least possible inconvenience for all parties involved. Exposed to the elements but at the same time protected by the peculiarity of the domestic scale furniture that make up their layout, the resumption of social life after confinement has made citizens rediscover the street and overuse it in many cases, turning terraces into small urban corners that complement the domestic space and constitute a natural extension of households.

Further research can provide a more detailed analysis, in which some specific terraces in both cities are biopsied, evaluating the quality of their location presents, and, in line with the planning improvements proposed in the previous section, determine which of the ordinary terraces and which of the exceptional ones could be relocated or removed; also, pointing out those areas of the city in which, due to their good environmental qualities, the number of terraces could increase.

A detailed research made from precise technical materials would shed more light on this research: cross-section studies showing the relationships between the facade, pavements and roadway; longitudinal sections allowing to understanding the relationship of the terraces with the urban slopes in those more extreme cases; or sunlight studies that would allow the measurement of natural radiation on terraces. The set would contribute to the construction of a catalogue of criteria where instead of collecting a general image of the matter, as in this article, the evaluation measures would be broken down into specific case studies.

On the one hand, this paper fills a knowledge gap in relation to the history and culture of terraces in Europe and to the current impact that terraces have on the contemporary urban landscape. On the other hand, the results presented are significant for they quantify a phenomenon visible to the eyes of any walker in the city, and, while acknowledging the added value that the terraces represent for the sociability of citizens, it detects some distortions in the way they interact with the urban form and in the new horizon that they trace of the landscape in post-pandemic times.

Author Contributions: Conceptualization, E.M.O. and E.G.-E.; methodology, E.M.O., E.G.-E. and Á.C.U.; validation, E.M.O. and E.G.-E.; formal analysis, E.M.O., E.G.-E. and Á.C.U.; investigation, E.M.O. and E.G.-E.; resources, E.M.O. and E.G.-E.; data curation, E.M.O., E.G.-E. and Á.C.U.; mapping, Á.C.U.; photography, E.M.O.; writing—original draft preparation, E.M.O., E.G.-E. and Á.C.U.; writing—review and editing, E.M.O. and E.G.-E.; visualisation, E.M.O. and Á.C.U.; supervision, E.G.-E. All authors have read and agreed to the published version of the manuscript.

Funding: Emma Maev O’Connell worked in this research thanks to the scholarship “Beca de colaboración en Departamentos Universitarios” [Collaboration scholarship in University Departments] sponsored by the Ministerio de Educación y Formación Profesional [Ministry of Education and Professional Training].

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: The authors want to thank the transfer of data on the terraces of Milan to the Unità Occupazione Suolo—Ufficio Osp, of Area Pubblicità e Occupazione Suolo, Direzione Specialistica Autorizzazioni e Concessioni—SUAP (Milan City Council).

Conflicts of Interest: The authors declare no conflict of interest.

References

- O’Connell, E.M. *Dehors En Milán: 70 Miradas a La Ciudad Deshabitada*; Universitat Politècnica de Catalunya: Barcelona, Spain, 2022.
- Idescat. Padró Municipal d’Habitants. Available online: <https://www.idescat.cat/pub/?id=pmh> (accessed on 15 March 2022).
- Istat. Popolazione e Famiglie. Popolazione Residente al 1° Gennaio. Italia, Regioni, Province. [Population and Households. Resident Population for January 1. Italy, Regions, Provinces.]. Available online: http://dati.istat.it/Index.aspx?DataSetCode=DCIS_POPRES1 (accessed on 15 March 2022).
- De Solà-Morales, Menjar a La Metròpolis. In *Quaderns d’Arquitectura i Urbanisme*; Col·legi d’Arquitectes de Catalunya COAC: Barcelona, Spain, 2006; Volume 251, pp. 76–79.
- Monteys, X. La arquitectura de la comida. In *About buildings & food. In Quaderns d’Arquitectura i Urbanisme*; Col·legi d’Arquitectes de Catalunya COAC: Barcelona, Spain, 2018; Volume 271, pp. 9–18.
- Ajuntament de Barcelona. Dades Covid-19 a Barcelona [Covid-19 Data in Barcelona]. Available online: <https://dades.ajuntament.barcelona.cat/seguiment-covid19-bcn/> (accessed on 6 July 2020).
- Crosas, C.; Gómez-Escoda, E. Mapping Food and Health Premises in Barcelona. An Approach to Logics of Distribution and Proximity of Essential Urban Services. *ISPRS Int. J. Geo Inf.* **2020**, *9*, 746. [CrossRef]
- Gazzetta Ufficiale Della Repubblica Italiana. Ordinanza 23 Febbraio 2020. Misure Urgenti in Materia Di Contenimento e Gestione Dell’emergenza Epidemiologica Da COVID-19. [ORDINANCE of 23 February 2020. Urgent Measures for Containing and Managing the COVID-19 Epidemiological Emergency.] Regione Lombardia. (20A01273). Available online: <https://www.gazzettaufficiale.it/eli/id/2020/02/25/20A01273/sg> (accessed on 18 April 2022).

