



UNIVERSITÀ DEGLI STUDI MEDITERRANEA DI REGGIO CALABRIA

DIPARTIMENTO PATRIMONIO ARCHITETTURA URBANISTICA – PAU  
HERITAGE, ARCHITECTURE AND URBAN PLANNING DEPARTMENT

DOTTORATO DI RICERCA IN  
URBAN REGENERATION AND ECONOMIC DEVELOPMENT XXXIII CICLO

INTERNATIONAL DOCTORATE PROGRAM IN  
URBAN REGENERATION AND ECONOMIC DEVELOPMENT XXXIII CYCLE

## **Creativity and Resilience for a Sustainable Urban Regeneration.**

Third spaces, to face the new challenges of urban civilization by promoting  
health and well-being.

PhD CANDIDATE/ DOTTORANDO:

Antonino Sinicropi



TUTOR:

Prof. Antonio Taccone



PROGRAMME COORDINATOR/ COORDINATORE:

Prof. Paolo Fuschi



**INDEX**

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
| 1. Summary                                                                    | 3   |
| 2. Introduction                                                               | 7   |
| 3. PART ONE – Literature Review                                               | 16  |
| a. From Sustainable Design to Community Resilience                            | 17  |
| b. From Social to Cultural Resilience                                         | 22  |
| c. From Art Project Approach to Placemaking                                   | 28  |
| d. From Public Space to Third Place                                           | 44  |
| e. The Decline of Public Spaces                                               | 54  |
| f. Placemaking and Health                                                     | 66  |
| g. The Public Space                                                           | 77  |
| h. Human Resilience                                                           | 97  |
| i. Liquid Modernity                                                           | 116 |
| j. The Right to the City                                                      | 122 |
| 4. PART TWO – Analysis                                                        | 127 |
| a. Introduction                                                               | 128 |
| b. General Strategies for                                                     | 131 |
| i. Urban Malaise                                                              | 134 |
| ii. Unhealthy and Unsafe Streets                                              | 136 |
| iii. Designing Healthy Streets                                                | 138 |
| c. Study Case – Major Office of New Urban Mechanics                           | 141 |
| d. Through the new urban challenges                                           | 162 |
| i. The emergency Triggers a Change and a Rethinking of the City               | 164 |
| ii. Forms and Practices of Daily life                                         | 168 |
| iii. Another City concepts                                                    | 170 |
| iv. Towards a sustainable transition                                          | 172 |
| v. A downsizing of hypermobile lifestyles will likely be necessary.           | 173 |
| vi. Towards a new design culture which will have to investigate its own needs | 175 |
| vii. An alliance between city and countryside                                 | 176 |
| viii. Internal Areas                                                          | 178 |
| ix. Resilient and Prosperous Cities                                           | 179 |
| x. Creativity is not artistic at all, although we can use art to be creative. | 187 |
| e. From Healthy Cities to Healthy Streets                                     | 190 |
| f. Study Case – The Plan for a London Healthy City                            | 206 |
| 5. PART THREE – Principles for Healthy City                                   | 228 |
| a. Introduction                                                               | 229 |
| b. Rebuilding a walkable city                                                 | 238 |
| c. Safe, Healthy and Social Streets                                           | 246 |
| d. Urban Comfort                                                              | 270 |
| e. For a new citizenship in public spaces                                     | 276 |
| 6. Recap and Perspectives                                                     | 281 |
| 7. References                                                                 | 287 |

## Summary

*Cities have always had to face adverse events and new challenges that have undermined the balance and the very existence of the city. The Covid-19 pandemic, with all that it has entailed and the consequences that will reverberate in the years to come, has helped to amplify the population's need for public space, but not for transit space, but space that becomes a place in which to socialize, share experiences and knowledge, a place to meet oneself and the other. During the emergency, the possibility of sharing and socialization was denied, the "Third Spaces" were denied, redefining everyday life between the domestic space and the workspace, when these two were not merged into the only possible space, the home. The virtualization and dehumanization of the third space have contributed to making public spaces non-places. The emergency actions of national and local governments have impacted the urban space to restore a "new normal" for the population. With a look to the future, it will be necessary for this new normal to be sustainable, resilient, and resilient inclined to social cohesion. The effects of the Covid-19 pandemic and possible future pandemics could affect cities for years, as happened in the past because a pandemic is also an urban planning problem that can alter life and urban balance.*

*Public space can play a crucial role in making cities resilient. The streets represent the public space par excellence, both in terms of quantity and potential, and it is precisely in the streets that cities will overcome future challenges.*

*The investigation into public space concerned the urban practice of creating places to activate resilience through creativity. The role of creativity is of fundamental importance to ensure civic involvement, social and cultural cohesion, and community resilience, focusing on sustainability. Creativity is problem-solving, relevance, and innovation. The survey involved the literature and practice of the last fifty years of the placemaking approach, the public space read in all its facets and possible uses for a complete definition of third space or domesticated public space. In order to maintain its independence and continue to thrive as a resilient and robust city, every city must have a healthy society. Promoting a people-centered approach to development would help achieve the UN Sustainable Development Goals 2030 as it is essential to eradicate poverty, increase shared prosperity and leave no one behind. Therefore, the theme of a healthy city becomes central and preponderant to achieve prosperity and well-being. Resilient cities must be healthy, which leads to the conclusion that their inhabitants must also enjoy high levels of health and well-being.*

*The important socio-anthropological aspect of human resilience was addressed to outline social skills' behaviors, skills, and possibilities.*

*The reinterpretation and overcoming of the concept of universal neoliberal planning of Lefebvrian matrix, a rethinking of the "right to the city" in the era of planetary urbanization that passes both from an essential epistemological effort functional to the opening of critical*

*thinking to new interpretative horizons, and from a renewed ability to practice, observe and represent the new natural and virtual centralities, those liminal spaces that prefigure new needs, new territories and a new society: an open and constantly evolving project.*

*Liquid modernity reflects life in contemporary society, which Bauman defines as “liquid” to indicate that everything is momentary, fluid, changeable, ambiguous, precarious. This metaphor has been very successful and has become a reference point for today's sociology. According to the Polish-born sociologist, the crisis of politics and the state has made individuals more insecure, which compromises their ability to enjoy the freedom they have. The fears that lacerate contemporary society arise from the weakening of interpersonal ties, from the crumbling of communities, from replacing human solidarity with unlimited competition in a world subject to the whims of deregulated economic powers. Without political controls, it increases and spreads to all aspects of life.*

*The Covid-19 pandemic event could offer the opportunity for a restart, not only from the stalemate generated by an unpredictable global event but for a restart from the city of the recent past, energy-consuming and unsustainable towards a sustainable city. A city that achieves a continuum of prosperity and resilience without suffering the arrests dictated by external aggression or internal instability. A restart or rebirth must take place in the streets. Precisely those roads that for decades were the space of mass motorization that generated urban malaise and discomfort, producing unsafe and unhealthy spaces, high risk of accidents, asphalt jungle and heat islands, flooding, etcetera. Today, the opportunity is to rethink cities and streets as places of health and well-being, strong and resilient cities that aim for prosperity.*

*About the case study of the Mayor Office of New Urban Mechanics, interesting actions emerged aimed at innovation and social resilience, third spaces, civic engagement, public health, and urban well-being with attention to sustainability and technological development, in addition to practices for improving public space and the walkability of urban roads.*

*The deepening of the issues inherent to social innovation and new urban challenges emerged. Social innovation could promote new solutions to address social needs and problems such as inequality, the environment, water and sanitation, health, education, unemployment, urbanization, and an aging population. Social innovation seeks sustainable and innovative solutions through collaborations between the public, private and social sectors. Social innovation contributes to building a stable, resilient, inclusive, and sustainable society by harnessing the public, private, and social sectors' resources and capacities. Various aspects, realities, and opportunities for the future of the city and its evolution were investigated.*

*Urbanization associated with lifestyle change has made human life in cities with chronic stress, inadequate physical activity, and increased exposure to anthropogenic environmental hazards.*

*Urban green spaces, such as parks, playgrounds, and urban forests promote mental and physical health, mitigating morbidity and mortality rates in urban residents through*



*psychological relaxation, stress reduction, social cohesion, increased health, physical activity, and other positive effects.*

*The quality of our outdoor environments significantly alters our experience of the built environment. Therefore, the corresponding state of the environment is essential for reaping optimal health benefits from urban nature. Urban greenery in green infrastructure and nature-based solutions plays a significant role in improving environmental quality and reducing exposure to air pollutants, noise, and excessive heat.*

*Nature-based solutions and green infrastructure are proving effective in mitigating urban environmental risks. However, better implementation and integration of our urban green spaces offer a unique opportunity to improve cities' quality of life further.*

*For example, some nature-based and human-centered projects have been brought up that focus on attention to health and well-being and the series of actions taken during the Covid-19 pandemic in the United Kingdom and the United States to encourage the population to move and active mobility during an emergency. In the case of the United Kingdom, it was the implementation of projects already underway for decades, as already before the health emergency, work had begun to improve the quality of urban spaces to make them welcoming and vital to ensure proper mobility and improvement the health of citizens. An example is the case of Healthy Streets, which has become an integral part of the new London Plan on which an extensive survey was carried out, from which the enormous attention to the quality of urban spaces emerged, to make them places of health promotion and well-being.*

*Taking advantage of what has been learned from the investigations carried out, principles for the healthy city have been proposed to offer a small framework for the reorganization of urban space to make it more accessible and livable. Cities and urban areas more generally will have to return to being traveled by people and not by cars. Future mobility must be sustainable, accessible, fair, and safe. Urban plans will have to prepare large spaces for pedestrian networks, extend them to the whole territory, and integrate them with systems and infrastructures for sustainable public / private transport (trains, trams, buses, and car-sharing with zero emissions, cycle routes), strategically setting up a multimodal hub. Active mobility will allow the transition from hypermobility, which mainly congested urban centers, to the fluidity of movements, on a human scale, which can prove helpful for dealing with emergencies of any kind. However, in the meantime, it will offer better conditions of physical health and mental and well-being. The pedestrian priority or making long road routes entirely pedestrian to create an urban pedestrian network will increase perceived safety, allowing greater accessibility and usability of public space to reach essential services, places of cultural, landscape, environmental, and above all social interest.*

*The inhabitants will have to use the urban space of the future city to keep fit and healthy, but above all by the little ones to grow in a healthy, dynamic, and stimulating environment. An urban environment adaptable to situations is usable in all conditions, which invites play, socialization, and creativity. Urban space, in this way, will become the third space par*

*excellence and, perhaps, the favorite, where to grow by learning from the city and learning to love it. The role of education and training institutions and associations will be fundamental, in synergy with local administrations, to foster a “very active” citizenship that can face future challenges. A city can only be resilient if its inhabitants are resilient and vice versa. Resilience is closely linked to the condition of equilibrium in the city.*

## Introduction

The plague epidemic that raged in Europe in the seventeenth century, skillfully described by Alessandro Manzoni and Daniel Defoe, was interpreted and fought as a matter of public interest, but the solutions adopted were not always practical. The spread of lazarets, the burial of the dead outside inhabited centers, the formation of mass graves, without distinction of the census, were ineffective, above all because the exact nature of the disease was not known. A disease with which, in reality, the European population had been living together for a long time, even if its virulence presented itself in waves. The epidemic, however, caused social upheavals not only for the number of deaths but also because it ended up affecting established habits. Furthermore, if in some cities the search for the smearers constituted a relevant part of the popular reaction and the authorities, in others, the question was posed in entirely different terms. The epidemics were an opportunity to establish specific treatment and/or social confinement structures, such as lazarets and hospitals, and establish particular protection and power institutions (Amendola, 2020).

In the artistic field, during this so-called Baroque era, he laid the foundations for reflecting on human frailty and the inevitability of passing away, which constituted a general renewal of art.

In recent decades, numerous filmmakers of the sci-fi or catastrophic genre have tried their hand at narrating the chronicles of a war against an unknown virus that incredibly foreshadowed, taking a cue from the past, the one we are fighting today with the Covid-19 pandemic. The teaching that these films leave behind is that after the storm of contagion, the solution is identified, and at that point, the quiet of normality returns. But which normality? For some directors, perhaps the most obscure, this quiet is understood as a sort of coexistence with evil; for others, however, a return to pre-crisis normality.

Here we do not want to make a cinematic analysis, but we wanted to mention the world of cinema as it often anticipates human events, especially in the science fiction genre.

Therefore, the return to normality should be understood either as a coexistence with the problem, making it "normal", if it is not possible to effectively address and solve it, defeat it, or return to "as we were before" once the problem has been solved. So resilience in its ecological meaning, or the speed with which a community returns to its initial state, after being subjected to a perturbation removed from that state. Nevertheless, the question that might arise is: Would not it be the case instead to take this opportunity to rethink our condition of normality in private and social life? To answer, one could assume the psychological meaning of resilience which, quoting the Treccani encyclopedia, is the ability to react to trauma and difficulties, recovering psychological balance through the mobilization of inner resources and the positive reorganization of the structure of the personality (Enc. Treccani). This concept transposed into the urban could be a possible direction of action to

mitigate and improve the conditions of the spaces of urban sociality, which can be identified as the spaces that determine the population's well-being and health. The changes and challenges we face bring resilience into circulation as a necessary attitude. Resilience is the ability to resist. It is to equip oneself to resist. However, it becomes useless resistance if it pretends to keep things as they are and as they have shown, throughout 2020 and still today, to leave us exposed. Unless we think that it will be enough to have a few thousand more beds in intensive care, rather than avoid, as much as possible, that they are necessary. It would be like fighting the risk of an atomic conflict by merely equipping a bunker for oneself. This is why it must undoubtedly be resilience, but transformative, that is, capable of transforming the existing, making it less permeable to negative phenomena and at the same time working to ensure that the phenomena themselves are less frequent and less intense.

The Covid-19 pandemic was faced, before any other solution, with measures of social isolation, which we could somehow compare to the seventeenth-century ones of the plague. The similarities between yesterday and today are striking: in the absence of specific treatments, then as now, maximum attention was paid to the separation of the sick from the healthy in the cities. The Italian invention of the lazarets, then copied throughout Europe, is emblematically the main isolation instrument. Even the search for people believed to be carriers of the infection, yesterday the poor, today, perhaps, foreigners, strangers, tells us that, after all, things have not changed much in social culture. It was believed that the disease had a smell that came from the miasmatic theory that concerned many cities: miasms to be avoided by moving to healthier places, yesterday in the Tuscan hills (Boccaccio) today in second homes, or to be avoided with masks that contained vinegar, while today we have our inevitable masks. However, the disease had a stench in the collective imagination that generally corresponded to the poor.

The city was built for defensive purposes by imagining that the dangers remained "outside the walls", but that faceless enemy represented by the epidemic takes advantage of the urban proximity to reap its victims. There are no walls for this invisible enemy, and the city seems the ideal condition for its diffusion. Only in the mid-nineteenth century, the principles of personal and urban hygiene were affirmed. The emergence of the idea of a "healthy city" reveals that "there are strictly two cities", that of the bourgeoisie and that of the slums (Carrera, 2020). In London, a situation is "created" by creating new urban fabrics, while in Paris, it is Haussmann's interventions that give it body. The idea that the city is dangerous as it is unhealthy thus enters into common sense. Tuberculosis takes on the emblematic role of the disease that is the daughter of the 'unhealthy' city, and syphilis is associated with that of the 'corrupt' city (Carrera, 2020). In short, the "evil city" takes shape and consolidates itself in the collective imagination even if, between the nineteenth and twentieth centuries, the city resists changes, institutions for care and hygiene spread, open spaces, parks multiply, etcetera. In short, the plagues, more generally the disease or the fear of disease, contribute to change the cities. In other words, functional solutions to urban hygiene are sought, while those "two cities" are a contradiction not of the city, but society does not fail. The same is

happening with the current pandemic, so much so that the places that we used to see crowded become rarefied, little frequented because they are not recommended or even forbidden. Concerning the social imaginary, the idea is strengthened that, after all, the problem is the cities. Hence, the easy conclusion that has led many to repopulate abandoned villages, favored by technology and smart work, but will these villages meet these new inhabitants' needs in the long term? Or will a temporary invasion leave behind if we just rubble when they get back to "normal"?

Epidemics, past and present, end up questioning the very idea of a city that, due to its conformation and its nature as a social aggregate where exchanges between people are frequent, appears to be the ideal place for disseminating infection. Nevertheless, cities change and resist, for obvious as well as clear reasons. As in the twentieth century, they are the engine of the production of wealth, the center of cultural development and innovation, the mechanism that favors sociality, the place where the recognition of the other is more usual, including the different, where forces are organized. Social for change: even the change of the city itself.

The meeting between people, occasional or routine, the coexistence in a specific place, nourishes the community, identity, and democracy. Urban colloquiality and public debate are essential opportunities for everyday life to build individual and collective memory and create an aware, mature, cultured public opinion, and exercise passions. To return to the current pandemic, it is true that in cities, especially in large cities, contagion is easier because we meet many people, frequent places, and crowded public transport, there are many opportunities for contact. However, it is equally valid that in the cities there are the best-equipped hospitals and a health chain to refer to is more active (clinics, hospitals, ambulances, first aid, research centers, etcetera), but from this point onwards could open up a whole series of controversial questions regarding the availability of health services and their capillarity, as well as accessibility for all segments of the population.

History teaches us that the city has had to face numerous challenges, and there will be many others. Challenges of a "natural" nature, such as a virus pandemic, an earthquake, a tsunami, or an immediate upheaval of the climate capable of causing extreme atmospheric events with repercussions on human life, are certainly not the only and most "impacting ones. ". For years we have witnessed health pandemics, not caused by viruses, which are not transmitted by contact or respiration but are inherent in our lifestyle. We could mention diseases such as diabetes, cardiovascular diseases, the increased incidence of cancer, which in some territories take on the aspects of real pandemics with numbers of deaths comparable to real war bulletins, such as those recorded in the Covid-19 pandemic or even greater. So the problem for the health of urban civilization is not dictated, today, only by a virus, natural or artificial as it may be, but lies in the styles and fashions in which urban civilization experiences the urban and its spaces, especially public spaces and how these spaces respond to the needs of urban civilization. Hence the opportunity, through the reinterpretation of public spaces, those places that are not the home environment or the workplace, where many have found themselves

"imprisoned" during the emergency, but the spaces "demonized" by pandemic from Covid-19, spaces for sharing, socializing, exchange, movement, and displacement, public space understood not only as large open spaces but also as public spaces of culture and creativity, which could often be identified with physically closed places, such as museums and all that they can generate.

In contrast, the pandemic has made them closed and inaccessible. An epidemic on a global scale has given rise to an increase in the urban whole's residual spaces. The places of social and cultural life become deserted, desolate. Residual places that would represent a fertile ground for the construction of a spatial consciousness shared by the actors who relate to them through an informal approach, claiming greater participation in the control of the social production of living space as theorized by Soja ( Soja, 1996), Oldenburg (Oldenburg, 1997) and Bhabha ( Bhabha, 1994). These places will henceforth be called "Third Spaces".

Why Third Spaces?

The first space is that of family life, where we carry out our daily domestic activities, which we have learned to know, in some cases to better discover, during periods of lockdown, a space that is born protected, conceived as a safe place, even if they could many discussions are open on the matter, but this is not the place.

The second space is to be identified with the workplace, the space in which we carry out our work activities in a broad sense, the factory, the office, the shop, the school. This space has often undergone, during the lockdown periods, but throughout the emergency, a sort of fusion with the first space to increase existing problems or generate new ones. Problems concerning mainly individuals' mental health, especially those who have passed from dynamism to statics, without forgetting what happened in the school environment. Children, adolescents, and young people have lost important, indeed crucial, moments in the growth of the individual, running the risk of getting used to this condition, in a "resilience" response that is not yet mature, considering life in the first space the only possible and safe one.

Therefore, the third spaces assume a crucial role for rebirth after the catastrophe because man is a social animal for which the life of a hermit is not an easily accessible and sustainable solution, mainly for physical and mental health.

The future city's challenges will be played out precisely in these spaces, liminal, interstitial, in some cases commercial, often spaces for cultural exchange and knowledge. The pandemic situation could therefore offer the possibility of a more in-depth reflection on public space, re-reading the definition of "hidden dimension" theorized by Edward Twichell Hall (Hall, 1996) and investigating the possible opportunities for the rebirth of public space and, consequently, the advantage it can bring to the life of inhabited areas, be they metropolises, small cities or inland and rural areas, and to the health and well-being of its inhabitants are.

In its initial phase, this research aimed to investigate these "third spaces" for what they represented, up until before, above all, the actions on these spaces to make them socially fruitful, restoration actions, recovery, and a new realization of spaces of sociality. The goal would have been to direct these spaces' actions to last over time while remaining fruitful, therefore resilient.

The pandemic and the consequent lockdown have forced a review of all the research and a reorientation of the investigation, identifying in these third spaces the places of opportunity to dispute the future city's challenges, as previously described.

The new questions that emerged are: What opportunities for the city after a global pandemic? Why can social spaces meet the need for health and well-being? How can these spaces have durability over time?

Despite decades of urban research and practice deriving from the experiences of the historical past of human civilization, the city found itself thrown off guard by an unexpected pandemic event. The consequences for the city could lead to an inversion of urban planning orientations, particularly concerning land consumption and densification.

The Covid-19 pandemic has catalyzed essential changes in society, the leading social effects can be identified in the mixture of the discrete spaces of home and work, accelerating the collapse of the border between them already eroded for years, but above all and not least, in the loss of all or almost all of our third places. The coronavirus pandemic has at least temporarily significantly reconfigured city life, the relationship between work and residence and leisure, use of public space, safety, and security of transport, both public and private, and placed fundamental equity of access to resources. An intelligent planning scenario could not have anticipated and illustrated the far-reaching and impactful socio-spatial dimensions of the coronavirus pandemic in its entirety so vividly, let alone proactively applied standard urban planning tools (Banai, 2020).

Measures of "social distancing", or "spatial isolation", have been the most widespread way to contain the viral contagion. Following this approach, each of us must distance ourselves from the others, as others can contaminate him. Therefore, the most dangerous context to escape is when intersubjective relationships are most concentrated: the city. Again, the reason is apparent: stacking people on top of each other in buildings and offices, and packing them in buses and subway cars, creates an ideal breeding ground for communicable diseases.

Surreal images have appeared in the media of cities known for their population density, air pollution, and traffic which, during the pandemic, found themselves with visibility of the horizon, empty streets, deserted urban centers, run-down retail store parking lots, buildings for empty offices, closed universities and desolate public parks. Before Covid-19, these conditions were regarded as intolerable indicators of degradation. Furthermore, the impact of social isolation on mental health is also recognized (Banai, 2020).

Collective loneliness during the pandemic shows how dependent people are on each other for happiness and how interconnected they genuinely are (Low & Smart, 2020).



Healthy societies depend on the continuous interaction between people who are different in a variety of ways. Third places are the primary places for such interactions because the shared enjoyment of their services ensures that strangers also have at least one thing in common (Low & Smart, 2020).

Much of the new urban planning discourse that emerged in the 1980s concerns civic places, which have disappeared into the private and subdivided spaces of the suburbs, where, since there are no civic spaces, they could not host a social place for the adolescent population without a car, if not for lots and buildings in construction (Katz, 1994). Consequently, suburbia segregated commercial-residential-public land use instead of historic American Main Street with a mixed-use of fine-grained land and an accessible park. The complete (master) design plans of the new town planning aimed to remedy this deficiency with integrated land use and pedestrian access, with enhanced public domain elements, occupying important landmarks with water features and articulated surface materials of the pavements anchored by a pocket park gazebo, attentive to both pedestrian and vehicular traffic (Banai, 2020).

As the pandemic restricted or prohibited access to the public sphere, its significance became even more evident, albeit with a disturbing sense of a public sphere no longer in the public domain. The city's desire for the city's public sphere, temporarily off-limits during the pandemic, was expressed through the building's balcony, which architecturally transitions between public and private space. The balcony replaced an inaccessible public space - from the street to the town square, to the park, to the waterfront, to the cemetery, to places for religious meetings. These places functioned, albeit with some adaptation, aided in cyberspace, and occasionally despite any control imposition of the need for the "third place" where essential human interaction occurs beyond work and home (Oldenburg, 1999). The limit of the experience of the physical place through cyberspace is readily revealed when recalled by Lynch's cognitive mapping of the five elements that make the city legible or imaginable, and the sense of the attributes of the place, including environment, sound, smell, topography (steepness of roads) and the like (Lynch, 1960). When eclipsed in dense theoretical academic writing, commercial media and social media alike have exemplified the significance, experience, and desire for the city's public sphere, particularly during a pandemic (Banai, 2020).

Due to the potential for contagion from strangers, the coronavirus creates a similar us-versus-them mentality. Without third places and public spaces where people come into regular contact with others outside their circle, such thinking can become ingrained. It can metastasize from prudent public health advice to paranoia and prejudice (Low & Smart, 2020).

Coronavirus, in other words, challenges our physical, mental, and economic health and our social health (Low & Smart, 2020).

Third places are elements that bind us to a particular place and to the people who frequent it. In these places, we build a chosen community, a more critical public sphere. Without them, the associations that weave a complex society will run out (Low & Smart, 2020).

It is not only the pandemic of an infectious disease that is consequential for the vitality of the public sphere of the city. The extreme weather model of climate change with heavy rain events threatens the vital element of the city's public sphere with road flooding. Punctual and non-punctual pollution during heavy rain events threatens the water bodies of the city. The comprehensive plan can increase the resilience of cities by redeveloping run-down and abandoned industrial and commercial properties as buffers of green open spaces that absorb or slow surface runoff that creates pollutant hotspots in cities' rivers and streams.

A dominant element of the public sphere is a suburban thoroughfare. The wide artery is enhanced if "shared" equally, welcoming the movement of pedestrians and vehicles. The global long-term plan is a tool to achieve this using physical design changes that "calm" traffic and increase public safety. For example, integrating green space into the roadway in medians or embankments improves pedestrian safety by reducing runoff during heavy rain events that characterize climate change.

Due to its physical structure and functioning, the city is the primary driver of climate change, causing peaks in the consumption of non-renewable resources, significant emissions of greenhouse gases, and pollution conditions due to the robust production of waste only partially offset by current policies of circularity of urban metabolism (Sgobbo and Moccia, 2016; Sgobbo, 2016 - 2017 - 2020b; Tira et al., 2017). Here, moreover, by concentrating high percentages of the exposed population, the risks resulting from anthropogenic and natural hazards are increased, urging the need for mitigation and adaptation actions (Sgobbo, 2020b). In this context, the ecological interpretation of resilience that is emerging in the discipline is of some importance, framing the close relationship between anthropogenic and natural components in the study of the adaptive capacities of complex systems, capable of learning from experience, of elaborating information and adapt to changes (Galderisi, 2014; Losasso, 2016). In recent urban studies, density/densification emerges as a potentially suitable strategy to respond to these needs, offering itself a financially sustainable solution for ecological, social, and resilient restoration of cities (Fabbricatti, 2013, Sgobbo, 2020).

The pandemic of 2020 seems to contradict this assumption by insinuating in public opinion, in the political decision-maker and in the disciplines that, although scientific, little deepen the knowledge of the city phenomenon, the belief that the spread of the contagion is "simply" correlated to the levels of density (Hamidi et al., 2020) and consequently congested local public transport (Banai, 2020).

It is not evident that population density contributes to the proliferation of the pandemic. However, it is necessary to distinguish between overcrowding inside buildings and transport

and concentration in outdoor spaces (squares, streets, parks) shared by all citizens. Transmission of the coronavirus occurs mainly through extended close contacts, particularly in enclosed spaces, where droplets and aerosols accumulate. It is, therefore, the overcrowding, generally measured in square meters per person, that matters. High-risk locations include retirement homes, prisons, migrant shelters, funerals, weddings, canteens, gyms, barracks, hotels, open-plan offices, churches, hospitals, slaughterhouses, sporting events, public transport, night clubs, airplanes, and cruise ships (Pafka, 2020). Much of the list indicates places where the most disadvantaged social groups insist: overcrowding varies strictly with income and wealth (the less money and property you have, the more "tight" you are); inequality plays a crucial role here.

While the relationship between the density of the urban population and the viral contagion is not unique, in general terms, the relationship between the pandemic and the cities can be grasped through the immaterial side (relationships, services, identity) that transforms collective spaces (squares, streets, and parks) in public places (living environments, relationship and content platforms) (Dellinger, 2020). In a period of lockdown, spaces remain unaffected while places die. As soon as the circulation of the virus slows down, or perhaps the virus itself weakens, the city begins to reactivate its places. However, urban regeneration can occur as a response to the "health emergency", which leaves the city's characteristics unchanged, particularly the structure of inequalities.

The "emergency" attitude faced the pandemic through contingent measures, for example, the adjustments of the road network that grant more space to cycle paths, that ration the use of public transport, that reorganize the times of entry and exit from work, to avoid bottlenecks at peak times (as well as prolonged use of remote work when possible). In addition, to reduce the movement and isolation of people in the weakest sections of the population, incentives are introduced for neighborhood life, supporting local economic activities and decentralized public services, and gradually reopening parks and public sports facilities to be used with criteria more restrictive, and creating new pedestrian areas in neighborhoods with fewer public parks (Florida & Pedigo, 2020)

Addressing the pandemic through interventions that respond to the needs of today and those, which the pandemic is helping to change, could be the alternative tomorrow. In stark contrast to the spatial isolation that should become the main feature of our cities, the post-pandemic urban context should be even more connected and more social.

The city could be divided into zones that combine residential, cultural, commercial, productive, institutional, and entertainment uses, reorganizing the hyperspecialized zoning that has characterized urban planning for at least a century now and separating the residential function from all the others. Large cities seek to reduce their carbon footprint, increase the quality of life and reduce inequalities between citizens in the center and the suburbs, transforming their urban centers into "cities of fifteen minutes". Residents can meet all their

needs in this type of city, be it for work, shopping, health, or culture, within fifteen minutes of their front door. The project argues that six essential social functions make a citizen happy: a decent home, a good job, the ability to do ordinary shopping, receive care, enjoy culture and entertainment. If these needs are met by reinventing urban proximity, citizens will be better off and more willing to engage in their communities actively; it is necessary to create a more integrated urban fabric, in which, in each neighborhood, shops mix with houses, bars with health centers, schools with office buildings, to reduce the range of access to the six essential functions. In addition, the collective infrastructures could be reorganized, concerning the intertwined needs of truly usable green spaces and satisfactory personal mobility paths, favor the flow of public transport in the streets where the traffic of private cars is congested, and create routes paved roads for bikes in urban areas where driveways do not exist or are not serviced.

Today's cities are composed of physical spaces, but they also take on a digital configuration that flows through our devices (smartphones, tablets, personal computers, or urban interactive panels). In the past, when thinking about democracy, we focused on formal governance issues, while today, the focus of attention is on citizen participation (Sennett, 2020). This theme of participation has always hinged on the design of the physical city. For example, in the ancient polis, the Athenians politically used the theatrical hemicycle: an architectural form with good acoustics and a clear vision of the speakers and the public's reactions during debates. Today, it is necessary for global cities like London and New York to understand how citizens can feel socially interconnected without meeting or knowing each other personally (Sennett, 2020).

---

# PART ONE

## LITERATURE REVIEW

---

## From sustainable design to community resilience

Sustainability is a broad, frequently used term in today's society. Commonly the word is used exclusively to describe environmental processes. However, the term sustainability covers a range of socio-ecological systems and processes. In 2002, the term sustainability emerged as an adjective to characterize system performance and rapidly spread as part of everyday vocabulary (Condon 2009).

In the same year, scientists discovered alarming ice loss in the Arctic Circle. As Patrick Condon illustrates in *Seven Rules for Sustainable Communities*, ice's disappearance triggers other adverse climate effects. Without ice to reflect sunlight, the blue ocean continues to absorb heat from the sun increasing seawater temperatures. No longer contained by the polar ice, methane is released, trapping heat into the atmosphere.

These once feared scenarios are here. How did it get this bad, and can we revert? "If we change the way cities are built and retrofitted, we can prevent the blackest of the nightmare scenarios from becoming real and can create the conditions for a livable life for our children and grandchildren" (Condon, 2009). Cities are responsible for 80 percent of all Green House Gas (GHG) emissions. Urban form is directly linked to GHG by how cities, specifically buildings, are built, arranged, fueled, and connected (Condon, 2009).

However, the world did not become irreversibly polluted overnight.

The most visible and detrimental change came at the close of World War II. People needed a place to live and jobs to sustain their new lifestyles once returning home from war. Therefore, metropolitan sprawl exploded, and with it, new interstates and streetways crisscrossed the countryside to facilitate the car-dependent populations.

By the mid-1980s, scientists and conservationists began compiling significant amounts of evidence revealing the irreversible, adverse effects of suburban-style living. However, many governments continued to pour tax dollars into the maintenance and construction of streetways. In America, the residents had little incentive to abandon their commuter lifestyles. This population trend left metropolitan areas blighted, with lifeless identities. Today, city planners and designers face a big problem: how the unsustainable, expansive, existing infrastructure in cities slow the progression of natural catastrophe through sustainable design?

Condon gives seven rules for creating sustainable communities. These rules represent principles that create a high-functioning whole. If just one rule is missing or lacking, the design entirety will face limited value and potentially even be counterproductive (Condon, 2009).

Condon's rules all seem to have a similar key element: transportation. Transportation accounts for 40 percent of all CO<sub>2</sub> emissions, immensely more significant than any competing factor. "The community of nations finally agrees that planetary meltdown can be avoided if we cut climate change gases by 80 percent by 2050" (Condon, 2009, 10). The United States is one of several countries needing to reduce 85-90 percent CO<sub>2</sub> release in the next thirty-five years. That is Condon's rationale for focusing so heavily on reversing the population's auto

dependence. Technological advances are moving at an undeniably quick pace; even so, options such as alternative energy sources will not save the world from collapse. As Condon explains, the way cities are built and retrofitted can ultimately save the world from the quickly approaching doom (Condon, 2009). However, first, there must be a strong desire for change. We must admit there is a problem and take full responsibility for the lifestyle retrofits required to make the necessary transformations to ensure human vitality.

“The essence of sustainable [design] is found in its integrated systems” (Condon, 2009). A term developed to encompass better the value of sustainability: Holistic sustainability is a design technique that promotes healthy, efficient, desirable, environmentally informed spatial design. Holistic sustainability is an attempt “to simplify what might appear complex: the overlapping and interconnected nature of the body of the world and how we might heal it” (Condon, 2009).

Holistic sustainability is composed of three main elements: environmental sustainability, community sustainability, and economic sustainability. These elements work in unison to form a holistically sustainable urban site design. All three aspects are powerful individually but together create a synchronized system of healthy city growth.

Planners like Kevin Lynch and Cliff Moughtin understand the importance of creativity, original identity, context, and people. They use the city's metaphor as an organism rather than a machine: cities need balance to be self-sustaining (Moughtin, 1999). Although many systems and processes are always at work within a city structure, both scholars repeatedly acknowledge the importance of designing for the human scale. “The individual and the family, the neighborhood and the region, business and industry, government and education: all share in the rewards and penalties which result from the way we build and rebuild our cities” (Bettelheim, 1998). Without spaces for the pedestrian, cities remain unbalanced and therefore unstained. Urban dwellers need adaptable spaces to help maintain that balance.

There are many precedents and recent models for cities to look to, for example. Bill McKibben gives an exciting and inspiring history of Curitiba, Brazil, during Mayor Jaime Lerner's office time.

Lerner was a progressive mayor willing to make risky city planning decisions he believed would solve everyday urban problems. First, Lerner objected to the development of a freeway that would bisect the downtown core. Instead, he campaigned for the pedestrian, creating a downtown plaza with no vehicular access (McKibben, 2003). This example demonstrates pedestrians as the city's highest priority using urban acupuncture as a method of change. By concentrating less on vehicular traffic and giving the space back to the pedestrians, Lerner rejuvenated an entire downtown portion of Curitiba. Lerner's progressive and creative attitude demonstrates his devotion to the citizens, and in turn, the city improved as a whole. “Curitiba is interesting not because it succeeded entirely but because it made a conscious effort to transform not only the shape of the city, and then through that physical transformation to reshape its citizens. To unalienate people. Through respect” (McKibben, 2003). Just as Ahern suggests, it is the age of experimentation. Urban planners and designers



may need to take risks to further understand and identify thresholds within a city system. This example is important because it shows how urban spaces can be reactivated when pedestrians are the main priority. What if pedestrians are the dependent variable in cities and can be used as a tool of measurement to exploit threshold capacities in urban environments? Using the “learn-by-doing” experimental approach to design landscape, architects could identify independent variables within cities. Through experimentation, urban designers could determine whether strategies like providing pedestrians' infrastructure in underutilized urban spaces could be reprogrammed to improve urban quality of life (Ahern, 2013).

The first three urban buildings' stories provide essential links between people and structure, further breaking down the immense difference in scale. “If the ground floors are interesting and varied, the urban environment is inviting and enriching” (Gehl, 2006).

When the ground floor of cities is inviting, and enriching people will activate the space. “For public space and buildings to be treated as a whole, ground floor facades must have a special and welcoming design. This good, close encounter architecture is vital for good cities” (Gehl, 2006). As cities and buildings become extensive, they become increasingly self-sufficient. Urban design strategies do not typically consider or plan the connection between sidewalk, façade, and interior happenings. The ground floors of buildings are where the public meets, and it is where “urbanites have close encounters with buildings, where we can touch and be touched by them” (Gehl, 2006).

Spaces that engage the pedestrian will be more frequented.

Passing through a mundane urban block is much less appealing than an interesting, activated one. Most people are willing to walk 400-500 meters (Gehl, 2006). Tolerable distances are a compromise between the length of the street and the quality of the street. Only extreme barriers will deter people from taking the shortest, most direct routes to final destinations. Distant destinations should remain hidden or out of view from pedestrians while the primary route is fully experienced. If long, monotonous landscapes are broken up with creative public spaces interjected into the concrete grid, people will be more willing to journey by foot.

Pedestrians will choose engaging and stimulating routes rather than bland, thinking only of the final destination. For example, subdividing a walk to work into more manageable segments makes the journey more enjoyable. People will think more about their experience and movement rather than the entirety of the route. People prefer to walk along the edges of buildings or structures rather than crossing the vast expanse of open space. The edge effect is ‘people’s preference for staying at the edges of space, where their presence is discreet, and they command an excellent view of the space’ (Gehl, 2006). The experience then becomes more intimate and comforting while typically offering additional views into adjacent windows or storefronts. Although grade changes make routes more interesting extreme level changes create issues for pedestrians. Suddenly, walking rhythms have changed, and more significant efforts are made to move across space, influencing pedestrians to choose a less exerting path (Gehl, 2006). The more exciting opportunities for pedestrians to reach their final destination, the more engaged they become in their surroundings, creating a more active public environment.

As cities become increasingly car-oriented, their urban aesthetic changes become more and more marked and impressive. Buildings are designed to appeal to viewers moving at sixty kilometers per hour rather than the average runner speed, seven kilometers per hour. As pedestrians are forced to walk in environments designed for a much faster pace, they become disengaged by the monotonous facades and landscapes. When strategic urban spaces are designed to invite people through the use of imageability, automobile use has the potential to decrease.

If cities were designed to accommodate the pedestrian's journey using experimental qualities, several positive societal system changes could be changed. Urban dwellers' lifestyles may change just for the potential to embrace their appealing environment from the sidewalk.

Urban architecture is fundamental to the pedestrian experience, explicitly building location to the street/sidewalk.

Prosperous urban cities typically have three basic patterns: building to the sidewalk, making the street front permeable, and putting parking behind, under, or on top of the buildings (Sucher, 1995). Since accessibility and proximity on a local scale are vital to pedestrian-oriented communities' success, the building uses will typically need to overlap residential, shopping, dining, transport should all be located in the same place, just like a natural ecosystem.

"The possibility of bumping into people is what makes the city a fertile place" (Sucher, 1995). Sucher claims it is the details that make cities more pedestrian equitable: providing seating, letting people purchase food and drink, offering a conversation piece, encouraging the chance encounter, building neighborhoods for social strolling, putting public space in the sun, offering interactive games space, providing a place for music, reclaiming people and parking lots, providing sound, promoting growth, using moveable furniture (Sucher, 1995).

"A city's social infrastructure consists of public landscapes and their physical objects that contribute to community sustainability and growth" (Hood, 2004). Social infrastructure, therefore, has a significant impact on cities, "providing the foundation for the practices for everyday life" (Hood, 2004). How can pedestrian-oriented spaces create an identity for neighborhoods, communities, and cities? Can a thoughtfully integrated network of public spaces strategically placed throughout a city and embraced by civic engagement begin to create an identity? Viewing sidewalks as social infrastructure suggests a need for a change of shared space and relationships to reinforce community and social patterns and distinctive patterns. Thinking of public, pass-through areas as hybrid landscapes enabling urban environments to support multiple programming capabilities creates the potential for entire city experiential imagery (Bernick & Cervero, 1997). For instance, what would happen if bus stops were designed to be more open-ended spaces? So, transit riders and the general public would be free to interpret the space for what they saw fit at the time.

Hood gives two specific modification processes to improve public spaces' social infrastructure: altering behavior settings and landscape programs. Behavior settings deal with the acknowledgment, design, and placement of furnishings and objects within a public space. Determining investment, type of furnishings, and other infrastructure can create unique

landscape opportunities and develop a character to reflect the community. The second modification has more to do with relationships and dual-purposed landscapes. Creating a network of urban trails throughout a city could help connect neighborhoods physically and socially while improving overall transportation. Hybridization of landscape functions and character may develop a new social infrastructure using objects and spatial arrangement. These improvements can be creatively designed to fit the community's existing or visionary image strategically. Public space hybridizations are typically formed during a change in community culture, values, or needs. Ultimately, hybrid landscapes combine a community's social and physical character, creating diversely functioning spaces. Both of these modification types usually evolve.

The formation of hybrid landscapes is not always foreseen but improvisational, unfolding with the community's evolving social and cultural needs. These evolutionary changes are the most resilient because they were designed for and by the community at large. Improvement of social infrastructure in a community can only occur after understanding the physical, political, and environmental context. Designers and planners using a resilient design approach must analyze and strategize socio-ecological patterns at various scales to ensure successful design adaptation to withstand time stressors. Allowing users to be involved in this design process and influence design decisions will ensure the sustainability and continuance of growth in a community (Hood, 2004).

When designers focus on users, programmatic issues are avoided by narrowing in on the social settings required to activate the space.

Merely activating a space allows an opportunity for imageability to occur. Neighborhoods with more accessible walkable spaces proved to have equally higher social capital among community members and neighbors. "Community members living in the walkable neighborhoods attested to trusting their neighbors, participating in community projects, clubs and volunteering more, and were less likely to describe television as their main form of entertainment" (UPI, 2010). The same participants with high social capital demonstrated the higher quality of lives "through better health and economic opportunities, among other things" (UPI, 2010). Social capital can be described as bonding, support, relational ties while bridging individuals' connections from different groups. Urban design is a tool to create healthier communities and a sense of place for residents through orientation.

Transportation planners design cities to accommodate more compact neighborhoods, reduce vehicle traffic, and enable alternative transportation forms with social capital in mind. As urban planners and designers enter into a more collaborative conversation with other experts in various fields such as ecologists, transit engineers, economists, and anthropologists, we can develop more resilient cities by balancing socio-ecological systems' equilibrium. Building social cohesion and capital supports health resilience and is a critical element of building preparedness, facilitating recovery, and maintaining community resilience.

## From Social to Cultural Resilience

Defining and characterizing social resilience is difficult because of its broad context. Therefore, social resilience was operationalized based on its contribution to resilience, ideas, and philosophies paralleling social capital. As described by Jack Ahern, social resilience “requires building an adaptable social infrastructure to assure meaningful participation and achieve equity in the face of socio-economic change and disturbance, and meaningful participation by stakeholders in planning and policy decisions” (Ahern, 2011). Similar to its counterpart, ecological resilience, social resilience depends on the health and function of the smaller, compositional systems of which it is created. These systems are labeled social or civic systems. Social systems' ability to simultaneously promote four essential qualities: social trust, reciprocity, collaboration, and character, at and between different system scales determines the success of social resilience within a community.

Therefore, social resilience can be measured by a social system's ability to adapt and function over time (Putnam, 1995).

Social systems are made up of networks that promote the four essential qualities of social systems. Trust in social networks promotes unity, connection, and support between individuals within communities. Social reciprocity enables bonding within the same social networks and between different networks; reciprocity can operate between social networks of varying scales.

Secure social networks use collaboration as a cultural template to encourage communication and knowledge within and between communities. Collaboration fosters individual and community growth simultaneously, enhancing a system's ability to adapt and evolve. Similarly, the social character in communities can be developed individually and concurrently. Dense social networks of interaction influence an individual's “sense of self, forming the “I” into the “we” or enhancing the [individuals] “taste” for collective benefits” (Putnam, 1995).

Social resilience in the U.S. has seen a continuous decline since the early 1970s. This resilience is based primarily on the nearly identical social decapitalization trends. As social systems' size and strength continue to decrease, civil engagement continues to plummet to an all-time low. Some scholars argue that America has seen an increase in a variety of social groups and non-profit organizations.

However, as Robert Putnam explains, many organizations and groups are nothing more than a mere mailing list. Indeed, organizations have experienced record numbers of membership within the last fifty years, but most of these organizations promote little social capital. Being a member of an active labor union is a very different social experience than an AARP member. Whereas one social system requires dynamic, engaging experiences, the other requires little more than mailing annual dues.

These misconceived forms of civic engagement are slowly weakening communities' social resilience. As social bonds dissolve within and between social networks that make up communities, connections between individuals become shallower and devalued.

Privatization is the critical driver in wedging a deepening gap between individuals and communities. That is demonstrated in “reasonably reliable time-series data [involving] neighborliness” (Putnam, 1995).

Participants are asked how often they spend time with neighbors in every General Social Survey released since 1974. Furthermore, every year since it was first released, this question reveals a constant decline in percentages showing a widening gap in social and physical bonds in communities. This theme sheds light on potential reasons and solutions to slow down and even reverse social resilience's demise.

A parallel trend in urban privatization and social decapitalization can be seen in countries around the world. As technology advances, more individualized alternatives to transit, recreation, and socialization are made readily available. The development of the private automobile as a primary transportation mode is one of the best examples of how urban privatization weakens cities' social resilience.

With the rise of the automobile in the early 1900s, cities were able to spread out, accelerating suburbia's growth. American suburbs quickly began to dominate metro regions and the countryside as commuting became a social norm. Cities began to operate around the growth and accessibility of automobile traffic. Unlike many alternative forms of public or active transit, automobile traffic fosters an individualized approach to transit and living standards. Less public space is allocated to pedestrian traffic, such as sidewalks or bike lanes, that encourage social experience during routine activities. Residential, commercial, civic, and even institutional spaces have seen a decline in social resilience as once activated shared space sacrificed for preferred private use.

Despite nuances in the definition of community resilience, the underlying premise involves the idea of a group recovering from a significant event or prolonged stressors (Yosso, 2005). Many of these definitions attribute multiple factors to community resilience, of which there are quite a few consistent similarities. Most frameworks indicate community resilience as some function of economic development, social capital, communication and information, and community capacity (Morton & Lurie, 2013). While building resilience components also vary, there are many similar ideas about what is necessary to be successful. Communities must “reduce risk and resource inequities, engage local people in mitigation, create organizational linkages, boost and protect social supports” (National Biodefense Science Board, 2014). These themes imply that resilience efforts sit at the intersection between risk and recoverability, and most literature presents the two separately (Cutter, 1996; Flanagan et al., 2011). These components seem necessary to consider addressing simultaneously, but less research does so.

The World Health Organization (WHO) defines health as a state of physical, mental, and social well-being (WHO, 1948). Grounding community resilience from a social epidemiologic and population health perspective recognizes that resilience is a process for supporting a broad range of positive physical and mental health outcomes related to socioenvironmental exposures and that individual risk of illness or disease cannot be considered in isolation from the disease risk of the population to which it belongs (Berkman et al., 2015). These distinctions

are important because they emphasize why understanding social determinants of health is essential to uncovering equitable resilience-building interventions. The WHO defines social determinants of health as “the conditions in which people are born, grow, live, work and age.” The social determinants of health are primarily responsible for health inequities—the unfair and avoidable differences in health status seen within and between countries (WHO, 1948). Health inequalities are essential in urban centers across the country and often, due to historical inequality, are related to race and income. Although race is a social construct, divestments, discrimination, and social devaluation committed based on race have created population disparities in black communities. This situation highlights the importance of understanding the social determinants of health in order to begin to overcome current community-based health disparities and support community resilience efforts. An increasing focus of the literature associated with community resilience is on the importance of community experiences of social support and social connections, the state of the population's physical and psychological health, and the integration and collaboration of government and nongovernment bodies (Norris et al., 2008). Emile Durkheim was one of the first philosophers to present social circumstances as essential to determining one's quality of life (Berkman et al., 2000; Kawachi, 2001). Academics in several fields have acknowledged social capital as necessary, such as criminal justice, governmental operations, economic development, and youth services (Woolcock, 1998; Woolcock et al., 2000). However, the most well-established literature on social connection is in the realm of health and well-being (Putnam, 2000). There is an abundance of data linking social capital and health outcomes (Szreter et al., 2004). Social capital has been linked to improved mental health (Kawachi et al., 2001), decreased mortality (Kawachi et al., 1997), increased adolescent well-being decreased (Howard, 2003), reduced vulnerability to loneliness (Penninx et al., 1999), and depression (Lin et al., 1999; Bullers, 2000), and better perceptions of self-reported health (Kawachi et al., 1999; Rose, 2000; Ellaway & MacIntyre, 2000; Subramanian et al., 2001) and well-being (Sevigny et al., 1999; Raphael et al., 2001; Helliwell 2002). People living in communities where social capital is perceptibly low report decreases in child welfare, increases in isolation (Duncan, 1999) and stress levels (Steptoe & Feldman, 2001), and decreased capability to obtain public health service interventions (Rosenheck, 2001; Campbell & Aggleton, 1999) and to be resilient to environmental health risks (Enciclopedia Britannica, 2018).

Resilience is about rebounding from environmental risks and persevering through traumatic experiences and other perpetually stressful events. As an intermediate organization whose role is to collaborate with development-focused governmental and non-governmental organizations, it is imperative that companies understand how using a resilience paradigm can enhance traditional efforts to prepare communities to withstand anticipated disasters and threats emerging and coherent (Yosso, 2005). The main effort is to understand the meaning of human health, well-being, and culture for the community's general resilience.

Social capital is the compilation of a social organization that facilitates coordination and cooperation for mutual benefit (Putnam, 1995). Social organization, and therefore social capital, is fueled through civic engagement. “The mechanisms through which civic



engagement and social connectedness produce such results— better schools, faster economic development, lower crime, and more effective government—are multiple and complex” (Putnam, 1995). The importance of civic engagement, or social bonds within social systems, has been recognized by researchers in education, urban poverty, unemployment, economic development, crime and drug abuse, and health fields. As a leading scholar, Robert Putnam explains in *Bowling Alone: America’s Declining Social Capital*, and life is made more accessible by living in a community with a substantial stock of social networks, norms, and trust. Communities most affluent in social capital reveal large civic engagement networks that encourage reciprocity, social trust, coordination, and communication (Putnam, 1995).

Since 1973 a thirty percent decline in civic engagement has been reported across America; this is seen at voting polls, public meetings, workers unions, political or government rallies, and school affairs. Countering, some organizations have suffered little from the disengaging trend. Many sports-related groups, feminist groups, religious groups, fraternal societies, professional societies, and literary societies are experiencing regular membership since the 1970s. Putnam does acknowledge some countertrends in terms of social organizations. However, many of these organizations consider tertiary organizations where members are typically unaware of one other's existence. For example, a Sierra Club member may come into contact with five other members on his/her way to work, but because mailing in an annual membership due is the only requirement to remain a member, these club members do not know of one another’s affiliations or bonds to one another (Putnam, 1995). Although membership in tertiary organizations may continue to rise, do these organizations truly contribute to civic engagement? Or do they only continue to weaken the bonds of social capital in communities?

In the most fundamental regard, social capital is most apparent in families. Both extended and nuclear families demonstrate the most abundant and easily observable weakening of social bonds and, therefore, the trend of social decapitalization. In neighborhoods across America, socialization has dropped eleven percent from 1974 to 1993. Maybe the lack of socialization amongst individuals can be linked to their overall lack of trust. From 1960 to 1993, the number of Americans that considered most people trustworthy dropped by twenty percent. Although most listed examples are from surveys taken in the U.S., these trends are apparent worldwide. Although homeownership increases an individual’s feelings of social and community responsibility, the lack of social bonds keeps many homeowners from making the connections necessary to foster civic engagement (Putnam, 1995). Many theories attempt to explain the unengaged population trends. Putnam lists four potential approaches.

The “re-potting” hypothesis focuses on residential stability. Homeownership is a clear pattern in socially engaged individuals. “Mobility, like frequent re-plotting of plants, tends to disrupt root systems, and it takes time for an uprooted individual to put down new roots” (Putnam 1995). Stunted root growth is established in suburban communities where privatization dominates weekly routines. Automobile-dominated communities deepen the disconnection between neighbors and families. Cities are planned to accommodate the personal vehicle rather than alternative transit methods that encourage socialization. The adverse social



systems effects of planning cities around private auto transit do not end on the street. When cities cater to cars as the priority, then private homes and businesses suffer from social decapitalization. Front porches and yards are now frequently viewed as a commonality.

Fenced and screened backyards are what residents demand when buying a home (Sucher, 1995). Although homeownership continues to rise in the U.S since 1965, few roots are laid because of the suburbanization of neighborhoods.

“There is reason to believe that deep-seated technological trends are radically “privatizing” or “individualizing” our use of leisure time and thus disrupting many opportunities for social-capital formation” (Putnam, 1995). Technology has greatly influenced the use of leisure time in America. The continually evolving technological trends that drive consumerism are simultaneously deepening a gap between personal and collective interests. Television is the best example of how technology has revolutionized humanity's perception of the community. TV typically encourages an increase in the time scheduled for private recreation. This approach not only allows for social decapitalization but restricts people's perception of the community and develops more superficial social experiences. Technological advances help satisfy individual preferences quicker by sacrificing priceless, or irreplaceable, “positive social externalities associated with more primitive forms of entertainment” (Putnam, 1995).

Cultural resilience is not a widely researched term. The few available sources refer to it to describe how culture plays a role in an individual's resilience (Fleming & Ledogar, 2008). Healy presented cultural resilience as synonymous with community resilience and defined it as “the capacity of a distinctive cultural network or community to absorb disruption and adjust while the enduring change to retain key elements of identity that preserve its distinctiveness” (Healy, 2006). Enterprise distinguishes cultural resilience and community resilience by understanding cultural resilience as a component of community resilience. However, it aligns with Healy's conceptualization that cultural resilience is foundational to community resilience in supporting the people-based resilience element. Shared cultural identities help people connect and empathize with others' experiences. Understanding culture resilience as a tool for connecting particularly marginalized groups and the environment they exist within recognizes its ability as a community resilience component to support climate resilience challenges uniquely. The cultural resilience concept has been examined in several studies of groups responding to oppression, violence, and adverse socioeconomic conditions in countries worldwide, including the “colored” people in apartheid South Africa (Healy, 2006; Ahmed et al., 2004).

Chandler and Lalonde, of the University of British Columbia, use the term cultural resilience as a mechanism leveraged by First Nations communities to promote protective mechanisms and behaviors in community youth by maintaining and reviving their cultural heritage (Lalonde, 2005).

Individuals need to have access to resources to support positive individual resilience and organizations and governments to be equipped with tools to address trauma and other individual resilience challenges. A cross-cutting theme at all levels is a focus on the needs of vulnerable populations (ASPR, 2012). In addition to communities facing physical limitations,

other social determinants of health highly dictate people's ability to be resilient in day-to-day stressors as well as disasters (Yosso, 2005). Extensive public health research suggests individuals at higher physical health, behavioral health, economic, and social disruption risk before an emergency are at higher risk when these issues are exacerbated by injury, trauma, or interruption of vital services (Marmot, 2005).

Resilience factors such as social connectedness, community communication, and capacity are closely tied to social determinants of health, such as social capital and cohesion (Poortinga, 2011). As we begin to think about why culture matters to resilience and community development efforts, it is essential to know that discrimination, another social determinant of health, and the oppression of culture through structural and interpersonal prejudice have driven many healthcare inequities we see today. Thus, incorporating ways to support and uplift cultural identity and social connectedness of underrepresented groups is an often forgotten but crucial component for connection building and, in turn, community resilience.

Traditionally, wealthy communities are believed to have higher social capital than those with less wealth. However, conceptualizing the community's cultural wealth as a critical race theory (CRT) - recognizing that race is a social construction - works to maintain the status quo of oppression created in society through white supremacy (Encyclopaedia Britannica, 2018) and challenges traditional interpretations of capital culture. This conceptualization shifts the research goal away from a lack of vision of black communities as real disadvantages of cultural poverty. Instead, it focuses and learns from the range of knowledge, skills, abilities, and cultural contacts possessed by socially marginalized groups that often are not recognized and not recognized (Zuk et al., 2015). Cultural wealth nurtures social capital and, if leveraged, can support community resilience. Culture is essential to build community health resilience equitably.

## From Art Project Approach to Placemaking

The University of Pennsylvania's Social Impact of the Arts Project (SIAP) has been working for several decades to create methods and data about the relationship between arts and culture and social benefits in urban neighborhoods (Stern & Seifert, 2017). Leveraging John Kreidler's idea of an "arts ecosystem" and highlighting its spatial component, SIAP connects the various "cultural resources" of a place such as nonprofits, resident artists, commercial firms, as contributing to that place's "cultural ecology" (Stern & Seifert, 2017). They "developed quantitative indexes of different cultural assets and combined them into a cultural asset index (CAI) and linked the cultural data to other measures of social wellbeing to study the arts social impact" (Stern & Seifert 2017).

Through its most recent research in New York City neighborhoods, SAIP found that

- 1) Cultural resources were not distributed equally across the city, with many neighborhoods having few (Stern & Seifert, 2017).
- 2) However, a substantial number of lower-income neighborhoods with more cultural resources than their economic standing would lead one to predict (Stern & Seifert, 2017).
- 3) Even though lower-income neighborhoods had relatively few resources, these places demonstrated the most substantial relationship between culture and social well-being (Stern & Seifert, 2017). Markedly, when controlling for socioeconomic status and ethnic makeup, cultural assets' existence was significantly associated with increased outcomes in health and safety. The qualitative data emphasized that neighborhood cultural ecology also adds to well-being in social connection and political and cultural voice (Stern & Seifert, 2017).

Much of the previous and current research around arts and culture focuses on cultural organizations doing the work, but this approach shifts focus from cultural institutions and more "geographically defined networks" (Stern & Seifert, 2017). Stern refers to these networks and resources as "cultural ecology," defined as the relationships and networks among cultural resources in neighborhood-level geography. In the study's conclusion, he found that social connection is the key to the improvements in social well-being and that a neighborhood's cultural ecology is one means through which social relationship is fostered. As a national intermediary, Enterprise is well suited to foster synergy across the cultural ecology of places that they work. The C&CR program is well suited to supporting cultural ecologies through these synergies and leveraging creative placemaking processes within community development.

This review seeks to investigate if creative placemaking can be a strategy to support community resilience by focusing efforts on cultural resilience building, bridging relationships between organizations and community, facilitating social connectedness through community engagement opportunities, and highlighting the needs of vulnerable populations by focusing on processes that are culturally appropriate and community-driven. The Climate and Cultural Resilience Program support community-driven projects that use creative placemaking as a tool to build climate and cultural resilience.

Placemaking is a concept that is not limited to a single discipline. This concept is theorized by Spatial and Design Disciplines, Social Science, Art, Education, Music, Tourism, etcetera. (Alvarez et al., 2017; Lew, 2017; O'Rourke & Baldwin, 2016; Toolis, 2017). Applying to various disciplines, the formulation of a general definition may appear a daunting task (Lew, 2017). Placemaking may be described as a collective effort by individuals living within a specific setting (Boeri, 2017). A collective effort refers to the action of individuals/groups to re-imagine their surrounding environments (Beza, 2016).

Individuals may include a single person, household(s), groups, communities, and/or organizations (Montgomery, 2016). Re-imagination may include renovation projects, upgrades, and/or maintenance of lived spaces (Eckenwiler, 2016). Lived spaces are often repurposed to create a more attractive function. Functions in this sense refer to activities related to places that contribute to the setting's uniqueness, while uniqueness is usually supported by site-specific characteristics, e.g., community-based arts, historical, educational elements, and social interaction (Thomas et al., 2015). Hague and Jenkins (2005) view placemaking as a critical purpose in spatial planning as planning aims to create, reproduce or mold the identities of places by manipulating various activities, feelings, meanings, and fabric that combine into place identity.

The origin of placemaking in spatial planning can be traced back to critical authors such as Jane Jacobs, William Whyte, and George Andrews. In his book *The Last Landscape*, Whyte (1968) wrote about the negative impact of urban sprawl on people's behavior in an urban setting. Behavior became a well-known focus of Whyte's (1989) work as he explored urban settings' liveliness through observations in his book "City: Rediscovering the Center". Whyte was regarded as the mentor of Jane Jacobs. Jacobs' (1961) contribution entitled *The Death and Life of Great American Cities* suggested that small-scale changes in an environment may change a neighborhood. Both Whyte and Jacobs focused on the way urban development impacts a setting's social environment.

In his book, Andrews (1975) wrote *Maya Cities: placemaking and urbanization* about the physical elements associated with Mayan Cities. Andrews' study mainly revolved around the spatial organization, spatial function, and physical aspects related to the pre-industrial city (Condit, 1976). Spatial organization is an overarching term referring to how geographical locations are arranged according to their economic and spatial function (Rauws et al., 2016, p. 244). Spatial function refers to the activity practiced within a place, e.g., ceremonial purposes, trade, and socialization (Terryn et al., 2016).

For a memorable spatial environment, physical aspects were added, e.g., symbolic elements, including architectural features (Elbakidze et al., 2015). While planning is probably more central to the profession of planners (and other design disciplines) than to most other social groups, planning is embedded in a broader social context in which decisions are shaped in which planners do not hold a monopoly over the making of places (Hague & Jenkins, 2005).

Since 1990, a shift in placemaking literature has been observed. This shift mainly revolves around decision-making in placemaking processes (Shibley, 1998).

Previously, the focus was mainly on developing physical elements as a product of placemaking projects (Day, 1992). Decision-making regarding the spatial arrangement and design of a setting was limited to expert policymakers (O'Brien, 1985). However, the observed shift is present in the way decision-making processes are transformed. Various stakeholders' viewpoints became important and subsequently guided the decisions of making places (Schneekloth & Shibley, 2000).

Previously seen as a physical end-product, placemaking has transformed into a democratic process (Shibley et al., 2003). Placemaking, as democratic intervention, focuses on the active involvement of all interested parties. Interested parties refer to community members, facilitators, local authorities, non-governmental groups, academia, etcetera. These interested parties collaborate to negotiate decisions regarding their environment (Toolis, 2017; Thomas et al., 2015). At its core, placemaking as a democratic intervention fosters respect towards diversity (Rios & Watkins, 2015).

Diversity, in this sense, should be reflected in the design and dialogue related to the direct surroundings of site users (Bilandzic & Johnson, 2013).

Partially, this diverse nature is emphasized by the value of this concept for spatial planning and many other disciplines. As an interdisciplinary concept, placemaking has developed progressively.

This development refers to transforming a term concerned with the physical product due to a design strategy that serves as a social change agent and democratic intervention. The trends in spatial planning in the placemaking process have changed since 2010. Placemaking has been conceptualized as an empowerment tool, expanding in terms of usefulness.

Previously, experts were empowered to understand and conduct the process of placemaking (Shibley, 1998). However, post-2010 literature illustrates that placemaking has been transformed into a community practice in which individuals have been empowered to learn and share skills (Bilandzic & Johnson, 2013; Delconte et al., 2016; Houghton et al., 2015; O'Rourke & Baldwin, 2016; Sánchez, 2011; Thurlow & Jaworski, 2014). Post-2010 placemaking as a process is not limited to experts but is a practice that ordinary people can perform. Therefore, placemaking in recent literature is conceptualized as an enabling tool.

Placemaking initially described the creation/ upliftment of a social setting through physical intervention (Samadhi, 2001). Physical interventions also incorporated the intrinsic value associated with the setting. In later research, Frischknecht (2006) explored placemaking as a tool to manage the natural environment. Environmental management, in this sense, refers to the relationship of site users with their natural setting. A shift towards placemaking as a tool for empowerment is also noted in spatial planning contributions from the Global South. However, this empowerment refers to idea-sharing and skills by experts (Al-Kodmany & Ali, 2012).

Placemaking is an interdisciplinary, multifaceted concept that has been widely researched since the mid-1970s (Andrews). Before the 1970s, key thinkers (Jane Jacobs & William Whyte) inspired the concept of placemaking as they explored people-place relationships. People-place relationships mainly referred to the physical and natural environment's effect on site users' behavior. For the scope of this paper, the review focused on placemaking in spatial planning.

In spatial planning, a few important conclusions can be derived from the review outcome.

Spatial planners concerned with placemaking should not focus on the end-product in isolation as placemaking is an essential part of placemaking, e.g., where the process empowers people. Placemaking may have the ability to create positive social change.

This positive social change can include sharing ideas and learning new skills to create an end-product eventually. This sharing and learning of skills to transform an environment suggest placemaking as an enabling tool. This review aims at creating a linkage between placemaking theory and practice. This linkage is due to perspectives found in the spatial planning literature. New perspectives refer to power relations associated with decision-making in placemaking processes. Pre-2000 placemaking literature from the discipline of spatial planning indicated that experts and professionals were empowered to make decisions regarding the making of place (Shibley, 1998). However, recent literature from the Global North suggests that spatial planners should be regarded as facilitators of the placemaking process (O'Rourke & Baldwin, 2016).

Place-making generally refers to the activity of turning a "space" into a "place" through giving meaning to the people who use it (Dovey, 1991; Winikoff, 1995). Many "space-related" scholars have addressed the concept through case studies or theoretical or historical approaches (Alexander et al., 1977; Kostof, 1992), yet there is still little formal knowledge about how significant societal changes have influenced place-making.

Disciplines interested in and practice with space have traditionally been predominant in urban development's critical analysis. Surveyors, geographers, planners, and architects have dissected the different phases and meanings of this dynamic process (Norberg & Schulz, 1980; Massey, 1994; Hillier, 1996), dwelled into its array of scales (Rapoport, 1969; Canter, 1997; Gifford, 1998) and revealed short and long-term effects, locally and globally (Bauman, 1998; Castells, 1996). Unrelated to location and context, which could be either a small village or a megalopolis, urban development is consistently considered an agent of change with a determined before-after temporality. Urban development has also been scrutinized from a social lens as a project that might unify communities and stakeholders or trigger conflict (Jacobs, 1961; Keith & Pile, 1993). Power relationships have been evidenced, as much as the social meaning of the produced space and the societal symbolism it carries (Lefebvre, 1991; Soja, 1996).

On different scales, but all with success, the Ruhr Valley conversion in Germany, Bilbao in Spain, or the High Line in New York has proved the decisive weight of urban design, culture, and tourism upon collaborative planning scheme. A cultural and tourism approach widens the

conceptual foundation of the development and expands the targeted audience. Nowadays, tourism affects the conception, the fabrication, the practice, and the everyday life experience of contemporary cities (Gravari Barbas, 2013).

As such, place-making, whether regarding planning, managing, or experiencing, is of utmost importance.

A considerable number of studies investigated urban transformations and place-making experiences under globalization and the increasing inter-urban competition. In today's rapidly globalizing cities, large-scale urban and tourism developments marginalize the small, human-scale urban spaces and pose challenges to achieve successful place-making. Thus, there is a need to create small spaces in cities that are home to place-based communities and increase the sense of place (Friedmann, 2007). Local-scale urban and tourism developments are more likely to maintain existing social and cultural structures in cities, develop inclusive places that promote social interactions, and foster people's participation in decision-making and planning processes. Therefore, these local-scale urban developments are more likely to contribute to social sustainability and successful community-based urban design (Križnik, 2013).

Globalization and its role in the deterioration of small human-scale urban spaces are particularly highlighted in touristic cities. Everett's (2012) research shows how tourist agencies changed traditional food production sites into leisure spaces. It identifies the physical transformation that traditional food production sites have undergone to accommodate tourist interests and needs. The research found that producers actively changed their production patterns and identities, often in conflict with what was best for the product, to respond to increasing consumptive demands and grow profits.

The pace of globalization and urban design concerning the social construction of place is another aspect to consider in place-making. The Slow City (CittaSlow) movement was advocated as a grassroots reaction to the consequences of a "fast world" and rapid globalization. The research reveals that the Slow City movement supports local, traditional cultures, a relaxed pace of life, and conviviality (Knox, 2005). This movement focuses on the concepts of "dwelling" (the status of spiritual unity between humans and the material world) and intersubjectivity, which are the critical elements of the social construction of place and help achieve success in place-making. However, the Slow City movement has been criticized because it is likely to produce enervated, backward-looking, and isolationist communities (Knox, 2005). Finally, another sub-theme predominant in the emerging topic of "place-making and globalization" is the crucial role that immigrants and ethnic minorities play in placemaking in multicultural contexts. For example, (Schuch & Wang, 2015) revealed the significant role of immigrant businesses in Central Avenue's place-making, a multiethnic retail corridor located in Charlotte, NC. Immigrant businesses have transformed the faces of deteriorating and abandoned streets into vibrant and well-frequented urban environments that favor further development. The results of this study would require a more profound integration of the contribution of immigrants and their businesses into local policies and planning strategies for the revitalization of the neighborhood in the context of ethnically diverse urban environments (Schuch & Wang, 2015).



Ip (2005) analyzed the actual settlement areas of Chinese migrants in Brisbane's southern suburbs and revealed the agency of new Chinese migrants and their fundamental role in placemaking.

Jordan et al. (2009) focused on the impacts Italian immigrants have had on rural Australia's built environment. Their research demonstrates that Italian immigrants contributed to place-making by expressing their cultural heritage in the construction of public and private spaces. Similarly, Harney (2006) investigated multiple ways through which Italian migrants and their descendants in Toronto, as the most significant Italian city outside of Italy, articulated aspects of their identity, belonging and interests, and achieved placemaking (Harney, 2006). Irazabal and Farhat (2008) also exposed the challenges Latinos faced in their struggles for place-making through spatial identity, cultural recognition, economic integration, and governance empowerment. Their research used the city of Los Angeles as the case study and revealed some particular government actions in the past economic and governance domains, which positively impacted Latino integration. The paper suggested a different academic and practical focus on Latino communities' engagement in place-making practices in cities (Irazabal and Farhat, 2008).

Highlighting local characters in urban spaces plays a crucial role in creating places and urban revitalization (Johnson et al., 2014).). A successful example of placemaking by reflecting the local cultures, histories, and traditions is the Singapore River waterfront. While this waterfront markets Singapore as a global city, it also reflects the cultural and historical contexts and the local customs and achieves successful placemaking outcomes (Chang & Huang, 2008).

Engaging users in the planning and decision-making processes is a critical element of integrating local cultural identity into contemporary urban development and achieving place-making (Choi & Reeve, 2015). There is a need for renewed attention to planning at a local level, and further focus is required on public engagement and multidisciplinary approaches to provide more significant opportunities for more integrated strategic development planning and place-making. Such a localized planning approach is more likely to present opportunities for further innovation and urban design initiatives (Chapman, 2011).

In different but relevant research, Blokland (2009) focused on investigating the historical narratives of a gentrified neighborhood in Connecticut, USA, as place-making processes. His research shows that the absence of some agents, including poor Afro-American residents in the neighborhood's dominant historical narratives, affects what defines "the community" and what are "the community needs". The absence of agents in such representations is shown to weaken the voices of those with other needs and led to unequal access to resources in the neighborhood (Blokland, 2009).

Placemaking practices are likely to present some challenges, such as integrating urban values and forms to target specific population groups and particular economic activities. Some approaches to these challenges could lead to the loss of heterogeneity and diversity in the urban environment and pose challenges to inclusive cities' production (Madureira, 2015). For example, Toronto's Tower Neighborhood Renewal program aimed to upgrade the aging high-rise apartment building clusters in Toronto physically. A primary strategy of the program was

densification or new infill development. However, this strategy was opposed mainly by many residents of the privately-owned single-family homes located close to the tower neighborhoods. The single-family homeowners rejected a perceived encroachment of higher residential densities and the lower-income, immigrants, and minorities renting high-rise apartments (Poppe & Young, 2015).

The place-making practices can even lead to the displacement of groups in a population.

An example is the Liberty Village project, a creative hub located in the inner city of Toronto, Canada. Catungal, Leslie, and Hii's (2009) research demonstrated that the formation of the creative industry in Liberty Village constructed a site as a commercial space that is secure and isolated from the fuller city. The development of Liberty Village as a securitized space and as a separate urban campus, in turn, led to a series of displacements, particularly the marginalization of artists, non-profit art organizations, and traditional manufacturers (Catungal et al., 2009).

Similarly, place-making and economic productivity are often considered to have contradicting interests and objectives (Cervero, 2009), which poses challenges to achieving place-making outcomes in cities. Shaw and Montana's (2016) research focused on the place-making initiatives in two mixed-use megaprojects located in central Melbourne: the QV and the Carlton Brewery developments. Their study demonstrated that although creative city-inspired place-making principles have been incorporated into many Melbourne's planning system layers, they failed to achieve their desired outcomes in both case studies. According to the research findings, place-making and creative city principles were marginalized mainly by essential imperatives for both projects' economic development. Besides, place-making and creative city principles were not sufficiently supported by statutory controls. These principles' failure was primarily associated with the development industry's resistance against being regulated (Shaw & Montana, 2016).

Rantisi and Leslie (2006) also investigated the role of Commerce Design Montréal, an annual design competition run by the City of Montréal, in creative place-making and branding Montréal as a center of the design. The findings highlighted that the efforts to brand the City of Montréal as a "design metropole" have resulted in tangible benefits for local designers and businesses. However, questions were raised about the sustainability of such a program. An emphasis on a short-term, task-oriented policy was found to encourage the marketization and privatization of public spaces, which could, in turn, displace informal models of urban development (Rantisi and Leslie, 2006). However, Cervero's (2009) research revealed that the contradicting interests and objectives of economic productivity and community place-making need not always occur.

His paper referred to multiple successful experiences in San Francisco, Seoul, and Hong Kong, where the objectives of mobility and livability are well balanced. San Francisco and Seoul's replacement of elevated freeways with greenways, boulevards, and public transit was found to enhance neighborhood quality and increase land values. Hong Kong's experiences also revealed a win-win situation where financially viable investments and place-making strategies coexisted and led to an improved economic return rate (Cervero, 2009).

Two types of policies regarding placemaking can be identified. The first one is about hosting a high-profile event to offer place-making opportunities. For example, hosting the 2005 International Olympic Committee (IOC) meeting contributed significantly to Singapore's international promotion as a city, enhanced its public image, and helped achieve place-making (Yuen, 2008). Similarly, holding an unusual cultural event such as Paratissima in Turin, Italy, caused a collective consumption of the urban space, contributing to the social construction of the area's identity and achieved place-making outcomes (Rota & Salone, 2014). A US study also demonstrated that open-air performance venues in neighborhoods are associated with changes in the neighborhoods' socioeconomic character, including increased property values (Woronkiewicz, 2015).

The second one concerns sustainability. Williams (Williams, 2004) research highlighted a need for taking sustainable approaches in place-making and referred to Vancouver's waterfront projects as a successful model for sustainable place-making. He argued that sustainable place-making creates socially, economically, and environmentally sustainable developments, enhancing an overall sense of place. As Williams (Williams, 2004) noted, sustainable placemaking outcomes are achieved with a balance between the community, government, and developers' competing interests.

In this sense, Vernon and Tiwari's (Verndon & Tiwari, 2009) study revealed how water-sensitive urban design techniques could contribute to place-making in public open spaces in residential areas. Cillier's (Cilliers et al., 2015) research also revealed that green planning initiatives could assist in the place-making process while ensuring the area's improved sustainability. Their study highlighted that green initiatives could transform a public space into a sustainable, meaningful public place. Green planning introduces a longer-term planning vision and contributes to transforming temporary spaces into permanent places by introducing green initiatives such as trees, green roofs, green graffiti, green walking routes, and various green zones to the city (Cilliers et al., 2015).

In "Creative Placemaking," a white paper was written for the National Endowment for the Arts, Ann Markusen and Anne Gadwa first coined the term creative placemaking. They define it as strategically leveraging stakeholders from diverse sectors to mold the physical and social characteristics of a place around arts and cultural activities (Markusen & Gadwa, 2010). This definition's focus brings together several different theories to conceptualize how art can transform space and society.

The first theory supporting the conceptualization of creative placemaking is placemaking. Although creative placemaking is relatively new, placemaking is a word made famous in the 1960s by Jane Jacobs and William Whyte. Placemaking is defined as an approach to urban planning that is community-centered and place-based (Jacobs, 1961). Indicative in its name, creative placemaking adds art and culture to the placemaking process. However, Jacobs' focus on "local community's assets," "public spaces," and "health and well-being" (Jacobs, 1961) seems far less explicit than in Markusen et al.'s creative placemaking definition. Jacobs' description focuses on placemaking outcomes on meeting the residents' needs and at the

human scale. Both interpretations, however, promote the importance of interventions “making” thriving places. One controversy of this term is that it implies sites of creative placemaking are not currently places with existing communities and, if “local communities’ assets” are not centered, can attract development not representative of current residents.

The second theory is around art and urban regeneration, which has come chiefly from the economic field. Sharon Zukin presents in many of her books that the arts are imperative to how places are valued or their “symbolic economy” (Zukin, 2009). She describes placemaking as grounded in a specific locale and creating outcomes that can touch the city in its entirety. Public art and art activities have become part of the city arsenal to “encourage entrepreneurial innovation and creativity, cleanse public spaces of visible signs of moral decay, and compete with other capitals of the symbolic economy” (Zukin, 2009). Neil Smith presents the rent gap theory to explain the process of gentrification, often spurred by this art activity. He describes the idea of gentrification as the rent gap. As land ages, it creates a gap between its present value and its potential redevelopment value; a gap is that many property owners and developers try to capture (Lees, 2000; Smith, 2005). As described by Smith, displacement in many places across the globe comes from this developer capture (Lees, 2000; Smith, 2005). Many creative placemaking critics blame creative placemaking for spurring this process without having mechanisms to protect vulnerable residents. However, gentrification meets one of the primary focuses of creative placemaking, increasing economic development and investment. There is a persistent tension in the field by doing creative placemaking to promote financial investment while maintaining current residents' benefits.

The third theory is around art and building social capital. This concept focuses on the relationship between art and its impact on human behavior in place. As mentioned in the previous section, social capital is “the resources accessed by individuals due to their membership of a network or group” (Berkman et al., 2015). Recent studies on social capital suggest social capital is a relevant outcome of community resilience that can be fostered by people exposed to the arts (Yosso, 2005). A study by the National Endowment for the Arts (NEA) found that adults who partake in art and cultural events are far more likely than those who do not participate in community events, volunteer in local organizations, and vote (NEA, 2006). In a similar study, “artistic participation rates” were found to be a rigorous indicator for assessing civic engagement and community health (Nichols, 2007; NEA, 2009). People involved in the arts are more involved in their communities and, therefore, more socially connected and supported. This result appears to be because the arts use multiple participatory practices that unite people and unite them. Creative placemaking supporters combine these theories to present the argument that cultural practitioners pursue the revitalization of underused urban spaces to create attractive urban spaces that “serve residents, build social trust, and attract increasing investments” (Stern, 2014). However, we see in practice that a focus on redevelopment of underused land that attracts investments does not always serve residents. In “Measuring the Outcome of Creative Placemaking,” Mark Stern argued that there could be space for both, but advocates must acknowledge the tensions associated with them (Stern, 2014).

Today, several organizations focus on funding and implementing creative placemaking interventions. Although different organizations have adopted the definition of creative placemaking in unique ways, the overarching components require the integration of art and community development.

Place describes what was, what is, and the interaction performed in a space (Fleming, 2007). Space is merely a physical volume whereas, the place is the interaction and experience within, or with, an environment (Steele, 1981). The place is intercepted and perceived through our senses and usually communicated through the recollection of experience or physical memory. Designers are prone to subconsciously grasp the physical characteristics that create an image of place (Fleming, 2007). However, it is not the physical quality of space for most people but the remembrance of civic engagement within the space. “It is the recollection of patterns of a life lived in a particular building or space that creates the “cornerstones” of mental association and gives such places the patina of affection” (Fleming, 2007).

Good urban design is conducive to positive, successful civic engagement; therefore, making it a key component in establishing a place. Placemaking in urban design enables the public to access the meaning behind built space (Fleming, 2007). For this reason, placemaking is frequently used for its dimensional, urban design strategy. “The elements of placemaking serve broad urban-design objectives that go beyond their intrinsic values as works of art, or their function as amenities, street furniture, and interpretation” (Fleming, 2007). Creative placemaking leverages the potential of space through meaning. Spatial meaning, or in some cases, attachment or value, can most effectively be created through local talent and interest (Fleming, 2007).

Place attachment is a unique, emotional relationship between an individual and their physical surroundings; although it is possible, users rarely share the same place attachment with public spaces.

“These connections are a powerful aspect of human life that inform our sense of identity, create meaning in our lives, facilitate community and influence action” (Manzo, 2014). User’s place attachment is also influenced by past experiences and relies on a user’s perspective to create an enclosure. Place attachment can increase a landscape’s social resilience; place attachment can amplify a landscape’s social resilience through people’s association of responsibility, belonging, and identity to them. Frequently, place attachment can be strong enough to affect issues such as belonging, mobility, intergroup conflict, civic engagement, urban redevelopment, natural resource management, and climate change (Manzo, 2014).

Urban landscapes contain symbols or icons representing meaning about ourselves and something about the symbols’ people or place. “This aspect of the urban fabric has been called the glue that bonds people to place” (Hull, 1993). Urban planners and designers’ responsibility is to consider these icons’ placement and meaning because of their contribution to place identity, community identity, health, and sense of place.

Icons within cities may be unique natural features, religious sanctuaries or locations, personal homes, plazas or park spaces, public gathering spaces, places associated with historical events, or public art displays. Often, iconic spaces share similar connections or themes, such as

symbolic of social groups, defined distinctive community character, and remembrances of personal accomplishments and concerns (Hull, 1993).

A sense of place is formed through experience and memory. "It should speak of the individuals and their complex society, of their aspirations and their historical tradition, of the natural setting, and the complicated functions and movements of the city world" (Lynch 1960). A sense of place is achieved when a space develops unique behavioral and emotional characteristics for individuals transforming it into a place (Ayvazian, 2014). "The design of a city is supposed to give all its citizens a sense of belonging, an identity, and be the instrument for the exercise of civitas, the dynamic, creative order that makes for civilization" (Von Eckardt, 1998).

A sense of place is a combination of social and physical components.

The sense of place can be divided into cognitive and perceptual factors and physical characteristics (Ayvazian, 2014). Cognitive factors deal with the meanings that people perceive from a place.

This approach focuses on the bonds people make with their environment: they assign meaning to their perceptions.

"Experience is a generic term for the various ways in which a person knows and builds a reality" (Tuan, 2008). Cognitive factors are different from feelings in that feelings are more ambiguous because intention and affection coincide. Humans learn from experience; we take what is given and act on the situation. Therefore, the experience created by the construction of feelings and thought the reality of this form. Our senses facilitate these thoughts and feelings. Using sight, smell, sound, touch, and taste, humans determine personality in environments. For example, odors lend character to objects and places making them easy to identify and remember. However, senses do not act alone to create a spatial aspect. Our five senses work together to reinforce one another, organizing a spatially oriented reality. Kinesthesia, sight, and touch allow humans a naturally keen awareness of space. Recognition and perception of space influence human experience and memory (Tuan, 2008).

A sense of place is conducive to more meaningful experiences and memories. Urban designers can create place attachment using Kevin Lynch's imageability ideas and James Corner's eidetic memory philosophy to develop unique and meaningful urban landscapes.

Corridors offer people unique and different experiences. These experiences create a sense of place for urbanites; this attachment is determined by the journey between an original destination and an eventual familiar destination. "It must be plastic to the perceptual habits of thousands of citizens, open-ended to change of function and meaning, receptive to the formation of new imagery" (Lynch 1960). Rarely do people travel the same routes at precisely the same time; therefore, every trip holds a new experience. Similarly, corridors "allow for shared and similar experiences, but ones that gradually change depending on where you reside along the corridor" (Condon 2009, 70). Planners and urban theorists frequently focus on development nodes; however, in most North American cities, the corridors are the urban metropolis' unique and defining characteristics. So much attention is placed on the creation



of urban nodes “it has been made difficult to cherish the seemingly undifferentiated linear corridors that are such a humble and ubiquitous datum for our experiences” in cities (Condon, 2009). Corridors offer both private and public space featuring an array of destinations along with a pass-through space.

“Emotional interaction with place points to satisfaction and attachment to place” (Ayvazian, 2014). A sense of place is an evolving concept between people, their image of a place, and environmental characteristics (Ayvazian, 2014). In short, urban environments are combinations of physical and social parameters.

A highly imageable city, or space, is well-formed, distinct, and remarkable (Lynch, 1960). Placemaking initiatives should provide unique experiences for pedestrians to express their relationships with the environment. “The precept of the body and the image of the world turn into one single continuous existential experience; there is nobody separate from its domicile in space, and there is no space unrelated to the unconscious image of the perceiving self” (Pallasmaa, 2012). Public art is one type of temporary installation that can potentially influence forming a sense of place (Webb, 2014). These can be in the form of small-scale, site-specific installations that engage people’s imagination and exploration within the surrounding region’s history, culture, and geography. In doing so, we allow the underlying meanings of public space to be restored and made apparent to the public, which restores a vision of place (Fleming, 2007).

Imageable, as defined by Lynch, is “that quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, color, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment” (Lynch, 1960).

As Lynch explains in *Image of the City*, imageable spaces are highly dependent on their context. “Nothing is experienced by itself, but always concerning its surroundings, the sequences of events leading up to it, the memory of past experiences” (Lynch, 1960).

Just as ecosystems are constantly in evolution and adaptation, cities are continually undergoing new phases. These phases can be determined by the citizen’s visual, mental interpretation, or legibility of their surroundings. We can think of these phases as Ahern describes thresholds in a systematic sense. Often, cities are subjected to their version of disturbances, such as a dynamic cultural or natural change altering the inhabitants’ environment’s current perceived state. Researchers and scholars determine disorders based on a change in city imageability. Lynch claims organisms are structured to identify with their environment using a set of cues: “the visual sensations of color, shape, motion, or polarization of light, as well as other sense such as smell, sound, touch, kinesthesia, sense of gravity, and perhaps of electric or magnetic fields” (Lynch, 1960). Organisms, therefore, identify their environments by the recollection of experiences and memories commonly created using a combination of the previously listed cues. For example, when exploring a new, urban environment, individuals will subconsciously create a mental connection with a preconceived or generalized visual as a guiding tool action/exploration (Lynch, 1960).



This mental image is a combination of immediate sensation and experience or memory; without realizing people create images based on the patterns from surroundings determined by the individual's practical and emotional importance. Therefore, clarity is a crucial concept to intensifying the human experience in a city: when individuals feel safe and capable of navigating the landscape, they can relax, fully appreciating, and observing their surroundings. Without a sense of legibility, our surroundings lose “the emotional satisfaction, the framework for communication or conceptual organization, the new depths that it may bring to everyday experience” (Lynch, 1960).

“Place identity, although subjective and subtle, can be assessed and managed through sensitive land development efforts” (Hull, 1993). The problem faced by many urban designers is how to make available space more meaningful. Proper use of space, through landscape programming, is a significant urban problem (Buttelheim, 1998). Successful urban design programming occurs when various urban scales have been inventoried and analyzed, recording missing necessities for holistic, sustainable urban life. Holistic sustainability considers urban dweller’s quality of life and the resiliency and viability of ecological and social urban systems.

Landscapes must possess societal value or meaning to remain holistically sustainable. Meaningful site programming consists of two key considerations: the landscape’s overall physiography, people, and the composition of the user group’s economic, social, and ethnic profiles (Friedberg 1998). Arbitrary juxtaposition of programming, or activities, in urban design, causes stress to the urban complex; this is an example of a system disturbance in the urban realm. “It matters little how efficiently the city is run if it concomitantly denies the riches of human life” (Friedberg 1998, 62).

Like all humans, urban dwellers desire fulfilling experiences making meaningful landscapes a necessary component of an efficient and sustainable city. Imageability in urban design can develop community identity, reflective of their values and character.

“By appearing as a remarkable and well-knit place, the city could provide a ground for the clustering and organization of these meanings and associations” (Lynch, 1960). People like to have every opportunity at their fingertips 24/7, but also like to feel welcomed and a part of something: we want “familiarity and anonymity” (Sucher, 1995). If executed successfully, imageable spaces can create such a vivid setting, and the “same daily action can take on a new meaning” (Lynch, 1960). Place attachment is born through this process of creating neighborhoods and community networks. Therefore, meaningful, imageable urban design strongly depends on context and experience. Imageability and value are formed through a process: the user’s journey to the site, landing at the site, and exploration of the site.

Landscape architects and city planners are primarily responsible for addressing the constant evolution in urban design. There are few precedents in contemporary urban design, specifically urban parks (Cranz, 1982). A major critique of modern urban park design is its confusing and scattered programming and organization. “Park and recreation people must begin to take their obligations seriously to provide recreation experiences for people rather than recreation facilities” (Cranz, 1982). To accommodate a more significant majority of a

particular population, designers attempt to create a space with multiple programming opportunities. Unfortunately, this approach develops unclear urban spaces seen as a failure to the public (Cranz, 1982). In *Politics of Park Design*, Cranz addresses the issues of common park design practices that exclude the users from the design process.

Cranz comments on the importance of participatory design, allowing the environment and user to determine design elements. Without user input, public spaces become a conglomeration of individually historically successful elements. With nothing to unify the site design, the public space never evolves into a place. When potential users are actively participating in the design process, it becomes "More than a simple experience, it [is] an aesthetic event whose subject, typically, was the urban population which participated in it" (Cranz, 1982). Urban parks fail because users are either not incorporated into the design process or not being authentically represented (Cranz, 1982).

