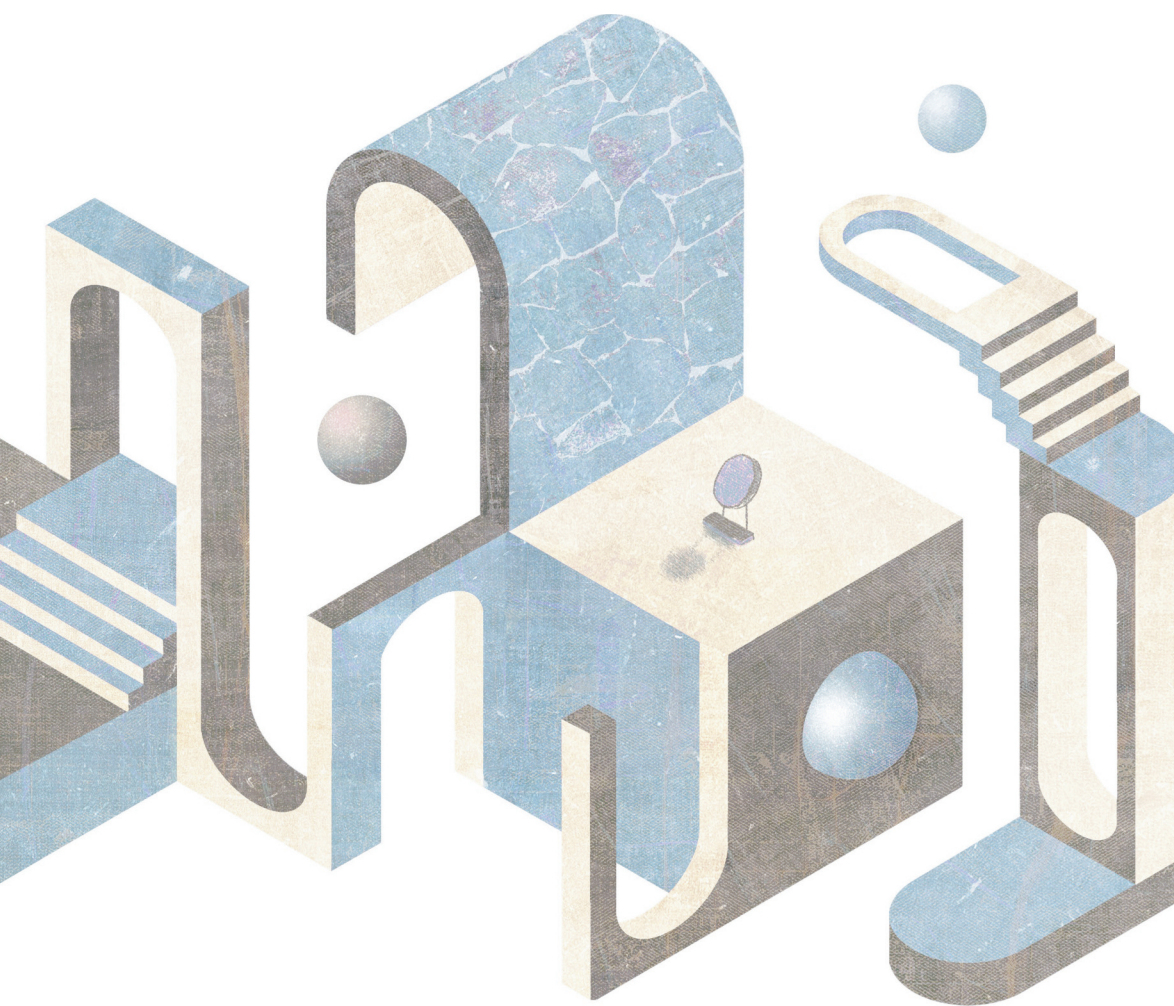


ENGAGING SPACES

How to increase social awareness
and human wellbeing through experience design

edited by Barbara Camocini, Annalisa Dominoni



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4. Front door spaces. A time-based approach to the ground floor design

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Abstract

The time-based approach to design explores the chronemic dimension of spaces, based on chronotopes and temporal morphologies, not only spatial ones. This mode of research and analysis shows that the 20th century has predominantly been designed on the principle of “peaks of the curve”, of maximum capacity, oversizing spaces instead of ensuring flexibility and adaptability useful in situations of minimum or medium crowding. This approach to design has produced cities that are compact in their buildings, but empty – over long periods of time – inside. The mono-functionality of some spaces has led to a system of short switching on and long switching off that is now unsustainable from an energy, social and economic point of view. From the urban to the domestic scale, there are spaces that we use sporadically and yet occupy territory. These are not large empty spaces, capable of hosting new projects, but “emptied micro-areas” that have the vocation of becoming buffer spaces, places of social and territorial reconnection, multi-scalar, and multi-temporal places available to local communities. The porous city absorbs criticalities, peaks, making urban and spatial structures less fragile and, instead, softer to transformations. A mapping of the emptied micro spaces, harnessed in architecture, shows that the most significant percentage will increasingly concern the ground floors of buildings. Starting with proposals such as Carlos Moreno’s ‘15-minute city’, passing through Superblocks projects in Barcelona and the Dutch policy aimed at 20-minute cities, it can be assumed that new models of time-based development will reshape cities in the

next decade. Ground floors can become empty places to be redefined: mending the relationship between the mobility of the street and the fixity of a building; guaranteeing an active lung for that walkability or slow mobility which dangerously tries to carve out its own paths; consolidating those neighborhood units that are more active online, rather than offline, encouraging those networks of randomness that the city has stifled by changing relationships and the sense of place.