9. Gazzetta Ufficiale Della Repubblica Italiana. Decreto del Presidente del Consiglio dei Ministri 23 Febbraio 2020. Disposizioni Attuative Del Decreto-Legge 23 Febbraio 2020, n. 6, Recante Misure Urgenti in Materia Di Contenimento e Gestione Dell'emergenza Epidemiologica Da COVID-19. [Decree of the President of the Council of Ministers of 23 February 2020. Implementing Provisions of Decree-Law No. 6 of 23 February 2020 on Urgent Measures for Containing and Managing the COVID-19 Epidemiological Emergency]. (20A01228). Available online: <https://www.gazzettaufficiale.it/eli/id/2020/02/23/20A01228/sg> (accessed on 18 April 2022).
10. Gazzetta Ufficiale Della Repubblica Italiana. Decreto del Presidente del Consiglio dei Ministri 11 Marzo 2020. Ulteriori Disposizioni Attuative Del Decreto-Legge 23 Febbraio 2020, n. 6, Recante Misure Urgenti in Materia Di Contenimento e Gestione Dell'emergenza Epidemiologica Da COVID-19, Applicabili Sull'intero Territorio Nazionale. [Decree of the President of the Council of Ministers of 11 March 2020. Further Provisions Implementing Decree-Law No. 6 of 23 February 2020 on Urgent Measures for Containing and Managing the COVID-19 Epidemiological Emergency, Applicable Throughout the National Territory.] (20A01605). Available online: <https://www.gazzettaufficiale.it/eli/id/2020/03/11/20A01605/sg> (accessed on 5 March 2022).
11. Gazzetta Ufficiale Della Repubblica Italiana. Decreto del Presidente del Consiglio dei Ministri 17 Maggio 2020. Disposizioni Attuative Del Decreto-Legge 25 Marzo 2020, n. 19, Recante Misure Urgenti per Fronteggiare l'emergenza Epidemiologica Da COVID-19, e Del Decreto-Legge 16 Maggio 2020, n. 33, Recante Ulteriori Misure Urgenti per Fronteggiare l'emergenza Epidemiologica Da COVID-19. [Decree of the President of the Council of Ministers of 17 May 2020. Implementing Provisions of Decree-Law No. 19 of 25 March 2020 on Urgent Measures to Face the COVID-19 Epidemiological Emergency, and of Decree-Law No. 33 of 16 May 2020 on Further Urgent Measures to Face the COVID-19 Epidemiological Emergency.] (20A02717). Available online: <https://www.gazzettaufficiale.it/eli/id/2020/05/17/20A02717/sg> (accessed on 18 April 2022).
12. South Working. Cosa è South Working®. Available online: <https://www.southworking.org/cosa-e-sw/> (accessed on 15 March 2022).
13. Carlo, G.D. An Architecture of Participation. *Perspecta* **1980**, *17*, 74–79. [CrossRef]
14. Aquilué, I.; Caicedo, A.; Moreno, J.; Estrada, M.; Pagès, L. A Methodology for Assessing the Impact of Living Labs on Urban Design: The Case of the Furnish Project. *Sustainability* **2021**, *13*, 4562. [CrossRef]
15. Courage, C. The Global Phenomenon of Tactical Urbanism as an Indicator of New Forms of Citizenship. *Engage Vis. Arts* **2013**, *32*, 88–97.
16. Rueda Palenzuela, S. Les Superilles per al Disseny de Noves Ciutats i La Renovació de Les Existents: El Cas de Barcelona. *Pap. Regió Metrop. Barc. Territ. Estratègies Planejamen* **2017**, *59*, 78–93.