Participatory design is "translated into community involvement and advocacy planning, both based on the assumption that people should express or be served according to their needs rather than receive what the experts determined they needed" (Cranz, 1982). Including user input in the design process is extremely important for developing a sense of place in urban site design (Fleming, 2007). The participatory design focuses on documenting user preferences. This participation is possible in various ways, including surveys, questionnaires, or community meetings. In *Design for Ecological Democracy*, Randolph Hester encourages the use of participatory design but acknowledges its sometimes ineffectiveness in determining user values and daily behavioral patterns (Hester, 2006).

Ethnographic research is different from participatory design because it focuses more on people's values, behavioral patterns, and culture (LeCompte et al., 1991). Applied ethnography identifies themes and patterns necessary to participants in their natural setting. Ethnographic research uses culture acts as a lens for interpreting information. The researcher is the primary tool of investigation; therefore, ethnographic research almost always involves primary interaction. This form of the data collection process is beneficial in site design, so local individuals and community needs are represented. Ethnographic data is location-specific. Information collected from a series of ethnographic interviews of participants living in Chicago, Illinois, is no longer relevant when applied to a rural Georgia site design project. Ethnographic research themes develop valuable information that helps instill a sense of place and identity within a site design because its thorough process reveals the user's values, cultural practices, and behavioral patterns (Hester, 2006).

Using Kevin Lynch's imageability theory, cities can develop identity at various scales while maintaining continuity. In *Image of the City*, Lynch explains how imageability can be applied at a regional or site level to create a unique sense of place through experience or memory. Imageability works at different scales and can also connect them; landscape identity can be applied using patterns to help people navigate spatial networks. However, broad patterns are only successful when examined at a variety of scales. Legibility is dependent on on-site context, therefore, making it impossible to replicate exact site designs. Each community has a different identity; therefore, those values and opportunities should be reflected in site design.

Some imageable spaces may also be temporary. In *The Social Life of Small Urban Spaces*, William Whyte addresses a process he calls triangulation, “process by which some external stimulus provides a linkage between people and prompts strangers to talk to each other as though they were not” (Whyte, 1980). The stimulus can be a physical object, or structure, sight, or experience.

Triangulation can be considered a creative placemaking strategy.

Triangulation gives strangers something in common, worth further discussing, creating a bond that benefits pedestrian activity. The excellent quality of the experience does not determine the connection; even though the hired musicians perform a terrible set, ties between the audience members are still forming. In some cases, relationships are stronger the worse the act is (Whyte, 1980). Crowds form between forty and fifty seconds, giving viewers little time to determine if it is worth watching (Whyte, 1980). From these reflections, a valid question arises: why ban public entertainers rather than welcome them?

Activation like triangulation is key to designing a creative place.

Urban planners and designers are challenged to model spaces for opportunity and ingenuity to grow. Cities can begin combining ideas, such as Whyte’s triangulation with Lynch’s imageability, enabling the multiplier effect. However, first, cities must start changing policies to meet an evolving public’s demands and needs. Therefore, urban planners and planners must launch ethnographic research tools. “Ethnographers are intimately involved with community members or with participants in the natural contexts in which they conduct research. Intimate involvement means creating trust between the researcher and the participants and often requires a particular type of friendship” (LeCompte et al., 1999). When a relationship of trust is established between participants and researchers, secure, open, and honest conversations will evolve. This relationship of trust grants access to authentic views of the community. Without public input and support, urban landscapes lack social resilience. Imageability plays many vital roles in a city. The level of vividness and physical integration of city image can easily shape an individual’s perception of an entire city, “a good environmental image gives its possessor an important sense of emotional security” (Lynch, 1960). Environmental images are created through a process between the observer and their environment.

The landscape offers distinctions and relations for users to adapt, recognize, organize, and attach meaning. “Clarity of structure and vividness of identity are first steps to the development of strong symbols” (Lynch, 1960). Legibility is the ease at which portions of cities can be organized into patterns or recognized at different scales. Imageable spaces and symbols play a crucial role in cities’ legibility; they create a mental image and design recognizable to the public. Legible cities incorporate “districts or landmarks or pathways [that] are easily identifiable and are easily grouped into an overall pattern” (Lynch, 1960). The relationship between imageability and legibility is built on the level of flexibility offered by the landscape. “The observer himself should play an active role in perceiving the world and have

a creative part in developing his image. He should have the power to change that image to fit changing needs” (Lynch, 1960).

The image created by the user is similar to cities, in which it is just a phase of the infinite, potential images the observer could construe because of the transformative nature of landscapes. Although landscapes change and evolve, the overall patterns must remain to sustain urban legibility at various scales. Urban designers are tasked with building and rebuilding cities on these evolving landscapes to accommodate, support, and satisfy a vastly diverse population (Lynch, 1960). Lynch recognizes the concurrent evolution between urban communities and their surroundings, proposing a scheme for image adaptability. “Lack of control on the part of the responsible agencies, the fragmentation of responsibility, the lack of objective and rational processes--the lack of overview- -has created a situation in which urban space is either unused, misused, or developed in a proprietary way, all to the detriment of its potential for public use” (Buttelheim, 1998).

## From Public Space to Third Place

A central business district (CBD) is the commercial and business center of a city. In larger cities, it is often synonymous with the city's "financial district", though it is typically home to a range of professional businesses (Yaguang, 2011). In larger, global cities, CBDs are separated from cultural centers, with most commercial activities designed to cater to its inhabitants, primarily employees from surrounding offices. Regarding the built environment, these areas are characterized by landmark skyscrapers and a linear gridded street layout. Though they contribute to cities' economic success, public space in these districts offers few social opportunities for their inhabitants. Combined with the increasing privatization of public space in these areas, social chances are significantly lower when compared to other parts of the city, such as creative clusters, traditional high streets, and tourist hubs.

This is attributed to the lack of excessive spontaneity, formality, and control of these spaces (Carmona, 2010b; Kallus, 2001; Lutzoni, 2016). This report states that in addition to high-quality design, the "game" concept suggested by Stevens is a means of improving these problems, as it can create unexpected opportunities and situations for its inhabitants (Franck & Stevens, 2006; Stevens, 2007). This report also supports Sennett's (1970) arguments in his notion of disorder, which he claims to be essential for vital public life. Though there are often policy measures to ensure sufficient public space in CBDs, there is little emphasis on these spaces' quality. Interests of property owners and developers to maximize each site lead to limited public space in most development projects. The inadequate provision of public space in exchange for an emphasis on morphological qualities and interiors of buildings usually means that the public uses and social conditions emphasized by Gehl (1987; 2010), Jacobs (1961), Alexander (1966), Newman (1972) and Coleman (1985) are minimized. Significant amounts of unused public space forget that they are places of human habitation and seek to limit social activity due to their unpredictable nature (Kallus, 2001). Loukaitou-Sedaris & Banerjee (1998) note that they are systemically separated, cut off, and enclosed to control these spaces.

The characteristics of CBDs are ripe for the formation of these "cracks in the city" (Loutaikou-Sideris, 1996, p. 91): The causes for these lie with the car, urban renewal, the privatization of public space, functional separation of uses, and the Modern Movement (Carmona, 2010a). Sorkin (1992) argues that public space in the new corporate city is heavily managed, dominated by multi-national commercial outlets, and heralds an end to traditional public space. These areas, aptly labeled consumption spaces, have become all too prevalent in cities, in large part, to make the development economically viable. These spaces are often well-maintained and policed in CBDs, but lack function for the public or are excessively controlled, limiting human activity (Brill, 1989).

It has been argued in the literature, however, that the decline in the quality of public spaces has been exaggerated and that these are consequences of evolving paradigms in the design

and management of public spaces (Brill, 1989; Krieger, 1995; Lees, 1994; Loukaitou-Sideris, 1996). In efforts to evaluate and better understand these public spaces, Varna & Tiesdell's (2010) model for assessing the publicness of public space uses a series of parameters to evaluate the quality of public life in these spaces. When applying this model to open spaces in international CBDs, it is found that these spaces are not conducive to vibrant civic life. Private ownership, overt security presence, over-management, poor physical configuration, and poor animation all contribute toward a negative perception of public spaces in international CBDs and highlight deeper causes for these places' poor quality, often stemming from inadequate management approaches compound lackluster physical design.

Over-managed environments can result in public areas lacking vitality and lead to a dearth of social interaction and spontaneous activities (Carmona, 2010b). Sennett (1970) argues that certain disorders need to be nurtured in cities to maintain their vitality. Furthermore, the lack of social opportunities and self-organization means that users are disconnected from their surroundings (Lutzoni, 2016). These deficiencies make public spaces in these areas without financial ones. In addition to reduced sociability, these excessively formal environments do not allow employees to escape their work during breaks through the day, which affects their emotional well-being and quality of life (Compier & Cooper, 1999; Lam & Lau, 2012; Wright, 2005). This disenfranchisement has been proven to affect employee productivity, which can be economically harmful to businesses long-term (Baptiste, 2008; Erdil & Ertosun, 2011; Wright, 2005).

Sociability is the ability of members of the public to become attracted to a space that allows them to conduct social and leisure activities, whether individually or as a group, but more broadly refers to the ability of a place to sustain vitality and public life (Zakariya et al., 2014). Public spaces, to be places of sociality, require physical design qualities of permeability, legibility, opportunities, and robustness to support different purposes (Lynch, 1981). The nature of social interactions may depend on the different qualities of the space and the type of users occupying it (Aelbrecht, 2016). In addition to these physical qualities, they also require social attributes, illustrated through Oldenburg's (1989) concept of third place.

Principles for third place are applicable when conceptualizing sociability in context to public spaces. Oldenburg (1989) argues that public life does not need to be limited to public spaces and also spread across what he calls third places, which are between the home (first place) and workplace (second place). Third places serve as informal gathering spaces for the community, such as hairdressers, cafes, bars, restaurants, bookshops, and also public spaces like intersections, stoops, edge spaces, bus stops, and waiting for spaces, and provide personal benefits of novelty and perspective to individuals who use them. Aelbrecht's (2016) definition of "fourth place" introduces a new category of informal social settings, which are characterized by in-betweenness in terms of spaces, activities, time, and management, as well as in perceptions of publicness. These fourth places can be argued to be a subset of third places and encourage a sense of ownership over public space through social settings.

In applying the concept of sociability into public spaces, Gehl Architects proposes 12 critical quality criteria that provide quality public spaces while emphasizing their social qualities (Svarre, 2015). Play is identified as a critical feature amongst these principles and opportunities for different scales of interaction. Whyte (1988) emphasizes the need for opportunities to enjoy public space, even if one is unwilling to participate in activities. For this reason, he suggests providing opportunities for seating along the edges of open space so that they may feel relaxed and may engage with other strangers in the audience, a phenomenon which he calls triangulation.

Hall (1966) identifies four distinct scales of interaction between people in the public space:

Intimate: 0m-0.5m

Personal: 0.5m-2.1m

Social: 2.1m-3.6m

Public: 4m-25m

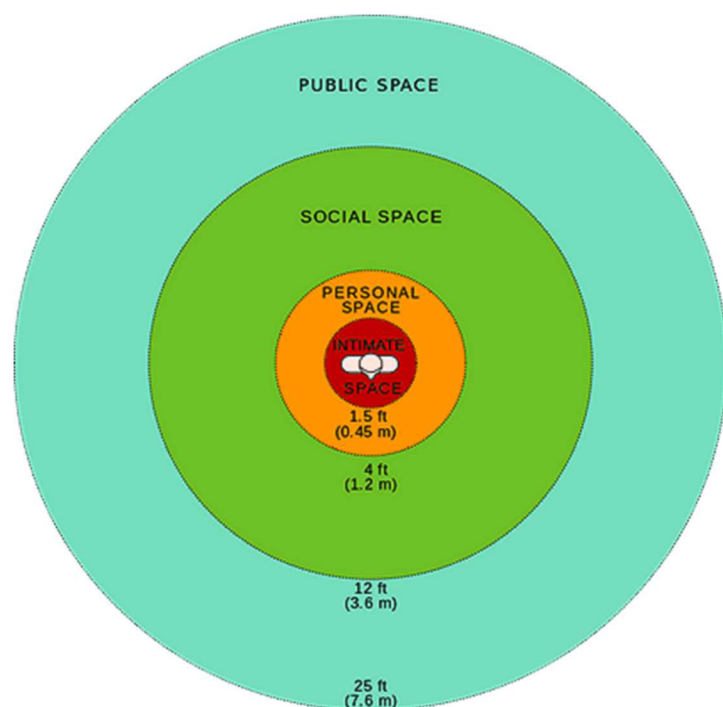
Building upon these scales of interaction, Stevens (2007) provides a guide for individuals' distance to facilitate play. The two key ranges are as follows:

25m (which is the approximate maximum distance for the recognition of what is going on in a public setting)

From 2.1 m to 3.6 m: the interval in which strangers recognize each other first. These intervals are an essential threshold at which people consensually determine their way of meeting.

The social connotations of these boundaries and distances are also affected by the orientation of individuals. In a lateral arrangement, people's interpersonal boundaries are less clear and can be crossed without transgression. Personal space is closer to the sides and back than it is to the front of them, while face-to-face orientations are typically confrontational. He also notes that people converse with strangers seated diagonally, while individuals who are intimate or working together sit adjacent.

In general, play is used to describe a counterpoint to behavior, which is normal – everyday, conventional, calculated, constant, expected. Uses in public spaces that are different from the original design intention of the space. Play is about more than letting off steam; it can be quiet and contemplative, as well as active and boisterous, and is argued to be a necessary



Proxemics Scheme of E.T. Hall



component of human life (Stevens, 2007). Regarding play amongst adults, Lester & Russell (2008) provide a conceptual definition based on the variety of play types and their meanings in the literature and assert that play is freely chosen, intrinsically motivated, a state of mind, non-instrumental, and not directly productive. Spencer (2013; Spencer et al., 2013) also notes the parallels between the quality of life indicators amongst adults alongside this definition of play and the close relationship.

Following Stevens' (2007) argument that incorporating play opportunities should be a priority for planners, the playable city initiative aims to apply the concept of play into the design, management, and governance of cities (Bland, 2016) (Fig. 6). In addition to providing play opportunities, it also seeks to improve sociability, respond to local debates, and tackle more significant social issues by restructuring governance hierarchies.

Gibson's affordance theory in environmental psychology asserts that the environment contains information about objects' functions in the form of affordances. Affordances are, therefore, the possibility for interaction afforded to an observer by an object in the environment. For instance, a chair provides affordances for sitting, while a piano offers affordances for listening to its music or playing it. These affordances are easily discernable by users and increase the options available to them. When applying this to play, designers should aim to create a variety of affordances into built elements in order to normalize these acts over time

Stevens (2007) argues that urban practitioners pursue clear-cut goals in their current public space design approach, such as comfort, practicality, and order. However, the scope of life in urban spaces cannot be confined to predetermined objectives. Activities in a given urban space regularly generate disorder, risk, and change. He, therefore, proposes a paradigm that shifts the purpose of public spaces from the instrumental rationality of work to the creative freedom of play and for its users to evolve their habits of alienation to those of participation.

In Sennett's arguments about the disorder, he proposes to create spaces that encourage discovery through organic changes to the modern grid to make it more expressive (Sennett, 1970). Furthermore, he suggests transforming public spaces into open systems by reducing public space control (Sennett, 1990). These spaces, which are continually evolving, should have the potential to be continuously updated. These arguments also contribute to Amin's (2008, p. 8) calls "civic appreciation of shared urban space", creating a more reliable emotional connection between space and its inhabitants. Based on these arguments, Sendra (2016) proposes infrastructures for the disorder, which are mechanisms through which disorder can be planned in cities. He conceptualizes his proposal through three terms: surface, section, and process. The surface refers to the physical dimension of the space, the chapter relates to the urban experience and atmosphere, and the method refers to the civic aspect of the space. These terms can also be used to encourage spontaneous play through urban design.

Franck & Stevens (2006) term the dynamic appropriation of urban space for unexpected uses as 'loose space'. Loose space allows for new attitudes and behaviors by relaxing the dominant

meanings of specific sites. This emancipatory approach contrasts with the tight controls seen in privately owned public space and is argued to improve these areas' perception to allow for a more excellent range of activities amongst users. In the context of privately owned public spaces, this will require mediation with security and access goals.

The spontaneous practices of reusing marginal spaces could trigger urban dynamization processes in terms of producing common goods. To address these problems, it is necessary to recall, albeit broadly speaking, some of the effects that the phenomenon of globalization has on our way of perceiving and conceptualizing the dimensions of space and time, on the dualisms and contradictions that it generates and how these dynamics develop they reflect in urban projects, in particular about residual spaces. As an acceleration of the processes that multiply the relationships between the various societies of the world, globalization tends to break the link between functions and meanings of places, so that the production process of the territories, instead of being egocentric, responds more and more to logic centered directly; that of the global world is evidently, to an increasing extent compared to the past, "geography conceived, promoted, directed from the outside" (Turco, 1988), from the outside we must understand rationality matured elsewhere "this is outside the context of the aspects cultural and spatial aspects of the society we are observing. (Turco, 1988)

Nevertheless, if, on the one hand, the interdependence or interconnection between the various spheres of activity in different parts of the world increases, perhaps, on the contrary, there is a similar tendency to strengthen local practices, in which it is easier for energies creative convergence of those who live and work there.

If, in the examples of informal practices of re-use and re-appropriation of collective urban spaces, we find this tension between global and local, the interest is played by the territorializing processes connected to the "residual spaces of the urban whole". With the term residual, we intend to refer directly to "what remains" between the plots of the post-industrial city following the economic and political transformations that have characterized its evolution: spaces of different scale, from large abandoned areas to central urban areas or on margins of the expanding urban fabric, up to disused buildings such as empty shops which, at a historical moment characterized by demanding access to energy and economic resources, assume significant importance for the community. The spaces above are here defined as "third spaces".

The concept of "third" is intrinsically problematic since it frees itself from a dialogue between generally defined and circumscribed parts; it is often considered a synthesis of the first and second terms or, in other cases, appears as a position distant from the first two; the meaning that is assumed in this work refers to a situation that is no longer or is not yet the reference one, but which nevertheless exists, and as such deserves to be explored. In this case, it can be affirmed that a disused local, which has concluded its activity, has been defined in a defined way, and currently, it is no longer so, but it has an interest as a potentially helpful resource.

The "third" character of some urban spaces suggests, therefore, the overcoming of an apparent dichotomy between urban places characterized by a right level of quality of life in terms of efficiency of services and in which the exercise of the democratic rights of citizenship

is in force and other contexts in which there are no specific standards of well-being and which at worst persist in a state of discomfort. (Cubadda, Tanca, 2016)

This opposition does not understand the existence between the urban spaces that "work" and those that "do not work", of a spatiality whose residual nature is defined by the absence of function. We refer to those places within the city that, even if abandoned, give a glimpse of possible evolutionary scenarios. Some of these are marked negatively: a residual space is a privileged ground on which the processes of ghettoization and degradation that affect the weakest social groups flourish, or hypotheses of no less concern, phenomena of real estate speculation.

However, this highly dysphoric narrative is not the only one possible: the condition of "waiting", of suspension in which some urban environments are, makes them a potential pool of resources available to the community.

As we shall see, they will represent a valid response to the request for spaces to be reserved for fundamental activities for the life of the citizens, such as work and study, or to dedicate to the socio-cultural field, proposing itself as an alternative to the idea of a dull expansion ( or growth) of an urban quantitative type. the "third spaces" can be defined as "concrete examples of common goods" on an urban scale because their value is expressed in the relationship with local communities that will maintain a relationship of care with them and in the opportunities that could derive from this bond. (Cubadda, Tanca, 2016)

The streets of the city should be shared and shaped by the people who use them every day. Because a city is not just home and work, but spaces, other spaces, places separated from where we sleep (the first space) or where we work (the second space). These are the intermediate spaces where we can freely meet other people, ideas, and experiences. According to Oldenburg, who defined the third space as a public space beyond the home or workplace (for example, cafes, pubs) where people can meet and interact informally: "Third place is a generic designation for a great variety of public spaces that host the regular, voluntary, informal and happily anticipated meetings of individuals "and is a fundamental framework of informal public life" (Oldenburg, 1989). Furthermore, as important areas of civic/political discourse, Oldenburg argues that third places play a crucial role in developing societies and communities, strengthening citizenship, and, therefore, "central to the political processes of a democracy". The third spaces are places that give a public balance to the growing privatization of domestic life.

Where third places are absent, we find that people often live in the same area for years without ever knowing each other.

Third places also serve as "ports of entry" for visitors and newcomers to the neighborhood where directions and other information can easily be obtained. New residents provide a means of getting acquainted quickly and learning where things are and how the neighborhood works.

Instead, the typical residential district is notable for its absence of public gathering places, offering instead of a maze of frequently deserted streets (Oldenburg, 1997)

These can be public spaces, such as a park, a path, or a center Civic: Places where strangers meet, condensations and encapsulations of all the characteristics that define city life: it is in public spaces that life fills, with all that separates it from other forms of human coexistence, reaches its maximum expression, together with its most characteristic joys and sorrows, premonitions, and hopes. [...] Fear and insecurity are alleviated by preserving differences and the ability to move freely in the city. [...] It is the exhibition with the difference that, over time, becomes the main factor of happy coexistence, making the urban roots of fear disappear. (Bauman 2007, pp. 102-103) They can be private spaces, like a barbershop or a church or a coffee shop. In private spaces, not all can be defined as third spaces, as they are constructed through specific social and environmental characteristics (Graham et al., 2015).

They can be temporary spaces, like a block party or a snow-covered hill. A space formed as a product of space reproduction (living space) is a product of combining perceived and conceived space (the concept of space as a place). This idea is an approach to insight, understanding a spatial system, and providing opportunities for how the world is represented, mapped, and visualized. The temporary public space is a public room present in the open space, present due to society's social interaction and needs at any time, in line over time. (Sujiatini 2017)

Third spaces can be where the community is created, and information is shared. These are places where we can feel rejuvenated and safe among friends. They can also be spaces where we experience the unexpected or meet people we have never met before. Life for many has produced, for many, a lifestyle consisting mainly of a shuttle from home to work and vice versa. (Oldenburg, 1997)

Social well-being and psychological health depend on the community. It is no coincidence that the "aid professions" have become one of the primary industries.

"What suburbia cries for are the means for people to gather easily, inexpensively, regularly, and pleasurably. A place on the corner, real-life alternatives to television". (Oldenburg, 1997) Today we could say a real physical space, for real-life, an alternative to virtual life.

They can also be digital spaces, like a community forum. Soukup argues that while there are similarities between third spaces and many virtual communities, there are also significant differences that must be recognized. There are three areas where online communities differ drastically from a third space: third spaces emphasize the community localized, third spaces are social levelers, and third spaces are accessible. (Soukup 2006) Soukup suggests that the term third virtual space is more accurate because it recognizes that interaction: "it transcends space and time and alters identity and symbolic referents through simulation." (Soukup 2006) Soukup identifies three primary factors as key: localization, accessibility, and presence. Soukup argues that virtual localization occurs not only through explicit connection to a physical location, for example, through a council discussion forum, but can be built through discourse and other signifiers - symbolic spaces. That is, therefore, still a place-based definition but would allow, for example, certain types of online ex-pat communities to be considered a third virtual place or online forum focused on a city. In the virtual world, access refers to the digital divide in all its complexity. (Soukup 2006)

However, for Soukup, it is also how the virtual environment is designed and built, and, above all, the community itself could shape the environment. The third virtual space must immerse their participants and reflect the socio-signals culture of their local inhabitants: "For a virtual space to be warm and comfortable for someone from a small town in Iowa, space must make it feel like he is a familiar Midwestern town" (Soukup 2006).

The perception of urban spaces based on subjective processes is different and individual since it comes from relational experiences between the city and the subject. The identification of space and appropriation begins with the perception of physical, environmental, social, and cultural elements; therefore, they develop personal experience with psychological, emotional, and sensorial human elements that can create the recognition of imaginary places and bonds, imaginary and individual memories (Lynch 1999).

Spaces where we feel welcomed and interconnection between us, the other citizens, and the city itself. Spaces where everyone can feel cared for, especially the weakest. Spaces that promote social cohesion, because only through it, after unpredictable events, can there be survival, rebirth, and prosperity of the community. Such powerful spaces allow people to create something of lasting value, something physical, something social, or the remodeling of space itself because these spaces will have to be flexible. As communities grow and people change, these spaces should also evolve as new needs and values emerge, providing multiple usages to different populations.

Many cities are bringing neighborhoods by creating new types of third places. Local efforts must not be dramatic or expensive. Sometimes, only small changes can make a difference. (Madden 1997)

Many daily life activities should take place just a few steps away, allowing independence to those who do not drive, particularly the elderly and young people. The concentrations of civic, institutional, and commercial activities should be incorporated into neighborhoods and districts, not isolated in remote disposable complexes.

While third places serve to promote the habit of association in general, they are also the places where they find each other with special interests. In third place, amateur musicians, shooting enthusiasts, poetry lovers, fishers, divers, etcetera are introduced. Furthermore, find local stores for their interests. Here is given the basis of whatever type and degree of local culture will emerge. In the modern subdivision, the "local" culture is provided by television (Oldenburg 1997). Today we think of social networks.

The people who operate third places are the kind of people noted social observer Jane Jacobs described as "public characters." They seem to know everybody in the neighborhood; they keep an eye on the local kids and what they are up to; they do favors for local customers, and they keep regulars up-to-date on all variety of local matters.

Third places also serve as gathering spots when emergencies or disasters occur. People want, need, be with other people in these situations, help and support each other, and decide on action courses.

Where people meet regularly to relax and enjoy the other's company, natural support groups or "mutual aid" societies tend to form. As we take our relaxation with people, we grow to like

them, and, as we come to like them, we are inclined to “do for them.” Third places are also secure places to collect time-saving, labor-saving, and money-saving advice — sometimes without even asking! (Oldenburg 1997)

Recalling a statement by Argan that in 1984 he said that: they are men who value stones and all men, not just archaeologists and writers. Therefore, we must consider not the value itself but the attribution of value, regardless of who does it and to what extent it is done. The value of space is what is assigned to it by the whole community. It is, therefore, necessary to do without what seems obvious and to see how, at all cultural levels, the value is given to visual data. (Argan 1984).

Starting from civic research and the civic commitment of the inhabitants of the various neighborhoods, villages, cities, it is possible to discover other value beyond private property or whatever it may be beyond the monetizable activities. Values like social connection, tranquility, urban beauty, and values that are even more difficult to count and others make the places more appreciable and of a livable quality. Above all, there could be an equal involvement of all, not only of some, to face the entire community's demands. Indeed, the social economy within neighborhoods and villages counts for a lot, so there will be different answers from people in different economic conditions and, therefore, different needs.

One of the main problems is that: "the cities ... are full of people with whom contact is meaningful, useful and fun, but" you do not want them in your hair, and they do not even want you in theirs. " (Jacobs 1961)

Therefore, another aspect of the problem of "third spaces" is undoubtedly diversity, the other, which is not me. The importance of this speech is the problem of migration. The problem consists in crossing the cultural frontiers with the freedom of self (Lucretius), or if, like wax, migration only changes the surface of the soul, preserving its identity under its protean forms (Ovid). This liminality of migrant experience is no less a transitional phenomenon than a translational one; there is no resolution because the two conditions are ambivalently enjoined in the ‘survival’ of migrant life. Living in the interstices of Lucretius and Ovid, caught in-between a ‘nativist’, even nationalist, atavism and postcolonial metropolitan assimilation (Bhabha 1994), the subject of cultural difference becomes a problem that Walter Benjamin has described as the irresolution, or liminality, of ‘translation’, the element of resistance in the process of transformation, ‘that element in a translation which does not lend itself to translation’.(Benjamin 1968)

Salman Rushdie (1991) states that due to the speed of cultural change, all Western citizens are strangers, or perhaps "visitors", to their understanding of culture and society.

Family cartels that reflect cultural stability and a clear understanding of identity are dissolving, to be replaced by perceptions of identity that must recognize the understanding of hybridity and so-called impurity. Rushdie states that, at least culturally, we are now all "bastards". (Baker,2007)

A reading of the thought of Homi Bhabha on the concept of third hybrid space is, therefore, necessary, which, together with the studies of CR Baker (2007) will serve to deepen the understanding of cultural hybridization by looking in more detail at how cities have evolved in

recent decades. Four categories of cities will be examined, which, according to Baker, represent four interconnected clusters derived from economic globalization: Network City, Mongrel City, Bohemian City, and Locally Livable City. (Baker 2007)

The differences are known and recognized, assumed, conceived, and signified. These mental and social, spatial and temporal [...] differences concern a higher level, that of a thought that takes into account all the elements, [...] urban space-time, since we cease to define it with industrial rationality, through its project of homogeneity, it appears as a differential, since every place and every moment exists only in the sense of a whole, through the contrasts and oppositions that connect it to other places and moments while distinguishing it. ". (Lefebvre, 1973 pp. 45-46)

Therefore, the urban (abbreviation of "urban society") is not defined as an absolute reality, situated behind the present in time, but on the contrary, as a horizon. " (Lefebvre, 1973 p.23)

Therefore, the city is a space-time center that agglomerates the city on itself but does not coincide with it. In the city, time is projected, that is, the historical arc of that place's experience, which experiences a coexistence in the urban space of heterogeneity of epochs, of symbols.

The city is also the possibility of regaining space and time based on the needs and needs of those who live there, especially the weakest. Urban society - in this way - becomes "work, end, place of free enjoyment, the field of use-value" (Lefebvre, 1974 p. 96) in which the inhabitants can embark on a path of emancipation and liberation from the yoke of need, precariousness, and poverty.



## The decline of public spaces.

The urban population is characterized by high heterogeneity and fragmentation, in which very different groups coexist from a social, economic, and geographical origin. Offering a space for coexistence and equality is not easy. The contemporary city, which once represented the *civitas* in all respects, is no longer capable of communicating these rapid social transformations through the development of new urban forms, so much so that it relies more and more on temporary and reversible actions, which offer, however, the possibility of experimenting with new possible approaches. These attempts are based on a concept of public space that deviates from the traditional monumental conception that concerned it and moved towards an active, operational, and inclusive meaning of the residual spaces present in the more expansive city. By accepting the challenge of thinking in terms of a space that is no longer "finite" but sensitive to change and the whole, it is possible to arrive at a project for a public space that is current and compatible with the demands of a society in continuous and rapid change.

The difficulties, which cross the city in representing their public dimension through the conformation of open spaces, cannot simply be attributed to the inability to determine the political significance of today's common public culture and the consequent disaffection towards politics, but must also reread through the criticisms of that significant part of contemporary thought on architecture and urbanism that seems to have concluded that public life in cities is at an end. Much of the literature analyzed attributes the cause of the decline of public space to modern urban design and the commodified and homogenized over-management of space (Sorkin, 1992; Boyer, 1994; Zukin, 1995; Loukaitou-Sideris & Banerjee, 1998).

The modern movement carried out an activity of forced neutralization of space, using the grid structure as a continuous repetition of elements that are always the same, generating a neutral and disenchanted city that presents itself as the place of lifeless suited to the needs of men (Sennet, 1992). The most appropriate example of this image of the city is Le Corbusier's Plan Voisin, where anti-humanism is put into action, which has "the street" as its main enemy.

The modern urban planner lacks the visual precepts that indicate how various cultures and ethnic groups can mix in public places, how the subdivision of neighborhoods can be arranged, or the design of streets that suitably fit different economic destinations, human diversity seems to be beyond human design capabilities (Sennet, 1992). As a result, North American metropolises, specifically Los Angeles, have become fortress cities, divided into fortified cells of an affluent society and places of terror where the police fight the poor, whose social status made them criminals. (Davis, 1993).

The consequence of a policy that increases urban fear through the media is massive privatization of public space and public architecture and the subsidization of racist enclaves. In Los Angeles, in the residential districts inhabited by the wealthy, therefore endowed with a specific political weight, public spaces have been privatized, thus separating themselves from

the rest of the metropolis and imposing passport control on outsiders (Davis, 1993). The universal and inevitable consequence of this crusade for the city's defense is the destruction of the space accessible to the public (Davis, 1993). In a city that is the destination of millions of immigrants, public spaces are in drastic decline, parks in ruins and beaches increasingly segregated, libraries and public gardens are closed, usual youth gatherings are summarily prohibited, streets become more desolate and dangerous (Davis, 1993). In a city like Los Angeles, on the wrong road of post-modernity, one can observe the unprecedented fusion of urban design, architecture, and the police apparatus in a single, total security system (Davis, 1993). A more severe risk than such intentionally adopted urban policies is killing the street and killing the crowd, eliminating that democratic mix found in parks and on pavements (Davis, 1993).

The fear of the formlessness of the city and the void and the consequent demand for a return to public order in urban space is one of the tendencies of New Urbanism that insists on returning to a legible city and a void called public space, destroying what has always been considered to be urban space, as a dense place where many activities are mixed (Betsky, 1998).

Under-managed outdoor public spaces paint the image of a trash-littered, poorly designed, and insecure public realm. Many concerns revolve around formal types of high-profile public space that have become increasingly privatized and often, as a result, more or less exclusive through a wide variety of development and political processes.

These are genuine concerns that have generated enormous literature and which are at the basis of the criticisms of some of the recent trends in the management of public space (De Magalhaes & Carmona, 2006).

Problems related to the quality of public space are shared throughout the developed world (CABE Space, 2004) and in many parts of the developing world (Zetter & Butina-Watson, 2006). They are likely supported by a growing awareness of the "value" of public space, which now reaches the highest political levels.

The public space is too often littered with piles of rotting trash, covered in graffiti, polluted, congested, and choked with traffic, filled with poorly maintained and ugly buildings, unsafe, populated at night by homeless people living in cardboard boxes and subways and during the day by many of the same people begging on the streets (Tibbalds, 2001). The general public expects someone else to clean up after them, but the numerous organizations with a formal role in creating and managing public space also take the same attitude (Tibbalds, 2001). Failure to quickly repair broken windows or to deal promptly with other signs of decay such as graffiti or tracked sidewalks can lead to the impression that nobody cares and quickly push an area into decline (Wilson & Kelling, 1982).

Some contemporary urban spaces make public space management even more challenging; they are in-between spaces, residual, underused, and often deteriorating (Loukaitou-Sideris, 1996).

Mismanagement is also to blame for the state of many corporate squares, parking lots, parks, and public housing estates, where neglect and decay have filled the space with garbage and human waste (Loukaitou-Sideris, 1996).

Lost spaces that need a redesign, anti-space that do not offer any positive contribution to the surroundings or to users, such as the base of skyscrapers or unused submerged squares, parking lots, the edges of highways that no one cares to keep, abandoned promenades, railway yards, free military sites, and industrial complexes deteriorated parks and marginal public construction projects. These spaces are automobile predominance, urban renewal, privatization of public space, functional separation of uses, and the Modern Movement (Trancik, 1986). Nevertheless, such spaces can also act to bring together disparate activities, occupants, and characters in a way that creates valuable exchanges and connections (Zukin, 1991; Shields, 1991; Sennett, 1990). Although such spaces should be regulated with a light touch, urban areas need places where certain behaviors, which in certain circumstances can be considered antisocial, are allowed (Worpole & Knox, 2007). The poor physical state of these types of public spaces seems to be based on the fact that it is rarely straightforward to manage them after they are built or diminished. Consequently, they are universally neglected, and much more attention should be paid to such transitory spaces (Hajer & Reijndorp, 2001).

The growing emphasis on the evening economy has led to behavior patterns that even the perpetrators find unacceptable in their neighborhoods. In such places, conflicts often revolve around the needs of residents versus those of revelers and local businesses serving the evening economy.

In the UK, night economy concepts became a significant reliance on city regeneration efforts throughout the 1990s. The government-led deregulation of the beverage industry that followed fueled this inert mix, transforming many urban centers. As a result, what have become "youth playgrounds" (Chatterton & Hollands, 2002). These spaces may not have been overlooked, but they have nonetheless been abandoned to market forces and a clientele of young people with disposable income to burn (Worpole, 1999), in the process of discouraging other users from these previously shared spaces and perpetuating an exclusion. The solution is the need for more active management and more sophisticated planning controls (Roberts & Turner, 2005).

In ancient and urban cities where car traffic has taken over, public space has inevitably changed dramatically, with traffic and parking gradually usurping pedestrian space in the streets and squares. "There is not much physical space left, and when you add other restrictions and irritants like dirt, noise and visual pollution, it does not take much to impoverish city life" (Gehl & Gemzoe, 2001).

Urban space is often cut, degraded, and ultimately destroyed by the proliferation of fast roads so that movement between fragments becomes a pure movement experience rather than a movement and social experience (Lefebvre, 1991; Carmona et al., 2003). Moreover, the remaining public space is too often dominated by traffic and has lost its social function. Thus,

even when the number of car users is exceeded mainly by pedestrians using a street, the space dedicated to street space far exceeds that dedicated to footpaths (Buchanan, 1988).

A further problem is dictated by the ease with which car owners can move from one place or an unrelated event to another; in such a context, physically, distant places can be compressed into a single space, while others (in between) can be ostracized and allowed to deteriorate due to their perceived reputation or lack of attractors (Hajer & Reijndorp, 2001). An "archipelago of enclaves" which, unless the parts in the middle of the city also develop an attraction value, the new network city will ensure that they continue to be ignored (Hajer & Reijndorp, 2001).

Environments exclusively dependent on cars have been generated throughout the Western World, particularly in North America, where public outdoor space does not exist at all, at least in the traditional form, but is instead replaced by a series of disconnected streets and parking lots (Garreau, 1991; Ford, 2000; Duany et al., 2000; Graham & Marvin, 2001), and although such developments are sometimes placed within landscape environments, these landscapes are typically designed to be lived in by the car and rarely attract traffic pedestrian. Such cities are not meant to walk. Sidewalks have disappeared in city centers and residential areas, and all uses of the city have been gradually adapted to serve the motorist (Gehl & Gemozoe, 2001).

The overgrown space is generally depleted, and most social and recreational activities disappear, leaving only the remnants of the most necessary utilitarian functions. In these places, people only walk when they have to, not because they want to. The invasion of private cars has led to a drastic reduction in the space available to pedestrians, a reduction in the quality of the remaining space, significant restrictions on the freedom of movement for pedestrians both within and between spaces, and filling spaces with the clutter and accessories that conventional wisdom has brought about the safe coexistence of cars and people (Gehl & Gemozoe, 2001).

Recovering this street space from cars to make it available again as a social space, available to the entire range of users, so as not to make the city lose the characteristic that makes it such, a concentration of exchange opportunities (Engwicht, 1999).

If space is poorly managed and diminishes physically or in the social, cultural, political, and economic opportunities and activities it offers, then a vicious cycle of decline can all too easily bag. If people use less space, there is less incentive to provide new spaces and keep existing ones. With a decline in their maintenance and quality, public spaces are less likely to be used, thus exacerbating the vicious spiral of decline (Jacobs, 1984; Whyte, 1988; Gehl, 1996; Carmona et al., 2003).

While the physical quality of the public space will be necessary to all who choose to use it, it will be more critical than for others. For some, particularly the disabled, small children in strollers or the elderly, simple physical barriers can present significant obstacles to the use of public space, often wholly excluding them from specific areas, for example, that disabled people tend to experience the environment built as a series of obstacle courses. For them,

most built environmental professionals have little awareness of the needs of people with disabilities, and the resulting public space is incapacitating when it is not needed (Imrie & Hall, 2001). Furthermore, since disability is associated with wheelchair use when in reality only a tiny percentage of the population with disabilities is in a wheelchair, the multiple ways in which the environment can be disabling is rarely appreciated (Imrie & Hall, 2001, p. 43). Addressing environmental disability involves understanding social disability and how the environment is incapacitating., Designing for inclusion rather than exclusion or segregation, ensuring proactive and integrated consideration rather than provision reactive "attacked" (Carmona et al., 2003). The needs of the less physically capable users of the built environment should be considered an integral part of the processes that shape and manage the built environment. Likewise, psychological barriers to accessibility may need to be addressed, including fear of crime or concern that those streets are unsafe for some users (especially children) due to their dominance by fast-moving traffic movement.

The combined result of physical barriers and concerns for safety and well-being, particularly of the elderly and young people, make the life cycle stage among the most significant determinants of accessibility and environmental equity (Lang, 1994). Of course, the development of the automobile-dominated urban form may be partly to blame and has been widely criticized, not least by the "New Planners" who argue that suburban environments all too often dictate that only one lifestyle is possible; of owning a car and using it for everything (Duany et al., 2000), but the way existing environments are managed is probably just as guilty, not least in the way that space for the pedestrian is increasingly hungry of investments.

In addition, some users of the public space have been very actively denied access to it or parts of it, notably the poor, the homeless, and teenagers. Exclusion due to fear or inability to consume is discussed below, and teens are excluded for both reasons, but teens are also excluded due to their pastimes, especially skateboarding which is considered by some to be antisocial. Finally, it creates with other groups and its damage to street furniture (Johns, 2001).

Some forms of user activity directly undermine the fair use of public space. Crime, or often, more correctly, fear of crime, remains a significant cause of this withdrawal from the public realm for those who have chosen (Miethe, 1995), both behind doors and simply away from urban locations in suburban ones. People feel exposed and vulnerable outdoors, and conversely safe and protected indoors, a fear that results in the growing spatial segregation of activities by class, age, ethnicity, and occupation - senior communities, ethnic areas, skid rows, etcetera (Boddy, 1992).

Contemporary trends in physically gate communities reflect the long-standing desire of affluent groups in many societies to separate from the rest of society, often reflecting a fear of crime or simply a desire to be, and to be seen as, exclusive. In essence, doors transform the space inside into a private space, accessible based on relative wealth, while residents turn their backs (walls and doors) on the space around them. It is increasingly a global phenomenon (Low & Smith Webster, 2001).

The fear of victimization is confirmed and a significant factor in how the contemporary urban environment is designed and managed (Oc & Tiesdell, 1997), even in the pressures for segregation. Crime and civilian behavior can rapidly undermine the quality and experience of public space, encouraging users to manage perceived risk by avoiding using places and contributing to their further decline.

The users of the public space and the occupants of the surrounding buildings are "active participants in the drama of civilization against barbarism" (Jacobs, 1984). This requires users to be actively involved in the civilization process, and a perverse consequence of the privatization of residential environments may be the withdrawal (behind their doors) of many law-abiding participants from this role (Bentley, 1999).

Public life has increasingly been seen as a matter of dry, formal relationships, while the introspective obsession with private life has become a trap, absorbing the attention of individuals rather than freeing them. The consequence is a withdrawal into the domestic space while public life, streets, and squares, have been increasingly replaced by suburban living (Sennett, 1977).

The spread of new technologies and new private venues for social exchange can be a fundamental threat to the very notion of public life (Carmona et al., 2008). Many social and civic functions previously in the public realm have increasingly been transferred to the private. Entertainment, access to information, shopping, financial services, and even voting can increasingly be undertaken from home using modern technologies, particularly the Internet. This, in addition to increasingly dramatic increases in personal mobility, has led in many places to a decline in "local", "small-scale" and "public" locations and a growth in "regional", "large-scale" and "private" as places for public life (Ellin, 1996). As a result, individual lives are increasingly private, and that as a result, public culture has diminished (Sennet, 1977).

To incorporate some forms of semi-public space, an expansion of the definition of public space was required. Urban planners should be concerned with broader notions of public life rather than just physical public space, reflecting the new reality that much public life exists in private spaces "not only incorporate theme parks but also in small businesses such as coffee shops, bookstores. and other third places of this type ". These spaces support and enable social interaction, regardless of their ownership (Banerjee, 2001).

"Informal" public life, although more dispersed than in the past, is highly focused in some third place environments: cafes, bookstores, coffee shops, bars, hairdressers, and other small private hangouts. (Oldenburg, 1989) These places host encounters from the accidental to the organized and regular and have become fundamental institutions of mediation between the individual and society, possessing many common characteristics, including:

- Neutral terrain, where individuals can come and go as they please.
- Highly inclusive, accessible, and without formal membership criteria. Low profile and taken for granted.

- Open during and outside office hours.
- A playful mood characterizes them.
- Psychologically supportive and comfortable.
- Places of conversation, and therefore also of political debate (Carmona et al., 2008).

It could be argued that these characteristics also characterize (or should characterize) the public space, but also that these three spaces are, once again, nothing new; the British pub, French cafe, or American bar providing examples from the past that remain significant in third place in the present (Caneparo & Rolfo, 2017). Today, these have been integrated with other forms of third place, shopping malls, spas, video rental shops, and excess new leisure spaces.

In the US and UK, debates on public space management have increasingly highlighted concerns about privatization and related security issues in recent years. In the United States, there has been an increase in safety and regulation after September 11, 2001 (Low & Smith, 2006).

However, already during neoliberalism, in the 1980s and 1990s, public spaces in the United States were still experiencing significant increases in security (Low & Smith, 2006).

The crackdown on public space is not simply due to an increased fear of terrorism after 2001 and has many local and national inspirations. Many public uses of space are increasingly outlawed and come under police control in ways unimaginable a few years earlier, but these rights had already been concertedly attacked well before 2001 (Low & Smith, 2006).

Over the past twenty years, the privatization of urban public space has accelerated through the closure, redesign, and police control of public parks and squares, the development of business improvement districts that monitor and control local streets and parks, and the relocation of public air rights for the construction of company squares open to the public (Low & Smith, 2006).

Privatization is a cause of the decline of public space, but it is equally a consequence of it, as the desire to control private space has grown (Carmona et al., 2008). The transfer of facilities and services from city centers to privatized suburban localities and their reincarnation as inwardly focused fortresses surrounded by parking ditches embodies the problem. It represents an appropriation of public space by private companies (Ellin, 1999).

The new center has become in contrast with the traces of the historical center, the Main Street of yore. The public life of the center of Main Street is vestigial at best and has been transformed by the culture of the poor, the homeless, and the new immigrants "(Loukaitou-Sideris & Banerjee, 1998). It highlights not only a lack of strategic direction on a macro-scale to direct investment in parts of the city where the public realm was in decline but also a series of micro-scale design strategies that deliberately promote exclusion: tall empty walls, impenetrable street facade, hollow squares, hidden entrances (to new spaces), de-emphasized doors and openings to the street, no retail, etcetera (Carmona et al., 2008). At



the same time, the "privatized" spaces inside can be seen as a series of glasses or environments vying for packaging and advertising (Loukaitou-Sideris & Banerjee, 1998).

While the local government has previously controlled, managed, and maintained public streets and squares, creating these new "public-private" places means that they will be owned and operated by individual private owners who have the power to restrict access and control. (Minton, 2006). A new corporate city emerges that heralds the end of traditional public space. This new space is a global space, where economic phenomena intersect with society and culture (Sorkin, 1992). A world dominated by multinationals, producing traditional urbanism where public space is for consumption. Public space is heavily managed with an obsession with safety, and that public space is at the forefront of creating a simulation city where spaces are defined by pseudo-historical links with the past (Sorkin, 1992).

An unprecedented increase in the deliberate consumption of places and events due to the dramatic expansion and domination of the middle class in developed countries has multiplied in recent years and concerns the ordinary citizen's desire for 'interesting' experiences (Hajer & Reijndorp, 2001). Leisure experts speak of an "experience market", where all kinds of events are offered that can thrill people for a short time, from factory sales to art biennials (Hajer & Reijndorp, 2001). Thus, cities and organizations compete with other places by producing experiences.

Postmodern cities contain layers of history and symbolism that can be manipulated and exploited as a tool of late capitalism (Boyer, 1994). The return to postmodernism, to the history and evocation of the past city, can be seen as an attempt by the political and social authorities to regain a centered world. Districts can be designed with care, but they do not appeal to everyone in society; other neighborhoods in the same city are neglected pieces of public space containing the realism of social decay (Boyer, 1994).

While design and management strategies can exclude certain groups and explicitly encourage others, other forms of exclusion can be practiced through financial means. For example, this could be explicit by charging a registration fee linked to a series of codified rules and regulations often specified on the ticket. Many indoor public spaces, such as museums, underground railways, etcetera, adopt this strategy. A more subtle practice is to establish visual cues that communicate that only those with the ability to pay are welcome and that those who do not fall into this category will be treated with suspicion or even physically excluded (Carmona et al., 2008). For those who enter, it is necessary to advertise their right of entry through a separate set of visual cues, such as the clothes they are wearing (Carmona et al., 2003, p. 127). Exclusive commercial galleries fall into this category, welcoming all externally, at least all with the ability to consume.

Although public space in traditional cities serves as a forum for political debate, this is explicitly discouraged in the consumption space that characterizes new American centers (Loukaitou-Sideris & Banerjee, 1998). Instead, owners and developers want their space to be "apolitical".

Thus, they separate users from unnecessary social or political distractions and put users in a mood consistent with their purposes (Loukaitou-Sideris & Banerjee, 1998).

Many shopping malls are examples of what sociologists call a "total institution", in which the outside world is intentionally blocked not to distract shoppers from their primary responsibility to shop (Mattson, 1999). However, as malls have increasingly become the only central gathering place in many communities, "the activities of regular citizens who fly, protest or otherwise use malls as public space have led to several controversial court cases "(Mattson, 1999). For example, in the United States, many states have come together to protect private property rights over constitutional rights to free speech, with only a minority validating the view of shopping malls as public spaces.

Whatever the details of the debates, they always focus on the central question of public space and democracy in the American suburbs. Citizens have made it clear that they need places where they can interact with fellow citizens and try to persuade others of their views (Mattson, 1999). Shopping malls, they argued, must serve as these places simply because they concentrate public interaction within a defined arena. In making the argument, these citizens recognized a crucial weakness in the contemporary suburban landscape: the lack of public space and the insidious impact of that lack on democracy. (Mattson, 1999).

Many settlements have often been "invented" by their founders, with techniques borrowed from theme parks used to reinvent existing places, with the risk of losing elements of continuity and character that may have been part of the qualities badges of a place.

In Paris, the Parc de la Vilette, despite its international reputation, is designed for tourists rather than the men and women who work with the red hand, who in any case no longer work or live there (Wilson, 1995). Thus, in cities around the world, not only is the tourist becoming perhaps the essential type of inhabitant, but we are all becoming tourists in our cities (Wilson, 1995).

Sometimes the process involves creating differences to distinguish one place from another, such as the use of place marketing strategies to distinguish one city, neighborhood, or place from another (Carmona et al., 2008).

Sometimes the process involves the deliberate creation of re-election, copying successful formulas that have worked elsewhere, for example, the emergence of standard Chinese formulas in many cities of the world or the cloning of high streets with the same national and international brands (New Economics Foundation, 2004). Such places are increasingly devoid of authentic places, which are instead gradually replaced by caricatures and "urban disguises" (Sorkin, 1992).

However, although such places can be criticized for being superficial and lacking in authenticity, all of these places require a thoughtful and careful design process. Disneyland is successful because it adheres to sequential experience and storytelling principles, creating an appropriate and meaningful sense of place where both activities and memories are individual and shared (Sircus, 2001). As a result, Disneyland and the like represent one of the most

compelling new forms of public space of the late 20th century, although it identifies several factors for its success:

- Visual culture, through an aesthetic designed to transcend ethnic, class, and regional identities.
- Through a highly choreographed sequence of spaces, Spatial control allows people to look and be watched and participate without embarrassment.
- Private management aimed to control fear: no guns, no homelessness, no illegal drinks, or drugs, promising to "make social diversity less threatening and public space safer" (Zukin, 1996).

This production of places occurs in a wide range of contexts and success factors, creating entirely fictitious theme parks at one end of one spectrum to the reinvention of historic urban neighborhoods on the other. There is a goal to ride at all scales, attract attention, visitors, and, ultimately, money (Crang, 1998). In this sense, such places are undoubtedly popular and invariably filled with human activity. Returning then to the components of the place, one could conclude that "placelessness" is not a product of a lack of activity or a carefully considered physical form but rather an absence of meaning derived from the place. The place is not good or bad simply because it is real versus surrogate, authentic versus pastiche. People enjoy both, whether it is a place created over the centuries or created instantly (Carmona et al., 2008). A prosperous place, such as a novel or a film, actively engages us in an emotional experience orchestrated and organized to communicate purpose and story. Ultimately, then, the challenge may not be to create authentic or invented places, but to create "good" places, recognizing that in order to do so, many factors beyond the original design will be troubling, not least how such places are subsequently managed, and the restrictions imposed on the uses and users of the resulting space (Sircus, 2001).

Restrictions can be divided into the power of access and exclusion relationships, and that it is these relationships are the essential factors in the space (Kilian, 1998). Urban spaces contain three categories of people: inhabitants, visitors, and strangers; and each group has different access and exclusion rights:

- Villager, the controllers. This is often seen as the state/government, but it is often the private sector as a large corporation. The inhabitants have the right to access and exclusion.
- Visitors, check themselves. These are the users of the public space, with the right of access for specific "purposes" and no right of exclusion.
- Strangers, the "undesirables". They have no right of access and are excluded by definition (Kilian, 1998).

These are fluid categories controlled by the subjective definitions that inhabitants give to visitors and outsiders, and concludes that the debate on the loss of public space refers to the processes of social relations that control the function of urban public space (Kilian, 1998 ).

Fear of crime (rather than actual crime levels) is often the engine of moves to privatize parts of the public realm, separating communities in the process. He argues, however, that while the ubiquitous reporting of crimes in the media has undoubtedly spurred much of the growing fear (at a time when a real crime is steadily shrinking), polarization processes and the associated atomization of communities also drive an increased fear of the "other" (strangers) and a further withdrawal of those who have chosen from public space (Minton, 2006). The potential for social exclusion is described in terms of "hot spots" of wealth and "cold spots" of exclusion. "Hot spots", such as urban regeneration areas or bids, are characterized by clean and safe policies that replace social problems. "Cold spots" are characterized by social outcasts unwelcome in hot spots (Minton, 2006). With this analysis, public space management is actively creating socially polarized urban public spaces.

Practices of exclusion are not always the work of the private sector through privatization processes but are increasingly supported in public policies aimed at tackling unwanted social activities (Murphy, 2001). The resulting "exclusion zones" vary, but control factors such as smoking, skateboarding, alcohol consumption, begging, cell phone use, and driving (Murphy, 2001).

This raises concerns about personal freedom concerning personal and collective responsibilities. Society works together to establish norms of behavior and controls what she described as "street barbarism" (Jacobs, 1984).

If public space users cannot enjoy a minimal level of basic decor in public spaces, they will be even more likely to flee into the privatized world of suburban shopping centers, gated enclaves, or the Internet (Ellickson, 1996). Those who transgress social norms should be confined to areas set aside for their use (Ellickson, 1996). Indeed, this is nothing more than codifying what already happens in many cities where homeless and other "undesirable" are tolerated in some areas, such as red-light districts and the like, but bred by others, including shopping districts, and commercial (Kohn, 2004). The resulting environments only exacerbate rather than solve problems, with the resulting problems inevitably spilling over into surrounding urban areas (Davies, 1992). Freedom with responsibility requires "the ability to carry out the activities one wishes, to use a place as one wishes, but with the recognition that a public space is a shared space" (Carr et al., 1992). The question of management, and what is appropriate and what is not, can therefore be a matter of judgment and negotiation at the local level (Carmona et al., 2008).

The public space of the modern city has always represented a hybrid of political and commercial forces, but at the basis of much criticism is a growing perceived separation between the two (Sennett, 1992). There has always been a strong link between commerce and urban public space and strong tendencies of exclusion among those with managerial and ownership responsibilities (Carmona et al., 2008).

However, the concerns of those who criticize trends in contemporary public space design and management are powerful and should not be dismissed by policymakers (Carmona et al.,

2008). However, it could be argued that it is not surprising that business interests are determined to take responsibility for their public spaces or neighboring spaces that have a direct impact on their businesses when the public sector has often done so little work in managing spaces for which they are responsible, spaces that still comprise the vast majority of the public realm (Carmona et al., 2008).

If, until a few decades ago, and therefore still in modern times, the public space held together representation and the social space of conviviality, today the public space can be a highly supervised and controlled representation place. In contrast, the spaces of sociality when they exist are increasingly fragmented, discontinuous, places sometimes devoted to fruition, sometimes filled with anguish, anxiety in the face of the different, or desertified (Detheridge, 2017). However, they are also places in a precarious balance between sharing and aggression, where bodies give themselves or vanish, places of fun and bottom-up animation, but which ultimately are also a way to avoid suffering reality as an imposition or as a renunciation of facing a foreign power; or like the spaces that people take autonomously and underground in defiance of any authority (Detheridge, 2017).

A rethinking of urban planning, of its themes, of its projects, can significantly benefit from reflection on the tension between individualism and sharing; between private happiness and aggression; between self-enclosure and good neighborhood; between bureaucratic support from the state and close social protection, between traditional welfare and welfare based on voluntary commitment, altruism, giving; between public paternalism and neo-paternalism of sharing; between the narrow games of the Self Building City and the wide ones of the contemporary housing project (Bianchetti, 2017). What they highlight is at the micro level the perpetuation of some outstanding issues with which urban planning has measured itself in the Modern. These games are not harmless. Furthermore, they have significant consequences on the spatial level since they perpetuate asymmetries, differentials of ownership, accessibility, and law (Bianchetti, 2017).

## Placemaking and Health

Much research shows that public places have an impact on people's health. From obesity, chronic diseases such as diabetes, depression to social isolation, and increased exposure to environmental pollutants, the world faces very different health challenges today than in the past. Many of these challenges are directly related to the way public spaces are designed and managed. The Covid19 pandemic showed that public spaces, in many cities, were not ready for this challenge.

Attention to the inhabitants' health has crossed international politics from the second postwar period up to the present day. The challenges that the planet and the cities have had have always led to the search for greater well-being for the population because a country's prosperity is always proportionate to its people's well-being. In 1948, the World Health Organization (WHO, 1948) defined health as "a state of complete physical, mental and social well-being"(WHO, 1948).

The 2010 WHO-UN Habitat report, "Hidden cities: unmasking and overcoming health inequalities in urban environments", highlighted (D'Onofrio & Trusiani, 2018) that even where the prosperity of cities is increasing, the poverty in the most deprived neighborhoods, even in the wealthiest cities in the world. It could be challenging to achieve the Sustainable Development Goals (SDGs) of Agenda 2030, stop poverty, protect the planet, and ensure prosperity (UN 2016).

Research from the University of Wisconsin Population Health Institute (2016) found that more than 40 percent of the factors that contribute to a person's length and quality of life are social and economical, while another 30 percent are directly related to health influenced by socioeconomic factors (University of Wisconsin, 2016).

Indeed, those living in disadvantaged neighborhoods, those struggling disproportionately with systemic problems such as unemployment and poverty, face significantly more significant health challenges than those in affluent areas. On this issue, research by the Centers for Disease Control (CDC) of the US Department of Health and Human Services and published in the Health Equity Guide of 2013 highlighted that low-income groups have more limited access to well-maintained parks or other physical activity spaces, and are more likely to have inadequate sidewalks and street infrastructure for walking. (CDC, 2013).

The Ottawa Charter (WHO, 1986) defined health promotion as a "... process that allows people to increase control and improve their health. To achieve a state of complete physical, mental and social well-being, an individual or group must identify and fulfill aspirations, satisfy needs, and change with the environment. Health is therefore seen as a resource for everyday life, not as the goal of living ". Hence, the European Healthy Cities Network's birth, a network of cities committed to accepting and implementing this process. Since its inception, the EHCN has evolved through a series of work programs called phases. These served as a platform for

inspiration, learning, and the accumulation of practical experiences on how to improve health and well-being in cities. From the birth of EHCN, in 2000, the European Charter for human rights in the city resulted, in which it is established that "the signatory cities, through their actions in the economic, cultural, social, urban planning, contribute to an approaching global aimed at promoting health for all inhabitants conducted with their active participation "(Art XVII, 3), moreover" the municipal authorities adopt, based on the precautionary principle, pollution prevention policies (including noise) , energy economy, management, recycling, reuse and recovery of waste. They expand and protect the cities' public parks (...) and develop an education geared specifically to respect for nature, aimed at boys and girls. " (Art XVIII, 2 and 4). Also establishing that "citizens of cities have the right to an orderly urban development that guarantees a harmonious relationship between the habitat, public services, structures, public parks, and equipment intended for collective use" and therefore, "the municipal authorities carry out, with the participation of citizens, urban planning and management that can achieve the balance between urban planning and the environment "(Art XIX, 1 and 2). Therefore, citizens' active participation in urban planning and management to guarantee the right to urban development, orderly and harmonious, is emphasized in this last article.

D'Onofrio and Trusiani (2018) indicate that through the connection of health to the urban dimension, health as an "individual good" becomes health as a "collective good", recalling ethics and observance of the rules of civil coexistence (D ' Onofrio & Trusiani, 2018). Health becomes a goal to be pursued for citizens, mayors, and local administrations and must be proposed as a guarantee of a fair city, ensuring that the community's health is considered an investment and not a cost (D'Onofrio & Trusiani, 2018). City-based health becomes a social and collective result that challenges globalization, social exclusion, and poverty (D'Onofrio & Trusiani, 2018).

In September 2012, the European Member States of WHO adopted "Health 2020", explicitly recognizing the influence of the urban environment on health and healthy cities and national networks in advancing the objectives and themes of this European strategy (D'Onofrio & Trusiani, 2018). Among the priority actions of this strategy emerges the "creating resilient communities and favorable environments", whose main themes deal with "community resilience" as the construction and promotion of urban actions to improve health individual and collective; the "healthy environments", or the improvement of the places where people spend their lives; "urban planning and design according to health criteria", making improvements that promote physical activity and sustainable mobility; which result in "transport systems that promote healthy lifestyles" by reducing pollution at 360 ° and improving safety and health to promote the well-being of citizens, demonstrating the existence of a close link between sustainable development and health.

There is mounting evidence to indicate that direct contact with natural environments has important positive health outcomes (Marrone, Burton & Gladwel, 2013). Contact with both wild and natural and cultivated places improves self-esteem and mood (Barton, Hine & Pretty, 2009), reduces stress and anxiety (McKay & Nail, 2010), and promotes mental well-being



(Thompson Coon , Boddy, Stein K et al., 2011). Furthermore, being physically active while exposed to nature ("green exercise") provides additive benefits for mental well-being beyond those received from just contact with nature (Barton & Pretty, 2010). These benefits derive from natural environments and 5 min exposure durations upwards (Barton & Pretty, 2010).

The quantity and quality of green space available near the home correlate with longevity and a lower risk of mental illness (White, Alcock, Wheeler et al., 2013). People in urban areas with excellent tree cover and green spaces have a lower prevalence of asthma, improved mental well-being, reduced stress, lower morbidity, and risk of cardiovascular disease, greater longevity of the elderly, better cognitive function, and healthier cortisol profiles (Barton & Pretty, 2010; Takano et al., 2002). Less green space typical of disadvantaged communities produces higher stress and flattened cortisol profiles (Roe et al., 2013) and a higher incidence of obesity (Lachowycz & Jones, 2011).

In the guidelines on physical activity, the British National Health Service (NHS, 2019) indicates that children should not remain inactive for long periods, except when they are asleep. Adults should aim to be physically active every day by reducing time spent sitting or lying down and interrupting long periods of inactivity with some activity.

It has become clear globally that significant inequalities in health outcomes are persistent and growing. Research continues to show that poverty, income inequality, racism, and poor quality of life are major risk factors for ill-health and health inequalities. Besides, conditions such as sprawl, pollution, inadequate housing, unsafe streets for walking and cycling, bad transportation choices, and a lack of education and job opportunities are significant contributors to unjust health outcomes; these systematic and avoidable disadvantages are interconnected, cumulative, intergenerational, and associated with less capacity for full participation in society (CDC, 2008). These inequities come with high social costs, including threats to the nation's economic development, democracy, and social health (CDC, 2008).

WHO in the Health Promotion Glossary (1998) defines the healthy city as "one that continually creates and improves those physical and social environments and expands those community resources that enable people to support each other in carrying out all functions of life developing their maximum potential ". Therefore, it is a city that continuously improves physically and socially until the environmental and pathological conditions are reached, establishing an acceptable morbidity rate for the population.

Placemaking could be a tool for creating quality public spaces that contribute to people's health, happiness, and well-being based on a community's knowledge and resources. The process unites people with a shared purpose, which could be a key factor in health and well-being to achieve the Healthy Cities goal.

Healthy cities (WHO) are places that deliver positive outcomes for people and the planet. Results obtainable considering the six P's that make up the healthy city wheel to achieve health and well-being. The six P's are Participation, People, Place, Planet, Peace, and Prosperity. Cities involve society, encouraging all communities' participation in the search for peace and prosperity. Healthy cities set an example to achieve change for the better, address inequalities, and promote good governance and leadership for health and well-being. Innovation, knowledge sharing, and health diplomacy are appreciated and cultivated in healthy cities.



Healthy Cities Vision – credit: WHO

A healthy city takes a humane approach to development, investing in human and social capital as a strategic approach to urban development, promoting inclusion, integration, and non-discrimination, building trust, resilience, and focusing on ethics and values.

A healthy city, ensuring community participation in decisions that affect the place and the way people live, their common goods and services, achieves the improvement of the city's spaces and services, based on needs and resources in communities. It achieves greater responsibility and governance for the Health and well-being of its inhabitants, who, at the same time, are more responsible and resilient.

The healthy city's commitment is geared towards greater community prosperity and strengthening resources through governance based on common goods and services' values.

The Health and well-being of people and the planet are at the heart of all the city's policies.

A healthy city creates an accessible social, physical, and cultural environment that facilitates the search for Health and well-being. Moving from a needs-based approach to a resource-based approach, urban planning and development are human-centered. The approach aims to integrate health equity and sustainability into urban development and planning by achieving greater inclusiveness in common spaces' use and governance. Institutions, governance systems, and architecture prioritize social justice and inclusive participation. A culture of inclusion and equity is promoted, addressing corruption, discrimination, and all forms of violence.

Oms's healthy city project was born in 1988 and has involved dozens of cities worldwide for over thirty years. In Europe, more than thirty networks have been created, and more than a hundred cities have joined.

With the spread of COVID-19 worldwide, some cities have become national epicenters of the pandemic, amplifying the spread and transmission of the infection with their dense population and transport networks. Globally, and in the WHO Region of Europe, city administrations and local community organizations are key players in an effective response and are at the forefront of reducing the epidemic in many countries. In addition to implementing and providing guidance on reducing infection risk, local/municipal authorities have easy access to their communities. They are well-positioned to provide guidance and support to mitigate some of the long-term economic and social impacts of physical activities and removal measures (WHO, 2020).

The mental health consequences of the pandemic have also affected community well-being and the provision of health care.

The importance of reorganizing urban space has become evident for people's lives in the open air and physical distances. Cities need more green and blue spaces and a revamped system of healthy transportation.

The challenges faced by cities and still face are manifold. The COVID-19 pandemic has shown the extent to which a rapidly spreading disease can change a city's life, no matter how large or small. The disease is hazardous for the elderly and people with a more significant burden of non-communicable diseases, who often experience isolation and difficulty getting help. In these circumstances, cooperation between citizens has been key to addressing the problems arising from the COVID-19 epidemic.

Urban communities that organize themselves in their neighborhoods strive to keep countries healthy, sustainable, inclusive, and economically active in difficult times for everyone. In many cities in the WHO European Region, authorities, health workers, and local communities work together to create a "better normality" of city life that will survive the pandemic.

Maintaining quality public transport services by taking measures to prevent the virus's spread and strengthen passenger confidence has been challenging for large and busy cities with high mobility. Many cities have rushed to introduce strict measures to control the COVID-19 outbreak. These measures have substantially impacted vulnerable groups through isolation, disruption of care and rehabilitation services, and reduced social program access.

The response that cities have given has shown that cities can offer new support levels in all sectors and all urban communities. Cooperation can empower people and keep them safe, and this vital city resource will contribute to a better future for the WHO Region of Europe and beyond. (WHO, 2020)

Cities will manage this and other crises and emerge as centers of energy, resilience, and innovation to make them lively and attractive places for many to live. Nevertheless, this will require informed policy choices, particularly concerning inequalities, local capacities, and a green and inclusive recovery.

Government monetary and financial policies (stimulus packages) could make cities future-proof by focusing on sectors with high potential for ecological transformation and job creation

(e.g., retrofits, sustainable buildings and construction, waste collection and management, decentralized renewable urban energy, local food climate-resilient urban systems and infrastructure). Urban compactness could be a goal, resisting de-densification, political measures and incentives that discourage uncontrolled urban expansion could be pursued (e.g., implementing carbon pricing, eliminating fossil fuel subsidies that reward suburbanization, and promoting well-designed urban density to generate agglomeration savings).

It is essential to recognize that compact cities are healthier for the planet and people, mainly when they are designed to ensure adequate housing and public green spaces for everyone.

The often-implicit correlation between COVID-19 and compact urban development could be misleading and encourage de-densification and uncontrolled expansion. Although concerns have been expressed that density can accelerate the spread of COVID-19, there is no evidence to suggest that density alone is related to higher transmission. The perceived effects of density on COVID-19 result from corollary factors such as overcrowding, income, and access to services.

For example, an analysis of Chinese cities (Fang and Wabha, 2020) and another of New York City's neighborhoods (Kehew, 2020) showed no correlation between density and COVID-19 incidence. However, the New York study showed an inverse correlation between income and incidence that justifies further studies on overcrowding, access to health care, and the impact of exposure to pollution (Kehew, 2020). Efforts to de-densify cities are in danger of relegating to the SDGs, climate, and biodiversity targets.

Post-COVID-19 recovery and reconstruction in cities could prioritize green, gender-sensitive, and sustainable pathways. Fiscal stimulus packages planned in 2020 and 2021 could help drive economic development towards a low-carbon, more resilient path or block devastating climate risks and vulnerabilities for generations to come. In the medium term, national, regional, and local governments could address climate change by ensuring that stimulus packages focus on ecological transition potential sectors.

A green recovery will require models based on local economic development, proximity production, and consumption patterns, connecting cities with rural communities, and shortening supply chains. Stimulus measures could also aim for sustainable infrastructure and renewable energy elements, green buildings, and construction integrated into urban planning and design and nature-based solutions.

A deliberate effort would be needed to support, adapt and expand integrated and multimodal transport systems in cities and metropolitan areas to rethink and transform public transport, ensuring the transition from private car use to more sustainable, inclusive, healthy, and safe forms of mobility for women and men. For example, in the United States, several cities like Austin, Texas, are exploring congestion reduction measures that can be used to help maintain some of the air quality improvements and emission reductions that occurred during the COVID-19 freeze, desperately yielding necessary cost and productivity savings (Crowe, 2020).

Economic recovery can drive a profound green transformation. The short-term environmental impacts observed during COVID-19 have demonstrated what is possible if we take collective and decisive action. Well-designed stimulus measures that support a green economic recovery can produce long-term economic benefits, prevent stranded assets, and avoid blocking high-emission and polluting infrastructure and transportation systems that can last for decades. Aligning urban planning and development with human and planetary health is essential to avoid ecological imbalances, increased risk of exposure to new pathogens, and the emergence of new diseases. Only by taking this moment to expand investment in a fair green transformation will we create lasting solutions, reduce future crisis risks, and adequately mitigate climate change impacts (WHO, 2020).

Policy recommendations can be adapted to local contexts to recognize the unique strengths and challenges of different cities and even neighborhoods within cities and ensure that their unique character and culture are respected.

If supported and scaled-down, the policy choices made today could determine resilience against future pandemics, economic and climate risks, and shocks that alter the lives and ability of cities to reach the SDGs. Cities can be rebuilt by addressing inequalities and development deficits, strengthening local actors' capacities, in particular local governments, and pursuing a resilient and inclusive economic recovery.

If done right, the response to this urban crisis can lead to a revolution and the redefinition of the collective priorities of the world's cities: towards diversity, inclusion, sustainable work, innovation, environmental sustainability, gender-sensitive systems, and the construction of cohesive communities in the urban spaces of sharing.

The streets have accompanied the path of human civilization, from the dawn to the present day, and it is precisely in the streets that creativity has reached its maximum.

The purpose of the streets has always been to connect, to connect distant elements in space so that people can quickly and easily reach them. Since its inception, since the days when the man was traveling with the sled, the street has been an element of the relationship. The Romans, then, were the most excellent street builders, many of whom represent the main communication routes even today. Along the streets that often arose to connect two centers, other urban agglomerations developed, and later cities were born from those places that were rest or service areas of the street route.

Ancient Egypt's cities developed around the main streets, particularly wide, to allow religious processions, military triumphs, and coronations. They were oriented along the north-south and east-west axes and formed right angles according to a checkerboard plane.

Checkerboard conformation was used in Greek town planning from the 7th century BC (Greco, 1999), but not for the entire town. Among the ancient cities where it was adopted are Imyrne (7th.C century BC), Metaponto, and Megara Iblea (6th.C century BC), which differed from other Greek colonies in the regularity of the blocks and the orthogonality of some street axes (Lo Sardo, 1999). The blocks were all of equal importance, but the city's symbolic and

functional center was often in a decentralized position, traditionally located on heights (acropolis) and its urban structure.

According to Aristotle's writings, it was probably in the 5th century BC that the urban planner Hippodamus of Miletus theorized and systematically planned new cities with the orthogonal scheme's application named hippodamean scheme (Aristotle, Politics). In this scheme, the streets intersect at right angles, form regular quadrangular blocks creating the urban and social order of a kind of ideal city, which was supposed to accommodate a maximum of 10,000 inhabitants, divided into the three classes artisans, farmers, and military.

The ancient Romans adopted the hippodamean scheme in the "centuration", a system used in the territory's subdivision and realizing the "castrum", their military encampments. The Romans also developed the acquisitions that the Etruscans had already absorbed from the Greeks. The Etruscan city of Marzabotto, founded at the end of the 6th century BC., was the first on the Italian peninsula where the grid system would perfect the Romans (Stanislowski, 1946).

In particular, in Roman urban planning, the two main streets that intersected perpendicular to the center of the town were the "Decumano", which ran in an east-west direction (Enc. Treccani), and the "Cardinale" in a south-north direction. Cities, military encampments, and "centurized" territory developed with the crossing of streets parallel to the "decumani" and the hinges, forming a lattice.

With the necessary modifications and downsizing to meet the increase in the population and to guarantee the health conditions of the places, this street schematization of ancient derivation is the one that still affects our cities today. Cities with checkerboard plants have square straight and isolated streets that form a simple plant suitable for military defense. In Italy, the checkerboard plant is present, for example, in the cities of Naples, Belpasso, Aosta, Turin, Cuneo, Como, Pavia, Messina, Verona, Viareggio, Pescara and Bari. It characterizes cities such as Vienna (the Roman Vindobona), London (Londinium), New York, and English cities whose names end in casters or chesters such as Manchester or the City of Lancaster. Openings at intersections or subtraction of portions of square areas to building or agriculture have allowed the realization of sociality places, which has been one of humankind's primary needs and, therefore, the main problem of urban organization. Since ancient times, streets have played a fundamental role in cities, connecting spaces, people, and goods, facilitating trade, social interaction, and mobility. Simultaneously, as mentioned above, the city streets have been the places where diseases spread.

Streets, squares, and designed public spaces have helped define cities' cultural, social, economic, and political functions. They were and continue to be the first element to mark a place's status, from a chaotic and unplanned settlement to a well-established city. The street always could be the privileged space to become a place, to mark the passage from the city of stones to the city of souls.

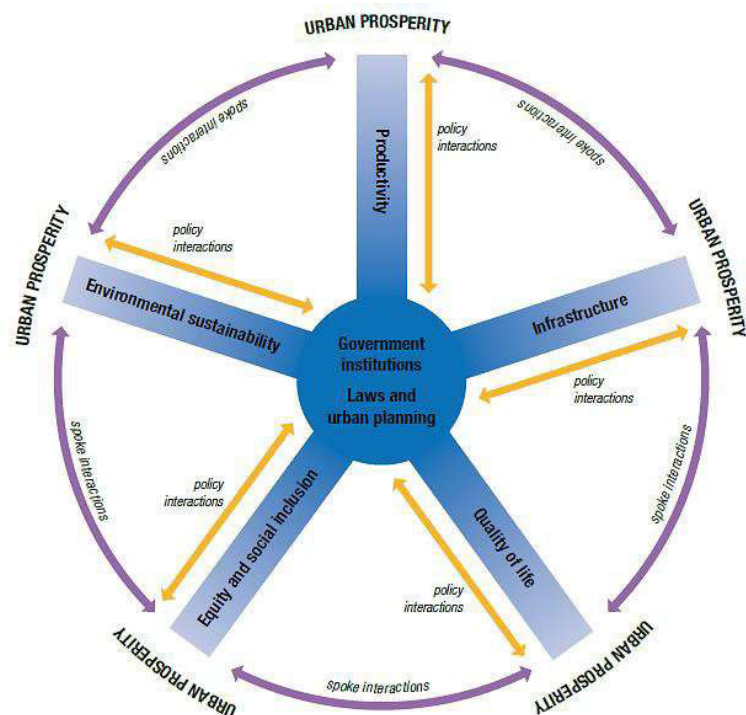


Throughout history, the street has lost its functions frequently, and even today, it is considered a pure element of connection, subverting the social and economic functions that represent an integral part of urban life.

The expansion of cities in the wealthiest countries in the last century has been accompanied by changes in land use and form, and structure. The streets, intended as public spaces, have lost their primary role in shaping the city's culture and history. The streets have lost their multifunctionality as public spaces.

The 2013 UN-Habitat report, *Streets and Public Spaces and Drivers of Urban Prosperity*, show that more than 25% of the land is allocated to streets while in urban centers, moving away to the suburbs. This ratio is reduced to below 15%. This was caused by street planning with the predominance of the cul-de-sac system rather than the orthogonal scheme. Suburbs have narrower, shorter, low-intersection streets. (UN-Habitat, 2013)

Urban expansion has led to a reduction in population density, expanding urban space and making it necessary to use the car or public transport to get around. However, in some cases, urban expansion has created suburbs where services have given rise to polycentric cities.



Prosperity Wheel - credit: UN-Habitat (2013)

The densification of suburban areas, which already takes place in many areas of Europe, North America, and Oceania, would require the redesign of street services, orienting it towards urbanization and sustainable development, especially by offering car use alternatives. The promotion of environmentally friendly public transport is among the various proposals, but as the months spent during 2020 and 2021 have taught us, public transport, if understood as mass transport, can become a problem for the spread of diseases. While the use of new forms of urban planning should be at the heart of the re-urbanization of peripheral areas, mainly because it is very likely that transport needs, environmental concerns, and land use targets were not taken into account during expansion. In the new forms of planning, it is necessary to allocate sufficient land to the streets to allow pedestrianization, cycling, and sociality. Urban



planning should be an ongoing project, including in the existing and well-planned city, considering social and environmental costs and an aging population.

In most cities, streets are having a redesign to accommodate cars, pedestrians, and cyclists, reducing the impact on the environment and facing high costs, as already seen between 2000 and 2004 by the EU ARTISTS project. Instead, as mentioned above, making cities more connected and coordinated around green policies could produce economic savings of up to \$17 trillion by 2050 (EIB, 2020).

Today people claim their streets as public spaces in many corners of the world. Streets are being planned to recover full use by communities and as a means of social engagement. Street planning and design should also recover the needs of all users of this shared space: age groups, gender, economic condition, and modal means. Streets, from urban spaces, should become urban places, regardless of whether it is a "shopping street" or a street in the extreme periphery, indeed, especially in the latter case.

We go back to some streets more often than others, not just because the things we have to do are more centered on one street than another. We can choose to focus a part of our lives on a street for reasons that are not necessarily economic or functional. Perhaps one street mainly unlocks memories or offers expectations of something pleasant to see or the possibility of a meeting (Jacobs, A., 1985).

Streets are more than public services, more than linear physical spaces that allow people and goods to get from here to there. Communication is one of the primary purposes of the streets and provides free public access to the property. Nevertheless, the streets also moderate the shape, structure, and comfort of urban communities. They can focus their attention and activities on another center, on the margins, or along a line, or direct their attention to anything in particular.

The streets allow people to stay out; it sounds pretty simple, but it is pretty essential. They are places of meeting and social and commercial exchange. They are places where we meet people, which is a fundamental reason to have cities in the first place. The streets are political spaces, where citizens discuss and celebrate, where people demonstrate. Try doing this in our local mall.

Streets are places to move, look and pass, especially the movement of people. Knowing the rhythm of the street means knowing who may be on it or in a place along with it during a given period (Jacobs, A., 1985).

Streets account for 25% or 35% of all developed urban territory. They constitute, to a large extent, the public kingdom. The space reserved for parks and other public spaces, if added together, does not come close to equalling the space we use on the streets.

Furthermore, the streets change all the time. Every time a street is repaired, there is a possibility to change it in significant ways. Street changes are everyday activities.

Good streets have places to walk with leisure and safety. The best streets are comfortable. They are shady when it is hot; offer the sun when it is cold. They minimize the wind. The best streets have a definition. When we are on the street, we are in one place.

The best streets have a sense of transparency, and we acquire a sense of the presence of other people and a sense of security, a sense of place.

Some of the best streets in the world are treeless (Jacobs, A., 1985). However, if a city administration has little money and if the trees are appropriate in the first place, then it is probably the best way to spend the money to achieve good value for money. Nevertheless, we have to plant them properly and keep them. In the best streets, a clear start and end are necessary, if not critical. Ceremonial gates, fountains, sculptures, columns and obelisk, and parks are very ancient beginnings and endings that can be delicious in their rights, and everyone can work. If a street is long enough, then open places along the way, small or large, can be crucial. They are breathing places, resting places, places to concentrate the activity.

The opportunity to design streets in ways that meet public goals, including creating the community itself, is as exciting as it is challenging (Jacobs, A., 1985). If the streets are well designed, it is possible, or at least desirable, that there will be feedback for the well-being of the city as a whole, especially for its inhabitants' well-being and health.

Streets are the most abundant public spaces, existing where we live and wherever we go. Safe and inviting streets allow the community to thrive; dangerous and polluted streets destroy the community. It is hard to imagine now, but a hundred years ago, people could do anything on the street: walk, talk to neighbors, play games, conduct business. This happened not only on the sidewalk but right in the middle of the street. From time to time, the street widened and became a square, a place intended explicitly as a place of aggregation, the community's focal point.

## Public Spaces

Why do traditional design approaches seem ineffective when confronted with context? Repeated critical issues in management push the discipline of the project to question the reasons for these failures. Project failures represent the limits of a design culture unable to deal with those 'moving territories' where an interpretation of the project must replace the project's vision as a product as a process. The instability of the contexts requires the architectural and urban project to think of itself in four dimensions, interpreting the project not as a concluded and unchangeable entity but as a palimpsest - at the same time limiting and propulsive - for future transformations. This consideration leads to valorize an open concept of the project, which must be constituted as a dynamic sequence of configurative structures that take place over time. Therefore, the ability to plan durations and formal relationships between the compositional elements, controlling the relationship between permanence and variation, is crucial. A two-level design is based on a dynamic interpretation of form, and the idea of potentiality would invite an evaluation of the compositional choices based on their ability to predispose the transformation. In this perspective, the project can be understood as an urban seeding operation, that is to say, as a trigger moment that through careful and responsible soil design can predispose long-term transformation, depositing a morphological and functional mark on the site decisive for future developments. In this way, it can become an opportunity for the construction of the public city and the responsible design of the ground, giving life to a project that does not seek immutability, but is constituted as an architecture of waiting and availability to welcome, preparing that support surface which, by establishing fundamental relationships with the context, facilitates further and unpredictable stratifications at the same time.

In his essay "Life between buildings" (Gehl, 1980), Jan Gehl conducted a careful study of public space concerning man and society. How the city and the forms of its organization and planning have evolved, have been highlighted. Cities founded between 500 AD and 1500 AD were not designed in the real sense of the word. They had developed where there was a need, modeled by residents in a direct-type space construction process. The development was very long (hundreds of years), but it allowed continuous adjustments and adaptation of the urban environment to the city's functions. The result is urban spaces that offer excellent conditions for life between buildings every day. The Renaissance was the transition between a free evolution of the city and a severe form of planning. In this period, the town became a work of art. Space's symbolic and visual appearance was established as the criteria for the design of good architecture. The most crucial turning point was then introduced by Modernism. Starting in 1930, the concepts of functionalism spread throughout Europe, formalized in the CIAM congresses. The fundamental theme was studying the physical environment taking into account the hygienic point of view, psychological health, and the rational organization of space use. Despite these innovative precautions, functionalism never referred to social aspects in building buildings and public spaces.

One of the most apparent effects of this ideology has been the disappearance of the streets and squares from plans for new buildings and new cities. Besides, the rigid functional zoning, with homes, services, and industries built in different parts of the city, has undoubtedly alleviated some modern period problems and reduced the possible benefits. The city was interpreted as a machine that allowed logically separate and orderly human movements. We had forgotten that cities are "places of people".

Therefore, the public space represents the essence of urbanity that has evolved in the forms and practices of use, together with the generations of populations that have followed one another. As C. Mattogno states, this space is "the privileged place of relationships from social to economic and productive ones, from those of physical mobility to those of communication" ( Mattogno, 2002). Without these social spaces, cities and towns are only collections of buildings that do not allow the encounter with "the other". The word "public space" immediately associate the concept of "emptiness", meaning the plot of the free space between the buildings also because often, these places "in-between" are found to be forgotten or underutilized. Public space, however, should be characterized by the ability to attract people, activities, relationships. In fact, without these forms of involvement, these Spatio-temporal contexts would remain abandoned, and people would have no reason to attend them (Mattogno, 2002). We can quickly discover that space is regulated by a series of invisible but perceptible rights (Carr et al., 1992). The fundamental reason is the right of access which can be declined in physical access (is it possible to enter?), Visual access ( Is it possible to see the public space for potential users easily?), and symbolic access (are their signs indicating more or less marked memberships and which can select/discourage potential users?). The concept of freedom of action is identified alongside the right to access. Public space must be used according to one's desires, recognizing that this is a shared space, where one's freedom must not go to limit others' rights. Other rules inherent in the concept of public space but perceived when the user feels directly involved in the construction and ownership of the place are the right to claim, the right to change, and the right to appropriation. The right to claim underlines the possibility of exercising some form of control of space because this is perceived as "ours".

The right to change allows the place to evolve and adapt to changes in use and times, while the right of appropriation is very delicate because it highlights the possibility of feeling that place as one's own, recognizing, however, its collective value. Space is never anonymous. One of the human species' distinctive traits, deriving from our origins as nomadic hunter-gatherers, is the need to mark the territory. This behavior could be potentially problematic because space belongs to everyone. The problem arises when a single social group shows exclusive claims about space use (Shaftoe, 2008). Therefore, the landscape and the city are real areas in which the philosophy of democracy translates into concrete objects and situations, which will directly influence our lives. In architecture and urban planning, many studies have attempted to identify the distinctive characteristics of crowded, lively, heterogeneous urban public spaces, observing the subjects' behaviors. Public spaces are recognized as necessary:

- For the quality of life: they influence the physical, mental, and social well-being of the man who lives there daily. They are the place where we can take a walk in nature or meet other people.
- For diversity education. The public place can be understood as a theater of everyday life and therefore allows learning social information. Being a place, in principle, open to all, allows us to have contacts with people with different cultures, behaviors, and attitudes.
- For participation in community life. The privileged place for the public dimension, where demonstrations and events take place.

When we think of urban public space, we immediately imagine a square or a street. Both are familiar places for the relationships between individuals that are established there and, for this reason, have been carefully analyzed by many scholars. Today, however, in addition to the physical space, we live daily in another world external to the subject, the virtual one. Therefore, a man finds himself crossing and meeting others through the natural areas of sociality and tools that modify the classic public / private dichotomy.

#### The square

The square is defined as a public use area of significant architectural and urban quality, convergence center, or center of gravity of a given urban area. A square is a place for meetings, shows, sermons, ceremonies, processions, and the privileged place of exchange and commercial activity, of community contact with the outside world, of information as a materialized symbol of the public history of that community. The most ancient history is linked to the European squares, which have evolved from the Greek agora's shape. European example has been forefront, so much that in America, the squares are called "plazas" rather than "squares", trying to infuse in these spaces the liveliness of the squares of the old continent. W. Whyte, in "The social life of small urban spaces" (White, 1980), sought to identify the recipe for success for a busy and pleasant piazza. From the series of studies carried out in the squares of New York and from the numerous observations, it has been summarized that:

- Direct sunlight is not a determining factor in the use of the squares.
- The same beauty of the square or the buildings facing it is not essential.
- The shape of the square is also not as influential as the designers mistakenly believe.

However, the aspect that appears fundamental is the quantity of suitable space, that is, comfortable seats from a social point of view. That does not mean an appropriate number of benches but a structuring of the elements that make up the square suitable for use as seats (walls, stairs, etcetera) and perhaps the availability of movable chairs. A square conceived in this way will not be perceived as empty if only a few people are sitting on the benches, as there will not be many benches, but representing the phenomenon of triangulation can be adaptable to the different needs of users. In general, W. Whyte believes that public spaces to function must be welcoming, livable, comfortable, and user-friendly environments. A central factor capable of igniting a space is the phenomenon of "triangulation" or the presence of stimuli that push people to interact to socialize. In a nutshell, this is the process by which a

stimulus can be a physical object (sculpture, musicians/performers - it is not essential that they are good or not!). Alternatively, a panorama establishes a connection between people allowing us to create an interaction between the unknown. It is the "common ground" also theorized by Jan Gehl necessary for sociality, but in this case, the cue to create the link comes from the physical structure or the practice of using space.

## The street

The street layout is the first gesture with which man describes the territory's organization on the ground (Brugelis & Pezzulli, 2006). It is a space where two characterizations coexist: it can be interpreted in infrastructural terms and social environments. A crucial node is that the space dedicated to pedestrians' movement is also relational, while the space dedicated to moving vehicles annihilates this potential. Donald Appleyard and Mark Lintell published research (Appleyard & Lintell, 1970) that was carried out between 1969/1970 in San Francisco on the role that the streets play in urban space as the main corridor and living room of the city, with particular attention to the infrastructure and social impact. The effect of the increase in traffic on the vitality of the two streetsides was analyzed in detail. The investigation took place on three different types of streets:

- A HEAVY STREET one-way street with a peak of 900 vehicles per hour
- A MODERATE STREET two-way street with a peak of 550 vehicles per hour
- LIGHT STREET street with a peak of 200 vehicles per hour.