4.1 Empty cities and mono functional spaces: peaks of the curve principle

Recent years have seen an exponential growth of large cities, which remain incredible magnets of attraction. Although the pandemic seems to introduce a countertrend, its effects are not yet visible. While cities have dramatically grown expanding their geographic extent, their urban centers underwent remarkable urban renewal actions and regenerations aimed at creating profit-driven spaces in which exchange-value overcame use-value (Álvarez Mora, Camerin, 2019). According to Camerin (2020):

these patterns have had remarkable consequences in terms of more inequality between people and territories, progressive destruction of the past legacy, inadequate management of the available resources, and gradual increasing pollution at a global level, with all its negative consequences for the human being.

The real estate value of cities with a strong attraction leads to an increase in commuting, with consequences not only on pollution but also on the use of the cities themselves. The so-called *users* with a functional relationship, unbalance the performance of the city to the detriment of the inhabitants who live there on many fronts. It is a city of peaks (of traffic, of assemblages, of congestion) which lead to a series of problems including the oversizing of services and of the relative spaces to satisfy the moments of maximum affluence.

It is a city of mobility without movement, that is, without awareness of, and a relationship with, the spaces it crosses, because the routes are regimented according to the logic of minimum distance, rapid speed and maximum control. Paradoxically, it is a congested

city, but full of empty spaces, which must redesign the forms of time that govern it (Barbara, 2012). The theme raised by Immanuel Kant, then by Jane Jacobs and finally by Richard Sennett, of the relationship between *ville and cité* and the need for reconciliation between time and space that can allow for openness, unexpectedness, inclusion, and external interactions, now returns (Sennett, 2018). It is the task of the 21st century to produce new forms of city, to use new media as tools for dialogue in spaces, to provide for slow movements and rhythms that can reconcile perception, emotion, and narrative.

It is in this new possibility that the ground floors, the spaces right in front of our homes, which for the last two centuries have been consigned to commerce, can reconnect the private world of residences with the public world of work and social life. The inhabitant takes up the place occupied for decades by the *consumer of places* (Barbara, 2018). The restitution of ground floors to the inhabitants, the revival of the social life they can activate, the reconstitution of communities, represent the revolution already underway that will transform the buildings and cities of the third millennium.

4.2 Swarm city

In its first twenty years, the digital revolution has often changed the ground floors of cities into places of blind traversal, relying on satellite maps and regimented routes instead of sensitive experience and spatial perception (Barbara, 2012). Walter Benjamin's poetic image of the flaneur has faded. In the *digital-driven city* there is no freedom but possibility, no randomness but causality, no proximity but intimacy. Individuals move like animals in the swarm following guided and simple behaviors typical of swarm intelligence (Xhemalaj, 2019). The ground floors of the digital-driven city are regulated by regular patterns within which people, vehicles and goods move, following a logic of repulsion (the individual does not get too close to his neighbors to avoid collisions); attraction (the individual does not move too far away from his neighbors to avoid losing cohesion); alignment (the individual moves in the same direction and with the average speed of his neighbors, to coordinate with them) interacting with other individuals in a sort of self-regulating principle (Xhemalaj, 2019). In the *digital-driven city*, in

the presence of strong external solicitations and stresses, humans move with pre-cognitive logics, very similar to those of animals, and consequently, the resulting collective behavior is analogous to that observed in flocks of birds or schools of fish (Xhemalaj, 2019). There are many models for prediction and modeling of the so-called *pedestrian movement* (Haklay *et al.*, 2001) that focus on certain parameters such as the scale of the environment considered, moving from the micro-scale in which it accurately represents the avoidance of two people crossing each other during their movement, to the macro-scale in which it represents the flows of entire masses of people in motion. When the number of people considered increases considerably and their concentration relative in the environment is very high, this type of modeling also takes the name of crowd simulation which considers microscopic models, macroscopic models, and mesoscopic models (Xhemalaj, 2019). These modeling are used to identify local recurring behaviors in pedestrians under digital-driven or crowded conditions.

The reason why it is interesting to understand the logic of movement in the *digital-driven city* is because the door-front city seeks to reconcile urban and digital behaviors, in a way that moves away from the logic of the individual, but also away from that of the typical crowd. This reconciliation happens for example by reducing vehicular speed; promoting slow mobility that can increase lateral interactions and not only frontal ones; walking on foot, to get more liminal visual information compared to the ones you get while moving by car or bus (i.e. according to Sennett (2018) it is estimated that the brain can process 50-55% more lateral visual information); trying to use digital devices to coordinate spatial/temporal interactions. When the crowd transforms into a collectivity, with conscious connections to others, when it ceases to be a dusting of individuality, and enters a relationship with others and places, then the ground floor becomes a privileged site of a *collective intelligence*. Pierre Lévy defines collective intelligence as “an intelligence distributed everywhere, continuously enhanced, coordinated in real time, leading to an effective mobilization of skills” and identifies as its foundation and purpose “the mutual recognition and enrichment of people”.

This concept is the postulate of the thought: *no one knows everything, everyone knows something, the totality of knowledge resides in humanity* (Xhemalaj, 2019).

4.2.1 Time-based design and the porous city

City infrastructures continue to suffer from peaks in demand. Nine o'clock commuters clog the roads, causing traffic jams and accidents. The same happens at lunchtime or on the way home in the evening. The work flexibility we have found in the months of Covid-19 presents us with a unique opportunity: that of rescheduling our schedules wisely, to avoid overloading the city's infrastructure.

In the last few months, many of us have started to move around staggered, going to the office on alternate days and times. As well as reducing the risk of contagion, this practice allows us to better distribute traffic flows. Software to reduce taxis and cars: this is the *Minimum Fleet* project presented in 2008 by researchers from MIT, CNR and Cornell University. With an algorithm, half as many cars could be used in New York as now. It seems clear that one of the problems of the contemporary city is therefore the rigidity of the temporal and spatial models available. Today, our city is still like an inelastic container. Once there is a new growth in internal demand and activities, the original urban space cannot be accommodated and overflows the container like water. The answer couldn't be to let the volume of the city continue to expand (area, height, depth), and constantly create new space to meet these needs. Porous spaces, like a sponge, absorb and release while maintaining their shape (Zhou, 2017; Sennett, 2018).