17. Gehl, J. *Cities for People*; Island Press: Washington, DC, USA, 2010; ISBN 978-1-59726-573-7.
18. Lefebvre, H.; Hess, R.; Deulceux, S.; Weigand, G. *Le Droit à la Ville (Anthropologie)*, 3rd ed.; Economica-Anthropos: Paris, France, 2009; ISBN 978-2-7178-5708-5.
19. Papi, D.G. Café Milan: I Tavolini All'aperto che Hanno Ridisegnato Milano Devono Rimanere Anche Dopo il Covid. Available online: <https://www.linkiesta.it/2021/09/milano-covid-pandemia-dehor-bar-spazio-urbano-pierfrancesco-maran/> (accessed on 15 November 2021).
20. Comune Di Milano. Quartieri. Con "Strade Aperte" Nuove Aree Pedonali, Ciclabili, Zone 30 e Spazi Pubblici [Neighborhoods. New Pedestrian Areas, Bicycle Paths, 30 Km/h Zones and Public Spaces with "Open Streets"]. Available online: <https://www.comune.milano.it/-/quartieri-con-strade-aperte-nuove-aree-pedonali-ciclabili-zone-30-e-spazi-pubblici> (accessed on 5 December 2021).
21. Aru, S. Dentro ai dehors, fuori dai dehors. Negoziazione dello spazio (pubblico) a Cagliari. *Geotema* **2016**, *51*, 8–13.
22. Barsotelli, M.; Sbardella, S. I dehors a Firenze. Un esercizio di geografia sociale. *Geotema* **2010**, *41*, 17–22.
23. Elorrieta Sanz, B.; García Martín, M.; Cerdan Schwitzguébel, A.; Torres Delgado, A. La 'guerra de las terrazas': Privatización del espacio público por el turismo en Sevilla y Barcelona. *Cuad. Tur.* **2021**, *47*, 229–259. [CrossRef]
24. Monteys, X. Vorerer. *El País*. Available online: https://elpais.com/ccaa/2013/09/29/quadern/1380478703_670839.html (accessed on 20 September 2021).
25. I Dehor di Bar e Ristoranti Invadono Milano, la Soluzione. Available online: <https://milano.notizie.it/cronaca-milano/2021/05/24/dehor-bar-milano-ristoranti/> (accessed on 21 May 2022).
26. Senesi, A. Ristoranti e bar, è Invasione Dehors. Arrigoni: «Verde rovinato, Meno Posti Auto e Ostacolano le Carrozze». Available online: https://milano.corriere.it/notizie/cronaca/21_maggio_23/ristoranti-bar-invasione-dehors-meno-posti-auto-verde-rovinato-2371b2fc-bb90-11eb-822f-b2d049d46202.shtml (accessed on 21 May 2022).
27. Locali a Milano, la Rivoluzione dei Tavolini sui Marciapiedi: Spazi Raddoppiati e Stop ai «Funghi» a Gas. Available online: https://milano.corriere.it/notizie/cronaca/20_ottobre_23/locali-rivoluzione-tavolini-marciapiedi-spazi-raddoppiati-stop-funghi-gas-c4c6d4f8-14fa-11eb-b371-ea3047c1855f.shtml (accessed on 21 May 2022).
28. L'ampliació de les Terrasses Rebuta el Consens Polític. Available online: <https://www.lavanguardia.com/encatala/20211215/7930090/ampliacio-terrasses-rebuta-consens-poitic-ajuntament-barcelona.html> (accessed on 21 May 2022).
29. Barcelona ja Ha Retirat un Centenar de Terrasses Habilitades Durant la Pandèmia. Available online: <https://www.lavanguardia.com/local/barcelona/20220420/8209954/barcelona-ja-retirat-centenar-terrasses-habilitades-durant-pandemia.html> (accessed on 21 May 2022).