The population that inhabits these places is slightly different. In Heavy street, there are no children, and the area is lived mainly by singles, both young and old. The light street is, however, mainly populated by families with children. The research criteria can be summarized in some themes:

- Traffic
- Stress, noise, and pollution
- Social interaction
- Privacy and a sense of belonging place
- Awareness of the environment

The most exciting results are those that derive from the social interaction analyzed in these streets.

Residents were asked several questions about the number of local acquaintances and friends they own and where they usually meet. It turned out that the inhabitants of Light street have, on average, 9.3 acquaintances and friends per person against the 4.2 that emerged in Heavy street. The diagrams express that contacts across the street are less frequent in Heavy street than Light street. There are many reasons to interpret this data, starting from the resident

social groups, the number of years people have settled here, and the inhabitants' average age. Indeed, a difference emerges in how the streets are used and seen by the young and the elderly, about the street's traffic. In addition to the different degrees of interpersonal relationships, there is a different perception of ownership of the territory. The inhabitants of Light street also feel like owners of the street that faces their houses, while in Heavy street, the sense of ownership is limited to their apartment. These considerations depend on the configuration for the everyday use of the street itself.

In conclusion, in Heavy streets, the environmental conditions due to traffic, noise, etcetera. They are severe, but there are not as many complaints as one would reasonably expect. Mechanisms of adaptation and environmental selection are being developed. An environment is chosen by groups of people who consider it suitable and rejected by others. This mechanism does not take place so ideally, and there are always more disadvantaged people who, due to lack of financial availability, information, and resources, cannot move and therefore suffer the most harmful effects of the environment in which they reside.

City and Public Space would be expected reasonably. From this experience, particular attention arises from the relationship between the infrastructural feature that the modern city's street layout has and the quality as an urban lounge. The street is the place par excellence where social relations occur; it is a space where there are no guests, and they are all hosted. It is a place that records and metabolizes individual behaviors and experiences, thus forming its distinctive character as an environment for the emanation of energies (positive and negative). The energy emanating from the street induces a positive atmosphere; nobody can be exempt from being responsible for it; we all contribute to "produce the street". It is, in fact, the place of the experience of being together, the place where the public and private spheres intertwine. It is the place of unexpected knowledge, adventure, the unexpected, and democracy (Brugellis & Pezzulli, 2006).

## The Virtual

So far, we have given the term public space a decidedly material connotation; however, space perception is much more variable and declinable in infinite different forms in today's everyday life. The city was born out of a need for communication between like which required the simultaneous presence of people in the same space (Barberi, 2010). Today the forms of communication have changed. The new reality is presented as a system where the world is enclosed in a single space to be searched comfortably from our home through a screen. Before the technological revolution, the population needed to go out into the street to organize their life of relationships, trade, and join others in a context where physical presence was a fundamental fact ( Brugellis & Pezzulli, 2006 ). Today we relate to others in our home's intimacy through devices that break down the old dichotomy of public space / private space, complicating spatial perception. Simultaneously, the social square can enter our bedroom, but the exclusive and intimate relationship with "the other" can take place in the colorful



confusion of a local market. The network of streets and physical squares are implemented with an invisible mesh of possible connections between the individual nodes that make up the city and beyond. The virtual space takes on the typical social characterizations of urban places both in the experience and the terminology used to describe it. There are talks of squares, electronic and virtual villages, to refer to the different forms of social networking, from forums to social networks such as Facebook and Twitter, from houses to neighborhoods of virtual worlds such as Second Life (Bitti, 2010 ). Several researchers like Stephen Graham and Simon Marvin in "Cities and communications systems, electronic nodes and urban areas" led interpretive studies and analyzed the relationships between urban environments and new communication technologies. According to these theories, the city has two possible fates:

- The city will disappear because the primary need at the origin of its birth will disappear: the convenience of physical proximity.

The city will evolve and be influenced by technology, the individual users of it, and capitalism's economic forces (Graham & Marvin, 2002).

We know that the modern city is a media and architectural complex at the same time. It is a place where the virtual production of urban space, as McQuire says, is the constitutive frame of a new modality of social experience. An experience characterized by the relational space is defined as "a space that has been emptied of quality as defined dimensions and appearances but is felt to be changeable, variable and contingent". The relational space can only be defined by the temporary position occupied by each subject about numerous others; this suggests that this space does not represent something unitary since each subject belongs to multiple matrices or networks that overlap or interpenetrate. ( McQuire, 2006; Bitti, 2010)

The city lives thanks to the stories that the inhabitants build within its walls. For a public space to be truly such, it could be experienced by active subjects who feel responsible for space and recognize themselves in it. The city communities create the places' identity, making them unique and exceptional ( Brugellis & Pezzulli, 2006 ). It is impossible to build a city without recognizing the "invisible" underground life that flows through it. In general, as Veronica Conte points out in "The contested city" (Bergamaschi & Castrignanò, 2014), the production process of the public space is the result of the combination of two mechanisms managed by:

- The devices that regulate the functioning of the city
- Usage practices, individual and collective, of space

These two dynamics express different ideas of public space, of its management and organization. The first reflects the conception of politics that acts on the physical structure and morphology of the territory, intending to govern its use and codify its functions. The second, however, reflect the daily dimension of the subjects who live and move in the city. Individuals do not play a marginal role; on the contrary, they re-define space and constitute its collective and political-social character through complex interaction processes. It is only through elaborating new meanings, often alternative to those designed and imagined, that the physical place is transformed into a practiced space. Veronica Conte concluded by

believing that to talk about the production of public space, we must reflect on the process of creating physical and social space. Paolo Barberi also states that "In the past, the modernization process tended to propose society as the object of a project, the new contemporary phase proposes society as an active subject of its actions.". Cities were born and grown through continuous acquisition and re-digestion of elements of the different. For these reasons, stakeholder participation, involvement, and information processes are central to redeveloping spaces (Barberi, 2010).

The public space is where relations between different communities occur and appear as a force field. Therefore, space is continually redefined in the functions and uses of the populations who live here and very much faster than the urban planning rules and political decisions are undertaken for that territory (Bergamaschini & Castrignanò, 2014). Furthermore, today it is essential to understand the coexistence of multiple populations (families, singles, immigrants, homeless, different), which differ, mainly based on housing, work, consumption practices, competing with each other to access and control urban space. A real example of this situation is the redevelopment process between 2010-2011 in Piazza Verdi in Bologna, accurately described in the book "The Contended City, Urban Populations and Public Space Between Coexistence and Conflict" (Bergamaschini & Castrignanò, 2014). In the same book, it is underlined how referring to the differentiation of metropolitan populations, the competitive processes that are established in the contemporary city can be focused on the definition of the groups and social uses that can legitimately access the public space, making the presence on the urban scene marginal, other cultures and practices.

### Taming the urban space

Taming means absorbing, making one's part of reality (which presents itself as new, foreign, or wild) in everyday experience, making it familiar. Taming a space means creating the conditions to "feel at home" (Mandich & Rampazzi, 2009). The domestic environment conveys a sense of security, responsibility, and identity. These sensations arise from familiarity and custom in the practice of space. Feeling at home is not, however, a passive action. It is cultivated through constant use in relationships and concrete acts aimed at feeding them and making them last over time. The house is the emblem of the domestic space, but, in reality, it is merely the place where the ways of appropriating the space that imply emotional roots are more reliable and more evident. These relationship models can also be established with other spaces beyond the borders of domestic walls. Taming the urban space, therefore, means transforming a space in the city into a familiar place, a place that can be said to be ours, where we feel at ease and to which we feel connected. The delimitation of space, the activity of defining boundaries is an essential part of this process. The daily space is tamed, starting from the essential partition between informal and friendly spaces and foreign and hostile spaces. The same spatial logic that opposes internal/external within the home is at the basis of the construction of urban space (Begout, 2005). The change in the relationship with the public space can be read in the practices of use that lead to carrying out many of the activities, which

were traditionally domestic, in public spaces. The outsourcing of private practices can derive from a contemporary lifestyle typical of people who do not present economic problems and the need for the most fragile margins of the population who can carry out daily activities only in public areas. Within these themes, we found the experiment "Domesticità - urban actions," which took place in Rome in 2005 by Bosley's group (Costa et al., 2010), particularly interesting. It was assumed that public space, therefore by definition usable by each individual, is not perceived as one's own but has become a place overloaded with rules and prohibitions that regulate it and deny it as a free sharing environment. Therefore, a series of experiments have been designed to stimulate citizens' interactive participation in the city's places through urban actions based on the spatial and behavioral reversal of the internal and external dimension, capable of producing alienation in the participating observer. Furthermore, in some of these interventions, attempts have been made to transpose the characteristics of virtual reality, such as communication and interchange potential, to characterize urban spaces as generators of social relations and, at the same time, to promote the image of the city as an active network made up of several interchange nodes. Some of the experiments:

- Urban shelf: a domestic space is placed outside, proposing honest communication based on virtual peer-to-peer exchange. It should be noted that the participation of passersby in appropriating some objects placed on the shelf has started, following the sharing instructions attached, to a ritual exchange of other objects for the owners, but which could prove helpful for others. Urban blackboard: an object with an iconic value is placed in a shared space making perceptible the unspoken desire to appropriate spaces through communication.

- Message in a bottle: real communication methodology inspired by digital messaging mechanisms.

- Dots in bloom: jars of flowers inserted in unexpected points of the sidewalk with the word "water me". The aim was to raise awareness of the temporary reuse of degraded elements of streets and squares. One other thing to point out is that these actions are correctly experiments: we know more or less the initial data, we can speculate on processes, but the results entirely depend on the spontaneity of reactions.

Personal emotion becomes common: the communication of fear

Messages of dismay, participation in pain, anger, trust, and space appropriation with words and signs. We feel closer to the massacres because we share a space called the streets and squares of global connectivity. The media keep the sphere of emotion and affective charge alert through fear. The emotional space becomes the only public space where cohesion is generated by feelings of vulnerability, insecurity, and precariousness. Just as images and comments occupy the virtual home, the physical square is also filled in a bodily manner by the injured party, which underlines its existence, its presence, and its ability to leave a trace (just like in social media) evident and critical. The main difference lies in the fact that just as books are preserved in libraries despite the theories they describe are outdated; the real gesture remains more lasting than the virtual one, in which the novelty continually overlaps. Therefore

the signs written with chalks on the stock exchange square in Brussels, after the terrorist attacks of March 2016, stratify, coexist, giving each other strength and echo, but they do not steal the scene like the words of social networks. Real and virtual; however, the attributes are exchanged in daily history. We live in a complex system in which technology characteristics have influenced material reality transforming corporeality into something more ephemeral, even if materially evident. Simultaneously, however, the emotion of fear has also taken on a concrete and perceptible physical characterization, especially in public areas.

One of our present-day living's fundamental feelings is fear for the Polish sociologist and philosopher Zygmunt Bauman. For Bauman, fear is a feeling very similar to anxiety, that is, to that incessant and pervasive alarm feeling, exasperating in its vagueness. It is a rather tricky state of mind to grasp and fight, a sort of invisible enemy that at the same time manages to find us and scratch our being even in the most insignificant moments of everyday life. It affects almost every layer of coexistence. All this is connected with another philosopher's thought and study, specialized in psychoanalysis, the Argentine Miguel Benasayag, who coined the rather apt definition of sad passions. However, what can happen when fear embraces distrust? We can say that human bonds are shattered, that the spirit of solidarity is weakened, that separation and isolation take the place of dialogue and cooperation. From the family to the neighborhood, from the workplace to the city, no environment remains hospitable. A gloomy atmosphere is set up in which each one has suspicions about those around him and is, in turn, a victim of the suspicions of others.

All this to say that today, although there is an excellent digital culture, which is emerging, the specter of loneliness invades and is central to many individuals' lives. It is no coincidence that contact is often sought through social networks, apps, and other technological systems, which, at least on a potential level, constitute an obstacle between us and the absolute void.

Thanks to a sequence of technology and innovations, they have led us to what today is appropriately called digital culture. In a historical moment in which the increase in publications, consumption, and manipulating information becomes a routine and functional practice, this type of culture becomes increasingly important and dominant.

The world of apps and the culture of the game.

These are some aspects that are now characterizing our daily life, allowing us to multiply and live through a continuous fragmentation in what is called by Bauman, the liquid society.

Many scholars have said that interactive gaming communities are an exciting piece to understand the dynamics that push young people to make individual choices in their life. It is a whole generation with a high awareness of the technological tool, but that perhaps must go back to studying in a theoretical way what the extreme and forced use of the same leads. Marketing laws require merchants to ceaselessly proclaim that they aim to satisfy the needs of consumers, even though they are fully aware that dissatisfaction is the real engine of the consumer economy, says Bauman, during the latest interview granted to comment on the latest historical and political events of 2016 already quite full of news.

For Bauman, modernity is characterized by the crisis of the concept of community, which leaves room for unbridled individualism, where nobody is a street companion, but an antagonist to each other, and that has transformed its protagonists from producers to consumers who pursue a frantic purchase of goods, looking for visibility, the most important thing.

Bauman's criticism is undoubtedly fierce, and it can help us shift our point of view and grasp the resilience category as a product of our era: a society that requires effective and efficient individuals at all costs, always ready to discard the hypothesis of thought, instead of rewarding easy satisfactions, such as those given by the purchase of frivolities; individuals whose reward is stoic and blind resistance to failures, instead of the ability to give them meaning and enrich their lives with meaning. Responsibility is discharged on the individual, who has no choice but to feel detached from belonging to a context that builds meaning regarding his life experience.

Resilience is the symptom of a culture that, to some extent, robots people and rewards them when their antivirus works quickly and possibly painlessly. Resilience asks us to be the Rockies in everyday life, who know how to take painful punches, standing up, to the detriment of inner growth.

The alternative is, and is much less fashionable, to take time for the pain, in the full right to let us suffer, to discover the most hidden meanderings of the emotions feel, to recognize our own story in that deep malaise, to put the experience of oneself at the center instead of efficiency.

## The space in which "the other" comes close

The public space is inextricably linked to current issues. In particular, the increase in foreign populations, deriving from the migratory flows of hope that our nation is going through, is launching a new challenge for cities. We are not entirely unprepared to face this new scenario, and we have a recent history of colonialism that still involves us from a mental point of view (Barberi, 2010). Our imagination about others and the latter about us was built starting from the definition of the binomial self/others that guided all the West's expansion first, and then national liberation movements. Paolo Barberi produces a careful analysis of the process which sees how the relationships of domination and subordination, of stereotyping and of the formation of clichés with the natives previously translated into those with migrants today, thanks to dangerous propaganda, constant and coherent that used the word and the image as tools of diffusion. Thus we witnessed a transformation of the perception of the colonized native to that of the immigrant. The fact that this phenomenon exists, but has been hidden and forgotten, makes it possible to apply today, to designate the immigrant individual, those stereotypes born in colonial culture, without those who use them have a real awareness of them (colonial space exists in our minds). Within this discussion, we must immediately focus on the idea that "the other" does not exist, given that anyone is "other" than a subject with

whom he relates. The idea that the other exists in itself was created by defining those distinctive elements and components that determine, and therefore, through their opposite, are enumerated among the distinctive characteristics of "we", as Said explains in *Orientalism* (Said, 2001). In the '90s, some words began to circulate, such as "multi-culture" and "intercultural", which took part in immigration and city management speeches.

Multiculture indicates a society in which the different cultural communities base their coexistence on the emphasis of differences.

Multiculturalism represents the strategies and policies adopted to manage the diversity and complexity that multicultural societies create.

Interculturality focuses on the interaction between cultures by preparing a hybrid society's construction rather than divided into cultural compartments (Barberi, 2010).

These different lines oriented towards community management policies have a fundamental problem: the street concept from a cartographic point of view. This conception derives from the thought typical of modernity, which considers cities as enigmas in which each ethnic community represents a part of it. By placing too much attention on cultural diversity, however, there is a risk of raising barriers, projecting on "other" differences which, perhaps, could be mitigated or ignored. Using the words of Paolo Portoghesi, "placing diversity in the foreground means accentuating an alleged impermeability of the cultures of which individuals are carriers". Culture is fundamental and is linked to personal identity. Often identity is expressed as something fixed that excludes hybridization forms, nailing each of us inside cages. However, individuals are not closed containers, and, therefore, it is wrong to classify them systematically, giving everyone a "right" place within the world globe (Barberi, 2010). Identity then binds to urban space. The city spatially translates these relationships showing the relationships of force and the conflicts taking place, especially about the public space. The city space represents a coexistence between anthropological and Euclidean geometric spaces (Brugellis & Pezzulli, 2006).

The immigration process and the definition of space (determined by identifying barriers, limits, and boundaries) reflect no differentials availability of different social groups to implement the terms of trade dynamics in the urban environment. Precisely because of the different meanings attributed to the same place by different groups of user-inhabitants, we witness the onset of more intense conflicts and tensions where we note the exclusive claim of an urban area by a group. The experience of immigration focuses the discussion on social practices as dialogical modalities capable of manipulating space. Immigration turns the spotlight on the indefinite and residual areas of the city, which become a favorite place for new arrivals as in these frontier areas it is possible to achieve what is prohibited in the most rigidly configured spaces, mainly phenomena of crossing, osmosis, and exchange understood as relationship processes between different social groups. We must never forget that immigrants are vulnerable subjects, and therefore practices of use of space are expressed between those visible and exposed to the public and those suitably concealed. According to



this approach, there would be a constant debate between visible/invisible, presence/absence from the migratory component's public scene. Therefore, the city is built as a series of overlapping layers and multiple narratives made up of a series of personal and invisible cities. In forgotten places, it is easier to become aware of this diversity and plurality in hybrid places.

### Design the transit space

The presence of contemporary immigrants in the cities makes a new way of life, much more tied to the provisionality than our grandparents (Brugellis & Pezzulli, 2006). For these, the experience of migrating is linked with the emerging logic of overcoming a traditional territorial anchorage of the population leading to the experimentation of increasingly frequent "commuting" behaviors. A. Lanzani, in "Urban metamorphoses. The places of immigration, "stresses that" these non-EU immigrants are representative of a new way of living, a way where the movement over staying prevails, where the centrality is above all the places where mobility begins. " (Lanzani & Vitali, 2002) We are getting used to a much more unstable world, where displacement becomes a reference element and in which the identity we define becomes multiple and multifaceted based on the multiple and different experiences we go through. The gap that appears between native citizens of a place and immigrants has always been linked to the different ways of living and interpreting the space in which we reside, but today, thanks to new technologies and new ways of training generations, we could identify a form of closeness to the concepts of provisionality that run through our lives. Just as life patterns change, so does the role of the designer and the architecture itself. We have moved from the design of a physical structure to a place-making approach. The citizen turned out to be an active protagonist, and his daily activities appear central to the realization of possible worlds. The architect, therefore, must juggle multiple roles: he must be an observer of everyday reality and a translator of ideas, he must act as a mediator between stakeholders and choreograph the aspects and protagonists of the "place-making". The importance of participatory planning and the development of spontaneous bottom-up initiatives are highlighted. Already there are many experiences in which the activation of consultation devices aimed at involving actors and subjects in the development of projects has been undertaken. Participation becomes fundamental because it provides the opportunity to build a collectively more beneficial solution capable of engaging hidden energies, mobilizing underutilized plural resources, and freeing active and transforming memberships (Bergamaschini & Castrignanò, 2014).

Jan Gehl has carried out numerous studies on the use of public spaces, publishing in 1980 a book, "Life between buildings", which is considered fundamental for these research themes. He divided the activities that are carried out externally into three categories:

- Activities necessary are those operations that are carried out in any environment and weather condition and which, therefore, are independent of the physical context in which they occur. They are daily tasks such as shopping, throwing waste, etcetera.



–Optional activities are those operations that are carried out only if there are favorable conditions. We need a desire to do them and an excellent place to do them for them to happen. Some examples are going to eat ice cream, go for a walk, go sunbathing.

–Social activities are generally all activities that depend on the presence of others in a public space. Among these, we can identify the game between children, greetings, and conversations between people who meet on the street and all passive contacts such as merely seeing and hearing others. In a low-quality urban space, the necessary activities are primarily carried out.

The higher space's quality, the more people will spend time carrying out the necessary activities, and, thanks to the right spatial conditions, we will experience a range of optional activities suggested by the site. Social activities are the broadest category and are inextricably linked with the other two classes. They occur spontaneously as a direct consequence of the movement and co-presence of people in the same place. The meeting between people becomes the germ for other forms of social involvement. Although the physical background does not directly link the quality of the content and the intensity of social contacts, the planners, in the design of the spaces, are responsible for improving or worsening the conditions that influence the meeting. The physical structuring of the space can facilitate or make impossible eye contact and listening to the other. Life between buildings includes the whole spectrum of activities that make urban space and residential areas an attractive and meaningful place. From a social perspective, the types of relationships we establish have different degrees of intimacy and harmony (as illustrated in the table). The contacts that take place in the public space are typically low-intensity ones. However, these meetings are fundamental because they are highly spontaneous and form how stronger links can be established. If life in public space were canceled, then the lower levels of the contact ladder would disappear.

Consequently, the various forms of transition between being alone and being together in an intense and demanding relationship would disappear. The life that flows outside the homes guarantees an opportunity to be with others relaxed and without expectations. Meeting our fellow humans in familiar places is very different from watching people on TV or in movies because, in this case, our presence and the possibility of direct participation in events are necessary. The architectural form of a building or space does not directly influence neighbors' relationships, but it certainly can encourage it. There is always the need to find a common point (common background, common interests, etcetera). Shared problems or benefits create a more meaningful interaction than space where contact occurs. The place that acts as a backdrop is instead guilty if it makes such encounters impossible.

William H. Whyte believed that social life in public spaces contributed significantly to the individual and society's quality of existence in its entirety. Thus, the designer was invested with social responsibility to create physical spaces that would improve the community's meeting and interaction. His study included long periods of observation of human behavior in these public places, which were carried out personally by Whyte and his aides. He introduced technology in social research; he recorded the observations through the video camera and the

camera. Together with the book "The social life of small urban places", he also made a short documentary that dealt with the research topics, using a background the shots taken during the observations. In his research, he focused on studying the squares of New York. Often, there is no need for a shared relationship space such as a square, but it significantly changes behavior and habits when this is created. From the collected observations, he noticed that social places attract people who move on their own.

Furthermore, he understood that the absence of the female component indicates that something is wrong. If we try to interview passers-by, asking them what their ideal public space is, they will answer that they love quiet and isolated places, but in reality, what attracts people is always people's presence. Being among others allows us to choose what we want to do, so when we meet someone for the street, we usually preferred to conduct the conversation there where the encounter among the people took place, thus retaining the opportunity to leave at all times. Observing various squares' success or failure in New York, Whyte selected some parameters that guided his critical analysis. Natural lighting is essential, but it does not alone determine the luck of a square. Even the aesthetic quality of the neighboring buildings is not fundamental in promoting the use of this space. Even the shape, considered of utmost importance by the designers, is not such a decisive phenomenon. What is deemed capable of making the difference is the quality and quantity of space suitable for social practices and seat use? Not having many benches is a good thing if there is the possibility of using other elements, such as edges, walls, and fences, to rest. Designing in this way will have the advantage that when there are few people, the square will not be perceived as empty, and when there are many, everyone will still be able to find a place to rest.

In conclusion, W. Whyte believes that public spaces must be welcoming, livable, comfortable, and user-friendly environments. A central factor capable of igniting a space is the phenomenon of "triangulation" or the presence of stimuli that push people to interact to socialize. In a nutshell, this is the process by which an input can be a physical object (sculpture, musicians/performers - it is not crucial that they are good or not!) Alternatively, a panorama establishes a connection between people allowing them to create an interaction between unknown. It is the "common ground" also theorized by Jan Gehl necessary for sociality, but in this case, the cue to create the link comes from the physical structure or the practice of using space.

## Social sustainability and participatory space

Sustainability is a term that has been talked about a lot. Initially, it referred purely to environmental/ecological issues; then, the concept was also extended to other spheres, such as social and economic. Today sustainability is the combination of its three forms. The environmental one refers to the possibility of maintaining biodiversity and the ecological processes taking place within an ecosystem in the future. Social sustainability indicates "a balance between meeting present needs without compromising the ability of future generations to make up for their own" (Brundtland report, 1987). From an economic point of

view, sustainability is found when natural resources are used at such a rate that they can be regenerated naturally. An urban project can be considered sustainable when it guarantees social structures' presence or creation in which communities control natural resources and rationally manage them. It must also be built on a foundation of equity and social justice, cultural identity and social cohesion, participation in choices, and taking responsibility. In this sense, the value of participation becomes relevant as it is built in the development of "collaborative planning", in the responsibility and sharing of the design, but also takes into account the importance of taking part in a project/process to allow local development, identity and role of citizens in their own living space.

"You cannot act in a designed way if you cannot think that a different and more desirable state of affairs exists or is potentially achievable " ( Manzini & Jègou, 2003)

The democratic principle wants to guarantee everyone the opportunity to express their opinion on decisions involving the common good. The form of applied democracy is usually representative, and this means that citizens delegate their activity to publicly elected subjects. Apart from a few examples, democracy itself suggests citizens' direct involvement mainly and almost exclusively with the voting method. Only a few are the choices left to the voters, and few are the subjects who are asked to express a preference. The concept of participation aims to limit the distance between power and the individual by promoting a collaborative approach in some cultures. The US, for example, built their story around the "doing things together" principle in contrast to the European nationalist tradition in which decisions always came from above. Despite this, even in Europe, locally, promises of participation can be found, which have become increasingly considerable and more substantial over the years. In Scandinavian countries, in particular, the legislation on these subjects was very early favored by the pre-existing culture expressed in the "dugnad" or in the tradition of "doing together" (Sanoff, 2000). In 2000, the European Landscape Convention highlighted how the landscape is the result of individual perception, also underlining every nation's need to give importance to citizen participation in decision-making processes (Article 5 EU). Despite this position, the various European states have moved very slowly in its concrete application. "Experiences in the participation process show that the main source of user satisfaction is not the degree to which a person's needs have been met, but the feeling of having influenced the decisions." (Sanoff, 2006)

The fundamental value of participation is based on the need to involve the citizen in expressing his opinion on the decisions that concern him and in the possibility of influencing these issues. The public should receive the information necessary to act significantly and be aware of how their contribution can influence choices and interventions. Despite the common manifestations that promote themselves as "citizens' governments", many segments of the population have no voice over the political decisions and actions that materialize in our societies. There is also a substantial difference between the empty ritual of participation and having real useful power in influencing decisions. This diversity was brilliantly expressed in a French poster that appeared in 1968 as a testament to French students' and workers' rebellion. Participation can only become interesting if the promoters do not use it for less

noble purposes. Generally, one of the first objectives of this approach is to inform the public, gather the population's reaction on proposed policies and actions, and involve people in solving problems to find the best and most acceptable answer. What legitimizes a decision is a substance and the perception of how that choice was the socket. The same people tend to make such decisions successful because they have been involved in the decision-making process. Participation does not mean that the authorities' role no longer makes sense; instead, it wants to underline the usefulness of a dialogue between institutions and citizens to bring together needs and resources (Sanoff, 2006).

Another of the most stimulating results in practicing participatory processes is realizing a "sense of community". The more people feel involved, the more readily they will respond to challenges to solve community problems and show interest in spending their time and resources meeting the community's needs. Acting on space and planning processes also has a significant effect. We interact with citizens' attachment to the place that motivates them to be involved in the methods to protect and protect spaces that are rich in personal meanings. The link with the place can be seen as a precondition for establishing a sense of community. Likewise, the participatory process is a common goal to be achieved. It can create a community that did not exist before. When the participation process goes in the right direction, some benefits can be found:

- Improvement of the quality of decisions
- Minimization of costs and delays
- Consent
- Greater ease of implementation
- Credibility and legitimacy
- Development of public skills and creativity (Sanoff, 2006).

The issue of public consensus towards a project or intervention is always very delicate, especially concerning participatory processes. Some administrations exchange these ways of developing the plan from below as pretexts to inform citizens about some "Local governments seeking citizen participation must want, and be willing to accept, citizen input" ( Moore & Davis 1997)

choices (already completed) to obtain the necessary consent without taking into account the real public opinion. We could thus find ourselves faced with a "DAD" situation, and this is the acronym for "Decido-Announcement-Defend", a circumstance in which the administration decides "indoors" with experts and technicians and only at the end announces to the public his decision: at that point the inevitable disputes open, before which the administration will have to defend the choice made with all its strength, no longer being able to question or improve it (if not marginally). To limit these situations, the approach that envisages activating involvement "as soon as possible" proposes to provoke the reactions of stakeholders and potential opponents in advance through early communication that arouses interest around the project, opening up to confrontation when all the alternatives are still available. In general, in a participatory process, different and diverging considerations arise in the minds of the various stakeholders involved. We can, however, recognize the "area theory " coined by

Connolly that says, "there will be at least one aspect that will appear shared by all participants". There may also be some groups that can accept others' views, but this can only be achieved if there is no isolation of the parties. Constructive forms of consensus can be reached through relationships and the exchange of opinions. Thus fighting the Nimby syndrome ("Not in my back yard"): in which local communities tend to mobilize against projects that they may deem necessary but cannot be placed in "their own space". As Hester states in the article "A refrain with a view" (1999), participation must evolve from models that arise from the need to protect the individual assets of groups without power to forms of visionary consent where the designer must favor a capable gaze to welcome possible and shareable futures.

### The Participation Card

Citizen participation in democratic life is a principle that derives directly from the right of popular sovereignty and the power of citizenship, reaffirmed by European legislation (White Paper on Governance, the Aarhus Convention, the European Charter of Human Rights in the city ), by the Italian Constitution (in particular the last paragraph of article 118) and by various regional statutes and laws. Within the Italian constitutional text, the principle of "participation", which falls within the broader exercise of popular sovereignty provided for by art. 1 of the Constitution, is configured as a "fundamental social right concerning the realization of inclusive decision-making processes, that is the use of tools and guarantees that allow the involvement of private subjects in the exercise of public functions" (Valastro, 2010). This right has found its further development in the principle of horizontal subsidiarity referred to in art. 118, paragraph 4 of the Italian Constitution, which obliges the institutions, once the most suitable level for carrying out a specific function has been identified (vertical subsidiarity), to pursue the general interest, no longer alone but together with citizens, individuals, or associates. That is an essential novelty in our constitutional panorama since it is explicitly established that the state and the other territorial government bodies must favor "the autonomous initiative of citizens, individuals, or associates to carry out activities of interest, generally based on the principle of subsidiarity " (Constitution). Citizens, therefore, thanks to this principle, acquire a new central role in the republican system, having the possibility to play a subsidiary role for the institutions in the exercise of the activity of general interest and to act, independently as they are placed on an equal footing with the Administrations. The latter, however, are required to "favor" citizens' initiatives carried out "in the general interest", and even if they do not do so due to technical problems or cultural resistance, civil society is still free to proceed with its initiatives without the Administration being able to prevent or hinder it. It would, therefore, be necessary to move from a system of relations between institutions and citizens of a vertical and hierarchical type, to a horizontal, pluralistic, equal, relational, and circular one, based on communication, transparency, exchange of information, true collaboration, integration, mutual respect and last but not least, the pooling of resources also by the community, which spontaneously add to those of the institutions to face together the problems of a complex society such as the current one. A new

relationship between institutions and citizens of the "reticular" type, therefore, made of exchanges and alliances given the pursuit of the general interest, within which the institutions remain, owners of their functions, maintaining a role of regulation, programming, and control, while citizens become "tools" of the general interest, promoters of initiatives but at the same time bound to the principle of legality, as it is correct that it is in the rule of law. Only three regions in Italy have adopted a specific regional law on the theme of "participation". These, which immediately took up the challenge of involving citizens in the decision-making processes of the territory, are the Emilia-Romagna Region with the LR 20/2000, which has evolved into the current LR 3/2010, the Tuscany Region with the LR 69/2007 "Rules on the promotion of participation in the elaboration of regional and local policies" now revised in Regional Law 46/2013 and the Umbria Region with Regional Law 14/2010. Emilia-Romagna, with Regional Law 3/2010, responds to the need to promote citizens' active participation in the development of regional and local policies, offering the regional community a uniform legislative framework of reference, tools for promoting and supporting participatory processes.

The website "Partecipazione" (<https://partecipazione.regione.emilia-romagna.it/>) appears to be very useful and becomes a convenient portal for knowledge, information, and sharing of participatory processes.

In December 2014, the INU (National Urban Planning Institute) promoted the "Participation Card" signing. The aim is the progressive involvement of more and more institutions and associated structures in applying the decision-making process of citizens' practical and "quality" participation. In particular, we want to guarantee application and process evaluation methodologies by merely and clearly defining ten principles. The Charter, therefore, can be used as a methodological trace in the planning phase of a path of citizen involvement or as a grid to be used in the evaluation phase to determine the quality of a participatory process proposed or implemented.

## Engagement tools and techniques

There are several techniques for creating a participatory meeting. When it comes to participation, it is good to have some questions in mind:

- Which groups should be involved in the participatory process?
- What is included in the participatory program?
- Towards what goal are we moving?
- How will people get involved?
- Within a planning project, when should the participatory process take place? The planning of any participatory event must be articulated to determine objectives, choosing the methods for disseminating information, and articulating the proposals. Within this complexity, the professional can facilitate the community in reaching decisions on its environment through a logical path. Promoting means bringing people together to identify what they want to do and help them find ways of implementing it. The techniques may vary according to the objective, the number of participants, the type of stakeholder involvement, and the process's theme.



These are processes developed in different periods; also thanks to the contribution of very distant disciplines (philosophy, anthropology, psychology, project management, development cooperation, etcetera), experimented in various areas and consolidated through practice in more or more forms. Nobody is a perfect a priori method; it is necessary to test and have the suitable sensitivity to hybridize and adapt situations to the specific case. Regardless of the technique adopted, it is good that one realizes that the resulting project or intervention has been developed together, collaboratively, and adaptable and flexible to changes (QPEM. 2016).

## Collective planning

As regards the classification of participatory methodologies and processes, a distinction can be made based on the direction in which power flows:

- Top-down: in this case, leaders of power, decide whether a project is needed and entrust the design process to professionals in the field.
- Partnership: we find ourselves in a situation of equal collaboration in developing a project between the holders of local powers and direct users.
- Bottom-up: the need, the idea, or the project will arise directly from the users who organize themselves to turn it into reality.

Within the bottom-up category, we can find countless different nuances and levels of involvement. Despite the differences, all seek user activation in the design, planning (and possibly construction) in contrast to the classic top-down decision-making models. At first glance, the terms that follow nor seem synonymous, but they hide slight differences. Community-build project. It is represented by a collaboration between professionals and community volunteers to plan and organize shared projects applied to public spaces in cities. In this approach, users are directly involved in the space or building's physical construction, which identifies itself as a semi-public place. Projects are usually aimed at creating murals, playgrounds, parks, public gardens, etcetera. Although the volunteers are involved from the beginning to the end of the process, not all the project parts need to be built by them, especially the more complex ones that need more technical knowledge.

## placemaking

"In placemaking, the important transformation happens in the minds of participants not simply in the space itself" (DUSPMIT, 2013). It is an approach to planning that sees locals as active players in decisions regarding the public space, in contrast to the procedures that see the technicians and politicians preferential decision-makers of these places' fate. Placemaking is not a new concept but a practice that has gradually been lost in human history; people were depleted of their power of action by increasing that of the experts, who thus became holders of the environment's modeling power. One practical method of applying this current is the LQC (lighter, quicker, cheaper) approach, which envisages temporary and reversible attempts to modify the space fast and affordable. We proceed in trials and errors until we reach the most suitable conformation and programming for a single place. DIY (Do it yourself) urbanism, tactical urbanism, guerilla urbanism, pop-up urbanism, city repair. They are small-scale



community projects that can be completed with or without the support of administrations. They are usually low-budget interventions and intended to be temporary. They arise from the need for a "right to the city", which drives ordinary people's activation. In general, an intervention of "Tactical urbanism" can be promoted (Tactical Urbanism, 2016):

- By the municipality, which takes advantage of the opportunity to implement good living practices of space quickly.
- By citizens who need immediate re-appropriation, reprogramming, and redesigning of the public space.
- By investors, who exploit a data collection about the sectors of their interest.
- By associations, which can demonstrate some interventions' feasibility and obtain institutions and governments' support. Participatory planning or community-based planning. An approach that provides for the direct contribution of users/residents to the design is not necessarily involved in the intervention's physical construction.

### Prepare a community for participation.

That is how we commonly deal with the environment: in every moment of our life, we interact with it, even if very little consciously. For this reason, it is necessary to develop a civic education in architecture aimed at young generations and beyond. The goal pursued is to improve personal predisposition in considering ourselves actors of change and protagonists of the environment around us. Trust in education depends on the awareness that the human subject is simultaneously a social product and society's producer (Ripamonti, 2006). First, the local community is identified as the privileged recipient of the educational effort because it represents the most fertile level for developing the civic sense and participatory democracy and, therefore, ultimately, active citizenship (Putman, 1993).

Nevertheless, how can a community be concretely prepared to act in a participatory way? Indeed the first place where a change of approach can take place is through the school, even if usually these issues that to be metabolized need practical experiences rather than theoretical knowledge, are transmitted informally through workshops, projects, summer camps competitions that can be held in parallel or outside the traditional school effort. On the other hand, the goal is to stimulate awareness in the community regardless of the age and cultural level of a neighborhood or city; then, the most exciting tool becomes the game. The game positively affects the effectiveness of education and individual personal development. It has excellent potential precisely because, through fun, barriers and prejudices are brought down, and we enter a magical dimension of reality where change is possible, and it is also a good training ground where we can test our behavior in the face of situations. Through some specifically designed and organized games, citizen involvement can be promoted, awareness of urban issues can be raised, communication between stakeholders can be initiated, data, information, and scenarios desired by the locals can be collected.

## Human nature and resilience

Life in contact with nature has always been a characteristic of humans, but the last century has brought about a change: much of humanity has left the natural environment. People who live in the countryside, especially those who work in the fields, consider nature an integral part of their life. They no longer work in the wild but still maintain a close link with its forces (plants, animals, water, rivers, sun, wind, etcetera). At the same time, a city is mainly made of concrete, asphalt, and iron.

Cities continue to be increasingly populated. According to the World Urbanization United Nations Prospects today, 73% of the European population lives in cities, and it is expected that by 2050 they will be about 66% of the world population.

Urbanization has an impact on the environment, society, and the individual. The following parts represent a brief and summary investigation of the effects relating to individuals. The possible areas of development of mental health problems in urban areas could be identified in these three areas::

- lack of awareness due to the "galloping phenomenon" of intentional cognitive processes
- a decreasing sense of the community based on the disintegration of a traditional family and community models
- alienation from nature. Due to our distance from the environment, we no longer feel part of it.

Although only parts of cognition can be sought, we must bear in mind that the individual is a complex system. When a helping relationship professional works with a client as a person, he will consider the person himself as a whole, even if his work will only affect specific areas (holistic approach). Man is also a complex ecosystem in his body and his mind.

Man lives in the "here and now". At the same time, living in the present is influenced by its being an "embodied mind" and its roots in the surrounding natural and social ecosystem. (Kiverstein et al., 2019)

Therefore, we are talking about four areas: the first two are to be directly experienced: our body and physical environment. The other two are symbolic: our experiences and the characteristics of our community. These four areas do not exist without one another. The real sense of problems cannot be grasped by time. The connections between these areas continually influence "feeling".

Researchers say that Man's main problem is what we do not see: we are a complex ecosystem and a larger one. The evolutionary processes of a complex ecosystem are characterized by efforts to balance cooperation and competition. (Granstrand & Holgersson, 2020)

This mental balance can be created consciously by the harmony between body and mind. Unfortunately, the cognitive approach is "gone", and we spend much more time with rational learning and problem solving rather than with emotional or physical processes. We think continuously, at school as at work.

If the ecosystem disintegrates, it destroys the body and the environment (see psychosomatic diseases). Psychological treatment occurs when steps are also taken in the psychic sphere.

We cannot yet call this state of awareness because we focus on positive feelings instead of accepting the moment (and its possible unpleasant consequences) although we are aware of ourselves.

Being in the flow: this is the mental state, different from the mental presence. In the flow, we unconsciously focus on one thing. Awareness is the state in which we consciously perceive the present.

Man is a social animal, and many researchers consider social connections vital for human beings' evolution.

In social interactions, the individual connects with others. Communities are essential for both the individual and society. Communities give their members security, give meaning to their lives, help them be helpful, and help their personal growth. When the community is missing, society disintegrates.

In history, thanks to the cooperation's success, the safety of life has grown and, consequently, the number of people has also grown. The separate groups had their own beliefs, habits, culture, and each accepted them as if they were eternal, knowing no other patterns. Loyalty to group norms was so strong that personal interests were often put aside. As the number of groups started to grow, more extensive and more substantial units were formed. In parallel, the individual's natural communities have shrunk: from tribes to clans, from clans to large families, from significant families to nuclear families, and later to groups of only one member.

In a member's group system, the individual decides how to live, what to do, and what to believe. He has to choose from many values and check them from time to time. It has also lost its roots: it can no longer make use of the old ancestor learning. Traditions, tales, and stories no longer represent any solution.

The individual can also decide how long a connection is congenial to him. We, therefore, remain connected in an increasingly superficial way; there is no time to listen to each other.

Carl Rogers, a humanist psychologist, offered a sort of solution based on five fundamental values: empathy, congruence, open communication, trust, and full favorable consideration. If we stick to them, we may find significant connections again (Rogers, 1956).

## Connection to Nature

In today's world, made up of electronic letters and digital happiness, only a regular encounter with natural (tangible) things (for example, the earth, the sky, etcetera) can help guide us through the many dimensions of our life. If we want to achieve mental and physical harmony, our symbolic world's dominance must be balanced by connecting with the tangible physical world.

When we developed our writing systems, we began to lose connection with nature. The writing was separated from the oral and linearly structured, thus also restructuring the mind. In written texts, nature appeared as an object, a meaning, a source. The man was seen at the top of the hierarchy, where he started using nature.

Louv calls the lack of connection with nature a "nature deficit syndrome". Although this syndrome is not a disease, its effects can cause attention disorders, overweight, and mental disorders. The monotony of the urban environment is in stark contrast to the great variety of the natural environment.

The connection with nature could be curative. The higher the concentration, the better the results, less aggression and stress, and greater adaptability are just some of the benefits. Walking in a wood, spending some time in the wild nature, being in contact with animals and a more ecological environment will generate significant relaxing effects.

In the tradition of western thought, there is a high tendency to keep body and mind separate. The body, the "natural" part, with "animal instinct", is often described as the source of many problems. Most of the deadly sins refer to the body: lust, gluttony, anger, laziness. On the contrary, the mind is considered more like our "higher self": it is rational and can be creative and enjoyable. However, if we want to reconnect to ourselves and nature, the first step is to reconnect to the nature that we are. Human beings are not alien to nature and thus need to reconnect to it: they are themselves nature.

Air quality affects our breathing and, consequently, our body and thoughts. Smells can have an even more profound impact on our way of being, mainly because we are much less aware of it. The cold or heat gives us more or less comfort, and we could go on with all the physical aspects of our environment.

Most of us live in an artificial environment, and this hurts our well-being. Research shows that being able to see natural elements around us causes deep and pleasant vibrations. Nevertheless, it is necessary to stay in touch with other human beings: separating from a community can lead to severe psychological problems, such as children who are often left alone by their parents.

Direct physical contact is essential; it is what our body systems need, both with air and other living creatures. Contact with animals (any type of animal of which we are not afraid, of course) also contributes to increasing our well-being.

In addition to the physical environment, we are integrated into our social environment. Even if they are not physically present in our environment, other people have a high impact on how we are and how we feel. We always experience it, for example, when we find ourselves unable to sleep because of the anxiety of an exam or job interview. The most significant stressors derive from our social environment, but the most considerable benefits for our happiness are social. Each of us is part of multiple social systems: family, school, circles of friends, and workplace.

Finally, there is still a complexity that affects how we are in the present: our past and our previous experiences.

Resilience is a term that comes from the science of systems. It means that a system can connect with its environment, to behave in a way that achieves the most favorable result if the same, but at the same time remains the same with its borders and its subsystems as possible intact. Being resilient, therefore, means being able to connect with the environment, both physical (artificial and natural) and social (human). A non-resilient person can collapse during a crisis. The more resilient we are, the more able we will be to adapt to the environment without losing ourselves.

Resilience is the ability of an individual, a community, or a nation to cooperate, adapt, and recover quickly from stress or shock caused by a disaster, violence, or conflict. It reduces vulnerabilities and helps train social skills to cooperate more easily with shocks. This skill can be a vital tool to adapt to these turbulent times.

There is an idea in environmental psychology, namely that the notion of home arose when the shortest way from point A to point B became a straight line between the 2 points. This notion may be distinct, but if we think about how the troglodytes lived in the surrounding world, it is a fascinating idea. When a creature is surrounded by potential dangers and wants to cross a clearing in the forest, it will not cross it: it will follow the lines of the trees around the clearing, always looking for who or what could see it. However, when a person is back in his cave safely, he will pass through the cave in a straight line.

This example shows us how the human experience had changed from prehistory to the present day, as before we started using genetic constructs and later actively manipulated the environment to create a safe life for ourselves.

Today more than half of the human population lives in urban areas, which means that billions of people have abandoned the typical lifestyle of man for tens of thousands of years: life in direct contact with nature, with the earth and the sun, with plants and animals, rivers and forests. Simultaneously, a growing number of studies demonstrate the adverse effects of these lifestyle changes on the human psyche, such as increased stress due to overcrowded and polluted environments and a high level of violence, and reduced social support.

Nevertheless, what are the primary needs of man? Humanist psychologist Maslow has defined different levels of needs that merge on each other like different pyramid levels. According to the "Maslow Pyramid," the most basic need (at the bottom of the pyramid) is the person's

physiological well-being: heat, food, water, etcetera. The second level is security, both physical and emotional. The third is the need for love and belonging, usually satisfied by family relationships, friendships, and intimate relationships. The fourth level is the need for esteem, including having good self-esteem and trust, excellent performance, and respect for others. Finally, at the top of the pyramid, there is a need for self-realization, which includes the possibility of following our real inner motivation, reaching our full potential, and being creative (Maslow, 1943). The model states that we cannot focus on the higher levels' needs until the lower ones are satisfied.

In this context, urbanization can be seen as an attempt to meet these needs. In cities, we are less vulnerable than the uncontrollable forces of nature. In an ideal situation, we always have access to food and shelter (physiological needs), we are safe from wild animals and storms (safety), we have our loved ones around us, and we belong to a more massive nation (need to belong), so we can express ourselves best in the work that makes others respect us (esteem), and all this allows us to channel our energies in problems solving and to choose our line of work (self-realization). At the same time, many of the present constraints when following the rhythm of nature are eliminated, offering us a much more comfortable and free lifestyle. (World Health Organization, 2016) We can have a fresh tomato in December, and we could be active even at night; we can dry our wet clothes in the dryer in a few minutes despite the rainy winter. Moreover, the list could go on and on about the ever-smaller comforts that city life offers us.

New problems now threaten our basic needs: homelessness, loneliness, alienating jobs without outlets, etcetera. For some, the opportunities remain unattainable because they are blocked in unsatisfactory work, with an unbearable boss, for a low salary, forced to buy elaborate but cheap food, to develop addictions, and to remain in unhealthy relationships. Furthermore, the list goes on and on.

Some people feel more or are more aware of the lack of nature in their life and find alternative ways to keep it connected: gardening, hiking, trips out of doors, etcetera. It is not our job to judge whether it is good or bad, but we can try to look deeper to understand the individual and common reasons behind this trend.

## From Mother Nature to Mother Culture

In 2017, 7.5 billion people were present on planet earth, and more than half of them were stationed in urban areas. Our species has had incredible success; it is active in almost every corner of the earth and invents ever new ways to achieve a comfortable lifestyle. Nevertheless, at the same time, something still does not seem to work. Many individuals die of suicide or drug use, or even many people claim to be constantly stressed. How is it possible that a person such as a successful businessman, who objectively possesses everything he needs, can feel empty at the end of the day? During the civilization process, humans developed their perspective about the world in which they feel they play a central role in the

universe's history. For approximately 10,000 years, humans have shown a tendency to consider themselves as creatures profoundly different from all others, somehow better or more capable, thinking that the laws governing other creatures' lives were not applied to humans. This perception of the world is still very present in our culture and every civilized culture - from India to the United States, from Oslo to Rio de Janeiro.

Hungarian sociologist Elemér Hankiss asked about the civilization process trying to understand how and why it started. His basic idea revolves around humans' experience of the most ancient times for whom the world was an alien, unknown, and dangerous place. Through the constant struggle for survival, humans have developed two ways to deal with their fear of the world and the upheaval that comes from not feeling safe and "at home" in the world: on the one hand, technological progress makes our world safer from a physical point of view, while the world of symbols (such as religion or poetry) make everything easier for our souls from an emotional point of view. From his point of view, humans desperately try to maintain the symbolic meanings they have developed. Without them, men feel lost and alone in this world unknown to them, which translates into deep fear and despair. These symbolic meanings are not only the objects we possess (such as a precious jewel) or things we use (such as a house) but all the basic ideas on which we build our whole world: the idea that we are the center of the universe, that we are essential, that the world is a moral and just place. These are primarily hopes and illusions, but they serve as a shield to protect us from the outside world's unknown and dangerous forces. (Hankiss, 2006)

The American biologist Jared Diamond approaches the topic differently. He has traveled countless times to New Guinea to study and observe various bird species, and during his travels, he has developed a good understanding of tribal life and how different cultures work. His discoveries can be called complementary to Quinn's since he described the differences between tribes and modern societies, dealing with sexuality, children, and the elderly, how to resolve conflicts or take care of one's health. He warns us about the risk of having a romantic view of ancient and tribal cultures, since the way they live is very varied, but instead promotes awareness of this topic and argues that we should find out what are the elements of tribal cultures that we should follow in our societies and what are the elements that we should accept as an alternative way of living. One of the most exciting topics covered in his books is the sense of community in our lives. It describes how tribes have become increasingly large groups of people, eventually becoming empires and nowadays metropolis. This process occurred as a consequence of the establishment of tribes that started by raising cattle and growing plants, and as they were able to produce more and more food, humans had the opportunity to use their energies to do other more complicated things rather than simply to survive. In the beginning, there were only a few people exempted from the obligation to produce food (it was almost exclusively the leaders of the first cities), but in the end, more and more professions were born (for example, doctors, artists) and so diversification began of companies. (Diamond, 2012) Nowadays, only 2% of the population produces all the food needed to feed humanity.



In parallel, as cities became larger and larger, the natural communities that lived together became smaller and smaller. Vilmos Csányi, a Hungarian biologist and ethologist, has reflected for a long time on this issue. He describes how natural communities' shrinking (from entire tribes to clans to extended families and nuclear families) has influenced humans' experience. Today we are once again in a transition phase: at the moment, the central elements of the community (collective actions, shared beliefs, and standard constructions - and consequently: loyalty to one's group) are also disappearing from nuclear families and are present only in individual experience.

To describe this phenomenon, he introduced the notion of "One-person Community", a community made up of one person. This situation happens when individuals do not feel obliged to follow cultural rules or traditions with which they disagree, giving more value to their freedom than to the community commitment. This type of individualism eventually leads to alienation, causing much harm to the human psyche. We are trying not to consider this damage by clinging desperately to the illusory ideas of giving us the importance of reaching personal comfort and gaining full power over our lives. (Csányi, 1989)

There is often a distinction between men and the rest of the world as if there were nature first and then man. This perspective is more widespread than we think: it is not only present in the ideology "we are the rulers of the world" but also in well-meaning activism. Saying that we want to protect the environment implies that the environment itself is something we are not part of, something we can protect. It is not necessarily a bad thing, and it is just a phenomenon we should be aware of when we are learning how we can reconnect with nature.

Since Darwin laid the foundations for the science of evolution, human beings have become aware that they are not very different from animals because, like them, we are subject to natural selection. The basic concept of this selection is that in each generation, the individuals born are higher than those who can survive, and the survivors will transmit their genes whose traits (both physical and character) will have more extraordinary adaptability. Note that from our parents, we inherit not only our physical characteristics but also our behavioral patterns.

Human ethology focuses on studying human behavior from an evolutionary perspective, often comparing it with animals. Research initiated by Konrad Lorenz and Niko Tinbergen suggests that behavioral patterns are innate, and some are already functional in infants, while others mature later with or without learning. This conclusion means that our behavior's roots must also be present in our ancestors, including animals.

## Territoriality, dominance, and attachment

Territory in ethology means an area that an animal regularly defends against other animals. The purpose of territorial behavior is to increase survival probability, which can mean protecting food resources, nesting sites, mating areas, or a mate's attraction. The animals use both scents (e.g., leopards are rubbing against trees or ants secreting pheromones), visual

(e.g., a black bear scratching a tree), or auditory cues (e.g., howling wolves) to mark borders of their territory.

Territorial human behavior can use other methods, but it is undoubtedly present in our lives. We cannot urinate on the fence around our house, but the fence's presence already shows others that that area belongs to us. Altman describes three levels of territories among humans: primary territories, like our homes, play a central role in people's lives, as they feel maximum control over them, and the boundaries are clear to the outside world - and therefore, people they feel safe there. Like a shelter in a coffee shop, secondary territories are less direct, as they are public areas, but regular users feel offended if they are occupied by someone else. Finally, like a telephone booth, tertiary territories are public areas, which we use for a limited period, during which we expect others to respect the fact that it belongs to us. (Altman, 1981)

Dominance in the animal world means that an individual has a higher social status than another individual. Dominant individuals have a higher chance of survival as they gain access to more food and mating partners. The sense of domination minimizes active aggression in the group, making it more suitable for survival than other groups.

Among humans, the notion of domination has a similar function: if, say, in a workplace, there is a clear hierarchy, it creates order, where everyone knows its place and does not rebel against its superiors. However, there is an interesting distinction between status and dominance in the human world. Humans are unique in the sense that we sometimes accept people as our leaders even if they are not good leaders - this could not happen in the animal world, as those with a lower status will challenge the dominant and eventually take their place. Furthermore, the question of domination does not come into play only in the workplace but in apparently equal relationships, such as between spouses or friends. It is an interesting experiment to observe people, couples walking on the street/sitting in a bar, and paying close attention to how they behave to each other. If we look more closely, we often find it very easy to determine who is dominant in that particular relationship through their body language or how they speak to each other.

The function of attachment in nature is to ensure that the mother takes care of her children, maximizing survival chances. It is prevalent among mammals and other species: we all know the example of newborn ducklings following their mom or any other moving object/animal. This aspect is essential in attachment behavior: the pattern is innate in ducklings, which activates regardless of what. With mammals, it is usually more diverse. It is a question of how many emotions they feel, but yes, looking at the behavior, it looks pretty familiar: how elephants or penguins stand around the children to protect them from damage or cold or how the mother bear takes care of her cubs in cold winter. For humans, attachment between mother and child is one of the most touching themes in our culture. Most people have a mental image of the archetypal mother who would do anything for her baby, protect him, and even sacrifice himself if that is the only way to ensure the baby's survival.

## Communication - language

We know that communication is essential for both animals and humans. It is how individuals transmit information to others about possible dangers, inner states, and much more. Nevertheless, how much do animals use the same language like humans? Many think that the language is proper to man, and it is partly true given the complexity. However, if we delve further into the subject, we will discover that language has roots in animals.

Some scholars have experimented with sign language teaching on primates. The case of Washoe and Nim Chimpsky (both chimpanzees) showed that these primates, getting used to living with humans, developed a specific vocabulary (estimates ranging from 25 to 125 words), but they did not develop grammar. (Terrace, 1986; Gardner et al., 1989)

Other observations show us several examples of language used by other animal species. An example is a language between crows, which uses a wide range of sounds and gestures to report different threats. Alternatively, we can also take the bee dance, for example. With this dance, whose movements are correctly coded, the worker bee can communicate to his companions' valuable information on the direction and distance at which there are flowers, nectar, pollen, and water sources. Therefore, this dance is the mechanism by which bees can recruit other bees from their hive to collect resources.

Therefore, while the sophisticated use of human language may seem to be the main reason according to which we have become a kind of success, in reality, the roots of the language can also be traced back to the animal world, and often we do not realize this.

### The arts

So what about some behaviors that are exclusive to humans? Some think that art is a way of expression typical of human beings. Depending on how we define art, this statement is not valid.

One of the most spectacular examples is birds that create beautiful colored nests. The construction of these nests serves mainly a purpose (to attract females), but the effort the male puts into recovering as many colored objects as possible and the religious organization he puts in joining these objects far exceeds the function.

Another example of the connection between animals and art is monkeys or elephants who paint a picture. Some consider it art and those who do not. The monkey enjoys coloring the blank sheet for no reason.

### Self-harm

Self-harm is another aspect typically associated with humans: addictions, suicide, risky behavior. However, even in this case, we can also find examples in the animal world. As for addictions, we can observe experiments with mice. It has been discovered that a mouse that lives in isolation and sensory deprivation will choose water-containing drugs over clean water. While if he is in the right environment, he will choose clean water. Probably this phenomenon

also applies to men: if the environment and social aspects have been "positive" in childhood, it is much less likely that in the adolescent years, the person starts using drugs.

Another example is the peacock's tail: the longer it is, the more difficult it is to escape from its predators. Nevertheless, at the same time, the bigger the queue, the more likely it is that it will find a partner.

Some examples above are pretty simple (both animals and humans show territorial behavior, while others may cause discussion (can we consider elephant painting an art form?). What is important is that we should be aware of our place in nature.

## Man and the global ecosystem

Man is the main species on Earth whose activities could affect the entire terrestrial ecosystem. Unfortunately, in recent decades man has not committed to protecting nature and the environment, with devastating consequences. It has even been shown that the planet's ecosystem could be so compromised as to endanger Earth's very existence.

The number of world inhabitants has increased, and the current living standard depletes the planet's non-renewable resources.

At this point, ecological thinking is slowly becoming increasingly widely accepted. The famous slogan, "Think globally, act locally," unites many well-meaning people.

The first step was made with the Yellowstone natural park, protected since the 19th century. The park's lifestyle model was first adopted to preserve natural beauty, and today it is increasingly used as a model to preserve different ecological environments and ensure biodiversity. Together with natural parks, marine parks are increasingly used to protect, in particular precious marine ecosystems.

Only recently, between the nineteenth and twentieth centuries, the man began to join the global human rights movement, which includes, among other things, the abolition of slavery and colonialism, the introduction of the right to vote in women, the fight against racism, and xenophobic regimes. The mere awareness that other people have rights is only a tiny step towards a different worldview.

The world today is aware that all living things on Earth are interdependent. Governments increasingly manage the protection of nature and the environment through agreements such as the United Nations Framework Convention on Climate Change or informal supranational organizations that make global agreements. One of the most severe issues of the 21st century, which concerns man's responsibility to our planet, is undoubtedly global warming.

Global agreements have been signed to meet the challenge of climate change. One of them is the Kyoto Protocol, which has forced the reduction of CO<sub>2</sub> emissions (one of the causes of global warming) to developing countries, which are historically responsible for current greenhouse gas levels in the atmosphere. The next step in protecting the planet is the Accord de Paris concerning the mitigation of gas emissions into the atmosphere starting from 2020.

The agreement defines a global action plan to put the world back on track to avoid changes in dangerous climates, limiting the rise in global temperature, which today has increased by 2°C.

While these 2 degrees may not seem too dangerous for ordinary people, in reality, the climate balance revolves around this problem, which could lead to global catastrophes, such as the melting of glaciers and the increase in the level of oceans that could flood entire cities—built on the coasts.

The current situation has become even more complicated as the United States, the leading carriers of greenhouse gas pollution in the world, have announced their intention to withdraw from the agreement under the current administration.

Meanwhile, a couple of years ago, the United Nations accepted the new set of development goals, the sustainable development goals that already took into consideration both the human and the environmental side.

## Preserve Biodiversity

Biodiversity is the variety of living organisms in their respective ecosystems. An ecosystem is a defined systemic set consisting of living organisms that interact with each other and the surrounding environment. However, it is also a portion of the ecosphere and, therefore, of the biosphere.

The systemic view of biodiversity is the answer to catastrophes that man defines as natural, but it would be correct to define human catastrophes (because they are generated by human action). In fact, for decades, man has ignored the ecosystem to impose his supremacy on the environment and not paying attention to the systemic laws that nature solemnly respects.

Over time the collective sensitivity has changed, and new ecological awareness has made its way.

The new approach developed within the sustainable development process tends to consider the human population as an integral part of the ecosystem, which can profoundly influence it, but whose life depends on the presence of healthy ecosystems and the life itself existing on the Planet.

However, when we think of the extraordinary manifestations of nature, what comes to mind? Probably the first thoughts go to the significant calamities: earthquakes, hurricanes, floods. The merit of this is mainly due to the influence of the messages from the various media; the more significant the event, the more widespread the news. However, going beyond the strike, we can find far more striking examples of a devastating storm. For example, in Yellowstone Park, Canada, the past 20 years have shown that nature is the planet's mother and sovereign. In the late 1800s and early 1900s, wolf hunting was a significant activity in rural areas. To protect the livestock, therefore the economy of the time, the man had found the main threat in the wolf. Thus, in the protected area of Yellowstone Park, wolves disappeared definitively in 1926 to be introduced again (by man) only in 1995. During these 70 years of absence, the

Park witnessed a proliferation without control of deer, which impacted the vegetation of the park until it almost disappears.

In early 1995, the US Fish and Wildlife Service, together with a group of Canadian biologists, launched an extraordinary conservation project in Yellowstone park, reintroducing 14 wolves from Canada. It was practically the spark that triggered an inevitable change process.

The impact of the wolf's reintroduction has had surprising chain effects that have modified the entire ecosystem of the park, increasing its biodiversity and even modifying its geography.

First, wolves, of course, killed deer, but this was not the most important thing. They radically changed the behavior of the deer, which began to avoid some parts of the park - the places where they could have been trapped more quickly - in particular, the valleys and gorges, and immediately those places began to regenerate. In some areas, tree height quintupled in just six years (Monbiot, 2013).

The bare slopes of the valley quickly became forests of tremolo, willow, and poplar. Moreover, as soon as this happened, the birds began to move. The number of songbirds and migrants began to increase significantly. The number of beavers began to increase because beavers like to eat trees, and beavers, like wolves, are ecosystem engineers. They create niches for other species. The dams they built in rivers created habitats for otters, muskrats, ducks, fish, reptiles, and amphibians.

Wolves killed the coyotes, and as a result, the number of hares and mice began to grow, which meant more hawks, more weasels, more foxes, and more badgers. Crows and bald eagles came down to feed on the carrion that the wolves had left. Bears also fed on them. Furthermore, their population began to rise partly because more berries were grown on the reborn bushes. Furthermore, bears reinforced the impact of wolves by killing deer cubs.

Wolves changed the behavior of rivers, which began to meander less. There was minor erosion. The canals narrowed. More pools were formed. Moreover, all of this lent itself well to wildlife habitats.

Rivers changed in response to wolves. Moreover, the reason was that the forests' regeneration had stabilized the banks to give way less often. Thus the rivers became more stable in their course.

In the same way, forcing the deer to avoid some places, the vegetation recovered the valleys' sides, reducing the now stabilized soil's erosion. Those 14 wolves initially introduced into the Park had transformed the ecosystem of Yellowstone National Park and its physical geography (Collins, 2015).

However, the Canadian park cannot be considered in isolation, and it is also part of the Earth system. Moreover, according to a study published in the Academy of American Sciences journal and coordinated by Anthony Westerling, it could increase the risk of fires due to climate change in the rest of the planet. According to scholars' scenario, starting in 2050, this region could be affected every year by a massive and devastating fire. Therefore, hot and drought will be the 'fuses' that will light the fires in Yellowstone. To fine-tune the Yellowstone

area's fire scenario until 2099, researchers studied future climate change models and analyzed data on temperatures, rainfall, humidity, and the frequency and magnitude of fires related to an area that extends 200 hectares north of the Rocky Mountains.

In conclusion, everything we do has an impact sooner or later somewhere in the world. Being able to respect nature's laws and live in harmony with it is now an impossible task. Hopefully, however, human sensitivity and attention to a global systemic vision may, in the future, limit damage from irreversible consequences.

Now, we have evolved in considerably more difficult times than these into a world of horns, fangs, and claws. Nevertheless, we possess the fear and courage, and aggression necessary to navigate these times. However, in our comfortable, safe, and populous lands, we have few opportunities to exercise them without hurting other people. Overcoming uncertainty, knowing what happens next was almost the primary purpose of industrialized societies, and in getting there, or almost being there, we came across a new series of unexpected needs. We prioritized safety over experience and gained a lot by doing this, but we also lost something.

We are not making evolutionary ages romantic. They are already beyond the life expectancy of most primitive men, and the result of a deadly fight between us who was wandering around uncertainly and shortsightedly with a stone-tipped spear and an angry giant is not very difficult to imagine. Nor was the authenticity, or that we can lead in most of the industrialized world.

Moreover, when we came across an unfamiliar word, we began to understand what we were searching for. Furthermore, as soon as we discovered that word, we realized that we wanted to devote much of the rest of our life to it.

The word is "renaturalization," and although renaturalization is a young word, it already has several definitions.

One of the most exciting scientific discoveries of the last half of the century was the discovery of widespread trophic waterfalls. The trophic waterfall is an ecological process that starts at the beginning of the food chain and tumbles down to the end. The classic example happened in Yellowstone National Park in the United States when wolves were reintroduced in 1995 (Vartan, 2014). We all know that wolves kill different animal species, but perhaps we are little aware that they give life to many others. Before the wolves appeared, they had been absent for 70 years. The number of deer, since there was no one to hunt them, had grown in Yellowstone Park, and despite human efforts to control them, they managed to reduce the vegetation by a lot to reduce it to nothing; they did graze away. However, as soon as the wolves arrived, they started to have the most remarkable effects, although they were less in number. First, of course, they killed some of the deer, but that was not the most crucial thing (Monbiot, 2013). Above all, they have radically changed the behavior of deer. Deer began to avoid certain areas of the park, the places where they could get trapped more efficiently, especially the valleys and gorges, and immediately these places started to regenerate. In some areas, tree height has quintupled in just six years. Sides of valleys quickly became poplar, willow, and black poplar forests. As soon as it occurred, the birds began to return. The number



of songbirds, migratory birds, has started to increase enormously. The number of beavers has started to grow because beavers like to eat trees. Furthermore, beavers, like wolves, are ecosystem engineers. They create niches for other species.

Moreover, the dams that build rivers have served as habitats for otters, muskrats, ducks, fish, reptiles, and amphibians. Wolves killed coyotes, and as a result, the number of rabbits and mice started and went up, which meant more hawks and weasels, more foxes, more badgers. Imperial ravens and bald eagles took to eating the carcass wolves have left (Cesano, 2017). The bears ate them too, and their population also grew in part because there were more berries grown in the bushes in regeneration, and the bears helped the wolves by killing some deer cubs.

Nevertheless, here is where it gets exciting. Wolves have changed the behavior of rivers. They started to wander less. There has been less erosion. The river bed has shrunk. More ponds formed, more streams, each of which was excellent habitat for wildlife. The river has changed in response to wolves, and the reason has been that the regeneration of the forests has stabilized the banks in such a way as to make them give up less often; in this way, the rivers have become more stable in their course. Similarly, by bringing the deer out of certain areas and with the resumption of vegetation on the valleys' sides, there has been less soil erosion because the vegetation has stabilized this too. So wolves, in limited numbers, have transformed not only the ecosystem of Yellowstone National Park, this vast area, but also its geography.

Southern ocean whales have similar effects. One of the many illogical excuses made by the Japanese government to kill whales is: "Well, the number of fish and shellfish will grow, and therefore there will be more food for people." It is a stupid excuse, but it makes sense in a way, doesn't it? Because we might think that whales eat vast quantities of fish and shellfish, and of course, by removing the whales, there will be more fish and shellfish. However, the opposite happened. Remove the whales, and the amount of shellfish collapses. How could this happen? Now it is understood that whales are fundamental to sustaining the entire ecosystem. One reason is that they often feed in-depth and then rise to the surface and produce what biologists politely call excrement crests, large bursts of feces on the surface of the water, up in the photic zone, where there is enough light for photosynthesis to occur. These large fertilizer crests stimulate the growth of phytoplankton, the vegetable plankton at the base of the food chain, which stimulates zooplankton's growth, which feeds fish and shellfish and all the rest. Whales do another thing: by diving up and down through the water column, they push the phytoplankton to the surface where it can continue to survive and reproduce. The exciting thing is that we know that plant plankton in the oceans absorbs carbon from the atmosphere - the more plant plankton there is, the more carbon is absorbed - and eventually, they filter it down into the abysses and remove carbon from the atmospheric system (Monbiot, 2013). It seems that when the whale population was at historic highs, they were responsible for the sequestration of some tens of millions of tons of carbon per year from the atmosphere.

Seeing it this way, wolves change the physical geography of Yellowstone National Park. Whales change the composition of the atmosphere. We could begin to see that probably the evidence supporting James Lovelock's Gaia hypothesis, which conceives the world as a cohesive, self-regulating organism, begins to accumulate at the ecosystem level (Lovelock, 1979).

Trophic waterfalls tell us that the natural world is even more fascinating and complex than we thought. They tell us that if we eliminate large animals, there remains a radically different ecosystem that keeps large animals. As we see it, they constitute a case in favor of the reintroduction of lost species. Renaturalization could mean bringing back some of the lost plants and animals. It means breaking down the fences, and it means stopping the drainage channels, which means preventing commercial fishing in some significant areas of the sea, otherwise taking a step back. It has no idea what a correct ecosystem or a correct set of species is. It does not produce a moor or pasture or a rainforest or an algae meadow or a coral reef. Let nature decide, and nature is pretty good at making decisions (Lovelock, 1979).

The other is the renaturalization of human life. We can enjoy the benefits of advanced technology, as we do now, but simultaneously, if we want it, to have access to a more vibrant and wilder adventure life when we want because there will be beautiful wild habitats again (Monbiot, 2013).

Furthermore, the opportunities for this are developing faster than we can imagine. There is an estimate that suggests that in the United States, two-thirds of the land that was once forest and then cleaned up has become forest again as farmers and loggers have retreated, particularly from the eastern half of the country (Monbiot, 2013). Another suggests that 30 million hectares of land in Europe, an area the size of Poland, will be abandoned by farmers between 2000 and 2030.

In the face of opportunities like this, it is modest to think only of bringing back wolves, lynx, bears, beavers, bison, wild boars, moose, and all other species that are already gradually starting to move rather quickly through Europe, but we could start to think about the return of part of our lost megafauna. Every continent has had one megafauna, except Antarctica. When the excavations for Trafalgar Square were made, the river gravel was full of bones of hippos, rhinos, elephants, hyenas, lions. There were lions in Trafalgar Square long before Nelson's Column was built. All these species lived there in the last interglacial period, as the temperature was quite similar to ours (Monbiot, 2013). Mostly it is not the climate that has eliminated the world's megafauna. It was the pressure of the human population that hunted and destroyed their habitats.

Moreover, even so, we can still see these magnificent beasts' shadows in our current ecosystems. Why are so many deciduous trees capable of sprouting wherever the trunk is broken? Why are they able to endure such a significant loss of bark? Why are undergrowth trees less subject to wind forces and bear less weight than large crown trees? Why are they more resistant and difficult to break than large crown trees? Elephants. They are adapted to elephants. In Europe, for example, they evolved to resist the rubbing of elephant tusks, *Elephas Antiquus*, which were beasts. He was a relative of the Asian Elephant, but he was an

animal of temperate climates, a creature of temperate forests. It was much larger than the Asian Elephant (Monbiot, 2013). However, why do some of our ordinary bushes have thorns that seem too ingenious to resist the snooping of the deer? Maybe because they evolved to resist the rhino snoop (Monbiot, 2013).

The most important thing that renaturalization offers us that is missing from our lives: hope. In motivating people to love and defend nature, an ounce of hope is worth a ton of despair. The history of renaturalization tells us that the need for ecological change does not always proceed in one direction. It offers us the hope that our silent spring can be replaced by a noisy summer (Monbiot, 2013).

What were the sources of knowledge of our ancestors?

Our ancestors were careful observers, and in groups (tribes, communities), knowledge was considered a valuable treasure to be carefully protected. During most of human history, the only way to transfer knowledge to future generations was through oral narration. Since we live in a globally networked community today, overwhelmed by a mass of primarily unverifiable data, it is difficult to believe that at the time, oral communication alone was a reliable source of knowledge.

In traditional communities, oral tradition covers a wide range of valuable information that helps preserve cultural identity from one generation to the next: stories of creation, connections to the earth, historical accounts, healing practices, and ecological knowledge are some of the topics handed down. Oral traditions include the use of storytelling, singing, dancing, crafts, instructions, and directions. Stories are used to educate, explain, give practical knowledge of nature, and transmit specific cultural practices and values, language and laws, stories, and family relationships.

Sometimes the stories passed down are incredibly reliable. According to recent discoveries, several independent Aboriginal communities recall the continental shelf's flooding between Oceania and Tasmania (now an island). About 300 generations have faithfully told a story based on accurate information that could be verified by independent chronology. The Black Sea was also filling up in the same period after the last ice age, a much more spectacular event, and the memories of the Eurasian tribes were completely missing.

Aboriginal people are known to pay close attention to subtle changes in nature and incorporate this knowledge into their traditions.

In all ancient cultures, individual stories are never written, which preserves the tradition of sharing knowledge, culture, and history orally. In some cultures, if a story is written, it loses its value.

Some stories are preserved and told only to a few. In many traditional cultures, there are free stories, but there are also stories that are sacred, secret, only for a select few, as they can be used in certain ceremonies, gatherings, or initiations.

Knowledge is one of the greatest gifts that a person in the traditional community has to give. The narration of oral traditions requires that the narrator trusts the listener to bring the appropriate message from the story he tells.

Many communities had so-called "memorizers" whose role was precisely to keep in mind the history and testimonies of events that happened and identify and train other young people to become like them.

Stories, as well as songs and dances, often belong to the narrator. Listening to a story does not give the right to tell it, just like watching a dance or listening to a song does not give the right to perform it.

Some stories are much more than mere entertainment, and they are used as life lessons and provide a moral through the form of a traditional belief that will help guide people in their lives.

Aboriginal storytellers were the first artists of the performance. The narrator improves the drama of the stories so that the audience can experience that drama. The promulgation keeps ancient stories alive.

In all traditional cultures, storytellers are born in the role, but this role can also be gained. In many ancient cultures, the narrative arts are professionalized: the most experienced narrators (griot, or bards) have mastered many complex verbal, musical, and memory skills after years of specialized training. This training often included a highly spiritual and ethical dimension, needed to control the special forces believed to be released from the word spoken/sung in vocal performances.

In Kerala, a state of southern India, a performative art called Chakyar Koothu is practiced. Essentially it is a type of highly refined monologue in which the artist narrates episodes of Hindu epics. Sometimes it is comparable to the modern comedy of cabaret, which includes comments on current socio-political events and personal comments addressed to public members. As he tells the story, the narrator, Chakyar, plays the characters' roles. This narrative form has been transformed into the so-called Koodiyattam, the Sanskrit theater, which is one of several communities of Indo-European performer storytellers. Oral storytelling is primarily a collective participatory experience. Everyone, in most traditional societies, participates in formal and informal storytelling as interactive oral performances. Such participation is an essential part of traditional ordinary life and basic training in the arts. A particular culture's oral skills are an essential part of indigenous children's education, which allows them to be initiated into full humanity.

## Storytelling

Why are stories important, and how the ancient traditions of storytelling have been transformed and integrated into our modern life?

Stories depend not only on the use of language but also on our culture. As Daniel Quinn, the famous environmentalist narrator, says, there is a story that our mother culture shares with us, and we act accordingly.

The stories have been told for thousands of years so that we can access our ancestors' stories. There are stories we know the author of, and there are many stories we do not know the origin of.

The Bible, the Quran, and other sacred books of religions are sets of these stories that narrate our connection with nature and other people. Popular stories also formulate this connection. While in the Bible (for example), the stories were chosen by people according to a set of rules and ideas to show us how to look at the world, the folklore tradition was told based on what people were interested in and found beneficial.

Popular stories (and other parts of folklore such as poetry and popular songs) also show a different way of looking at the world around us. There is no alienation from nature in popular stories: in reality, other imaginary beings or creatures are also important actors. If we look at popular stories, we can see that they did not face severe consequences for the people who live in peace with nature (dragons, storms, stormy sea).

Ildikó Boldizsar, Hungarian folklore researcher, and folk tale therapist says that popular stories reflect on the different types of situations people face, and even more: all situations (of life and conflict) have their folk tales. Our ancestors had a close connection with the symbolic system of folklore, and therefore when a narrator chose a story, people knew what it meant: what situation the hero of the story (the protagonist) faced and how he solved it. In this way, popular stories worked (and can still work) as a basis for solving personal problems and as models for learning from connections.

If we look at popular stories and dig deeper into them, we can prove that there are stories of those who leave the paternal home, stories of marriage problems, stories of conflicts between brothers and sisters, parents and children, and friendships. The people in these stories solve their problems somehow: they develop their personalities to become kings or queens of their lives, their dragons become killers of their bad habits and attitudes, and collect magical objects for their skills and abilities. Since the stories are not about dragons and magic wands, these are all cover stories, and the connection of everything, place, person, living being, object, is already within our inner world.

When it comes to sharing a story, there are several ways and methods. Some share a story with only if themselves in inner dialogues or diaries. Others write stories, while most of us share stories orally. Moreover, in the past hundred years, there are also videos and films.

The more the senses are involved, the more receptive we are to a story; for this reason, films (and video games) are compelling. However, they give much less space to our fantasies. When we read a story, there are many more opportunities for fantasy to work. The activation of the fantasy also applies to listen to the stories told verbally, which also has an essential aspect of non-verbal communication: voice, intonation, narrator gestures. If we are telling a story, the

best thing is to tell it. It is also excellent when we are reading it, but we have a much less chance of getting in touch with the public. During this connection and listening to the story, most people enter a different state of mind and body, called "narrative trance", an altered state of consciousness that is therapeutic for both body and mind.

## Liquid modernity

Liquid modernity reflects life in contemporary society, which Bauman (2000) defines as "liquid", to indicate that everything is momentary, fluid, changing, ambiguous, precarious. This metaphor has been very successful and has become a point of reference for today's sociology. According to the Polish-born sociologist, the crisis of politics and the state has made individuals more insecure, compromising their ability to enjoy the freedom they have. The fears that tear contemporary society arise from the weakening of interpersonal ties, from communities' crumbling, from replacing human solidarity with the competition without limits. In a world subdued to the whims of deregulated economic powers and without political controls, insecurity increases and spreads over all aspects of our lives.

A brief list of the key points of Bauman's thought on liquid modernity:

- Modernity can be divided into a first solid phase, now past, and a second liquid phase, current;
- Solid modernity was characterized by the idea of building a new, more rational order of society;
- The second modernity has abandoned any ideal of stability and lives under the banner of perennial change;
- Freedom ends up generating a state of provisionality and disruption of all relationships;
- This state of excessive freedom generates a paralyzing uncertainty and a tremendous sense of insecurity;
- The inhabitants of liquid modernity are not in a position to enjoy the freedom they have;
- This leads to seeking refuge in new forms of communitarianism and tribalism;
- Instead, the public sphere must be rediscovered as a place to meet and reconstruct the reasons for coexistence.

The rules standardize behavior, make it predictable, and make people know how to proceed and predict the consequences of what they do. The absence of confusing rules or rules makes it difficult to carry out tasks and projects and even manage to follow the ordinary course of life. Without norms, life is only doubts and fears. In this condition of debilitating uncertainty, the individual begins to seek certainties spasmodically to free himself from doubt and ends up giving confidence to everything that promises to take responsibility for giving him certainties. In the contemporary world, a liquefied world, certainties' disintegration is already at an advanced stage. Individuals enjoy great freedom, and the private initiative has more and more space, but identities are increasingly blurred. The unprecedented freedom we enjoy is related to the unprecedented equal impotence.

For many years modernity has been feared, fearing that the Orwellian dystopia presented in 1984 could come true. There was fear of the loss of freedom in the advent of totalitarianism,



with the progressive increase of control, surveillance, and repression. When things seemed to go differently and different new problems arose, not corresponding to these fears, we quickly spoke of the end of modernity or even the end of history. However, 21st-century society is still as modern as a 20th-century society.

"The society that just entered the 21st century is no less" modern "than the one that entered the 20th; the best that can be said is that it is modern in a different way. What makes it just as modern as it was a century ago is what differentiates modernity from all other historical forms of human cohabitation: compulsive and obsessive, continuous, unstoppable, always incomplete modernization; the irrepressible and unquenchable thirst for creative destruction (or destructive creativity, as the case may be; to "clean up" in the name of a "new and better" project; to "dismantle", "cut", "gradually eliminate", "Merge" or "resize", all in the function of a future more exceptional ability to do the same thing better: increase productivity or competitiveness)" (Baumann, 2000, p. 18).

Modernity is characterized by the need for movement and speed, the impossibility of standing still. A perennial race and effort, given gratification that runs faster and faster than its pursuers. Each success thus becomes only a spring to run ahead. These characteristics belong to today's modernity as of yesterday, but what makes modernity different today is the awareness that there is no final stage to be reached and that, therefore, these characteristics are not momentary but rather are the modern condition itself.

Modernity is also an individualization process. Breaking the previous order with its barriers and rigidity remains individuals' task to get back home and find their place. Especially in the second phase of modernity, this lack of order and stability was accentuated so that the new autonomy acquired is used above all in the search for one's place in society. In early modernity, the old "social states" were replaced by classes, which, although not hereditary and negotiable, bound their members just as rigidly as the ancient states. In the second modernity, the classes also failed; every possible home for the enclosure proves fragile and easy to collapse. People are engaged in continuous removals without ever having the sensation of arriving at an ideal accommodation, where they can finally relax. This condition results from individualization, which is not a choice but an obligatory destiny like the classes and social states previously.

All responsibilities and blame are given to individuals. If they do not find work, if they get sick, their shortcomings, insufficiencies, or vices are always their fault if they fear for their career prospects. Life thus becomes a search for biographical solutions to systemic contradictions. What is taught daily, and the example that everyone is facing, is that life is full of problems, challenges, and risks, which must be tackled and solved. Modern individuals are no longer even citizens because they recognize themselves in a community with which he is linked and seeks a common good. Instead, individuals follow only personal goals, advantages, and destinies, and they suspectly reject concepts such as that of the common good or collective interest. Individualization, therefore, involves the progressive disintegration of the notion of the citizen.

Once it was necessary to defend the private sector from the public's invasion, today it is the opposite. It is no longer the public that colonizes the private, but it is the private that invades the public inexorably, wiping out everything that cannot be reduced for private interests and fears. The public space is increasingly emptying itself of public issues. In reality, autonomy is possible only within an autonomous society and, therefore, citizens, not mere individuals. The conditions that make individual autonomy possible are a collective achievement, which a society must continually repeat. The task of today's social criticism is to repopulate the agora, the meeting place between public and private, between the individual and the common good.

«A cynical observer might say that freedom comes when it is no longer critical. There is an unpleasant aroma of impotence in the tasty dish of freedom cooked in the cauldron of individualization; impotence felt as even more hateful and frustrating if one thinks of the power that - it was believed - freedom would have conferred "(Baumann, 2000, p. 27).

In the first phase, modernity can be defined as "heavy", and it was an era in which it was thought that we could inculcate reason into reality, tracing rational projects on which to build society. The modernity of the second phase can be defined as "liquid". In the first phase, attention was paid only to the dangers of an invasion of the private and individual by the state and the public, and not to the opposite danger of emptying the public space due to the colonization of private individuals. It is precisely this underestimated eventuality that today comes true and becomes an obstacle to emancipation, as the acquisition of autonomy not only by law but also in fact.

"Public power implies the incompleteness of individual freedom, but its retreat or disappearance prophesies the practical impotence of legally victorious freedom. The history of modern emancipation has veered from a confrontation with the first danger to a fight against the second [...] Public power has lost much of its extraordinary and highly oppressed oppressive power but has also lost much of its capacitative force. The war of emancipation has not ended, but to make further progress, it must now resurrect what it has done everything for much of its history to destroy and eliminate. Any real liberation today requires more, no less "public sphere" and "public power". Today it is the public sphere that must be defended from the invasion of the private sector, and this, paradoxically, in order to increase, not reduce, individual freedom "(Baumann, 2000, p. 47-48).

Two great writers, Orwell and Huxley, in their works "1984" and "The new world", both delineated a scenario in which the world ended divided between a controlled majority and a minority of controllers. Although the outlined worlds were different, the future had less freedom and more control, supervision, and oppression in the store. Instead, liquid modernity has taken another path.

The problem of organizing the means to achieve the ends has been replaced by choosing the ends, among the many possibilities existing and floating around. The absence of solidity, of projects, of shared ends, leaves individuals prisoners of incapacitating freedom. The world is such a set of moving opportunities, continually born and blurred, that it becomes impossible

to orientate ourselves and grasp them. Today the public sphere is invaded by private matters discussed, shown, eviscerated in public. There is a colonization of the public by the private sector. The private individual, what pertains to the individual, matters; the individual is given all the responsibilities, all the problems are individual, and the individual's merits and demerits are due to what they succeed or fail.

The archetype of life in liquid modernity is given by shopping. In every situation of life, in every situation, we are shopping, that is choosing to buy some things and not by others. All life is modeled on the consumer paradigm. Even searching for new and better examples and recipes for life, to face any type of situation, from work to intimate relationships, we do nothing but shopping, with an endless shopping list. It is, therefore, a world that requires, above all others, the ability to be capable and indefatigable buyers. Desire has replaced need, and it is an infinitely more volatile force, and today desire is replaced by whim, even more volatile and fluid.

"It is possible to associate the beginning of the modern era with various aspects of changing social practices, but the emancipation of time from space, its subordination to the ingenuity and technical skills of man and therefore its opposition to space as a tool of conquest and appropriation of land is not a worse starting point than others. Modernity was born under the stars of acceleration and the conquest of the earth, and these stars form a constellation that contains all the information about its character, conduct, and destiny "(Baumann, 2000, p. 126).

Shopping centers are unique places, and they are an "elsewhere" distinct from any other external place, another world than usual. As they are nicknamed, the temples of consumption are places in themselves, closed in on themselves, floating islands. Every person is incorporated and made equal; no matter what differences there are outside, we are all equal as consumers and buyers inside the mall.

There are two strategies introduced in human societies towards strangers: separation and assimilation. The first strategy is to defend ourselves from strangers, avoid mixing, keeping them out, or expelling them. The second is trying to engulf them and metabolize them, making them equal to themselves and therefore no longer foreign. The first strategy accentuates the fear of strangers because the more homogeneity is sought, the more defenses stand, the more difficult it is to face strangers, one becomes unable to meet them and loses the ability to interact with them, thus the threat and the anxiety that strangers transmit only increases. Ultimately, therefore, the project to isolate oneself inhomogeneity is self-defeating and involves losing the ability to live together and negotiate relationships and shared interests.

"The transition from heavy to light capitalism, from solid to liquid modernity, could prove to be a more radical and fraught with consequences of the advent of capitalism and modernity, which in the past were considered by far the most significant watersheds in human history since less since the Neolithic revolution. In fact, throughout the history of humankind, the work carried out by culture has consisted in sifting and sedimenting grains of perpetuity from

the transience of human lives and the transience of human actions, in evoking duration from transience, continuity from discontinuity, and in consequently transcending the limits imposed by human mortality by placing mortal men and women at the service of immortal human species "(Baumann, 2000, p. 143).

Modernity also involves a different perception of space and time, two categories increasingly subject to scientists' and philosophers' attention. The phenomenon began with the invention of new non-human and non-animal means of transport, making it possible to make time corresponding to a distance a function related to the technique used to travel it. The attempt is to cut distances, dreaming of definitively overcoming space's resistance and making it irrelevant. Much of modernity's energy is concentrated on speed, speeding up operations' progress to be performed, and eliminating unproductive time. In the first version of modernity, the heavy one, progress was made of increasingly large and organized factories, ever-increasing dimensions, and ever-increasing space occupation, together with increasing standardization, were its characteristics. Capital and labor were tied to the ground, immobilized in large structures, constructions, factories, machinery. All this changed with the advent of the second modernity, the light one. The shortening of time to move in space means that time counts less and less as a factor capable of conferring value: if every place is reachable at the same time, no place has an exceptional value because no place requires more than another to be reached up. So the problem shifts from the means to the ends, which tend to be no longer distinguishable from each other in terms of the effort to achieve them. The time of liquid modernity becomes so light that it is insignificant.

Polany, in his *The Great Transformation*, claimed that work was not a commodity because it could not be bought and sold separately by the human people who carry it out. Today we are experiencing a new incredible transformation that goes in the opposite direction to this condition highlighted by Polany: work can increasingly be separated and made incorporeal, it can be carried out from anywhere, and by fewer and fewer people, it can be easily moved, it is no longer a cage for capital.

This condition gives a great advantage to capital overwork, which has less bargaining power and more tied hands. Mobility, fluidity, the ability to move from one occasion to another are the main characteristics of today's successful business. Even the possibility of making a mistake thus becomes less fearful because it is less expensive since it is always possible to go back with less effort.

In liquid modernity, the ephemeral triumphs over the enduring, the perspective of instantaneity over eternity. Preserving something for a long time is a sign of deprivation; changing it, updating it, replacing it, renewing it, is instead a sign of wealth. If in the first modernity work was considered the way to order society favorably, a guarantee of progress, and a tool to improve the fate of humanity, then in the second modernity with new scientific discoveries, it became clear that the world is not so quickly and rationally ordered and the work has lost much of its value. There is no state of ultimate perfection on the horizon, and there is no effort that can be considered unfailingly valid; indeed, it is clear that our efforts in

one direction can generate unexpected consequences that lead us in the opposite direction. Therefore, in the phase of liquid modernity, work lost the centrality it had in solid modernity.