Considering the porosity of built spaces means ensuring saturation and desaturation of activities by following practices of temporal scheduling, or space sharing. For this reason, the idea of a porous city has its own charm. It was a very effective concept introduced by Walter Benjamin for Naples and subsequently taken up by others: within the urban fabric there are marginal and abandoned public spaces, real fragments of the city. In a perspective of urban regeneration, they can be seen as new opportunities for the city of the future. The city is in fact like a sponge, full of empty or emptied spaces, i.e. temporarily free from the intended functions. Precisely this potentiality of available spaces, depending on the timetable, provides empty spaces that serve as areas of compression and flexibility in space and time. We can therefore understand that it is not only the urban void as opposed to the built-up area that is the meeting place, but often it is precisely that void harnessed in the solid mass of the built-up area that guarantees dynamism and life.

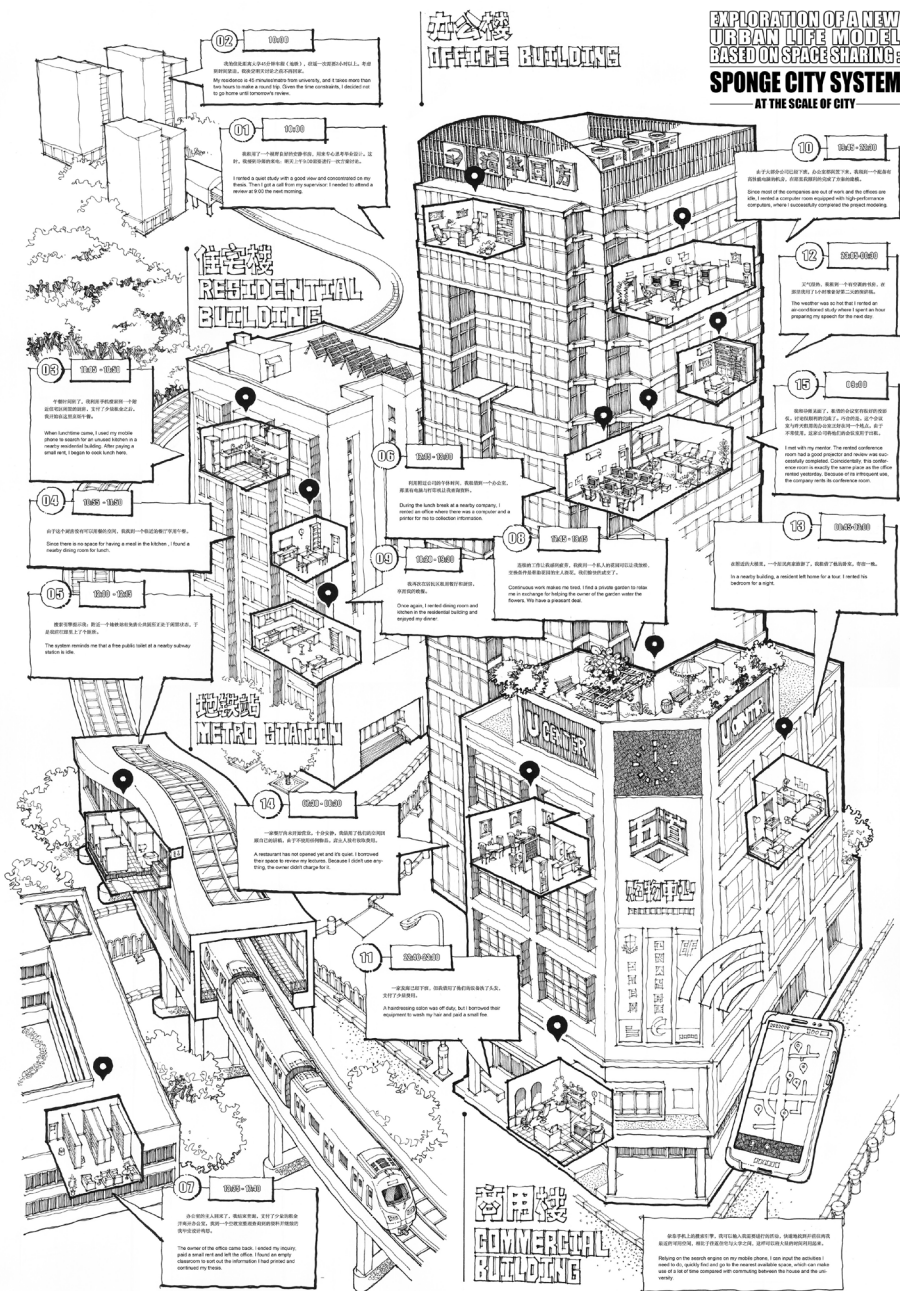


Fig. 1 – Representation of the porous city by Zhou Hanxiang

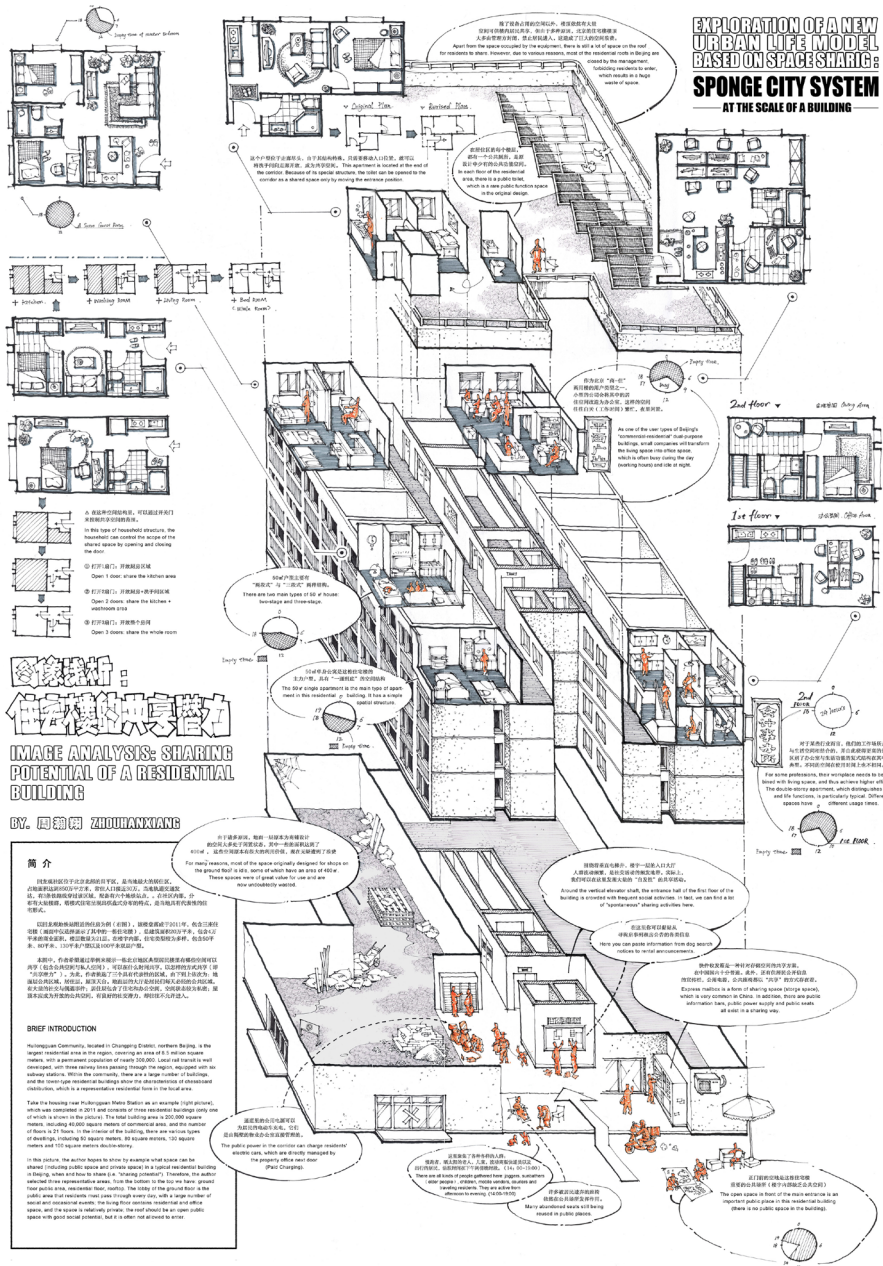


Fig. 2 – Exploration of the potential of a residential by Zhou Hanxiang

The housing stock built over the last hundred years, based on single-function, single-period buildings, is now unsustainable. A new culture of reuse and regeneration at the center of new urban projects that question how to build new relationships between the parts. Buildings must be designed to be adaptable over time, and even when closed they have an energy, social and economic cost.

A school that is empty at night, or a subway station that is deserted for 90% of its time, are forms of unsustainable waste. The dimensions of the spaces of the contemporary city have been measured according to a single time, which produces the principle of maximum crowding, congestion so the rest of the time, they are empty or underused.

Considering the city as a sponge, the policy of public and private spaces must start from small-scale territorial strategies: an approach that considers that local development hypotheses in these situations are successful when they move small numbers over a series of projects, rather than a single large project or a single major work, in a context where monitoring of phenomena is unprepared to report small variations, or fast variations, in small quantities. This is the strength of the sponge model, which does not leave large urban voids, but small interventions, with great temporal flexibility and spatial and environmental compatibility. The post-urban context has generated a