30. La Lentitud Municipal Demora la Renovació de les Terrasses de la Covid. Available online: <https://www.lavanguardia.com/encatala/20220520/8280059/lentitud-municipal-demora-renovacio-les-terrasses-covid.html> (accessed on 21 May 2022).
31. Augmenta un 40% el Nombre de Terrasses a la Ciutat a Causa de la Pandèmia. Available online: <https://www.lavanguardia.com/encatala/20220221/8071408/pandemia-fa-dispararun-40-les-terrasses-dels-bars.html> (accessed on 21 May 2022).
32. Alonso-Montolio, C.; Serra-Coch, G.; Isalgue, A.; Coch, H. The Energy Consumption of Terraces in the Barcelona Public Space: Heating the Street. *Sustainability* **2021**, *13*, 865. [CrossRef]
33. Gomez, E. *Comerç, Ciutat, Paisatges Arran de Terra*; Universitat Politècnica de Catalunya: Barcelona, Spain, 2015.
34. De Solà-Morales, M. *Ciudades, Esquinas = Cities, Corners*/[Comisario: Manuel de Solà-Morales i Rubió]; Forum Barcelona: Barcelona, Spain, 2004; ISBN 84-9785-074-2.
35. Villar, P. *Barcelona, Ciutat de Cafès (1880–1936)*, 1st ed.; Ajuntament de Barcelona, Viena Edicions: Barcelona, Spain, 2013; ISBN 978-84-8330-761-8.
36. Villar, P. *La Ciutat Dels Cafès: Barcelona, 1750–1880*, 1st ed.; Ajuntament de Barcelona, La Campana Edicions: Barcelona, Spain, 2009; ISBN 978-84-96735-27-9.
37. Oldenburg, R. The Café as a Third Place. In *Café Society*; Palgrave Macmillan: New York, NY, USA, 2013.
38. Eleb, M.; Depaule, J.-C. *Paris: Société de Cafés*; Les Editions de l'Imprimeur: Paris, France, 2005; ISBN 978-2-915578-71-3.
39. Monteys, X. (Ed.) About Buildings & Food. In *Quaderns d'Arquitectura i Urbanisme*; Col·legi d'Arquitectes de Catalunya COAC: Barcelona, Spain, 2018; Volume 271.
40. Log 34: The Food Issue. *Log* **2015**, *34*.
41. Domus Speciale Convivialità Conviviality, Allegato a Domus 880. *Domus* **2005**, *880*.
42. Food: The Architectural Review. *Archit. Rev.* **2018**, *1455*.
43. Mària, M. Barcelona Come. In *Barcelona Come: La Comida y el Espacio Público Urbano*; Fundació “La Caixa”: Barcelona, Spain, 2020; pp. 76–137. ISBN 978-84-12-23525-8.
44. Parham, S. *Food and Urbanism: The Convivial City and a Sustainable Future*/Susan Parham; Bloomsbury Academic: London, UK, 2015; ISBN 978-0-85785-453-7.
45. Parham, S. The Table in Space: A Planning Perspective. *Meanjin* **1990**, *49*, 213.
46. Steel, C. *Hungry City: How Food Shapes Our Lives*; Chatto & Windus: London, UK, 2008; ISBN 978-0-7011-8037-9.
47. Boatti, A. *Urbanistica a Milano: Soiluppo Urbano, Pianificazione e Ambiente tra Passato e Futuro*; CittaStudi: Novara, Italy, 2007; ISBN 978-88-251-7284-3.
48. *Un Secolo Di Urbanistica a Milano*; Campos Venuti, G. (Ed.) Clup: Milano, Italy, 1986; ISBN 978-88-7005-712-6.
49. Vercelloni, V. *Atlante Storico di Milano, Città di Lombardia*; L'Archivoltò: Milano, Italy, 1989; ISBN 978-88-7685-034-9.