"Safe jobs in safe companies now seem like a thing of the past; nor are there specializations and experiences that, once acquired, can guarantee a certain and, above all, lasting job. Nobody can reasonably think of being sheltered from the next wave of "downsizing", "optimization", or "rationalization", from erratic fluctuations in market demand and the capricious but irresistible pressures of "competition", "productivity" and "efficiency". "Flexibility" is the password of the day. He recommends jobs without security, with specific and long-lasting commitments, jobs that do not confer any future rights, that offer nothing more than temporary or renewable jobs, dismissal on the job and no right to liquidation "(Baumann, 2000, p. 187).

With industrialization, work detaches itself from the land, peasants emancipate themselves from their condition, and work becomes mobile and increasingly free to follow their path. The order, the result of history and destiny, was replaced by a constructed, designed, rational order. In liquid modernity, however, this order dissolves. Capital and work are no longer mutually dependent. It has become customary to change jobs many times throughout one's life. Mobility is the rule, and work systems become more and more flexible; capital moves more and more easily and quickly from one place to another, from one job to another. 'other. The speed of movement is today the factor that determines the hierarchy and power relations.

Another powerful force at work is automation, so each new job replaces several others, decreasing more and more available places and generating a perennial mass of unemployed: a sort of reserve army that contributes to precariousness general work. This state ends up pushing people to prefer immediate enjoyment: since the future is so uncertain and precarious, so unpredictable, the most sensible strategy seems to be to enjoy everything we can, as long as we can. An attitude that also invests human relationships, which are increasingly precarious and disrupted, in the contemporary world. In response to this phenomenon, a renewed communitarianism presents itself in contemporary society, linked to the increasingly unsatisfied need for security. Desire from a homogeneous community, around some common characteristics and in opposition to those who remain outside, reflects the excess of insecurity generated by contemporary liquidity. The pluralism and the necessary negotiating and conciliation capacity that it implies are viewed with suspicion and rejected.

On the one hand, nationalism and patriotism repress and oppress the difference; on the other, pluralism builds on the differences and develops from their recognition, not as something negative to protect themselves from, but as something around which a community can build more solid, free and full of opportunities. Pluralism aggregates all in a collective effort of coexistence woven, starting from recognizing differences and the desire to coexist with them. Pluralism is the only form of unity that is truly compatible with liquid modernity. Liquid modernity implies the need to learn the intricate art of living with diversity.

## The Right to the City

The Lefebvrian concept of the right to the city, which has represented a guiding reference both for critical urban geography and for activism, in recent years, has been differently appropriate by international, national, and local institutions, to the point of becoming an object without of meanings. In the meantime, while the process that Lefebvre defined as planetary urbanization appears to be a concrete reality and the city seems to have lost all its specificity as an empirical object and theoretical concept, many scholars have pointed out the need to overcome it and rethink it in a new way. The historical link between cities and social movements.

The concept of "right to the city" dates back to Henri Lefebvre. In his essay *Le Droit à la Ville*, in his essay intertwining epistemology, semiotics, philosophy, sociology, and urban planning, he intended to provoke traditional Marxist thought, which had never attached great importance to the urban dimension of the revolutionary strategy.

Lefebvre's political and intellectual project consisted of developing a radical critique of the existing society functional to pave the way towards a different society, capable of overcoming the capitalist and consumerist model.

Its starting point is the crisis, theoretical and practical, which affects the city (Lefebvre, 1970, p. 32). From a theoretical point of view, the concept of the city, which is made up of facts, images, and values borrowed from the ancient city, flakes under pressure imposed by the transformative power of industrialization that causes the territorial explosion and the fragmentation of the urban phenomenon denies the very existence of the city.

In other words, the city seems to have ended. However, the city persists, as a mental and social form, as a field of relationships that includes time with space (Lefebvre, 1970, p. 68).

The description of the dialectic that characterizes the conflictual relationship between industrialization and urbanization starts from the contrast between the use-value of the city, urban life, urban time (urban work), and the exchange value of spaces, the consumption of goods, the urban places and signs (city-product).

To describe his idea of the city, Lefebvre uses binomial centrality/simultaneity with the concept of use-value. Centrality is a distinctive feature of the urban phenomenon since only the city always creates a crucial meeting between different things and people at any point in its fabric, which is why it becomes central. This spatial dimension adds the temporal one, of simultaneity, and both make the public place and the privileged moment of meeting and gathering (Lefebvre, 1970, p. 109).

The references to urban as a meeting of differences and to urban society as a use-value that must be freed from the exchange value constitute the passage that allows him to introduce the "right to the city": a higher level right, a right to have rights, whose sole purpose is, not already greater integration into the capitalist city, but its overcoming (Lefebvre, 1970, p. 134).

His request is expressed in the form of a cry and a request: the first as a response to the profound crisis in which city life was falling; the second as an invitation to promote an alternative capable of giving meaning and liveliness to urban life, making it less alienating, but also more conflictual and dialectical, open to becoming, to encounters, to the continuous search for inscrutable novelties.

This right consists of two parts: on the one hand, the right to participate, understood as the right of the inhabitants to play an active role in the production of urban space in contrast to the action of the ruling class; on the other hand, there is a right to the appropriation of urban space, as a constitutive element of cooperative social relations that oppose capitalist accumulation (Purcell, 2002).

Lefebvre had the undoubted merit of placing space at the center of criticism and social change, giving the idea of the city a powerful political meaning, connected to the multiplicity of struggles, practices, and liminal spaces that prove to be overflowing with alternative possibilities, where something different is not only possible but necessary to define revolutionary trajectories.

Another merit was recognizing how these statements involve the broadest category of inhabitants, thus affirming the importance of the subjective-relational dimension in analyzing the productive processes of the urban space (Rossi, Vanolo, 2010, p. 149).

The concept of "right to the city" represented a guiding reference in the criticism of the contradictions connected with the urban space's production processes and the analysis of urban social movements.

Harvey describes it thus: "The right to freedom to build and rebuild our cities and ourselves (...) one of the most precious human rights and nevertheless one of the most neglected (...). The right to the city is much more than a right of individual or group access to urban resources: it is the right to change and reinvent the city according to our needs. Furthermore, it is a collective rather than an individual right, since the reconstruction of the city inevitably depends on the exercise of common power over urbanization processes "(Harvey, 2013, p. 22). In *Rebel City*, the British geographer traces the social movements that from the Paris Commune to Occupy on Wall Street, they have followed the restructuring processes of capitalism, which find the privileged scale of accumulation and adaptation in the urban one, according to the reconstruction of Margit Mayer, in the Fordist City, between in the 60s and 70s, urban social movements opposed the norms and standardization processes, developing struggles linked above all to "collective consumption".

During the rollback phase of neoliberalism in the 1980s, the dismantling of the welfare state pushed social movements to focus their gaze on the problems of new poverty and the right to housing. In the launch phase, which emerged in the 1990s, following the welfare state's dismantling, some social movements underwent a rapid professionalization and institutionalization within the neoliberal governance.



On the contrary, others have maintained a more radical profile of globalization's criticisms and the dynamics of capital accumulation and valorization, focusing mainly on gentrification processes. Finally, with the global financial capitalist system crisis, the weakening of representative institutions' political legitimacy sandwiched between austerity policies and the effects of a prolonged economic crisis should open up new political possibilities for urban social movements (Mayer, 2009). In this structuralist perspective, social movements recognize cities as central nodes in financial and real estate accumulation processes. On the contrary, the "right to the city" is configured as the inhabitants' opposition against capitalism's inequalities and the supremacy of the exchange value over the value of use.

A different approach is that which focuses on the need to rediscover the radicality of Lefebvre's thought. According to Marcuse, critical urban theory's responsibility is the continuous extension of the scope of the demands of the "right to the city", to be interpreted as a multiplicity of claims and battles of social justice no longer concentrated only on work. However, urban understood as a container of all our vital relationships (Marcuse, 2009). A reference similar to its eminently revolutionary and conflicting nature comes from Mark's works.

Purcell who, in denouncing his appropriation in a liberal-democratic key, underlines the impossibility of separating this right from the principles of self-management and the need to activate a style of utopian thought at the service of an open, continually evolving revolutionary project that involves all spheres of life and capable of opening a horizon towards a "possible world", yet to be invented (Purcell, 2014).

Despite the undoubted merits, both the structuralist and neo-Lefebvrian perspectives do not fully understand the relationship that continues to connect cities and social mobilizations. On the one hand, the abundant literature on movements continues to suffer from the academic roots of a normative conceptualization which, starting from a territorially limited vision of the city, ends up recognizing them as movements in their own right, guided by issues related to the collective consumption and struggle for the affirmation of a more just and democratic urban environment (Castells, 1983). On the other hand, most of the work on the "right to the city" did not go beyond this theoretical impasse, relegating it to the ultimate goal of the movements rather than as a means of wider-ranging struggles.

The same approaches that have faced these problems more recently have ended up supporting the inadequacy of the concept of "right to the city" and the need to overcome it.

In a more recent relational approach, the urban scale is re-evaluated as fundamental for analyzing social movements since cities find social, institutional, political, cultural, and territorial roots (Uitermark, Nicholls, Loopmans, 2012). Numerous authors who recognize themselves prefer to speak of "law through the city", highlighting how cities act primarily as incubators of relationships and practices, given that the relational and social infrastructures that promote birth and strengthening are concentrated in them. Networks allow both access

and sharing of information in a given political area and forming a pool of potential allies for campaigns and actions (Nicholls, Vermeulen, 2012; Miller, Nicholls, 2013).

The process of complete urbanization of the territory supported by Lefebvre has proceeded at a steady pace. A substantial change has occurred in the interdependence relations between global and local phenomena. An element of a substantial distinction between Lefebvre's world and the present one is the growing difficulty in identifying the decision-makers. The mix of decision-making levels that become increasingly dispersed and confused represents the primary cause of the "democratic deficit" that characterizes the current global structure and accentuates the city's mediation capacity's progressive erosion. On the one hand, we are witnessing global decisions that have local repercussions through a complex dynamic that feeds on the coexistence of moments of de-territorialization and re-territorialization, functional to a constant redefinition of the logic of command and accumulation. On the other hand, these same decisions, thanks to the new movements' work, rebound from the territories at the national level and beyond, generating conflicts and mobilizations that cross other territories, connecting on the net with more communities in struggle becoming trans-territorial.

Andy Merrifield recently reworked Lefebvre's notion of urban society, explaining why a broader urban perspective would be appropriate.

Contemporary urbanization represents a global phenomenon, apparently devoid of concrete form and spatial limits. The concept of "planetary urbanization", which designates the final frontier of the expansive logic that continues to guide the process of globalization, fits perfectly with the description of the new reality (Merrifield, 2013, p. 912).

Under the control of global financial capital, urbanization has become global, so any federal program that intends to propose itself as a radically alternative will have to adapt to this new trans-scalar dimension. Merrifield interprets the evolutionary and revolutionary tension that unites the Arab revolts with the Occupy mobilizations as confirmation of the emergence of a whole planetary urban society and invites to rediscover the idea of revolutionary citizenship, indicating the opportunity to replace the concept with the right to the city, now obsolete, with that of the "politics of the meeting": a concept, according to him, capable of highlighting the loss of any specificity, both theoretical and spatial, of the city, concerning the unpredictability and the mobility of centrality, understood as an encounter, as a cellular form of urban and hybrid reality that develops between the real and the virtual world (Merrifield, 2013, p. 918).

Although the recent rediscovery of Lefebvre's conceptualization of planetary urbanization has paved the way for new and exciting developmental trajectories of critical analysis (Brenner, Smith, 2015), some scholars have also begun to shed light on some of its risks and limitations. In the first place, this new "discourse" does not seem to pay due attention to the power structures that exist before, during, and after each meeting, rally, mobilization (Derickson, 2015). Secondly, it is a thesis developed in the conventional center of theoretical production which, despite its intentions, runs the risk of reproducing universalistic and deterministic

interpretative schemes that leave many questions open concerning the confrontation with diversity: from the diversity of souls, sensitivity, and subjectivity that shape movements in contexts, such as the global south, where the need to decolonize and provincial urban theory prevails, passing through the exact definition of the planet which, as it has been conceptualized, seems to be reduced to a de-humanized assembly of flows and actants (Cattal, 2014).

Lefebvre's varied rediscovery's thought can probably be explained by the constant search for new tools useful to understand the city's current processes of destruction and reconstruction.

On the one hand, how this notion has traveled globally from academia to social movements demonstrates the high capacity of critical studies to analyze cities and offers alternative reflection tools to address urbanization, development, and planning. . On the other hand, the challenges posed by growing globalization and the recent economic crisis would seem to indicate the opportunity to rethink, if not overcome, the Lefebvrian concept of "right to the city".

The joint examination of the various analytical perspectives above all reveals the need to rediscover this ideal in a relational and radical logic.

The first helps to recognize the centrality of the planetary, spatial, and social dimensions in analyzing the urban phenomenon without losing sight of the "relational primacy" of the city. The second is functional to relaunching the challenge to capitalist power relations through a radical social justice project, not limited to a series of specific rights as the liberal-democratic tradition would like, but to a general and universal right to housing.

More generally, the planning challenge that unites inhabitants, activists, and scholars, what Lefebvre calls "urban strategy" (Lefebvre, 1968, p. 128), must be to reactivate our senses and our ways of thinking, opening up the idea of a city and an urban life on the horizon of utopian thought. This step requires the development of radical geographical imagination, capable of rethinking the ways of looking within and beyond the tensions and contradictions that characterize space production in the contemporary city (Lefebvre, 1976, p. 49).

The great mobilizations against financial power for social justice and democracy announce a planetary urban society's birth, increasingly interconnected thanks to new communication and information technologies. However, in the current economic, ecological, and political crises, the "right to the city" struggle can only start from the radical possibilities inherent in daily practices that transgress the Spatio-temporal organization of the neoliberal city. These disparate practices tend to flow as soon as we see the glimpse of a possible collective action capable of creating something different.

The rethinking of the "right to the city" in the era of planetary urbanization, therefore, passes both from an essential epistemological effort functional to the opening of critical thinking to new interpretative horizons and from a renewed ability to practice, observe and represent the new real and virtual centralities, those liminal spaces that prefigure new needs, new territories and a new society: an open, continually evolving project.

---

# PART TWO

## ANALISYS

---

## Introduction

Public spaces should have an openness that invites the free interpretation of space and the pleasure of using it. The public space par excellence is identifiable in the city streets; these streets should be shared and shaped by the people who use them every day. The streets are the intermediate space between the private space (domestic) and daily activities (study, work). They are places of informal meeting and interaction, playing a crucial role in community development. It is precisely on the community that social well-being and psychological health would depend.

By defining them as third spaces, these public spaces represent where the community is created and shared information—leaving the two spaces, today predominant, private and the work. These are places where we can feel rejuvenated and safe among friends. Places that would encourage individuals to choose to get off the "shuttle" take them from home to work, preferring to walk on foot or with sustainable means that allow physical activity. Places that should offer the possibility of regaining space and time. At the same time, these places must have the function of gathering places when emergencies or disasters occur. People want, need, be with other people in these situations, help and support each other, and decide on courses of action.

The industrial age saw the prevalence of the vision of the machine city, which in its planning while considering the aspects of the physical environment, taking into account the point of view of hygiene, psychological health, and the rational organization of the use of space, social aspects are often forgotten or overshadowed. Therefore, the construction of new buildings or new cities prevailed instead of the creation of public spaces. The necessary spaces for the quality of life influencing the physical, mental, and social well-being of the individuals who live there. In addition to being, these spaces, places for education for diversity, and community life participation.

Furthermore, the attempt to cut distances, dreaming of definitively overcoming the resistance of space and making it irrelevant with the invention of new non-human and non-animal means of transport, made time corresponding to a distance, a function related to the technique used to travel it. The shortening of time to move in space has led time to be less and less considered as a factor capable of conferring value: if every place is reachable at the same time, no place has an exceptional value because no place requires more than another. to be reached. So the value of the places themselves has been lost. Machines have replaced humanity.

Since the Second World War, researchers and politicians from the international to the local level have begun to question the condition of cities, now dehumanized and which continued to be more and more so. Policies and actions to cope with this deprivation of space for men have followed one another, achieving positive results but patchy. The cry of need for the re-appropriation of spaces has grown more and more, which today crosses the whole globe, especially in the marginal, liminal areas, in the suburbs, and in the chaotic city centers, where machines have prevailed over men. We have witnessed gentrification processes that have

excluded part of the population from "healthy" areas, relegating them to living in areas of urban "disorder". However, at the same time, the citizens' re-appropriation processes have started, which have obtained exciting results, especially regarding the re-appropriation of space for a need for a relationship with nature or for a search for urban well-being that is too often denied.

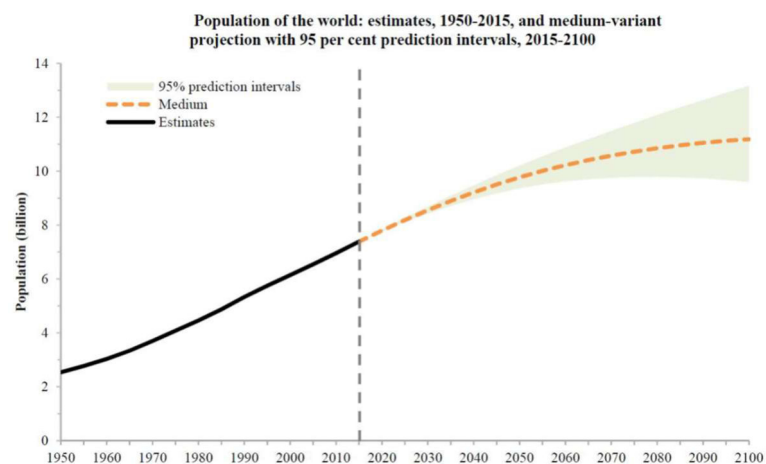
Therefore, there is a lack of interesting, attractive, or at least safe spaces for moving, socializing, spending time outdoors. The increasingly growing "alternative" of social exchange offered by new technologies, combined with the unsustainable increase in passive transport compared to active travel, also preferred for short trips and the consequent changes in lifestyles from "human" to "artificial". These problems represent the "urban malaise" that is increasingly affecting the health of citizens by generating a condition that is adverse to the balance of the city.

This malaise could continue to amplify exponentially in the coming years, primarily due to the high growth rate of the urban population and the related consequences and connections.

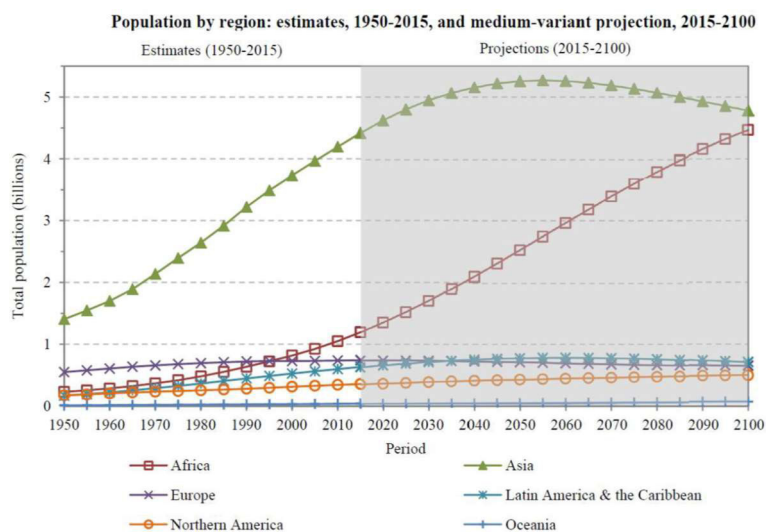
An overall increase in the population is expected in the coming years. By 2050, population growth of about 2 billion people is estimated, which will add to the current 7.5 billion (UN, 2017).

However, this phenomenon follows very different trends from region to region. The differences that are already very evident today, between Asia and the rest of the world, will become even more marked, with only the African continent able to catch up.

As of 2017, 55% of the world population lived in urban areas (UN, 2017). In 1950 this share was 30%, while estimates for 2050 speak of an increase of up to 68% (UN, 2017).



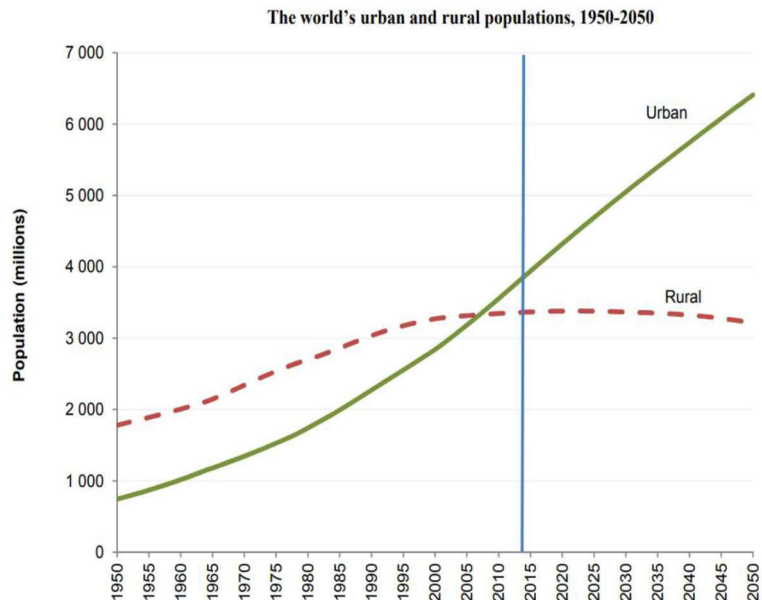
Credit: UN 2017 World Population Prospect- The 2017 Revision



Credit: UN 2017 World Population Prospect- The 2017 Revision

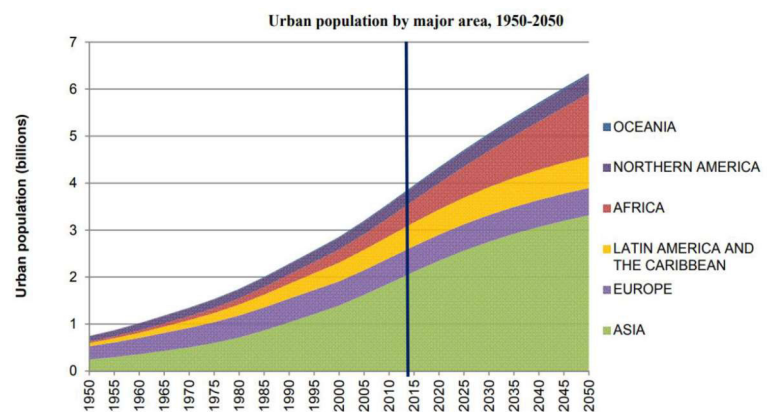
Urbanization is due to the considerable transfer of the population from rural areas to urban centers and an overall increase in the population at a higher rate in the cities.

Today, the most urbanized geographic regions are North America, Latin America, and Europe, with shares of urban residents between 74% and 82%.



Credit: UN 2014 World Urbanization Prospect- The 2014 Revision

In terms of absolute value, the Asian continent holds the record with more than two billion inhabitants in urban areas. The dramatic increase in population in cities will bring new and growing demand for mobility. It is clear that urbanization, if not correctly addressed, will worsen the problem of traffic congestion on transport networks (already characterized by high levels of saturation).



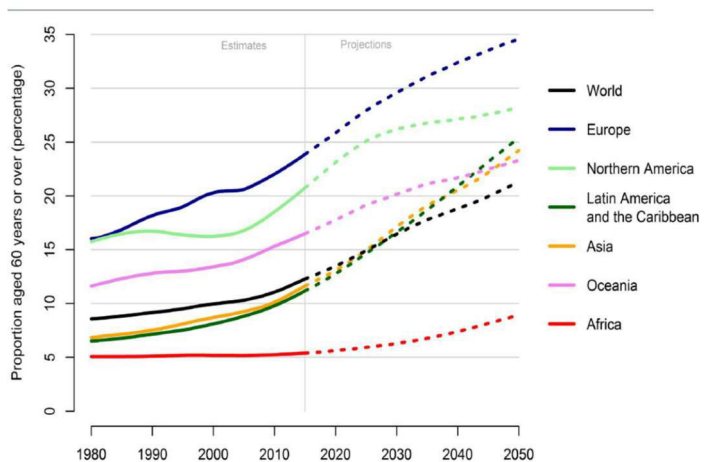
Credit: UN 2014 World Urbanization Prospect- The 2014 Revision



To these worrying forecasts is added that relating to the growth in the average age of individuals. In 2050 the world population of over 60s will be double the current one (in absolute value).

In Europe, this segment represents about 25% of the population, and this share will reach 35% by 2050. With 29.4% over 60 of the total population, Italy is second globally (UN, 2017).

Percentage of population aged 60 years or over by region, from 1980 to 2050



Credit: UN 2017 World Population Prospect- The 2017 Revision

The European primacy results from the combined effects of the increase in life expectancy at birth and a decline in fertility attributable to various social and environmental factors, in addition to the collapse of births mainly due to uncertainty in the future (only migratory flows are in part by mitigating this criticality). An older population poses significant challenges for mobility, street safety, and social responsibilities (social inclusion).

## General strategies

The increase in population on a global scale, with consequent pressure on the urban rather than the rural, combined with the increase in the population over sixty years old, would represent not the only, but perhaps, the most critical challenge for the city in the future. With the current change in lifestyles and the abysmal intergenerational gaps, this challenge places the city and its inhabitants at a broad exposure to various risks.

Investments in policies and programs to promote physical activity, mainly promoting active mobility, courageous and incisive, would be desirable. The growing need and the consequent desire to live in healthy environments within dense, mixed and accessible urban areas, easily accessible on foot, should lead to a change of course in urban practices, which is oriented to the needs of citizens starting from more significant involvement in planning. Therefore, creating the future city should be directed towards a Healthy City or, by better definition, an Active City.

An active city is a place that involves all its residents, investing the entire urban fabric, significantly where the scarcity of public or collective space exposes the communities more to health risks generated by isolation and pollution, as well as by physical inactivity. To make a city "Active", it is essential to also take care of the streets, sidewalks, squares, gardens, and all the minimum spaces of relationship and movement. After all, sidewalks are the largest gymnasium in a city, and in this perspective, the urban regeneration of public space means

not only conceiving and designing new urban spaces but also remodeling and transforming existing ones (Farinella, 2015).

This approach to public space implies relating to the context of the existing city, retracing it and re-weaving its texture, working on specific places, and building relationships between the places themselves. Interventions frequently aim to improve the physical context that hosts activities and functions that we do not want to lose, trying to make the spaces of the city more attractive for citizens; in other cases, we try, through the redevelopment of the public space, to promote the establishment of new and more varied activities in a city that tends to become increasingly impoverished in public activities and functions. The city's space is by nature multifunctional and interconnected; it has always been and must continue to be (Farinella, 2015).

The decentralization of services, telematics technologies, and the opportunities for smart work could drastically reduce the need for passive mobility, allowing the re-appropriation of time "lost" in travel. Suppose this re-appropriation of time does not result in a re-appropriation of space by the citizens. In that case, the balance of the city could be much more compromised, as this would result in a further decline in the levels of health of the inhabitants, especially for the opportunity to have anything needed directly on the landing of the house, they may begin to prefer a sedentary lifestyle. Already in place in various segments of the population is the tendency to lock themselves up at home. This could derive from the perception that the only safe place is our home, the first space, because the risks of the outdoors have increased within a few generations, precisely because of the seizure of public spaces by cars and insecurity. That disastrous streets and "third spaces" in general. The luck of having a park or an open space near the house where people can play, walk and socialize in a safe place is for a few; for many, instead, there is only the hope that nothing terrible can happen indoors. This condition could lead to the cancellation of sociality and the cancellation of the physical mobility of individuals, eliminating or in any case bringing the sense of community to a "dangerous" level.

All this could imply a further compromise of the balance that would lead the city to disaster in the face of the first unforeseen challenge.

How can we face this risk? International and local policies, supported by researchers' ongoing work, have continued for years to implement policies and actions to improve this condition of a machine city. Despite the inversion of approaches in urban planning from top-down to bottom-up, resistance is often triggered, probably due to the low involvement of citizens, representatives of the population, in all age groups, and social and economic conditions. Reaching and involving the population in urban actions is a complex operation, although politics and research have come out of the conference halls and have descended into the spaces to test with their hands and work side by side with citizens, with numerous projects, still, something seems not to work.

The difficulty could exist in people's ability to interpret urban space in this hyper-technological age or detach from the reality in which they live to take refuge in a "non-place" that offers us a perception of security. The opportunity to take refuge in a virtual world is more advantageous than experiencing the real world. This condition is encouraged by the potential of "virtual" spaces to be adaptable in satisfying individual needs through their high responsive capacity. Virtual education, which has accompanied the technology race in recent years, has stimulated this temptation of refuge for many because in the "virtual city", it is easy to find the image of our city, as human experience has moved from the real to the virtual.

It would be necessary to become aware, or to remember, that a city that is not lived dies, the spaces in which no one stops to spend time or where no one passes because anonymous, sad, useless, are dead spaces of a dying city. From this observation, it is easy to conclude that the relationship between a healthy city and a healthy population is very close.

The evolution and spread of place-making over the years has allowed the transformation of the design approach from the simple transformation of a space into a place to live to a complex process of spatial design that includes policies, capital investments, but mainly experiences, collective memories, narrative constructions, speeches, virtuality, and above all creativity in the modern concept of problem-solving that brings innovation to spaces by making them places.

It is precisely in the loss of attachment to places that the cause of the weakening of the sense of community and the recognition of urban landscapes, or the inability to recognize oneself in them, could be identified.

The possible action that could offer a solution would be in the re-education of the urban, the use of spaces as places to live, observe, savor, preserve and cherish, not spaces to cross, deface, consume and go straight. For this re-education to take place, it would be appropriate to offer the possibility of re-appropriation of space by guiding it through processes ranging from the reorganization of urban spaces, removing them from the traffic of motorized means of transport, to rediscover the pleasure of walking, to the involvement of the relevant institutions and associations in local citizenship education campaigns, to rediscover nature in the urban area.

What happened during the Covid-19 pandemic put this condition of equilibrium at risk further, making public space increasingly alien, which has become deserted even where it was historically full of vitality. Even the school, the sacred place of civil education, has gone from real education to virtual education with the risks of further estrangement from reality that could result in younger generations. In addition to the tendency in many cases to the greater use of private transport because it is identified as the safest even for short trips. The gatherings dictated that this often occurred on public transport or along the streets where the public space was not substantially sufficient to contain the public in line to access the shops.

Therefore, the need emerges to benefit from better services and better places to spend time in health. The warning by national and international agencies on the risks of urbanization on

human health is now a fact, as are the guidelines indicated by the agencies. The difficulty encountered lies in the ability to follow guidelines appropriate to the various social and cultural contexts encountered, but above all in the resistance of sections of the population in the approach to new methods. For example, by closing a street or a portion of it, where there are numerous commercial activities at street level, to vehicular traffic, we could incur the protest of local traders who would complain about the reduction in trade. We could have a similar dispute if we reduce the car parks on the street to make room for pedestrians or cycling. This fair contestation is mainly dictated by the difficulty of acknowledging the changes and knowing how to seize the opportunities from them. The involvement of all interested categories in the change of spaces should not compromise the guidelines to favor one category. The compromise implemented based on the interests of some would lead to a precarious balance, easily upset. It would be desirable to realize that change can bring new opportunities and prosperity, but this could only happen where community resilience is possible.

It would also be desirable to overcome the respectable individualistic thinking that leads to consider the ecological transition, sustainable mobility, the improvement of the quality of life, health, and prosperity of the city, as a common good and interest, only in the case in which this does not affect the interests and behaviors of the individual.

The city of the future would need a re-start, not only from the stalemate generated by an unpredictable event of global significance, but a re-start from the city of the recent past, energy-consuming and unsustainable towards a sustainable city. A city that achieves a continuum of prosperity and resilience without suffering the stops dictated by external aggression or internal instability. A re-departure or re-birth that must take place in the streets.

## Urban malaise

Mass motorization continues to increase the propensity to own and use private vehicles, pushing local and regional administrations to design and build new street infrastructures. These new infrastructures, combined with functional decentralization and uncontrolled urban sprawl, lead to congestion of the city's existing street network, triggering a vicious circle.

The very high demand for private vehicle transport is probably among the worst evils of our cities and the environment in general. This demand has become unsustainable, especially in emerging countries. Access to public transport, bicycle facilities, and low-cost leisure facilities was closely associated with physical activity. It should be noted that almost 100 billion euros, or 1% of the EU's GDP, are lost to the European economy each year due to congestion (EC Green Paper, 2007). One in three fatal accidents occur in urban areas, and the most vulnerable people, namely pedestrians and cyclists, are the primary victims (EC Green Paper, 2007). Urban traffic is responsible for 40% of CO<sub>2</sub> emissions and 70% of other pollutant emissions from street transport (EC Green Paper, 2007).

Local Administrations have frequently implemented interventions to stop the increasingly widespread "Urban Malaise", unfortunately, the measures used to date have been characterized by their occasional and profoundly unfair nature, mainly affecting the most economically disadvantaged groups. On the other hand, the desirable interventions concern innovative policies for public and private transport management, policies aimed at promoting integrated transport systems to guarantee an acceptable offer within the territory, overcoming the "modal" logic, and operating on services. Public transport, with its universality characteristics, remains of crucial importance for social mobility. Traffic congestion caused by the excessive use of private cars, together with smog, fine dust, noise pollution, accidents, and the protection of artistic heritage, creates problems in many European countries and produces negative economic externalities. Environmental and social that consecrate it as unsustainable.

Cars have changed our lives by offering us a comfortable and flexible way of getting around. They give us our space, a way to transport our purchases and things, they take us "door to door" and once we have one they are relatively cheap to use. However, cars are associated with congestion, community disruption, fatal accidents, air pollution, inequality, and climate change. Furthermore, all of these problems are more persistent in urban areas. Too many cars on the street can make the city less attractive for people, visitors, and businesses. More and more cities are taking steps to manage the number of cars in their area. This management includes making walking, cycling or using public transport more accessible, more attractive and safer, making driving by car less convenient, especially for journeys where suitable alternatives exist—helping to reduce car use in cities risks being controversial and dividing public opinion. Therefore, it is essential to understand better the people who live and drive in cities and towns and collaborate better with them towards more publicly acceptable and equitable solutions.

The incentive to purchase ecological cars still leaves doubts about their sustainability. Therefore it would be more appropriate to encourage alternative and, as far as possible, active mobility. By alternative, we mean everything that is not fueled by hydrocarbons. Focusing on sustainable mobility is to be understood with the incentive to use public transport vehicles powered by electricity from sustainable sources and the extreme sustainability of active mobility, both in terms of emissions and land use and the possibility of better movement of the masses population.

In recent years, economic sharing models such as coworking, house sharing, social shopping, and car-sharing have registered a wide diffusion, even in those countries where the market is traditionally based on the insurmountable limit of individual ownership that is now experiencing a gradual transition to the concept of collaborative consumption.

People, in particular those of the new generations (Millennials and Generation Z), are less attracted to the possession of goods (which in the last century were often identified as status symbols) but are oriented towards the use of services. The transport sector is no exception: owning a vehicle seems no longer strictly necessary in urban areas where car-sharing services are becoming increasingly popular and widespread.

In addition, the lifestyle of the so-called digital natives is strongly oriented towards the use of the solutions offered by technology through smartphones that have become the technological enablers of new mobility services.

Therefore, we could see a reorientation of the demand for private transport, passing from mobility defined as "multiple chains" or more journeys with a private vehicle during the day for daily activities, to a "single-chain" mode, or moving home. to work and vice versa with all other activities inside. Nevertheless, this would still not allow a decisive reduction in the demand for private transport, which could only in a few cases be reduced by Local Public Transport.

Urban regeneration and a lower thrust of urban expansion, combined with better accessibility within the city of spaces and services, would decrease the ownership and use of private vehicles. In addition, combined with the increase in smart-working, it would also reduce the number of daily long-distance trips, reduce commuting and lightening public transport, and save time.

### Unhealthy and unsafe streets

The role of the streets in the city's health is essential to ensure the prosperity of the people, meet challenges that occur in everyday life, handle predictable and unpredictable events. Streets should ensure safe infrastructure and equitable access to critical services in the city while minimizing the risk of life-threatening conditions and promote physical and mental well-being.

Healthy streets should include continuous and accessible pedestrian infrastructure, safe transit facilities for cycling, safe vehicle speeds, clean air, access to nature through landscape and trees, opportunities for physical activity, and adequate lighting. The absence of safe mobility options often leads to dependence on private vehicles, which, in turn, leads to sedentary lifestyles.

A detailed street design beyond basic needs could encourage families to spend more time using the streets, inviting other journeys and making existing journeys more enjoyable. Comfortable and convenient streets include places to sit for moments of rest or interpersonal connection, reliable transportation options with legible directions and timetables, shade and shelter suitable for the local climate along sidewalks and at transit stops, and facilities such as restrooms and drinking fountains.

In order to thrive, the inhabitants of the city would need engaging, joyful, and educational streets, which are not just a transit space, but a destination. Achieving stimulating and educational paths would offer development opportunities for children's imagination and the older ones.

Unfortunately, our cities continue to have streets with sources of risk and unhealthy stress that threaten the health and safety of those who travel there and reduce the daily opportunities for learning and building healthy relationships.

Among the challenges that pedestrians face daily during their travels, the most arduous is due to traffic moving at high speed, often caused by street projects that prioritize cars and allow these speeds, which dramatically increases the risk and the severity of collisions, mainly due to the absence of safe places for walking or cycling. In addition, poor quality or sometimes missing street signs, blind spots due to poor street design, and a lack of adequate lighting contribute to the poor visibility of pedestrians and cyclists by motorists, increasing the risk of collisions.

Vehicles circulating on the streets, in addition to emitting gases that are harmful to respiratory health, often have problems attributable to the design of the vehicle, i.e., the size and position of the driver that make it difficult for pedestrians to see, especially children, causing accidents that are often fatal. Noises in urban areas, including honking, stopping engines, or speeding vehicles, increase mental health stress.

Exposure to nature would increase physical and emotional well-being, but streets often have no or very few trees, and green spaces lack shading and the opportunity to interact with nature.

The lack of street maintenance or insufficient maintenance is probably due to a low perception of the street as a "precious asset" by citizens and at the same time by the inability of administrations to cope with the management of street networks that are often disproportionate to availability financial and human resources of the administrations concerned. The inhomogeneity of the street surface is dangerous for pedestrians and vehicle drivers, and the chronicles of the cities, especially the Italian ones, frequently report accidents due to poor maintenance of the street surface. Street maintenance is a complex issue requiring all actors' participation; it would require an excellent synergy between citizens and local administrations.

Citizens should be required to respect the street structure, a common good as if it were a private good; indeed, the street should be treated by citizens as the most precious object owned because it is vital for their existence and survival. Technology has come to the rescue in improving the relationship between citizens and administrations; many cities have adopted digital applications to allow the timely reporting of adverse events to safety and problems inherent to the condition of urban streets. Greater synergy between citizens and local administration would be needed in order to achieve the objective of street safety. Citizens should be the sentinels of street health, but at the same time, administrations should be ready to respond to requests for intervention.

Maintenance often affects only the carriageway street surface, more rarely the footway, too often overshadowed or forgotten. The deterioration of the streets is primarily due to wear caused by the passage of vehicles and pedestrians. Furthermore, the deterioration is caused



by atmospheric events that lash on urban areas. Every day in different parts of the world, we witness extreme atmospheric events with enormous precipitation, which frequently turn into floods, making the streets, rivers, and streams impossible to move safely.

Water is probably one of the biggest problems for healthy streets. Floods are very often caused by inadequate infrastructure and an excess of impermeable surfaces. The presence of puddles of water along the street routes is an obstacle to mobility, in particular, that of pedestrians and cyclists, who are often forced to move on the carriageway to get around a puddle, putting their safety at risk, while when the puddle is located on the carriageway, the risk for the pedestrian is to receive a shower of unhealthy water, rich in pollutants and various poisons. The presence of stagnant pools of water near street routes can also lead to various types of diseases. Covering large spaces with asphalt, which by its nature is a waterproofing product, was perhaps the craziest choice that was made in past years, but even today, very often, it is not easy to remedy.

Large areas of asphalt and other impermeable surfaces in urban areas contribute, in addition to reducing the natural runoff of water and absorption by the soil, as it naturally should, at higher temperatures, generate the urban "heat island" effect. This effect is exacerbated where shade is missing.

The accumulation of waste in the streets, whether thrown by man, carried by the wind, of an artificial or natural nature, can be another element of danger for the health of citizens, as well as exposing children to risk as they tend to touch everything they encounter.

Unsafe conditions generate deserted spaces; these impure and unmaintained spaces increase the perception of lack of safety.

## Designing healthy streets

From the previous analysis, it is clear that it will be increasingly necessary to meet the needs of the weakest segments of the population, namely children and the elderly, by offering safer and more welcoming streets. As the trend towards an increase in the elderly population, combined with the difficulties of having opportunities for healthy growth and development in the urban environment for the little ones, could orient planning towards these population groups. However, this could be a false guideline of orientation, the improvement of public spaces, and therefore of the streets, should be oriented to the protection and improvement of the health of those who walk them, in order to allow cities to achieve higher safety standards, comfort and beauty, making them better for people of all ages and abilities, excluding one or more groups of the population from the project would lead to precarious balances and disputes within the communities. Therefore, careful planning that is coordinated and aligned on multiple design scales and permeated by different disciplines, involving the most significant number of stakeholders, would be necessary.

Designing city-scale streets mean ensuring that transport planning is coordinated with land use and zoning, but it would also require identifying the services of greatest need and accessibility to these services to plan for equal access to options and mobility services. It will be essential to set a solid city-wide vision that prioritizes pedestrians' needs and incorporates this vision into all planning policies, modality sharing objectives, transit investments, budget allocations, and design decisions.

Comprehensive plans for transit, cycling, and pedestrian networks should be developed on an urban scale and implemented on a neighborhood scale in response to local conditions. Streets can comprise up to 80% of a city's total public space area, and decisions made on this larger scale will have a broad impact on families' overall health and quality of life for generations to come.

The neighborhood-scale street design focuses on accessibility to critical services, identifying opportunities within street networks to create new quality public spaces and experiences close to homes. Streets should be redesigned to respond to the needs and contexts of local communities, as they represent the channels that unite communities. Each neighborhood has various types of streets that vary in size, meet different needs, and have different priorities. Within this diverse set of streets, it is essential to develop projects that ensure that pedestrian, cyclist, and transit facilities have priority over direct routes for private vehicles. It would be necessary to identify areas or streets closed to private vehicles or where vehicular access can be restricted and open to people. These actions would help improve street safety, reduce exposure to air and noise pollution and provide new destinations in the surroundings.

The block-scale street design allows for more nuanced considerations of the local context to inform design decisions. The same street can adapt the project along with multiple blocks within a city or neighborhood depending on the adjacent buildings' density and uses, volumes of people walking, cycling, or taking public transport; cargo needs for local businesses; water management challenges; or public space needs within the neighborhood. The dimensions of the right of way (the entire space between the property's boundaries) inform how space can be allocated between the different modes of transport and other functions or activities on the street. Key destinations and local business activities should guide the design and operational decisions of the specific block in which they are located. Decisions could include where to add safe pedestrian crossings, manage pavement in different ways at different times of the day, create shared or pedestrian-only streets, and prioritize transit and cycling where space is limited.

Designing on the scale of details means designing on a human scale. City, neighborhood, and block-scale street design should be supported by detail optimization. A sidewalk without a walkway or ramp will make walking an unsafe option, but a new mural on a white wall could spark conversation, a well-placed bench could provide a place to rest.

Street design should meet the needs of pedestrians, cyclists, and transit users, all in limited space. An effective street redesign that improves the quality of infrastructure aims to slow

down vehicles to protect pedestrians and cyclists. It may take multiple design strategies combined to achieve a solution that fits well into the local context.

The goal could be to create routes that cross all the neighborhoods, connected, which offer a vision of the city and tell its story, paths for pedestrians and bicycles, which allow everyone to be able to experience the city, appreciating the pleasure of slow travel, improving the quality of life, health and enriching the cultural background.

## Mayor Office of New Urban Mechanics – City of Boston, MA (USA)

The streets of the city should be shared and shaped by the people who use them every day. Because a city is not just home and work, but spaces, other spaces, places separated from where we sleep (the first space) or where we work (the second space). These are the intermediate spaces where we could freely meet other people, ideas, and experiences—the third space.

These can be public spaces, like a park, a path, or a civic center. They can be private spaces, like a barbershop or a church, or a cafeteria. They could be temporary spaces, like a block party or a snow-covered hill. They can also be digital spaces, like a community forum. The third space could be where the community is created, and the information is shared. These are places where we could feel rejuvenated and safe among friends. They could also be spaces where we experience the unexpected or meet people we have never met before (MONUM, 2018).

"Public spaces are places in which strangers meet and therefore are condensations and encapsulations of all the characteristics that define the life of the city: it is in public spaces that urban life, with everything that separates it from other forms of human coexistence, reaches its maximum expression, together with its most unique joys and sorrows, premonitions, and hopes. The fear and insecurity are alleviated by preserving differences and the ability to move freely in the city. [...] It is the exposure to the difference that, with time, becomes the main factor of happy coexistence, making the urban roots of fear disappear. "(Bauman 2007, pp. 102-103)

According to subjective processes, the perception of urban public spaces is different and individual, as it comes from relational experiences between the city and the subject. The identification of space and appropriation begins with the perception of physical, environmental, social, and cultural elements, develops personal experience with the psychological, emotional, and sensory human elements that can create recognition of place and bonds, imaginaries, and memories individual (Lynch 1999).

Spaces in which one feels welcomed and in which there is an interconnection between us, the other citizens, and the city itself. Spaces where everyone can feel taken care of, especially the weakest. Spaces that promote social cohesion, because only through it, after unpredictable events, can there be survival, rebirth, and prosperity of the community. Such powerful spaces allow people to create something of lasting value, something physical, something social, or the remodeling of space itself because these spaces will have to be flexible. As communities grow and people change, these spaces should also evolve as new needs and values emerge, providing multiple uses to different populations.

Reminding a statement of Argan, who in 1984 said that it is men who attribute value to stones and all men, not only to archaeologists and writers. Therefore, we must consider not the value

itself but the attribution of value, regardless of who does it and to what extent it is done. The value of a space is what is assigned to it by the whole community. It is, therefore, necessary to do without what seems obvious and see how, at all cultural levels, value is given to visual data. (Argan 1984). Starting from the civic research and the civic engagement of the inhabitants of the various districts, villages, cities, it is possible to discover other kinds of value beyond private property or whatever it is, beyond the monetizable goods. Values such as social connection, tranquility, urban beauty, and values that are even more difficult to count and others make the places more appreciable and quality livable. Above all, there must be an equal involvement of all, not just some, to face the whole community is demanding. Indeed, the social economy within neighborhoods and villages matters a lot, so there will be different answers from people in different economic conditions and, therefore, different needs.

Nevertheless, this is the challenge. How can we respond to different needs, reasonably, in the same spaces, in the same neighborhoods, in the same cities? To ensure that there is no longer a state of gentrification that has historically generated anger, hatred, and struggles, in addition to losing confidence in the government? Difficult to theorize in a few lines, direct experiments are needed, study and analysis of results, applying what works, correction, or transformation of what does not work.

It will be necessary to design an excellent civic engagement process, with seminars and workshops that directly involve the residents, leading to elaborating data and projects.

Different use of technology overcoming, even completely revising the clever city concept, uses digital technology to solve the problems experienced by all citizens, without excluding anyone, because living in cities can be problematic for many people for all kinds of reasons. Services based on integrating digital technology and connectivity in the urban fabric can solve some of these problems (Atkin, 2015). The creation of these services should start with a solid and well-highlighted use case. This includes determining the digital solution's sustainability or creating new crises to truly solve the problem rather than only moving to a future date or generation. To establish a use case, it is essential to understand the "users," human beings to whom service should help. This means knowing these people. The service should be built around their needs, not those of the city government or the technology provider (Atkin, 2015).

A minimalist approach should be taken to technology. Connected services have several essential components, but these should be as simple as possible to get the performance required by the use case safely and securely (Atkin, 2015). This minimizes the costs of construction and maintenance of the service and makes them easier to explain. As citizens will not be able to renounce involvement in service, they must understand how they work.

Minimalism should extend to data. Services should collect and store only data necessary to meet the use case (Atkin, 2015).

The Smart City is a top-down all-or-nothing proposition. We can start building the Clever City bottom-up with one lamppost, bus stop, or parking space (and, of course, one problem). Maybe one day, we will join up all the individual Clever City services and have a Smart City

(Atkin, 2015), or maybe we never will, but Clever City can make a real difference in people's lives right now.

Users should not need to download an app or have a smartphone to use the service. For example, a warning for the departing train should be physically present for everyone, not just for those who have access to the project's technology and knowledge.

The problem is the role that the government can play in the development of a clever city. At this moment, it is almost impossible to think that a government can take a creative approach and think towards a clever city. The street that can be traveled at the level of government is still the smart city.

Moreover, to make sure that this clever city could genuinely meet everyone's needs, it will be necessary to go further and move towards a field that has not yet been explored in the cities' physicality, but a field where digital technology continues grow. Responsive design, extrapolating it from a website project's concept and transposing it to urban planning to arrive at a responsive city. It is an ambitious journey that can be traveled to get a city that works, resilient and creative.

## Introducing New Urban Mechanics

In 2010 the Mayor Office of New Urban Mechanics (MONUM) was born from an idea of Tom Menino, an enlightened mayor with a forward-looking vision, who has served the city of Boston for much time of his life various roles and over twenty years as mayor. Menino was nicknamed the urban mechanic because he dealt with the city's problems with the same practicality as a mechanic with nuts and bolts.

MONUM, together with the Boston About Results (BAR) and the innovative app BOS:311, represent the starting point of what subsequently, under the guidance of Mayor Marty Walsh, will become the Boston Citywide Analytics Team, "which has united different people and projects working to improve performance and leverage data and enabled them to streamline their efforts toward a common vision for a data-driven Boston" (Hillenbrand, 2017).

MONUM can be defined as a research and development laboratory that operates through direct civic experimentation, a civic incubator of questions, experiments, and outcomes. Precisely, every experiment arises from a question, and it is precisely here that MONUM differs from the standards of a public agency; they take risks that generally a public department would not assume.

## Civic Research

The questions derive fundamentally from interaction with the community, from interaction with research, which means interactive elements emerging from researchers' heads. There are many researchers in the team, questions that the municipality should know that come

from everywhere. The new team of urban mechanics was founded so that the most significant number of people could have the ability to influence change in their neighborhoods, so the thought was that not only the wealthiest people in the city could influence with their ideas, but that it was necessary to allow everyone to exchange knowledge. The idea was to create a small team that would allow everyone, even people from disadvantaged neighborhoods, to present their requests and, if they have a better new idea, collaborate with the team and work hard will make that happen. The idea is to provide more resources to people who are typically underestimated by other channels, which is a large part of the artwork to facilitate exchanges between more than one capacity for recovery.

When an experiment works, they collaborate with the departments to make it a permanent service, like the BOS: 311 mobile app and the City Hall to Go Truck. When an experiment does not work, they document what they have learned and share it with their partners and other cities worldwide. So, they produce and share empirical knowledge.

In 2011, at the end of a symposium titled "Reimagining the City-University Connection", the Boston Area Research Initiative (BARI) was born, with the support of the Radcliffe Institute for Advanced Study at Harvard (ASH), the Rappaport Institute for Greater Boston and the City of Boston, Northeastern University will be added to these. Today BARI is officially an interuniversity research partnership of Northeastern University and Harvard University in conjunction with the City of Boston.

MONUM has worked with BARI since its inception to develop a shared research program. The hypothesis was that they could also use the vast talent in Boston to infuse policies with fresh ideas from academics. Considering that the type of academic research is not the same as MONUM, it is similar but different. The primary interest of the academic world and, therefore, of BARI is the publication of the results, while MONUM's interest is on training interventions to make the city a better place. The way to make this partnership work is the dialogue between the teams and their networks. A brainstorming interaction in which the intersections are sought between both teams' interests and then look together with the design.

The MONUM team comprises people from different backgrounds, from the biology teacher to the national team fencer, from the industrial designer to the economic sociologist, from the videographer to the computer scientist, and more. Some of them are also parents, and some are cyclists; others are pranksters. All of them are neighbors and residents in Boston.

They have learned that it is not formal education but their experiences and curiosities that help turn interesting questions into real things. Their work touches many priority areas throughout the city.

They look at the city's plans (for example, imagine Boston 2030, resilient Boston) to anchor the work they do. Their conversations with residents, community organizations, educators, city personnel, researchers, young people, students, artists, technologists, etcetera. They are the driving force for the future of what they hope to do.



For them, "civic research" is the formation of community knowledge by the community. It is both a (participatory and action-oriented) process and a product (the study of civic life) that is directly meaningful to those who participate in it. It informs how a community imagines and builds itself. For them, this means that civic research is a conversation and that observations and experiences count as tricky numbers.

Civic research democratizes the research process by inviting everyone, shifting attention to everyone's questions, and using collective experiences, skills, and competence to serve the common good.

## Social Resilience

For MONUM, resilience is considered in terms of Social Resilience. Although the city of Boston has not known slavery, there are still many problems of equity among different ethnic groups, very often deriving from historical facts, such as the so-called "red line" of the 1960s and 1970s, when financial stratagems they prevented, for example, African-American people, from buying homes in some neighborhoods, by merely denying the mortgage, thus avoiding an "ethnic mix" and producing processes of gentrification and ghettoization that produced anger and hatred and which are still present today, in terms of social coexistence, of how one lives with others. MONUM's goal is to find a way to ensure that people in neighborhoods have a high degree of mutual trust between neighbors and to do so has found that the creativity of artistic culture can allow people to work together to address different problems, focusing on the experience of the city, the shared experience of the city, learning to find or discover the green spaces of the city. All this has much to do with the psychological aspect of creative culture and increases community resilience.

It was possible to involve citizens in difficult neighborhoods, poor neighborhoods, obviously with various measures. The effect of these types of tools and their involvement change over time, but one of the first results we have achieved is that the use of these types of tools tends to change according to homeownership. Homeowners have a greater incentive to work together to maintain the neighborhood's physical state. Furthermore, the linguistic question is fundamental. For example, the BOS: 311 app was designed primarily in English for no reason, because it was the easiest way to get started, so it had less use by non-English people. When entering neighborhoods with many kinds of crimes, the inhabitants usually trust more minors than the government, so they tend to report less directly while using these tools could reduce the distance between them and us. So indeed, the neighborhood's social economy counts a lot in how the inhabitants will respond. We cannot assume that all populations respond in the same way, rightly because we know we were talking with a big neighborhood, that we would never trust us to do something different, so we started our way to develop this kind of experiment.

Civic research has undoubtedly led to the collection of large amounts of data and information. It has been possible to determine the streets to be taken in certain situations in some specific

scenarios. The amount of experiments and projects that have worked so far has produced essential and significant results for social resilience, generating significant improvement in several neighborhoods' quality of life.

Nevertheless, the key element of MONUM research and experimentation has been the incentive for the Civic Engagement that has activated processes of the rediscovery of the sense of community by the citizens and the sharing and diffusion within the neighborhoods. These experiments show that education is the starting point for everything. Education is civic and, as in the case of Bank on Boston, financial education, which to date has produced results of social growth in some neighborhoods. For example, it allowed low-level families to learn how to put aside money to send their children to university, and today in those neighborhoods where before a boy was difficult to get to high school graduation, the new generations graduate and look to the future with hope.

MONUM aims to satisfy all needs without excluding anyone, considering poverty and economic wealth as two sides of the same coin and looking for the intersections between the various needs.

### Third Spaces

The third spaces are vital because they concern social resilience, where people grow in social capital, trust their neighborhoods, etcetera. The city has traditionally done a lot to invest economically because different things have been tried every time. One of the things we find is that those neighborhoods that work best are those that have much running third space.

There were excellent and safe places for children, where we could have free political expressions and places where we could do public art. This is the hope of MONUM when it invests in neighborhoods; in many ways, it invests much money in the neighborhoods, like private investments in buildings, hoping that this will translate into social capital in better social spaces. However, this does not happen; it is a sort of secondary racism, we do not find ourselves in agreement for that social space, so the outcomes start to come out, and if and why that intervention has not been done before, we try to do some interventions of design in those other spaces to have a social and emotional impact directed by the community. Thinking in the planning phase depends on what is necessary, going from one district to another and discovering that the neighbors talk about some problem that affects them.

Often space is absent just to meet with the community and try to move to try to adapt to other spaces and facilities for periods.

They do not provide anything new, but merely a scaffold or infrastructure with people who have yet to use it, so that this is an example of something small, not just convert spaces, but also adopt the rules, make the public art, because art is an excellent tool for people who want to live in a neighborhood. Like the neighborhood parties done in the right way, they have traditionally made it difficult for the city to do what is a little challenging to do unless we get

permission. One of the projects MONUM carried out was trying to make life easier for the street's inhabitants, organizing this type of party, and making a barbecue of that kind of life in public spaces.

They spent much time working on how to let people know where many Americans were born. Black Americans have a very different meaning now, and even the number is historical inequality.

They have spent much time as part of that job, understanding the role people have in other people's lives. Knowing where Latin American people have a sense of public space very different from many Americans born here, African Americans have a very different meaning than American whites. So on, it was essential to understand the neighborhood people in the neighborhood's history: many of these also have historical injustices.

In short, these third spaces should be spaces in which citizens can feel welcomed. Connective, the third spaces are the strongest when we connect and strengthen our connection with the city. The most potent spaces are those that allow people to create something of lasting value. Art, politics, or remodeling space in something new. Spaces in which someone feels taken care of by one's community, especially the weakest and most vulnerable sections of the population.

Spaces that foster social cohesion in aversion to racial divisions are more likely to survive and thrive after unpredictable occurs. Spaces need to be seen through a resilient and racial equity objective. As communities grow and people change, spaces should also evolve as new needs and values emerge. Spaces that can change over time and provide multiple uses to different populations are highly encouraged.

## Beta Blocks

MONUM has conducted civic design and technology experiments over the past eight years. Although this experiment has generated a great deal of research, as well as many successful and failed projects, it has nevertheless allowed residents to model significantly, efficiently, openly, and participate in these experiments.

The concentration of third spaces has allowed facing historical anger that allows a wide range of people to influence the neighborhood.

Beta Blocks is a new process of civic experimentation to build more meaningful relationships between challenging communities and companies, researchers, designers, and artists who may be able to offer a helping hand.

The creation of a structured Beta Blocks process will lead to experimenting with new interventions on the streets, overcoming the sharp inequalities related to access, position, advantages, and everyone's ability to imagine the city's future.

The Beta Blocks Action Research project responds to the challenges that persist in the ecosystem of smart cities, therefore of Boston, starting from the lack of public dialogue around the values at the base of the civic technologies pursued.

Any instrument or experience that increases the ability to involve more people in shaping the city is a smart city technology, precisely because of the limited definition of Smart City technology, we can say that everything digital or analog, a sensor or a work of art, a kiosk or a game that we want to develop, implement and disseminate is part of our talk on Smart City.

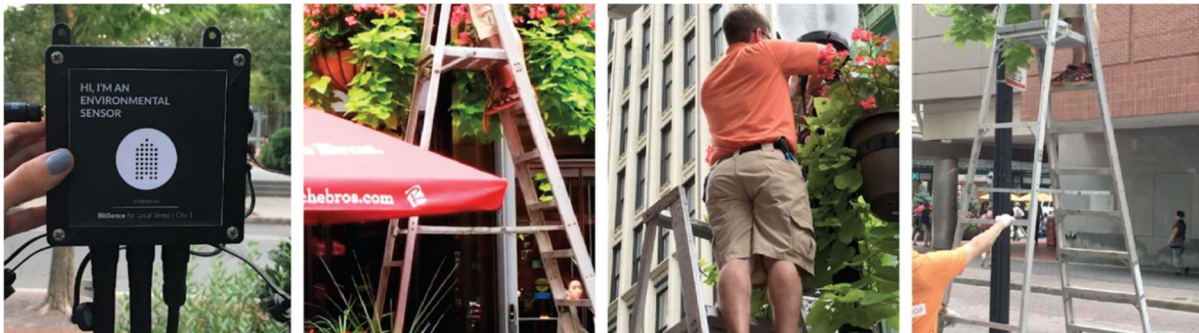


Image Credit: City of Boston

The tendency is to focus on technological solutionism, driving everything with technology before focusing more on problems and asking the right questions. The best way would be to be technologically curious but agnostic.

To date, there are no bright and dynamic processes and policies for civic experimentation.

There are unclear paths for residents who support smart city projects and provide supervision or experiments independently. There are unclear processes for the city to decide who should test and whom that technology is serving (and leaving out). Too often, a creative city project produces results that are not valuable to policymakers, community groups, and residents. The challenge will be to be able to translate data into actions.

In addition to demonstrating the lack of consistent infrastructures or network platforms that allow components to collaborate and "plug-and-play" new tools and interfaces in the public domain.

The city areas for so-called "innovation" projects need to be expanded to participate in civic technology experiments, but at the same time, there is the problem of authorization for experiments and activities at the street level, which can be complicated. It is better to understand the needs of experimenters and residents and map clear procedures for project approvals' research.

Many smart city technology projects are tested in a vacuum. It would be more productive to test various new technologies in the hyper-laced testbeds, understanding how they could reinforce each other.

Beta Blocks' goal is to "open" the city streets, creating a stay of compensation between challenges, questions, and ideas of the community and companies, researchers, and designers who may be able to offer a helping hand. For example, if a local neighborhood group deals with speeding on a particular street, perhaps there is a research group at a local university (which tries to test new traffic sensors in a real environment) that can contribute to producing valuable data that the neighborhood could use in advocacy efforts. Alternatively, if a group of residents wants to add a new bench decorated for its elderly population, perhaps there is a designer (hoping to create a public art project) to build a bench with the residents.

In addition to providing better infrastructure, both physical and social, we need to clarify the government's role in this, create clear policies and enable and make digital literacy programs and data available to all Boston residents. Beta Blocks, above all, is not an expansion of sensors or gadgets, but it is an invitation to everyone to help to imagine what is around the corner of the street. The goal is to impose a research-action process that bases conversations on technology, privacy, security, and civic value in interventions led by the real community.

## Pulse of the City

Through a variety of ways, the city of Boston has encouraged residents to improve their health. At the same time, technology was used to inform better or engage residents. New designs were preferred to create fun and exciting experiences on the street. The Pulse of the City pilot project made it possible to use a fun piece of street furniture and technology to promote public health interest. A public art installation, a heart-shaped heart rate monitor capable of playing music to the rhythm of the heartbeat. Public art can engage people passing by, create joy, and encourage others to think about their health. George Zisiadis, the artist behind Pulse of the City, designed and built five installations. He has also partnered with some Boston area manufacturers. Each installation included a heart the size of the chest. Each heart has been equipped with handles to capture our heartbeat and a speaker to play the beat song. The plants were powered with solar panels. The songs were adapted, in rhythm and style, to the rhythm of each person. The five works have been



Pulse of the City – credit: George Zisiadis ([www.georgezisiadis.com](http://www.georgezisiadis.com))

installed in different districts of the city. They have been positioned near transit centers, parks and sports centers. Each installation sent a daily report showing how many people used the monitor the previous day. We kept the installations for about nine months. At all five sites, the Pulse of the City was used 16,575 times. More people could have used the monitors if we had the signage with instructions. Many people did not know precisely how to interact with



it. The initial design was reworked to make it more resilient for public use. After the first week, two hearts broke away from their assignments, possibly due to heavy use. During the installation, all five hearts suffered some form of damage. This project helped MONUM rethink how we should find the right balance with the projects that will be undertaken: While there is a desire to allow discovery, it is also important to consider providing informative signage. Furthermore, in designing visually striking works, it will also be crucial to keep in mind to make them durable enough for outdoor and public use.

## Soofa

The Soofa project is an urban-design project born from the partnership between two research groups of the MIT Changing Places Media Lab, led by Principal Research Scientist Kent Larson, and Responsive Environments, directed by Professor Joseph Paradiso. It is a solar-powered seat that can charge smartphones and collect data on the environment. Two prototypes were installed on the Rose Kennedy Greenway in 2013 under the name "Seat-E". The project was expanded in the summer of 2014 to six benches in four parks around Boston. MONUM's primary concern is to build a greener, smarter, and more pedestrian-friendly streets. Part of this work includes street furniture to meet residents' unsatisfied needs and the city.



Soofa – Credit City of Boston

Soofa can be an example of a new type of street furniture that fulfills many functions. People will have a place to sit that offers more amenities than just a regular seat or bench. Thanks to a solar panel, people could also charge their phones and interact with the built-in "social lights". These lights change color according to the use of the seats. The Soofa update included: two USB ports, an extra seat and sensors for environmental data. They plans to add more interactive features in the future. This includes asking for connected phones with poll questions, trivia, or upcoming events. The data we collect will be publicly available.

The seats have captured the interest of designers, technologists, and the media. The same approach could be used with tablets and other street furniture.

MONUM targeted specific groups for places, including visitors and tourists, who use basketball courts and families. However, this has led to some unexpected results. In one place, it was noted that the homeless population used a place for about 12-14 hours a day.

Most of the Soofas were removed before winter to allow plowing operations within the parks. However, despite two remaining installed, they held up well. Although they were completely covered in snow when the snow melted, they worked well.

## Boston Parklet Program

The parklets setup program offers local residents and businesses more public space in which to gather and relax. Parklets are sidewalk extensions that take up parking spaces, creating community spaces in which to relax, just like front porches or stairs. Parklets create seasonal pedestrian spaces, improving the quality of life in neighborhoods and commercial corridors. Parklets should be encouraged in every neighborhood and community, especially those with frequent pedestrian activities with minimal seating options. The established guidelines are made necessary in order to avoid a wild and uncontrolled installation of these urban elements.



Image Credit: City of Boston

Parklets can combine extra seating, trees, flowers, shrubs, umbrellas, Wi-Fi, art, and/or lighting. They bring business into small commercial districts and represent a unique approach



Image Credit: City of Boston

to creating space in areas with limited sidewalks. The Parklet program is a component of the Boston Complete Streets program. Parklets represent an opportunity for traders, community organizations, entrepreneurs, and residents to take individual action for the development and beautification of the city's public realm.

Clearly there are rules for the placement of parklets. Parklets cannot be placed on top of any public utility.

The walkway for the parklet entrance and exit must be flush with the adjacent area and accessible to a parklet entrance.

Parklets need to be raised off the pavement, with unobstructed water flow and drainage underneath. Parklets must also be set back sufficiently from traffic lanes and parking lots with a barrier in between. The seating area of the Parklet must be separated from traffic with a

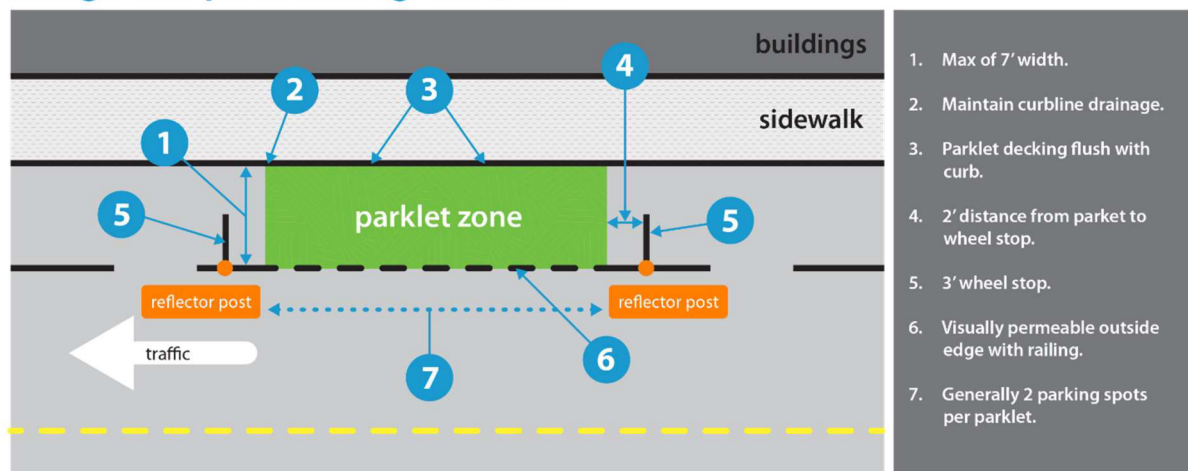


rigid border through railings or planters and allow visibility of users and activities. Parklets cannot obstruct other street furniture, plantations or public signs. Parklets must also be located at least 150 feet from a corner or fire hydrant and must have plants or other vegetation. Parklets also need to be built with access to debris removal and underfloor cleaning.

#### Guidelines for design and placement

Parklets must have signs posted indicating that it is a public space. Parklet must have two wheel stops installed at either end of the parklet as a cushion to maintain an efficient distance from vehicle traffic and cars parked adjacent to the seating area. Parklets must have temporary reflective bollards installed in the pavement in one of the parklets. The parklets must be able to be moved in case of emergency or danger situations, the materials used must be easily disassembled / moved for this purpose.

#### design and placement guidelines



Parklet Design Guidelines – Credit: City of Boston

#### Neighborhood Slow Streets

Instead of planning and implementing changes on one street at a time, the Neighborhood Slow Streets program caters to an entire "area" within a neighborhood.

The assessment takes into account every street within the area to find problems and design solutions. Everything is done while working with the community. The proposals include calming traffic elements and safety improvements for almost all streets within the area.

When each zone's plan is put in place, the streets will have visual and physical cues to slow drivers down to 20 miles per hour. This will make every street feel more inviting for people of all ages who walk, play or come by bike. The **Neighborhood Slow Streets** program will

highlight lasting improvements to quality safety and life, focusing on accessibility. Our standard tools include:

- Reconstructed intersections,
- Speed humps,
- Better walkways,
- Clear angles.

Neighborhood Slow Streets is a city initiative to slow traffic speed and improve residential streets' safety within a specific area. When a neighborhood is part of the program, its residential streets' speed limit will be 20 miles per hour. (MONUM, 2019)

The Neighborhood Slow Streets program prioritizes areas with the neediest. Objective evaluation criteria are used to select communities that:

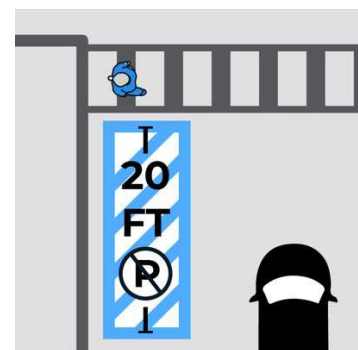
- higher percentages of young people, the elderly, and people with disabilities
- more street accidents per mile that result in an EMS response
- include, or boundaries, community places such as public libraries, community centers, schools, and parks
- support existing and planned opportunities for walking, cycling, and access to transit, and
- are feasible for the city of Boston to implement improvements.

It will be possible to see new signs, curb marks, speed bumps and visibility improvements at intersections. In some places, we can see more changes. These include raised walkways, sidewalk extensions, and neighborhood roundabouts.

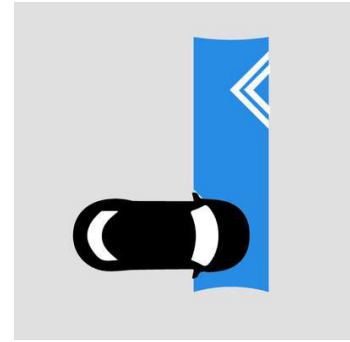
Stop signs are not calming measures for traffic but can be considered part of the Neighborhood Slow Streets program if an intersection meets engineering standards (MONUM, 2019).

The tools used by this plan are:

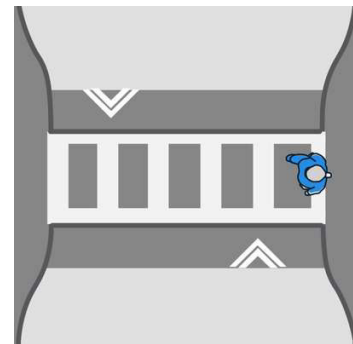
- Clear corners - It is not allowed to park at 20 feet (approximately one parking space) inside a pedestrian crossing or an intersection to avoid obstructions to visibility. Cars parked too close to an intersection prevent the driver from seeing approaching cars or people crossing as they prepare to turn. This increases the risk of accidents.



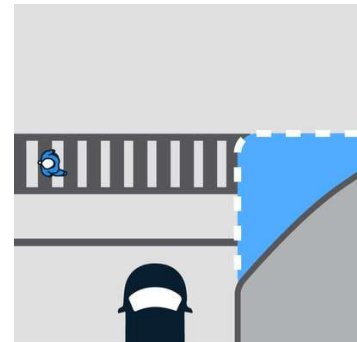
- Speed humps - The speed humps are positioned as a series. They are spaced 200-250 feet apart to slow speed along the entire length of a street to less than 20 miles per hour. The bumps are not installed on busy and important streets. We also do not install them on sections of streets that are hilly or curved.



- Raised pedestrian crossing - A raised walkway is like a walkway with a speed hump. The pedestrian crossing is at the same level as the sidewalk, providing a smooth and uniform crossing. It is more comfortable for everyone, especially the elderly, children and people with disabilities.



- Geometry changes - Edit wide and irregular intersections to create smoother, right-angled corners. Reshaping uneven intersections will reduce visibility problems, slow turns and create a safer pedestrian crossing. Stop signs are used to control the flow of traffic through an intersection. An engineering analysis must be conducted before installing a stop sign. Among other things, engineers estimate how many people drive, cycle and cross an intersection. They also look at the number and type of crashes that have occurred.



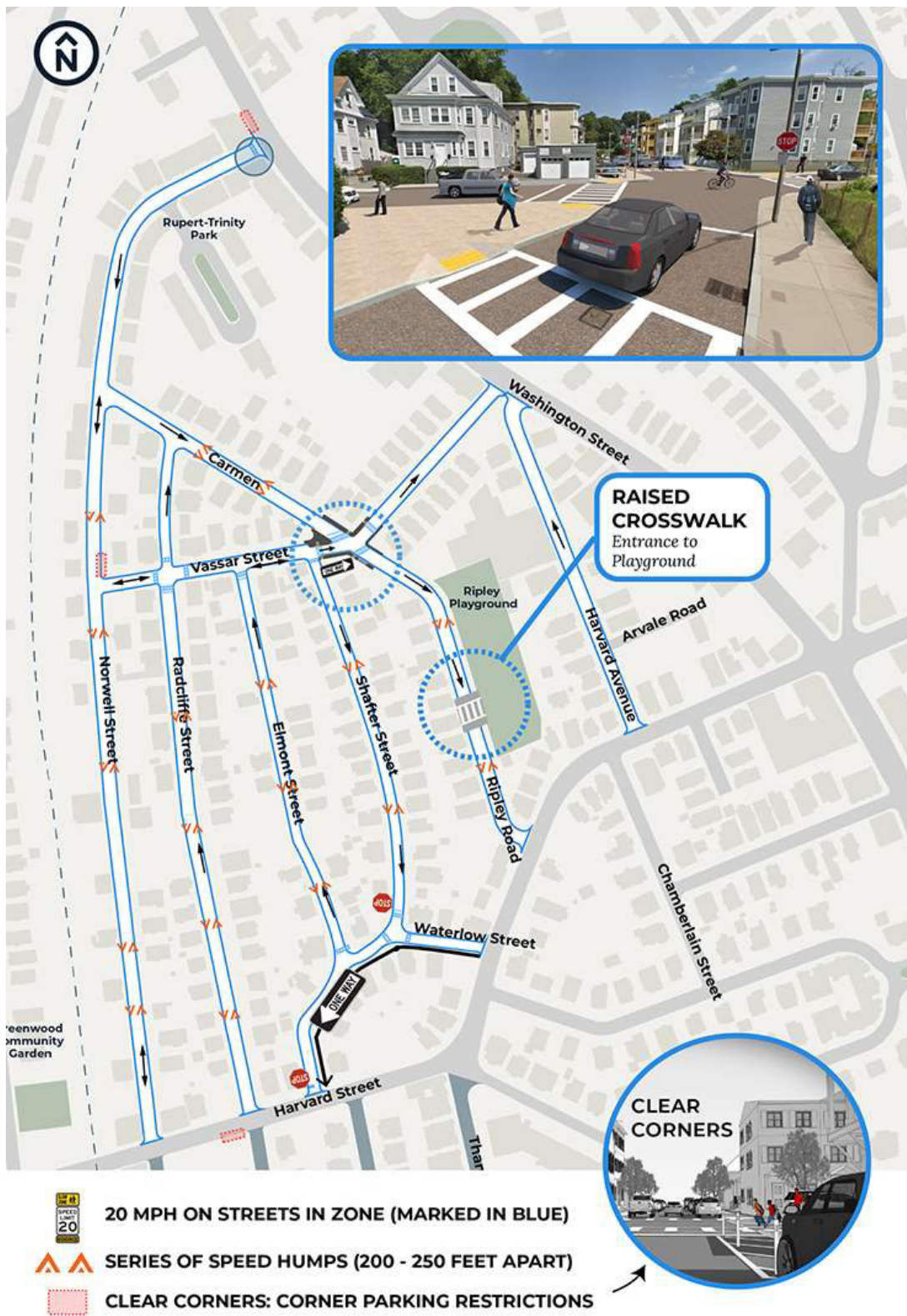
Other tools such as crossing islands or the extension curb can be implemented according to the needs of the neighborhood.

The Boston Department of Transportation has received applications from 47 communities by the March 24th, 2017 deadline. Several communities did not provide marked maps of their areas; at a subsequent request for clarification, three communities did not provide a map of an area with borders, and the questions were not evaluated. Three other communities applied to non-contiguous areas. Each of these areas has been assessed individually. As a result, there are 47 separate zones presented by 44 communities (MONUM, 2019)

2018 marked the second year that the Boston Department of Transportation accepted applications for the Neighborhood Slow Streets program. Applications were received for 37 areas by the deadline of August 24th. Each community that submitted an incomplete application was given an additional five days from the time of notification to provide the necessary materials. During this evaluation round, 33 selection areas were considered. Seventeen communities had already come forward in 2017 (MONUM, 2019).

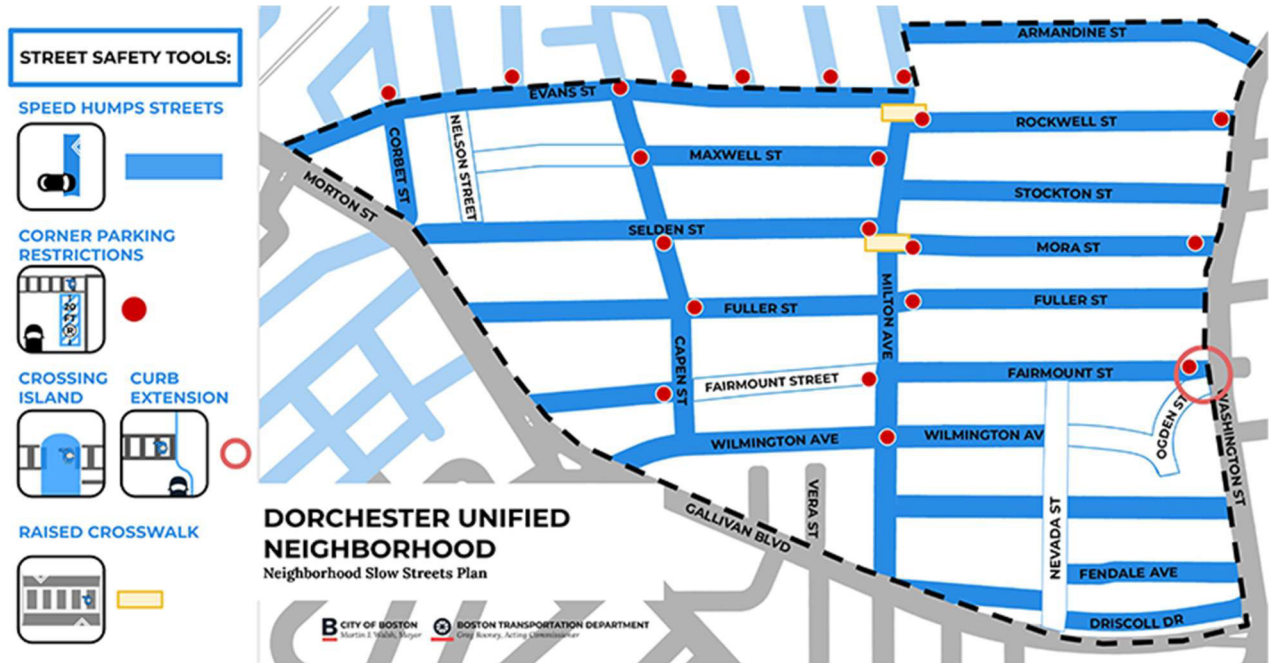
In the context of the Covid-19 pandemic, the approach to the priority of neighborhood areas has changed since 2020. Rather than select new areas, it was decided to re-improve all the areas proposed by both previous rounds of applications.

Some examples of the application of the tools in the neighborhoods that have joined the program.



Plan for Washington – Harvard – Norwell Neighborhood credi: City of Boston





Plan for Dorchester Unified Neighborhood – credit: City of Boston



Plan for West Selden & Vicinity Neighborhood – credit: City of Boston

## Conclusions

Today's cities are ushering in a new design era, defined by a man-centered public architecture that reflects the user-oriented design process. This emerging movement is centered on three pillars: the presence of senior officials with responsibility, access to a much more comprehensive data collection that allows cities to understand better the implications of design on well-being, and better visualization techniques to enrich the community's feedback. Part of this process involves asking residents what they want their city to look like (Goldsmith, 2019).

Cities follow a rigorous process guided by the rules. For generations, progressive reforms have sought to replace the corrupt municipal government, fighting favoritism and arbitrary decisions and sending a message to citizens that their cities were professionally run. Unfortunately, professional management has often been bought at the expense of responsiveness to citizens' concerns. Instead of studying people who are using municipal services and designing these services in the way a company designs them, the municipality draws its responses around agencies and bureaucracy around the client. The result can favor public cynicism and the consequent loss of trust between the governed and their governors.

The commercial and social world benefits from distributed systems, with more actors adding information and forming collaborations that produce better collective and individual results and experience fueled by a skillful mix of data and many different organizations' coordination (Goldsmith, 2018).

Governments are far from providing an intuitive and straightforward type of user experience.

However, by combining innovative technologies with mental and municipal systems, local governments can create structures that allow residents to reduce the friction of doing business with the city; to help them to understand better the policies and actions of the government that affect them; facilitate the involvement of a broad audience (Goldsmith, 2018). By improving citizens' trust in the government, using digital platforms and tools that make the involvement of citizens more accessible and more powerful, the goal of creating a hybrid public square can improve the quality of life.

Focusing on user experience is continuously hampered by limitations on who works for the city and what they can do once they are on the payroll. An old-fashioned recruitment process requires rigorous testing, using restricted job descriptions, to create a pool of potential employees who can follow the rules, not solve problems. Public works define professionalism in government by applying technical skills to departmental systems and data. Listening and engagement skills generally do not have a role in hiring or promotion. "Many public organizations recognize that they must reflect citizens' opinions or specialist knowledge of politics by opening, but they continue to show an unenthusiastic tendency to organizational innovation, because of the ambiguity surrounding the means to respond to the complexity of citizens' problems, and requests "(BAEK, KIM 2018).



Thus, cities' future and governments' response to citizens are increasingly evolved and developed by data to determine the user experience and potential current and future needs of the inhabitants and the city itself. We talk about civic technology that, through targeted initiatives, can help us to exploit a pool of recruitment that leads to solving at least three long-term problems, namely, the lack of data components within the government, the lack of diversity that encompasses civic technology, and economic inequality that is occurring in neighborhoods. Civic technology has the enormous opportunity to promote equality and the need to be used to produce the best work possible.

As Kate Gasparro from ASH Center says, by mapping the landscape of civic technology, we can see more clearly how eParticipation is used to address public service challenges, including infrastructure provision. Participation efforts provide public service information and relevant updates to citizens or enable citizens to contact their officials in a one-way flow of information. They also allow for a deliberate democracy in which citizens share the decision-making process with local government officials. The most common public participation practices are: eInforming, a one-way communication system that provides online information to citizens (web site) or the government (ePetition); eConsulting, where communication is bidirectional and limited, where citizens can express their opinions and provide feedback; eInvolving, two-way communication in which citizens' opinion is skimmed through an online process to capture public concerns; eCollaborating, that is communication, always two-way, but improved, which allows citizens to develop alternative solutions and identify the preferred solution, but the decision-making process remains the government's responsibility; eEmpowerment, an advanced two-way communication that allows citizens to influence and make decisions as co-producers of public policies. (Gasparro, 2018)

The involvement of citizens has, in any case, limits, for example, in applying the categorization structure to civic technology for the provision of infrastructures. It will be necessary to consider the specific needs of citizens and the delivery functions of the infrastructure. The infrastructure's delivery includes a series of phases: planning, design, construction, and operations/maintenance. At each stage, various stakeholders are included in the decision-making process. In the early stages, citizens can play a broader role in decision-making through opportunities for involvement. As project details become more concrete, there are fewer opportunities for citizen engagement. For example, if the design phase's decisions were blocked, timely progress can be made in the project from the design to the construction.

Necessarily it will be essential that there is not too much imbalance towards the excessive involvement of citizens in public policies, a balance and orientation towards common well-being and regulation is needed to embark on a common and forward-looking path of urban and social growth. Moving the scales too far towards the government would lead to a top-down development, as has been happening for some time now, which produces useless or alienating infrastructures for citizens, conversely, moving it towards citizens could lead to some sort of "anarchist" development with a tendency to exalt the needs of those who can impose their thoughts, therefore, one would enter an ambiguous and dangerous

environment. When one enters the communities, it is necessary to correctly read the communities, their urban and anthropological history, to avoid making mistakes that would lead to non-evaluable drifts.

The technology industry has approached the Smart City with the same assumptions that have served well through the development of personal computing, web, mobile, and now the internet of things; collect as much data as possible in case they can work out a way to monetize them (Atkin, 2015).

The city, however, is a very different context than those in which digital technology is already pre-eminent. Consumers and businesses have a choice about the devices and services they adopt, allowing them to give up products they do not deem appropriate. Short of eradicating their entire lives, citizens cannot choose not to use their cities. Thus, the municipal authorities need to pay close attention to the deployment of the internet of things in the public space.

Because of this tension, there is a growing uneasiness towards the Smart City movement. A critical speech on the movement is gaining momentum in the academic world. Pervasive computing and connectivity present enormous opportunities to solve authentic problems for citizens. We need to find a way to make this happen in conditions that people are in comfort. These principles on how Clever City systems can be created and used are aimed at helping this process.

Living in cities can be problematic for many people for all sorts of reasons. Services based on integrating digital technology and connectivity in the urban fabric can solve some of these problems (Atkin, 2015). The creation of these services should start with a solid and well-highlighted use case. This includes determining the digital solution's sustainability or creating new crises to truly solve the problem rather than only moving to a future date or generation.

It would be better to implement technologies that help people in a bottom-up way, but asking a government to think creatively is not intelligent. To get clever cities approaching, most of them cannot because they are used to doing things that are already top-down. In many ways, clever cities are complicated to undertake for many local federal governments.

However, if we can do it, there are people like that, and something we can do well. Working for a local government, thinking of new technologies, we will generally do, we will go to the community and get a process.

The program can use that someone who wants to test the neighborhood, and often the neighborhood itself says that we want to try this thing in our neighborhood, and then we will go down, and we will do a process to understand which people are interested in the neighborhood. And then we will help to conduct experiments that will be repeated in the built environment to see how people feel about it and what kind of results, or the impact that women have had, and all those things that describe and determine how we are developing a key process around the smart thinking of the city.

The author considers the MONUM approach the right one for the evolution of a smart city to correct a smart city from the bottom up. A smart city that is not purely technology that dominates citizens, but citizens who control the city determine the spaces and especially the living spaces, Smart City of Smart Citizens, aware that evolution takes place only through social resilience, which is at the base of human survival, in neighborhoods, in blocks, in the garden of the house, in the driveway in front of the house and not lined up in the shops of junk food chains or shopping centers.

During the Covid-19 pandemic, the city of Boston initiated a massive regeneration of Boston's streets to better support local businesses and restaurants, provide additional space for residents using public transit, and accelerate the installation of cycle paths. The changes, introduced gradually, have brought improvements that include the street space allocated for expanded bus stops, new cycle paths, and seating in outdoor restaurants. These street programs focus on what residents need: safe and reliable transportation if they travel to Boston, access to fresh air and open spaces, and build social and physical distances into everyday life. These actions belong to a broader and broader program, on which the city of Boston started working as early as 2015. Citizens were directly involved in the program, already in the embryonic stage, to express their needs and desires. Subsequently, all the competent offices of the city of Boston, including the Urban Mechanics, have drawn up the Boston 2030 plan, where ambitious goals have been set to allow people to access all places in the city safely, in any way, offering choices of fairer and cheaper travel and tackling climate change.

## Through the new urban challenges

A critical policy objective is to create opportunities for the local population to develop their community. To maintain its independence and continue to thrive as a resilient and robust territory, each territory needs to have a healthy society. Promoting a people-centered approach to development would help achieve the United Nations 2030 Sustainable Development Goals as it is essential for eliminating poverty, increasing shared prosperity, and leaving no one behind.

The general strategic interventions to create a sustainable, inclusive, and resilient territory are: (a) to strengthen social infrastructures, (b) to promote leadership based on value and compassion, and (c) to develop innovative solutions to deal with fundamental national and international issues and emerging. These interventions aim to strengthen leadership and institutional capacity and promote imperatives, ethical and moral values, which are fundamental for addressing social and environmental issues. In this regard, social innovation plays a central role.

Social innovation promotes new solutions to address social needs and problems such as inequality, the environment, water and sanitation, health, education, unemployment, urbanization, and an aging population. It seeks sustainable and innovative solutions through collaborations between the public, private, and social sectors. Social innovation contributes to building a stable, resilient, inclusive, and sustainable society by exploiting the public, private, and social sectors' resources and capabilities.

### Inclusive Society

Exclusion by ethnicity, gender, geography, or other identities can be a source of grievance, an engine of conflict, and a structural obstacle underlying progress. Since exclusion could cause conflict and instability, an inclusive development approach is crucial for building and sustaining peace and security. The inclusive approaches can take many forms, including efforts to increase participation among the different communities and strengthen marginalized groups' representation. Similarly, inclusive approaches may include initiatives to diversify the representation within the same sector at various levels (international, national, and local).