new culture of reuse and regeneration at the center of new urban projects that question how to build new relationships between the parts, using the connective void, in an environment also characterized by the shrinking city. The idea of a porous city, which exploits interstices as well as temporarily unused spaces, is not a new idea in the history of architecture, urban spaces, and interior design, but today it is feasible because of the sharing culture and the possibilities of management and control due to APPs and digital platforms. Time should also be considered in an intercultural key. In fact, it recalls Edward T. Hall, for whom time is the heart of our lives, around which we build our image of the world.

If the time systems of two cultures are different, everything else will be different (Zucchermaglio, 2016).

Because every culture, but also every social group, produces its own time, which may consist in the organization of its own agenda, its own work, but also in the celebration of rituals and holidays. Monochronic

societies are more fragile than polychronic societies that provide the possibility to do several activities simultaneously, but also to use space simultaneously for compatible but different activities.

But right now, because of the digital revolution, we have entered a phase of co-presence of both monochronic and polychronic times.

If a monochronic view of time, in addition to being a mainstay of societies strongly forged to economic profit, risks overflowing into manic and neurotic forms or, at best, into what is simply called stress, the polychronic one risks proving to be dispersive and perhaps inconclusive (Zucchermaglio, 2016).

4.2.2 From the neighbourhood units to the 15-minutes cities

The problem of the extension of cities and the consequent complicated relationship between parts that are too far apart, goes back to the Roman Empire and the size of its colonies. Already at the end of the XIX century were born the garden cities, theorized by Ebenezer Howard, as satellites to the first metropolises. The term *neighborhood unit* was first used in 1923 in a national architectural competition in Chicago as a proposal for a layout to build new compact residential neighborhoods. The idea was to counteract the growth of major industrial cities which, with the advent of mass motorization, risked expanding uncontrollably and generating anonymous and increasingly remote suburbs. The phenomenon of creating satellite cities continued with the English New Towns and the French Ville Nouvelle that would serve to decongest traffic, entering and leaving large cities, and allow a fleet of commuters to move shorter distances between home and work.