50. Fuertes, P.; Gomez-Escoda, E.M. Supplying Barcelona: The Role of Public Market Halls in the Construction of the Urban Food System. *J. Urban Hist.* **2020**, *009614422097182*. [CrossRef]
51. Guàrdia i Bassols, M.; Oyón, J.L. *Hacer Ciudad a Través de los Mercados: Europa, Siglos XIX y XX*; Institut de Cultura, Museu d'Història de Barcelona: Barcelona, Spain, 2010; ISBN 978-84-9850-266-4.
52. Whyte, W.H. *The Social Life of Small Urban Spaces*; Project for Public Spaces: New York, NY, USA, 2001; ISBN 0-9706324-1-X.
53. Whyte, W.H. The Social Life of Small Urban Spaces. Available online: <https://edisciplinas.usp.br/mod/resource/view.php?id=2089178> (accessed on 20 December 2021).
54. Steegmann Mangrane, D. *Ciudad Casa Comida: Una Aproximación Poliédrica a Los Límites Entre Lo Público y Lo Privado*; Universitat Politècnica de Catalunya: Barcelona, Spain, 2017.
55. De Solà-Morales, M. Espacios Públicos y Espacios Colectivos. Un Nuevo Reto: Urbanizar Lo Privado. *La Vanguardia*, 12 May 1992; pp. 4–5.
56. La Pietra, U. *Abitare La Città: Ricerche, Interventi, Progetti Nello Spazio Urbano Dal 1960 al 2000*; U. Allemandi: Torino, Italy, 2011; ISBN 978-88-422-1938-5.
57. Clua, Á.; Crosas, C.; Parcerisa, J. An Approach to Visual Interaction Analysis of Urban Spaces. Central Barcelona as a Case Study. *J. Urban. Int. Res. Placemaking Urban Sustain.* **2021**, *15*, 192–221. [CrossRef]
58. Ajuntament de Barcelona. Ordenança Modificativa de l'Ordenança, de 20 de Desembre de 2013, de Terrasses [Modifying Ordinance of the Ordinance of terraces, of December 20 2013]. Available online: <http://bop.diba.cat/anunci/3169162/aprovacio-definitiva-de-la-modificacio-de-l-ordenanca-de-terrasses-ajuntament-de-barcelona> (accessed on 1 April 2022).
59. Ajuntament de Barcelona. Open Data Barcelona. Autoritzacions de Terrasses Ordinàries a L'espai d'ús Públic de la Ciutat de Barcelona [Authorizations for Ordinary Terraces on Public Ground in the City of Barcelona]; 2019_2S, 2021_2S [second semester of 2019_2S and 2021, CSV Data File with Geolocated Activities]. Available online: <https://opendata-ajuntament.barcelona.cat/data/ca/dataset/terrasses-comercos-vigents> (accessed on 2 March 2022).
60. Ajuntament de Barcelona. Open Data Barcelona. Autoritzacions de Terrasses Excepcionals (DECRET 21/5) a L'espai d'ús Públic de la Ciutat de Barcelo-na [Authorizations for Exceptional Terraces (decree 21/5) on Public Ground in the City of Barcelona], 2021_12 [December 2021, CSV Data File with Geolocated Activities]. Available online: <https://opendata-ajuntament.barcelona.cat/data/ca/dataset/aut-terrasses-excep-decret-21-5> (accessed on 2 March 2022).
61. Ajuntament de Barcelona. Open Data Barcelona. Cens d'Activitats Econòmiques En Planta Baixa [Economic Activities Census on the Ground Floor of the City of Barcelona], 2019 [CSV Data File with Geolocated Activities]. Available online: <https://opendata-ajuntament.barcelona.cat/data/en/dataset/cens-activitats-comercials> (accessed on 2 March 2022).