To build an inclusive society, we must offer fair and equal opportunities to all, regardless of their background (race, gender, physical ability, socioeconomic status, generation, and geography), so that they can realize their full potential in life. The intervention measure is to create the conditions and environment to motivate and enable all society members' full and active participation in social and economic development.

Intervention policies could include frequent open dialogue between the various stakeholders on specific topics of interest and common interest, the promotion of interfaith dialogue, the

development of capacity building programs, and a convenient support system for vulnerable groups, groups of ethnic minorities, and discriminated groups.

## Resilient society

The term "resilience" of General Assembly resolution 71/276 of the United Nations describes "the ability of a system, a community or society exposed to hazards to resist, absorb, adapt, transform, recover from the effects of a hazard in a timely and efficient, including through the preservation and restoration of its facilities and basic essential functions through risk management".

A resilient society can potentially expose companies to the crisis, disasters, or hazards to adapt, anticipate the risk, limit the impact, and rebound quickly through survival strategies, adaptability, and evolution. The intervention measures include the construction of community and society resilient to disasters/risks, developing a management strategy in three phases: prevention, response, and recovery from disasters/risks. Strengthening the human capacity to address the risks it is vital to promote a resilient society. The 19-COVID pandemic outbreak is an example that reflects the level of the company's resilience. It will be necessary to promote decision-making based on risk and evidence-based.

Intervention policies could include developing a capacity-building program and a knowledge-sharing platform to prevent and mitigate disaster risks to the leaders of national and local communities. Develop an approach to the whole government or even a whole nation approach in responding to large-scale disasters like pandemic Covid-19. The Public-Private-People Partnership (PPPP) is critical to formulate and implement policy.

## Sustainable society

A sustainable society is a society that ensures the health and vitality of human life, culture, and nature for present and future generations. It is a society where every human being can develop in a balanced society and harmony with the surrounding environment. Intervention measures protect the environment, preserve assets, embrace cultural diversity, and improve human welfare.

The intervention policies should aim to provide new solutions to protect the environment, improve human-environmental interactions, and preserve cultural and historical heritage. We need to promote awareness of the risk, technology, and innovation based on science and strengthen the interface between science and policy on sustainable development. We should begin to initiate and promote political dialogues on "stakeholder capitalism", referring to a system where companies aim to serve their stakeholders' interests, including customers, suppliers, employees, local communities, and shareholders.

## The emergency triggers a change and a rethinking of the city

Our planet is continually changing. All of us will have to learn to adapt to constant changes in how we live, work, and create relationships.

When choosing between alternatives, we should ask ourselves how to overcome the immediate threat and what world we will inhabit when the storm is over.

Human civilization, in the course of its history, has found itself having to face numerous emergencies. However, most of these emergencies are cyclical; the date of the event that will lead to an emergency is not predictable, but it is foreseeable that the event will occur over a short or long time.

If the world is experiencing is not absolute and relative mortality, among the worst pandemics in human history, it is probably only thanks to containment measures taken almost everywhere on the planet and to the world's best conditions. Health care than in the past. Never before there been a situation in which almost the entire global economy has been placed in lockdown conditions.

Considering the numbers of deaths handed down by historical texts concerning the world population at the respective times, the worst was by far the Black Plague, which in the fourteenth century exterminated over 40% of the already sparsely populated humanity of the time, followed by the Plague of Justinian, who in the sixth century AD had recorded mortality of 28%. These are never reached on any other occasion in history: the Spanish flu rate, a century ago, was 2.73%.

In addition to depending on the fact that over the centuries, the population of the earth has increased exponentially (from just over two hundred million humans in the first centuries after Christ it has gone to 1.8 billion in the Spanish era to reach the current 7.7 billions of inhabitants of the planet), the reduction in mortality is also due to the dramatic improvements in hygiene and health conditions in almost all countries and, in the case of Covid-19, to the measures to close activities in most of the globe, to them once determined by the "low level of tolerance" concerning death characteristic of today's societies. The scholars deduce that it will lead to similar interruption choices to counter the spread of viruses even in the likely pandemics of the future, the report reads.

The same report explains that if this is not the worst pandemic in history, we owe it all probability above all to the lockdown measures never before experienced by humanity.

What is certain is that the cities, territories, urban fabric, neighborhoods, and even our homes and lifestyles were not adequate for such an event.

Despite the numerous solicitations from science and various governmental and non-governmental organizations, it happens too often that, once the emergency is over, after some time, we tend to forget what has been and what can be again, returning to work without precautions, pursuing only the personal, private and never community interest.

Numerous are the experiences and experiments "attempted" in the past years by researchers, sociologists, and local administrators to guide a new civic vision of urban living, neighborhood coexistence, respect, and public space management. Unfortunately, these experiences are short-lived. The main problem is the individual's interest, which is often contrary to the community's interest.

Returning to the exceptional nature of the emergency, we can say that the nature of the exception is to upset the rational decision-making processes: what in regular times would be decided in years now takes a few hours; immature or even dangerous technologies are used ahead of time because the risk of doing nothing is the higher. It also has positive sides because experiments are launched that in regular times would be opposed: we have been discussing e-learning or working from home for years, and now we are all in this situation. It is an unexpected acceleration that would never have occurred otherwise, and it may prove helpful in the future.

Since the beginning of 2020, during the final phase of this research path, what has happened since the beginning of this research path is an emergency event as vast as it is predictable. The signs had been there for at least five years. Bill Gates had already drawn scenarios of this type in 2015. In 2017 the WHO (World Health Organization) diagnosed this horizon as a "matter of time" and not a school hypothesis. In September 2019, a report by the Global Preparedness Monitoring Board, made up of experts from the World Bank and the WHO, wrote verbatim: "the threat of a global pandemic is real. A fast-moving pathogen has the potential to kill tens of millions of people, devastate economies, and destabilize national security. "

No country has prepared an emergency plan for this eventuality. We live in the time of the knowledge society, and indeed much knowledge is produced: scenarios are constructed, perspectives and recommendations are offered, but then all this remains in the drawers of the ministries and the institutional libraries of the various governments as if the work of research was mere literary production.

In history, never had a virus blocked the world's gear, as did the pandemic of early 2020. The Western world boasts of having recipes for progress and development on everything and everyone, but it has all unguarded and divided on how to deal with this pandemic, the poor collaboration between countries, which have moved individually with confused and recalcitrant policies. There is an international treaty under the auspices of WHO, and the International Health Regulations approved in 2005 after the lesson of SARS, which binds states to cooperation in the event of health emergencies. WHO Director-General, Tedros Adhanom Ghebreyesus, has made continuous calls for collaboration between states but with little result.

The first victim of this global emergency event was the multilateralism built in the aftermath of the Second World War and showed signs of suffering. Nevertheless, when SARS spread between 2002 and 2003, there was still good cooperation between states, and there was still common sense that governments had to cooperate. So in a short time, the diagnostic tools



and therapies to fight the virus were found. Today this cooperation scenario is struggling to establish itself.

The virus is innocent, and this innocence will be discussed in a later paragraph. This planetary origin and diffusion have to do with decades of economic policies that aim to maximize profits and not at the production of common goods. In Europe since the 1950s, public and universal health systems are essential common goods to nourish societies' social and economic development. When it comes to public health, it is not just about health. We talk about quality, an instrument that measures the social pact and the democratic fabric of a nation; we talk about rights and economy, we talk about individual and collective security concerning adverse events in life, which always exist. It will, therefore, be essential to work on a new global pact for public health.

In the Green New Deal for a sustainable economy, people's health is central. Citizens' taxes must be intended to support health, scientific research, the implementation of prevention policies, and social policies that do not cause damage to the environment and people. We need to bring health back to centralized management and redefine the relationship rules with private individuals.

A pandemic is a serious threat, and the challenge to keep it under control is a tall order, but it deserves to recognize that it could offer a rare window of opportunity from a sustainability point of view. The challenge will consist of blocking the reductions in the use of energy and materials, which occurred during the pandemic and which have intensified in various contexts, without affecting the productive, economic and social fabric, not as it was before, but more sustainable than before. A pandemic of this magnitude could inadvertently contribute to significant progress towards achieving the Paris Climate Agreement's goals and several UN Sustainable Development Goals.

This world always wants to move faster, with more productivity, globalization, and profitability, and suddenly it runs into a viral barrier, a stern warning, and questions to answer. It will not be the same as before, and it is a wish for the planet and humanity. Nevertheless, what are the ingredients that cannot be missing from the post Coronavirus urban and political agenda? Social responsibility, participation, urban forestation, climatic architecture, reuse of monofunctional structures, redefinition of smart city concepts and reconnection of internal areas, new ideas for the schools of tomorrow (which will have to deal with children and young people transferred to digital platforms), attention to the home (for everyone and with multipurpose spaces) and issues related to mobility.

The Green Building Council Italy presented a manifesto listing its key themes: decarbonization, circular economy, water efficiency, land use and biodiversity, resilience, well-being and healthiness, justice in transition. "It is essential to keep in mind that buildings represent significant potential in achieving the objectives to combat climate change since they are responsible for 36% of all emissions, 40% of energy, 50% of raw material extraction in the EU, of 21% of water consumption "(GBC Italia, 2020). In the Manifesto, the construction sector's

weight is evident and lists the main themes of change and the actions that should be supported to enhance the sector and make an authentic, sustainable, built heritage possible. All this because the focus is mainly on the theme of cities.

The crisis that arisen demonstrates unequivocal interrelation between human health and the ecosystemic conditions of the planet: global scale, interdependence, and rapidity of the spread of Covid-19 have shown this reality in all its drama, but also potential. Urban areas are the main culprits of the ongoing climate emergency and those that have suffered most from the pandemic's effects.

For about twenty years, a series of dramatic events have undermined the city's very concept: terrorism, the financial crisis, the environmental and biological crisis. And today, dramatically, the pandemic. After a century and a half of accusations and criticisms, the city was re-evaluated as the first place of our evolution, which seems no longer a suitable container. The urban form that continues to extend globally is patently inadequate.

The issues of soft power, aggregation, and social control will also need to be reconsidered, asking, for example, the consequences of "data urbanism", which wants to regulate urban life's pulse with personal data control.

The city will have to be rethought, without forgetting the metropolitan cities and the internal areas (many still today without a wi-fi connection). The dramatic situation that has been faced should oblige governments to make urgent choices on at least three fundamental aspects: mobility, which must rely exclusively on renewable sources; forestation, to be carried out throughout the national territory, starting from metropolitan areas; the energy transition, which must include a network of local businesses for the production of clean energy. These three issues should be accompanied by as many significant public investments in construction, such as the monitoring and restoration of all infrastructures supporting mobility, a targeted effort for the restructuring of all public schools, the building replacement of at least 4 million energy-intensive, obsolete and degraded houses. Furthermore, a real safeguard of the agricultural "countryside" and the small settlements scattered in the central areas' territories would be desirable.

It will, therefore, be necessary to design and build buildings and urban spaces that survive them. Urban and domestic spaces must be designed that are very well defined in their fundamental characteristics and can host different functions and roles over time. Architectures and cities have a great "inertia", a building designed in a too specific way on a functional program that survives less well to the change of a larger one.

The compulsion of the population to have to live locked up inside their own homes has brought out the problems that they knew each other, but which at the same time they tried to ignore, that is, for many, it is a condemnation. It will, therefore, be necessary to work so that there are finally decent living spaces, even if they are social housing. This problem, unfortunately, is constantly discussed during and after every emergency; unfortunately, when the alarm is over, it falls into oblivion, outclassed by the interests of lobbyist economies.

After decades of discussions, proclamations, projects, and programs, the time would also come for accurate digitization and work delocalization.

The modern, sustainable and future-oriented infrastructures, redevelopment of existing ones, regeneration of our cities, schools, health care, protection of the territory should be the priorities for an economic policy that can restore confidence to the country, repair the damage that will be produced and guarantee reforms capable of triggering a lasting and innovative path of growth.

### Forms and practices of daily life

The forms and practices of daily life, the organization of work, production and distribution processes, global interconnections, and geopolitical relations will not return to their previous state.

This is a significant challenge, which requires imagination and the ability to produce usable knowledge.

In the initial phase, it was observed that the aggression by the Covid-19 pandemic virus was particularly accentuated in those areas of the country that could be identified as the places of often unsustainable development of our country in the long cycle of economic growth and settlement. Social and spatial inequalities, gaps in social and cultural capital will be decisive factors in intensifying or reducing the virus's effects and future epidemics. Not to mention the link between internal living spaces (the house, large or small, which allows or does not allow relative isolation, etcetera). On the other hand, the inland areas, the mountains, the depopulated villages, the most fragile places in Italy appeared to be the least affected due to the low density. Furthermore, these same places have risked and are likely to be increasingly "disconnected" from the rest of the country.

Therefore, it is essential that our reading of territories and landscapes puts to work an understanding of the relationships between the virus, territorial gaps, the dynamics of development, the forms of life at the intersection of space and society. Understanding the spatial and territorial dimension of an invisible agent is difficult, but at the same time, it is indispensable for reasoning about the effects.

Therefore, our geographies of fragile territories should be used to reason on how a virus acts on people, on families, but also on economies and practices, also concerning the issue, which must be treated with great care and without ideological deviations, of the "biopolitical" effects of regulation, confinement, normalization, reduction of freedom in the use of space.

We cannot yet fully imagine the effects it will have on the Italian and world economy. However, we know that they will undoubtedly be dramatic and that urban and territorial policies, on a regional, national, and community scale, must necessarily take them into account.

It will, therefore, be necessary that the actions that will be taken can favor the restart of the economy, and in particular of the sectors that will be most penalized by the current crisis (tourism, culture, entertainment and entertainment, non-food trade, export-led sectors, production chains, construction), through direct support for investments that also favors a rapid inversion of expectations and the overall economic climate, knowing however that the virus will probably introduce some structural changes in the forms of organization of production and work and that will ask for particular attention to some territories. An ecological reconversion of local economies, through infrastructural interventions capable, in different situations and contexts, promotes the relaunch of local economies by reorienting products, processes, and supply chains, which also considers the necessary growth of activities in remote and on digital platforms. This conversion can affect both sectors such as tourism, and manufacturing chains, through digital infrastructure processes, efficiency, and energy-saving, experiments on the logistics and freight transport front, product innovations in the direction of reuse and recovery (for example, in the chemical industry and the plastics supply chain). In this context, the support for urban policies for resilience to climate change is also decisive, through the innovation of technologies in the energy field in construction, public and private mobility, redevelopment of blue and green infrastructures, also in terms of contrast. The hydrogeological fragility, the regeneration of abandoned or underused heritage, avoiding by any means further consumption of non-urbanized land.

It would be desirable, if not necessary, to promote through investments of a structural nature a new development model centered on the ecological conversion of the economy, environmentally and socially sustainable and sensitive to the climate transition, avoiding by any means that investments for recovery will recur a development model that is mainly unsustainable for our country and Europe. For example, a sizeable extraordinary maintenance operation in the country must not be hinged on the construction of major works, but in the first instance on small infrastructures and on maintenance and redevelopment works that improve the quality of life of citizens here and now and that they can also be started and implemented in a short time. On the other hand, this development model will necessarily have to take charge of the territory's digital infrastructure and the provision of related services (telemedicine, smart working, etcetera) to balance economic development, reduce inequalities, and protection of privacy. It could be implemented through an extensive national extraordinary maintenance plan for the Italian territory, with particular reference to fragile territories (urban suburbs, central Italy areas at risk of productive desertification and depopulation, internal areas). This strategy should, first of all, promote the safety of the territory through a national plan of small works that would also have the advantage of being quickly activated, the energy requalification of the building stock, the taking over and light infrastructure of the areas that contribute most, the production of ecosystem services, the promotion of infrastructures for slow and cycle mobility that can also become devices for the promotion of development projects on a territorial scale.

Finally, it will be essential to use programming to reduce the gaps between the different parts of the country, between macro-regions, between the different fragile territories, within them

and each territory, including urban areas, by setting the objective the support of the most marginalized groups and social classes most penalized by the consequences of the ongoing epidemic is a priority. With double attention: to individuals and seriously disadvantaged groups, when not in absolute poverty (this will probably be the case of precarious workers in the "low" service sector in urban services), but also to groups and classes that risk drastic impoverishment and strong growth in vulnerability. By implementing an integrated policy for the requalification and regeneration of the public heritage of the so-called "material welfare" (houses, schools, health centers, sports facilities, other territorial services, parks, and green areas), through support for integrated local projects that pivot on this heritage as an instrument of social integration and environmental and ecological requalification. This third terrain, closely connected to the first two, assumes the territorial protection of welfare as territorial hubs on which to build real "local contracts" (for example, school contracts, on the model of neighborhood contracts) involving institutions, a civil society organized citizenship, active citizenship, businesses and that can rethink spaces and practices.

Finally, we must also imagine more profound and more pervasive effects, which concern daily practices in space, forms of life, localized interaction patterns, the exercise of affectivity. This is the most uncertain, most disturbing issue. However, it is a theme around which, once again, space counts. And with its architecture and urban planning.

## Another city concept

In a world with a lifestyle based on interdependencies, we demonstrate key principles of the complexity of relationships on a planetary level before our eyes. We inhabit living cities that are, at the same time, imperfect, incomplete, and fragile.

This world always wants to move faster, with more productivity, globalization, and profitability, and suddenly it runs into a viral barrier, a stern warning, and questions to answer.

According to all specialists' unanimous opinion, "social distance" is the weapon to slow the spread of a pandemic. For the first time in modern history, we share the unique approach implemented, namely distancing oneself as a key element in containing a viral disease, present simultaneously in all five continents, albeit to different degrees. All other viruses in the past have held a specific position, presenting themselves to our eyes as a distant threat like Ebola, Zika, and even H5N1, for example.

What changes is the expression of the cities' power at the center of this violent upheaval of a system?

Seeing cities of the world with every entry or exit suspension, the absence of flights and physical contacts shows another distinctive aspect of this urban world, generally productive, stressed, constantly accelerated. Satellite images of the reduction of pollution also show the impact on air quality due to the urban lifestyle of production, consumption, travel.

For the first time globally, GDP is being challenged by the urban lifestyle, which must brutally change pace (Moreno, 2020). Policymakers face the need to shift production, limit bilateral dependencies between countries, find more resilient lifestyles.

Forced isolation leads us to some considerations. A double-action can only accompany the hoped-for relocation of the states: massive decentralization towards cities and territories and within each city; polycentrism as a way of planning urban and territorial life (Moreno, 2020).

The true urban and territorial resilience will be that of polycentric life, that of the genuine rediscovery of proximity in all its aspects, the strengthening the "city of short distances" of regions and territories (Moreno, 2020).

The city of 15 minutes, the territory of half an hour, the territory of proximity: rediscover the neighborhood, what is close to us, rediscover quiet and green streets, the use of bicycle or pedestrian mobility, shop nearby, access more services, having at hand a variety of possibilities to face everyday life, working from home or near home, making sure that the same place has different uses and each of them a new field of options, are approaches to building another way of living in the face of the inevitable challenges that we will find ourselves in the future.

If we can walk or cycle to work in 15 minutes, and we can get to a grocery store, park, cafe, our children's school in the same amount of time, we are living in what is called a city or neighborhood of 15 minutes ".

They are very hard to find now, even in dense cities (the average New Yorker now takes about 43 minutes to drive to work).

It is a city of neighborhoods where we could find everything we need in 15 minutes from home. This is the prerequisite for the city's ecological transformation, which will improve daily life at the same time.

This is an ambition, a new vision for cities. As Jane Jacobs argued, proximity is the key to making cities viable, and cities should be re-designed so that people can access essential social functions within their neighborhoods. Traditional urban design, with people traveling to a remote center, is outdated. In part, it is a response to climate change and car pollution. However, it is also about the quality of life (Moreno, 2020b).

Many cities are already passable on foot, and they have created new cycle paths, the number of cyclists has grown. However, the railway system's aging often has delays, and many people continue to take the car. More than half of the people who work in the city center have a 45-minute commute.

One solution could be adding offices in neighborhoods where they lack to work closer to home. Some people may work in the neighborhood coworking centers. Another key to the approach is to find multiple uses for the existing infrastructure. Libraries, stadiums, and other buildings may be used outside their standard hours. Clubs could double as gyms in the afternoon.

Most cities have little green space, so adding greenery to school playgrounds would allow neighborhood people access to these new "parks" on weekends as a new place to relax. In addition to the creation of urban forests. Thickets of trees in the squares and the former car parks. New gardens for urban agriculture can provide neighborhoods with local food. Cars may be banned near schools when children come and go, to make walking and cycling safe for children. The encouragement of various local businesses, along with kiosks, where citizens can meet and share services. In many cases, local resources already exist but are underutilized, but part of the concept involves reconnecting people with their neighborhoods.

A city street, what would usually be called a course and boulevard in big cities, could be converted into a wide lane for cycling and walking, and where there were parking spaces on one side, they would be replaced with trees and terraces with tables, from bars and businesses such as bicycle repair.

With vehicle access, the city center's pedestrianization was restricted to residents, emergency vehicles, and a few other exceptions, building even more bike lanes and converting driveways to pedestrian streets for a car-free city.

These could be prerequisites for making big cities "Carbon Neutral" and improving the quality of life, and putting the neighborhood citizens in contact. The city can be stressful and lonely for locals, and many do not know their neighbors and neighborhood. If the schools are open on weekends, if the children can play on the street, if the services are near us, the city will become much friendlier, and solidarity will develop ".

## Towards a sustainable transition

As we describe below, the coronavirus situation provides, however difficult they may be, several leverage points to open pathways to a sustainability transition.

First, the COVID-19 pandemic is prompting a downsizing of working hours to accommodate a slower business activity or because parents and caregivers have to stay at home with young children due to schools' closure. Research suggests that when people could reduce the amount of time they spend on remunerative employment, they come to evaluate the benefits of a reduced schedule. Even when conditions improve, there is often a disinclination to go back to previous chords. Sustainability scientists have suggested that we could reduce our working hours while simultaneously improving individual and social well-being and reducing carbon emissions. This possibility is not available to everyone, especially to hourly workers whose wages are tied to a clock; these workers' challenges concern the next point (Cohen, 2020).

Second, the public health emergency and economic downturn represent an opportunity to expand experiments involving a universal basic income. During an extended quarantine, hourly workers will face increasingly precarious circumstances. Political pressure to establish



an adequate financial security system will increase as vulnerable populations struggle to maintain basic needs, such as access to housing and nutrition (Cohen, 2020).

Third, the eruption of community broadcasting and the implementation of lockdowns will disrupt daily commuting patterns and encourage workplaces to shift face-to-face activities to virtual communication platforms (Cohen, 2020). Even partial closures will motivate companies and other organizations to implement real-time agreements that allow employees to design their schedules and work remotely (Sridhar, 2020). These new routines will prove popular and will be difficult to reverse when the crisis subsides. Likewise, it is already becoming evident that there is a huge amount of long-distance travel that is ultimately useless. There is little reason to suspect that frequent flyers cannot eliminate at least some trips without loss of knowledge exchange and professional development (Cohen, 2020).

Fourth, while there is currently a rush to buy, as consumers stock up on non-perishable supplies, many retailers and consumers will shift to sourcing products from local vendors in due course. This trend will reduce resource productivity and contribute to more sustainable consumption patterns. There is also the prospect that in the long term, such developments could encourage the promotion of a new environment and trade agenda that reflects broader concerns about the need to promote less energetic and material lifestyles (Cohen, 2020).

Finally, if COVID-19 induces a long recession, conventional economic measures will begin to convey politically troublesome information. Faced with that challenge, elected officials and policymakers will begin to embrace accounting frameworks that provide more affirmative feedback. To paraphrase Ernest Hemingway, evolving developments tend to shift gradually until they occur suddenly. In other words, the coronavirus outbreak may herald a tipping point where gross domestic product and its associated metrics are supplanted by more favorable alternatives to a sustainability transition (Cohen, 2020).

### A downsizing of hypermobile lifestyles will likely be necessary.

Everyone has understood that green is an important theme; therefore, a campaign would be needed to facilitate dispersion and a withdrawal from the urban to make room for other living species.

Italy is full of abandoned villages to be saved. We have a unique opportunity to do this with the redevelopment of abandoned villages and small towns.

Following the Covid-19 pandemic, a great push towards the abandonment of the most densely populated areas is already expected in England, and this will also happen in Italy, those who have a second home will move there, because we have now understood the potential remote work, or we will spend more extended periods there. There are 5,800 centers under 5,000 inhabitants, and 2,300 are in a state of neglect if the 14 metropolitan areas adopted these centers, with tax advantages and incentives, as is done in beautiful places where they give us a home in a historic center for one euro.

This pandemic experience forces us to rethink many things, but getting out of this tragedy without understanding its causes would be a real waste. The contributing causes to be understood are, therefore, data on fine particles, for the lung fragility of those who live in areas with a high density of particulate matter, is easily assimilated to contagion; therefore, cities need a project that starts by the substantial reduction of cars, and therefore of the street section, and a decisive transition to electric and walkable (Boeri, 2020).

It would, therefore, be desirable to bring everything outside that the third spaces are external. So even the shops must have dehors because the closed space is dangerous in the event of a pandemic. What is needed is air; the virus does not survive in the air. So, more space for us, less for cars. Convert the squares, from parking for cars to places of culture and exchange, where social distance can be maintained in tranquility.

The Place has always been liquid long before Bauman extended its concept to the whole of society because we will have to live in spaces that are modeled as if by the swaying of the water that takes an apparent, unstable shape, in the volume that contains it, be it a loft, villa, palace or studio flat.

It is in the tender care of the body and in the training of the mind that every "house" becomes the condenser of emotions, a sensorial void with variable technology, which is needed when needed and can disappear when it has to do so to make room for the skin that conditions us.

After a month of solitary isolation, work has disappeared, traditionally understood and not only because we have self-barricaded ourselves on the screen to talk to the world, but above all, because we begin not to miss the Office, the studio because the bedrooms and the kitchen tables transformed into digital platforms appear to us to be perfect for producing our daily dose of dreams.

We could work without going elsewhere to do what we can safely do without getting up from our alcoves, which is the symbolic value of moving every day towards our public role, belonging to categories or classes.

Perhaps a new season is beginning for the neighborhood shops, the small shops, the grocery stores that represent an emotional garrison, not to mention rotisseries / jewelers. However, bakery-gastronomy-newsstand, re-emerging from the country-hypermarket, has annihilated our peculiarities and passed time without quality. The sudden elimination of the physical dialectic of exchange has created complex reactions; we study in streaming, returning to the solitudes of isolation that cultural growth requires.

The universal digital machine cannot replace the real sounds of the encounter; after all, this crisis is educating us and is producing the teaching of silence in our room-world, which for some weeks we have been looking at with different eyes: living, working, and studying they are not places but mental attitudes.

Architecture must, therefore, explore emergence as a sociological solicitation and also make visionary choices, but finally more anchored to the solution of problems than to the sacred

representation of aesthetics, because the temporary condition in which we live will change behaviors and functions, even after the exit from the state of universal contamination.

The space of relationship and proxemics will have to adapt to these dangers that will promptly recur, and therefore the scientific aspect of design will have to take precedence over the beatitudes of beauty, even if it is a question of creating a new concept of a retirement home for the elderly. Or a hospital, restaurant, or shop.

The typological fulcrum remains the path, the path-flows to be re-designed concerning potential contamination, with various degrees of problem, with an overall vision that will build new general functionality, a different architectural landscape, capable of reaching the prodigy of aesthetics starting from ethical constraints.

This new paradigm should not limit expressive abilities; on the contrary, it could eliminate the uselessness of artistic tests that are too often penalizing for the scientific character of a real architectural research that lives only if it manages to improve our urbanized context, everything else is simply a purely formal gesture. From this point of view, a new creative methodology could be expressed through forms of attention to every hypothesis of emergency due to the sensitivity with which the problems of complex everyday life will have to be faced.

### Towards a new design culture which will have to investigate its own needs

The days of the crisis exposed the assistance and care facilities to the extreme, unpredictable but not necessarily unrepeatable stresses, so from this symptomatic aggression, every new architecture must be able to withstand the unexpected functionally.

It will have to produce solutions through the perfect rationalization of spaces, paths, places of exchange, and contact, and dimensions compatible with contemporaneity, through adequate cultural reflection.

The bigness whose inescapable ability to build controlled worlds was praised in every project area is practically in great difficulty, not only because the social dynamics have changed, but also because new needs will be discovered closer after this storm to us and recognizable, shareable.

In the immense depersonalization of the service spaces, relationships between people, strangers among strangers, and forced into a-social gatherings that would like to resemble a village and instead are simple temporary parking lots have been penalized.

The issue of assistance has such, and many variables addressing it from a design point of view alone are not conceivable. However, it is possible to believe that architecture traces new moments of vision capable of supporting public and political choices, even making mistakes evident of the past.

One could think of the relationship with the private sector due to the compression of the number of hospitals and the almost definitive delegation to creating spaces for the elderly.

Theoretical reflection intervenes on the whole system of urban sociologies and cultural anthropology, with serious attention to local realities' identity, even if this will cause a further break with the simplifying elements of the globalist, or worse, glocalist, deification.

Effective and communicative slogans but today very fragile, and probably in need of a profound theoretical revision, after the complex practical applications, if we are the architecture we express, we must have the courage to be the conceptual fruit of our territory, because our history despite constant attempts at collective repression, re-emerges with increasing force.

Is it a street or a square? A shop, a hospital, public services, or a school? We must recognize the identity semantics of our Places.

It has always been our thinking-architecture, the effort to face challenges, and create places, in which we have recognized ourselves for a few thousand years, and today they seem to us suburbs of Shanghai, or Singapore malls, or office complexes in the central London, and for some, or many, all of this was our ticket to the future.

We thought of Europe and the World as no category of creators of forms, but the effort of the great Italian schools has always been to shout out our difference, our ontological peculiarity, what has made us, for better or for worse, what we are: architects, designers, intellectuals or simply citizens of this beautiful part of the planet.

The search for programmatic and conceptual originality is imperative for the post-viral rebirth. The evident inadequacy of recent design thinking leads us to make less spectacular but healthier choices, less self-referential but more satisfying in solving the individual and communities' practical problems.

In this direction, the profession of architecture becomes, or returns to being, a civil commitment, an intellectual effort to be put at the service of various social contexts, and design a cinema hall, a butcher, an RSA, a museum, a banking agency. They could be called interacting, complex, and functional parts, not only of a city but of civilization.

## An alliance between city and countryside

One of the most significant contemporary urban design themes is constructing a non-hierarchical relationship between the city and the countryside.

We had imagined that the city was so strong from an iconic point of view that even nature was artificial, while today we realize, belatedly, that it will be the natural environment that will give the conceptual guidelines for the urban development of the future.

The urbanized area must be "invaded", shaped, colonized by the environment to build a different identity that permeates the two developments (natural and artificial) that are increasingly divergent today.

The building is a verb that today takes on other meanings, and it perhaps means mending, re-sewing (as Piano indicates), degraded parts, intoxicated by uncontrolled expansion, building today means imagining scenarios compatible with "sensitive development" rather than sustainable.

The reiterated theoretical conflict between the city and "free land" must be transformed into the whole community's opportunity, a different vision of growth that can also become an opportunity to relaunch our stagnant economy.

Making the cities that have represented the highest point of civilization in every age, at every latitude, beautiful and natural, is an ethical, aesthetic commitment that produces new economies, new job opportunities, "creates meaning" for a hypothesis of a shared future.

The inhabitants of a city often do not feel participation in transforming the territory, except when this change affects particular needs.

The time has come to rewrite the priority agenda and transform Italians (or Europeans if you like) into active citizens of a complex change process.

It starts from anthropology and environmental planning to arrive at the architecture and public design to "re-naturalize the city", and in this social project, every noble or less noble part of the territory must contribute to making our area more liveable and attractive.

"Come, come to the city, what are you doing in the countryside", sang Gaber and today, we would like to take that countryside all within the ancient walls, dialectic to that "other place", where the building identity was extinguished.

Nature to be rebuilt as an element of "cultural reclamation", to create that virtuous action that the turbulent urban expansion of the past decades has submerged (with concrete).

The invention of a new eco-system arises from the juxtaposition between the artificiality of the project and the naturalness of the environment that must receive and "support" it, after the clash, the exchange of significant values, because each discipline can contribute to making our city radiates, even imagining new aesthetic utopias.

It is unnecessary to analyze the alternative political visions that have given land rent different values and values. However, it is necessary to begin to perceive urban development as a civil and centripetal transformation and re-design and not the thoughtless centrifugal explosion of parts, often incompatible and not very interacting, crazy splinters of an unreal, muscular, and substantially real estate town planning.

Nature within the city will be an indispensable part of the urban and urban future because the street that leads to that idea of the "Italian City" must dialogue with environmental gentleness with its splendid buildings and its colorful past.

More space will be needed for pedestrians and bicycles, more accessible private parks to not overcrowd the public ones, which, who knows, may no longer have benches to sit in a company to respect social distancing and after the emergency. Furthermore, maybe we will have to say goodbye to touch technologies. The way we experience our cities and our relationship with people and objects will change once again, and this adaptation will happen quickly. Perhaps it will be time to avenge outdoor activities and the transformation of indoor and outdoor spaces.

## Internal areas

Sparsely urbanized areas are salvation; they are not a problem because even in climatic tragedies, sea-level rise, with coasts at risk, having a town at 1,000 meters, in good condition, with a hospital, with public transport efficient, it is a great opportunity. We could go and live in a small town in Abruzzo with smart working instead of continuing to stay in Rome. We must treasure what is happening, and the inland areas are a fortune for Italy. Also, for cultural reasons, each country is capital, and therefore, many countries have survived. We still have so many centers, a great heritage, the only nation in the world with such a great heritage, and a crime to have these countries die. Indeed, the urban model entirely linked to the supermarket, in which people are used to having services without ever asking themselves where they come from, is a bit more fragile than the mountain model, where the old farmer always had to manage alone. The relationship with death is also stronger, and paradoxically this helps; the only certain thing is that life is always in danger ".

One of the reasons why the National Strategy for Inland areas does not work is that political coverage is insufficient. In Italy, a nation of villages and mountains, there is little attention to countries and mountains. Suffice it to say that the law on small municipalities still wanted does not have the implementing decrees. There is insufficient awareness: there is a heritage that does not concern only the countries but concerns Italy's whole that will perish. If we have a thousand unused buildings in a country, these buildings are a wealth; if they go down the drain, it means impoverishing the whole country. Also, if we do not support these countries, we do not put them in a position to work; they become an expense for the state. Apart from the Strategy, it takes very large investments.

Depopulation is a very slow process, and it has no peaks, it is not perceived. It is a silent virus that kills nonetheless: it kills places, closes spaces, services, including hospitals.

Depopulation and wild urbanization are finally perceived as a global problem; even in China, they will have noticed. It is impossible to bring 20 million people from the countryside to the city to achieve progress: ephemeral progress is exposed to imponderable risks. However, the distribution of the population is dangerous: people should be distributed evenly in the territories.

Mass tourism will never arrive in these places: their beauty is also due to the lack of tourism. However, provisional forms of residence must be encouraged: a pensioner who stays six

months in Milan, six months in the South's countries. Alternatively, foreign tourists who stay for a month with training courses, to make oil or bread. Imagine these countries as places of residence rather than as a destination for tourism, and then focus on people who move like young people who move to countries but with teleworking are connected to the rest of the world. It is not bringing those places to become like Siena or Venice, favoring wild tourism, but leaving them as they are. A country is also a dangerous place: it must be taken away from the villagers; it can be a place of narrow-mindedness, of conservation. We need to ventilate the country. It will be necessary to create "brook communities", which are open to a confrontation with other people, in those hybrids and multicultural third spaces, creating a new community. We need to get out of the concept of a "puddle" community that grips the internal areas too much.

The silence, the contact with nature, good food, the availability of landscape are peculiarities of the internal areas. The availability of land and space is a resource. Festivals could also be good experiences, they could be positive in terms of territorial marketing, but the problem is that there are no internal development mechanisms to the internal areas after the festivals. It is, therefore, not the festivals that trigger a change of economy: work is needed, even industrial activity, but green, dedicated to the transformation of agricultural products. From this point of view, there are no great model experiences. Some good mayors have created community co-operatives and put solar plants on the roofs, designed festivals, and so on. However, a territory that has defeated depopulation has created a model of local and sustainable development, a country in which the inhabitants are also happy, in this moment of research, has not yet been identified. This is the defeat of all those who have worked on these issues over the years.

## Resilient and Prosperous Cities

The environmental model, green creativity, could be the only way to resilience soon. We are guests of this planet, among others, and we should take a step back. If we take a step back, we may be less exposed to emergencies of any kind. If we continue like this, we will be overwhelmed by our greed.

The 2016 UN-Habitat report (UN-Habitat, 2016) introduces a new development concept beyond the financial and economic aspects to focus on the quality of life, environmental sustainability, and social equity. A new type of city, centered on humans, capable of integrating the tangible and less tangible aspects of well-being, getting rid of those forms and functions of the city of the last century that are now inefficient and unsustainable, and thus become engines of growth and development. Cities could play a key role in restoring the balance lost due to policies focused on global financial and economic development. Environmental pollution and the growing social divide could be countered by adopting local policies that are close to citizens' particular needs, which, therefore, aim to build a new model of prosperity in cities. To this end, the UN-Habitat project has introduced City Prosperity Index,



an index for measuring urban development obtained by monitoring six key parameters for the constitution of 11th-century cities: productivity, understood as economic growth and the ability to create wealth; infrastructures, both physical and digital; equity and inclusion, aimed at a better distribution of resources and the inclusion of population groups affected by poverty or scarcity of resources; the quality of life, understood as the possibility of accessing essential services, such as health, but also cultural and sporting enjoyment; environmental sustainability and governance, as the ability to affect decision-making mechanisms both directly, through the powers assigned to the city itself, and indirectly in the relationship with national states (UN-Habitat, 2016).

Given the complexity of measuring these parameters, which requires the availability of various statistical data and the verification of their evolution over a reasonably significant time, only in recent years have cities begun to use these indices to measure and relate to other urban areas. Furthermore, the comparison between modern megalopolises and small centers with stratification of centuries would require a contextualization that a simple reading of statistical data cannot face. The comparison between cities that are not comparable in size and geographical location is unthinkable. Therefore, UN-Habitat proposed the adoption of the CPI "City Prosperity Index" platform to monitor the approach to the Sustainable Development Goals SDGs established by the 2015 2030 Agenda. The CPI could represent a good system of standardization and comparison (Galliano, 2020).

Therefore, it is a survey on all aspects that affect the quality of life and the environment, accessibility to resources, and the ability for everyone to benefit from them, the ability to govern or self-govern the city and its citizens. In this sense, we speak of the "wheel of prosperity".

The goal is to encourage the birth of new harmonious microsystems that, by uniting, can promote collective well-being while respecting human rights and safeguarding the planet. In this sense, cities need to be placed in better positions to respond to the challenges of our time, optimize resources, and exploit their full potential.

One of the main elements on which cities are questioning and comparing is undoubtedly attractiveness. What to attract? It all depends on the characteristics of the city itself, on its vocations and ambitions. The attractiveness of cities is a complex system of aspects that involves elements of an economic nature and equity and social balance, thus based on economic, social, and environmental sustainability. An urban redevelopment based on attractiveness could, however, lead to the risk of activating gentrification processes. The inclusion of "valuable" functions within a neighborhood increases the attractiveness, but at the same time, tends to expel citizens who are unable to cope with the higher costs. The attractiveness, therefore, could provoke a shift of the poorer classes towards the most degraded suburbs, triggering, once again, processes of polarization in the city center, social segregation in some neighborhoods, and an increase in internal commuting (Galliano, 2020).

The future cities will attract more and more inhabitants; the demographic trend seems inevitable despite the sharp slowdown caused by the Covid-19 pandemic. This data is imposing

increasingly pressing reflections on the most extensive international cities, which will have to deal with the increase in urban life quality problems. Climate, transport, safety, environment are variables that in turn can be declined in many ways.

In the UN report, "2018 Revision of World Urbanization Prospects ", it is predicted that over 40 cities in the world will exceed ten million inhabitants, 60% of the population will live in urban areas, and 95% of urban expansions will take place in countries in the way of development. The challenges that will arise are immense, especially in transport, infrastructure, education, health, and social equity. Considering that over eight hundred million people live in slums, cities are responsible for over 75% of CO<sub>2</sub> and consume about 80% of the energy produced, with strong pressures on fresh water supplies, on the sewage system, on the environment. and public health (UN, 2015).

SDG 11 of Agenda 2030, Sustainable Cities and Communities has as its subtitle making cities and settlements inclusive, safe, long-lasting and sustainable (UN, 2015), which could be summarized in making cities resilient. Because cities are centers for new ideas, for trade, culture, science, productivity, social development and much more. There are many challenges to maintain urban centers as places of work and prosperity, and which at the same time do not damage the territory and resources. The urban environment challenges include traffic, lack of funds to provide basic services, shortage of adequate housing, and degradation of infrastructure.

The challenges cities should overcome would allow them to continue to thrive and grow, improving resource utilization and reducing pollution and poverty. The city of the future will have to offer opportunities for all, such as access to basic services, energy, housing, transport and much more. The biggest challenge humanity and cities had to face until recently, was the climate emergency. Today, while the fight against climate change continues to be a priority, more urgent every day, we are faced with a problem that we never imagined: a pandemic. The consequences of the global health crisis are affecting our health, our lifestyle, and our routines and show the vulnerability of the cities and spaces in which we live.

According to the 2020 UN report "Covid19 in an Urban World" 90% of COVID-19 cases have been recorded in urban areas (UN, 2020). This is not surprising, considering the density and poor air quality of cities, as already indicated in the 2018 Revision of World Urbanization Prospects (UN, 2015) report.

Cities and those who live in them are at the forefront of suffering the pandemic's impacts, but they can also be in the identification of solutions. Crises often lead to the emergence of neighborhood initiatives or individuals who have the power to provide value and social innovation.

Citizens and local governments can be pioneers in responding to this and future crises, and cities can achieve substantial improvements by becoming more resilient to pandemics, inequalities, and climate emergencies. Changing cities into more liveable and sustainable

spaces - with better public transport, more bike paths, access to locally produced food, and public green spaces, is not only possible but necessary to make our cities safer and more resilient to future crises and to what we are experiencing. Furthermore, investing in urban development is also an economic opportunity for post-Covid recovery: making cities more connected and coordinated around green policies could produce economic savings. According to the European Investment Bank Group's 2020 report, *Climate Action in Cities*, our planet's future depends on managing urban development. Cities that contribute most to climate change are also among the most at risk and therefore have the most to gain by becoming green. With many of the world's urban areas on coasts and therefore at risk of rising sea levels, significant work is needed to protect cities from these and other climate-related threats. Cities are where spending on climate action will have the most significant impact. Making cities more connected and coordinated around green policies could produce economic savings of up to \$ 17 trillion by 2050 (EIB, 2020).

Faced with the pandemic crisis, the city finds itself at a crossroads to continue on the path of uncontrolled growth of the twentieth century or to become the engine of a new development model that brings together sustainability, circular economy, public happiness. That is to choose whether to return to the previous condition or to implement transformative resilience, that is, to increase the resilience of the system against future crises.

During the last century of developing cities around zoning plans to avoid proximity between workplaces (Second Space) and residences (First Space), the approach followed during the last century has generated highly perverse effects. Real estate speculation has effectively prevented the shared urban space from becoming a place of relationship (Third Space), of community meetings to promote proximity. However, already Francesco Milizia, in his *Principles of civil architecture* of 1781, had committed himself to an architecture that saw the space of relationality as a modality of connection between people. Milizia brought back to the attention of contemporaries the affirmation of Marco Tullio Cicero: «Cities without human coexistence could not have been built or populated; hence the constitution of laws and customs; hence the fair distribution of duties and a sure norm of life. From all this followed the kindness of minds and mutual respect. Hence it happened that life was safer and we, by giving and receiving, that is, by exchanging our possessions and our powers with each other, did not feel the lack of anything ». (Of duties, II, IV)

A city well organized in terms of mobility, public services, logistics, social services, cultural proposals is the most important factor of competitive advantage. Knowledge-intensive manufacturing activities are, almost entirely, city activities. This implies that the "creative industries" tend to group themselves in those cities that can offer adequate cultural, social, and economic opportunities.

The "Annual Report on Strategic Foresight - Charting the Course to a More Resilient Europe", presented by the European Commission on 9 September 2020, illustrates the Commission's strategy for integrating strategic foresight into EU decision-making. These first lessons

emerged from the COVID-19 crisis and introduce resilience as a new compass for EU decision-making, discussing Strategic Foresight's role in strengthening the EU's resilience and its member states. The Report adopts the “transformative resilience” approach developed in the last four years at the Joint Research Center (JRC) of the European Commission and analyzes the resilience of the socio-economic system along four interrelated dimensions (social and economical; geopolitical; environmental; digital), illustrating its importance for achieving the transition to a digital, sustainable and equitable Europe. Of particular interest are the technical materials accompanying the Report, which also illustrate initial sets of indicators to assess the Member States' vulnerability and resilience concerning the various dimensions examined. In the conceptual framework developed by the JRC, the long-term dimension of policies, aimed at achieving the SDGs, and the short-term one, in response to shocks of different nature, merge into a new conceptual framework, which also proposes the abandonment of the usual classification of economic, social and environmental policies, and its replacement with a nomenclature based on five categories:

- prevention measures: aimed at reducing the incidence and size of shocks, and, where possible, avoiding them.
- preparedness measures: aiming to create suitable tools to strengthen resilience in the face of shocks.
- protective measures: necessary to mitigate the effect of shocks and avoid potential deprivation or reduction of the standard of living.
- promotion measures: aiming at increasing the adaptive capacity (flexibility) necessary to manage long or very large shocks.
- transformation measures: they facilitate the transformation process, while avoiding unnecessary radical changes.

Naturally, the different policies take on different weights and roles depending on whether we are faced with relatively small and short shocks (where an objective of absorbing the disturbance prevails), shocks of medium size and duration (where it is necessary to make various adaptations to the functioning of the system), significant and long-lasting shocks (to cope with which profound transformations are indispensable). Therefore, in this perspective, we speak of “transformative resilience” as a system's ability to “bounce forward” and not back to the position before the crisis, an objective to be pursued only if the system was in a position of sustainable development. As the Report indicates, “Resilience” refers to the ability not only to resist and cope with challenges but also to transform in a sustainable, equitable and democratic way. In light of the COVID-19 crisis and transition-driven political agenda, it is clear that Europe needs to strengthen its resilience further, i.e., recover but emerge stronger by intensifying these transitions. The EU must learn from the pandemic, anticipate future developments and find the right balance between the well-being of current and future generations”.

The perception has been strengthened that other threats, including future pandemics, are looming over humanity, starting with the climate crisis and the destruction of ecosystems. Faced with the pandemic, the reactions of governments have been quite heterogeneous, also according to the ideologies underlying the political vision, with a fairly clear diversity of behavior between countries led by conservative and progressive majorities, with direct effects on the lethality of the virus among the population, especially the weakest. Although some believe that multilateralism has now gone out of fashion, the conviction that international collaboration is indispensable to face the great global challenges and that the role of public authorities, whether it involves transfers to groups weaker social networks to alleviate a crisis, whether it is an investment in health, the transition to the green economy, digitization, research, must be strengthened, also by changing the characteristics that the market economy has taken on in the last forty years. The emergency resulting from the pandemic has made even more evident the negative effects of a globalized system not subject to common rules and standards, characterized by a high level of job insecurity, which does not guarantee respect for human rights and access to universal rights, which, in the event of a crisis, has dramatic impacts on people, especially the most fragile. An important lesson to be learned from this crisis is policy coherence, especially from a sustainable development perspective. At the end of 2019, the Organization for Economic Co-operation and Development (OECD) published an important study on this topic (OECD, 2019) and provided some recommendations to governments, based on the experience gained over the last twenty years. The recommendations use eight principles, organized into three pillars: the first recalls the need to have a strategic vision to implement the 2030 Agenda, supported by a clear political commitment and a leadership committed to improving policy coherence; the associated principles relate to political commitment and leadership, long-term strategic vision and policy integration. The second pillar refers to the need to have effective and inclusive institutional and governance mechanisms to address the interaction between policies in the various sectors and to coordinate the work of the different levels of government; the principles associated with it are coordination at all levels of government, the involvement of subnational entities and the involvement of other stakeholders. The third pillar refers to the set of tools necessary to anticipate, estimate and address domestic and transnational policies and to assess their long-term impact; the associated principles relate to the impacts of policies and loans and the monitoring, reporting, and evaluation of the policies themselves. The pandemic has presented the world with a great challenge: not only to minimize the negative effects of COVID-19 on people, society, and the economy but also to exploit it to improve the situation instead of restoring the conditions in force before the crisis, by adopting policies that increase the resilience and sustainability of the system. From this point of view, the European Union's reaction to the crisis has been unprecedented in terms of approach and the type and size of public intervention. In this perspective, various international institutions and organizations have proposed solutions to this challenge. The Club of Rome has launched a request to the leaders of the G20 aimed at putting People, the Planet and Prosperity at the center of the recovery by borrowing three of the five "P" on which the 2030 Agenda is based.

The initiative is to ensure greater resilience of the socio-economic- environmental system, improving global health, reducing pollution, rebuilding the human relationship with the environment, rethinking land use and food production (TCR1, 2020). The Club of Rome has also launched its Planetary Emergency Plan, supported by over 220 organizations, institutes and NGOs worldwide, with the precise indication of 10 commitments for the global commons and 10 urgent actions to transform our societies towards sustainability (TCR2, 2020). WHO published its "Manifesto for a healthy recovery from COVID-19" (WHO, 2020) in May, in which it highlighted the relationship between the severity of the crisis and poor access to universal health systems and inequalities, factors that amplified the effects of the pandemic. According to the WHO, it is not enough to go back to the situation before the pandemic, but six key reforms must be adopted: protecting and preserving nature as the source of human health; investing in essential services, from the availability of water and sanitation to renewable energy in medical facilities; ensure a fast energy transition that aids health; promote the production of healthy and sustainable food; build sustainable and resilient cities; eliminate state incentives for fossil fuel energy. The OECD has also proposed 25 actions to be implemented by 2025 for a sustainable recovery (OECD, 2020). Taking these actions could improve people's health, well-being, and prosperity by working with the available resources and capabilities. The actions are organized into five key sectors of the economy responsible for most of the emissions: agriculture, construction, electricity, industry, transport. These would be activated by five different levers available to policymakers and individuals: investment, regulation, taxes, and subsidies, led by example, inform and educate. By crossing the sectors and the levers, the twenty-five solutions are obtained, which would make it possible to reduce CO2 emissions by 90%, respecting the targets set by the 2030 Agenda and the 2015 Paris Agreement.

Among the 25 actions proposed by OECD, it is worth mentioning, action 9 (Ensuring the availability of public transport near homes, offices, commercial districts, and green spaces can increase the vitality and economic development of a city, reducing emissions of greenhouse gases by reducing travel. Many cities, including low-density ones, are now looking at optimizing housing for different types of locations. Encouraging compact and denser cities can be helpful, and regulations that include green spaces and water areas can prevent cities from becoming too congested and overheated. Policies to ensure decent and affordable housing are also essential. In cities in general, policymakers can promote investment in green transport and online connectivity and encourage urban agriculture. (OECD, 2020)

Governments around the world have implemented policies to protect health at a high economic cost. Any post-COVID recession will also significantly impact mental and physical health through increased poverty and unemployment; investing in fossil fuels would also worsen air pollution and climate change. In recovering from COVID-19, it makes sense to act on the climate, protect nature, and promote health and well-being (TCR1, 2020).

People, Planet, and Prosperity should remain at the center of calendars, and governments should focus on clear goals to fulfill their commitments to the Paris Agreement and the SDGs



and build the resilience needed to reduce the risks of the future crises within our economic, financial, and social systems. Well-being and well-being for all rather than GDP growth should be the ultimate goals for the future. The voice of citizens must be included in the decision-making process to shape a more inclusive future.

Taking up the concept of Prosperity, defined by UN-Habitat (UN-Habitat, 2016), this is acquired with a balanced and harmonious development in an environment of equity and justice (Taccone, 2021). The environment in which equity and justice can coexist is Marco Tullio Cicero's city, re-proposed by Milizia to his contemporaries and previously mentioned. In the city where the citizen's voice is included in the decision-making process. In the city, the sense of prosperity must be achieved through urban planning policies centered on people. The wheel of prosperity developed by UN-Habitat is designed for the city of the 21st century and focuses on human activities, through the material and intangible aspects of prosperity, aiming to remove the inefficient and unsustainable forms of urban design. Therefore, the city is the privileged place where all the conditions for achieving a healthy city can coexist, which allows human beings to thrive, feel fulfilled, and develop well-being, progress, and wealth (Taccone, 2021). SDG 3 of Agenda 2030 "Health and Wellbeing" has as its subtitle, "Ensuring well-being for all at all ages", to achieve sustainable development it is essential to ensure a healthy life and promote the well-being of all at all ages. The theme of health and health, therefore, enters fully into the concept of a sustainable city.

The model of sustainable development, outlined by the UN Agenda cannot continue to be considered only an elegant model of reflection but must give life to strategies and interventions that are genuinely circular to safeguard human, social and of the natural one together, avoid waste and producing virtuous balances between the factors. The sustainability of health and healthcare will only be given if respect for generational and natural balances is put at the top of the governments' agendas. The One Health approach, launched and launched in 2004 at the Wild Conservation Society conference, has been mainly applied to animal health, food safety, zoonotic epidemics, and antibiotic resistance. Nevertheless, One Health would be an ideal approach to achieving global health because it addresses the needs of the most vulnerable populations based on the intimate relationship between their health, the health of their animals, and the environment they live in, considering the broad spectrum of determinants that emerge from this relationship.

More careful consideration must now be taken concerning other essential aspects, such as pollution, the transformation of territories and the destruction of natural balances, urban planning, that of the production system and that of transport, and not least the development of result of the technological and IT potential for pandemic control.

Finally, regarding the protection and promotion of health, the pandemic has exposed the welfare and health systems' weakness about the community approach. The already known "double burden of disease", that is, the rapid and critical growth of chronic diseases alongside acute ones, has now been supplanted by a triple or quadruple disease burden situation, given first of all by the resurgence of virus pathologies and secondly by the overlap between old and



new infectious pathologies and chronic pathologies, as evidenced in the drama of many coronavirus deaths, in particular in the most affected regions, and in particular among the elderly and chronically ill patients, but also in some pathological entanglements relating to individuals belonging to younger age groups.

Furthermore, this has confronted us with the limits of the current organization of health services, even in advanced countries like ours, on the need to equip ourselves in a preventive manner for similar events, but also and above all on the need to rethink the role of community and territorial surveillance.

In Italy, for several years, attention has begun to pay attention to the influence that urban planning can have on health (Taccone, 2021). In many European countries and in England, where there is greater attention to urban quality and health, derived from decades of reflection, urban planning regulations are associated with the use of manuals that address urban planning for health. These are manuals derived from observation and reflection on decades-long urban practices, which indicate principles and good practices for the city's design and its parts which, starting from the contextual analysis, can be applied from the national level to the local.

Without a shadow of a doubt, creativity can help in an innovative approach to health-conscious urban planning, in our case in particular, about public space and its declinations, or rather placemaking. This is because implementing good practices to be inserted in different and multiple contexts requires a creative effort.

Creativity is not artistic at all, although we can use art to be creative.

In 1908 the mathematician Henri Poincaré defined Creativity as the ability to combine existing elements with new connections that are useful (Poincaré, 1980).

A concept was also taken up by one of the fathers of Italian design, Bruno Munari, for which being creative means breaking existing rules to create better ones (Munari, 1977).

Creativity is problem-solving, with the addition of some key features: relevance and innovation. Relevance is the degree to which a problem is solved and must be verifiable. Simultaneously, innovation is precisely that degree of uniqueness or originality that that solution possesses (Mumaw, 2015).

According to this modern definition, creativity is intrinsically linked not only to the artistic sphere and to the invention (as per tradition), but innovation, that is, that transformation triggered by the introduction of novelties, aimed at solving problems and improving products, processes. Creativity is needed to generate innovation.

Placemaking is an approach to urban development that focuses on how people interact with spaces in the context of living, working, or spending free time. If we consider what it takes to create a place that offers value, charm, and prosperity, the typical project framework will be

people centered. How will people react? What will people bring here? What will bring them back?

Placemaking has a strong focus on public space, creating a vivid connection between people and architecture. The best examples of successful placemaking can often be found in projects that have transformed almost forgotten neighborhoods, structures, or brownfields into wholly new and revitalized spaces.

Most placemaking projects address an existing place that has failed or requires some revisitation to become prosperous again. Research conducted before a design largely depends on acquiring the people who use or do not use the place in question.

By listening to the public, it is possible to gain an honest and inspiring view of the most critical issues that should be considered when reusing a place to broaden its appeal. Uncovering ideas and incorporating end-user suggestions will immediately put the designer in a better position to complete a project. It may be necessary for a designer to use all possible means to obtain this information, whether that is to survey the local community or to ask family, friends, and colleagues how they feel about their current capacity and what they believe will improve their condition. The public space will address the activities, uses, general character, and what it will mean for the community. The design vision should be defined and targeted to the people who live, work or use the space in question.

Although the project has an essential role in the placemaking process, it is not the main factor. Placemaking is more dependent on creating activated spaces, entertainment concepts, and programs that inspire the community.

The overall experience determines the persistence of the place's attractiveness, and an experience can be guided by an unspecified number of components, by adequate waiting times, use of space and provision of services, attractions, ease of access, and general atmosphere.

Furthermore, placemaking is highly dependent on the creation and the full benefit that it could bring about economic opportunity and planning. When designing architecture, one often collides with preconceptions and theories about potential activations and space use. However, in terms of placemaking, the whole proposal's fundamental basis is oriented towards a valid proof of the end-use vision.

Large public spaces are the result of collaborations and partnerships. With the right partners, more innovation, unique planned activities, and, of course, support, both financial and political, it is possible to expand the impact of public space. In particular, from a planning perspective, close cooperation with authorities from the outset could ensure a clear vision for a pragmatic planning program, with practical activities and programs for space, which will not encounter problems with approvals in a second moment. Additionally, partnerships with business sectors are vital, as these, whether it be entertainment, food, and beverage, or retail, will often serve as an initial attraction for visitors.

Not everyone can understand the same view, and there will be those in the community or authorities who may not initially support the concept or ideas put forward. It is up to the project stakeholders to construct a proposal that is so complete and clear that it leaves no doubt about the potential success of the program.

We often talk about flexible spaces and design architecture to adapt to alternative future use. Placemaking is the same. Trends change rapidly, and ideas and concepts that have worked for years can often stagnate without injecting new life. Placemaking depends on topicality and, to a large extent, on a continuous management and evaluation program, often evolving, at least, on a seasonal basis. The fluid design allows spaces to develop and respond effectively to changing trends and is critical to public spaces' success, putting a good management structure and flexibility from the earliest design stages.

Therefore, placemaking is not street art or making art on the street, which could still be a tool, often used with exciting results. Placemaking is the production of places, spaces, new connections between existing elements, and new elements, generating innovation to find a solution for a given problem. Placemaking is Creativity in urban actions.

By reinterpreting situations, creatively reinterpreting spaces, finding original, innovative solutions to problems, even when there are none, placemaking could become a lever for space regeneration by activating new functions, production, and destinations. And therefore, activator of resilience.

## From Healthy Cities to Healthy Streets

Urbanization associated with lifestyle change has made human life in cities with chronic stress, inadequate physical activity, and increased exposure to anthropogenic environmental risks.

Urban green spaces, such as parks, playgrounds, and urban forests promote mental and physical health, mitigating morbidity and mortality rates in urban residents through psychological relaxation, stress reduction, social cohesion, increased physical activity, and other positive effects.

The quality of our outdoor environments significantly alters our experience of the built environment. Therefore, the corresponding state of the environment is essential to derive optimal health benefits from urban nature. Urban greenery in green infrastructure and nature-based solutions plays a significant role in improving environmental quality and reducing our exposure to air pollutants, noise, and excessive heat.

Nature-based solutions and green infrastructure are proving effective in mitigating urban environmental risks. However, better implementing and integrating our urban green spaces offers a unique opportunity to improve cities' quality of life further.

The focus on health and well-being in future cities' development is at the heart of a group of projects funded by the EU's HORIZON 2020 Research and Innovation Program as part of nature-based solutions. The European Commission defines nature-based solutions as nature-driven and cost-effective while providing environmental, social, and economic benefits and building resilience. These solutions bring increasingly diverse and natural characteristics and processes to cities, landscapes and seascapes, through systemic, resource-efficient, and locally adapted interventions (European Commission – Horizon2020).

These ambitious projects, which will be examined below, recognize future cities' complexity and challenges to advance innovation by leveraging nature-based solutions.

These are exciting projects to date, work in progress, of which it is possible to make reading on the surface and some consideration.

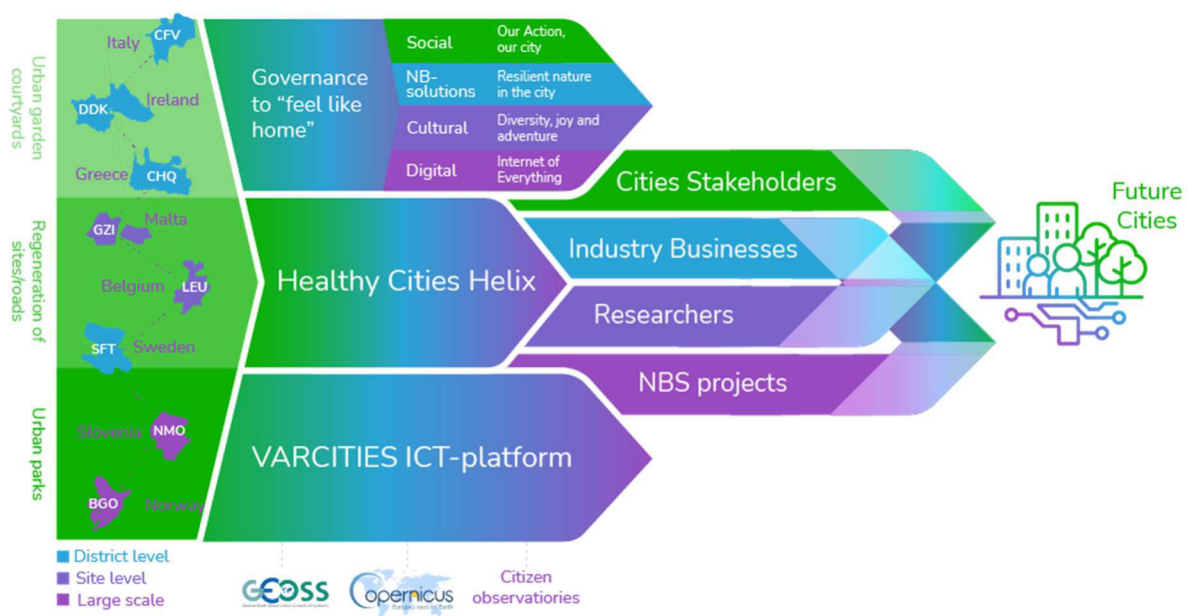
VARCITIES is a project that puts citizens and "human communities" at the center of the vision of the future cities, believing that the cities of the future should become human-centered. The project started in September 2020 and will last until February 2025. The consortium consists of 25 partners under the Telecommunication System Institute (IST) guidance in Crete. Eight pilot cities will test and implement several innovative nature-based actions. Bergen (Norway), Castelfranco Veneto (Italy), Chania (Greece), Dundalk (Ireland), Gzira (Malta), Leuven (Belgium), Novo Mesto (Slovenia), and Skelleftea (Sweden). These cities differ in geography, climate conditions, and the challenges they face but share the same vision of a healthier and sustainable urban future.

VARCITIES' vision is to implement fundamental and visionary ideas and add value by establishing sustainable models to increase citizens' health and well-being: children, young

people, middle-aged and older people exposed to different climatic conditions challenges. Public spaces are conceived as areas focused on people who support creativity, inclusion, health, and happiness for citizens.

The VARCITIES project aims to design visionary solutions based on nature that contributes to the city's formation of the future and its inhabitants' well-being—monitoring and evaluating the sustainability of interventions through health and well-being and improving the sustainable transition to future smart cities. The most ambitious objective is the construction of Sane Cities.

The VARCITIES approach prioritizes an integrative and transdisciplinary focus that considers the entire ecosystem in its complexity, including all society members—recognizing the need for nature-based approaches that cannot ignore context and individuals. For this reason, it will be necessary for each city to consider the specific needs of evolution and contest or municipal strategic policies and characteristics of the population. Nature-based solutions aim to become a customizable fabric underlying an entire ecosystem of fully connected sensors and smart devices, providing numerous co-benefits.



Varcities ICT Scheme (Credit: [www.varcities.eu](http://www.varcities.eu))

This project's impact is achieving the high quality of multifunctional public spaces, converting them into safe, inclusive, and accessible places to ensure citizens' health and well-being.

The GoGreenRoutes project, which has as its subtitle "rendered nature again healthy is the key to our physical and mental well-being", coordinated by the National University of Ireland Maynooth, seeks to evoke a change in the perception of public spaces related to the increased use of green corridors, increased active transport and improvement of the Health and well-being of the population. High-quality multifunctional public spaces were able to integrate

digital, social, cultural, and nature-based innovation to improve health and well-being while guaranteeing the right to the city.

The aim is to create urban well-being labs in co-creation between the forty partner organizations of the project and six pilot cities: Burgas (Bulgaria), Lahti (Finland), Limerick (Ireland), Tallinn (Estonia), Umea (Sweden), and Versailles (France). Cities implement "nature-based solutions" such as green corridors, linear parks, pocket parks, and shared pedestrian crossings to improve their urban residents' physical and mental health. Maximizing available public space, people can move around the city more actively, enjoy their free time, and interact with others, while there is also room to restore spaces of ecological value. By developing a series of environmental quality indicators, the lessons learned between the six pilot cities and three large metropolises, different in many characteristics, Mexico City, Beijing, and Tbilisi, represent several large-scale opportunities for the implementation of nature-based solutions, will take place at a later stage.

GoGreenRoutes' approach shifts the traditional focus of nature-based solutions towards its co-benefits for biological, psychological, social, and environmental health. The goal is to improve, identify and monitor the positive effects of green spaces on reducing stress levels, mental resilience, and social behavior, using digital innovation to study the impact of green corridors on physical activity.

Active travel, mainly through nature or green corridors, has a key role in supporting healthy lifestyles and achieving WHO's physical-activity goals (WHO, Urban Green Space, and Health, 2016).

In addition to improving sustainable mobility, green corridors can reduce air and noise pollution, improve urban ventilation (thus reducing the heat island effect), provide ecosystem and habitat services to animal and plant species, and improve flood resilience, all while improving the physical and mental prosperity of urban residents.

Aligning with Agenda 2030 SDGs 3 to ensure biological, psychological, social, and environmental health, for all generations, as a key to sustainable development, GoGreenRoutes implements an intergenerational approach called 360-Health. The approach integrates multiple health domains and includes perceptions, attitudes, and behaviors related to each of them. GoGreenRoutes has a specific focus on mental health and well-being, physical activity, nutrition, sleep, cognition and performance, social Health, human-nature interaction, and sustainability about urban nature. The indicators developed by GoGreenRoutes will assess the many dimensions of health and determine the impact of interventions based on the nature and health of populations, allowing the cost-benefit analysis of these interventions.



GoGreenRoutes 360°Health Scheme (Credit: [www.gogreenroutes.eu](http://www.gogreenroutes.eu))

mobilizing undervalued existing resources, such as culture and heritage, food, human-animal ties, and art and the environment, could help promote Health and well-being, with a focus on gender, diversity, equity, and inclusion.

The integrated approach will combine technological, digital, natural, cultural, and social innovations in selected urban public spaces. These solutions will be co-designed, distributed, and co-managed with local residents and stakeholders. IN-HABIT's target is to advance knowledge about the health and well-being R&I needs of small peripheral centers, define structures for collecting data at the city level, and develop data to monitor both the city's development trajectories level and the impact of policy actions. The results will improve our understanding of how small and medium-sized cities work in practice.

Four Cities and Four Values Scheme of IN-HABIT (Credit: [www.inhabit-h2020.eu](http://www.inhabit-h2020.eu))

The project will also boost the health and well-being index in the four pilot cities, offering high-quality multifunctional public spaces that integrate digital, social, cultural, and nature-based



innovation to improve health and well-being. IN-HABIT will use participatory approaches to redesign and transform public spaces to increase Health and well-being in cities through innovative public-private partnerships. It will help European cities become global ambassadors of sustainable lifestyles, providing universal access to greener, safer, more inclusive, and more accessible public spaces.

Interest does not necessarily have to be oriented towards green spaces, green corridors, or blue areas. The streets represent the public space par excellence of our cities, and it is precisely the streets, could, with small "large" actions, contribute to improving the levels of health and well-being of the inhabitants and make a significant contribution to sustainable development and the environment.

Today we live in a different world. Setting foot on the street is very likely to be injured or killed, a condition that has become normal today in many cities. Without the streets that play their historical role as social spaces, the community has been pushed to the sides, and as streets have become more expansive, polluted, and more dangerous, many streets have become empty of people. The Covid-19 pandemic helped empty the others that people still frequented.

In many cities, numerous initiatives, already pre-Covid-19, had been activated to make people take back the streets, that the streets would become everyone's again. Numerous examples of interesting impacts can be found in Europe and the United States, even before the 2020 pandemic. The city of Boston, as mentioned above, in the case study of the "New Urban Mechanics", but also the city of Austin (TX) with "Streets for All" and "Walk Austin", while in the old exemplary continent is the example of "Healthy Streets" of London.

Remaining on Austin, the city that in recent decades has experienced a significant increase in traffic and therefore of reducing street safety, at the same time several organizations have been born dedicated to the re-discovery of new ways of living the city and moving around the city, setting as a goal the Health and well-being of citizens. Since 2010, the Streets for All organization has been promoting street recovery initiatives through festivals and community fairs. Walk Austin is an association of citizens who love walking, running, or cycling and urban planners who collaborate with local authorities to make the helpful city's pedestrianization safe and pleasant by improving infrastructure, policies, and programs.

During the pandemic, in May 2020, Walk Austin, in partnership with the city government of Austin, launched the Healthy Streets Austin program to give priority to streets for all. A program was born to help people exercise safely while respecting social distance during the pandemic. The program was implemented with a grant from the American Association of Retired Persons (AARP), which allowed Walk Austin to lead community research and defense efforts that allowed the Austin City Council to launch the Healthy Streets program, intended to rebalance the streets to give residents additional space to exit during the restrictions safely. Research on best practices will bring long-term changes to city streets, helping to restore them to real public spaces for everyone, regardless of people, age, ability, or movement possibility. Up to now, the actions have covered four important city arteries. The program is bottom-up,

started directly from the Walk Austin community, and involved all the citizens. Under the Austin city administration, Austin Transportation helped launch the Healthy Streets Initiative by connecting previously disconnected portions of the active transportation network and creating more space for daily physical activity (WA, 2020).

Healthy streets are achieved by closing certain local streets to traffic, maintaining local access only for residents, deliveries, and emergency vehicles. People can more comfortably use these low traffic areas for walking on healthy streets, rolling in wheelchairs, running, and cycling with enough space to maintain physical distance.

A general feedback poll on healthy streets has been developed to collect input from people.

The survey is bilingual, English and Spanish, to reach the broadest population and presents demographic questions to determine the representative of Austin residents who took part. It affected the population in May and June 2020. More than 57% of those who have joined are women, while most members are between 25 and 54 years of age. 9.5% were residents over the age of 65. The stride is the low percentage in the 15–25 age group, almost 2.5%. This could open up further reflections. More than 90% of survey participants are either unmoved or have no difficulty moving. As far as income is concerned, respondents belong almost equally to the various classes, with a slight peak in the range above \$150,000/per year (WA, 2020).

Respondents are asked several questions about how they use Healthy Streets so that the project team can assess whether the initiative is successfully creating space for physical and mental well-being. 38% said they use them daily, even several times, while 45% use them weekly. Sixty-three percent move through healthy streets with their family, walking, jogging, or cycling. Respondents are also asked their priorities for broader transportation issues the city could address with the COVID-19 pandemic, supporting essential travel and slowing vehicles. 81% said the priority is to create safe spaces for walking, jogging, rolling, cycling, and other active modes of transport. Seventy percent of survey participants use healthy streets for physical activity and mental well-being (WA, 2020).

Interestingly, the most significant interest in healthy streets support comes from the inhabitants of the neighborhoods concerned, i.e., those who have seen the benefits directly, while the further away from the areas of interest, the consensus and interest is reduced. Among the many comments are to abolish cars forever or to expand the initiative to other neighborhoods. Currently, the initiative covers four arteries of populous central neighborhoods of the city of Austin.



Figure 1: Avenue G (Credit: [www.healthystreetaustin.org](http://www.healthystreetaustin.org))

Avenue G, (figure 1) a long straight avenue and arguably one of the most inviting streets in the Hyde Park neighborhood, have been spotted, with long blocks discouraging fast driving, street width, and attractive homes that line it. Over the months, it has become a popular walk for all residents, from children to the most avid sportsmen to the elderly (WA,2020).

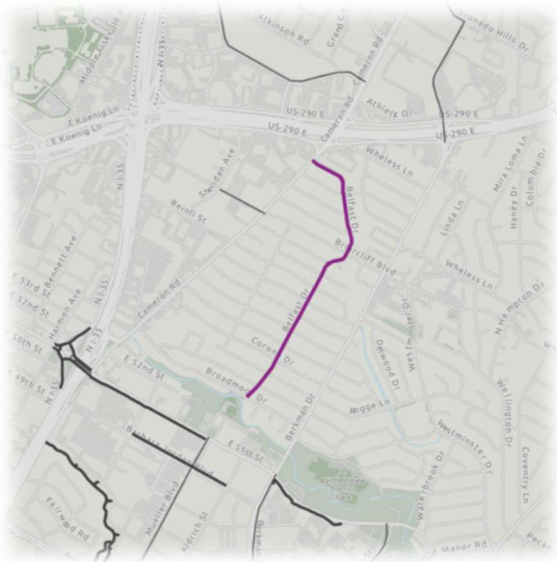


Figure 2: Belfast Drive

Belfast Drive (figure 2) was spotted in the Windsor Park district, as it was the only street connecting the whole neighborhood. The other streets would have been too short and high-speed vehicles. This street promoted walking and cycling, acting as a temporary solution as new sidewalks were built to reach the park. It has become a protected street to Bartholomew District Park to spend the morning outdoors safely (WA,2020).

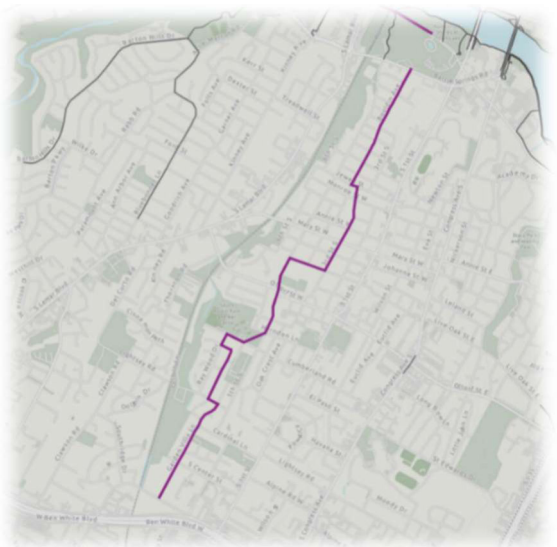


Figure 3: Buldin Drive

Buldin Drive (figure 3) is a street that connects the entire city center, from the Auditorium to the Research Center, through schools, recreational clubs, and numerous attractions. The healthy street has helped encourage people to exercise and use this vital connection to access community resources (WA,2020).



Figure 4: Comal Street (Credit: [www.healthystreetaustin.org](http://www.healthystreetaustin.org))

Comal Street (figure 4) in downtown Austin connects neighborhoods, local businesses, community services, Lady Bird Lake, and an elders center at the Rebecca Baines Johnson Center for seniors. This historic district has long been home to disadvantaged populations, and many streets are without sidewalks. The redefinition of priorities in space has given people a way to walk safely within their community (WA,2020).

Even during a previous global crisis, the energy crisis of 1973, it had offered a possibility of changing the mentality of the population, spreading greater awareness of the instability of the production system by reassessing the importance of oil, which was no longer seen as the only possible source of energy. With the energy crisis of 1973, new words such as "ecology" and "energy-saving" began to enter the common vocabulary, symbols of a change in the mentality of international society and everyday life (Petrini, 2012).

Following the crisis of 1973, in the United Kingdom, the Sustrans foundation was born, abbreviated sustainable transport, consisting of a group of cyclists and environmentalists, with the mission, now widely achieved, to create over sixteen thousand kilometers of cycle paths by the early 2000s. The foundation today consists of more than 3000 volunteers and 30000 supporters and has shown that even the most ambitious goals can be achieved (Sustrans [www.sustrans.org.uk](http://www.sustrans.org.uk)).

It continues to strengthen the UK's National Cycle Network (whose first stretches redeveloped and retraced the old disused rail tracks) and continues to work on several projects to encourage people to walk, cycle, use public transport and give citizens a choice to travel while benefiting their health and the environment (Sustrans).



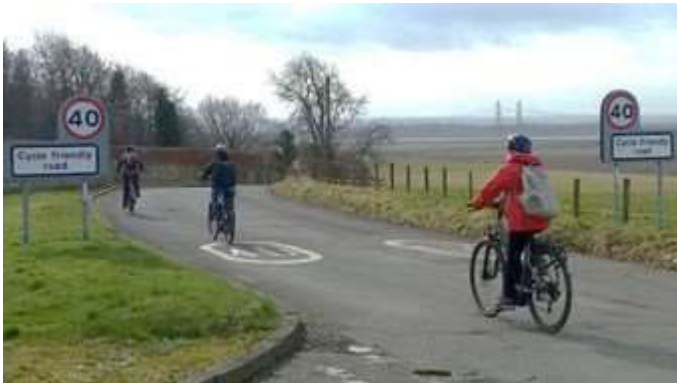


**Extension of the UK's National Cycle Network (Credit: OSMap 2021 [osmaps.ordnancesurvey.co.uk](https://osmaps.ordnancesurvey.co.uk) )**

The foundation also works to increase the security of direct routes to schools, stations, and residential neighborhoods.

Sustrans values should be the basis of every initiative: all included with the courage to question himself; acting locally but thinking big; working together learning; committed to protecting the environment and people's health and safety (SUSTRANS).

The benefits of walking, cycling, riding wheels, and healthy places are not experienced in the same way by everyone; to develop solutions that will works for everyone, people with different voices are involved and would rarely be heard.



Credit: [sustrans.org.uk](https://sustrans.org.uk)

Sustrans's vision is a society where the way we travel creates healthier places and happier lives for everyone.

Sustrans's mission is to make it easier for people to walk and cycle.

The Theory of Change developed by Sustrans has exciting features and is easy to read. It helps to demonstrate the impact of actions, providing an accessible summary even in complex

situations. It helps to understand how and why interventions work, identifying any problems and new opportunities. Defines short-term benefits for people and places (SUSTRANS).

With the increase in people on foot and by bicycle, more inclusive and attractive places are obtained, inequalities in access and mobility are reduced, journeys with motorized vehicles are reduced. All this triggers the reduction of physical and psychological barriers, improves access to public spaces, increasing physical and social security. Local trade flourishes. This leads to an increase in encounters, reducing isolation and loneliness, and increasing the community's sense of belonging. It improves access to green spaces and nature, reduces center congestion and CO2 emissions, leading to improved physical activity and air quality. From this path, we achieve personal and community resilience, improve well-being, physical health, and generate stronger social connections. A society in which we travel creates healthier places and happier lives for everyone, precisely Sustrans' vision.

During the Covid-19 pandemic, Sustrans has enhanced its action by intervening on what have been changes in habits, mobility, and daily opportunities to lead an active and healthy life, intending to maintain the well-being and health of people, even during the critical period that we go through.

Among the various programs developed by Sustrans, of significant interest for this research, the following can be counted:

**Stay Active in London.** A prize challenge aimed at people, but especially at families, inviting them to explore London's green areas and parks and, referring to a board that determines specific characteristics, take photos and share them with a #. The winners of the challenge, from week to week, win a bicycle.

### School Streets for Social Distancing.

A program that has provided for the limitation of vehicular traffic on the streets outside the school entrances during the entrance and exit times. It provided for the installation of temporary barriers to stop traffic, while still installing the transit of residents and companies' loading-unloading. The goal was to reduce the spread of coronavirus infection by



Families enjoy free road - Credit: [sustrans.org.uk](https://sustrans.org.uk)

reducing crowding around schools. This has encouraged the safe mobility of children and parents and offers users the experience of traffic-free streets, encouraging them to walk or bike to school. The school community and residents embraced School Streets. Some people initially felt nervous and had some concerns.

Nevertheless, people quickly adapted to the new routine of the project. People understood the purpose of the project and complied with street closures. Both the school community and residents appreciated what he gave them. The project has shown how effective a School Streets program can be. However, it also showed the need for a long-term solution that requires less commitment from volunteers, but more attention to traffic management by the authorities, especially in schools' vicinity (SUSTRANS, 2020).

**Active Commute Club.** The program proposes to reinvent the daily commute. Considering the changes in the working sphere of many people, especially concerning moving home to work, commuting that, with smart work, has become a distant memory for many citizens. The proposal suggests that this is a great time to think about reinventing the part of the day that used to be destined for commuting, to take advantage of that time saved, to become more active, to enjoy physical activity. A short walk, bike or ride before or after work. The citizen could also have a coffee in a cup to keep in the block's morning round before accessing for the day. Those who continue to go to work are also motivated by mobility different from private transport (SUSTRANS, 2020). The goal is to create a community organized on social networks, an appointment to carry out sports activities or evening walks. Between colleagues or neighbors, they were gathered in teams. There are prizes for photos, testimonials, the promise of Active Commute, and results to motivate the population. Weekly, monthly and daily awards, in collaboration with business partners who use the program as an advertising showcase.

The Spaces for People program, funded by the Scottish Government and developed by Sustrans, aims to ensure that everyone can move around their area safely to meet their needs while adhering to adaptations of physical distances. This is important for the health and well-being of the population (Douglas et al., 2018), and the health benefits go beyond reducing the spread from Covid-19. The program aims to increase social interaction opportunities to reduce



social isolation and maintain good mental health, allowing access to essential work, instruction, and local resources to maintain good health. It also gives everyone access to health and social care services. This involves walking or cycling throughout the journey or part of it; it increases physical activity levels and improves adults and children's physical and mental health and well-being. Regular physical activity can reduce the risks of obesity, cardiovascular disease, type 2 diabetes, mental health problems and improve mood (PHE, 2017; Douglas et al., 2018; SGNTS, 2019).

This transport transition plan encourages walking, wheeled and cycling, where possible as an alternative to public transport and, if using public transport, to pay attention to the restrictions in place (SGTTP, 2020). The creation of additional safe, high-quality local spaces and good quality routes through street reallocation and a review of traffic and parking arrangements is vital to maintaining a physical safety distance, improving the environment, protecting against traffic, and promoting good health and well-being.

Allowing higher levels of active mobility will also reduce street traffic's negative impacts on health and health inequalities. These include higher traffic levels (NHS, 2016), increasing exposure to air and noise pollution, street accidents, injuries to transport users and pedestrians, and separation from the community (Douglas et al., 2018).

People in more impoverished areas and those on lower incomes are more likely to suffer these impacts (Pearce et al., 2010), although they are less likely to access a car. People in low-income communities are at greater risk of street accidents (Douglas et al., 2018), and children walking or cycling in the most disadvantaged areas of 20% in Scotland are three times more likely to be involved in street accidents than 20% of the least disadvantaged areas (Geddes et al. 2011).

Increasing active travel infrastructure can help reduce these adverse health impacts, particularly for those in more impoverished and lower-income areas, and improve the environment. After the blockade, there were signs that traffic-caused air pollution, i.e., nitrogen dioxide levels, may have shrunk (Finch & Palmer, 2020)

Supporting people to continue walking, cycling, or on wheels safely rather than using the car, especially for short local trips, will help maintain better air quality with health and well-being benefits. It has been found that lowering speed limits and introducing traffic moderation measures, such as zones at 20 miles per hour, reduce the risk of injury and death for pedestrians and cyclists. Directing efforts to the most disadvantaged neighborhoods can reduce inequalities in street fatalities (NHS, 2016).

Measures to reduce the spread of Covid 19 are currently and will continue to affect communities and mobility. This presents challenges for those groups experiencing few transportation options. The "Spaces for People" program measures have enormous potential to support safe and active travel during the COVID-19 pandemic and when restrictions are lifted.

Working with communities and connecting with local public health and health improvement departments will help ensure spaces for people meets the needs of local populations. This will

help protect and improve their health and well-being in both the short and long term and support the move towards a greener recovery.

The Mayor of London's strategy, as early as 2018, sets out his plans to address unfair health differences to make London a healthier and fairer city- taking many actions to improve the environment now, setting London on the street to creating a better future. One of the key points of the strategy is the Healthy Streets. The Healthy Streets approach, developed with Transport for London (TfL) is to create streets and street networks that encourage cars, bicycles, and public transport on foot and the health problems. Using the Healthy Streets approach to prioritize human health and experience in city planning, the mayor wants to change London's transport mix so that the city works best for everyone.

To implement the Healthy Streets approach, a partnership has been established between TfL and Sustrans to achieve ambitious objectives of the London Mayor's transport strategy, including achieving 80% of London's journeys on foot, by bicycle, or by public transport by 2041. The program addresses street hazards by responding to local street safety problems and supports municipalities with local initiatives to raise awareness of new cycle paths and discourage engine operation to a minimum.

Cycling training is promoted and supported to improve the safety of bicycles and encourage people to use public transport safely and respectfully.



Lucy Saunders designed the healthy streets implementation process for TfL. The Healthy Streets approach puts people and their Health at the heart of decisions about the design, management, and use of public spaces.

Saunders supports new Healthy Streets officials to implement the Healthy Streets approach to allow more Londoners to walk and cycle for their daily journeys. Healthy Streets (HSO) officials work with some London neighborhoods to encourage more walking and cycling. HSOs help community groups, schools, and businesses reduce car travel

and support training on cycling skills.

The Healthy Streets approach is based on ten evidence-based healthy street indicators, each describing an aspect of the human experience of being on the street. These ten must be prioritized and balanced to improve social, economic, and environmental sustainability through the way streets are designed and managed.

This approach can be applied to any street, anywhere in the world. It builds improvements on existing conditions rather than looking for a fixed end goal. Adopting this approach requires incremental changes in all aspects of street and transport decision-making.

- **Everyone Feels Welcome:** The streets must be welcoming places where everyone can walk, spend time and interact with other people. This is necessary to keep us healthy through physical activity and social interaction.



A Healthy Street in London – credit: healthystreets.com

It is also what makes places vibrant and keeps communities strong. The best test to see if we are setting up our streets is whether the whole community, especially children, the elderly, and disabled people, is enjoying using this space.

- **Easy to cross:** Streets must be easy for everyone to cross. This is important because people prefer to get where they want directly and quickly, so if we make them this difficult, they will feel frustrated and give up. This is called "dismissal" and has a real impact on our health, communities, and businesses. It is not only physical barriers and the lack of safe crossing points that cause disruption but also fast-moving traffic.
- **Shade and Shelter:** Shade and shelter can have many shapes - trees, awnings, colonnades - and are necessary to ensure that everyone can use the street in any weather. In sunny weather, we all need protection from the sun; when it is hot, some people struggle to maintain a healthy body temperature; with rain and strong wind, we all welcome a place to shelter. To ensure that the streets are inclusive of everyone and welcoming for walking and cycling regardless of the weather, we should pay close attention to the shade and shelter.
- **Places to stop and rest:** Regular opportunities to stop and rest are essential for some people to use streets on foot or bike because they find it a challenge to travel longer distances actively. Therefore, the seat is fundamental to creating inclusive environments for everyone and making the streets welcoming places to live.

- Not too noisy: Street traffic noise impacts health and well-being in many ways. It also makes the streets stressful for the people who live there and work there and the people walking on them. Reducing street traffic noise creates an environment where people are willing to spend time and interact.



People cycling in a neighborhood's healthy street

- People choose to walk and cycle: We all need to put regular activity into our daily routine, and the most effective way to do this is to walk or cycle for short trips or as part of longer trips by public transport. People will choose to walk and cycle if these are the most attractive options for them. This means using foot, bike, and public transport more comfortable, pleasant, and appealing than using the private car.
- People feel safe: Feeling safe is a fundamental requirement that can be difficult to meet. Motorized street transport can make people feel unsafe on foot or by bike, especially if drivers travel too fast or do not give them enough space, time, or attention. Managing how people drive so people can feel safe on foot and by bike is critical. People also need to feel safe from anti-social behavior, unwanted attention, violence, and intimidation. Street lighting and layout, "street eyes" overlooking buildings, and other people using the street can help create a sense of security.
- Things to see and to do: Street environments need to be visually attractive to people walking and cycling; they need to provide reasons why people use them: local shops and services, opportunities to interact with art, nature, other people.
- People feel relaxed: The street environment can generate anxiety if it is dirty and noisy, if it is not safe, if we do not have enough space, if we are not sure where to go, or we cannot get to where we want quickly. These factors are essential to make our streets welcoming and attractive for walking, cycling, and spending time.
- Clean air: Air quality impacts every person's health, but mainly on some of the most vulnerable and disadvantaged people in the community: children and people who already have health problems. Reducing air pollution benefits everyone and helps reduce unfair health inequalities.
- 

The Healthy Streets approach had helped inspire more program across the UK, and also the Healthy Streets Austin program and numerous others, especially when, during the Covid-19

pandemic, the problem of public spaces and Health reached the highest critical point allowing the most conscientious and forward-looking administrations and citizens to put best practices into practice in order to improve their urban environment, facilitating their acceptance by communities.

## The Plan for a London Healthy City City of London, UK

London is one of the largest cities in the world. However, like other global cities, it faces some enormous challenges.