In 1994, an Italian physicist of great value, Cesare Marchetti, published a revolutionary study (“Anthropological Invariants in Travel Behavior”): he showed that our daily movements do not depend so much on economic reasons as on an instinct that has remained the same from the cave age to the present day. That instinct translates into a kind of time that we are willing to devote to our daily commute: half an hour to go and half an hour to return home (or to the cave). That time is called the *Marchetti Constant* and it basically says that as transport has progressed, the time for travel has not been reduced, but the distance has been lengthened. Obviously, there are exceptions, we are talking

about average values, but it was on these average values that the ancient cities were built, which in fact had a diameter that could be covered on foot in an hour; and the megalopolises that you can cross at the same time but on fast subways.

The environmental crisis demands a new organization of the city that must be more sustainable and viable. The pandemic has also prompted us to rethink the way we live in cities and move around in public spaces. There is also an urgent need to address the new individual and collective feeling of social loneliness and the acceleration of time.

Ecology, proximity, solidarity, and participation are the words behind the transformation. We must aim for a more pleasant urban life, agile, healthy, and flexible, so that the suburbs can have access to essential services and every building in the neighborhood can be used for different purposes. Schools, in this design, become meeting points for the neighborhood in the evening, digital labs must be in parks to be shared, because digital transformation is also a key element in this context. These are mainly the words that Carlos Moreno, professor at Paris-I University, used for launching the idea of a “15-minute city”, in which all services would be available to citizens at a maximum distance of 15 minutes by bicycle or on foot. The reasons for this are obvious: the first is ecology, the reduction of pollution; the second is the quality of life, the time gained; the third is the possibility of creating stronger links between people; the fourth is to give a new meaning to the suburbs, an issue of justice and social cohesion. Accordingly, it clearly turns out that the “15-minute city” really wants to integrate time and space into its high-quality living strategy.

The “15-minute city” was one of the points in the electoral program of “Paris en commun”, the political platform of the mayor Anne Hidalgo, who was re-elected to lead the French capital in 2020 summer. The Parisian mayor’s idea is a reference to the concept of the “Intelligent Human City”.

According to Moreno (2021) we need to:

rethink the concept of proximity, articulating it around the six functions that each neighborhood should guarantee: living, working, providing, caring, learning and having fun.

These are radically different concepts than in the past, and therefore imply a questioning of urban planning. It is important to start decon-

structuring cities, thinking differently than in the 1990s when we believed that we would solve the problem of spatial fragmentation by using technology, which would allow us to go faster and farther.

It is a model that seems to be inspiring Milan as well. Believing in the “15-minute city” means guaranteeing citizens all primary services within a quarter of an hour on foot or by bicycle. So, it is necessary to improve infrastructures, reserve a portion of housing for social housing, create small, cohesive, and intergenerational neighborhood communities, and re-appropriate all those spaces on the ground floor of buildings, which represent the natural interchange between private space and the city. In fact, the lockdown showed the importance of being able to rely on a system of territorially distributed redistribution of services and neighborhood sociality (Manzini, 2021).

For Ferri and Manzini, on the other hand, unprecedented social forms are emerging, looking to the future: i.e., hybrid, material, and digital communities; environments made up of places with variable geometry, whose boundaries are no longer physical but are amplified by technologies.

Ezio Manzini, also stress the difference between the new vision of the 15-minute city and the concept of the city as a sum of suburbs. The key is what they call “cosmopolitan localism”.

The 15-minute city must not only be the place of the short networks of everyday life, but also the place where the networks of short distances on foot or by bicycle connect with the long ones, whether they are for work, culture, or study (Manzini, 2021).

Concerning other neighborhood-centered approaches 15-minute cities mainly differ in the intention to move activities to the neighborhoods instead of forcing people to reach the activities, restoring the concept of *proximity* (Pozoukidou, Chatziyiannaki, 2021). Thus, there are a range of proximity-centered strategies aimed at enhancing people’s local access to a consistent and heterogeneous range of comforts and amenities relevant for quality of life. Those strategies are strongly different from accessibility-centered ones.

Apart from the critical design principles, “15-minute city” aspires to engage an inclusive and egalitarian approach to planning such as to achieve socially sustainable urban environments. Sustainability of community is highlighted as an important feature that should be built

through equal access to facilities and opportunities, local social interaction, participation in local community activities, community stability, pride of place, sense of belonging and feeling safe and secure. The notion of inclusiveness refers to basic urban services and amenities that include access to quality affordable housing, mobility infrastructure for all ages and abilities, affordable transportation options, equal opportunities to employment and education, and the right to lead a healthy life (Pozoukidou, Chatziyiannaki, 2021).

Finally, 15-minute cities are intended to be urban environments that would enhance opportunities for resident interaction in neighborhood public areas, such as sidewalks and open spaces, and front door spaces encouraging a sense of connection, familiarity, and a sense of belonging (De Valderrama *et al.*, 2020). With many benefits, starting with the re-appropriation of one's own vital time, thanks to the drastic reduction of hours wasted in long journeys, traffic jams and queues in the metropolis.

It is time to move from urban planning to urban life planning. This means transforming the space of the city, which is still highly mono-functional with its different specialized areas, into a polycentric reality, based on four main components – vicinity, diversity, density, and ubiquity – to offer the six essential urban social functions at a short distance: living, working, providing, caring, learning, and enjoying (Moreno, 2021).

According to Skinner and Masuda (2013):

the right to a health city means to guarantee the access to essential opportunities for health (e.g., social support networks, grocery stores, health services), and/or obligations (e.g., employment, education).

4.3 15-minute cities worldwide cases

In Italy, Milan was the first major city to adopt the “15-minute city” model of future development. The pandemic has forced Milan, like all big cities, to reevaluate its future. In the Lombard capital, the real challenge is to create integrated residential neighborhoods outside the central area – in which housing, offices, factories, public services, and green spaces coexist – also to reduce work commuting and contribute

to the decongestion of public transport and traffic at peak times. The polycentric development of the city would make it possible to move beyond the division between downtown and suburbia to produce a greater intrinsic balance among all the different neighborhoods.