62. The City of Milan. The Food System in Milan. Five Priorities for a Sustainable Development. Available online: https://www.foodpolicymilano.org/wp-content/uploads/2015/04/Milan_food_system_EN1.pdf (accessed on 1 April 2022).
63. Disciplina Del Diritto a Occupare Il Suolo Pubblico, (...). Approvato Con Deliberazione Del Consiglio Comunale n. 132 Del 4 Dicembre 2000. Modificato Con Deliberazione Del Consiglio Comunale n. 14 Del 18/05/2015. [Regulation of the Right to Occupy Public Ground, (...). Approved by Municipal Council Resolution No. 132 of December 4 2000. Amended by Municipal Council Resolution No. 14 of May 18 2015]. Available online: <https://www.comune.milano.it/documents/20126/200394065/Disciplinare+Occupazione+Suolo+Pubblico+elementi+di+arredo+2015.pdf/2342bc50-f8b8-4571-e037-de4b0934e0a8?t=1551200057350> (accessed on 15 October 2021).
64. Regolamento Sulle Occupazioni Di Suolo Temporanee Leggere. Approvato Con Deliberazione Del Consiglio Comunale n. 74 Del 16/12/2020 [Regulation on Temporary Public Ground Occupation Authorizations. Approved by Municipal Council Resolution No. 74 of 16 December 2020]. Available online: <https://www.comune.milano.it/documents/20126/243072657/Regolamento+Occupazioni+suolo+temporanee+leggere.pdf/330e6f0b-1131-4866-e8f0-43437a092be3?t=1623417341379> (accessed on 15 October 2021).
65. Comune di Milano. Portale Open Data. Attività Commerciali: Esercizi di Vicinato in Sede Fissa [Small scale commercial activities]. Available online: <https://dati.comune.milano.it/dataset/ds49-economia-esercizi-vicinato-sede-fissa> (accessed on 18 October 2021).
66. Comune di Milano. Portale Open Data. Occupazioni Suolo Temporanee Straordinarie 2020 [Exceptional Occupation of Public Ground 2020]. Available online: https://dati.comune.milano.it/dataset/ds1298_occupazioni-suolo-temporanee-straordinarie-2020 (accessed on 18 October 2021).
67. Comune di Milano. Portale Open Data. Occupazioni Suolo Temporanee Straordinarie 2021 [Exceptional Occupation of Public Ground 2021]. Available online: <https://dati.comune.milano.it/dataset/ds1532-occupazioni-suolo-temporanee-straordinarie-2021> (accessed on 18 October 2021).
68. Comune Di Milano. Portale Open Data. Available online: <https://dati.comune.milano.it/> (accessed on 15 October 2021).
69. Comune di Milano. Portale Open Data. Attività Commerciali: Pubblici Esercizi in Piano [Commercial activities: Public establishments selling food or drink for consumption as a main activity]. Available online: https://dati.comune.milano.it/dataset/ds58_economia_pubblici_esercizi_in_piano (accessed on 18 October 2021).
70. Comune Di Milano. Portale Open Data. Attività Artigianali: Panificatori [Artisanal Activities: Bread Production and Distribution]. Available online: <https://dati.comune.milano.it/it/dataset/ds251-economia-panificatori> (accessed on 19 April 2022).
71. Comune di Milano. Portale Open Data. Attività Artigianali: Settore Alimentare [Artisanal Activities: Food Sector]. Available online: <https://dati.comune.milano.it/dataset/ds250-economia-artigianato-settore-alimentare> (accessed on 18 October 2021).
72. Direcció de Serveis de Comerç, R.I.C.; Gerència d'Àrea d'Economia, R.I.P.E. Ajuntament de Barcelona. Cens comercial 2019: Estudi de les activitats comercials de Barcelona [Study of Commercial Activities in Barcelona 2019]. Available online: https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/117656/1/cens_de_locals_comercials_2019_1.pdf (accessed on 2 April 2022).
73. Ajuntament de Barcelona. Oficina Municipal de Dades [Municipal Data Office]. Available online: <https://dades.ajuntament.barcelona.cat/seguiment-covid19-bcn/> (accessed on 4 June 2022).
74. Smithson, A.; Smithson, P. Fix: Permanence and Transience. *Archit. Rev.* **1960**, 127–128, 487–489.