London's air quality is dangerous to health and frequently exceeds legal limits. Air pollution contributes to thousands of premature deaths, each of which is exacerbated by health problems. About one in five of London's 4–5-year-olds have an unhealthy weight, and when they drop out of primary school between the ages of 10 and 11, the percentage of those affected rises to two in five (PHE, 2020). This is the highest level of any region of England, and in some London boroughs, 50% of children are affected as they enter secondary school (PHE, 2020). Young Londoners experience worrying levels of poor mental health and often face challenges when trying to get help. Poor mental health is a cause of inequality and disadvantage and consequences (PHE, 2020).

In good health and Londoners' well-being, life expectancy varies enormously between different neighborhoods and even from one street to another (PHE, 2020).

London has the potential to become the healthiest global city in the world. The Mayor wants all Londoners to have the best opportunities to live a long, healthy life. To achieve this, everyone will have to do their part in addressing the causes of ill health, and everyone will have to commit to making London a healthier and more just city.

In 2014 Transport for London won numerous awards for publishing the world's first transport health action plan "Improving the health of Londoners". The action plan centered around Lucy Saunders' Healthy Streets approach and outlined its benefits to all-around health.

At his election in 2016, London Mayor Sadiq Khan said Healthy Streets would be a guiding principle under his leadership. This was quickly followed by all of its statutory strategies defining their role in providing this cross-cutting approach to healthy streets. Vitally, Healthy Streets was the framework for the 25-year transport strategy and a key policy of the city's space plan, the London Plan.

In 2019 the Greater London Authority published a new strategy, born from public consultations and integrated impact assessments, "The London Health and Inequalities Strategy". The vision and goals set out in this strategy derive from an analysis of health inequalities in London, including the change in healthy life expectancy.

Five key objectives have been identified to address inequalities and realize the Mayor's vision in London over the next ten years.

- 1) Healthy Early Years, supporting children and families directly or through London's early years facilities and schools, to provide children with environments that help them play, eat, socialize, and develop well.
- 2) Healthy Minds, so that everyone feels comfortable talking about their mental health. To help children to get the best start in life, their mental health and well-being should be better supported in a wide range of settings, including schools.



- 3) Healthy Places, the city as the Place, where the spaces, or places of everyday life, the places where people live (First space), where people work (Second space) where people play (Third Space), support good health. This means making London a city where people have access to green spaces and the air we breathe is not a killer. The objective also includes the equal opportunity to access good quality jobs, an adequate income to live a healthy life, and a safe place to call home. The Mayor's main ambition is that London has the best air quality of any other major city in the world. The Mayor's primary intention is that the fastest progress is made in the most polluted places to benefit the people most vulnerable to the effects of air pollution.
- 4) Healthy communities, so that citizens feel part of a community, by supporting social integration opportunities and ensuring that people feel safe and included. The goal aims to offer citizens the opportunity to act on what affects personal and community health and well-being.
- 5) Live Healthy, the choice of a healthy life should be the easiest choice for citizens. The Mayor's vision in this goal includes access to affordable healthy food and empowering people to be more physically active, including active travel opportunities. The Mayor's primary ambition is that all Londoners get the daily physical activity they need to stay healthy, with efforts focused on supporting the most inactive. (GLA, 2019)

This forward-looking strategy requires everyone's involvement, the Great London Authority, local authorities, the National Health Service, community and volunteer groups, the business and commercial sector, and Londoners themselves. All actors must have the same power to affect the well-being of communities. Progress of the implementation plan will be monitored annually by the London Health Board and reviewed annually.

Citizen health is the foundation of economic growth and prosperity. It is a prerequisite for thriving social and cultural networks. It prevents health and social care services from being overloaded and prevents Londoners' care needs from becoming more complex and lasting. Indeed, London will never realize its full potential as so many Londoners struggle with health problems.

Most importantly, improving health and reducing health inequalities in London is vital to the people who live and work there. It improves the quality of life, helps communities develop and thrive, and will make London a fairer city where people's chances of life are less likely to be determined by the circumstances of their birth and early years.

## The health of Londoners.

London has a proud record of public health improvements over many decades, including significant reductions in infant mortality and premature deaths from preventable causes such as cancer and heart disease. This progress was made hard, involving the organized efforts of a wide range of partners. This is reflected in Londoners' increase in life expectancy, which now



exceeds 80 years for men and over 84 years for women, compared to 77 and 82, respectively, ten years ago (PHE, 2020).

Comparing the boroughs is just one way to demonstrate the extent of health inequalities in London. Some groups of Londoners - often marginalized or socially excluded - have surprisingly adverse health outcomes. For example, the average life expectancy for people who sleep irregularly is less than 50 years, with 78% of homeless people suffering from a physical health condition and 44% having a mental health diagnosis (PHE, 2020). These adverse outcomes are exacerbated by poor access to health and care services. Similarly, other Londoner's groups experience adverse outcomes, including children in care, gypsy communities, Roma and travelers, people with severe mental illness, and people in the criminal justice system.

However, it is not just the most marginalized or disadvantaged communities whose health suffers from inequalities in our city. There is a "social gradient" for many health outcomes, with evidence consistently showing an association between social status and health.

For all Londoners to live in a healthier and fairer city, it is necessary to reduce the gap in healthy life expectancy between disadvantaged and wealthier areas, between men and women, and between different population groups. The Mayor's will is for progress to happen faster for groups and places where people experience the most significant burden of poor health (Marmot et al., 2010)

This strategy focuses on London's five priorities to realize the vision for a healthier and fairer city, described below.

The places where people live, grow, and works have an impact on health. This includes the surrounding environment, such as air quality and the streets' character, access to good jobs, and decent homes.

The strategy builds on the work already underway in local neighborhoods, boroughs, and across London, working with organizations and people, supporting their efforts, and leading the way by establishing strategic direction for the whole city.

As addressing health inequalities is complex and as the Mayor has no direct power over many of the factors that affect health and health inequalities, the commitment, support, and attention of people and organizations across London is key to achieving this strategy's objectives. By guiding where appropriate and encouraging others to act, the hope is to step up London's action to tackle health inequality now and in the future.

The Mayor worked closely with partners in developing this strategy and sought a wide range of perspectives to shape it through public consultation.

Civil society stakeholders play a key role in understanding the needs and resources in their communities, including the needs of underserved or marginalized groups and providing services, and supporting London's diverse communities. The strategy was informed by a public

consultation, which actively involved civil society organizations defining the Mayor's vision, objectives, and approach.

## Health in all policies

The Mayor has committed to a mental and physical "health in all policies" approach, which means that the Great London Authority will consider health and health inequalities in everything it does. This includes the development and implementation of legal and other strategies.

Adopting the strategy "Health in all Policies" does not mean working exclusively on the availability of health services and promoting healthy lifestyles, but rather acting on the quality of environments and living/working conditions, improving citizens' economic resources, community cohesion, and the provision of quality public services (D'Onofrio & Trusiani, 2018).

The Mayor has statutory responsibilities for planning, transportation, housing, economic development, environment, culture and sport, and police, which provide a range of opportunities to make a difference for many of the broader determinants that affect Londoners' health. Other mayor priorities also have the potential to help reduce health inequalities, including strategies on food, skills, social inclusion and equality, diversity, and inclusion.

Other organizations in London are also incorporating a 'health in all policy' approach to their work. For example, local authorities and NHS bodies are working together to develop more integrated health and care services. These partnerships offer them new ways to work together to tackle health inequalities and prevent health problems, such as creating healthier environments around highways, schools, and hospitals.

## Healthy places

The Mayor's primary ambition is for London to have the best air quality of any other city globally, with the fastest progress in the most polluted areas, benefiting the people most vulnerable to the effects of air pollution.

The places we live our lives affect our health, in terms of the quality of the air we breathe, our local environment, our homes, our income, and (where applicable) our work.

These conditions and circumstances in which we live are often linked, exacerbating the disadvantage: having a low income makes it more difficult to access good quality housing and increases the likelihood of living in an area with better air quality, poor and inferior green or public spaces (LHE, 2014) People living in areas with multiple disadvantages are also more likely to suffer from poor physical and mental health (PHE, 2017). Partners have an essential role to play in improving economic development at the local level. For example, as key local

institutions that can invest in local people and neighborhoods, many public sector entities could directly impact community health (THE, 2017).

The Healthy Places strategy (GLA, 2018) provides for the achievement of seven objectives, listed below in full and as proposed in the strategy and of which, in this research, only the first three objectives will be investigated in the following paragraphs, but to completeness, it is considered appropriate to quote the list in its entirety.

1. London's air quality improves, and fewer Londoners are exposed to priority areas such as schools.
2. The planning system is used to create healthier neighborhoods, and the healthy streets approach is adopted.
3. London is a greener city where all Londoners have access to good quality green spaces and other public spaces.
4. The impact of poverty and income inequality on health is reduced.
5. More London workers have secure, well-paid, and health-promoting jobs.
6. The availability, quality, and accessibility of housing improve.
7. The problem of homelessness and restless sleep in London.

### Air quality.

Poor air quality is linked to many health problems, including lung and heart disease (PHE, 2016), and is particularly damaging to young children's lungs. People in disadvantaged areas are more likely to be exposed to poor air quality (Fecht et al., 2015), and that exposure is also more likely to result in poor health (Royal College, 2016). It is worrying that over 400 primary schools in London are located in areas with toxic air, four-fifths of which are in the most deprived areas (Aether, 2013).

Concerted action means that London now meets nationally established legal limits for most pollutants, and we have seen a reduction in the level of others. Nevertheless, two pollutants - nitrogen dioxide (mainly caused by automotive transport) and particulate matter - remain significant health concerns.

A key part of London's environmental strategy is London's goal to have the best air quality of any major city in the world by 2050. This includes adhering to the World Health Organization's guidelines for quality air moving to a zero-emission London. The Mayor is trying to get legal compliance with UK and EU air pollution limits as soon as possible. It also aims to reduce inequalities by supporting and empowering communities and Londoners in the most deprived areas (which tend to have higher levels of air pollution) and other places (such as schools) where air pollution is a particular concern, to reduce their exposure to poor air quality. The Mayor is continuing to support the implementation of local projects through the Mayor's Air

Quality Fund: projects must outline how the activities will help reduce the exposure of communities most at risk of poor air quality or the benefit of multiple deprivation areas.

The Mayor has introduced the toxicity tax (or T-Charge), which applies to older, more polluting vehicles traveling in central London and is turning London's bus and taxi fleets into zero emissions. Since April 2019, the ULEZ (Ultra Low Emission Zone) has been established, which has replaced the T-Charge and is being expanded.

Other elements of the Mayor's approach to improving air quality will help reduce health inequalities. This includes encouraging reduced car use, making streets more accessible and welcoming, and giving people more opportunities to be more active.

## Planning

The planning system is used to create healthier neighborhoods, and the healthy streets approach is adopted. The Mayor will support local areas to create built environments that reduce health damage and allow all Londoners to participate fully in community life.

Streets take up 80% of public space in London and should be welcoming and accessible to all. The Healthy Streets approach aims to encourage people to walk, cycle and use public transport rather than driving. This is particularly important for older people, children and young people, people with disabilities, and people living on lower incomes who are most affected by the negative impacts of living in a car-dependent city.

The Mayor's transport strategy establishes what steps Transport for London (TfL), and its partners will progress against the ten Healthy Streets indicators (see ref. chapter). Set ambitious goals to reduce health inequalities by making positive changes to street environments. These changes will promote physical activity, enable people to better interact with their local community, cope with social isolation, and reduce street injuries and air and noise pollution.

Improving performance against these indicators will help improve everyone's health and well-being. To reduce inequalities, streets with the most significant health threats, such as those with the highest noise levels, air pollution, and street hazard, need to be prioritized.

In the long run, adopting the healthy streets approach and other measures will make London more resilient to the impacts of climate change, including floods, heatwaves, and droughts. Climate change is potentially a significant threat to public health (WHO, 2017) and can increase health inequalities. The London Environment Strategy defines a set of climate change mitigation and adaptation approaches for London. It focuses on reducing the risk of climate change impacts for the most disadvantaged communities and increasing their resilience so they can recover more quickly when such impacts occur.

The London Plan (2021), published in draft for public consultation in December 2017) is the Mayor's space development strategy for London. Plan policies must be taken into consideration when planning decisions are made anywhere in the city. The London Plan is

informed by the Mayor's six good growth policies (GLA, 2017), which foresee growth for all Londoners' good. The London Plan requires that those involved in planning and development ensure that the broader determinants of health are addressed jointly and that they take a systematic approach to improve the mental and physical health of all Londoners and reduce the inequalities of health (GLA, 2017).

New developments can make a big difference to the local population's health by changing the local environment positively or negatively. This is why, already in the draft, the London Plan required to assess the impacts of new developments on health and well-being (for example, using health impact assessments) and to mitigate any potential negative impacts.

The London plan also has a key role to play in facilitating the healthy streets approach. In addition to encouraging more green and blue spaces (i.e., visible water), it will encourage mixed-use development, the provision of local services, and promote more remarkable development in sites with good transport links, so that people have the facilities they need.

The London plan also addresses other aspects of planning that can impact people's health, such as fast-food groups and betting shops, impacting people's mental and physical health. This is supported by the London Health and Care Devolution MoU (GLA, 2017) where the Mayor has committed to working with partners to create a healthier environment for Londoners, particularly near schools. This includes the ability to use locally determined concessions and discounts to meet broader public health objectives. Built environment priorities and actions can be (and in some cases already are) usefully included in local joint strategic needs assessments and health and well-being strategies, as indicated by the Department of Health in 2013.

In chapter one of the London Plan, Planning London's Future - Good Growth, it is established that in order to create a Healthy City, improve the health of Londoners and reduce health inequalities, those involved in planning and development must:

1. To ensure that the broader determinants of health are addressed in an integrated and coordinated way, taking a systematic approach to improve the mental and physical health of all Londoners and reduce health inequalities.
2. Promote a more active and healthy life for all Londoners and enable them to make healthy choices.
3. Use the healthy streets approach to prioritize health in all planning decisions.
4. Assess the potential impacts of development proposals and development plans on mental and physical health and community well-being to mitigate any potential negative impacts, maximize potential positive impacts and help reduce health inequalities, for example through the use of Health Impact Assessment.
5. Plan adequate health and care infrastructures to meet the ever-changing and growing London population's needs.

6. Seeking to improve London's air quality, reduce public exposure to poor air quality and minimize inequalities in exposure levels to air pollution.
7. Plan the accessibility and quality of green spaces, the provision of new green infrastructures and spaces for play, recreation, and sport
8. Ensure new buildings are well insulated and sufficiently ventilated to avoid the health problems associated with humidity, heat, and cold. Trying to create a healthy food environment by increasing the availability of healthy food and limiting unhealthy options. (The London Plan 2021)

## London green city

Living in greener places is linked to higher life expectancy and better mental and physical health (Belfur et al., 2014; CABE, 2010). Living in greener areas can reduce the impact of low incomes on health; health differences between people living in the richest and poorest places are more minor in England's greenest parts (Mitchell & Popham, 2008). Nevertheless, too many Londoners lack access to good quality green spaces.

To achieve more excellent results and reap the benefits of greener London, GLA has ensured that London's green infrastructure (including its parks, green spaces, trees, rivers, wetlands, and green roofs) is planned and designed and managed in an integrated way. The London Environment Strategy sets a framework for protecting, improving, and expanding London's green spaces and infrastructure.

Existing public and green spaces must be maintained and enhanced to offer casual leisure, play, physical and cultural activity. They should also be planned and designed to be part of safe and attractive walking and cycling routes to and from schools, public transport hubs, and major streets to encourage significant physical activity and reduce people's exposure to poor air quality (Mitchell & Popham, 2008). The London Plan project protects London's green space network and supports creating a new green and public spaces, especially in areas where there is a shortage.

A green infrastructure network is in the planning stage and will help reduce physical and mental health inequalities. Pocket parks and the greenery of public areas with planting trees, green roofs, and green walls will be considered to encourage the demand for greenery where there is not enough space. These can help provide shade and shelter, make places less noisy, help people feel relaxed, clean the air, and cool the city.

TfL implements the Healthy Streets approach, making streets more attractive to walk, cycle and spend time, and reduce the harmful impacts of car addiction and traffic.

To support the change, the draft London Plan and the London environmental strategy are used to protecting and expanding London's green infrastructure and design and manage it in a way that minimizes inequalities in mental and physical health. Furthermore, all stakeholders are involved in development and planning, considering health inequalities in everything they do.



Lucy Saunders (Healthy Streets) worked with GLA and Tf L to put the Healthy Streets policy into practice. Saunders has trained hundreds of employees to take this new "first and foremost" approach to their work. She has worked in partnership with the teams to develop tools to align their work with Healthy Streets, including street project control and planning application evaluation. They have established a new city-wide monitoring system for performance monitoring. Daily physical activity and mode switching were included as key performance indicators.

## Towards a walkable city

It is clear that the implementation of the objectives of the Mayor of London's Healthy Places strategy has fully involved and included the transport strategy.

Almost all public transit journeys include at least one stage of the journey on foot, with people walking an average of four to ten minutes to reach public transportation. People walk more if they live in an area with good public transport.

The Mayor's Transport Strategy (2018) exposes the Mayor's vision for London's transport system through 2041, centered on the healthy streets approach, putting people, their health, and their daily life experience at the center of transport planning design.

The Healthy Streets approach provides a framework to support high-quality street design, focusing on delivering better, healthier results for all. The ambition is that all Londoners can enjoy the benefits of being active by walking or cycling for at least 20 minutes a day.

Using the Healthy Streets approach as a framework, they prioritize walking, cycling, and using public transport to bring health and wellness benefits to all. It also seeks to provide a more attractive environment for walking, cycling, and public transport options to reduce discretionary car use.

The Healthy Streets approach is applied on a city scale to plan for London's rapid growth by better integrating transport modes linked by foot travel. A better understanding of walking as part of connected travel is key to encouraging more walking, particularly in suburban London.

On a neighborhood scale, however, it is used to plan walks as part of area-level initiatives vital so that people can access local services, work areas, and urban centers on foot easily and comfortably. New developments should be designed for active travel and connections with existing areas successfully.

The approach is also applied at the local level to design high-quality environments with sufficient space for living, walking, cycling, and using public transport. In Healthy Streets' vision, streets should be designed for walking people and reduce motor vehicles' dominance. A well-designed street has the potential to serve as a stage for events and activities that entice people to shop, play, and socialize.

Healthy Streets policy reaffirms the need to design high-quality streets in line with the local context. The London Plan defines the spatial development strategy for transport, environment, economic development, housing, culture, and health throughout the capital. Residential escalation in London must be a priority within a straight-line distance of 800m from an underground station, train station, or city center, and the plan's tools seek to support this process by identifying ways to assess the quality of the catchment area.

In addition to Healthy Streets, the Walking Action Plan has been included among the tools to implement the Mayor's Strategy, which defines a spatial approach to provide improvements to encourage walking by highlighting priorities through central, inside, and outside London. This tool helps planners who draw up a design brief for a specific street to align the design requirements with general spatial priorities, considered based on the area of intervention.

For example, for the historic center of London, the orientation is towards creating attractive places that enhance the experience of walking by using high-quality materials and careful consideration of the area's character. Reduce overcrowding of sidewalks by reorganizing the street landscape, widening the sidewalk, and facilitating better interchange with public transport by identifying intersections on wish lines and improving orientation signage.

For Inner London, the plan provides for improving pedestrian access to main streets, urban centers, major transport hubs, and strategic junctions, reducing the separation of main streets by updating or installing new crossing structures, and the creation of more attractive pedestrian paths, improving the quality of the public area and the space allotted for people to walk.

Outer London for outlying areas, the plan calls for identifying walking opportunities, improving links to local amenities and attractions through public area improvements throughout the area, creating multifunctional spaces for people walking and who live in the neighborhoods, improving the quality of the same. Improve the attractiveness of school pedestrian paths and reduce the impact of car traffic.

### From a streets network to an extensive pedestrian network.

The pedestrian network includes all pedestrian walkways, sidewalks, crossings, bridges, underpasses, open spaces, and physically permeable buildings and structures where people can walk.

For the pedestrian network design, it was necessary to draw up a list of key principles that focus on all pedestrians' needs. These principles should be used throughout the planning and design process and referred to collectively to anticipate the impact of design decisions on the walking experience and to ensure the delivery of a consistently high-quality walking environment.

Design principles should also be considered for use when planning dynamic changes to a street's function, such as for school street closures, occasional "play streets" and typical street markets, where car traffic is temporarily limited.

These seven principles for placemaking are briefly summarized here:

**Safe Space:** The public area should be safe to use at all times of the day and for people to feel safe spending time.

**Inclusive Space:** All walking environments should adhere to inclusive design principles ensuring they are accessible and usable by as many people reasonably as possible without the need for particular specialized design adaptations.

**Comfortable Space:** Designated pedestrian areas should allow unhindered movement for pedestrians by providing sufficient space.

**Direct Space:** Facilities should be positioned to provide convenient links between major walking travel attractions.

**Legible Space:** Features must be consistent and easy to understand so that all pedestrians intuitively know how to navigate within a space.

**Connected Space:** Pedestrian networks should have a high density of route options to meet pedestrians' needs.

**Attractive Space:** Pedestrian environments should invite pedestrians to pass or spend time.

Ultimately, the success of any project that seeks to provide pedestrian benefits depends on the effective use of data to identify key issues and ensure that the design brief is detailed enough and focused on positive walking outcomes to move the project forward and provide in line with the design principles of best practices.

## Learn from city best practices.

The actions, as already mentioned, have a differentiated approach, even if inspired by common feelings, according to the areas of intervention. In agreement with the partners, the GLA arranged that the most critical areas' first actions be implemented. Numerous actions had already been undertaken by TfL, by District Councils with various partners, including Sustrans; from these actions, the best practices for designing the future pedestrian network in London were acquired. Projects carried out since 2010, which have been implemented and for which it is now possible to determine the value of the health benefits. The pedestrian network plan's goal is to remove more and more space from cars to leave more space for walking in healthy and pleasant places. Some examples of the actions already taken refer to the districts of Southwark, Lambeth, and Islington in Inner London, while in Outer London, some actions have been taken in the districts of Walthamstow and Havering. In London's map (Figure 1), Inner London, in dark gray, and Outer London in light gray are distinguished, and the intervention points of the cases are marked.

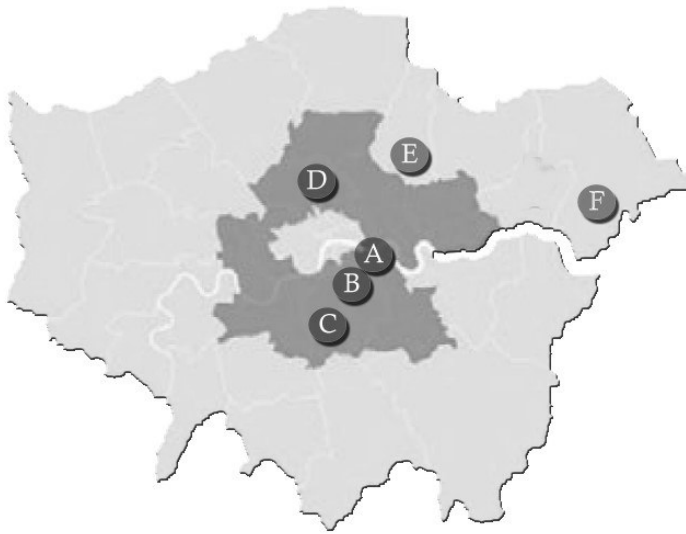


**Figure1: Schematization of the Greater London**

### A. Tower Bridge Road, Southwark

Perhaps the symbolic street of London precisely because it runs along the entire axis of the symbol of one of the symbols par excellence of the city, Tower Bridge. A new public space was created between the main street and Bermondsey Street by removing the parking lot and repaving the pavement. This space was complemented by a new statue of a local WWI naval hero, Albert McKenzie, the first London sailor to receive a Victoria Cross from King George V.

A diagonal intersection has been implemented at the intersection of Tower Bridge Road, Bermondsey Street, and Grange Road and widened intersections.

The improvement of the environment for people walking was continued along Tower Bridge Road with raised access treatments to side streets, improved street lighting, and improved bus stops with new shelters.

Best Practices (based on the seven principles of the pedestrian network)

Raised side access treatments reduce vehicle speed and help indicate higher priority for pedestrians (Safe Space). New seating and improved bus stops, including bus shelters, provide pedestrians' additional refreshment points (Inclusive Space). A street closure has made it possible to create a new public space that offers pedestrians much more space for people walking by (Comfortable Space). A diagonal intersection at the main intersection allows for a more direct walking path (Direct Space). The street's closure helps create a new public space designated for pedestrians (Legible Space). The cafes use the expanded public space for seating, and additional features have been provided, such as a memorial statue (Attractive Space).



The traffic island between Bermondsey Street and Tower Bridge Road before the intervention. (credit: ©Google StreetView)



The public space born from the intervention. (credit: ©Google StreetView)

The images represent the before and after the urban regeneration intervention. The comparison was possible thanks to the use of the StreetView Timeline, an application of Google Inc., which allows, in addition to virtually moving around city centers, to go back to the time.

## B. Walk Elephant, Southwark

Launched in spring 2017, Walk Elephant is a community initiative to improve walking routes in the Elephant and Castle area. Inspired by similar community-led projects, such as East Walworth Green Links, which created a high-quality path connecting the city center with Burgess Park, the initiative was initiated by a local walk series.

Residents took part in these walks to identify potential improvements to help people walk, such as new intersections, better landscape, or clearer signage. This was part of engaging with fun events and other ways to present ideas using online platforms.

Walk Elephant is changing Elephant and Castle's perception from a car-dominated city center to a pleasant green space within walking distance of the River Thames and central London. It has created new walking routes for people to get to work, shop, or home and discover local hidden gems. A "hidden" alley such as Lamblash Street can become an engine of urban regeneration, from a street, even relatively poor, for motor vehicles, to a street for people



where anyone can find it pleasant to cross and stop for a moment to breathe, today Lamlash Street was renamed Lamlash Garden.

#### Best practices

Traffic calming measures and underpass lighting are designed to reduce street hazards and make people feel safer (Safe Space). Features such as the new lowered curbs allow for better access and crossing points (Space Inclusive).

The additional pedestrian space and filtered permeability create more dedicated space for pedestrians (Comfortable Space). The opening of new foot links was achieved by removing the fences (Direct and Connected Space). Orientation signage and the Walk Elephant branding help create a sense of local identity (Legible Space). New pavements, greening, and community plantings improve the street's visual aspect (Attractive Space).



**Lamlash Garden entrance from Hayles Street, before and after (credit: ©Google StreetView)**



**Lamlash Garden entrance from Elliot's Row, before and after (credit: ©Google StreetView)**

### C. New Park Road, Lambeth

Lambeth Council and TfL implemented a scheme to reduce street hazards, traffic levels, and traffic speed outside Richard Atkins Primary School on New Park Road in 2016.

Space was reassigned from vehicles to pedestrians by developing a chicane-style layout, with circular structures, planters, trees, and bicycle racks. Parking lots have also been removed, and a speed limit of 20 miles per hour has been introduced.

The layout was designed by Sustrans in collaboration with the school and residents using a community street design process.

Temporary materials were used to transform the way for the day at the end of this process, to allow local people to experience the new layout and feedback on their views.

#### Best practices

Horizontal deflection and raised street level aim to slow traffic and reduce street hazards (Safe Space). The tactile pavement and the lowered curbs flush on buildings are introduced where the crossing distance is shorter (Inclusive Space). The buildings offer more space for pedestrians (Comfortable Space). Multiple informal crossing points have been created outside the school (Direct and connected space). Informal colored circles and signs on the streetway highlight a space that should not function as a typical streetway and that priority should be given to children in particular (Legible Space). The shapes in the layout, the color circles, and the new trees make the street more playful and attractive (Attractive Space).



**New Park Road near the entrance to Richard Atkins Primary School, before and after (credit: ©Google StreetView)**



**New Park Road intersection with Morrish Road, before and after (credit: ©Google StreetView)**

#### D. Archway, Islington

Dominated by a busy one-way roundabout, the center was fragmented and effectively "abandoned" by three traffic lanes, making it difficult for pedestrians to reach shops and other services.



The TfL and London Borough of Islington project transformed the area, replacing the roundabout with a redirected two-way traffic path and creating attractive public space, safer cycle paths, and improved pedestrian crossings.

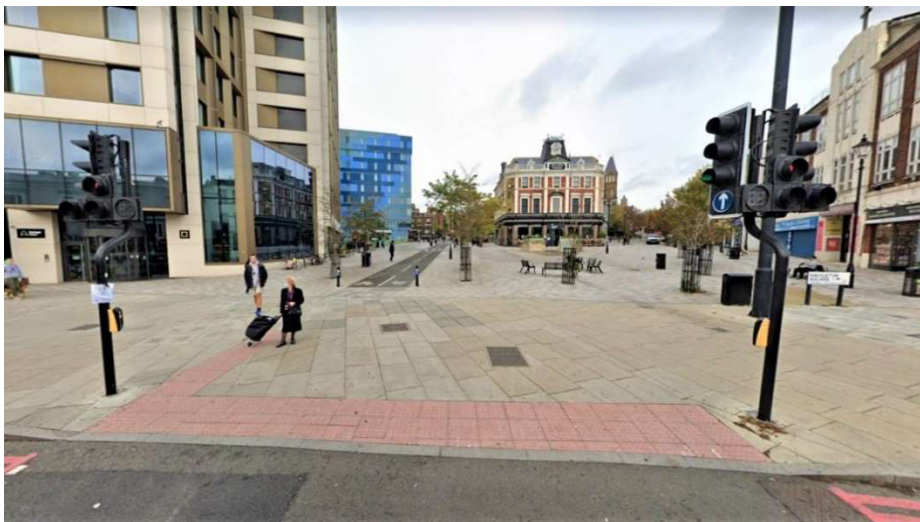
The new layout reconnected shops and businesses and provided dedicated cycle paths separate from motor vehicles.

#### Best practices

The use of tactile pavements, carefully aligned trees, and street furniture is accessible to all (Inclusive Space). Widening of pavements and public open spaces to provide more extraordinary walking ability (Comfortable Space). New intersections are planned on the lines of desire for pedestrians and cyclists (Direct and Connected Space). Reduction of street clutter and contrasting surfaces for cycle paths improves clarity in use (Legible Space). Good quality surface materials and greening designed to create a more attractive and lively community space which is now used for a regular market (Attractive Space).



Archway before and after (credit: ©Google StreetView)



## E. Hoe Street / High Street, Walthamstow

The Walthamstow center has been transformed thanks to a partnership between TfL and the London borough of Waltham Forest and local businesses' active participation.

When the district and TfL embarked on the project to regenerate part of Hoe Street, they sought to involve street traders, encouraging them to renovate their premises.

Four designers collaborated with 40 companies to make improvements to the facade of their stores. Six of the stores, located in prominent locations or with notable architectural features, received more extensive treatments.

Improvements to the street itself included re-routing, new orientation elements, and artwork. At the same time, a new development called The Scene has brought further uplift in the area around Hoe Street and High Street, with a shared space approach adopted at the street level. New trees, planters, seating, and lighting have also been installed along High Street.



High Street before and after (credit: ©Google StreetView)



### Best practices

The area's appearance and atmosphere have reduced vehicle dominance and increased pedestrian priority (Safe and Legible Space). The flat surface features color-contrasting comfort zones, tactile flooring at controlled intersections, and carefully aligned street furniture (Inclusive Space). The open layout can now comfortably accommodate high pedestrian flows across the street's entire width (Comfortable Space). As part of the program, improved direct access to stores (Direct Space) was envisaged. Good quality surface materials and greening enhance the look

and feel of the area. Local businesses and restaurants have been stimulated by regeneration (Attractive Space).

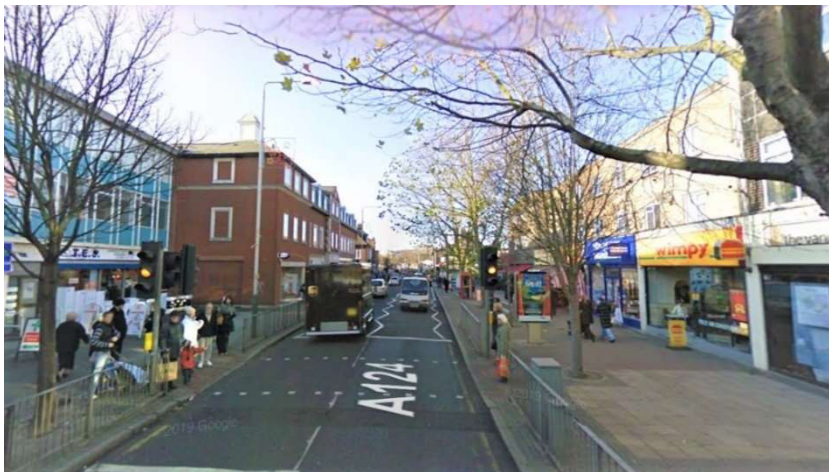


## F. Hornchurch, Havering

In 2014, a refurbishment project in London's Havering borough transformed downtown Hornchurch, addressing traffic congestion, insufficient personal safety levels, and a tired public realm.

A significant feature of the redevelopment was the variety of improvements made to pedestrians. The parapets were removed, intersections were placed on the lines of desire, the widths of the sidewalks were increased, and a central continuous pedestrian strip was created to facilitate informal crossing.

Social spaces have been enhanced with new lighting, orientation, planting, and street furniture. Bus stops were renovated, and traffic flows reduced, improving conditions for cyclists. This project's estimated health benefits resulted in savings of £ 535,000 annually, compared to a £ 2.5 million project. So, the savings on healthcare costs will pay off the project in about five years.



Hornchurch Central Street before and after (credit: ©Google StreetView)



Good quality surface materials and greening improve the area's appearance, supporting local businesses during the day and restaurants in the evening, stimulating the night economy (Attractive Space).

### Best practices

The provision of courtesy crossings and the median strip allows pedestrians more opportunities for direct crossing (Direct space). Wider walkways and new open spaces allow for greater pedestrian capacity (Comfortable Space). Contrasting color materials applied to delineate pedestrian paths, with new tactile bubble flooring at intersections and carefully aligned street furniture (Inclusive Space). A distinctive street appearance reduces vehicle dominance and increases pedestrian priority (Legible Space).

## Low Traffic Neighborhoods

Low Traffic Neighborhoods (LTNs) involve the use of planters, camera gates, bollards, or other measures to restrict the use of motor vehicles on residential streets. In London, more than seventy were introduced in six months of 2020, during the Covid-19 pandemic.

They are widely seen as cycling schemes. However, the association is misleading. In Waltham Forest, people living in the new LTNs walked an extra one to two hours per week, versus an extra 15-20 minutes on bicycles (Aldred & Goodman, 2020). Aldred and Goodman's recent study finds that even "emergency" LTNs increase walking (Aldred & Goodman, 2021). The most recent and long-standing LTNs show reduced car use and/or ownership (Aldred & Goodman, 2021).

If successful LTNs induce more walking and less driving, this suggests that LTNs are primarily a way of reallocating motor vehicles' space to people on foot. This does not mean that all LTNs achieve this or that there are no unintended disadvantages or consequences. Nevertheless, it helps us locate these interventions in the long battle over the right to urban space and pedestrians' position in the "street hierarchy".

Walking has long been marginalized on city streets, with parked or moving motor vehicles taking up most of the urban street space on both main and secondary streets. The standard way of things is for pedestrians to stick to the sidewalk and cars to take the main carriageway.

This standard way of doing things has particularly harmed children, who cannot travel safely without adults on car-dominated streets. Automotive society is unequal in many ways, with a strong social gradient for car ownership and use. The poor drive more minor but suffer more from street accidents and other negative impacts of other people's driving.

However, the normal way of things can change, even on the street. According to the Manual for Streets, at 1,000 cars a day or less, pedestrians begin to "share space with motor vehicles." The carriageway becomes open for walks, so the pedestrian space doubles or triples. Street design and pedestrian volume also affect driver behavior, so reducing car traffic alone may not always be enough to change driver-pedestrian interactions. However, these factors can enable a qualitative shift from pedestrians relegated to the pavement and a carriageway exclusively for car travel to the entire street potentially as public space.

In an unequal society, people do not necessarily feel welcome in the public space; therefore there is also a need for positive action to allow participation and use by all.

During the Covid-19 pandemic, Guys & St Thomas' Charity asked Healthy Streets to lead the delivery and evaluation of a project to create three LTNs in the London borough of Southwark.

The project aimed to support people to walk, cycle and socially distance, particularly around schools and parks in neighborhoods of greatest need.

The Healthy Streets team's first step was to identify potential neighborhoods using data on ethnicity, income, social housing, poverty, location, and basin of schools and parks. The focus was restricted to data on areas with inadequate traffic speed and volume on narrow streets and feedback from advocacy organizations, residents, visitors, and businesses on local issues.

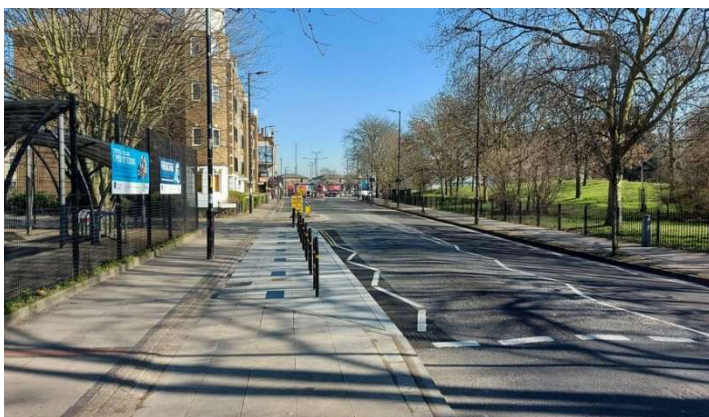
Project interventions were designed in each area to maximize improvements in healthy street indicators within budgetary, legal, and practical constraints. The projects were evaluated and quantified with Healthy Streets Check for Designers. In each of the three districts, planters were used to cope with traffic using narrow streets as shortcuts. The sidewalks were widened, and the crossing points improved. The seats have been placed at key points.

Written communications used Healthy Streets help to remove technical language and ensure it was simple to understand. This has been supplemented with maps showing the changes in each area and an FAQ document added to dedicated feedback websites. The maps were also prominently placed on the planters so that people could see what had changed locally and how to share their views.

The evaluation was based on the Healthy Streets Evaluation Framework, adapted to the COVID pandemic. A Case-control method compared the three project areas with two control sites to account for unusual and uncertain changes in street activities related to national restrictions. The Healthy Streets Check for Designers was used to quantify how the streets have changed physically



**Before and after, some parts of the intervention zones of the LTNs created by TfL's Healthy Streets team. (credit: ©Healthy Streets Ltd. 2021)**







Before and after, some parts of the intervention zones of the LTNs created by TfL's Healthy Streets team. (credit: ©Healthy Streets Ltd. 2021)



## Conclusions

The strength of London's policies and that of many other Anglo-Saxon or Northern European countries is to have a farsighted vision on urban interventions. Restrictions due to the Covid-19 pandemic have impacted people, increasing the desire to walk or cycle. The GLA, TfL, Healthy Streets, with their partners, has supported this desire by activating a whole series of temporary projects, which in many cases will become permanent. Safe entry routes to schools have been enhanced, pedestrian crossings improved, and parking spaces reduced in some areas to offer more space for walks or outdoor dining. It is no coincidence that the London Plan saw its final draft in March 2021, one year after the start of the pandemic crisis. The farsighted vision leads the application of these urban practices to have a "test" period which is the temporary phase, or experimentation in the field of actions, to then move on to the permanent implementation of the interventions by implementing them based on the needs that emerge in the first phase. The involvement of the population in the various phases is a certainty.



Urban regeneration through the reorganization of the street network leads to significant savings in health costs resulting from the Hornchurch case and other cases. Therefore, investing in this type of policy would be much more economically advantageous for the whole community than investments in paid parking areas to slightly increase the municipal coffers, keeping healthcare costs high for the whole community and excluding sections of the population from public spaces. London's urban policy lesson, now with decades of experience, but which in recent years has had a decisive momentum and which during the pandemic is seeing the goal of becoming a zero-emissions city increasingly materialize, should be of best practice for all cities, European and non-European, at any latitude.

---

# PART THREE

## PRINCIPLES FOR HEALTHY CITY

---

## Introduction

What happened during the Covid-19 pandemic put this condition of equilibrium at risk further, making public space increasingly alien, which has become deserted even where it was historically full of vitality. Even the school, the sacred place of civil education, has gone from real education to virtual education with the risks of further estrangement from reality that could result in younger generations. Nevertheless, the emergency may give rise to the opportunity to increase the desire to live in "hostile" public spaces transformed into "hospitable" places with the help of the best practices tested in recent years by European and American researchers and the application of the same adapting them to various contexts.

Before COVID-19, leisure gatherings in public and private spaces, outdoors and indoors, did not require specific size restrictions beyond occupational limits and the safety regulations of the spaces themselves. The choice of the preferable meeting space may be determined by the usefulness or accessibility of that meeting space; the aesthetic appeal of this space, the adaptability of the space to meet different types of needs; accessibility to space for those who would like it; in addition to the social, cultural, historical, geographical and topographical context of the space; these are just some of the many functions and characteristics of the space. Conversely, COVID-19 has imposed certain collection restrictions that prioritize some key spatial determinants of infection prevention, such as the ability to distance between individuals physically, minimal risk of exposure to high-contact surfaces, and surfaces easily and frequently cleaned where present. These new demands arising from the pandemic have pushed people into spaces that are naturally conducive to infection prevention goals: large outdoor public spaces.

Indeed, COVID-19 has allowed people to reconsider the need for social interaction and belonging to the community and place. Restrictions around physical distance have created opportunities for creativity in urban design. There have been radical efforts to re-propose the public environment to facilitate social interaction by precluding physical proximity worldwide through actions previously deemed impractical or undesirable in otherwise automobile-centered urban centers. In North America, this has primarily included the redistribution of space from car lanes and re-dedication to active modes of transportation (bicycles, scooters, pedestrians) and outdoor social activities such as restaurant seating in the remote open. (Buckner, 2020; Caballero & Rapin, 2020; Schwedhelm et al., 2020) In Europe, we see further expansion of already bike-friendly streets in cities such as Paris, Rome (Caballero & Rapin, 2020), and London.

Minor changes to the street, such as widening sidewalks and creating makeshift bike lanes where they were previously absent, serve to illustrate what is possible when urban design priorities shift to accommodate humans before cars, to expand the public environment by abandoning the private, thus mitigating the time spent in private and individual spaces that predispose to loneliness (Heu et al. 2019).

Countering loneliness means feeling connected with the urban spaces that occupy one another and, above all, with other human beings. On the contrary, private ownership of lands and structures is intrinsically excluding constructs of capitalism, imperialism, and hyper-individualism that precipitate and serve as engines of loneliness and mood disorders. (Prins, Bates, et al., 2015). A realistic understanding of the structural, spatial, and architectural determinants of health should be embraced, which recognizes the place as inextricable from the self and asks to reform the place in search of the well-being of the self: the place like form, identity, priority, relationships, and politics. The place where a person lives becomes part of who he is.

It would be necessary for municipalities to continue the urban interventions they hastily implemented to prevent infections beyond the period necessitated by the pandemic. Some cities have required extreme circumstances such as a pandemic - no less than a global emergency - to expand public space, which indicates the urban design priorities of those city administrations. We may wonder how long it would have taken these cities to improve their urban environments in ways that encourage active transportation, walking, and belonging if not for a pandemic that forced them to do so.

Of the myriad lessons that COVID-19 will learn in functional domains and social institutions, some will lead to permanent and fundamental changes in the operations and design of those institutions. The expansion of urban public space, determined as a need for infection prevention, can bring significant benefits to municipalities and their inhabitants by making the built environment operational in ways that protect from loneliness and facilitate common gathering at a time when this has been proven and recognized as essential for maintaining mental and psychosocial as well as physical health.

Closed streets and low-traffic streets have helped prevent overcrowding of public parks, footpaths, and sidewalks and enabled people to explore their communities like never before by walking, jogging, cycling, and even wheelchair users.

Considering data before the Covid-19 pandemic, most of the daily car journeys in European and North American cities cover a distance of fewer than five kilometers (Mishra, 2020). This consideration concludes that most of the trips by car take place for a short distance and close to home. Therefore, assuming that most people could make their daily journeys without using the car would be entirely legitimate, albeit taking into account that many people may require motorized transport.

European cities have been encouraging bicycle-friendly streets for years, and the Covid-19 pandemic has meant that the process of street reuse could be accelerated, even in cities severely congested by car traffic, such as Rome. The tactical urban planning approach has allowed short-term and low-cost interventions to promote alternatives to local public transport and private cars.

Aiming to achieve slow and safe streets, the tactical deployment of infrastructure by the public sector has resulted in more people cycling and walking. In addition, many countries have set up subsidies and incentives to purchase electric bicycles and scooters.

However, a marginal consideration should be made for electric means of transport. Electricity is not synonymous with safety and, unless the energy source from which the electricity comes belongs to the "renewables" area, it is not synonymous with sustainability. In recent years, the sudden evolution of electric motors has led electric traction vehicles to reach speeds comparable to those of noisy and dusty internal combustion engines. Unfortunately, these are always means of transport that launched at high speeds can turn into dangers for the safety of pedestrians, in particular, the low noise of the engines could not allow people to notice their approach, in addition to all the other problems of occupation of public space and consequent reduction of space for pedestrian traffic. The push towards electric cars should be accompanied by the maintenance and implementation of the transformations already underway and sharpened during the pandemic on urban streets. Encouraging the purchase of electric vehicles should be a priority for the population groups that need to use mechanical traction vehicles. In contrast, the other categories, although incentivized to purchase electric cars for longer journeys, should, in any case, be encouraged to make short trips on foot or by bicycle. This encouragement can only be practical with policies to reorganize urban street networks, orienting them to greater pedestrian use.

The practices that emerged in the previous chapters, relating to the Boston and London case studies, together with what was found in Austin, are just examples of what happened during the Covid-19 pandemic. In many cases, they have been implementing actions already planned or in the planning phase within broader plans to improve citizens' health and well-being.

The examples show all the involvement of citizens already in the initial stages of drafting and collecting needs and desires. The London plan, from which the slow neighborhood actions developed by TfL with the Healthy Streets approach were derived, such as the Boston 2030 program, has several years of study and population survey behind them and have found in the pandemic an opportunity to implement projects that would have developed more extensively over time more quickly. It is interesting to note the desire for security that emerges in citizens of all ethnic, economic, and social backgrounds, representing a globally acceptable desire. The need for public space, amplified by the restrictions of the pandemic, together with the opportunity to be able to move and keep fit, is today more than ever a prerogative to guarantee the right to health enshrined in the universal declaration of human rights.

The health benefits of physical activity are well known. Regular moderate physical activity promotes mental, physical, and social well-being and helps prevent disease, disability, and obesity.

In addition to improving health, cities that invest in physical activity and active transport policies and programs will save on health care and transport services, have more productive

citizens and workers, be more liveable and attractive to residents, employers, workers, and visitors.

The examples in the case studies can create opportunities for both large cities and small urban centers. For healthy streets to be available to all, it will be necessary to take more energetic and decisive actions than those implemented during the pandemic, involving as much public space as possible and making it available to people. The projects developed by metropolitan administrations such as Boston or London, in addition to the farsighted vision typical of the Anglo-Saxon character, would offer global examples, as they are multi-ethnic and multicultural cities that in recent centuries have been the pilot cities of urban change, both physical and social, inspiring actions around the world.

The greater availability of public space, in addition to increasing physical activity and thus improving health and well-being, would allow users more opportunities for socialization, enriching their knowledge and promoting differences as an added value. In addition, greater availability, especially in socio-economically disadvantaged neighborhoods, would allow equal access to movement and physical activity opportunities in areas too often lacking this type of opportunity. Safe, welcoming, and attractive public spaces could increase the perception of safety and well-being in disadvantaged neighborhoods, improving their condition and potentially reducing the tendency to individualistic behavior in the use of public space, increasing the propensity to respect the rules of shared living. It should be added that public spaces with less car traffic would allow better control of the territory by the police and reduce criminal actions in the areas of residence, in the service areas, near schools, parks, and commercial areas.

The presence of these “slow” spaces in the city should be a prerogative rather than a possibility, and the feasibility of this type of action is concrete for all types of streets and all types of neighborhoods.

The pandemic has changed habits and questioned the lifestyles of citizens, upset daily priorities, and limited seemingly indisputable freedoms. Exercise is an essential universal need that has been most lacking during lockdown periods.

Soon, mobility will be forced to change; during the lockdowns of the pandemic, there was a contraction in public transport, while the population considered it safer to travel by private car. What happened suggests that for city dwellers, moving by car is undoubtedly the safest movement in terms of the risk of contagion from infection, but also in terms of the risk for safety and safety from aggressive actions that can occur in pedestrianism. Furthermore, it could be an omen of reaction in response to any adverse event that jeopardizes the individual's safety. The images of the catastrophe cinematography are emblematic, the long queues of cars lined up and still, with the frightened people on board trying to escape from the impending catastrophe, while the people on foot ask to be able to board in desperation, as if the car, even if stationary and unable to move, was the safest place to be. In the common imagination of our civilization, the car has become the safest space, after the walls of the



house, in which to take refuge, which perhaps will protect us from a hailstorm but will not save us from a flood.

In addition to the problems related to the congestion of the streets, therefore to the occupation of space which in the event of adverse events could be a problem regarding the safety of people, preventing the flow of the human mass in a possible escape, the most immediately recognizable problem is that of CO<sub>2</sub> and fine dust emissions which, as already mentioned, cannot currently be solved with electric mobility due to problems relating to the production of energy.

Therefore, there is a need to reduce the demand for mobility and offer valid alternatives, seeking a new balance that allows citizens to adopt behaviors that are functional to adequate, safe, and sustainable mobility—obviously guaranteeing the movements for long journeys and the handling of goods and those with mobility difficulties. Modeling the public transport offer with a multimodal organization that prefers sustainable energy, operating on streetways that cannot be used by vehicular traffic, but can be shared with cycle traffic, or on railway networks, identifying stops in strategic positions to ensure reachability in a few minutes on foot or by bicycle. Then a re-functionalization of the stops with stalls for bicycles and large waiting, boarding, and disembarking areas. In addition to a more equitable distribution of the public transport service. Furthermore, the savings in travel and the incentive for short trips on foot or by bicycle, smart-work, the reshaping of city timetables, and the reduction of access distances to services would allow rediscovery of the neighborhood dimension, increasing availability of free time and offering more significant community opportunities.

Promoting pedestrian and cycling is certainly not an innovation; perhaps it could also appear a return to the past in a vision of degrowth, but in this historical moment, not only for the viral pandemic but also for all urban evils, it becomes a choice even more critical and strategic to regenerate cities and make them more resilient. The best way to move and integrate physical activity is undoubtedly active mobility, i.e., walking or cycling, being transported instead of being transported.

The use of the tactical urban planning approach, a method derived from placemaking with a robust creative charge which, offering the opportunity to regenerate redundant streets and intersections with experimental, fast, light, and economic interventions, has been well tested in the cases studio: in Boston thanks to the work of Urban Mechanics and in London by TfL with the essential support of Lucy Saunders and the Healthy Streets approach which aims to achieve the goal of healthy and welcoming streets where everyone wants to spend time.

Looking at the manuals, the experimentation of the National Association of City Transportation Officials (NACTO) of the United States is peculiar, which offers toolkits for interventions on public space, which have proved essential during the pandemic crisis and which could promote the growth of a new way of thinking about urban mobility in the decade that has just begun.

To ensure that the city is ready to face the successive crises or even brief turbulence, it would therefore be necessary to reorganize the city itself, converting large cities into multicentric cities, guaranteeing the equitable distribution of services on a neighborhood or district scale, and reorganizing the urban street network giving greater priority and space to the footway than the carriageway. A reorganization of the local administrative, economic, and health structures would be necessary, and a revision of the street codes to favor this condition.

The purpose of this dissertation is to offer a proposal of guidelines, easy to implement in different contexts, with the necessary precautions, aimed at improving the quality of life in the urban environment that can allow a better condition of health and resilience of citizens.

### Towards a slow, active and healthy city

Reduce the need to face long journeys to reach essential services, offer all people with different movement skills to move around the city without fear, encourage the opportunity to meet real people and share knowledge and differences. At the same time, urban evils are put to an end, improving the health and well-being of citizens and making the city prosperous and happy. These are undoubtedly the wishes of every good administrator and coincide with the proposals of supranational bodies. The vision of a slow, active and healthy city is not a utopia, it would be enough to learn the best practices implemented in different territories and experience them in one's territory, sometimes with a look to the past, which after all has not always been negative and it still has much to teach us, in order to concretely project us into the future of a city that will have to face (and this is certain) many challenges that will try to alter its balance if not compromise it ultimately.

In order to be ready to face the future, the city should leap into the past; the inhabitants should abandon their cars and go back to walking, thanks to the support of the technique and technology of our time, in doing so, they could trigger a process of improvement of the city that it could help to achieve the goals of zero emissions, health improvement, quality of life even in old age, rediscovering belonging to an urban community, activating resilience.

### Rebuilding a walkable city

It would be necessary for the city to be human-centered; essential services should be available within an easily accessible area, through safe, pedestrian, and cycle paths in a short time, to obtain a city in which actively moving can become a pleasant habit.

The possibility of moving in safe spaces, with a lower level of polluting dust, but above all the possibility of moving in a welcoming and fun spaces, where there is an incentive to socialize and share experiences, should be a fixed point in every regeneration action

and could lead citizens to a return to the use of proximity spaces, happily renouncing long motorized journeys to meet the needs of daily life.

The goal would be to review transport choices, improving the conditions of public mobility to and from the city center, but also reorganizing the distribution of key services in the urban area, increasing their accessibility without the need for private transport and evaluating priorities in the public space.

### Safe, Healthy, and Social Streets

The moderation of speed would allow to obtain significant advantages in terms of the quality of the urban space, increase safety, and reduce the severity of accidents, reducing the phenomena of rising dust and primary air emissions caused by traffic. Residential areas and areas dense with services should achieve a drastic reduction in traffic demand in favor of more excellent livability. With the downsizing of the urban space giving priority to pedestrians and cyclists, there would be the opportunity to create lively and creative places to create communities. As found in the case studies, these spaces, built-in collaboration with citizens, become the places where community resilience is generated, where communities become stronger precisely because people share needs, needs, and experiences with others.

Simple actions would be necessary to reorganize the urban street network of a city, which could give the right impetus to a revolution in urban living that would lead to a more rapid achievement of inclusion and well-being, health, and sustainability, without forgetting that everyone would like to live in a healthy environment surrounded by the services they need.

Actions to be taken would include:

- the extension of pedestrian paths with the widening of the sidewalks;
- the temporary or permanent pedestrianization of parts of streets or entire routes;
- active streets to allow physical activity and outdoor play;
- the extension and new establishment of cycle paths and routes, and above all accessibility and safety, especially where possible;
- through the creation of spacious and safe spaces, encourage the use of space for cultural and sporting events;

The goal would be to reach a city pedestrian network that allows, by abandoning the use of the car, to reach the key destinations of everyday life, offering new opportunities for outdoor living in the urban environment, the opportunity to play sports in safety. and improve the quality of life and health of citizens.

## Comfort spaces

Particular attention should be given to the flooring of the spaces. Excess asphalt and uncomfortable pavements can deter active mobility, combined with the annoying and dangerous effect of heat islands. A more comfortable pavement for pedestrians, in addition to the reduction of impermeable ground cover, would offer greater pleasure in walking and would reduce risks and inconveniences due to incorrect rainwater drainage. Furthermore, by reducing asphalt and street concreting with more sustainable alternatives with reduced heat absorption, heat islands could be countered. The offer of shaded paths would protect against the negative actions of solar radiation, which, combined with the previous action, would make active mobility more pleasant on fine days. At the same time, the creation of covered paths or protection from the elements would improve usability during the most climatic challenging days.

The aim would be to encourage the use of active mobility by offering comfortable and safe public spaces for the health and safety of people. In this way, the perception of livability of the urban environment would be increased, increasing its quality of life and resilience.

## For new citizenship in the public space

A pedestrian, safe and healthy city would offer schools and the school system more generally the opportunity to increase the dynamism of teaching. The city people live in is the city they have and for this they should see it, discover it, understand it and love it. Attachment and love for the city would lead to respect for public affairs, not to dirty or ruin it, but to protect it. Citizenship education is needed, starting from the new hyper digitalized generations at high risk of detachment from reality, teaching them to reorient their gaze, distracting it from performances, and orienting it around themselves, up and down, along the city path. By encouraging this type of practice, together with the stimulation of curiosity and the use of memory, today's small citizens, who will become the adult citizens of tomorrow, will be much more likely to practice active citizenship, indeed very active, with greater attention and respect for the public space, for the environment and for the history and culture of one's city. These citizens of the future will also become workers, technicians, researchers, and administrators of public affairs and, perhaps, growing up in a healthier environment with the possibility of experiencing the city and loving it as a family affection, they will be able to develop a critical sense and sense of responsibility that it will lead to better management, regeneration, and administration of it than those who preceded them.

The goal would be to activate a synergy with the education system to allow a healthy education in an urban environment, through the delineation of a network of interesting pedestrian paths with an educational character, this would lead to an

improvement in the skills of the children as well as to a better condition. of health and a more dynamic and fun learning.

## Rebuilding a walkable city

In order to build or more correctly rebuild a city that is friendly to people, in terms of mobility, it is necessary to have the priority of providing access to basic, essential services, namely school, civic and health services, at a "human" distance, thus allowing the abandonment of the use of private means of transport, favoring active pedestrian or cycle mobility. In addition, it is essential to ensure the opportunity to access direct trade (markets, supermarkets, pharmacies) in proximity and any case always at distances that can be traveled with active mobility. This attention to the proximity of services and trade could appear as a return to the past. However, it would improve the quality of life and well-being of citizens, improving health conditions precisely because it would encourage everyone, at all ages, to move actively, carrying out a healthy motor activity in carrying out daily activities.

While specific processes vary by location, coordination and collaboration during each stage are essential, and effective communication and engagement throughout the process are essential.

## Time and speed

Over the last few years, several studies have investigated the effects of motor activity in urban areas concerning air quality. The air quality of our cities has been at a critical level for years, affecting health, especially those who carry out physical activity in urban areas, whether they move on foot or by bicycle, it is advisable not to travel too fast in the city. According to the study by the Department of Civil Engineering of the University of British Columbia, which used data from over ten thousand people, it emerged that the more people move, the more polluted air they inhale, even if the time of exposure to smog decreases (Bigazzi, 2017), this risk would increase considerably if the movement takes place on streets with high car traffic. The right balance between speed and exposure time would be between two and six kilometers per hour for pedestrians and between twelve and twenty kilometers per hour for cyclists (Bigazzi, 2017). It also emerges that cyclists who maintain higher speeds, therefore about thirty kilometers per hour, absorb four times the pollutants than those traveling at twelve kilometers per hour (Bigazzi, 2017). Therefore, in order to obtain good levels of health by carrying out physical activity in an urban area, it is necessary to be able to move in large spaces where cars are absent or have a negligible presence, which in any case do not increase the rate of pollutants in the air, for this reason, passive city mobility should be converted as much as possible with zero-emission means of transport (at least on-site), therefore motors powered by electricity.

Another somewhat controversial aspect to consider is the speed at which people walk. Age, fitness, gender, climate, or site are among the main factors determining the speed of walking of people.



The average walking speed of a human being is 3-4 miles per hour, or 1 mile every 15-20 minutes. The speed at which people walk can be used as an indicator of overall health. Several variables contribute to individual differences, including age, sex, and height.

The walking speed also depends on the level of physical fitness, the type of terrain, and the effort. Fitness can also be determined by human metabolism rate, body fat percentage, and waist circumference. Muscle strength, especially in the lower body and hip flexors, also affects walking speed.

The speed of three miles per hour is the standard for which most zebra crossings,

|             | Casual Walking Speed | Maximum Walking Speed |
|-------------|----------------------|-----------------------|
| Men 20-29   | 3.12 mph             | 5.57 mph              |
| Men 30-39   | 3.26 mph             | 5.49 mph              |
| Men 40-49   | 3.27 mph             | 5.51 mph              |
| Men 50-59   | 3.12 mph             | 4.63 mph              |
| Men 60-69   | 3.04 mph             | 4.32 mph              |
| Men 70+     | 2.98 mph             | 4.65 mph              |
| Women 20-29 | 3.15 mph             | 5.52 mph              |
| Women 30-39 | 3.17 mph             | 5.24 mph              |
| Women 40-49 | 3.11 mph             | 4.75 mph              |
| Women 50-59 | 3.12 mph             | 4.50 mph              |
| Women 60-69 | 2.90 mph             | 3.97 mph              |
| Women 70+   | 2.85 mph             | 3.91 mph              |

cities, bridges, airports, and other pedestrian spaces are designed. This speed is also the standard for entertainment purposes, such as video games and virtual reality, because it affects how we process visual and spatial images.

This standard speed is compared to a healthy adult man aged 20 to 60 during a casual walk. However, under the influence of several factors, the speed can increase or decrease; for example: during a walk in the company of other people, the participants tend to slow down or accelerate the speed to adapt to the rhythm of the other (Wagnild & Wall-Scheffler, 2013); at an ambient temperature of 20°C a person tends to maintain a speed of about twice as much as he would at a temperature of 11°C (Suverkropp et al., 2001) the average walking speed in the city is higher than the speed in the countryside (Bettencourt et al. 2007).

## Benefits for health

As previously mentioned, walking also brings numerous health benefits and is something most people can do. Among the benefits we can list:

- Improvement of sleep quality.
- Increase in HDL cholesterol and reduction in LDL, therefore, reduction of hypertension and risk of heart attack and stroke.
- Reduces physical and mental stress.
- Improves mood.
- Reduces fatigue.

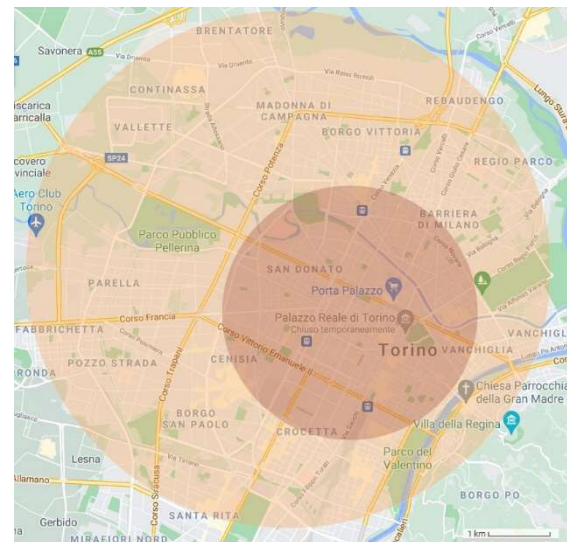
- It reduces the chances of long-term mental illness because it helps increase blood flow through the brain. Slowing mental decline and decreasing the risk of senile dementia. (Abbott et al., 2004)

Staying healthy is a crucial part of living a long and happy life; walking frequently can increase an individual's life expectancy (Haskell et al., 2007). Even just seventy-five minutes a week, less than eleven minutes of walking a day, can add nearly two years to an individual's life. The American Heart Association's recommendation is to walk about one hundred and fifty minutes a week, a preset recommendation on many walking applications. About twenty minutes a day, a reasonably simple amount of time for most people to spend (Haskell et al., 2007).

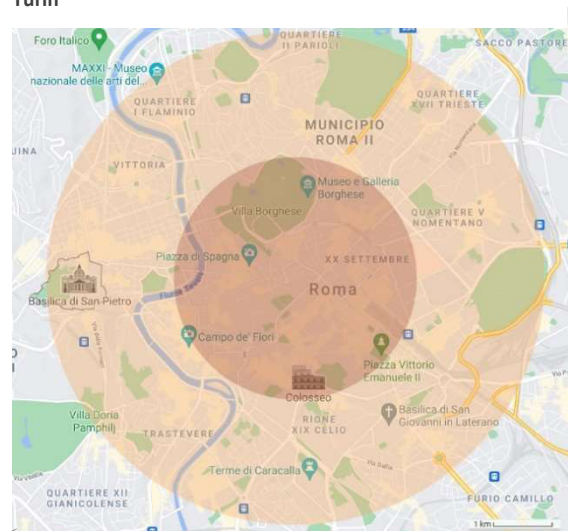
### The size of the city

It, therefore, emerges that considering the standard speed of 3 miles per hour (about five kilometers) compared to a travel time of twenty minutes, each person should travel about two kilometers a day to maintain an adequate level of health. This distance and speed are also a good compromise concerning exposure to smog and could be the desirable and adequate distance between residences and essential services, therefore the distance that could be taken every day to carry out the everyday activity. This distance could be doubled by inserting the possibility of movement by bicycle, which could be considered exclusionary for some groups of the population.

A healthy and resilient city is a city that will be able to offer access to essential services within a radius of between 2 and 4 kilometers from everyone's home. This distance is approximate theoretical and not taking account of orographic conditions of the context. Clearly, in a city with significant differences in altitude and with street gradient percentages higher than 8%, the difficulty of walking for the inhabitants will increase, decreasing the speed and reducing the practicability. A city street with slopes of less than 2% may cause difficulty in walking during rainy periods for the difficulty of the runoff. These two conditions would require interventions which will be explained in the chapter concerning comfort.



Walkable city (red) cycle city (yellow) drawn on Rome and Turin



The size of a walkable city, which would have a radius of 2 kilometers, can be superimposed on the historic centers of large Italian cities such as Rome or Turin (previous images) and abundantly covering most historic Italian centers, indeed for many Italian villages. It would come to include the territory of neighboring municipalities.

The deliberate observation carried out on the historic centers makes clear the feasibility of a reconstruction program of the historic centers in a vision of a walkable city, as they represent the most delicate part of the city as well as being the areas where the "urban malaise" has the most significant influence "And where the greatest interests fall as they host most of the services, commercial and financial activities of the city itself, as well as being the urban area that most attracts tourism, as they are privileged cultural centers. Actions in this sense, such as pedestrian areas, pedestrian or shared streets, and cycle lanes, are already active in many centers; it is rare to find a historic center without pedestrian or shared streets. In any case, it would be appropriate to expand these pedestrian areas like wildfire to cover the entire urban fabric of the historical centers. Making historic centers 99% free from cars is a definite and non-utopian possibility, guaranteeing inside access to residents' cars for moving from "non-street" car parks to the outside of the area and vice versa, guaranteeing access to means of transport for people with walking difficulties and the possibility of access for emergency, safety and territorial control means, which should be appropriately adapted.



Some glimpses of historical towns in Sicily, Italy (above) and Latvia (below) © [www.kevinandamanda.com](http://www.kevinandamanda.com)





## Public transport and suburbs

However, this line must not tend to favor or benefit historical centers to the detriment of other areas of the city; the risk is the repetition of what has happened and continues to happen in the cities, where the centers take on a privileged character and where the significant attention from, above all, local administrations.

The possibility of extending the walkable city beyond the historic center must be among the main objectives; the historic center should be walkable or cyclable. The areas outside it should take on those characteristics that today are the prerogative of the historic center. Often the external areas are connected to the center by wide avenues, which constitute essential street infrastructures, often with several lanes in each direction. Managing to reduce the demand for private transport to the center would become superfluous; these avenues could be converted into linear parks. The streets of the peripheral areas should be revised based on actual traffic flows and resized to facilitate walkability concerning vehicular traffic, allowing a better turnout to commercial, accommodation, and recreational facilities, as well as essential services, present in those areas that we could call "suburbs", but which in a broader vision represent a "new city", because it should offer everything that the "old city" offers in terms of services and above all health and wellness.

The role of public transport is fundamental. Where railways are present, they should be better exploited and managed, including by inserting intermediate stations to reduce street congestion and progressing towards street reclamation of cars. The development of underground metropolitan networks, where possible, should continue to be encouraged and implemented, improving the aspects of accessibility, reception, and energy sustainability and safety and, even if it is costly infrastructures, it should be made accessible to the population.

Instead of preferential lanes for bus lines, reserved or shared carriageways should be provided, which offer greater frequency to stops, in turn, positioned at points that allow walking, comfortably and safely for all residents, therefore reachable through human-friendly paths.

Making public transport more usable and fluid is a further opportunity to help citizens change their car use habits, an objective that can be achieved by planning and designing multimodal transport systems that do not include the use of the vehicle from home to the place of interest of private transport.

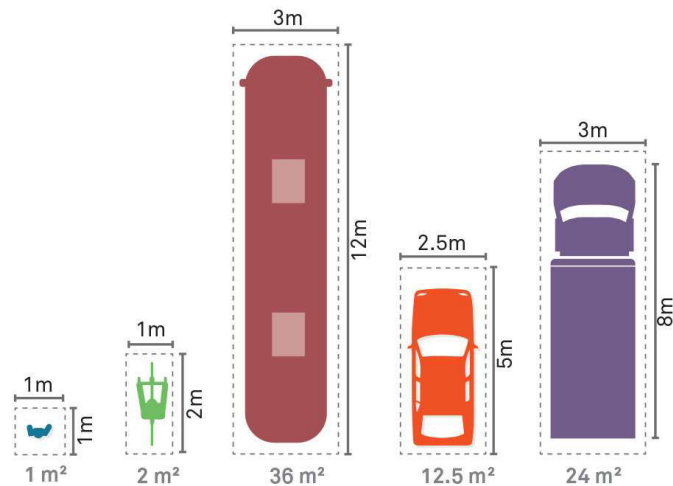
An urban population accustomed to walking, moving with ease through the city streets, and having a better health condition will respond with greater positivity in adverse events by increasing the capacity of human and urban resilience. Furthermore, the drastic reduction of passive and polluting mobility that would be obtained would lead to a significant improvement in air quality. As already experienced during the first lockdown of the covid-19 pandemic, the levels of fine particles in cities' air fell rapidly, and the air became breathable again. Air quality impacts every person's health, particularly on some of the most vulnerable and disadvantaged

people in the community: children and people who already have health problems. Reducing air pollution benefits us all and helps reduce unjust health inequalities (Saunders, 2020).

## Street Users

The streets represent the vital space for the reconstruction of a healthy city; thus, it is essential to compare the dimensions and space occupied by different street users to reveal the advantages of the design of transit, cycle and pedestrian streets. Providing high-quality facilities for this space-efficient, affordable and sustainable modes of transport allows the same street to accommodate more people. Reducing the amount of space dedicated to the circulation and storage of private vehicles maximizes the amount of space available for other activities that add to the quality of the streets.

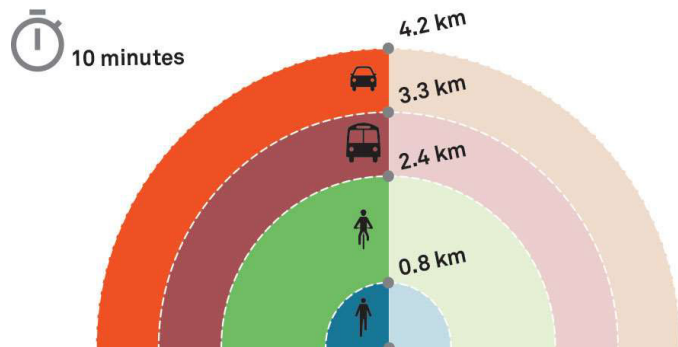
People and vehicles take up different amounts of space when on the move. Everyone needs an operating envelope that is comfortable and supports the safe movement. While walking and cycling use the least amount of space for movement and storage and have the most flexibility, the comfort and safety of these modes is heavily influenced by the amount of space available to them (NACTO, 2020). From comparing the operating equipment for different users and vehicles, it is evident that the car occupies an area equal to more than a third of a bus but with a load capacity of ten percent.



Vehicle speed is a crucial risk factor for street accidents and death. High-impact speeds dramatically increase the risk of severe injury or death in a crash. People moving at slow speeds have more time to observe the street around them, have more reaction time, and have concise reaction distances. Street design, human perception, and the comfort and activity of other people affect movement and operating speeds.

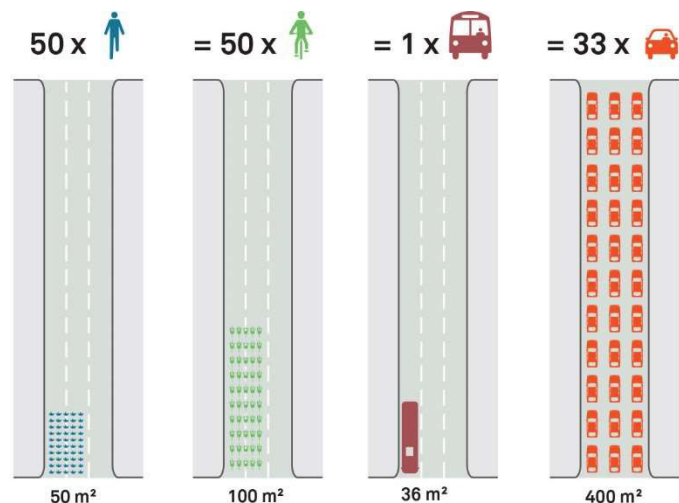


Understanding how far a person can travel in 10 minutes provides an essential measure of the number of destinations readily available to them. A person walking in a city center has access to many more destinations than driving in a low-density environment. Planning distances of 5, 10, and 15 minutes, particularly for transit stops and neighborhood cycling and walking networks, can help inform a street's potential to become an essential part of the active transport network (NACTO, 2020).



Mass plays a significant role in the event of an accident. When a heavy vehicle collides with a lighter vehicle, the light vehicle occupants are much more at risk of serious injury (NACTO, 2020). Pedestrians, cyclists, and motorcyclists run the most significant risk of serious injury when colliding with a motor vehicle and are commonly referred to as vulnerable users. Compared to other street users, this group is particularly prone to injury as the shell of a vehicle does not protect them.

The load capacity of a bus is fifty passengers, occupying an area of approximately 36 square meters. Fifty people on foot, considering the size of the operational equipment, will occupy fifty square meters. If the fifty people traveled by bicycle, they would occupy one hundred square meters. On the other hand, if the fifty people traveled by car, considering an average of 1.5 occupants per vehicle, which corresponds to the typicality of short car journeys, the space occupied on the street would be equal to four hundred square meters.

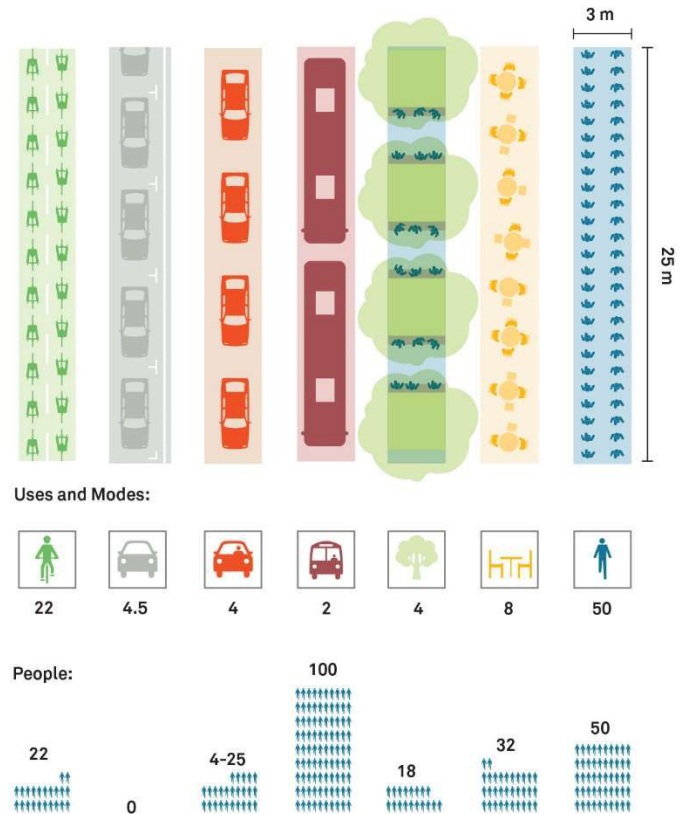


While a bus needs three times more space than a car, its carrying capacity per lane is unrivaled among other modes on the street. Due to land scarcity in urban areas, it will be necessary to use the space within the street more efficiently to serve the most significant number of people.



In order to support a variety of activities and modes of transport, a comparative analysis of a specific space will be necessary, for example, a street strip three meters wide and twenty-five meters long, a stretch of streetway, occupied in different ways by various uses and by different numbers of people (NACTO, 2020).

On this portion of the street, use in cycle path mode would allow the simultaneous parking or transit of twenty-two bicycles. So twenty-two users. Using it as a car park, we will get four and a half stalls. On the other hand, if we wanted to use it as a vehicular transit street, we could have the simultaneous transit of four vehicles, with four drivers, who with the passengers would become about twenty-five users or two buses that at full load would carry about one hundred users. Instead, we could plant four trees and offer space for relaxation and shade to about eighteen people or install an outdoor restaurant; in this case, we will get a maximum of eight tables that would accommodate thirty-two users, considering the standard pre-covid spacing. If the street were left free to walk, the street could be crossed by a simultaneous flow of fifty people, considering the possible spacing for health reasons, between twenty and twenty-five people.



## Safe, Healthy, and Social Streets

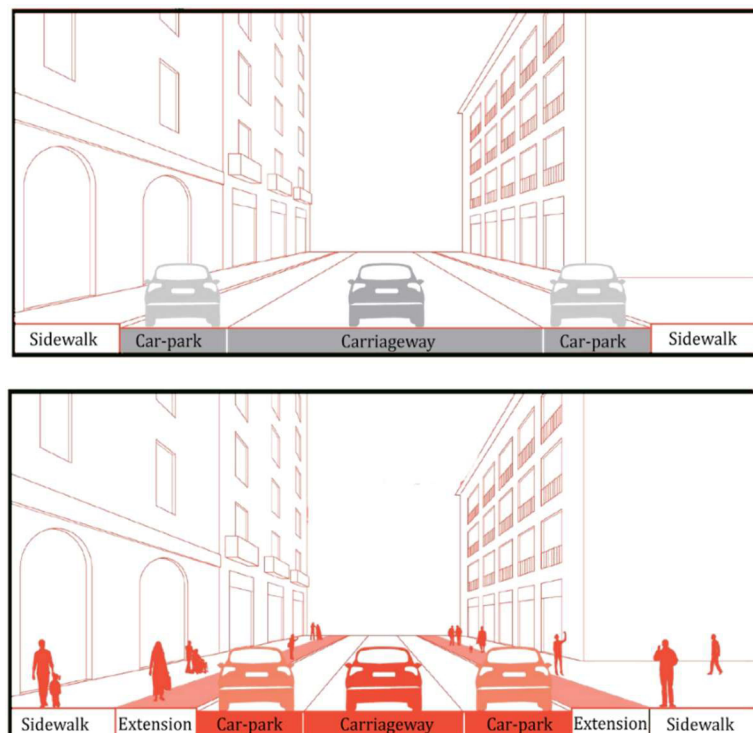
By reshuffling their priorities, the post-pandemic city can become a healthier place. Instead, by maintaining the position of places of consumption as the prominent place of social aggregation, thus making social connection subordinated to economic growth, we will have learned very little from the lockdowns of the Covid-19 pandemic. It is necessary to rebuild the city to make it a better means of connection at all times; this means re-proposing public places around authentic, meaningful, and safe interactions.

The streets represent the public space par excellence, but they should not be experienced as a simple transit space. Returning street space to pedestrians and active mobility, in general, could transform them from simple spaces to new places for the shared life of the community and places for physical activity and relaxation.

To obtain safe, healthy, and social streets, it would be necessary to undertake actions that, by inserting themselves in the urban fabric and especially in the public space, could initially create disputes or tensions, precisely because they will aim at a lifestyle change. Therefore they could encounter difficulties in 'be accepted by some parts of the population. Administrators and planners must directly involve the population, especially in areas outside the city centers, to correctly choose the streets and the actions to be taken on them. The involvement of all stakeholders of the public space will be fundamental for the success of the actions.

### Pedestrian paths extensions with the widening of the sidewalks.

Increasing the width of the sidewalks would allow physical distancing and, especially in the streets with commercial activities and essential services, the possibility of queuing without blocking pedestrian accessibility. This action is also essential on streets with narrow or absent sidewalks that already usually become difficult to walk and cannot be transformed into restricted traffic areas, slow or pedestrian streets because the driveway space continues to be necessary.



During the covid-19 pandemic, due to the rules on social distancing, there were considerable difficulties for pedestrians on the streets of the historical centers, often forced to invade the driveway space, putting their safety at risk. Furthermore, narrow sidewalks do not allow people to walk smoothly and in a group, often being forced to stop and restart, slow down the pace, look for ways to juggle pedestrians and cars. The practices implemented in numerous countries during the pandemic are often attributable to provisional or temporary interventions that have experienced a reshaping during the periods of closure and opening, not allowing a natural takeover of the space by pedestrians who, in some cases, had to suffer further difficulties in moving on paths where the asphalt was inconsistent or in the spaces of the drainage ditches of the water.

The best practices, both for safety and comfort in walking, can be found where the sidewalk has been widened with an extension at the same height. In addition to extending the pedestrian path to the level of the existing sidewalk, another good practice is to bring the pedestrian crossings to the sidewalk level, or in any case to a higher level than that of the driveway, creating an extended bump, which slows down the movement of vehicles and allows pedestrians to move without running the risk of tripping or falling. This would offer better usability, especially for people with walking difficulties, the elderly, and children.



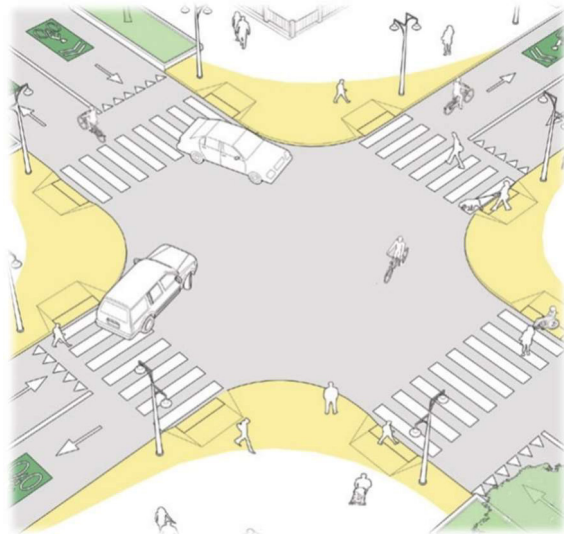
Providing sidewalk extensions reduces walkway distances and increases pedestrian space. Sidewalk extensions physically and visually narrow the carriageway by increasing the available waiting space and providing areas with street furniture and benches, transit stops, trees, and landscaping. They can be deployed throughout the city, can be of different sizes, and can combine stormwater management and other public space improvements.



Some actions to take:

- **Street Corner Alignment:** Corner alignment extends the curb by designing curb corners with the tightest radius possible. Corner alignments increase mutual visibility between pedestrians and motorists, increase waiting space and reduce crossing distance.

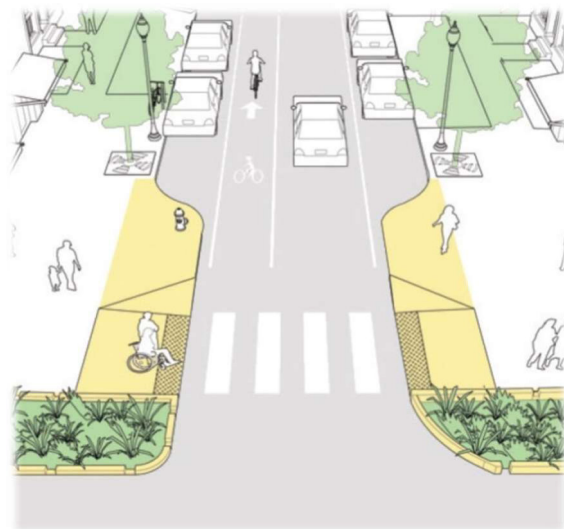
These can generally be applied using temporary flooring materials and be implemented without operational changes. Sidewalk corners with large radii of curvature invite vehicles to turn at higher speeds and increase pedestrian exposure.



The alignment of the sidewalks widens the pedestrian area, allowing for a more direct pedestrian path and better alignment of the pedestrian ramp, thus improving accessibility.

- **Bulb-outs:** Bulbs are extensions of the sidewalk in the parking lane. They should be installed whenever on-street parking is present to increase visibility, reduce crossing distance, provide additional waiting space and allow for seating or gardens.

Before a complete rebuild, gateways can be designed using stripes or signage that communicate the entrance to a slow zone. The length of a bulb should be at least equal to the width of the walkway, but it should preferably extend to the stop bar.

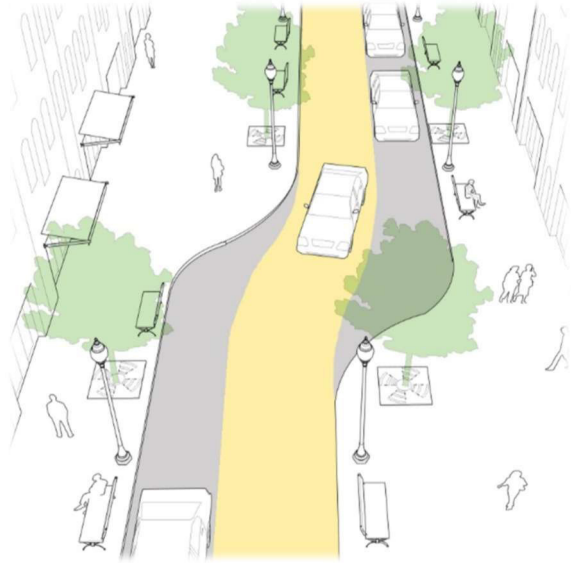


Bulbs are often used as calming traffic measures and are referred to as pinch points when applied mid-block, gateways when installed at the entrance to a low-speed street, and chicane when used to form an S-shaped travel path for lower vehicle speed.

- **Sliding Lane Removal:** Removing the Sliding Lane extends the sidewalk to include the lane and traffic island. Access lanes are sometimes provided at intersections of main urban streets to facilitate the turning of vehicles to the detriment of pedestrian safety. Laneways allow vehicles to turn at higher speeds and reduce the visibility of motorists and pedestrians, creating potentially dangerous conditions for pedestrians.

Removing the lane barriers does not necessarily involve operational changes, but it can dramatically reduce the risk of a right-hand collision between vehicles and pedestrians attempting to cross.

The removal of the traffic lanes reduces pedestrian exposure and increases the pedestrian space available, making room for urban furniture and the landscape.





### Active, slow, and shared streets to allow safe movement—the Shared Streets.

It should be considered that not all streets will be closed to traffic, becoming entirely pedestrian or bicycle paths. The need to use private vehicles for longer journeys or necessary journeys continues to persist in the population, at least in the early stages of lifestyle change. Mainly in residential areas, the streets must allow constant and uninterrupted vehicular transit.

To rebuild a walkable and healthy city, it will be necessary to pay particular attention to these parts of the city, which often have the greatest concentration of older people and children who use the streets to move or play. The streets of residential areas can also represent a good starting point for intense physical activity, a run or a ride that has long distance as its goal. Furthermore, these streets are the place for socialization and often also the only space in which a community can grow.

Actions that prioritize safe walkability and cycling will be helpful to identify streets that have a classification of "local street", with one lane in each direction or one-way, which are not the exit or entrance path of police or fire stations, are not crossed by public transport services. The goal should be to cover all the streets of a neighborhood where it is impossible to achieve complete pedestrianization, allowing safe paths that encourage physical activity, play, and sociability.

Also, in this case, as in the previous ones, the direct involvement of citizens and local associations will be necessary and indispensable to ensure that the streets are used correctly. This case is a more complex situation than the total pedestrianization of a street, as it will have to allow simultaneous use by people and vehicles. This action can be implemented with simple tools, such as moving signs and temporary cones that can divert traffic and slow drivers in a short-term or temporary view. If people want to adopt this use of streets in the long term, in a farsighted vision, to obtain safer, quieter neighborhoods and offer greater lasting well-being, specific measures should be adopted to design the street.

In the first phase, the experimentation of a temporary slow street is appropriate; during the Covid-19 pandemic, they were tested everywhere globally, so there are already evaluable results, such as those presented in the case studies. The citizens of the neighborhoods interested in these experiments strongly support this different way of using the street because they have benefited from it at 360 degrees both for the quality of life of the neighborhood and for the personal health and their loved ones, therefore the passage to the next phase, that of a permanent slow street will have to be considered of high importance by the administrations which will have to invest more resources for implementation, which in the long term will lead to savings on health care costs. The experiments carried out in 2020 by local administrations worldwide were of an emergency nature; it was necessary to deal with an emergency and reduce the difficulties of citizens during the pandemic. Clearly, given the rapidity of the interventions, it was not possible to implement a community process involving the interested parties, and often the location of these streets in poorly served neighborhoods



has generated various controversies. After months of experimentation and testing the benefits, many citizens of the affected neighborhoods are now worried that the space they had re-appropriated for walking, cycling, or socializing in safety is no longer available and returns to being the prerogative of cars.

Many narrow and crowded streets worldwide already operate informally as shared streets at peak times of the day or in congested areas. By removing the formal distinctions between spaces dedicated to pedestrians, cyclists, and motor vehicles, the street is shared by all, with each user becoming increasingly aware and respectful of others.

Formal shared street environments should be considered when pedestrian activity is high and vehicle volume is low or discouraged. In cases where the cross-section of a street is too narrow to allow universally accessible pavements with vehicles moving in separate lanes, the street can be redesigned to allow for safe movement and a wider variety of activities.

Shared streets give pedestrians the right of way. While designs vary based on local context and culture, curbs are removed, and materials and space allocation indicate vehicles are guests.

Shared streets can significantly contribute to the public space network in historical centers, adding liveliness and activity with alfresco dining, public seating, artwork, and landscapes. In residential areas, shared streets become the extension of front courtyards, places to meet neighbors and build communities. Shared treatments make streets safer for all users.

## Shared streets in the historical centers

The default condition in historic cities with limited rights of way is shared streets. One or two narrow lanes can be shared between cars, motorcycles, bicycles, and cargo vehicles. Due to the limited space, these streets can have narrow and inaccessible sidewalks, with service boxes and lampposts obstructing the pedestrian space. The sidewalks are occupied by street vendors and informal parking lots in some contexts, forcing pedestrians to the street surface.