The municipal administration is supporting citizens' initiatives with various actions: from supporting local shops, which are also social centers, for supporting the creation of coworking facilities. A 'time-based' approach is needed to make possible this transformation into a '15-minute city'. The first initiatives underway have, in fact, entailed the expansion of the time-based offer and the physical location of public and private service provision places, also favoring digital use, the strengthening of public services with a view to proximity, balancing the differences between neighbourhoods and reducing travel, and the redesign of services developed by looking at the best experiences of different areas and geographies. The participatory and inclusive decision-making process for local communities is facilitated, in the case of Milan, by local associations and collectives linked to neighbourhoods.

Since its penultimate Urban Mobility Plan (2013), Barcelona has also embraced a concept similar to Moreno's "15-minute city", designing so-called "Superblocks": neighborhoods of nine pedestrianized blocks, where traffic is restricted to major roads around the outside with access for only a few authorized vehicles, which represent small communities within the city and which are linked and interconnected to other urban blocks by external connecting roads. The aim is to reduce pollution from vehicles and give residents much-needed relief from noise pollution. The original project is being implemented with the participation of residents, associations, organisations and groups, as well as City Council experts and technicians. In fact, participation is open to anyone who is interested through meetings, events, activities and workshops, as well as the "decidim.barcelona" platform.

The city rolled out the pilot projects in 6 neighbourhoods with adequate intervals to better refine the public participation process. The goal is to encourage social cohesion and collaboration. For example, during the project experimentations, new practices such as green roofs, water harvesting, rainwater management, and tree plantings are significant. All those initiatives were proposed directly by citizens and inserted into the "Superblocks" agenda. Concurrently, new flexible uses

for terrace space and a usage plan to safeguard against an excess concentration of similar establishments has also been considered. In addition, it would give room for diverse and multipurpose uses. Also, fewer vehicles and more people on the lanes would ultimately attract attention towards local business and increase potential retail success.

Some have been moving in this direction for years. Recent studies carried out in the Netherlands have shown that, thanks in part to a proactive model of spatial planning that has been in place for years, more than 80% of Dutch urban settlements now comply with the characteristics of the “15-minute city”.

Outside Europe, it is the city of Sydney, in Australia, which for some years has been proud to be a 20-minute city, highlighting how this concept of urban space is leading to an improvement in both the environment and the quality of life of its residents.

Similarly, in the United States, Portland (Oregon) has created 20-minute neighborhoods, mainly for pedestrians, which are the cornerstone of the actions promoted by the city to combat the current climate crisis. It consists of the deliberate and measured creation of zoned areas that ensure residents have everything they need to live, work, and play within a twenty-minute walk of their homes.

Originally coined in Portland, as the “Portland Plan”, the initiative ties in with the Oregon city’s climate plan, whereby by 2030 90% of residents will be able to easily walk or cycle to any needed service from home within twenty minutes. The Portland Plan focused on promoting prosperity, reducing carbon emissions, and ensuring that education, health, and equity benefit. The “Melbourne Plan 2017-50” in Melbourne, Australia, is a similar long-term planning strategy, through which the traditional separation of work and private life is blurred and brought closer together. Through the decentralization of the city as a major service and employment center, and as a space for social connection, each neighborhood is enabled to encourage active mobility, accommodate different types of housing, provide affordable housing, provide playgrounds, schools, hospitals, retail shops and ensure access to sport and recreational facilities. Both approaches focus on creating healthy communities by putting the emphasis on the health of their residents. At the heart of the 20-minute neighborhood concept, there are five fundamental principles: connection, community, locality, health, and growth.

Giving people and their needs a primary role, it will be the intention of all planners to consider the psychological effects of not just feeling connected, but of being properly connected through services, green spaces and opportunities to actively walk.

The Swedish “Street Moves”, also known as “1-minute-city” (O’ Sullivan, 2021), and the Milanese experiment “Strade Aperte” which strictly relied on the “tactical urbanism” program (Comune di Milano, 2020) are two outstanding examples. The Swedish “1-minute city” combines the famous Parisian “15-minute city” with the concept of a pedestrian island. At the heart of the project is a vision: to make every street livable, ecological and clean, moving cars away to make room for citizens, their interactions and a more vibrant community life, converting car parks into meeting places with tables, chairs, benches and flowerbeds where people can safely meet outdoors. To encourage light mobility, grids are also installed for parking bicycles and electric scooters. The first trial started in Gothenburg, near a small shopping district. The new public spaces have won the hearts of Swedes: according to initial surveys, 70% of citizens are in favor of the transformation. The Swedish “1-minute city” also responds to the increasingly pressing need, due to the climate crisis, to reduce the role of motorized vehicles in daily life. It is a city to be lived slowly, at a walking pace, and facilitates the creation of a cohesive community.

The space in front of your front door, be it an apartment block or a house, is where you can have authentic and lasting relationships (Hill, 2021).

The “1-minute city” is an ecological city, to be lived slowly, at a walking pace, with the precise aim of recreating a sense of community among its inhabitants. Accordingly, the “1-minute city” is an experimental urban model based on the idea of the “15-minute city”: the concept reimagines urban space at a hyper-local level and involves the citizen in their environment. Unlike the “15-minute city”, the idea here is not to meet all the needs of a community within a 1-minute radius. Rather, it is to give the inhabitants of a neighborhood, the choice of how to use the urban space. The idea is to give a space with multiple potential uses to the inhabitants who live in the district, by building wooden modules, with various sections. It is up to them to decide, according to

their needs and desires, the form that these wooden modules will take. A green space, a meeting place, a playground for children, a parking lot for bicycles or scooters, the possibilities are endless.

On the same way, the milanese plan “Strade Aperte” calls for the construction of a network of 35 kilometers of cycle paths and pedestrian routes within the city streets, all at low cost. Strade Aperte encourages environmentally sustainable transport alternatives to the car (bicycles with pedal assistance and electric scooters), 30 km/h speed limits and priority roads for pedestrians and cyclists, as well as playgrounds and squares co-designed with local communities. The plan exemplifies the implementation of pilot projects in the Lazzaretto and Isola areas, with temporary pedestrianization of some streets, widening of pavements, establishment of 30 km/h zones, installation of terraces and green areas. Indeed, since September 2018, the Municipality of Milan has launched a program defined as “tactical urbanism”, consisting in the creation of new public spaces in place of redundant streets or intersections, with temporary and reversible solutions.

Another project is MOST (Migration Over the Satellite Town of Pioltello) funded by the Polisocial Award program of Politecnico di Milano, in collaboration with Milano-Bicocca University and Statale. “This is a social integration and urban regeneration project based on citizen involvement. The goal is to create a sense of belonging and attachment to the neighborhood by using some abandoned stores and premises on the ground floor of various buildings in the neighborhood”.

The so-called social stores have been opened, called with names that express the objectives and needs of the neighborhood: “Work” to aid the active search for work and support self-entrepreneurship; “Do and Wish”, to give space and tools to the creativity of citizens, especially the youngest, in the action on the territory, for example the organization of events and social initiatives (Inghilleri, 2021).

4.4 Front door design approach

The post-covid era, considering the new urban policies looking to experiment and establish “15-minute cities” models, has kick-started a change that mainly affects the ground floors of our cities.

Barbershop – kebab restaurant – hairdresser’s shop – fruit seller’s – discount – nail shop – veterinarian – pharmacy – watchmaker’s shop – Chinese bar – laundry – bakery – soap supermarket – stationery outlet – etc. The ground floor of buildings is often a commercial sequence, into a market logic that have transformed citizens into consumers for decades. Today, in the post-covid panorama, that sequence of shop windows is an inexorable sentence of failure, of closures, of decline of a consumerist paradigm of the city as a single, widespread market.

The time is ripe for on-demand online shopping, with home delivery services in 10 minutes: a growing phenomenon, as is proximity logistics, which goes beyond food, or initiatives such as ‘shopping districts’ in which a few essential neighbourhood shops network, including digitally, to offer services and consumer goods to the inhabitants of the local community. It is here that the ground floors can become empty places to be redefined.

Accordingly:

- the relationship between the street, the plane of mobility, and the building, the plane of fixity, not only architectural and urban, but also social, would be mended;
- the ground floors could be an active lung for that walkability or slow mobility that dangerously tries to carve out paths between the running cars;
- it would be possible to consolidate in the front door city those neighborhood units that are more active online than offline;
- it would favor those networks of randomness that the city has stifled, changing the relationships and the sense of place;
- it would increase the sense of security, belonging and attachment that are fundamental conditions for inhabiting public places.

Slow mobility linked to a 15-minute magnitude requires the redesign of ground floor spaces, which have been cannibalized by commerce for too long. It is precisely this invasion of ground-floor spaces by trading the cause of the transformation of citizens into consumers, of the city from a place of relations into a single large market whose exchanges were regulated by market laws and not by social rules. Only slowness can sustain the natural times of a commu-

nity, made of informal relationships, rituals, customs... far from the rapidity of online communities. Temporal slowness, which produces casualness, is that of free and varied ground floors not only devoted to shopping. Rooted communities, those that build a physical relationship with places, need slowness and time to sew “vis-à-vis” relationships (Jacobs, 2000).

The social architecture of the 60s and 70s had introduced in the buildings the idea of common spaces, condominiums, aimed at being collectors of relations, services and collective activities. In the 1980s these spaces were rented out, made productive according to a market logic that enticed the trade and marketing of locations.

We need to re-occupy the ground floors, make them productive with a view to a social economy and not exclusively financial. We need to give back to the city and the community the qualities of those places that can mend the idea of proximity, of neighborhood, of social mandate. In the section of buildings, the connection with the ground line must be sewn up. For too long the ground floor has been an impenetrable threshold, a caesura between private and public that functionally supplied one and monopolized the other.

It is by following the smaller order of magnitude, of the “1-minute city”, that think-local planning pays attention to “the space outside your front door, and that of your adjacent neighbors and across the street,” precisely the front door city. It has as its idea that the spaces just beyond the front door are ideal places for cities to begin to develop new, more direct ways of engaging with the public. They are a filter and a portal to the wider world; the atmosphere they generate and the infrastructure they provide are tools for the transformation of the community itself. In fact, what is happening is that communities are bringing ground floors, redesigning streets and parking spaces and seating, and reclaiming the indoor and outdoor ground floor.

Ground floors are a great place to engage on the level of people’s daily lives.

It is difficult to conceive of a new political imagination igniting without open and generative street cultures (Hill, 2021).

According to the cases, the re-appropriation of neighborhood public space paves the way for redesigning the ground floors of build-

ings, especially the intersectional area of the front door: filter spaces, between the private spaces of our houses and the neighborhood, the 15-minute city in which we will live in the near future.

4.5 Variables of success

Although this approach is recent and the impacts on the city, on the communities of inhabitants and on the circularity and sustainability of services are being measured, it seems clear that these models of urban proximity, of sustainable and widespread use of indoor and urban spaces on the ground floors, can increase the level of engagement between spaces and communities.

The first studies show the existence of some parameters, which also allow to measure both the involvement of the inhabitants, the increase of the quality of life, the reduction of pollution, etc.

From the design workshops that we hold at the School of Design of Politecnico di Milano, as well as from the literature and urban practices that we have studied and even co-designed in some cases, it is clear that it is necessary to find indicators that can demonstrate unequivocally that the direction traced by these projects (at the scale of 15 minutes city or neighborhood or the city of ground floors) leads to an idea of sustainability that is not paternalistic, that is not recessive, but proactive and improving for all.