Ex1: Small shared street in the historic center

Ex2: Large shared street in the historic center

Design strategies must prioritize vulnerable users, ensuring that clear paths are maintained. (NACTO, 2020)

- Work with local accessibility groups to ensure design, materials, and facilities meet local guidelines or standards.

- Consider the local climate and material availability when developing the design. Drainage channels and permeable materials must be provided following the existing curbs and slope.

- Structures and pavement must be aligned with the curb to reinforce the pedestrian priority of the street.

- Provide tactile warning strips at the entrance to all shared spaces. The warning strips should cover the entire intersection. (1)

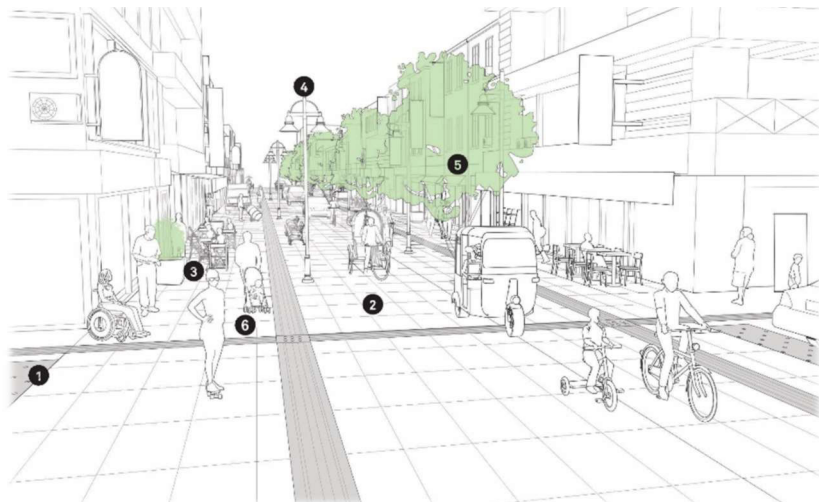
- Maintain a clear route for delivery vehicles and mark dedicated areas for vehicle movement with a change in the pattern or pavement type. (2)

- Use street furniture, including benches, planters, artwork, trees, water fountains, bollards, and bicycle parking spaces, to define the shared space and delineate the lane from pedestrian areas. (3)

- Illuminate the streets evenly to create a safe and inviting environment. Lampposts and shared street fixtures can be designed to add character and a sense of local context. (4)



Ex1: After Redesign



Ex2: After Redesign

- Include landscaping such as planters and trees wherever possible. Incorporate permeable finishes and rain gardens as part of more extensive green infrastructure and water management strategies. (5)
- Depending on the overall width of the street, consider the possibility of providing an accessible and continuous path, 1.8 m wide, protected from traffic to ensure universal accessibility (6).
- Use mobile planters to limit access to vehicular traffic at certain times of the day. (NACTO, 2020)

### Residential shared streets.

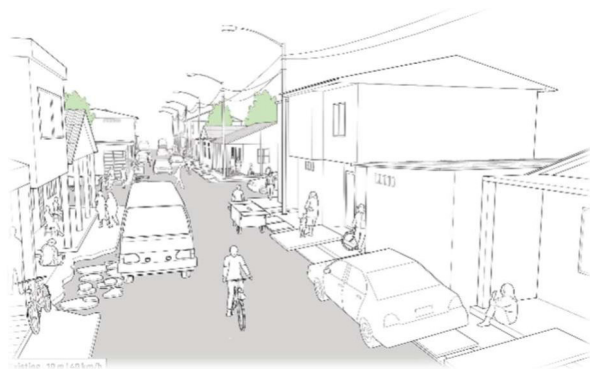
Low-volume residential streets, especially in older cities, may have narrow or non-existent sidewalks. Many operate as de facto shared spaces where children play, and people walk and cycle, sharing the streetway with drivers. Depending on the traffic network's volume and role in the traffic network, these streets can be redesigned as shared streets.

Buildings may have minor setbacks, and drainage channels can run on both sides of the street, under or beside sidewalks. In some contexts, these channels are discovered.

Limited space can result in narrow, uneven sidewalks that are inaccessible and blocked from parking. Shared streets can emerge as an informally existing condition, especially in suburban or largely unplanned housing developments. Pedestrian facilities on residential streets may be scarce or missing altogether, with motor vehicles dominating the right way. The most accessible section of the street is often the center, where pedestrians can be discouraged from walking due to the pressure from motor vehicles.



Ex1: A residential street in city context



Ex.2: A residential street in suburbs

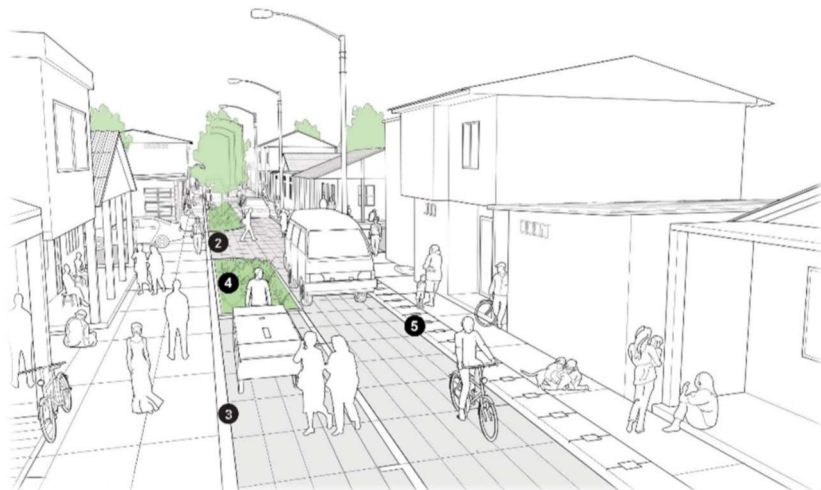
To transform streets with low vehicle volumes and high pedestrian activity into shared streets, it is necessary to consider them as slow streets.

- The use of curbs and surface treatments can create unusual geometries to improve the feeling of shared environments and encourage drivers to reduce speed by diverting their travel path.



Ex.1: After Redesign

- In the design of shared residential streets, the pedestrian has priority, and the shared spaces must be easy to understand. The use of dedicated signs to inform and educate is necessary at all stages. The textures and street furniture will serve to strengthen the priority for pedestrians.



Ex.2: After Redesign

- Projects should be tested with interim strategies and low-cost solutions. Mobile planters, sculptures, street furniture, and designated parking lots can act as horizontal speed deflectors and help achieve desired results (1).
- Design clear passages on the shared street, with narrow entrances for vehicle routes to slow vehicular traffic at appropriate speeds. Include changes in grade, pavement textures, colors, and tactile stripes to alert pedestrians when crossing the shared street to enter a general traffic space (2).
- Designate zones for parking, landscaping, and flexible activities to create a chicane condition and slow down vehicular traffic. The flexible zones allow residents to use the streets to extend their homes, play areas for children, and bicycle parking spaces (4).

- Maintain a clear path for cars and bicycles. The route can be defined using the landscape, street furniture, parking areas, poles of street users, or structured pavements.
- Change materials and colors to delimit different areas (3). Parking areas must be marked to avoid unregulated parking.
- Provide drainage channels in the middle of the street or along the flush curb, depending on underground services and other existing conditions (5).
- The selection of flooring, materials, and furniture must be consistent with the regional climate context. Opt for snow-compatible materials for colder climates or permeable pavers for locations with heavy rainfall. (NACTO, 2020)

It will be necessary to overcome the concept of zone 30 because it is now obsolete and inconclusive, as pedestrians continue to feel unsafe and cars continue to dominate the space. To obtain a better shared space, it will be necessary to lower the speed to a more "human" level, prioritizing pedestrians. Intervening in the ways mentioned above would allow a drastic change in driving speeds, from a "normal" urban speed of 40 km / h to 10 km / h. A car hitting a pedestrian at a speed of 10 km / h can have minor consequences; unlike higher speeds, already at 30 km / h, the consequences can be more serious. Therefore, high-density pedestrian streets should be converted into shared and slow streets to increase pedestrian safety.

**Design and plan the renewal of the streets to make them active, slow, and healthy.**

To proceed with a correct and fair street design for a renewal of the old urban arteries in a vision of active and healthy streets, it is necessary to proceed step by step, first of all by collecting and analyzing as much data as possible referring to that stretch of street that affects the renewal. It will therefore be essential to document everything related to street activities, street furniture, existing human-scale design, priorities, sharing of mobility modes, utilities, and infrastructures, the edges of buildings and the uses of ground floors, the transparency of the ground floors, the entrances, the green infrastructures, the local climate and the management of the sidewalk. In this way, it will be possible to have a complete vision of the context in which it will operate.

- **Street Activities:** Document the types of activities that occur on the street, noting specific places. Measure the site at different times of the day, week and year by looking at how much time people spend there and whether they are sitting, playing, shopping, or participating in other activities. Note the areas where these activities block clear paths. Strategically place dedicated space and facilities within the street to entice various activities while keeping the space safe, healthy, lively, and accessible.
- **Urban Furniture:** Identify and count street furniture such as seating, lighting systems, bus shelters, orientation signs, bicycle racks, and bicycle sharing facilities. Carefully



plan street furniture design and locations to meet the desirable patterns and needs of street activities. Ensure that the placement of street furniture maintains free paths along sidewalks for free and accessible movement and free paths on street surfaces for emergency vehicles and city services.

- **Human Scale Design:** Observe and note the edges of buildings, street furniture, and overall street scale about the human scale and human use. Designing the way to respond to the human scale. Promote and encourage the edges of buildings on a human scale. Align street lighting, signage, and signage at human eye level and design street furniture to ensure universal accessibility.
- **Priority:** To identify which changes are possible, first measure the widths of the streets and note the size of the areas dedicated to different users. Measure in multiple locations when widths are inconsistent. Modify the geometry of the street to distribute the limited space between the different users adequately. Prioritize space for pedestrians, cyclists, and collective transport. Include space for green infrastructure and other non-mobility-related activities and functions where possible.
- **Shared mode:** Measure the shared mode that exists along the way to understand how it is used. Notice how user counts vary at different times of the day, week or year or based on specific operational strategies in use. Design the street to promote safe, accessible, efficient, and comfortable walking, cycling, and collective transport compared to private cars. Facilitate transfers from one travel mode to another.
- **Utilities and Infrastructure:** Document the location and type of lighting and other services that affect street design. Identify obstacles to the safe movement of pedestrians and note whether the obstacles are fixed or mobile. Identify areas with insufficient lighting and identify areas prone to flooding or standing water. Designing streets to improve energy efficiency, water management, and air quality. Provide safe and quality lighting to support a sense of place.
- **Edges and uses of buildings:** Observe and document the building's edges and any areas of setback. Write down the different uses on the ground floor and evaluate how this supports or hinders street activity. Design streets to support uses in adjacent buildings. Provide clear pathways, space for street furniture and designate areas to be used on the ground floor to extend onto the street in strategic locations.
- **Transparencies:** Measure the levels of transparency of the ground floors of buildings. Notice long stretches of empty facades, fences or building setbacks, and the general sense of security and surveillance. Designing streets to support the visual extension of ground floor uses into the public realm, adding life and interest to the street. Provide landscapes, artwork, and other engaging elements to reduce the negative impact of empty facades or setbacks of inactive buildings.
- **Entrances:** Document the location and frequency of access to adjacent buildings, noting their uses. Identify places with heavy pedestrian volumes at various times of the day. Increase pedestrian spaces and add supportive urban furnishings close to, but



not in the way of, busy entrances. Promote frequent and active access and ensure clear paths suitable for accommodating pedestrian volumes.

- **Green infrastructure:** Identify existing trees and planted areas. Take note of the local climate, planting seasons, and species. Identify the water table, the conditions of the subsoil, and the users. Include trees and planted areas in street design to improve air quality, provide shade, improve water management systems, support local ecosystems, and create living streets. It is needed to use native species to plant streets and improve the microclimate.
- **Local Climate:** Consider local climates, average temperatures, and the frequency of extreme weather events. Include protection from extreme heat, heavy rain, snow, or strong winds. Provide shade to minimize the urban heat island effect and improve pedestrian comfort in warmer climates. Design for sun exposure and snow removal in colder climates. Prepare street infrastructure and materials to adapt to seismic and geological changes and other natural disasters.
- **Management of sidewalks:** Document the number of dedicated street parking spaces, noting any restrictions on use. Identify truck loading spaces and routes, as well as any current management strategies. Develop curb management strategies that include purpose-based zones, parking, and delivery time limits. Remove on-street parking spaces for other uses when competing needs and priorities are identified. (NACTO, 2020)

Context is a crucial but often overlooked factor in street design. Density, land uses, and travel characteristics can change as the street crosses the city from neighborhood to neighborhood. Street design should respond to and influence the desired character of the public space. As needs and uses along with a street change, street projects should respond and adapt accordingly.

Understanding the existing conditions of a street is essential for guiding responsible street design. It is equally important, however, to identify desirable functions and uses for the future. Current street types can transform from one type to another to support long-term city-wide policy goals.

Strategies for proper street design should:

- Ensure that streets serve the most vulnerable users, particularly the elderly, children, and people with disabilities. Provide accessible, safe, well-lit, and dedicated facilities.
- Ensure safe speed design through narrow aisles, tight corner radii, and other speed reduction measures that help reduce exposure and risk to vulnerable users.
- Ensure efficient and diversified streets by providing spaces for social interactions and encounters, cultural activities, and commercial uses. Incorporate green infrastructure strategies wherever possible.

Furthermore, it will be necessary:

- Change the geometries to give priority to the choices of active and sustainable mobility. Provide dedicated facilities that prioritize the use of pedestrians, cyclists, and collective transport.
- Design streets informed and influenced by their position in the network, proximity to destinations, adjacent land use, and density.
- Move sidewalks, change alignments, reclaim space and redirect traffic. Use a step-by-step approach to significant redesigns, consider interim design solutions, and identify political and financial support areas.

## The pedestrianization of the streets

The practice of making streets pedestrian has already been in place for some time in many cities, especially in historical centers and in streets with a solid commercial or tourist character. The need to pedestrianize some sections or entire streets dates back to the beginning of the twentieth century and has experienced an enormous development since the 1950s with the growth of mass cars in order to preserve the commercial areas of the center from the inevitable peripheral decentralization that they were gradually suffering from the saturation of urban traffic.

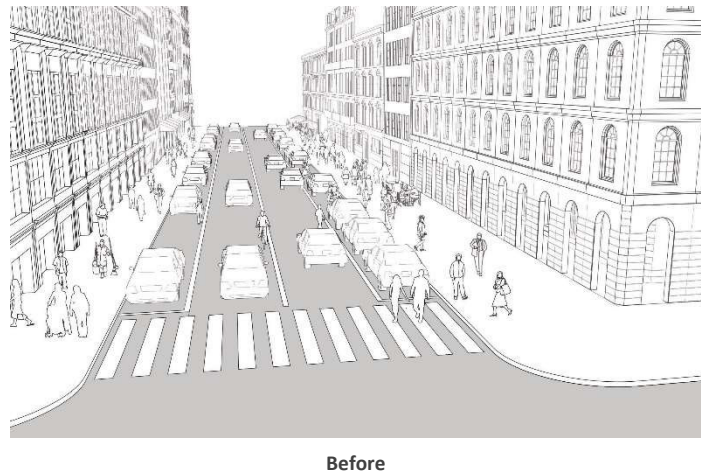
The pedestrianization of street axes is possible, indeed desirable, to be extended to the entire city center with the necessary precautions and the choice between slow streets, streets with limited and reserved traffic, or exclusively pedestrian streets. However, the implementation of pedestrian streets is also possible in the peripheral area, as in the suburbs, as well as in the city, the presence of streets that could be defined as "disused" or "deserted" is high, these spaces could be an opportunity for create new places for socializing, playing, physical activity or simply relaxing.

Closing an area to traffic is not a simple operation, for many reasons, not only logistical but also to alternative traffic channeling. To ensure that pedestrianization is successful, it will be necessary to consider accessibility and comfort for citizens, which push them to return and make it a place of regular frequentation.

All pedestrian areas must be accessible in a simple way and in various ways (on foot, by public transport, by bike, by car with parking nearby), must be equipped with elements of attraction that stimulate the interest of pedestrians and encourage visitors to visit them, are accessible in any climatic condition, well lit and equipped with relaxation areas (benches, fountains, etcetera). Furthermore, they are safe.

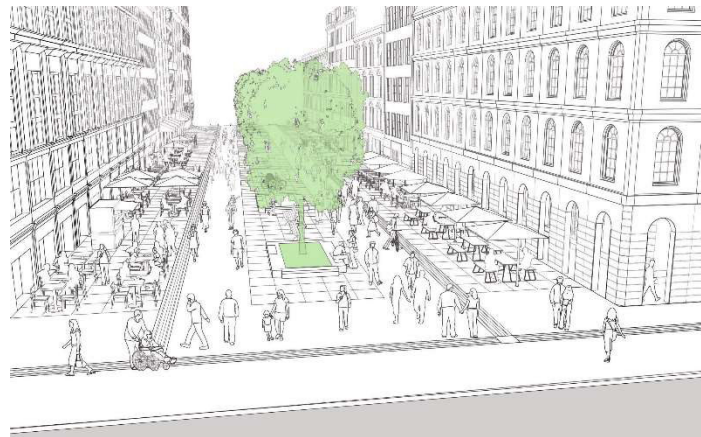
The success of a pedestrianization consists in involving citizens, in encouraging them to continually return to those areas, in finding them useful, well structured, and in feeling them like their own space where they can walk, be outdoors, bring their children, and create a bond with public affairs, which will lead them to take care of them, respect them and commit themselves to improve them continually.

During the planning phase, it is necessary to identify street axes that can be completely closed. It will not be possible to park and transit vehicles, except authorized vehicles that have already been discussed previously. For this action, as already mentioned, the streets with the low vehicular flow should be concerned, which, from analysis, it would appear that one could do without, and the streets leading to or adjacent to essential services, schools, and commercial activities. The dialogue and collaboration of citizens, schools, and all stakeholders will be necessary to identify the main obstacles or problems related to the planning or length of this intervention and acknowledge its requests, needs, and wishes.



Before

Pedestrian streets prioritize people and are generally more appropriate in corridors with commercial activity on both sides of the street. These are strategically selected streets where the pedestrian volume is high, and vehicle traffic is limited. These streets offer different shopping or sitting, dining or lounging, strolling, or performing. When well positioned, designed, and maintained, pedestrian-only streets become a destination and translate into economic benefits for adjacent businesses.



After

It will therefore be necessary to carefully select the streets to be pedestrianized based on the immediate context. The lack of pedestrians can make these streets unsafe and uninviting. Pedestrian streets should be located in high-density mixed-use commercial or office areas where the number of pedestrians is high.

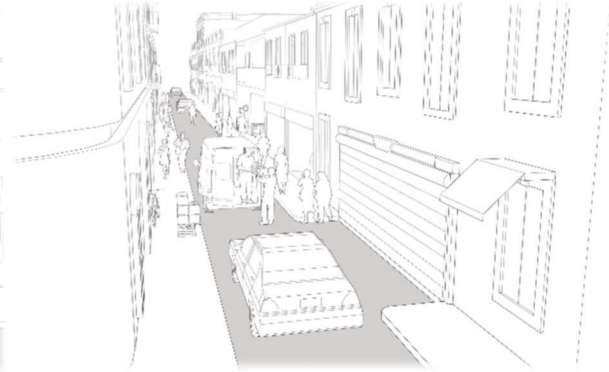
Exclusively pedestrian streets must be well connected to collective transit, cycle paths, and pedestrian paths. Access from side streets or through streets should offer multiple options for entering and exiting the corridor while keeping the space permeable. In addition, it is essential to provide delivery and collection points for vehicles carrying passengers with mobility difficulties.

Minimum clear paths shall be maintained to allow access to emergency vehicles. Prohibit parking and vehicular traffic to ensure clear paths are not obstructed.

A type of street to consider for pedestrianization are alleys, and laneways, which create a strong sense of closure due to their conformation, arousing in some cases a low sense of security and therefore are little considered by pedestrians. Garages and limited residential access can address residential alleys. Alleyways and lanes can be necessary for local public services and garbage collection, but they can be poorly lit and busy, creating a dangerous



Example 1 Before



Example 2 Before

atmosphere for pedestrians. Often, they are activated by businesses that take advantage of the lower rents. However, being close to central streets or public spaces can offer convenient access to key city destinations. Therefore, a careful evaluation of this type is necessary to determine the most appropriate method of use for the service to the city and its inhabitants. The pedestrianization of the alleys would provide valuable shortcuts for pedestrians crossing large blocks, increasing the overall permeability of the city.

The pedestrianization of tiny arteries with a narrow street section require similar but sometimes more significant measures. It will be necessary to design on a case-by-case basis, keeping a path accessible to emergency vehicles, so everything that has a permanent character, such as furniture or flower boxes, must be positioned on the streetside. In addition, it will be necessary to design and program the methods of loading and unloading goods for commercial activities. Of primary importance will be the lighting project, which will have to shape the character and spatial experience by providing a safe environment at all times. In addition to the careful planning of the flooring to ensure efficient drainage. In the vicinity of a street with vehicular traffic, it will then be necessary to insert raised pedestrian crossings adapted to the context.



Example 1 After



Example 2 After

The local climatic characteristics will influence the experience and use of the street. It will be necessary to consider any coverings of the alleys, where technically possible, to provide protection from the elements and encourage the taste throughout the year and wind protection screens, as, due to their conformation, they are often subject to the crossing of intense windy gusts.

In these areas, it will be necessary to involve local artists, residents, and companies to shape the character of the space, adding liveliness and visual interest to the alley space, improving its quality and perception.

Despite what is written in the introductory part, that is the extension of pedestrian traffic to the entire area of the city center, in some cases the complete pedestrianization may be appropriate only for a few blocks where pedestrian traffic is maximum.

However, it would be advisable to identify on a city scale and create a complete and continuous pedestrian network that is:

Connected and permeable, with a continuous path and with links between the various blocks and pedestrian paths, providing alternative routes in case of temporary closures and planning comfortable and comfortable experiences near key city destinations.

Accessible and comfortable, the opportunity to use the routes should be offered equally to all categories of inhabitants, respecting dimensional hierarchies based on the pedestrian volumes that will affect the streets.

Safe spaces and intersections, well-lit at night, with accessible slopes and differences in height, but above all easily controllable and controlled to prevent criminal actions, thus avoiding blind spots, recesses, and shaded areas.

It will also be important, to overcome the differences in height, the combination of steps and ramps with parking spaces and landscape, as well as providing, where possible, long green corridors or linear parks and greenways.

The streets will be influenced in their character and function by the land use of the commercial activities that occupy them.

It will be necessary to insert signs or other elements that encourage cyclists to get off the bike and walk, especially in the corridors with high pedestrian volume. Where the pedestrian density and the width of the street allow it, it will be possible to allow the use of bicycles at reduced speed. Even the bicycle is a means of transport that can cause problems of various kinds; therefore, it is essential to foresee how to use it.

In the preliminary phase, temporary pedestrianization tests will be carried out using bollards, poles, and diverters to collect comparative data to determine the impact of the permanent closure. It will never be too late, but it may still be early to carry out a definitive pedestrianization for some local realities.

Where the results did not allow for complete pedestrianization, slow and shared streets would still be appropriate.



## Temporary solutions to evaluate the benefits.

A definitive strategy will not consistently achieve the desired success, especially if the strategy has an immediate impact and requires a drastic change in lifestyles and uses of space. Lack of proven local precedents, limited funding, and regulatory restrictions can lead to hesitation in the face of innovative solutions. Long construction periods and frustrating waiting times for nearby residents and businesses further increase reluctance towards implementation.

It will be necessary to involve residents and local companies, not only at a consultation table but in the experimentation of alternative conditions, progressing in a short time, through the use of provisional design strategies, to demonstrate the change rapidly.

This rapid change can be offered using temporary materials, or gradual solutions proposed at a lower cost would be more easily approved. Before and after comparisons reveal solutions that work and others that do not. The provisional phase should provide long-term solutions based on the data and indications, and problems that emerged during the testing phase.

Simple, quick, and economic strategies and the use of temporary materials would immediately allow the possibility of experimenting. Some opportunities could be given by:

- Installation of small concrete partitions or bumpers for the night transformation of streets to reflect the desired configurations, without costly and permanent infrastructure.
- Flexible plastic bollards, which are easy to install and remove. They can help direct traffic flows and resist vehicle speed without posing a risk. These also augment other vertical devices such as stone bollards and jersey barriers.
- Thermoplastic paints and surfaces can be applied quickly and relatively cheaply. They do not create a physical barrier and can be combined with other elements for this purpose. These generally act as visual devices that force drivers to slow down, carefully read the street surface for movement, and give in to pedestrians.
- Planters can create inexpensive yet aesthetically pleasing installations that define medians, islands, sidewalks, squares, footpaths, and cycle paths. The planters also add greenery and greenery to the street.
- Temporary interventions can be implemented and tested on-site for varying durations, from a few hours, a day, or even a week. They help street users visualize alternative uses of street space and can be practical tools for public engagement.

Rethinking the pavement and moving it to balance all street users can transform how the street works, looks, and feels. Provisional strategies allow streets to adapt to changing contexts quickly. Use the following strategies to transform streets and intersections to make them safer and more convenient for sustainable mobility choices.

To make streets and intersections safer and more convenient, we could opt for the following strategies:

- Parklets are public seating platforms that replace several parking lots. They serve as a gathering place for the community and can revitalize local businesses.



- Sidewalks can be expanded using temporary materials, such as epoxy gravel, paint, flower beds, and bollards, relieving pedestrian congestion before a complete rebuild.
- Temporary markings with bollards or planters can change the geometry of an intersection and help revitalize a neighborhood, increasing accessibility and making mobility more intuitive.
- Temporary traffic reduction devices can be installed using pedestrian sidewalk extensions at intermediate intersections or street corners or using narrow, landscaped drainage channels. These can be designed as quick and inexpensive elements using paint and plastic bollards or permanent elements such as raised islands.
- Bicycle fences typically replace a parking lot at the request of a local business or property owner and can accommodate 12-24 cycles. Fences can be installed at corners to increase visibility.
- Food vendors and trucks can provide valuable services where they are lacking. Areas close to key destinations such as transit stations can dedicate parking spaces for these uses so that accessible walking paths can be kept safe (NACTO, 2020).

Some cities refer to the interim project as a pilot or test phase for a project, while others consider the project to be equivalent to permanent reconstruction. Although most of these pilot projects become permanent capital projects, some are modified or redesigned in the process based on their performance. In any case, this will lead to a better final product and cost savings for future improvements or revisions.

### Safe streets and spaces to promote sport, well-being, and active life in the city.

Sport, events, and simple active mobility in the city require characteristics and elements that are often absent, removed, or altered. For a new urban vitality, it will be necessary to review the choices that have created adverse conditions for urban equilibrium for too long.

Promoting and playing sports can bring significant benefits to health and quality of life; promoting culture through outdoor events that envelop and involve urban spaces can give new impetus to the city and make communities grow. Unfortunately, outdoor events can have a considerable environmental impact, whether it be urban parks, suburban parks, historical centers, or streets, the simple fact that there is an increase in people in a given space carrying out a new activity, not previously foreseen, can lead to numerous inconveniences and problems for the environment.

With pedestrianization and the reduction of vehicular traffic, we may well have solved the problems of smog and noise pollution and a reduction in accidents and a better perception of the urban environment and, therefore, a greater willingness to use. This more effective use of public space for walking, cycling, or running, and attending events and socializing could lead to new "old" problems for the environment. For this reason, in the process of reconstruction of an active city, some precautions will be necessary. It will be essential to promote ecologically rational management, which is adequate, among other things, to manage green

areas, greenhouse gas emissions, energy efficiency, waste elimination, and water and soil treatment.

The hostile conditions that can already be found and documented by re-reading the history of events in the public space could become a daily problem with a change in using the streets.

Significant or minor events in the public space have always had a negative impact, small or large, on the environment. The movement of many people who go to converge in a space can generate disorder, decay, waste and problems of public order and hygiene, and social problems and accessibility of spaces. Too often, the organization of events underestimates these aspects, despite decades of recommendations, previous experience, and local administrations' efforts. The opportunity that would arise in the revision of the public space should lead to addressing these problems too, because when people return to repopulate the streets, they will bring with them most of their needs and their "waste" which, before, flowed into domestic or workplace waste. Sportspeople will continue to have the exact needs to which they rarely find an answer in the urban space.

Sport can be defined as a free time activity, but it often identifies with football. Therefore, it is necessary to redefine the concept through the recovery of physical activity as an integral part of the population's daily life, offering everyone the freedom to choose the own sporting life. The possibility of practicing sport is a citizen's right: in addition to improving health, it has an educational, cultural, and recreational role, therefore an important development factor for society. From this need to focus on citizens' sport comes the need to initiate new policies at the educational, health, social, and urban levels. Sport, if it is thought of as a priority for the quality and livability of our cities, as it promotes health and well-being, can create a closer link with places and with the territory.

Institutions often complain about the impossibility of promoting projects and policies for sport due to the scarce endowment of sports facilities; hence the idea that physical activity can be practiced in existing public spaces as if they were "spontaneous" facilities in which it is possible to do physical activity informally in the open air. Sport can represent an excellent opportunity to return to live in the public space and rebuild meaningful relationships. It will not be necessary to create equipped facilities to be able to do physical activity, but a different perspective of a cultural nature. Public space is not a residual space between the street and buildings, but it is a physical, symbolic, and political space. Parks, squares, sports fields are public spaces, but fewer and fewer places to build relationships with others.

Observing the evolution of sports spaces, we see their progressive move away from the central space of our cities towards increasingly specialized peripheral places. Hence the importance of returning to live in public places, starting from games and sports, to allow meeting and socialization. Sport brings together populations with different origins, affiliations, social classes but who share a passion and a specific interest. Sport becomes an opportunity for meaningful exchanges of the body and physicality.

The simple tools necessary for creating spaces for practicing sport should no longer be considered a secondary element of urban policies but as a central aspect, where the sport itself can find points of contact with the city. Based on these concepts, there are significant design experiences to be mentioned such as Bryant Park, in the borough of Manhattan in New York, hosts entertainment events with a vibrant activity program where sport and physical activity constitute a very relevant part of the program; Futbol callejero (in Spain and Latin America), with the regeneration of urban voids based on the concept of informal sport, a pretext to give new options capable of creating play spaces in urban voids; Green Gym (United Kingdom) is a mix of fitness and gardening, recovery of green spaces and physical activity, with lessons that take place under the supervision of a gardener and a sports instructor; the Street Gym, with the peculiarity of being the street in general with all that it offers: escalators, furnishings, etcetera, everything takes place in a group and under the guidance of an instructor. By sensitizing the institutions and promoting outdoor physical activity, it will be possible to promote the process of re-appropriation through the redesign of the public space of the cities, promoting dialogue between the players in the sports universe, supporting and promoting the concept of "spontaneous sports". A new policy for sport and new habitability of the cities will be built.

The urban space to become a place and therefore a living space, in addition to the classic furnishings, albeit revisited with intelligent functions, should host new furnishings, accessories, and elements with the functions of:

- Street waste: Already in the current condition, it is often difficult for people to locate bins to throw away "street" waste that is those small scraps resulting from minimal functions, such as candy or chewing gum wrappers, take-away containers, receipts, flyers, or brochures,



etcetera. Often, even if in proximity, they are clogged or malfunctioning and not always allowing the differentiation of the waste. When people return to live on the streets, the problems will worsen; it will therefore be necessary to prepare elements for collecting and separating waste more frequently along the pedestrian paths, which are easily identifiable, inviting, and even incentivizing.

- **Quench thirst:** People need to drink and hydrate themselves throughout the day, in any climatic condition, especially in the hottest periods. The need to hydrate is vital, but too often, in large and small cities, this need is satisfied only by catering activities, causing a problem for the environment due to the enormous amount of plastic used to produce disposable containers. Sportspeople are already experiencing difficulties



due to the transport of water during the activity. Insert in strategic points elements that allow the "refilling" of the water bottles, which are appropriate to the context and not simple sheet metal boxes, with a pleasant aspect, perhaps even fun, to accustom the little ones to perform simple gestures healthily and for the 'environment.

- **Public Toilets:** They may seem obvious items in the urban environment, perhaps in the recent past, but today they have too often become a rarity. Over the years, it has been preferred to delegate this function to exist services within public buildings, stations, or commercial activities. A more convenient and less costly solution for the public administration and is easier to control. Even if the latter perform their function very well, they often become inaccessible or are not identifiable in the vicinity, generating difficulties for people in any state of need. Inserting structures that perform this function into the urban context, thanks to modern technology that would improve the control and sanitation of the environments, could improve outdoor spaces, safeguard the health, and prevent degradation episodes. Commercial premises no longer in use could be re-functionalized, or new structures could be inserted within green areas and urban parks to ensure more excellent coverage and accessibility of the service. In this respect, it will be necessary to rethink the past choices; people abandoning the use of cars will increasingly need these services because it will necessarily be difficult for them to contain the need until they return home.

If the streets can fulfill these needs too, they will obtain sporting citizens and host events, and the city will reach new prosperity.

## Towards active and safe streets

Encouraging bicycles and discouraging the individual use of the private car would be among the main objectives for a future sustainable and healthy city.

Nevertheless, this is not enough if the problem is not framed within a broader vision, including the redesign of street layouts with eco-friendly solutions and materials.

The intervention plan must provide favorable conditions for cycling through entire urban stretches that connect the city centers with the suburbs. It is possible to succeed in this intent by privileging conditions of comfort and safety for the construction of cycle paths through the adoption of ecological and, at the same time, functional solutions to favor the more frequent use of bicycles instead of cars. Furthermore, the correct construction of cycle paths is part of environmental sustainability and the protection of natural resources from pollution.

A cycle network that branches off into the urban area, favoring safe and comfortable connections between places, is undoubtedly an excellent incentive to abandon the car, the traffic, and the continuous shopping for gasoline.

Promoting safe cycle paths and promoting sustainable mobility can help fight even serious health problems, such as heart function and obesity. Studies by the American Heart Association confirm that children living in a neighborhood with a bike path would be three times more motivated to exercise than their peers who live in an area without this type of infrastructure.

The incorrect selection of materials (such as asphalt and continuous cement conglomerates) negatively impacts the design's quality.

For example, the indiscriminate use of bituminous conglomerates for the construction of cycle paths determines:

- In summer, it discourages users above all because it determines the so-called phenomenon of heat islands that make the air unbreathable.
- In autumn and winter, it contributes to the formation of puddles and floods that make them impractical.
- It waterproofs the soils, preventing the return of rainwater to the groundwater.
- contributes to the sad phenomenon of soil desertification.
- Reduces the perception of safety in both motorists and cyclists.

Nonetheless, the asphalt is destined to deform in the presence of tree roots necessary to provide shading and oxygen. As the trees grow, the roots of the trees tend to thicken, lifting the bitumen that covers them, giving rise to holes and depressions, very dangerous for the safety of cyclists and pedestrians.

Considering that the quality of life in the city is closely linked to the level of well-being and safety perceived in the ways of moving and staying within the built-up areas, the data are unfortunately not encouraging.

There are still many negative aspects related to the poor quality of the streets, the time lost in queuing at traffic lights, the difficulties in finding parking spaces, and, last but not least, insufficient street safety for pedestrians, motorists, and cyclists.

To these problems are added those generated by noise and atmospheric pollution (which produces 90 thousand victims every year in Italy) and by high street accidents (in Italy there are 9-10 victims per day, with an annual "social cost" of approximately 20 billion euros).

The need for more excellent livability in the city is strongly compromised by the reduced perception of architectural aesthetics connected to the excessive use of asphalt, the poor development of cycle paths, and the lack of enhancement of socialization spaces such as squares and pedestrian areas. An objective urban redevelopment process cannot ignore the elimination of the horrifying bitumen and asphalt layers which, in addition to making our cities gray, pollute them during installation, restoration, maintenance, breakage, and even during its very life. Furthermore, asphalt is a by-product of oil that, with its oily and hydrocarbon-rich layer, waterproofs large portions of soil, contributing to our lands' increasingly rapid desertification process.

With the passage of time and vehicles, it is easily subject to subsidence and breakage, which makes the streets very similar to those subject to a bombing, forcing the administrations to finance expensive repairs and restorations continually, never effective and decisive, because, during the rain, the water that creeps between the cracks of the restoration, leads to a new worsening of conditions, an expensive and dangerous vicious circle.

However, the most apparent known pains concern its high polluting capacity, which, combined with a vulgar and depressing aesthetic, oppresses the cities, creating islands of heat that contribute to making the air suffocating in the hottest periods.

Therefore, it will be necessary to adopt street paving solutions that:

- improve the quality of life in the city, comfortable and with low heat absorption, promoting the environment and street safety.
- reduce the problems of flooding, allowing the natural flow of water towards the ground and towards the slope.
- increase street safety, especially at night, with good luminance.
- they are removable and reusable, especially for interventions on the sewerage, electricity, and everything that is below the street.
- paving that are resistant.
- have a lower cost than asphalt, to be evaluated in the long term and also considering the savings in terms of health and social costs.
- do not pollute.
- do not emit toxic dust.

Today, technological research offers countless solutions; it will be up to common sense and the foresight of local administrations to adopt them, obviously considering that the initial cost could be higher than the classic solution with asphalt or concrete. If we want to obtain better



streets, it will be necessary to overcome the logic of immediate savings, evaluate the savings in the long term, perhaps experiment with the advantages on portions of the territory, and then extend the interventions to the whole city.

## Urban Comfort

Comfort is when the individual expresses satisfaction with the environment surrounding him or the sensation experienced by an individual carrying out activities in space. The inhabitants' perception of contemporary cities is that it is increasingly a polluted place, not very green and congested, that is, with low levels of livability. Already in the 19th century, in England, people began to witness the phenomenon of the abandonment of cities due to industrialization. This phenomenon led to the formation in the areas outside the city of new residential settlements, which have generated an endless constellation of small towns connected to large cities by public transport, but mainly by private mobility networks.

Liveability is a concept that can hardly be quantified because it has to do with the perception and awareness that the individual has of the elements of space. It is, therefore, a reality mediated by the mind, that is, subject to the subjective interpretation of some related aspects of the quality of space, such as:

- the accessibility of streets and squares,
- cycle and pedestrian mobility,
- the presence of natural elements, greenery, water, etcetera.
- the environmental comfort of outdoor spaces

Liveability is the necessary prerequisite for other elements, for example, vitality and a sense of place.

Thinking in terms of livability and sustainability, we find ourselves faced with the paradox of the compact city. Wiersinga (1997) highlighted the inverse relationship between sustainability and livability. For a city to be sustainable, functions and population must be concentrated; for a city to be livable, functions and population must be dispersed in lower densities. Therefore, the sustainable city is a compact city, with primary services, work, and commerce close to home, efficient public services, and reduced need to take a private car. On the other hand, a livable city is a city in contact with nature, which offers greater availability of private space, both confined and open, and with low pollution levels.

The problems of uncontrolled urban sprawl have long been recognized. The classic response to sprawl has been that of compact settlements of one form or another. However, the modern origins of the profession stem from responses to overcrowding. Relieving crowding by letting in more light and air has led to a less compact urban form. This paradox remains unsolved despite the recent compact city, smart growth, healthy community, and new urban planning efforts. Conceiving the city in terms of form is neither necessary nor sufficient to achieve the objectives attributed to the compact city. Instead, conceiving the city in terms of process is more promising in achieving the elusive goal of a sustainable city (Neuman, 2005).

This process can be implemented in the public space, which, in order to make the city sustainable and livable at the same time, must be made welcoming and multifunctional.

## Welcoming and multifunctional public spaces

The catalyst force of the "natural" element in an urban space is universal. The variety of colors, smells, noises that derive from vegetation and water represent a quality that cannot be estimated. People are attracted to urban spaces that offer a visual variety and complexity given by the never monotonous combination of plant elements, and not only encouraged to enter, but once inside, they are much more encouraged to stop. People who find themselves in this type of space feel that they are in a protected area, away from traffic and noise.

A variety of plants must stimulate the visual interest of people who pass or stop. The plants must be selected so that the visual appearance is pleasant in the various seasonal conditions and that the combination of plants considers the compatibility between them, avoiding species that prevent the normal development of others. Part of the vegetation must be deciduous to ensure shaded areas in summer and the presence of sun in the coldest periods.

The presence of water can take a "natural" form (rivers and ponds) or artificial (water walls, fountains). Where there is water, the noise of which can shield traffic noises, opportunities for sitting should be ensured, with primary and secondary sessions, and drinking fountains with drinking water accessible to all, especially if there is an opportunity to buy and consume foods.

Urban space can be characterized by a seasonal, daily, weekly rhythm of flows of different people and things, which makes it multifunctional. It, therefore, becomes a versatile space that modifies and modifies the elements inside, according to the environmental, use, and safety needs of a particular period. The multifunctional space also welcomes a mix of visitors who make it vital at any time of the day and year and help to activate other flows and presences of other people and activities.

A multifunctional space limits the constraints on the reception of different functions and makes it possible to have, even alternating, equipment that allows the carrying out different activities. It is a place that, in order to be used at night and during the day, must be well lit, must not have areas that are not easily visible from the outside, and where people perceive the same degree of safety even at night.

A square that one day a week is a marketplace is a space with little fixed equipment, and where those present can be helpful both to traders and to other users of the space at other times for other activities.

A place that welcomes events, even temporary ones, leaves room for artists (singers, sculptors, dancers, etcetera) and the passage of many people and which manages to return the next day to its configuration without "trauma", to accommodate other types of events or activities.

## Sittings

Walking around the urban space without having the opportunity to sit down to rest or socialize can become frustrating. It becomes even more difficult for older people or those with health problems who need rest after exertion. Unfortunately, in recent decades the sessions have been demonized by local administrations, seen as a possible receptacle for petty crime, bed for the homeless, often degraded, or degraded elements due to poor maintenance or poor education of citizens. A city with the desire to give back space to pedestrians and encourage them to move around without a car will not, however, be able to override the need for seating that will emerge increasingly stronger from the pedestrian population. Therefore, it will be necessary to intervene by thinking and to design the public space so that it offers seating opportunities.

It would be advisable to place different types of seats in different urban space points or place mobile seats that can change the urban scene according to needs. They should also be placed in such a way as to offer the choice of the situation in which to place themselves, whether we want to take in the heat of the sun or the coolness of the shade. It will not be necessary to consider only the classic seats, definable as primaries, such as benches or chairs, in any case, elements designed to fulfill the function of sitting, but the enhancement of the secondary seats will be significant. The secondary seats are all those elements of the urban space that do not have the function of sitting, but possessing specific characteristics, offer the possibility of stopping. These are emergencies of buildings and edges of fountains, stairways, walls, even some types of monuments. The enhancement of these volumes will allow parking even where the installation of benches or specific elements are not foreseen, offering rest to those in need and encouraging socialization.

## Thermal comfort

Thermal comfort is understood as physical well-being related to the environmental and physical factors that characterize the urban space and stimulate the senses (sun, wind and buildings, parterre, vegetation, water, type of mobility). The feeling of comfort is strictly connected to the individual's psychological, cultural, and social aspects; it is a function of time and of the individual's ability to adapt, but also of expectations and motivation. Of course, these aspects are not the only ones to determine the success of urban space.

However, inevitably, unsatisfactory environmental conditions are not compatible with high attendance, and with the sense of belonging, urban space must give rise to people, to be experienced as an extension of one's home.

Urban elements affect the microclimate and, consequently, the conditions of thermal comfort. The urban morphology, the shape of the city, the compact city or the dispersed city, the orientation of the streets and buildings, the distance of the buildings, and the type of buildings, influence the thermal comfort of the urban space. Depending on the season and

climatic conditions, the city's shape is one of the prominent influencers of thermal comfort. Narrow streets can be too cold or too windy; too wide streets with low buildings can be too hot. Overly reflective facades can bring more heat to the ground, buildings that hinder ventilation can reduce the cooling of some streets, and so on.

## Heat islands

The heat island is a microclimatic phenomenon that involves a rise in temperature in the urbanized metropolitan areas. The heat island effect is caused by different causes related to each other, the intensification of which results in a more remarkable alteration of the local microclimate.

The phenomenon is prevalent in large urban centers as overheating depends on the thermal and radiative characteristics of the surfaces, often unfavorable in highly urbanized contexts. Asphalted and concrete surfaces absorb heat and do not allow adequate transpiration and evaporation of the soil. This phenomenon is often accompanied by the reduction of urban green areas, equally significant for regulating the local microclimate and the heat produced by the activities of the urban centers themselves. Traffic and car emissions, industries, heating, and cooling systems of buildings release a large amount of heat that is not adequately dispersed but accumulates in urban islands. Even the effect of the wind, which favors air exchange and consequent cooling, is often dampened due to the high density of buildings, which shield many areas from windy motions. The greater the extension of the urban area, the greater the risks of intensifying the heat island effect, with a high-temperature difference compared to peri-urban and rural areas.

In recent years, we have seen an increase in the intensity, frequency, and duration of heatwaves worldwide, especially in cities, and these trends are expected to worsen as global warming increases, which is likely to produce more severe and possibly irreversible impacts in some sectors. Almost all over the world, the phenomenon has worsened rapidly in recent years: in the Mediterranean area from the 1980s to today, there have been 6.4 more days of extreme heat every decade (Perkins-Kirkpatrick and Lewis, 2020).

The direct consequence of the heat island effect is the rise in temperatures in summer and winter. Clearly, in the summer, more significant discomfort will be felt with the increase in the maximums and the intensification of intense heat waves.

To reduce the effects of heat islands, a planning and urban planning approach that is aware and attentive to the urban microclimate is necessary. A microclimatic study of the area should always be carried out to promote natural ventilation, evaluate the best shapes and sizes of the buildings, the shadows and heights of the volumes, and the inclusion of green areas. Once this is done, it is possible to think about surfaces and materials and how to insert urban green.

The roofs, often gray or dark in color, are among the elements that cause the heat island effect.

A winning intervention is installing green roofs and vertical gardens that return valuable spaces for socializing and contribute to urban microclimatic control, favor evaporation, the absorption of pollutants, and the reduction of fine dust. Alternatively, it is possible to create “Cool Roofs”, cold roofs thanks to covering the roofing surfaces with reflective materials.

Cold roofs can reflect up to 80% of solar radiation and are created to apply materials with a low solar absorption factor and high emissivity.

Even the floors, in concrete or asphalt, worsen the heat island effect; just thinking of the large surfaces occupied by streets and parking lots. Here, too, the choice of materials can help create floors that maintain a lower temperature; there are bitumen, paints, and aggregates with these characteristics. Furthermore, in car parks, it is possible to opt for reinforced green solutions and draining pavements.

The floors must be of high reflectance, made with natural, permeable materials and solar reflection properties. A high value of SRI (Solar Reflectance Index) limits heat accumulation and, therefore, city overheating.

Furthermore, it is always necessary to balance the surfaces built with the creation of urban green areas, inserting parks and areas dedicated to vegetation, with benefits both for reducing urban overheating and air pollution, not to mention the value for the quality of life and sociability of the inhabitants of our cities.

The presence of water in urban space can help improve the microclimate, and on a psychological level, the distant view or the sound of water can anticipate a feeling of coolness. A water system does not have overall effectiveness; even, in this case, it will be selected and sized according to the characteristics of the context.

A real microclimatic contribution depends on several factors. A fountain with some water jets can offer a relative contribution, while it will be evident where the amount of water will be high, that is, large moving pools or waterfalls. The contribution of the waterfalls is more pronounced because as a result of the nebulization, there is a radiant exchange with people and a consequent reduction in the air temperature.

Especially in rest areas, alternative cooling systems should be combined, as the system could be ineffective or disadvantageous depending on the weather conditions.

Using vertical water blades can be advantageous because the cooling is evident both when radiated by the sun and in the shade; it also allows a more significant exchange surface with a person's body. The presence of a blade of water in an urban space is characterized by a series of phenomena that contribute to thermal comfort conditions. Furthermore, the energy exchanges between people and the blade will be hostile; that is, people who walk or stand in the vicinity of the blade will transfer heat to the blade.

The water paths will be more effective if jets or curtains are inserted that add the contribution of water micronization. The materials will cool by the conductive exchange.



Misting systems are very effective strategies for cooling open spaces. They are based on putting the air in direct contact with water. These systems are based on the fact that people present can be wet, but thanks to the size of the atomized water droplets, they will not get the sensation of taking a shower. Also, in this case, the climatic conditions of the site are fundamental. These types of systems can operate when relative humidity values are low and in calm wind. Therefore, it will be necessary to provide other systems that can work simultaneously or such as pergolas or groups of trees.

The green roof is a vegetal plant on a waterproof structural support layer, such as solar paving, attics, wooden or metal roofs. The green roof allows a reduction in the load on the rainwater disposal network, the limitation of the temperature increase in cities caused by the extension of mineralized surfaces, the increase in the conservation of urban biodiversity, and the absorption of polluting dust. It also has a thermal mass effect, whereby it reduces the dispersion of heat from the building to the outside and protects the structural materials of the roofs, improving their durability.

Green walls are generally used for covering building fronts through plants clinging, through support supports, to vertical surfaces. Often the plants are placed in growing substrates integrated into the masonry, but this can cause degradation to the structure. The green walls take on different configurations concerning the environmental context, the morphology of the building, and the functions of the walls themselves. However, vertical greenery can be used as a simple plant backdrop, as a wholly or partially green isolated element used within an urban path as a sunscreen.

## For new citizenship in public spaces

### Young people and public space

Periods of childhood, youth and adolescence are crucial for mental and social development, where peer influence and the development of a sense of belonging are critical issues as young people become more susceptible to the effects of social exclusion.

As young people become more independent, they seek places where they feel safe and that can meet their needs for social interaction, self-expression, and withdrawal. Public spaces could meet these needs by becoming places of new encounters. This transformation could produce tolerance and a greater understanding of the difference during training periods.

Unfortunately, the public space is influenced by multiple factors, including economic, social, cultural, political, and conceptual ones, which can guarantee or limit young people's access to space, the ability to socialize, be expressive, and play.

The case of Rotterdam's Schouwburgplein is exemplary; is a 1996 West8 studio project. city. The urban renewal policy that made the intervention possible aimed to increase commercial, tourist and residential investments, but the design concept of the designers aimed to promote freedom of expression, encouraging the users of the space to become actors rather than passive spectators of the space, with the confidence and belief that people can create their own forms of entertainment.

By raising the surface of the square above the ground level, the goal was achieved of making space perceive as a stage. The eligibility to play was promoted with a series of design measures that encourage involvement with space, such as a water feature, long benches, surfaces of a different materiality, and interactive crane-like lights. The layout of the square is based on the intended use at different times of the day and the relationship with the sun. The sun zones are shown in the texture of the flooring made with different materials. On the side most exposed to the sun, a long wooden bench emerges, which on the ground plane is made with rubber and wood coatings. Below the square, an underground car park has been built whose ventilation elements are at the same time strong vertical elements of the square, fifteen meters high cranes. These huge cranes, illuminated from the inside, diffuse a soft night light. In the center of the square, there are perforated metal panels and a wooden play area. The panels are illuminated by fluorescent lights. Connections for electricity, water, and attachments for tensile structures and fences are integrated into the floor to facilitate the creation of temporary events. The lighting system is interactive and can be adjusted by the inhabitants and users of the square.

The square has become a place where young people could meet and meet, including those of different ethnic groups, allowing the formation of identity away from the familiar gaze, increasing the freedom of action and, potentially, the sense of belonging. They can socialize,

play football, skate, flirt and go out in a well-lit and easily accessible space, which they perceive as safe.

In 2008, the Liveable Rotterdam movement asked the city council to conduct a design overhaul of the square. Their criticisms included the lack of people, the lack of liveliness and the fact that the use of the square by young people produced a sense of insecurity in the public space. The administration involved the population of users and residents through interviews, on-site observations, and public meetings. This audit proved beneficial in reinforcing the importance of space for young people and families, also highlighting its lack of appeal for some, such as those over 65. The public consultation also indicated intolerance towards youth activities and, subsequently, its space has become more constrained, for example, by the implementation of early breakpoints for informal nighttime activities.

Progressive local government leadership and visionary professionals who sympathize with the rights and needs of young people have created a space where a free field of action has been promoted. However, the use of the square by young people has been called into question due to less tolerant attitudes and the residential proximity to the square. The controversial nature of the space amplifies the need for a multitude of variable spaces; and the recognition, particularly in planning policy, that young people of all ethnicities have the right to play and the need to develop their identity in the public space to advance healthy, united, engaged, and aware citizens of the future. The problem on the use of spaces by young people, just mentioned here, would require future reflections, monitoring and in-depth studies, as the younger generations representing the future of the city can influence its future evolution, both in terms of dynamism and in terms of legality.

## Outdoor education

The urban population of tomorrow will have to be ready to face the challenges that will arise. As we all know, throughout history, cities have had to face multiple challenges, many of which have jeopardized the safety of the inhabitants. The future citizens will have to be ready for the challenges and roll up their sleeves to face them correctly. All this will be possible only if the citizens of the future will be aware of where they live, know that place as if it were a friend or loved one, and, therefore, take care of it.

Taking care of the city and public spaces is only possible where citizens are aware of the place where they live and live; that is, public space is not just a place of transit or temporary stop, but of life, personal growth, and the community whole.

The Italian pedagogist Mario Lodi skillfully described the relationship between the new generations and the life that surrounds them: “Children, from the earliest years of life, playing, explored the small world into which they were born. They saw, heard, touched, smelled, and tasted what was at hand. They played with water, sand, and other materials and thus discovered many laws of the physical world. With that knowledge, they organized their first culture. They did as the scientists did. However, soon the boys and girls began to watch the

world through television, using only two of the five senses. They have seen so many distant things and have neglected the nearby things. Nevertheless, around us, in the small world of a lawn, a garden or an old brick wall, an intense life is hidden in every season... "(Lodi, 1999).

The Italian Ministry of Health has issued requests to maintain active lifestyles, for example, with the "Guidelines on physical activity for different age groups and concerning physiological and pathophysiological situations and specific subgroups of the population" (IMH, 2017). A WHO research has placed Italian adolescents among the most inactive globally (in place 137 out of 146 countries considered) (Guthold et al., 2019). The problem, however, is that it is not just a matter of preventing severe damage to the physical and mental health of young people. It is also necessary to avoid severe and unbridgeable harm to their learning and maturation process, achieved with "the five senses".

Recalling the need for more significant outdoor physical activity is not enough to outline an educational path. An "outdoor school" is not created simply by leaving the building. That is, it is not just a question of living more outdoors, but of teaching in the real world, learning again to recognize plants, animals, to see a flower grow; or a route through the often-forgotten historical alleys, which still have a lot to tell; learn to read the symbols of the city, know the streets, intersections, monuments, etcetera; structuring specific didactic tools so that all this becomes an educational learning path.

The general term "outdoor education" indicates a type of school that seems innovative. Instead, it is only the term that defines it. The substance takes up models and stimuli that count for more than a century of life and on which great Masters, including Italians, have based their ideal of new schools and active teaching. Between the late nineteenth and early twentieth centuries, experiences of innovative schools are spreading that give importance to the relationship with nature, to the cultivation of the vegetable garden, to the care of small animals, as fundamental aspects of active learning, in which it is the child who moves driven by his curiosity, which he learns by trial and error, which collects the leaves, sows the salad. He learns to read, write, draw, perform small scientific experiments, and draw graphs on plant growth on these activities. Parallel to these experiences, a specific school course developed for "frail" children (typically tuberculous, but not only): these were originally the open-air schools, which are now referred to as no longer therapeutic. At the international level, experiences have been rich and varied, dispensed mainly with the end of the health emergencies they were designed.

Education in open spaces, in public spaces, would lead to an increase in the dynamism of the school, which would come out of its canonical seat to move its training activity outside, not only for that activity now called "citizenship education", but to broaden the learning opportunities of the various subjects of the didactic curriculum.

Education in the public space could lead to a new type of citizenship, which we could define as "very active citizenship".

- The new citizens could learn the differences between the historic center, recent urbanization, future attack, and urban expansion through the knowledge of the places, assisted by trained and well-trained educators.
- They might know the culture and history of their city, and this is essential because that is the city they have and must know it to protect it, places of worship, services, places of culture, and entertainment.
- It is a question of transmitting knowledge to the new generations, involving those who know to share, on a specific place, on the city, or even on the most hidden monuments.
- Learning the complexity of the management of public assets, especially the management of ancient assets and the difficulties in restoring and restoring public works and assets disfigured by vandalism, could give rise to a greater appreciation and greater attention to behavior in public space.
- Only the explanation of how a building, a street, a monument is made could fit into multiple disciplines and allow for a broader and more active training and more effective due to the concreteness and tangibility of the explanation.
- The presence of urban forests could lead to the recognition that "there is an intense life for every season".

Learning outdoors can provide a more motivating experience and has more impact and credibility. Outdoor experiences readily become a vital source of fascination, personal growth, and discovery in learning through skillful teaching, interpretation, or facilitation.

The kids who participate in outdoor learning learn through what they do, what they encounter, and what they discover. Kids learn about themselves and others while also learning skills, behaviors, and outdoor living. Active learning leads to the development of capacities for inquiry, experimentation, feedback, reflection, review, and cooperative learning.

Outdoor learning happens in natural environments where participants can see, hear, touch, and smell the real thing; it also happens in an arena where actions have accurate results and consequences. Outdoor learning can help bring many school subjects to life while also providing experiential opportunities to meet the national curriculum goal to enable pupils to respond positively to opportunities, challenges, and responsibilities, to manage risks, and to make in the face of change and adversity.

Participants often discover potentials, skills, and interests that surprise them and others. Safety codes provide clear boundaries, and learning objectives give clear direction, but outdoor learning draws energy and inspiration from everything around it.

Living and learning outdoors makes an essential contribution to physical activity and the environment, improving many curricular skills. These activities support personal growth and social awareness and develop skills for life and the world of work. The sense of responsibility is amplified along with the purpose of life, having fun and feeling satisfaction in participating.

Participation in exciting and enjoyable outdoor activities with teachers, youth workers, and peers strengthens a positive attitude towards education and contributes significantly to the overall ethics of young people. Direct outdoor experience stimulates and reinforces learning

in many areas of the curriculum, and the use of the outdoors encourages young people to take greater responsibility for their learning.

The outdoor experience offers rich opportunities for personal and social development through carefully structured teamwork under challenging situations. Trust, care, tolerance, and a willingness to give and accept support are all encouraged, and antisocial behavior is questioned. Opportunities are presented to demonstrate and develop effective interpersonal behavior and to work cooperatively and effectively as a team.

Outdoor recreational activities introduce young people to a range of functional recreational activities that will enrich their future lives and develop the skills and knowledge essential for safe participation. Exercise outdoors contributes significantly to health and fitness, and continued participation in outdoor activities encourages maintaining a healthy lifestyle through middle age and beyond.

Active learning and outdoor adventure introduce young people to the environment to develop understanding, appreciation, amazement, wonder, and respect. It promotes sensitivity to the environment, helps young people see themselves in a global context, and helps develop citizens aware of the need for sustainable use of the world's natural resources.

Engaging kids in challenging outdoor experiences helps promote the development of communication, problem-solving, and decision-making skills that apply to a wide range of occupations. They encourage a positive attitude of "participation" and "it can be done". The horizons of young people broaden new challenges are savored rather than avoided and perseverance and determination are strengthened. Values and attitudes developed in a context of shared commitment help to form a solid basis for responsible citizenship. Always in the foreground should be the consideration that today's kids will be tomorrow's adults and, therefore, potentially, an educated kid with this type of business could become a passionate local administrator in the near future.

These activities require the availability of safe spaces and routes in cities. The guidelines outlined above can assist in creating these urban paths for outdoor learning and help train the citizens of tomorrow, who have a greater perception of the value of the place, the environment, and health, and being ready to face old and new challenges. These activities can lead to a stimulation of the creativity, because knowing the places, the characteristics and how they are made, how they are managed and how they are preserved, the problem-solving skills will be stimulated, the creativity accentuated, the very active citizenship of the future can be resilient.



## Recap and Perspectives

Cities are not machines but "living" organisms that need a balance to survive. A healthy city should be healthy, it should be able to maintain its balance. This balance is given by the contamination of the individuals who live in the city and live in the city's spaces. If there were no space for pedestrian traffic, the city would be unbalanced. People need adaptable spaces to help maintain this balance. Attractive, inviting, stimulating urban spaces are spaces that could not belong to a machine city, mechanical, sooty, noisy, gloomy, and gloomy, but only to an organism city, vital, welcoming, inclusive. To maintain its equilibrium by proving itself to be a fertile and prosperous organism, it should offer opportunities for encounters; it should offer opportunities for sociability and livability. Urban research and practices in public space rightly pursue the purpose of comfort, order, and practicality, without considering that activities in a given space regularly generate disorder, risk, and change, considering the city as a machine. It would be appropriate not to limit oneself to predetermined objectives in urban spaces but to shift the purpose of the public space from instrumental rationality to creative freedom, allowing the inhabitants to evolve from alienation to participation.

The machine system involves not only increasing human slavery but a growing assault on nature's resources. Lewis Mumford, urban planner and sociologist, whose thought and vision of the relationship between human and city spanned the twentieth century and is still incredibly topical today, almost a prophet of urban malaise, devotes many pages to the mine system, which destroys woods, pollutes the water with toxic metals, and the air with pestilential fumes. "The first hallmark of the paleo technical industry was air pollution" (Mumford, 1934)

From the social and human costs caused by the mega-machine (of which the bomb and atomic energy, the skyscraper and the automobile, instrument par excellence of the mega-machine, were and are symbols, very modern, even if intrinsically paleo technical) and its "empire of disorder" could be freed only with profound technical and political-social changes.

The whole picture that Mumford presents of technical-scientific solutions and of the ways to go towards the realization of a neo technical era, less violent, more balanced, more respectful of human beings and natural resources, could be very topical.

Many technical innovations, which were already taking shape in the first forty years of the twentieth century, would soon lead to the transition from the paleo technical era to a neo technical era: the replacement of iron with aluminum, the replacement of coal and oil with electricity, the successes of chemical syntheses could have led to more humane cities, to the more rational distribution of the population between city and country, to a less polluted society (Mumford, 1934). However, it is necessary to consider that that period was characterized by hopes and aspirations attributable to territorial planning; soil defense against erosion; large dams for the production of hydroelectric energy; a new relationship between city and countryside; the use of agricultural products and by-products as raw materials for the chemical industry; the fight against commercial fraud.

The conquest of a neo technical society presupposes a greater use of science and technology and completely different paths from those we are used to. Moreover, the advent of a neo technical society presupposes a new distribution of human activities in the territory, the recovery of the potential wealth of regionalism (Mumford, 1934).

Today we can look forward to the day when poisonous gases and piles of shavings, the by-products of the once unusable machine, can be transformed by intelligence and social cooperation and adapted to more vital uses (Mumford, 1934; 1967; 1970 ).

From the Second World War to the present day, we could define it as an era of lost opportunities in which the mega-car, based on the alliance between dominant parties and the large automobile, chemical, oil, military, and real estate industries, managed to ridicule the proposals for change. After all, the mega-machine had every reason for this counter-reform: it was not only the danger of a loss of profits but the critical discussion of the whole social system, the only real solution to the environmental crisis in which we are bogged down.

The analysis of the natural resources crisis shows well, as Mumford explained that it is due to the clash between private interests and collective goods; to the private exploitation of resources, such as air or water or soil fertility, which strictly speaking do not have a master. The metropolis lives above all on the profits of congestion, which, among other things, implies a constant revaluation of the real estate rent. The fruits of this income are primarily collected by the wealthiest classes, which also, thanks to the advantages offered by the metropolis, have built their fortune (Mumford, 1934).

Following the line of this reasoning, the exodus from the big city risks bursting a bubble that has been swelling for decades, if not centuries, that is, since the model of metro-megalopolises was imposed, of which the clearest is that of the capitals, which attract growing masses of citizens with the promise of opportunities that then materialize into considerable costs, starting with real estate, and tiring daily transhumances on the home-work journey that steal hours of life and generate economic costs ( and therefore revenues for someone) and environmental externalities (Mumford, 1970).

The interests formed around the ability of large cities to generate wealth, essentially for those who are already wealthy, have constantly prevented the generation of new models of coexistence. On the contrary, the Covid experience has made it possible to remind many people that the quality of life means having space, fresh air, and a more human-sized city in which, as many have written, in a quarter of an hour we can get anywhere.

The ecological crisis is essentially a crisis of the collective good; some benefit at no cost; for example, they keep their home, their Oikos clean, unloading waste outside, in the environment, in a larger house than others. Therefore, salvation must be sought by questioning the very principles of private property, recovering the public character of assets such as air or sea or water, and introducing the principle of crime for those who violate or rob or dirty such assets.

We have not yet entered on the level of civilization, the neo technical phase, much less a biotechnical phase. The mega-machine immediately uses many technical innovations against human beings: think of the use that political and economic power makes of mass communication to level tastes, push towards a growing dependence on the consumption of goods, and suffocate the same democracy. Although science and technology have primarily diverted from their most exact itinerary, they have taught us at least one lesson: nothing is impossible (Mumford, 1960, 1967; 1970)

The reconstruction or rebalancing of cities after the covid-19 pandemic must have as an imperative the return of urban public space to people. What happened in the recent past should serve as a warning that it is no longer possible to think about life in a city dominated by cars, as it has been for over fifty years. Passive mass mobility has produced effects on people's health far worse than a viral pandemic, but the occasion of this event on a global scale could be a springboard for a rethinking of choices and a more excellent orientation towards the quality of life and health in an urban environment.

The pandemic has led to the rediscovery of the importance of health and active mobility, but on the other hand, staying at home for long periods has pushed many more people to eat more food or behave harmfully to health. The future effects of this pandemic can only be hypothesized for the moment. However, it is inevitable that if no action is taken to restore livability conditions of urban public spaces in order to allow more and more active mobility, the "urban malaise" will continue to grow, and claiming victims, urban diseases will continue to spread.

The solutions proposed in this dissertation aim to offer a small framework for the reorganization of urban space, making it more accessible and livable, simply by taking space away from cars that will continue to move in areas more suited to their speed and purposes. Cities and urban areas will have to go back to being traveled by people and not by cars.

Cities play a central role in pandemic preparedness, mitigation, and adaptation. Many of the norms and rules for managing infectious diseases in the urban setting were first discussed at a global health conference in the mid-nineteenth century. Today, cities' preparedness and ability to react to epidemiological events vary around the world. The level of development and socio-economic conditions of the population play an important role. Cities with a high concentration of poverty and deep inequalities among inhabitants are potentially more vulnerable than those with better resources, less crowded, and more inclusive. Cities with characteristics of openness, transparency, collaboration and that adopt comprehensive responses are better equipped to handle outbreaks than those that are not.

The city, by encouraging better urban planning to ensure better access to safe transport systems, better accessibility and usability of public spaces and urban greenery, and a better response in the event of an emergency from natural disasters, will achieve a reduction in mortality caused from street accidents and natural disasters, better air quality and the urban

environment in general and will promote physical exercise for the health of the population. This city will be resilient, and it will be a healthy city.

As the spread of Covid-19 has affected individuals, communities, organizations, and governments, its impacts have been at all levels and scales, from global networks and infrastructure to global cities and urban regions, from residential neighborhoods and public spaces to the home and workplaces and will continue for many years to come.

Today, we will change the cities of tomorrow to make them safe, inclusive, and resilient to future crises. Federal and state agencies support many cities in developing innovative planning and expansion models that focus on compactness and connectivity and decentralized local access to all essential services and infrastructure, including health.

High population density, close contact between people, high level of mobility and shared means of transport tend to turn cities into gateways for disease. However, the advantage of urban epidemics is that cities often have better and more accessible health systems. Furthermore, cities are centers of innovation and can be the engines of improving public health, for example through better urban planning and local public transport, moving away from a car-centric model, and favoring active and sustainable forms of transport such as walking or travel by bicycle. Active mobility has the advantage of reducing the risk of infection and, at the same time, strengthening the lungs and immune system. Social distancing programs are likely to remain in place or be re-proposed several times over the next few years.

It will be necessary to prepare cities for this possibility by providing adequate and safe infrastructure for active mobility and providing opportunities for daily physical activity without causing high levels of air pollution and providing safe public spaces where people can meet and exercise without exposing them to a high risk of contagion.

The measures taken to control the spread of the virus have had enormous implications on cities due to their economic structure, preparedness for this crisis, and the extent to which the city's health and population are vulnerable, which has depended on the effectiveness of the urban governance systems. In regular times, there may be many attributes that cities would strive to compete on and excel on globally, including livability, competitiveness, and sustainability. However, every given day and especially in a time of crisis, a city must perform well for citizens.

Building functioning, inclusive, healthy, resilient, and sustainable cities require intense investment policies and choices. National and local governments have an essential role in shaping the future of their development and creating opportunities for all. The rapid spread of Covid-19 in almost all nations has led to the recognition that it is necessary to abandon the old and usual way of dealing with global crises. Soon, a new (and better) normal has been adopted to deal with the pandemic, but looking to the future, this "new normal" will have to be applied to address the climate emergency planetary crisis that continues to intensify. The quality of life that comes from urban density and sustainable mobility, the ability to reach essential goals, access opportunities, enjoy the human benefits of the community, and the

creativity generated by the numerous casual encounters that allow discovery, growth, and enrichment personnel these have been temporarily taken away, forcing people to live life through computer screens. This condition will not always be like this, and, in the hope of returning to normal, it will be necessary to act so that the new normal is more sustainable, more resilient, more prone to social cohesion. It will be necessary to group, rethink, reorganize and rebuild to arouse joy by creating places that people love, not just despite global crises, despite them.

Staying at home has reduced daily commutes to zero, and this has given many people living in the city an average of two more hours a day. Some who live outside the city have earned up to three, four, and sometimes five more hours a day. After Covid-19, everyone will wonder if it was worth it. Cities, transport providers, policymakers, and general industries will need to look closely at this for long-term changes in public (and private) transport usage patterns. A crucial part of the infrastructure that is sure to be at the forefront of any agenda is digital infrastructure in any business or region. In this moment of crisis, the relationship between physical and virtual space has been put to the test to the extreme. When this crisis is over, when it comes to connectivity, the first thing that will come to mind will be technology, not transport. Technology will provide opportunities to reimagine urban infrastructure more broadly and deliver direct social value to communities.

Future mobility must be sustainable, accessible, fair, and safe. Even the most disadvantaged neighborhood in terms of space safety will have to offer opportunities for the new generations to move safely on foot or by bicycle, to be able to access safe modes of transport and at the same time improve their physical condition and health.

Urban plans will have to prepare large spaces for pedestrian networks, extend them to the whole territory, and integrate them with systems and infrastructures for sustainable public / private transport (trains, trams, buses, and car-sharing with zero emissions, cycle routes), strategically setting up multimodal hubs. This new way of moving will allow the transition from hypermobility, which mainly congested urban centers, to the fluidity of travel, human-friendly, which may help deal with emergencies of any kind, better health conditions, and physical and mental well-being to people.

By guaranteeing pedestrian priority or making long street routes entirely pedestrian to create an urban pedestrian network, perceived safety will be increased, with the necessary precautions that must be considered from the early stages of planning on a city scale and designing the single block. The removal of intensive car traffic on the streets will allow repaving with more comfortable, sustainable, and pleasant materials than the sad texture of the bituminous asphalt that today covers almost all of our routes.

Urban pedestrian networks will allow greater accessibility and usability of public space, mainly if they are structured in such a way as to allow the achievement of essential services, places of cultural, landscape, environmental, and mainly social interest.

Cities will be able to return to being on a human scale, but above all more suitable for children, young people, and the elderly, the most marginalized sections of the population in the city of hypermobility.

The inhabitants must use the urban space of the future city to keep fit and healthy, but above all by the youngest ones to grow in a healthy, dynamic, and stimulating environment. An urban environment that is adaptable to situations, usable in all conditions, invites to play, socialize, and stimulate creativity. The urban space, in this way, will become the third space par excellence and, perhaps, the favorite, where young people can grow by learning from the city and learning to love it. The role of education and training institutions and associations will be fundamental, in synergy with local administrations, to foster a “very active” citizenship that can face future challenges. A city can only be resilient if its inhabitants are resilient and vice versa. Resilience is closely linked to the condition of equilibrium in the city.

The coronavirus pandemic has revealed the strengths and vulnerabilities of the urban system. The pandemic has in fact allowed a social experimentation with controls usually possible only in the closed system of a laboratory, not in the open system of a society; however, this experiment requires a rethinking of the urban system with expansive concepts of resilience in planning cities and regions. It will be important to acknowledge the implications for the global plan in the face of climate change.



---

# REFERENCES

---

- Abbott, R.D., White, L.R., Ross, G.W., Masaki, K.H., Curb, J.D., Petrovitch, H. Walking and Dementia in Physically Capable Elderly Men. *JAMA*. 2004;292(12):1447–1453. doi:10.1001/jama.292.12.1447
- Adams, L.M., 2016. Promoting disaster resilience through use of interdisciplinary teams: a program evaluation of the integrated care team approach. *World Med. Health Policy* 8 (1), 8–26.
- Addison, C.C., Campbell Jenkins, B.W., Odom, D., Fortenberry, M., Wilson, G., Young, L., Adorno, T; Horkheimer, M (2006) *The Culture Industry*. London: Routledge.
- Aether (2013). Analysing air pollution exposure in London. [online] Available at: [www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/analysing-air-pollution-exposure-london](http://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/analysing-air-pollution-exposure-london)
- Ahmed R, Seedat M, van Niekerk A, Bulbulia S. (2004). Discerning community resilience in disadvantaged communities in the context of violence and injury prevention. *South African Journal of Psychology*. 386–408
- Akamani, K., Wilson, P.I., Hall, T.E., 2015. Barriers to collaborative forest management and implications for building the resilience of forest-dependent communities in the Ashanti region of Ghana. *J. Environ. Manage.* 151, 11–21.
- Aldred, R, Goodman, A.,. 2020. “Low Traffic Neighbourhoods, Car Use, and Active Travel: Evidence from the People and Places Survey of Outer London Active Travel Interventions.” Findings, September. <https://doi.org/10.32866/001c.17128>.
- Aldrich D. P. (2012). *Building resilience: Social capital in post-disaster recovery*. Chicago: University of Chicago Press.
- Aldrich, D. P. (2010). Fixing recovery: Social capital in post-crisis resilience. *Purdue Political Science Faculty Pub. Pap.*, 3:1–16. Retrieved from <http://docs.lib.purdue.edu/pspubs/3>
- Alexander, C. (1966). A city is not a tree. *Architectural Forum*, April/May, pp. 58-62.
- Alexander, C. (1979). *The Timeless Way of Building*. New York: Oxford University Press.
- Alexander, C., Angel, S. & Silverstein, M. (1977). *A Pattern Language*. New York: Oxford University Press.
- Alexander, C., Ishikawa, S. and Silverstein, M. (1977), *A Pattern Language: Towns, Buildings, Construction*, Oxford University Press, London.
- Al-Kodmany, K. and Ali, M.M. (2012), “Skyscrapers and placemaking: supporting local culture and identity”, *Archnet-IJAR*, Vol. 6 No. 2, pp. 46-67.
- Allen, D.K., Karanasios, S., Norman, A., 2014. Information sharing and interoperability: the case of major incident management. *Eur. J. Inf. Syst.* 23 (4), 418–432.
- Altman, I., 1981, *The Environment and Social Behavior: Privacy, Personal Space, Territory, Crowding*. Irving Publishers.
- Alvarez, L., Borsi, K. and Rodrigues, L. (2017), “The role of social network analysis on participation and placemaking”, *Sustainable Cities and Society*, Vol. 28, pp. 118-126.
- Amin, A. (2008). *Collective Culture and Urban Public Space*, Cambridge: Cambridge University Press.
- Andrews, G.F. (1975), *Maya Cities: Placemaking and Urbanization*, University of Oklahoma Press, Norman.
- Antoine-LaVigne, D., 2015. Building collaborative health promotion partnerships: The Jackson Heart Study. *Int. J. Environ. Res. Public Health* 13 (1), 25.
- Appleyard, D. Lintell, M. (1970), *The environmental quality of city streets: the resident viewpoint*, University of California, Berkeley
- Argan, G. C., (1984) *Arte e Critica d’arte*, Laterza Editore.
- Art. 5 European Landscape Convention
- ASPR (Assist. Secr. Prep. Response). (2012). At-risk individuals factsheet. Last reviewed December 18, 2017. Washington, DC: ASPR. Retrieved from <http://www.phe.gov/Preparedness/planning/abc/Pages/at-risk.aspx>

- ASPR (Assist. Secr. Prep. Response). (2012). National guidance for healthcare system preparedness. Washington, DC: ASPR. Retrieved from <http://www.phe.gov/Preparedness/planning/hpp/reports/Documents/capabilities.pdf> attractive global cities' towards 'hopeful communities", International Development Planning Review, Vol. 35 No. 4, pp. 395-418.
- Atela, J.O., Minang, P.A., Quinn, C.H., Duguma, L.A., 2015. Implementing REDD+ at the local level: assessing the key enablers for credible mitigation and sustainable livelihood outcomes. *J. Environ. Manage.* 157, 238–249.
- Atkin, R. (2015), "Manifesto for the Clever City" <http://www.theclevercity.net/>
- Atkinson, R. (2003) Domestication by cappuccino or a revenge on urban space? Control and empowerment in the management of public spaces, *Urban Studies*, 40.
- Avelino, F. (2009). Empowerment and the challenge of applying transition management to ongoing projects. *Policy Sciences*, 42(4): 369-390.
- Avelino, F., & Wittmayer, J. (2016). Shifting Power Relations in Sustainability Transitions: A Multi-actor Perspective. *Journal of Environmental Policy & Planning*, 18(5), 628-649.
- Avelino, F., Dumitru, A., Cipolla, C., Kunze, I., & Wittmayer, J. (2019). Translocal empowerment in transformative social innovation networks. *European Planning Studies*, 1-23, 1-23.
- Avelino, F., Grin, J., Jhagroe, S. and Pel, B., (2016) The Politics of Sustainability Transitions, *Environmental Policy & Planning*, 18(5), 557-567, <http://www.tandfonline.com/doi/full/10.1080/1523908X.2016.1216782>
- Avelino, F., Wittmayer, J., Kemp, R., & Haxeltine, A. (2017). Game-changers and transformative social innovation. *Ecology and Society: A Journal of Integrative Science for Resilience and Sustainability*, 22(4).
- Baker, C.R. (2007), *The Hybrid Church in the City – Third Space Thinking*, Ashgate, 2007
- Banai, R. (2020). Pandemic and the planning of resilient cities and regions. *Cities*, 106.
- Banerjee, T. (2001) The future of public space: beyond invented streets and reinvented places, *Journal of the American Planning Association*.
- Baptiste, N. (2008). Tightening the link between employee wellbeing and performance: A new dimension for HRM. *Management Decision*, 46(2), pp. 284-309.
- Barberi P. ( 2010) *is something happened to the city. Urban anthropology manual* , Rome, Donzelli manuals
- Barton JL, Pretty J. 2010, What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environ Sci Technol* 2010
- Barton JL, Hine R, Pretty J. 2009, The health benefits of walking in greenspaces of high natural and heritage value, *J Integr Environ Sci* 2009
- Bauman, Z. (1998), *Globalization: The Human Consequences*, Polity, Cambridge.
- Bauman, Z.. (2007) *Liquid times : Living in an Age of Uncertainty*. Cambridge ; Malden, MA: Polity Press.
- Baumann, Z., *Liquid Modernity (Modernità Liquida)* trad. Sergio Minucci, Edizioni Laterza, Roma. 2000
- Bava, S., Coffey, E.P., Weingarten, K., Becker, C., 2010. Lessons in collaboration four years post-Katrina. *Family process* 49 (4), 543–558.
- Beers, P. J., and van Mierlo, B. (2017). Reflexivity and Learning in System Innovation Processes. *Sociologia Ruralis*, 57(3), 415–436. <https://doi.org/10.1111/soru.12179>
- Begout, B. (2005) *La découverte du quotidien*, Paris, Editions Allia
- Belfour, R. et al. Public Health England/ University College London (2014), *Local action on health inequalities: Improving access to green spaces*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/355792/Briefing8\\_Green\\_spaces\\_health\\_inequalities.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/355792/Briefing8_Green_spaces_health_inequalities.pdf)

- Benjamin W.(1968), *Illuminations*, H. Zohn (trans.) Shocken Books, p.75, 1968.
- Bentley, I. (1999) *Urban Transformations: Power, People and Urban Design*, Routledge, London.
- Bergamaschi M. Castrignanò M. ( 2014), *The contested city. Urban populations and public space between coexistence and conflict*, Milan, Franco Angeli
- Berkman, L., & Kawachi, I., Glymour, M. (2015). *Social epidemiology*. New York: Oxford University Press.
- Berkman, L., Thomas, G., Brissette, I., Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science & Medicine*, 51:843–57.
- Berkowitz, M., 2016. What is resilience and why does it matter now more than ever?. Available:<[http://www.100resilientcities.org/blog/entry/what-is-resilience-andwhy-does-it-matter-now-more-than-ever#/\\_/](http://www.100resilientcities.org/blog/entry/what-is-resilience-andwhy-does-it-matter-now-more-than-ever#/_/)>(last accessed 13th Dec 2016).
- Bettencourt, L.M.A., Lobo, J., Helbing, D., Kühnert, C., West, G.B.,*Proceedings of the National Academy of Sciences* Apr 2007, 104 (17) 7301-7306; DOI: 10.1073/pnas.0610172104
- Beza, B.B. (2016), “The role of deliberative planning in translating best practice into good practice: from placelessness to placemaking”, *Planning Theory and Practice*, Vol. 17 No. 2, pp. 244-263.
- Bhabha, H.(1994), *The Location of Culture*, Routledge.
- Bianchetti, C. (2016), *Spazi che contano*, Donzelli Editore, Roma.
- Bigazzi, A. Y., 2017, Determination of active travel speed for minimum air pollution inhalation, *International Journal of Sustainable Transportation*, 11:3, 221-229, DOI: 10.1080/15568318.2016.1238984
- Bilandzic, M. and Johnson, D. (2013), “Hybrid placemaking in the library: designing digital technology to enhance users’ on-site experience”, *Australian Library Journal*, Vol. 62 No. 4, p. 258-260.
- Bitti V. ( 2010 ), *The city does not dissolve in the air: urban metaphors and new media*, in *Something has happened to the city. Urban anthropology manual* , Rome, Donzelli manuals
- Blakely, E. J. & Snyder, M. G. (1997) *Fortress America: Gated Communities in the United States*, Washington, DC, Brookings Institution Press/Cambridge, MA, Lincoln Institute of Land Policy.
- Bland, J. (2016). *Creative Construction, a new kind of innovation for your city: An evaluation of Playable City Lagos*, London: Nesta.
- Blokland, T. (2009), “Celebrating local histories and defining neighbourhood communities: placemaking in a gentrified neighborhood”, *Urban Studies*, Vol. 46 No. 8, pp. 1593-1610.
- Boddy, T. (1992) *Underground and overhead: building the analogous city*, in: M. Sorkin (Ed.) *Variations on a Theme Park*, New York, Noonday Press.
- Boeri, C. (2017), “Color loci placemaking: the urban color between needs of continuity and renewal”, *Color Research& Application*, Vol. 42 No. 5, pp. 641-649.
- Boeri, S. (2020), *Via dalle città, nei vecchi borghi c’è il nostro futuro*, La Repubblica, 24 April 2020, <https://www.stefano-boeriarchitetti.net/en/press-release/la-repubblica-day-after/>
- Boin, A., McConnell, A., 2007. Preparing for critical infrastructure breakdowns: the limits of crisis management and the need for resilience. *J. Contingencies Crisis Manage.* 15 (1), 50–59.
- Borenstein, M., Hedges, L.V., Higgins, J.P.T. and Rothstein, H.R. (2009), *Introduction to Meta-Analysis*, Wiley, London.
- Bos, J.J. and Brown, R.R. (2012). Governance experimentation and factors of success in socio-technical transitions in the urban water sector. *Technological Forecasting and Social Change*, 79(7): 1340-1353.
- Boulouta, I., Pitelis, C.N., 2014. Who needs CSR? The impact of corporate social responsibility on national competitiveness. *J. Bus. Ethics* 119 (3), 349–364.

- Boyd, E., Juhola, S., 2014. Adaptive climate change governance for urban resilience. *Urban Studies* (0042098014527483).
- Boyer, M. (1993) *The city of illusion: New York's public places*, in: P. Knox (Ed.) *The Restless Urban Landscape*, Upper Saddle River, NJ: Prentice Hall.
- Boyer, M. (1994) *The City of Collective Memory*, Cambridge, MA: MIT Press.
- Brenner N., Schmid C., "Towards a new epistemology of the urban?", *City*, 19, 2015, nn. 2-3, pp. 151-182.
- Brill, M. (1989). Transformation, nostalgia and illusion in public life and public pace. In: I. Altman & E. Zube, eds. *Public Spaces and Places*. New York City: Plenum Press.
- Broggt, E., Grimshaw, M., Baird, N., 2015. Clergy views on their role in city resilience: lessons from the Canterbury earthquakes. *Kōtuitui: N. Z. J. Soc. Sci. Online* 10 (2), 83–90.
- Brugellis P. and Pezzulli F. (2006) *Common spaces, Reinventing the city*, Bevivino publisher
- Brundtland report 1987
- Buchanan, P. (1988) What city? A plea for place in the public realm, *Architectural Review*, No. 1101 (November).
- Buckman, S. (2016), "Canal oriented development as waterfront place-making: an analysis of the built form", *Journal of Urban Design*, Vol. 21 No. 6, pp. 785-801.
- Buckner D., 2020, Bike lanes installed on urgen basis across Canada during Covid-19 pandemic, CBC 2020, <https://www.cbc.ca/news/business/bike-lanes-covid-pandemic-canada-1.5598164>
- Buheji, M. (2018) *Understanding the Power of Resilience Economy: An Inter-Disciplinary Perspective to Change the World Attitude to Socio-Economic Crisis*, Author House, UK.
- Buljubašić, I.; Borić, M. and Hartmann, I. (2016) The Impact of Promotion in Creative Industries – the Case of Museum Attendance, *Review of Contemporary Business, Entrepreneurship and Economics Issues*, Vol 29 No 1.. <https://hrcak.srce.hr/ojs/index.php/ekonomski-vjesnik/article/view/4081>, Accessed: 1/1/2019.
- Bulkeley, H., 2013. *Cities and Climate Change, Critical Introductions to Urbanism and the City*. Routledge, Oxon/New York.
- Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., Marvin, S., McCormick, K., van Steenbergen, F., and Palgan Voytenko, Y. (2016). Urban Living Labs: Governing urban sustainability transitions, *Current Opinion in Environmental Sustainability*, 22:13-17.
- Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., Marvin, S., McCormick, K., van Steenbergen, F., Voytenko Palgan, Y. (2016). Urban living labs: Governing urban sustainability transitions. *Current Opinion in Environmental Sustainability*, 22, 13-17.
- Bullers, S. (2000). The mediating role of perceived control in the relationship between social ties and depressive symptoms. *Women Health*, 31:97–116.
- Busch, N.E., Givens, A.D., 2012. Public-private partnerships in homeland security: opportunities and challenges. *Homeland Security Affairs* 8 (1).
- Buse, K., Walt, G., 2000. Global public-private partnerships: Part I-a new development in health? *Bull. World Health Organ.* 78 (4), 549–561.
- Butler, J.R.A., Suadnya, W., Puspadi, K., Sutaryono, Y., Wise, R.M., Skewes, T.D., Kirono, D., Bohensky, E.L., Handayani, T., Habibi, P., Kisman, M., Suharto, I., Hanartani, Supartarningsih, S., Ripaldi, A., Fachry, A., Yanuartati, Y., Abbas, G., Duggan, K., and Ash, A., (2014), Framing the application of adaptation pathways for rural livelihoods and global change in eastern Indonesian islands, *Global Environmental Change*, 28, 368-382, <http://dx.doi.org/10.1016/j.gloenvcha.2013.12.004>
- Caballero S, Rapin P, 2020, Covid-19 made cities more bike-friendly here's how to keep them that way, *World Economic Forum*, 2020 <https://www.weforum.org/agenda/2020/06/covid-19-made-cities-more-bike-friendly-here-s-how-to-keep-them-that-way/>

- CABE (2010). Urban green nation: Building the evidence base. London: Commission for Architecture and the Built Environment
- CABE Space (2004) Is the Grass Greener . . . ? Learning from International Innovations in Urban Green Space Management, London, CABE – The Commission for Architecture and the Built Environment.
- Campbell, C., & Aggleton, P. (1999). Young people's sexual health: A framework for policy debate. *Canadian Journal of Human Sexuality*, 8:249–62.
- Campbell, L.K., Svendsen, E.S. & Roman, L.A. (2016). Knowledge Co-production at the Research–Practice Interface: Embedded Case Studies from Urban Forestry. *Environmental Management*, 57, 1262–1280.
- Campbell, R., Hawley, A. and Wood, A.,(2014), *Isabella Stewart Gardner Museum: Daring by Design*, Skira Rizzoli, New York
- Canadian Museums Association (2003) Canadians and their Museums. A Survey of Canadians and their views about the country's Museums, Ottawa, Ontario, March.
- Caneparo, L & Rolfo, D. (2017), From energy renovation to urban renovation: tools for financing urban quality, Territorio Italia 2017, <http://hdl.handle.net/11583/2689313>.
- Canter, D. (1977) *The Psychology of Place*, London, Architectural Press.
- Canter, D. (1997), "The facets of place", in Moore, G.T. and Marans, R.W. (Eds), *Advances in Environment, Behavior, and Design*, Vol. 4: Toward the Integration of Theory, Methods, Research, and Utilization, Plenum, New York, pp. 109-147.
- Carmona, M. & De Magalhaes, C. (2006) Public space management—present and potential, *Journal of Environmental Planning and Management*.
- Carmona, M. (2010a). Contemporary Public Space, Part Two: Classification. *Journal of Urban Design*, 15(2), pp. 157-173.
- Carmona, M. (2010b). Contemporary Public Space: Critique and Classification, Part One: Critique. *Journal of Urban Design*, 15(1), pp. 123-148.
- Carmona, M., De Magalhaes, C. & Hammond, L. (2008) *Public Space, The Management Dimension*, London, Routledge.
- Carmona, M., Heath, T., Oc, T. & Tiesdell, S. (2003) *Public Places Urban Spaces, The Dimensions of Urban Design*, Oxford, Architectural Press.
- Carr S. Francis M. Rivlin LG Stone AM (1992), *Public Space*, Environment and Behavior series, Cambridge, Cambridge university press
- Carr, S., Francis, M., Rivlin, L. G. & Stone, A. M. (1992) *Public Space*, Cambridge, Cambridge University Press.
- Castells M., *The City and the Grassroots*, Berkeley, CA, University of California Press, 1983.
- Castells, M. (1996) *The Rise of the Network Society*, Oxford, Blackwell.
- Castells, M. (1996), *The Information Age: Economy, Society and Culture*, Vol. I: The Rise of the Network Society, Blackwell, Oxford.
- Catteral B., "Toward the great transformation: Where / what is culture in planetary urbanization? Towards a new paradigm ", *City*, 18, 2014, n. 3, pp. 368-379.
- Catungal, J.P., Leslie, D. and Hii, Y.L. (2009), "Geographies of displacement in the creative city: the case of liberty village, Toronto", *Urban Studies*, Vol. 46 Nos 5/6, pp. 1095-1114.
- CDC, 2013, Centers for Disease Control and Prevention – Division of Community Health. *A Practitioner's Guide for Advancing Health Equity: Community Strategies for Preventing Chronic Disease*. Atlanta, GA: US Department of Health and Human Services; 2013.