We can already begin to extrapolate what are the parameters that demonstrate the success of door front city design approach:

- reduction in travel by private vehicles in favor of public transport, walking or cycling. Due to the efficiency of multi-modality of shared vehicles compared to traditional automotive transportation, but also due to the convenience of using shared vehicles compared to owned vehicles;
- improvement of the air quality and noise pollution due to the absence or reduction of car traffic. The measurement of micro-environmental quality, which often reaches dramatic values on the ground floors, shows an improvement in the air and a reduction in particulate and VCOs. Consequently, it encourages the use of public spaces also near the main roads that reduce traffic peaks;

- more green spaces will encourage people to be outdoors and lead more active lifestyles. The presence of greenery, combined with the reduction of traffic and pollution, becomes value of encouragement to the use of public spaces with consequent protection and increased maintenance of spaces;
- reduction in obesity and diabetes and consequent easing of pressure on health services. As a result, people are encouraged to go outside, to stay outside, to explore the neighborhood, to get active but also to take ownership of the spaces as a common asset;
- combined monochronic and polychronic use of spaces and simultaneity of activities. Thus conceived, the city also begins to explore different temporal dimensions. There is no longer just one time, one community or one productive system, but the city becomes polyphonic, able to accommodate different chronologies, different cultures and chronemics, different forms of living. The hours of the day and night are explored, and spaces open up to simultaneity and the inclusion of heterogeneous communities and activities;
- unprecedented importance of sidewalks, not only in terms of crowding and presence indices, but especially in the correlation with living on and off ground floors and the opportunity they offer designers to design props that facilitate aggregation rather than segregation. The sidewalk becomes not only the place of flows, to be conveyed and fluidized, but also the place of different speeds, of lateralities, which allow unexpected movements, individual, but also groupings and moments of rest. It is precisely that part of the front door city that stops being a threshold and becomes a widening, a square, a place for interaction;
- increase of walking or moving slowly as an action capable of generating lateral knowledge that increases the cognitive, perceptual, and emotional level of the city;
- increase in personal satisfaction intersected with the social level, defined as psychosocial dynamics of “deep democracy” that leads to “psychological citizenship”, also defined as “networking flow”, when it manages “to combine psychological wellbeing of the people involved, social interest of communities and success, even economic, in the achievement of objectives” (Inghilleri, 2021).

These reflections are confirmed, and sometimes almost coincide, with the parameters that Arup Office, one of the most international

firm of engineering, considers barometers of the contemporary city experience. This is important, because until now, these were considered guidelines formulated by enlightened public administrations or by citizens' associations that, at best, were able to activate co-design projects. However, the fact that one of the world's most important design studios grasps these as project values, means that a breach has been opened, even in the heart of the most globalized design, and real estate stakeholders are beginning to consider the quality of ground floor spaces as essential economic values for the quality of the cities they build.

1. Focusing on walkability. Making the city more walkable by measures such as pedestrianizing shopping streets, planting more trees to provide shade, and providing more benches and public toilets. Walking has been shown to make people happier and reduce air pollution. And a walkable neighborhood increases the informal interactions between people, building ties among neighbors.
2. Rewilding the city. London has its share of major parks, but not everyone lives within easy reach of those. Greenery has an important role in making cities more resilient, both by providing residents with a respite from tarmac and concrete and offering shade, natural flood defenses and cleaner air. There are many things a city can do to bring green spaces to communities. In Liverpool for example, modular parklets using street furniture and planter have provided more greenery.
3. Creating public space for play. We should be looking to maximize the opportunity for play. It's been shown that child-friendly cities are friendlier places for everyone. Playful encounters can be built into everyday journeys through interventions that give objects purpose beyond their primary function and foster curiosity. Examples include playful bus stops, public art projects or pocket parks such as the Urban95.
4. Multifunctional space. In densely packed cities like London we need to look to re-use existing or outdated infrastructure such as car parks, school grounds or community hubs for neighborhood activities after hours. Or looking to temporary facilities, such as Kings Cross Central in London set up during its redevelopment-including an open-air swimming pool.
5. Creating digital twins. The ability to build online cities in parallel with our physical cities is within our reach. It allows us to model

and test ideas that could ensure all developments help contribute to making urban life more enjoyable for communities by helping with everything from reducing air pollution to connecting people with green spaces. Digital twins allow the real-time simulation of cities-enabling policy makers and urban designers to test different scenarios and identify risks and opportunities. Crucially they will allow communities to fully understand the impact of different planning decisions.

In conclusion, we could hope that cities will change in the coming years in the direction of environmental, but also social, spatial, and temporal sustainability. Digitization will be a service to the city built to open private spaces and re-occupy public ones. Door front city is the one that will have to give us confidence, precisely because it is in front of our doors, because it is a space that belongs to us and that we will have to take care of every day.

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The book presents different perspectives of analysis and new models of experience, reconfirming the importance assigned to the wellbeing and human-centered approach in the contemporary spatial design disciplinary debate. The focus on “engaging spaces” is due to the increase of participatory experiences in the design strategies supporting designers who want create tailor made environment to feel people more conscious of the great value of social relations.

The title of the book anticipates the aim to explore the transformation process which we are living, both in private and in public spaces, underlining the central role of design to define new qualities of connections to live together in relation with the space around us. The volume is divided into two parts described below.

The first, “Social design for engaging spaces”, explores private and public space case studies introducing new hybrid dimensions through the social engagement in “living communities” and reports participatory design approaches in the transformation processes of shared common spaces, such as schools, intended as incubators of social practices.

The second, “Experience design for engaging spaces”, describes more in-depth the experience of human beings in relation to physical and emotional aspects of space, focusing on the quality of the built environment that deeply affects people’s wellbeing, social interaction, and cohesion, and investigating ephemeral practices and projects to experience design through a conscious sensorial approach.

The pandemic and the return to a “post-pandemic new normal” have led us to further reflect on the spatial processes of transformation and hybridization and their shared use in both the private and public spheres, exploring the importance of participatory and engaging strategies in the different phases of the design process with the aim to increase social awareness. Being back to the physical perception of spaces has confirmed the importance of evaluating the project’s sensorial aspects with a new awareness. This novel attitude leads to rediscovering the values of measurable space in the constant confrontation with the virtual perspective that triumphed during the pandemic, introducing the “time” factor in the design discipline even with a broader complexity than before.