- Cervero, R. (2009), "Transport infrastructure and global competitiveness: balancing mobility and livability", *The ANNALS of the American Academy of Political and Social Science*, Vol. 626 No. 1, pp. 210-225.
- Cesano, J. 2017, *How Wolves Change Rivers*, The Theosophical Society in America <https://www.theosophical.org/publications/quest-magazine/4319>
- Chandra, A., Williams, M., Plough, A., Stayton, A., Wells, K.B., Horta, M., Tang, J., 2013. Getting actionable about community resilience: The Los Angeles county community disaster resilience project. *Am. J. Public Health* 103 (7), 1181–1189.
- Chandra, A., Williams, M.V., Lopez, C., Tang, J., Eisenman, D., Magana, A., 2015. Developing a tabletop exercise to test community resilience: lessons from the Los Angeles County Community Disaster Resilience Project. *Disaster Med. Public Health Preparedness* 9 (05), 484–488.
- Chang, T.C. and Huang, S. (2008), "Geographies of everywhere and nowhere: place-(UN) making in a world city", *International Development Planning Review*, Vol. 30 No. 3, pp. 227-247.
- Chapman, D. (2011), "Engaging places: Localizing urban design and development planning", *Journal of Urban Design*, Vol. 16 No. 4, pp. 511-530.
- Chatterton, P. & Hollands, R. (2002) *Theorising urban playscapes: producing, regulating and consuming youthful nightlife city spaces*, *Urban Studies*, 39, pp. 95–116.
- Chatterton, P. (2018). *Unlocking Sustainable Cities*. London: Pluto.
- Chi, G.C., Williams, M., Chandra, A., Plough, A., Eisenman, D., 2015. Partnerships for community resilience: perspectives from the Los Angeles County Community Disaster Resilience project. *Public Health* 129 (9), 1297–1300.
- Cho, S.H. and Lee, T.K. (2011), "A study on building sustainable communities in high-rise and high-density apartments- focused on living program", *Building and Environment*, Vol. 46 No. 7, pp. 1428-1435.
- Choi, H. and Reeve, A. (2015), "Local identity in the form-production process, using as a case study the multifunctional administrative city project (Sejong) in South Korea", *Urban Design International*, Vol. 20 No. 1, pp. 66-78.
- Cilliers, E., Timmermans, W., Van den Goorbergh, F. and Slijkhuis, J. (2015), "Green place-making in practice: from temporary spaces to permanent places", *Journal of Urban Design*, Vol. 20 No. 3, pp. 349-366.
- Coenen, L., Benneworth, P., & Truffer, B. (2012). Toward a spatial perspective on sustainability transitions. *Research Policy*, 41(6), 968-968.
- Coffin, S.L., Barbero, C., 2009. Making connections in the brownfield marketplace. *Environ. Pract.* 11 (3), 170–178.
- Cohen, M. (2020), COVID-19 Can Help Wealthier Nations Prepare for a Sustainability Transition, *Future Earth*, <https://futureearth.org/2020/03/13/covid-19-can-help-wealthier-nations-prepare-for-a-sustainability-transition/>
- Coleman, A. (1985) *Utopia on Trial: Vision and Reality in Planned Housing*, London, Shipman.
- Coleman, A. (1985). *Utopia on Trial: Vision and Reality in Planned Housing*. London: Hilary Shipman.
- Collins, J. 2015, Do We Need Wolves? The Endangered Species Act is under attack as Congress moves to delist wolves., *INSTITUTE FOR PUBLIC AFFAIRS* <http://inthesetimes.com/article/17650/do-we-need-wolves>
- Commission of the European Communities, 2001. Promoting a European Framework for Corporate Social Responsibilities, COM
- Compier, M. & Cooper, C. (1999). *Preventing Stress, Improving Productivity: European Case Studies in the Workplace*. 1st ed. London: Psychology Press.
- Condit, C.W. (1976), "Review: Maya cities: placemaking and urbanization by George F. Andrews", *Technology and Culture*, Vol. 17 No. 3, pp. 546-548.

- Costa V. Di Stefano L. Ventura P. (2010), *Domesticity. Urban action, in common spaces, reinventing the city*, Bevivino publisher
- Costa, P; Perestrelo, M; Teixeira, G (2015) Visiting Experiences and Behavioural types in Cultural audiences: An Analysis of two Museums in Lisbon. *Journal of Inspiration Economy*, 2 (2), September 25-49.
- Covert, b. (2016). "Racism and Discrimination Race Best Predicts Whether You Live Near Pollution," *The Nation* The Nation, February 18, 2016
- Crang, M. (1998) *Cultural Geography*, Routledge, London.
- Cubadda, G.; Tanca, M.(2016), Beni Comuni Urbani e Pratiche Spontanee di Riutilizzo di Spazi "Terzi": Riflessioni a margine di alcuni casi empirici", in Aa.Vv. Commons/Comune, Società di studi geografici. *Memorie geografiche NS 14*, pp. 71-78, 2016
- Cutter, S. L. (1996), Vulnerability to environmental hazards, *Prog. Hum. Geogr.*, 20, 529–539.
- Cutter, S. L., Burton, C. G., & Emrich, C. T. (2010). Disaster resilience indicators for benchmarking baseline conditions. *Journal of Homeland Security and Emergency Management*, 7(1):1–22.
- D'Onofrio R, Trusiani E., 2018, *Urban Planning for Healthy European Cities*, SpringerBriefs in Geography, Springer.
- Davies, M. (1992) *City of Quartz*, New York, Vantage.
- Day, L.L. (1992), "Placemaking by design: fitting a large new building into a historic district", *Environment and Behavior*, Vol. 24 No. 3, pp. 326-346.
- De Bruijne, M., Van Eeten, M., 2007. Systems that should have failed: critical infrastructure protection in an institutionally fragmented environment. *J. Contingencies Crisis Manage.* 15 (1), 18–29.
- De Magalhaes, C. & Carmona, M. (2006) *Innovations in the management of public space, reshaping and refocusing governance*, Planning Theory and Practice.
- Delconte, J., Kline, C. and Scavo, C. (2016), "The impacts of local arts agencies on community placemaking and heritage tourism", *Journal of Heritage Tourism*, Vol. 11 No. 4, pp. 324-335.
- Dellinger, AJ (2020). What will cities look like after coronavirus? , Mic., <https://www.mic.com/p/what-will-cities-look-like-after-coronavirus-22892442>
- Detheridge, A. (2017), Spazi pubblici senza più socialità, Vita International, <http://www.vita.it/it/article/2017/04/26/spazi-pubblici-senza-piu-socialita/143147/> .
- Devinney, T.M., 2009. Is the socially responsible corporation a myth? The good, the bad, and the ugly of corporate social responsibility. *Acad. Manage. Perspect.* 23 (2), 44–56.
- Diamond, J 2012 *Il mondo fino a ieri. Che cosa possiamo imparare dalle società tradizionali?* (The World until Yesterday: What Can We Learn from Traditional Societies?, 2012), Torino: Einaudi, 2013, ISBN 978-88-062-1452-4.
- Doug Struck, E. (2018). Pollution, Poverty and People of Color: Falling into the Climate Gap. [online] Scientific American. Retrieved from: <https://www.scientificamerican.com/article/pollution-poverty-people-colorfalling-climate-gap/> [Accessed 29 Mar. 2018].
- Douglas Finch & Prof. Paul Palmer 2020 su A SPICE blog on air pollution during covid-19 lockdown. [www.spicespotlight.scot/2020/05/07/guest-blog-has-the-coronavirus-covid-19-lockdown-reduced-airpollution/](http://www.spicespotlight.scot/2020/05/07/guest-blog-has-the-coronavirus-covid-19-lockdown-reduced-airpollution/)
- Douglas MJ et al. Health and Transport: A Guide. Scottish Health and Inequalities Impact Assessment Network; 2018. [www.scotphn.net/wp-content/uploads/2015/11/Transport-Guide2018-Final-Formatted.pdf](http://www.scotphn.net/wp-content/uploads/2015/11/Transport-Guide2018-Final-Formatted.pdf)
- Dovey, K. (1991), "Melbourne Docklands and the sense of place", *Picking Winners: Melbourne's Urban Development Game: A Case Study in Planning*, Melbourne's Docklands, Social Justice Coalition, Melbourne.

- Doyle, E.E., Becker, J., Neely, D.P., Johnston, D.M., Pepperell, B., 2014. Knowledge transfer between communities, practitioners, and researchers: a case study for community resilience in Wellington, New Zealand. *Aust. J. Disaster Trauma Stud.* 19 (2).
- Doyle, E.E., Paton, D., 2017. Decision-making: preventing miscommunication and creating shared meaning between stakeholders.
- Dreickson K.D., "Urban Geography I: Locating urban theory in the urban age", *Progress in Human Geography* , 39, 2015, n. 5, pp. 647-657.
- Duany, A., Plater-Zyberk, E. & with Speck, J. (2000) *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*, New York, North Point Press.
- Duncan, C. (1999). *Worlds apart: Why poverty persists in rural America*. New Haven: Yale University Press.
- Dunn-Cavelty, M., Suter, M., 2009. Public-Public-Private Partnerships are no silver bullet: an expanded governance model for Critical Infrastructure Protection. *Int. J. Crit. Infrastruct. Prot.* 2 (4), 179–187.
- DUSPMIT, *Place in the making: How placemaking builds places and communities*, 2013, p. 3
- EC, 2007, European Commission, *Green Paper on Urban Mobility*
- Eckenwiler, L.A. (2016), "Defining ethical placemaking for place-based interventions", *The American Journal of Public Health*, Vol. 106 No. 11, pp. 1944-1946.
- Eisenman, D., Chandra, A., Fogleman, S., Magana, A., Hendricks, A., Wells, K., Plough, A., 2014. The Los Angeles county community disaster resilience project—a communitylevel, public health initiative to build community disaster resilience. *Int. J. Environ. Res. Public Health* 11 (8), 8475–8490.
- Elbakidze, M., Dawson, L., Andersson, K., Axelsson, R., Angelstam, P., Stjernquist, I., Teitelbaum, S., Schlyter, P. and Thellbro, C. (2015), "Is spatial planning a collaborative learning process? A case study from a rural–urban gradient in Sweden", *Land Use Policy*, Vol. 48, pp. 270-285.
- Ellaway, A., & Macintyre, S. (2000). Social capital and self-rated health: Support for a contextual mechanism. *American Journal of Public Health*, 90:988.
- Ellickson, A. (1996) *Controlling chronic misconduct in city spaces: of panhandlers, skid rows and public-space zoning*, *Yale Law Journal*, 105.
- Ellin, N. (1996) *Postmodern Urbanism*, Oxford, Blackwell.
- Ellin, N. (1999) *Postmodern Urbanism*, rev. edn, Oxford, Blackwell.
- Encyclopedia Britannica. (2018). Critical race theory | social sciences. Retrieved from <https://www.britannica.com/topic/critical-race-theory>
- Engwicht, D. (1999) *Street Reclaiming, Creating Liveable Streets and Vibrant Communities*, Gabriola Island, BC, New Society Publishers.
- Ernst, L., de Graaf-Van Dinther, R.E., Peek, G.J., and Loorbach, D.A. (2016). Sustainable urban transformation and sustainability transitions: conceptual framework and case study, *Journal of Cleaner Production*, 112, 2988-2999.
- EU (2014) *Creating Growth: Measuring Culture & Creative markets in the EU*, <http://www.creatingeurope.eu/en/wp-content/uploads/2014/11/study-full-en.pdf> Accessed: 1/1/2019.
- Everett, S. (2012), "Production places or consumption spaces? The place-making agency of food tourism in Ireland and Scotland", *Tourism Geographies*, Vol. 14 No. 4, pp. 535-554.
- expanded governance model for Critical Infrastructure Protection. *Int. J. Crit. Infrastruct. Prot.* 2 (4), 179–187.
- Fabbricatti, K. (2013). *Le sfide della città interculturale. La teoria della resilienza per il governo dei cambiamenti: La teoria della resilienza per il governo dei cambiamenti*. Milano, IT: FrancoAngeli.
- Falk, J. (2009) *Identity and the Museum Visitor Experience*, Walnut Creek, CA: Left Coast Press.

- Fang W., Wahba S., 2020, Urban Density Is Not an Enemy in the Coronavirus Fight: Evidence from China, World Bank, <https://blogs.worldbank.org/sustainablecities/urban-density-not-enemy-coronavirus-fight-evidence-china>
- Farinella R., 2015, in Farinella R., Dorato E. La Città Attiva. Corpo, salute e trama urbana. In Italia '45-'45 Radici – Condizioni – Prospettive. Atti della XVIII Conferenza nazionale SIU, Italia '45-'45, Venezia 11-13 giugno 2015, Planum Publisher, Roma-Milano 2015.
- Fecht, D. et al. (2015) Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherlands. *Environmental Pollution*. 198:201-10.
- Feola, G., & Him, M. R. (2016). The diffusion of the transition network in four european countries. *Environment and Planning A*, 48(11), 2112-2115.
- Feola, G., & Nunes, R. (2014). Success and failure of grassroots innovations for addressing climate change: The case of the transition movement. *Global Environmental Change*, 24(1), 232-250.
- Ferguson, B., Brown, R., Frantzeskaki, N., de Haan, F.J., and Deletic, A. (2014). The enabling institutional context for integrated water management: Lessons from Melbourne, *Water Research*, 47, 7300-7314
- Ferguson, B., Frantzeskaki, N., and Brown, R. (2013). A strategic program for transitioning to a water sensitive city, *Landscape and Urban Planning*, 117, 32-45.
- Finidori, H., Borghini, S. & Henfrey, T. (2016). Towards a Fourth Generation Pattern Language: Patterns as Epistemic Threads for Systemic Orientation. In Leitner, H. (ed.), *Proceedings of the Purplsoc (Pursuit of Pattern Languages for Societal Change) Conference 2015*.
- Fitzpatrick, T., Molloy, J., 2014. The role of NGOs in building sustainable community resilience. *Int. J. Disaster Resilience Built Environ*. 5 (3), 292–304.
- Flanagan, B. E., E. W. Gregory, E. J. Hallisey, J. L. Heitgerd, and B. Lewis (2011), A social vulnerability index for disaster management, *Homeless Secure Emergency Management*, 8(1), 3. Retrieved from <http://www.bepress.com/jhsem/vol8/iss1/3>
- Flavelle, M. (2016). Climate Change Is Already Forcing Americans to Move. [online] Bloomberg.com. Retrieved from: <https://www.bloomberg.com/view/articles/2016-10-31/climate-change-is-already-forcingamericans-to-move>
- Fleming, J., & Ledogar, R. J. (2008). Resilience, an Evolving Concept: A Review of Literature Relevant to Aboriginal Research. *Pimatisiwin*, 6(2), 7–23.
- Florida, R. and Pedigo, S. (2020), How our cities can reopen after the COVID-19 pandemic, *The Avenue*, Brookings, <https://www.brookings.edu/blog/the-avenue/2020/03/24/how-our-cities-can-reopen-after-the-covid-19-pandemic/?sfns=mo>
- Foxon, T., Reed, M.S. and Stringer, L.C. (2009). Governing long-term social-ecological change: What can the adaptive management and transition management approaches learn from each other? *Environmental Policy and Governance*, 19(1): 3-20.
- Franck, K. & Stevens, Q. (2006). *Loose Space: Possibility and Diversity in Urban Life*. 1st ed. London: Routledge.
- Frantzeskaki, N. and Tefrati, N. (2016). A transformative vision unlocks the innovative potential of Aberdeen City, UK. In: Loorbach, D., Wittmayer, J.M., Shiroyama, H., Fujino, J. and Mizuguchi, S. (eds.). *Governance of urban sustainability transitions. European and Asian experiences*. Springer: Tokyo, Heidelberg, New York, Dordrecht, London: 49-68.
- Frantzeskaki, N. et al. (2018). *Co-creating sustainable urban futures: A primer on the application of transition management in cities*. Springer.
- Frantzeskaki, N., & Kabisch, N. (2016). Designing a knowledge co-production operating space for urban environmental governance—Lessons from Rotterdam, Netherlands and Berlin, Germany. *Environmental Science & Policy*, 62, 90–98.

- Frantzeskaki, N., Broto, V. C., Coenen, L., & Loorbach, D. (2017). *Urban Sustainability Transitions*. Oxfordshire, England: Taylor & Francis.
- Frantzeskaki, N., Castan-Broto, V., Coenen, L., and Loorbach, D. (Eds) (2017). *Urban sustainability transitions*, Routledge: New York, ISBN 978-0-415-78418-4.
- Frantzeskaki, N., Holscher, K., Bach, M., and Avelino, F. (2018). *Co-creating sustainable urban futures – A primer on Transition Management in Cities*, Springer, ISBN 978-3-319-69271-5.  
<https://www.springer.com/gp/book/9783319692715>
- Frantzeskaki, N., Loorbach, D., and Meadowcroft, J. (2012). Governing transitions to sustainability: Transition management as a governance approach towards pursuing sustainability, *International Journal of Sustainable Development*, 2012 Vol 15 Nos ½ pp.19-36.
- Franz, M., Güles, O. and Prey, G. (2008), "Place-making and 'green' reuses of Brownfields in the Ruhr", *Tijdschrift Voor Economische En Sociale Geografie*, Vol. 99 No. 3, pp. 316-328.
- Friedmann, J. (2007), "Reflections on place and place-making in the cities of China", *International Journal of Urban and Regional Research*, Vol. 31 No. 2, pp. 257-279.
- Frischknecht, M. (2006), "Placemaking: from colonisation to architectonic style in Andean Patagonia", *Journal of Architecture*, Vol. 11 No. 2, pp. 209-223.
- Fyfe, N. (Ed.) (1998) *Images of the Street, Planning, Identity and Control in Public Space*, London, Routledge.
- Gagnon, E., O'Sullivan, T., Lane, D.E., Paré, N., 2016. Exploring partnership functioning within a community-based participatory intervention to improve disaster resilience. *J. High. Educ. Outreach Engagem.* 20 (2), 25–52.
- Galderisi, A. (2014). Urban Resilience: a framework for empowering cities in face of heterogeneous risk factors. *A| Z ITU Journal of the Faculty of Architecture*, 11.
- Gardner, R.A., Gardner, B.T., Van Cantfort, T.E., 1989, *Teaching Sign Language to Chimpanzees*, SUNY Press
- Garreau, J. (1991) *Edge City: Life on the New Frontier*, London, Doubleday.
- Gasparro, K., (2018) *Building Better Cities with Civic Technology*, ASH Center, November 2018.
- Gaziulusoy, I, Ryan, C. (2017) Shifting Conversation for Sustainability Transitions Using Participatory Design Visioning, *The Design Journal*, 20:sup1, pp. 1916-1926
- Geddes I, Allen J, Allen M, Morrissey L. The Marmot Review: Implications for Spatial planning. <http://www.instituteofhealthequity.org/resources-reports/the-marmot-reviewimplications-for-spatial-planning>
- Geels, F. W. (2014). Regime resistance against low-carbon transitions: Introducing politics and power into the multi-level perspective. *Theory, Culture & Society*, 31(5), 21-40.
- Gehl J. (1980), *Life between buildings. Using public space*, Island Press
- Gehl, J. & Gemzoe, L. (2001) *New City Spaces*, Copenhagen, The Danish Architectural Press.
- Gehl, J. (1987). *Life Between Buildings: Using public space*. New York City: Van Nostrand Reinhold.
- Gehl, J. (1996) *Life Between Buildings: Using Public Space*, 3rd edn ,Skive, Arkitektens Forlag.
- Germen, M. (2015), "Istanbul gezi park REsistance movement as public engagement in the making of place", *Procedia- Social and Behavioral Sciences*, Vol. 184, pp. 13-21.
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*, University of California Press.
- Gifford, R. (1998), "Introduction-Special Places", *Journal of Environmental Psychology*, Vol. 18 No. 1, pp. 3-4.
- Givens, A.D., Busch, N.E., 2013. Realizing the promise of public-private partnerships in US critical infrastructure protection. *Int. J. Crit. Infrastruct. Prot.* 6 (1), 39–50.

- GLA, 2018, Greater London Authority, The London Health Inequalities Strategy, London 2018.
- Goldfarb, Hilliard, *Isabella Stewart Gardner Museum: Guide to the Collection*, Isabella Stewart Gardner, Boston 1998
- Goldsmith, S. (2019) Design the Human-Centered City, ASH Center, January 2019.
- Gordon, T., 1977, Leader Effectiveness Training L.E.T.: The Proven People Skills for Today's Leaders Tomorrow, Berkley Publishing Group
- Graham S. Marvin S. ( 2002), City and communication, electronic spaces and urban nodes, Bologna, Baskerville
- Graham, S. & Marvin, S. (1999) Planning cybercities? Integrating telecommunications into urban planning?, Town Planning Review, 70.
- Graham, S. & Marvin, S. (2001) Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition, London, Routledge.
- Graham, S. (2001) The spectre of the splintering metropolis, Cities, 18.
- Graham, T.; Jackson, D.; Wright, S. (2015), From everyday conversation to political action: Talking austerity in online 'third spaces, European Journal of Communication, Vol. 30,6, pp .648 -665, 2015
- Granstrand, O. and Holgersson, M. , 2020, Innovation ecosystems: A conceptual review and a new definition, Technovation Volumes 90–91, February–March 2020, 102098
- Gravari-Barbas, M. (2013), Aménager La Ville Par La Culture Et Le Tourisme, LeMoniteur.
- Greco, E.,1999, (a cura di), La città greca antica: istituzioni, società e forme urbane, Roma, Donzelli, p. 195.
- Greiner, C., & Sakdapolrak, P. (2013). Translocality: Concepts, applications and emerging research perspectives. *Geography Compass*, 7(5), 373-384.
- Grin, J., Rotmans, J., & Schot, J. (2010). *Transitions to sustainable development: New directions in the study of long term transformative change* (Routledge studies in sustainability transition, 1). New York, NY: Routledge.
- Guthold, R., Stevens, G.A., Riley, L.M., Bull, F.C., (2019) Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1.6 million participants, Elsevier 2019, [https://doi.org/10.1016/S2352-4642\(19\)30323-2](https://doi.org/10.1016/S2352-4642(19)30323-2)
- Habibah, A., Mushrifah, I., Hamzah, J., Er, A.C., Buang, A., Toriman, M.E., Sevadurai, S.V. and Zaimah, R. (2013), "Place-making of ecotourism in tasik Chini: from exploratory to the contemporary biosphere reserve", Asian Social Science, Vol. 9 No. 14, p. 8495.
- Hague, C. and Jenkins, P. (Eds) (2005), Place Identity, Participation and Planning, Routledge, Oxfordshire.
- Hajer, M. & Reijndorp, A. (2001) In Search of New Public Domain, Rotterdam, NAI.
- Hall, P. & Imrie, R. (1999) Architectural practices and disabling design in the built environment, Environment & Planning B: Planning & Design, 26.
- Hamidi, S., Sabouri, S., e Ewing, R. (2020). Does density aggravate the COVID-19 pandemic? Early findings and lessons for planners. Journal of the American Planning Association,86.
- Hankiss, E. 2006, Fears and Symbols: An Introduction to the Study of Western Civilization (2006).
- Hansen, T., & Coenen, L. (2015). The geography of sustainability transitions: Review, synthesis and reflections on an emergent research field. *Environmental Innovation and Societal Transitions*, 17, 92-109.
- Harney, N. (2006), "The politics of urban space: modes of place-making by Italians in Toronto's neighborhoods", Modern Italy, Vol. 11 No. 1, pp. 25-42.
- Harvey D., Rebel Cities . Urban movements from the Paris Commune to Occupy Wall Street , Milan, Il Assayer, 2013 (ed.or. Rebel Cities , Verso, London, 2012).



- Haskell, W. L., Lee, I-M., Pate, R. R., Powell, K. E., Blair, S. N., Franklin, B. A., ... Bauman, A. (2007). Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Circulation*, 116(9), 1081-1093. DOI: 10.1161/CIRCULATION.107.185649
- Hassen, N. and Kaufman, P. (2016), "Examining the role of urban street design in enhancing community engagement: a literature review", *Health& Place*, Vol. 41, pp. 119-132.
- Haxeltine, A., Pel, B., Wittmayer, J., Dumitru, A., Kemp, R., & Avelino, F. (2017). Building a middle-range theory of transformative social innovation: Theoretical pitfalls and methodological responses. *European Public & Social Innovation Review*, 2(1).
- Healy S. (2006). Cultural resilience, identity and the restructuring of political power in Bolivia. Paper Submitted for the 11th Biennial Conference of the International Association for the Study of Common Property, Bali, Indonesia. Retrieved from: [http://www.indiana.edu/~iascp/bali/papers/Healey\\_susan.pdf](http://www.indiana.edu/~iascp/bali/papers/Healey_susan.pdf)
- Hein, H. (2000) *The Museum in Transition, a philosophical perspective*, Washington: Smithsonian Institution Press.
- Helliwell, J. (2002). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling*, 20:331–60.
- Hesmondhalgh, D (2002) *The Cultural Industries*. London: Thousand Oaks; Sage Publications.
- Heu LC, van Zomeren M, Hansen N. Lonely alone or lonely together? A Cultural-psychological examination of individualism–Collectivism and loneliness in five European countries. *Personality and Social Psychology Bulletin*. 2019 May;45(5):780-93.
- Hillenbrand, K., (2017) Boston's Citywide Analytics Team, ASH Center, May 2017.
- Hillier, B. (1996), *Space Is the Machine*, Cambridge University Press, Cambridge.
- Holmes, B. (2007). Do-It-Yourself Geopolitics - Map of the world Upside Down | AAVV Urban/act. [Online] Available at: <http://www.peprav.net>
- Hölscher, K., Wittmayer, J.M., Avelino, F., and Giezen, M. (2017). Opening up the transition arena: An analysis of (dis)empowerment of civil society actors in transition management in cities. *Technological Forecasting and Social Change*. (online first). <http://dx.doi.org/10.1016/j.techfore.2017.05.004>
- Houghton, K., Foth, M. and Miller, E. (2015), "Urban acupuncture: hybrid social and technological practices for hyperlocal placemaking", *Journal of Urban Technology*, Vol. 22 No. 3, pp. 3-19.
- Howard, D. E. (2003). How alienation and declines in social capital are affecting adolescent well-being. Working Paper, Department of Public and Community Health, University of Maryland.
- Husted, B.W., de Jesus Salazar, J., 2006. Taking Friedman seriously: maximizing profits and social performance. *J. Manage. Stud.* 43 (1), 75–91.
- I D. , *Space and politics. The right to the city II* , Milan, Moizzi editore, 1976 (ed. Or. *Espace et politique. Le droit à la ville II* , Paris, Anthropos, 1972).
- Iba, T. (2013). "Pattern Languages As Media For The Creative Society." In: *Proceedings for Coins13*. <https://arxiv.org/ftp/arxiv/papers/1308/1308.1178.pdf>. Accessed May 14th 2019.
- IMH, Italian Ministry of Health, (2017), *Linee di indirizzo sull'attività fisica per le differenti fasce d'età e con riferimento a situazioni fisiologiche e fisiopatologiche e a sottogruppi specifici di popolazione*, Rome, 2017 and subsequent additions. [https://www.salute.gov.it/imgs/C\\_17\\_pubblicazioni\\_2828\\_allegato.pdf](https://www.salute.gov.it/imgs/C_17_pubblicazioni_2828_allegato.pdf)
- Imrie, R. & Hall, P. (2001) *Inclusive Design: Designing and Developing Accessible Environments*, London, Spon Press.
- Ip, D. (2005), "Contesting Chinatown: place-making and the emergence of 'Ethnoburbia' in Brisbane, Australia", *GeoJournal*, Vol. 64 No. 1, pp. 63-74.

- Irazabal, C. and Farhat, R. (2008), "Latino communities in the United States: place-making in the preworld war II, postwar, and contemporary city", *Journal of Planning Literature*, Vol. 22 No. 3, pp. 207-228.
- Isabella Stewart Gardner Museum, *Annual Report for the Year*, ISGM Archive, Boston
- ISO 22397, 2014. Societal Security- Guidelines for Establishing Partnering Arrangements. ISO, Geneva, Switzerland.
- Italian Constitution, art. 118, paragraph 4
- Jabareen, Y., 2013. Planning the resilient city: concepts and strategies for coping with climate change and environmental risk. *Cities* 31, 220–229.
- Jacobs, A., 1985, *Looking at cities*, Harvard University Press.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*, New York, Random House.
- Jacobs, J. (1961), *The Death and Life of Great American Cities*, Vintage Books, A Division of Random House, New York, NY.
- Jacobs, J. (1984) *The Death and Life of Great American Cities: The Failure of Modern Town Planning*, London, Peregrine Books.
- Jeannotte, S; Pineau, A and Leimbigler, B (2016) In Search of the Creative Economy Analyses of the Provincial and Territorial 2015-2016 Budgets, from the Perspective of Arts, Culture and Heritage, Canadian Conference of the Arts Centre on Governance, University of Ottawa. <http://ccarts.ca/wp-content/uploads/2016/01/SearchingFor.compressed.pdf>, Accessed: 1/1/2019.
- Johns, R. (2001) *Skateboard city*, *Landscape Design*, No. 303.
- Johnson, A.J., Glover, T. and Stewart, W. (2014), "Attracting locals downtown: everyday leisure as a place-making initiative", *Journal of Park and Recreation Administration*, Vol. 32 No. 2, pp. 28-42.
- Jones A, Hillsdon M, Coombes E. Greenspace access, use, and physical activity: Understanding the effects of area deprivation. *Preventive medicine*. 2009 Dec 1;49(6):500-5.
- Juujarvi, S. & Pesso, K. (2013). Actor Roles in an Urban Living Lab: What Can We Learn from Suurpelto, Finland? *Technology Innovation Management Review*, 7.
- Kallus, R. (2001). From Abstract to Concrete: Subjective Reading of Urban Space. *Journal of Urban Design*, 6(2), pp. 129-150.
- Kapucu, N., 2012. Disaster resilience and adaptive capacity in Central Florida, US, and in Eastern Marmara Region, Turkey. *J. Comp. Policy Anal.: Res. Pract.* 14 (3), 202–216.
- Katz, P.(1994), editor. *The new urbanism: Toward an architecture of community*. McGraw-Hill; New York: 1994.
- Kawachi, I. (2001). Social capital for health and human development. *Development*, 44:31–35.
- Kawachi, I., & Berkman, L. (2001). Social ties and mental health. *Journal of Urban Health*, 78:458–67.
- Kawachi, I., Kennedy, B., & Glass, R. (1999). Social capital and self-rated health: a contextual analysis. *American Journal of Public Health*, 89:1187–93.
- Kawachi, I., Kennedy, B., Lochner, K., Prothrow-Stith D. (1997) Social capital, income inequality, and mortality. *American Journal of Public Health*, 87:1491–98.
- Kehew, R., 2020, *New York City: Population Density and Income Levels Versus Incidence of Coronavirus*, UN-Habitat, April 2020.
- Keith, M. and Pile, S. (Eds), (1993), *Place and the Politics of Identity*, Routledge, London.
- Kemp, R., & Rotmans, J. (2009). Transitioning policy: Co-production of a new strategic framework for energy innovation policy in the netherlands. *Policy Sciences*, 42(4), 303-323.

- Kilian, T. (1998) Public and private, power and space, in: A. Light & J. M. Smith (Eds) *Philosophy and Geography II: The Production of Public Space*, Lanham, Md, Rowman & Littlefield.
- Kiverstein, J., van Dijk, L. & Rietveld, E. The field and landscape of affordances: Koffka's two environments revisited. *Synthese* (2019). <https://doi.org/10.1007/s11229-019-02123-x>
- Knox, P.L. (2005), "Creating ordinary places: slow cities in a fast world", *Journal of Urban Design*, Vol. 10 No. 1, pp. 1-11.
- Kohn, M. (2004) *Brave New Neighbourhoods, The Privatization of Public Space*, New York, Routledge.
- Kostof, S. (1992), *The City Assembled: The Elements of Urban Form through History*, Bulfinch Press, Boston, MA.
- Krieger, A. (1995). Reinventing Public Space. *Architectural Record*, 183(6), pp. 76-77.
- Križnik, B. (2013), "Changing approaches to urban development in South Korea: from 'clean and
- Kuymulu M.B., "The Vortex of Rights: Right to the City at a Crossroads", *International Journal of Urban and Regional Research*, 37, 2013, n. 3, pp. 923-940.
- Lachowycz K, Jones AP. Green space and obesity: a systematic review of the evidence. *Obes Rev* 2011
- Lalonde C. (2005). Identity formation and cultural resilience in Aboriginal communities. In: Flynn RJ, Dudding P, Barber J, editors. *Promoting Resilience in Child Welfare*. Ottawa: University of Ottawa Press; pp. 52–72.
- Lam, L. & Lau, D. (2012). Feeling lonely at work: investigating the consequences of unsatisfactory workplace relationships. *The International Journal of Human Resource Management*, 23(20), pp. 4265-4282.
- Lang, J. (1994) *Urban Design: The American Experience*, New York, Van Nostrand Reinhold.
- Lanzani A. Vitali D. ( 2002 ), *Urban metamorphosis . The places of immigration*, Sala
- Lees, L. (1994). Urban public space and imagined communities in the 1980s and 90s. *Journal of Urban History*, 20(4), pp. 443-465.
- Lees, L. (2000). "A Reappraisal of Gentrification: Towards a 'Geography of Gentrification'," *Progress in Human Geography* 24, no. 3. 389–408.
- Lefebvre H. (1970), *The right to the city*, Padova, Marsilio, (ed. Or. *Le Droit à la ville*, Paris, Anthropos, 1968).
- Lefebvre, H. (1973), *The Urban Revolution*, R. Bononno (trans.) University of Minnesota, 2003, first ed. 1973
- Lefebvre, H. (1974), *Il diritto alla città*, G. Morosato (trans.), Ombre Corte, 2014, first ed. 1974
- Lefebvre, H. (1991), *The Production of Space*, Blackwell, Oxford.
- Lehmann, V., Frangioni, M. & Dube, P. (2015). Living Lab as knowledge system: an actual approach for managing urban service projects? *Journal of Knowledge Management*, 19(5), 1087-1107.
- Leitner, H. (2015). *Pattern Theory. Introduction and Perspectives on the Tracks of Christopher Alexander*. HLS Software.
- Lepofsky, J. and Fraser, J.C. (2003), "Building community citizens: claiming the right to place-making in the city", *Urban Studies*, Vol. 40 No. 1, pp. 127-142.
- Lester, S. & Russell, W. (2008). *Play for a Change: Policy and Practice (Summary Report)*, London: Play England.
- Lew, A.A. (2017), "Tourism planning and place making: place-making or placemaking?", *Tourism Geographies*, Vol. 19 No. 3, pp. 448-466.
- LHE, 2014, London Health Commission (2014). *Better health for London*. London: Greater London Authority.
- Liebmann, H., and Kuder, T., (2012) Pathways and Strategies of Urban Regeneration—Deindustrialized Cities in Eastern Germany, *European Planning Studies*, 20:7,1155-1172, DOI: 10.1080/09654313.2012.674348

- Liedtke, C. Welfens, M. J., Rohn, H., Nordmann J. (2012). LIVING LAB : user-driven innovation for sustainability In: International journal of sustainability in higher education, 13, 2, pp. 106-118
- Liesch, M. (2015), "Creating Keweenaw: Park making as response to post-mining economic decline", The Extractive Industries and Society, Vol. 3 No. 2, pp. 527-538.
- Lin, N., Ye, X., & Ensel, W. M. (1999). Social support and depressed mood: a structural analysis. Journal of Health and Social Behavior, 40:344–59.
- Llewelyn-Davis (2000) Urban Design Compendium, London, English Partnerships/The Housing Corporation.
- Lo Sardo, P., 1999, Verso il canone della Polis, in Emanuele Greco (a cura di), La città greca antica: istituzioni, società e forme urbane, Roma, Donzelli.
- Lodi, M., (1999), Io e la natura, Casa delle arti e del gioco, Cremona.
- Lofland, L. (1998) The Public Realm, Exploring the City's Quintessential Social Territory, New York, De Gruyter.
- Lombard, M. (2014), "Constructing ordinary places: place-making in urban informal settlements in Mexico", Progress in Planning, Vol. 94, pp. 1-53.
- Loorbach, D. (2007). Governance for sustainability. *Sustainability: Science, Practice, & Policy*, 3(2), 1-1.
- Loorbach, D. (2007). Transition Management. New mode of governance for sustainable development. PhD thesis, Erasmus Universiteit Rotterdam.
- Loorbach, D. (2010). Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework. *Governance: An International Journal of Policy Administration and Institutions*, 23(1): 161-183.
- Loorbach, D. (2010). Transition management for sustainable development: A prescriptive, complexitybased governance framework. *Governance*, 23(1), 161-183.
- Loorbach, D. (2014). To Transition! Governance Panarchy in the New Transformation. Inaugural Lecture, Erasmus Universiteit Rotterdam.
- Loorbach, D. (2014). To Transition! Governance Panarchy in the New Transformation, DRIFT, Erasmus
- Loorbach, D. and J. Rotmans (2005) Managing transitions for sustainable development. In *Industrial Transformation - disciplinary approaches towards transformation research*, edited by A.J. Wieczorek and X. Olshoorn. Dordrecht: Kluwer Academic Publishers.
- Loorbach, D. and Rotmans, J. (2010). The practice of transition management: Examples and lessons from four distinct cases. *Futures*, 42(3): 237-246.
- Loorbach, D., Avelino, F., Wittmayer, J.M., Haxeltine, A., Kemp, R. O'Riordan, T. and P. Weaver (2016). The economic crisis as a game-changer? Exploring the role of social construction in sustainability transitions, *Ecology & Society*, 21(4):15.
- Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability transitions research: Transforming science and practice for societal change. *Annual Review of Environment and Resources*, 42, 599-626.
- Loorbach, D., Frantzeskaki, N., and Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change, *Annual Review of Environment and Resources*, Vol. 42, 599-626, doi.org/10.1146/annurev-environ-102014-021340.
- Loorbach, D., Frantzeskaki, N., and Huffenreuter, L. R. (2015). Transition management: Taking stock from governance experimentation, *Journal of Corporate Citizenship*, Volume 2015, Number 58, June 2015, pp. 48-66(19)
- Losasso, M. (2016), "Climate risk, Environmental planning, Urban design", UPLanD-Journal of Urban Planning, Landscape and Environmental Design, 4. doi:10.6092/2531-9906/5039
- Loukaitou-Sideris, A. & Banerjee, T. (1998) Urban Design Downtown: Poetics and Politics of Form, Berkeley, University of California Press.

- Loukaitou-Sideris, A. & Banerjee, T. (1998). *Urban Design Downtown: Poetics and Politics of Form*. Berkeley, CA: University of California Press.
- Lutzoni, L. (2016). In-formalised urban space design. Rethinking the relationship between formal and informal. *City Territ Archit*, 3(20), pp. 2-14.
- Loukaitou-Sideris, A. (1996) Cracks in the city: addressing the constraints and potentials of urban design, *Journal of Urban Design*, 1.
- Loukaitou-Sideris, A. (1996). Cracks in the city: addressing the constraints and potentials of urban design. *Journal of Urban Design*, 1(1), pp. 91-103.
- Lovan, W.R., Murray, M., Shaffer, R. (Eds.), 2017. *Participatory Governance: Planning, Conflict Mediation and Public Decision-making in Civil Society*. Routledge.
- Low, S. & Smith, N. (Eds) (2006) *The Politics of Public Space*, New York, Routledge.
- Low, S. and Smart, A. (2020), Thoughts about Public Space During Covid-19 Pandemic. *City & Society*, 32:. <https://doi.org/10.1111/ciso.12260>
- Luederitz, C., Schöpke, N., Wiek, A., Lang, D.L., Bergmann, M., Bos, J.J., Burch, S., Davies, A., Evans, J., König, A., Farrelly, M.A., Forrest, N., Frantzeskaki, N., Gibson, R.B., Kay, B., Loorbach, D., McCormick, K., Parodi, O., Rauschmayer, F., Schneidewind, U., Stauffacher, M., Stelzer, F., Trencher, G., Venjakob, J., Vergragt, P.J., von Wehrden, H., Westley, F.R., (2017), Learning through evaluation – A tentative evaluation scheme for sustainability transition experiments, *Journal of Cleaner Production*, 169, 61-76. <https://doi.org/10.1016/j.jclepro.2016.09.005>
- Lynch, K. (1960). *The Image of the City*. Cambridge, MA: MIT Press.
- Lynch, K. (1981). *A Theory of Good City Form*. Cambridge, MA: MIT Press.
- Mackay G, Neill J. 2010, The effect of ‘green exercise’ on state anxiety and the role of exercise duration, intensity and greenness: a quasi-experimental study. *Psychol Sport Exercise* 2010
- Madden, K. (1997); Third Place I Know, in *Planning Commissioner Journal*, n.25, p.10, Winter 1996-97
- Madureira, A.M. (2015), “Physical planning in place-making through design and image building”, *Journal of Housing and the Built Environment*, Vol. 30 No. 1, pp. 157-172.
- Maguire, R (2016) What’s the Future of Canada’s Museums? March 8, Canadian Art e-Magazine. <https://canadianart.ca/features/whats-the-future-of-canadas-museums/>, Accessed: 1/1/2019.
- Malone, K. (2002) Street life: youth, culture and competing uses of public space, *Environment and Urbanization*, 14.
- Mandanipour, A. (2003) *Public and Private Spaces of the City*, London, Routledge.
- Mandich G. and Rampazi M. ( 2009) Domesticity and domestication. The construction of the domestic sphere in daily life. *Research notebooks*
- Manzini E. Jègou F. (2003), *Sustainable newspaper. Urban life scenarios*, Milan, Environment Edition
- Marcuse P., "From critical urban theory to the right to the city", *City* , 13, 2009, nn . 2-3, pp. 185- 197.
- Mark J. Stern and Susan C. Seifert. (2017). *Social Wellbeing of New York City’s Neighborhoods: The Contribution of Culture and the Arts*.
- Mark J. Stern. (2014). *Measuring the Outcome of Creative Placemaking. The Role of Artists and Arts in Creative Placemaking*. Goethe Institute
- Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, 41(6), 955-967.
- Markusen, A. and Gadwa, A. (2010). *White Paper for The Mayors’ Institute on City Design*, a leadership initiative of the National Endowment for the Arts in partnership with the United States Conference of Mayors and American Architectural Foundation.

- Markusen, A. and Schrock, G. (2010), "The artistic dividend: Urban artistic specialization and economic development", *Urban Studies*, Vol. 43 No. 10, pp. 1661-1686.
- Marmot M, Goldblat P, Allen J, et al., 2010, *Fair Society Healthy Lives (The Marmot Review)*, Institute of Health Equity, 2010. <http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>
- Marmot, M. (2005). Social determinants of health inequalities. *Lancet*, 365(9464):1099–104.
- Marques, J.C., Mintzberg, H., 2015. Why corporate social responsibility isn't a piece of cake. *MIT Sloan Manage. Rev.* 56 (4), 8.
- Marrone DK, Barton JL, Gladwell VF, 2013, Viewing nature scenes positively affects recovery of autonomic function following acute mental stress. *Environ Sci Technol.* 2013
- Martin, D. (2003), "Place-framing as place-making: constituting a neighborhood for organizing and activism", *Annals of the Association of American Geographers*, Vol. 93 No. 3, pp. 730-750.
- Marvin, S., Bulkeley, H., Mai, L., McCormick, K., Palgan, Y. V. (Eds.) (2018). *Urban Living Labs. Experimentation With City Futures*. Routledge Taylor., London, New York NY.
- Maslow A. "A Theory of Human Motivation" (originally published in *Psychological Review*, 1943, Vol. 50 #4, pp. 370–396).
- Massey, D. (1994), *Space, Place and Gender*, Polity, Cambridge.
- Mattogno C. ( 2002), *Ideas of space, space in ideas, contemporary metropolis and public spaces*, Franco Angeli, Milan
- Mattson, K. (1999) *Reclaiming and remaking public space: towards an architecture for american democracy*, National Civic Renewal, 88.
- Mayer M., "The right to the city in the context of shifting mottos of urban social movements", *City* , 13, 2009, nn . 2-3, pp. 362-374.
- Mayor of London. *Guide to the Healthy Streets Indicators. Delivering the Healthy Streets Approach*; Transport for London: London, UK, 2017. Available online: <https://content.tfl.gov.uk/guide-to-the-healthy-streets-indicators.pdf>
- McConnell, A., Drennan, L., 2006. Mission impossible? Planning and preparing for crisis. *J. Contingencies Crisis Manage.* 14 (2), 59–70.
- McFarlane, C. (2009). Translocal assemblages: Space, power and social movements. *Geoforum*, 40(4), 561-567.
- McPhearson, T., Andersson, E., Elmqvist, T., and Frantzeskaki, N. (2015). Resilience of and through ecosystem services, *Ecosystem Services*, 12, 152-156 doi:10.1016/j.ecoser.2014.07.012
- McQuire, S. (2006). The politics of public space in the media city. *First Monday Special Issue # 4: Urban Screens: Discovering the Potential of Outdoor Screens for Urban Society*.
- Merrifield A., "The Urban Question under Planetary Urbanization", *International Journal of Urban and Regional Research* , 37, 2013, n. 3, pp. 909-922.
- Miethe, T. (1995) Fear and withdrawal from urban life, *Annals of the American Society of Political and Social Science*, No. 539.
- Miller B., Nicholls W., "Social movements in urban society: The city as a space of politicization ", *Urban Geography* , 34, 2013, n. 4, pp. 452-473.
- Min-Hsiu, Liao (2018) *Museums and creative industries: The contribution of Translation Studies*, *The Journal of Specialised Translation Issue 29 – January*, Heriot-Watt University.
- Minton, A. (2006) *What Kind of World Are We Building? The Privatisation of Public Space*, London, RICS.



- Mishra A, 2020, 3 Ways Governments Can Support a Sustainable Recovery from Covid-19, Forbes 2020, <https://www.forbes.com/sites/ankitmishra/2020/05/13/3-ways-governments-can-support-a-sustainable-economic-recovery-from-covid-19/?sh=bf6a3d970602>
- Mitchell, D. (1995) The end of public space? People's park, definitions of the public democracy, *Annals of the Association of American Geographers*, 85.
- Mitchell, R. & Popham, F. (2008) Effect of exposure to natural environment on health inequalities: an observational population study. *The Lancet*.
- Mitchell, W. J. (1996) *City of Bits: Space, Place and the Infobahn*, Cambridge, MA, MIT Press.
- Mohr, J., Spekman, R., 1994. Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Manage. J.* 15 (2), 135–152.
- Monbiot, G., 2013, For more wonder, rewild the world, TedGlobal 2013 [https://www.ted.com/talks/george\\_monbiot\\_for\\_more\\_wonder\\_rewild\\_the\\_world/transcript](https://www.ted.com/talks/george_monbiot_for_more_wonder_rewild_the_world/transcript)
- Montgomery, A. (2016), "Reappearance of the public: placemaking, minoritization and resistance in Detroit", *International Journal of Urban and Regional Research*, Vol. 40 No. 4, pp. 776-799.
- Montgomery, J. (1998) Making a city: urbanity, vitality and urban design, *Journal of Urban Design*, 3.
- Monticelli, L. (2018). Embodying alternatives to capitalism in the 21st century. *Triplec: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*, 16(2), 501- 517.
- MONUM - Mayor Office of New Urban Mechanics (2018) <https://www.boston.gov/civic-engagement/engagement-and-third-spaces-lab> 2018
- Moore CN Davis D. (1997) *Participation Tools for Better Land-Use Planning*, Local Government Commission / Center for LivableCommunities, Sacramento
- Moreno, C. (2020), Paris wants to become the city of 15 minutes, *La passion de l'innovation*, <https://www.moreno-web.net/engnews-24h-uk-paris-wants-to-become-the-city-of-15-minutes-fevrier-2020/>
- Moreno, C. (2020), Urban Perspective on the Coronavirus Crisis, *La passion de l'innovation*, <http://www.moreno-web.net/urban-perspective-on-the-coronavirus-crisis-prof-carlos-moreno/>
- Morton, M., & Lurie, N. (2013). Community resilience and public health practice. *American Journal of Public Health*, 103(7):1158–1160.
- Moulaert, F., Mehmood, F., MacCallum, D., Leubolt, B. (2017) *Social Innovation as a Trigger for Transformations. The Role of Research*. European Commission, Directorate-General for Research and Innovation. pp. 1-105.
- Mumford, L., (1934), *Technics and civilization*, New York, Harcourt & Brace.,1934.
- Mumford, L., (1938), *The culture of cities*, New York, Harcourt & Brace, 1938
- Mumford, L., (1960), *The conduct of life*, New York, Harcourt & Brace, 1960.
- Mumford, L., (1967), *The myth of the machine. I. Technics and human development*, NewYork, Harcourt & Brace, 1967
- Mumford, L., (1970), *The myth of the machine. II. The Pentagon of power*, New York, Harcourt & Brace, 1970.
- Murphy, C. (2001) Customised quarantine, *Atlantic Monthly*, July–August.
- Myers, D. (1994). *Disaster response and recovery: A handbook for mental health professionals*. Monterey, CA: Diane.
- NAACP - National Association for the Advancement of Colored People. (2010). *Climate Justice: 2010 Program Toolkit*. Retrieved from [http://naacp.3cdn.net/e89b4538734694be4a\\_22m62rvvg8.pdf](http://naacp.3cdn.net/e89b4538734694be4a_22m62rvvg8.pdf)

- NACTO, National Association of City Transportation Officials. Urban Street Design Guide. 2013. Available online: <https://nacto.org/publication/urban-street-design-guide/> .
- Nagorny-Koring, N.C., and Nocht, T. (2018). Managing urban transitions in theory and practice – The case of the Pioneer Cities and Transition Cities projects, *Journal of Cleaner Production*, 175, 60-69.
- National Biodefense Science Board. (2014). Community health resilience report. Washington, DC. Retrieved from <http://www.phe.gov/Preparedness/legal/boards/nprsb/meetings/Documents/nbsb-chrreport.pdf>
- National Endowment for the Arts (2009). Art-Goers in Their Communities: Patterns of Civic and Social Engagement, NEA Research Note #98 (Washington, DC: National Endowment for the Arts. Retrieved from <https://arts.endow.gov/research/Notes/98.pdf>
- National Endowment for the Arts, (2006). The Arts and Civic Engagement: Involved in Arts, Involved in Life, NEA Research Brochure. Retrieved from [http://www.arts.gov/research/research\\_brochures.php](http://www.arts.gov/research/research_brochures.php)
- Negami HR, Mazumder R, Reardon M, Ellard CG. Field analysis of psychological effects of urban design: a case study in Vancouver. *Cities & health*. 2018 Nov 30;2(2):106-15.
- Network of European Museums Organisations (2015) Museums and Creative Industries in Progress, Creative Europe Program of European Union.  
[http://www.creativemuseum.lv/files/bundleNewsPost/654/Creative\\_industries\\_report\\_\(1\).pdf](http://www.creativemuseum.lv/files/bundleNewsPost/654/Creative_industries_report_(1).pdf), Accessed: 1/1/2019.
- Neuman, Michael. (2005). The Compact City Fallacy. *Journal of Planning Education and Research*. 25. 11-26. 10.1177/0739456X04270466.
- Nevens, F. and Roorda, C. (2013). A climate of change: A transition approach for climate neutrality in the city of Ghent (Belgium). *Sustainable Cities and Society*, 10: 112-121.
- Nevens, F., Frantzeskaki, N., Gorissen, L., & Loorbach, D. (2013). Urban transition labs: Co-creating transformative action for sustainable cities. *Journal of Cleaner Production*, 50, 111-122.
- Nevens, F., Frantzeskaki, N., Loorbach, D., and Gorissen, L. (2013). Urban Transition Labs: co-creating transformative action for sustainable cities, *Journal of Cleaner Production*, 50, 111-122.
- New Economics Foundation (2004) Clone Town Britain, The Loss of Local Identity on the Nation's High Streets ,London, New Economics Foundation).
- Newman, O. (1972). *Defensible Space*. New York City: Macmillan.
- Newman, O. (1973) *Defensible Space: People and Design in the Violent City*, London, Architectural Press.
- NHS Health Scotland Place and Communities Inequality Briefing. Edinburgh: NHS Health Scotland; 2016. [www.healthscotland.scot/publications/place-and-communities](http://www.healthscotland.scot/publications/place-and-communities)
- NHS, 2019 <https://www.nhs.uk/live-well/exercise/>
- Nicholls W., Vermeulen F., "Rights through the city: the role of the city for immigrants rights movements ", in Smith MP, M C Quarrie M. ( edited by), *Remaking Urban Citizenship: Organizations, Institutions, and the Right to the City* , New Brunswick, Transactions Publishers, 2012, pp. 79-96.
- Nichols, B. (2007). Volunteering and Performing Arts Attendance: More Evidence from the SPPA, NEA Research Note #94. Washington, DC: National Endowment for the Arts. Retrieved from <https://arts.endow.gov/research/Notes/94.pdf>
- Norberg-Schulz, C. (1980), *Genius Loci: Toward a Phenomenology of Architecture*, Rizzoli Int.
- Norris, F. H., Stevens, S. P., Pfeffer Baum, B., Wyche, K. F., & Pfeffer Baum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41:127–50.
- Nunes, A.A., Galvao, T. & Cunha, J.F. (2014). Urban Public Transport Service Co-creation: Leveraging Passenger's Knowledge to Enhance Travel Experience. *Procedia: Social and Behavioral Sciences*, 111, 577–585.

- O'Brien, D.F. (1985), "Artstreet: taking place and making news", *Places*, Vol. 2 No. 3, pp. 59-66.
- O'Reilly, T., (2005). *What is Web 2.0? Part 4: End of the Software Release Cycle*. Available online at <https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html?page=4>. Accessed May 8th 2019.
- O'Rourke, V. and Baldwin, C. (2016), "Student engagement in placemaking at an Australian university campus", *Australian Planner*, Vol. 53 No. 2, pp. 103-116.
- Oc, T. & Tiesdell, S. (1997) *Safer City Centres: Reviving the Public Realm*, London, Paul Chapman.
- OECD (2015) *Museums and Creative Industries: Mapping Cooperation Pilot Examination and test phase of the methodology*, Creative Europe Program of European Union. Excolo Latvia Ltd, Network of European Museums Organisations. [https://www.oecd.org/naec/Pier\\_Luigi\\_Sacco\\_NAEC\\_May%202.pdf](https://www.oecd.org/naec/Pier_Luigi_Sacco_NAEC_May%202.pdf), Accessed: 1/1/2019.
- Oldenburg, R. (1989). *The Great Good Place*. Boston, MA: De Capo Press.
- Oldenburg, R. (1997), Our Vanishing "Third Place", in *Planning Commissioner Journal*, n.25, pp. 6-10, Winter 1996-97
- Oldenburg, R. (1999) *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons and the Other Hangouts at the Heart of a Community*, 2nd edn, New York, Marlowe.
- O'Sullivan, T.L., Corneil, W., Kuziemy, C.E., Toal-Sullivan, D., 2015. Use of the structured interview matrix to enhance community resilience through collaboration and inclusive engagement. *Syst. Res. Behav. Sci.* 32 (6), 616–628.
- Pafka, E. (2020). As coronavirus forces us to keep our distance, city density matters less than internal density, *The Conversation*, <https://theconversation.com/as-coronavirus-forces-us-to-keep-our-distance-city-density-matters-less-than-internal-density-137790>
- Pancholi, S., Yigitcanlar, T. and Guaralda, M. (2015), "Public space design of knowledge and innovation spaces: learnings from Kelvin grove urban village, Brisbane", *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 1 No. 1, pp. 1-17.
- Participation notebooks Emilia-Romagna , "Partecipazioni: noun, plural. Methodological guide for the management of integrated participation processes " January 2016, p. 38, pp. 133-13
- Patterson, J. (2018). Director, NAACP Environmental and Climate Justice Program. Quote from Speaker at International Transformational Resilience Coalition. Oakland, CA.
- Pearce JR, Richardson EA, Mitchell RJ, Shortt NK. Environmental justice and health: the implications of the socio-spatial distribution of multiple environmental deprivation for health inequalities in the United Kingdom. *Transactions of the Institute of British Geographers* 2010; 35(4): 522-539
- Pel, B., Dorland, J., Wittmayer, J., & Soegaard Jorgensen, M. (2017). Detecting social innovation agency: Methodological reflections on units of analysis in dispersed transformation processes. *European Public & Social Innovation Review*, 2(1).
- Pelling M: *The Vulnerability of Cities: Natural Disasters and Social Resilience* London: Earthscan; 2003.
- Pelling, M., 2011. *Adaptation to Climate Change: From Resilience to Transformation*. Taylor & Francis Books, London.
- Penha-Lopes, G. & Henfrey, T. (2019). *Reshaping the Future: How local communities are catalyzing social, economic and ecological transformation in Europe. The first Status Report on Community-led Action on Sustainability and Climate Change in Europe*. Brussels: ECOLISE.
- Penninx, B. W. J. H., van Tilburg, T. G., Kriegsman, D. M. W., Boeke, A. J. P., Deeg, D. J. H., van Eijk J. T. M. (1999). Social network, social support, and loneliness in older persons with different chronic diseases. *Journal of Aging Health*, 11:151–68.
- Perkins-Kirkpatrick, S.E., Lewis, S.C., (2020), Increasing trends in regional heatwaves. *Nat Commun* 11, 3357. <https://doi.org/10.1038/s41467-020-16970-7>

- Pfefferbaum, R.L., Pfefferbaum, B., Van Horn, R.L., Klomp, R.W., Norris, F.H., Reissman, D.B., 2013. The communities advancing resilience toolkit (CART): an intervention to build community resilience to disasters. *J. Public Health Manage. Pract.* 19 (3), 250–258.
- PHE, 2016, Committee on the Medical Effects of Air Pollutants (2016). Long-term exposure to air pollution and chronic bronchitis. London: Public Health England.
- PHE, 2017, Public Health England (2017) Health profile for England: Chapter 5: inequality in health [online] <https://www.gov.uk/government/publications/health-profile-for-england/chapter-5-inequality-in-health>
- PHE, 2020, Public Health England, Public Health Outcomes Framework. <https://fingertips.phe.org.uk/profile/public-health-outcomes-framework>
- Piano, R. (2017), *Renzo Piano Building Workshop – Isabella Stewart Gardner Museum in The Plan* <https://www.theplan.it/eng/webzine/international-architecture/en-isabella-stewart-gardner-museum>
- Pickering, C.M. and Byrne, J. (2014), “The benefits of publishing systematic quantitative literature reviews for PhD candidates and other early career researchers”, *Higher Education Research and Development*, Vol. 33 No. 3, pp. 534-548.
- Polimeni, M. (2015) Public space and interculturality: The example of Denmark. Series Man & Society, Media & Books
- Poortinga, W. (2011). Community resilience and health: The role of bonding, bridging, and linking aspects of social capital. *Health Place*, 18(2):286–95.
- Poppe, W. and Young, D. (2015), “The politics of place: place-making versus densification in Toronto’s tower neighborhoods”, *International Journal of Urban and Regional Research*, Vol. 39 No. 3, pp. 613-621.
- Poustie, M., Frantzeskaki, N., and Brown, R. (2016). A transition scenario for leapfrogging to a sustainable urban water future in Port Vila, Vanuatu, *Technological Forecasting and Social Change*, Volume 105, April 2016, pp. 129–139 doi:10.1016/j.techfore.2015.12.008.
- Prins SJ, Bates LM, Keyes KM, Muntaner C. Anxious? Depressed? You might be suffering from capitalism: contradictory class locations and the prevalence of depression and anxiety in the USA. *Sociology of health & illness*. 2015 Nov;37(8):1352-72.
- Public Health England. Spatial Planning for Health. An evidence resource for planning and designing healthier places. Public Health England; 2017. <https://www.gov.uk/government/publications/spatial-planning-for-health-evidence-review>
- Punter, J. (1991) Participation in the design of urban space, *Landscape Design*, No. 200.
- Purcell M., "Excavating Lefebvre: The right to the city and its urban politics of the inhabitant", *GeoJournal* , 58, 2002, n. 2, pp. 99-108. I D. , "Possible World: Henri Lefebvre and the right to the city", *Journal of Urban Affairs* , 36, 2014, n. 1, pp. 141-154.
- Putman RD (1993), *The civic tradition in the Italian regions*, Arnoldo Mondadori, Milan
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Quinn, D. 1992, *Ishmael*, Ortica Editrice, republished 2018
- Raphael, D., Renwick, R., Brown, I., Steinmetz, B., Sehdev, H., & Phillips, S. (2001). Making the links between community structure and individual well-being: Community quality of life in Riverdale, Toronto, Canada. *Health Place*, 7:179–96.
- Rapoport, A. (1969), *House, Form and Culture*, Prentice- Hall, Englewoods Cliffs, NJ.
- Rauws, W., de Roo, G. and Zhang, S. (2016), “Self-organisation and spatial planning: an editorial introduction”, *Town Planning Review*, Vol. 87 No. 3, pp. 241-251.
- Relph, E. (1976) *Place and Placelessness* ,London, Pion.

- Rentschler, R (2007) Museum marketing: understanding different types of audiences In book: Museum Management and Marketing, Edited by Sandell, R and Janes, R, Chapter: Museum marketing: understanding different types of audiences, Routledge London
- Rich, R.C., Edelstein, M., Hallman, W.K., Wandersman, A.H., 1995. Citizen participation and empowerment: the case of local environmental hazards. *Am. J. Commun. Psychol.* 23 (5), 657–676.
- Rios, M. and Watkins, J. (2015), “Beyond ‘place’: translocal placemaking of the hmong diaspora”, *Journal of Planning Education and Research*, Vol. 35 No. 2, pp. 209-219.
- Ripamonti E., Community development and participatory planning, article published in the magazine "SKILL" n.31 / 2006, Milan
- Roberts, M. & Turner, C. (2005) Conflicts of liveability in the 24-hour city: learning from 48 hours in the life of London’s Soho, *Journal of Urban Design*, 10.
- Roche, S., Propeck-Zimmermann, E., Mericskay, B., 2013. GeoWeb and crisis management: issues and perspectives of volunteered geographic information. *GeoJournal* 78 (1), 21–40.
- Roe J, Ward Thompson C, Aspinall P et al. . Green space and stress: evidence from cortisol measures in deprived urban communities. *Int J Environ Res Pub Health* 2013
- Rogers, C. R. The Necessary and Sufficient Conditions of Therapeutic Personality Change ,*Journal of Consulting Psychology*, Vol. 21, pp. 95–103.—1957 University of Chicago.
- Rogers, P., Burnside-Lawry, J., Dragisic, J., Mills, C., 2016. Collaboration and communication: building a research agenda and way of working towards community disaster resilience. *Disaster Prevent. Manage.* 25 (1), 75–90.
- Roorda, C., Wittmayer, J., Henneman, P., Steenbergen, F. van, Frantzeskaki, N., Loorbach, D. (2014). Transition management in the urban context: guidance manual. DRIFT, Erasmus University Rotterdam, Rotterdam, 2014. <https://drift.eur.nl/publications/transition-management-urban-context-guidancemanual/>
- Roorda, C., Wittmayer, J., Henneman, P., van Steenbergen, F. and Frantzeskaki, N. (2014). Transition management in the urban context: guidance manual, DRIFT, Erasmus University Rotterdam.
- Rose, R. (2000). How much does social capital add to individual health? A survey study of Russians. *Social Science & Medicine*, 51:1421–35.
- Rosenheck, R., Morrissey, J., Lam, J., Calloway, M., Stolar, M, Johnsen, M, Randolph F, Blasinsky M, Goldman H. (2001). Service delivery and community: Social capital, service systems integration, and outcomes among homeless persons with severe mental illness. *Health Services Research Journal*, 36:691–710.
- Rota, F.S. and Salone, C. (2014), “Place-making processes in unconventional cultural practices: the case of Turin’s contemporary art festival Paratissima”, *Cities*, Vol. 40, pp. 90-98.
- Rotmans, J., Kemp, R., & Van Asselt, M. (2001). More evolution than revolution: Transition management in public policy. *Foresight*, 3(1), 15-31.
- Royal College, 2016, Royal College of Physicians/Royal College of Paediatrics and Child Health (2016), Every breath we take: the lifelong impact of air pollution. <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>
- Rudofsky B. ( 1981), *Streets for people: Architecture and the human environment*, Laterza
- Rushdie, S. (1991), *Imaginary Homelands: Essays and Criticism 1981-1991*, Mondadori, 1991
- Sadler, S. (1999). *The situationist City*. Cambridge, MA: MIT Press.
- Said EW ( 2001), *Orientalism*, Milan, Feltrinelli
- Saleem, S., Kumar, A., Shahid, A., 2016. Arguments against corporate social responsibility. *Imperial J. Interdisciplinary Res.* 2 (8).

- Samadhi, T.N. (2001), "The urban design of a Balinese town: placemaking issues in the Balinese urban setting", *Habitat International*, Vol. 25 No. 4, pp. 559-575.
- Sánchez, L. (2011), "Building on young children's cultural histories through placemaking in the classroom", *Contemporary Issues in Early Childhood*, Vol. 12 No. 4, pp. 332-342.
- Sanoff H. (2000), *Community Participation Methods in Design and Planning*, Wiley, New York
- Sanoff H. (2006), Multiple view of participatory design, *METU JFA* 2006/2
- Sassen, S. (1994) *Cities in a World Economy*, Thousand Oaks CA, Pine Forge Press.
- Satterthwaite, D., 2011. Why community action is needed for disaster risk reduction and climate change adaptation? *Environ. Urbanization* 23 (2), 339–350 (Editorial).
- Saunders, L. Healthy Streets|Making Streets Healthy Places for Everyone. 2020. Available online: <https://www.healthystreets.com>.
- Schapke, N., Omann, I., Wittmayer, J.M., van Steenbergen, F., and Mock, M. (2017). Linking transitions to sustainability: A study of the societal effects of transition management, *Sustainability*, 9, 737; doi:10.3390/su9050737
- Schauppenlehner-Kloyber, E., Penker, M. (2015) Managing group processes in transdisciplinary future studies: How to facilitate social learning and capacity building for self-organized action towards sustainable urban development?, *Futures*, 65, pp. 57-71
- Schauppenlehner-Kloyber, E., Penker, M., 2016. Between participation and collective action—from occasional liaisons towards long-term co-management for urban resilience. *Sustainability* 8 (7), 664.
- Schneekloth, L. and Shibley, R. (1995), *Placemaking: The Art and Practice of Building Communities*, John Wiley & Sons, New York.
- Schneekloth, L. and Shibley, R. (2000), "Implacing architecture into the practice of placemaking", *Journal of Architectural Education* (1984), Vol. 53 No. 3, p. 130.
- Schuch, J.C. and Wang, Q. (2015), "Immigrant businesses, place-making, and community development: a case from an emerging immigrant gateway", *Journal of Cultural Geography*, Vol. 32 No. 2, pp. 214-241.
- Schwedhelm A, Li W, Harms L, Adiazola-Steil C, 2020, Biking provides a critical lifeline during the Coronavirus Crisis, World Resource Institute, 2020 <https://www.wri.org/blog/2020/04/coronavirus-biking-critical-in-cities>
- Scolobig, A., Prior, T., Schröter, D., Jörin, J., Patt, A., 2015. Towards people-centred approaches for effective disaster risk management: balancing rhetoric with reality. *Int. J. Disaster Risk Reduction* 12, 202–212.
- Scott, J.C. (1998). *Seeing like a State: Why Certain Schemes to Improve the Human Condition have Failed*. New Haven and London: Yale University Press.
- Scottish Government National Transport Strategy: Protecting our climate and improving our lives. Edinburgh: Scottish Government Edinburgh; 2019. [www.transport.gov.scot/media/47052/national-transport-strategy.pdf](http://www.transport.gov.scot/media/47052/national-transport-strategy.pdf)
- Scottish Government Transport Transition Plan 2020. [www.transport.gov.scot/coronaviruscovid-19/transport-transition-plan/assessing-demand-for-travel-and-making-decisions/](http://www.transport.gov.scot/coronaviruscovid-19/transport-transition-plan/assessing-demand-for-travel-and-making-decisions/)
- Scuttari, A., Volgger, M., and Pechlaner, H. (2016). Transition management towards sustainable mobility in Alpine destinations: realities and realpolitik in Italy's South Tyrol region, *Journal of Sustainable Tourism*, 24:3, 463-483, DOI: 10.1080/09669582.2015.1136634
- Sekulova, F., Kallis, G., Rodriguez-Labajos, B. & Schneider, F. (2013). Degrowth: from theory to practice. *Journal of Cleaner Production*, 38, 1–6.
- Sendra, P. (2016). Infrastructures for disorder: Applying Sennett's notion of disorder to the public space of social housing neighbourhoods. *Journal of Urban Design*, 21(3), pp. 335-352.



- Sennett, R. (1970). *The Uses of Disorder: Personal Identity and City Life*. UK ed. New Haven: Yale University Press.
- Sennett, R. (1977) *The Fall of Public Man*, London, Faber & Faber.
- Sennett, R. (1990). *The Conscience of the Eye: The Design and Social Life of Cities*. 2nd ed. New York: W. W. Norton.
- Sennett, R. (1992) *The Fall of Public Man*, New York, W.W. Norton.
- Sennett, R. (2020), "Civil Society", in P. Sendra and R. Sennett, *Designing Disorder*, Verso, London, 2020.
- Sevigny, B., Belanger, J. P., & Sullivan, R. (1999). Social capital and improvement in health and wellbeing of populations. *Canadian Journal of Public Health*, 90:369–71.
- Seyfang, G., & Haxeltine, A. (2012). Growing grassroots innovations: Exploring the role of communitybased initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy*, 30(3), 381-400.
- Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*, 16(4), 584-603.
- Sgobbo, A. (2016). Recycling, waste management and urban vegetable gardens. *WIT Transactions on Ecology and the Environment*, 202.doi:10.2495/WM160071
- Sgobbo, A. (2017). Eco-social innovation for efficient urban metabolisms. *TECHNE Journal of Technology for Architecture and Environment*, 14. doi: 10.13128/Techne-20812.
- Sgobbo, A. (2020). Città e pandemie. Densità urbana e densificazione dopo il COVID-19, BDC V.2 N.2 (2020): Public Spaces, Nature-based Infrastructures and Common Goods. <https://doi.org/10.6092/2284-4732/7554>
- Sgobbo, A. (2020). Sustainable Planning: The Carrying Capacity Approach. In Bevilacqua C., Calabrò F., Della Spina L. (Eds.), *New Metropolitan Perspectives*. NMP 2020. Smart Innovation, Systems and Technologies, 178. Cham, CH: Springer. doi:10.1007/978-3-030-48279-4\_59
- Sgobbo, A., and Moccia, F. D. (2016). Synergetic Temporary Use for the Enhancement of Historic Centers: The Pilot Project for the Naples Waterfront. *TECHNE Journal of Technology for Architecture and Environment*, 12. doi: 10.13128/Techne-19360.
- Shaftoe H. (2008), *Convivial Urban Spaces. Creating Effective Public Places*, London, Earthscan
- Shaw, K. and Montana, G. (2016), "Place-making in megaprojects in Melbourne", *Urban Policy and Research*, Vol. 34 No. 2, pp. 166-189.
- Shibley, R.G. (1998), "The complete new urbanism and the partial practices of placemaking", *Utopian Studies*, Vol. 9 No. 1, p. 80.
- Shibley, R.G., Schneekloth, L. and Hovey, B. (2003), "Constituting the public realm of a region: placemaking in the bi-national Niagaras", *Journal of Architectural Education* (1984), Vol. 1, p. 28.
- Shields, R. (1991) *Places on the Margin*, London, Routledge.
- Shoaf, K.I., Kelley, M.M., O'Keefe, K., Arrington, K.D., Prelip, M.L., 2014. Enhancing emergency preparedness and response systems: correlates of collaboration between local health departments and school districts. *Public Health Rep.* 129 (Suppl. 4), 107. Smart Mature Resilience, 2016. Revised Resilience Maturity Model Report. Available at: <[http://smrproject.eu/fileadmin/user\\_upload/Documents/Resources/WP\\_3/D3\\_1\\_Deliverable\\_3\\_1\\_RevisedResilience\\_Maturity\\_Model.pdf](http://smrproject.eu/fileadmin/user_upload/Documents/Resources/WP_3/D3_1_Deliverable_3_1_RevisedResilience_Maturity_Model.pdf)>(2016, September).
- Sircus, J. (2001) *Invented places*, Prospect, 81.
- Slater SJ, Christiana RW, Gustat J. Recommendations for Keeping Parks and Green Space Accessible for Mental and Physical Health During COVID-19 and Other Pandemics. *Preventing chronic disease*. 2020 Jul 9;17:E59.

- Smith, A. & Raven, R. (2012) What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41 (6). pp. 1025-1036.
- Smith, A., & Stirling, A. (2018). Innovation, sustainability and democracy: An analysis of grassroots contributions. *Journal of Self-Governance and Management Economics*, 6(1), 64-97.
- Smith, J., Light, A. and Roberts, D. (1998), "Introduction: philosophies and geographies of place", in Andrew, L. and Jonathan, S. (Eds), *Philosophies of Place*, Rowman & Littlefield, Inc, Lanham, pp. 1-19.
- Smith, N. (1996) *The New Urban Frontier: Gentrification and the Revanchist City*, London, Routledge.
- Smith, N. (2005). *The New Urban Frontier: Gentrification and the Revanchist City*. London: Routledge,
- Soja, E.W. (1996), *Third space: Journeys to Los Angeles and Other Real-and-Imagined Places*, Blackwell, Oxford.
- Soma, K., Dijkshoorn-Dekker, M.W.C., and Polman, N.B.P., (2018). Stakeholder contributions through transitions towards urban sustainability, *Sustainable Cities and Society*, 37, 438-540.
- Sorkin, M. (1992). *Variation on a Theme Park: The New American City and the End of Public Space*. New York City: Hill & Wang.
- Sorkin, M. (Ed.) (1992) *Variations on a Theme Park: The New American City and the End of Public Space*, New York, Hill & Wang.
- Soukup, C. (2006), Oldenburg's Great Good Places on the World Wide Web Computer-Mediated Communication as a Virtual Third Place. *New Media and Society*, Vol. 8, 3, pp.421-440, 2006
- Spencer, B. (2013) *Playful public places for later life: How can neighbourhood public open space provide opportunities for improving older people's quality of life by enabling play?* PhD, University of the West of England, Bristol.
- Spencer, B.; Williams, K.; Mahdjoubi, L.; Sara, R., (2013) *Third Places for the Third Age: The contribution of playable space to the Well-being of older people*, in *Landscape, Well-being and the environment*, Edited by Coles, R. and Milman, Z., Routledge, Abingdon.
- Sridar, K. (2020), Sustainability in a pandemic world, <https://kaushiksridhar.com/2020/04/19/sustainability-in-a-pandemic-world/>
- Staniskawsky, D., 1946, *The Origin and Spread of the Grid-Pattern Town*, republished in 2018, Redwood, R.R., Bigon, L., cured by, *Gridded Worlds: An Urban Anthology*, Springer 2018
- Steptoe, A., & Feldman, P. J. (2001). Neighborhood problems as sources of chronic stress: Development of a measure of neighborhood problems, and associations with socioeconomic status and health. *Annals of Behavioral Medicine*, 23:177–85.
- Stevens, Q. (2007). *The Ludic City: Exploring the Potential of Public Spaces*. London: Routledge.
- Stewart, G.T., Kolluru, R., Smith, M., 2009. Leveraging public-private partnerships to improve community resilience in times of disaster. *Int. J. Phys. Distribution Logistics Manage.* 39 (5), 343–364.
- Subramanian, S. V., Kawachi, I., & Kennedy, B. P. (2001). Does the state you live in make a difference? Multilevel analysis of self-rated health in the US. *Social Science & Medicine*, 53:9–19.
- Suhyun, B. and Sunah, K (2018), *Participatory Public Service Design by Gov.3.0 Design Group*, Sustainability 10, no. 1 (January 2018): 250
- Sujatini, S. (2017), *The Framework of Sustainable Temporary Public Open Space Concept*, in McLellan, B., by, *Sustainable Future for Human Security: Society, Cities, and Governance*, Springer 2017
- Summers, J. K., L. C. Harwell, and L. M. Smith (2016), A model for change: An approach for forecasting well-being from service-based decisions. *Ecological Indicators*, Ecol. Indic., 69(2016), 295–309.
- Suverkropp, B.P., Bigler, F. and Van Lenteren, J.C., 2001, Temperature influences walking speed and walking activity of *Trichogramma brassicae* (Hym., Trichogrammatidae). *Journal of Applied Entomology*, 125: 303-

307. <https://doi.org/10.1046/j.1439-0418.2001.00546.x>Growth, innovation, scaling, and the pace of life in cities
- Svarre, B. (2015). Senses, Scale and 12 Quality Criteria. [Lecture] [Online] Available at: [https://courses.washington.edu/gehlstud/gehl-studio/wp-content/uploads/documents/BirgitteSvarre\\_Lecture\\_2015.pdf](https://courses.washington.edu/gehlstud/gehl-studio/wp-content/uploads/documents/BirgitteSvarre_Lecture_2015.pdf)
- Szreter, S., & Woolcock, M. (2004). Health by association? Social capital, social theory, and the political economy of public health. *International Journal of Epidemiology*, 33(4):650–667. <https://doi.org/10.1093/ije/dyh013>
- Taccone A., 2020, New policies for the city of well-being, in, Moccia F.D., Sepe M., a cura di, 12° International INU Study Day, Well-ness and/or Health? 90 years of studies, policies and plans. *Urbanistica Informazioni*, Special Issue 289, INU Edizioni, Roma. Sec.3 p.11-13, ISSN 0392-5005
- Tactical Urbanism, <http://www.tacticalurbanismguide.com/existing-resources-2/> consulted on May 15, 2016
- Takano Y, Nakamura K, Watanabar M. Urban residential environments and senior citizens longevity in megacity areas: the important of walkable green spaces. *J Epidemiol Community Health* 2002
- TeleResearch Inc.(2003) Canadians and their Museums. A Survey of Canadians and their views about the country's Museums Report of Findings, prepared for Canadian Museums Association Associations, Ottawa, Ontario, March.<https://www.museums.ca/uploaded/web/docs/surveyanalysis2003.pdf>, Accessed: 1/1/2019.
- Terrace, H.S., 1986, *Nim: A Chimpanzee Who Learned Sign Language*, Columbia University Press
- Terryn, E., Boelens, L. and Pisman, A. (2016), "Beyond the divide: evaluation in co-evolutionary spatial planning", *European Planning Studies*, Vol. 24 No. 6, pp. 1079-1097.
- The Transformative Social Innovation Manifesto: <https://tsimanifesto.org/>
- THE, 2017, The Health Foundation. The Role of Hospitals as anchor institutions in improving population health [online]. Available at: [www.health.org.uk/role-hospitals-anchor-institutions-improving-population-health](http://www.health.org.uk/role-hospitals-anchor-institutions-improving-population-health)
- Thomas, E., Pate, S. and Ranson, A. (2015), "The crosstown initiative: art, community, and placemaking in Memphis", *American Journal of Community Psychology*, Vol. 55 Nos 1/2, pp. 74-88.
- Thompson Coon J, Boddy K, Stein K et al. . 2011, Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental well-being than physical activity indoors? A systematic review. *Environ Sci Technol* 2011
- Thurlow, C. and Jaworski, A. (2014), "Two hundred ninety-four': remediation and multimodal performance in tourist placemaking", *Journal of Sociolinguistics*, Vol. 18 No. 4, pp. 459-494.
- Tibbalds, F. (2001) *Making People Friendly Towns: Improving the Public Environment in Towns and Cities*, 2nd edn, London, Spon Press.
- Tira, M., Sgobbo, A., Cervigni, C., and Carollo, L. (2017). INTENSSS PA: pianificazione territoriale integrata alla sostenibilità energetica e socioeconomica. *Urbanistica Informazioni*, 272(S.I.)
- Tira, M., Giannouli, I., Sgobbo, A., Brescia, C., Cervigni, C., Carollo, L., and Tourkolia, C. (2017). INTENSSS PA: a Systematic Approach For INspiring Training ENergy-Spatial Socioeconomic Sustainability To Public Authorities. *UPLanD –Journal of Urban Planning, Landscape and environmental Design*, 2. doi: 10.6092/2531-9906/5258
- Toolis, E.E. (2017), "Theorizing critical placemaking as a tool for reclaiming public space", *American Journal of Community Psychology*, Vol. 59 Nos 1/2, pp. 184-199.
- Toubin, M., Laganier, R., Diab, Y., Serre, D., 2014. Improving the conditions for urban resilience through collaborative learning of Parisian urban services. *J. Urban Plann. Dev.* 141 (4), 05014021.

- Towse, R. (Ed.) (2003) A handbook of cultural economics, Northampton: Edward Elgar
- Trancik, R. (1986) Finding Lost Space: Theories of Urban Design, New York, Van Nostrand Reinhold.
- Trencher, G., Bai, X., Evans, J., McCormick, K. & Yarime, M. (2014). University partnerships for codesigning and co-producing urban sustainability. *Global Environmental Change*, 28, 153–165.
- Tuan, Y. (1977), Place and Space: The Perspective of Experience, University of Minnesota Press, Minneapolis.
- Turco, A. (1998), Verso una teoria geografica della complessità, Unicopli, 1988
- Twigg, J., (Centre for U. S. and R. at U. C. L., 2015. Disaster risk reduction. Good Pract.Rev. - HPN 170–175. <http://dx.doi.org/10.4135/9781452275956.n101>.
- U.S. Department of Health & Human Services, Centers for Disease Control. (2011). Public health preparedness capabilities: National standards for state and local planning. Atlanta, GA. Retrieved from <http://www.cdc.gov/phpr/capabilities/DSLRL>
- U.S. Department of Health & Human Services. (2009). National security strategy of the United States of America. Washington, DC. Retrieved from <http://www.phe.gov/preparedness/planning/authority/nhss/strategy/documents/nhss-final.pdf>
- Uitermark J., Nicholls W., Loopmans M., "Guest Editorial: Cities and social movements: theorizing beyond the right to the city ", *Environment and Planning A*, 44, 2012, n. 11, pp. 2546-54.
- ULI, 2015, Urban Land Institute. Building Healthy Places Toolkit: Strategies for Enhancing Health in the Built Environment. Washington, DC: Urban Land Institute, 2015.
- UN, 2016, The Sustainable Development Goals Report, United Nations
- UNCTAD (2004) Creative industries and Development, Eleventh session, Sao Paulo, 13-14 June, Distr. GENERAL TD(XI)/BP/13, 4 June 2004.
- UNCTAD (2010) Creative Economy Report 2010. Creative Economy: A Feasible Development Option: UNESCO (2006): Understanding Cultural Industries: Cultural Statistics for Public Policy Making. [https://www.nemo.org/fileadmin/Dateien/public/topics/Museums\\_and\\_Creative\\_Industries/NEMO\\_Report\\_2015\\_NEMO\\_WG\\_Museums\\_and\\_Creative\\_Industries.pdf](https://www.nemo.org/fileadmin/Dateien/public/topics/Museums_and_Creative_Industries/NEMO_Report_2015_NEMO_WG_Museums_and_Creative_Industries.pdf), Accessed: 1/1/2019.
- United Nations (2015) Creative Economy Outlook and Country Profiles: Trends in International Trade in Creative Industries, United Nations Conference on Trade and Development (UNCTAD). [https://unctad.org/en/PublicationsLibrary/webditcted2016d5\\_en.pdf](https://unctad.org/en/PublicationsLibrary/webditcted2016d5_en.pdf) Accessed: 1/1/2019.
- United Nations, 2015. Sendai Framework for Disaster Risk Reduction 2015–2030, 37. <https://doi.org/A/CONF.224/CRP.1>.
- United Nations, E., S. C., 2007. Participatory governance and citizen's engagement in policy development, service delivery and budgeting.
- United Nations. (2017). The world population prospects: 2015 revision | latest major publications - United Nations Department of Economic and Social Affairs. Retrieved from: <http://www.un.org/en/development/desa/publications/worldpopulation-prospects-2015-revision.html>
- University of Rotterdam, DRIFT, Erasmus University of Rotterdam. Available online: <https://drift.eur.nl/publications/transition-governance-panarchy-new-transformation/>
- University of Wiskonsin, 2016 <https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources>
- Valastro A. (2010), The rules of participatory democracy: itineraries for the construction of a method of government, Naples, Jovene
- Varna, G. & Tiesdell, S. (2010). Assessing the Publicness of Public Space: The Star Model of Publicness. *Journal of Urban Design*, 15(4), pp. 575-598.
- Vartan, S. 2014, Watch How Wolves Rebuilt an Entire Ecosystem, Gardenia Media. <https://eco-chick.com/watch-wolves-rebuilt-entire-ecosystem/>

- Vedeld, T., Coly, A., Ndour, N.M., Hellevik, S., 2016. Climate adaptation at what scale? Multi-level governance, resilience, and coproduction in Saint Louis, Senegal. *Nat. Hazards* 82 (2), 173–199.
- Vernon, B. and Tiwari, R. (2009), “Place-making through water sensitive urban design”, *Sustainability*, Vol. 1 No. 4, pp. 789-814.
- Vidgerman, Patricia, *The Memory Palace of Isabella Stewart Gardner*, Sarabande Books, New York 2007
- Vilmos Csányi, 1989, *Evolutionary Systems and Society: A General Theory of Life, Mind, and Culture*, Duke University Press.
- Von Wirth, T., Fuenfschilling, L., Frantzeskaki, N., & Coenen, L. (2019). Impacts of urban living labs on sustainability transitions: Mechanisms and strategies for systemic change through experimentation. *European Planning Studies*, 27(2), 229-257.
- Von Wirth, T., Fuenfschilling, L., Frantzeskaki, N., and Coenen, L. (2018). Impacts of urban living labs on sustainability transitions: mechanisms and strategies for systemic change through experimentation, *European Planning Studies*, <https://doi.org/10.1080/09654313.2018.1504895>
- Von Wirth, T., Gislason, L., & Seidl, R. (2018). Distributed energy systems on a neighborhood scale: Reviewing drivers of and barriers to social acceptance. *Renewable and Sustainable Energy Reviews: Part 3*, 82, 2618-2628.
- Vos, J., Smith, A., & Grin, J. (2009). Designing long-term policy: Rethinking transition management. *Policy Sciences*, 42(4), 275-302.
- Voytenko, Y., McCormick, K., Evans, J. & Schliwa, G. (2016). Urban living labs for sustainability and low
- Wagnild, J., & Wall-Scheffler, C. M. 2013, Energetic consequences of human sociality: walking speed choices among friendly dyads. *PloS one*, 8(10), e76576. <https://doi.org/10.1371/journal.pone.0076576>
- Webster, C. (2001) Gated cities of tomorrow, *Town Planning Review*, 72.
- Welsh, B. & Farrington, D. (2002) *Crime Prevention Effects of Closed Circuit Television: A Systematic Review*, London, Home Office.
- Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organization* 7 (2): 225-246.
- Westley, F., Olsson, P., Moore, M., & McCarthy, D. (2017). The concept of the anthropocene as a gamechanger: A new context for social innovation and transformations to sustainability. *Ecology and Society*, 22(2).
- White MP, Alcock I, Wheeler BW et al. . Would you be happier living in a greener urban area? A fixed-effects analysis of panel data. *Psychol Sci* 2013
- WHO, 1948, Constitution of the World Health Organization, World Health Organization
- WHO, 2020, Cities against COVID-19: citizens seek a “better normal” of urban life, <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/10/cities-against-covid-19-citizens-seek-a-better-normal-of-urban-life>
- Whyte, W. H. (1988) *City: Rediscovering the Centre*, New York, Doubleday.
- Whyte, W.H. (1968), *The Last Landscape*, Doubleday and Company, New York, NY.
- Whyte, W.H. (1980). *The Social Life of Small Urban Spaces*. Washington, DC: The Conservation Foundation
- Whyte, W.H. (1989), *City: Rediscovering the Center*, Doubleday and Company, New York, NY.
- Wiersinga, W. (1997). *Compensation as a strategy for improving environmental quality in compact cities*. Amsterdam: Bureau SME
- Williams, M. (2004), “Sustainable place making in waterfront revitalization: balancing the interests”, *Australian Planner*, Vol. 41 No. 2, pp. 30-31.
- Wilson, E. (1995) The rhetoric of urban space, *New Left Review*, 1/209, January–February.

- Wilson, J. & Kelling, G. (1982) Broken windows, *Atlantic Monthly*, March.
- Winikoff, T. (1995), *Places Not Spaces: Placemaking in Australia*, Envirobook Publishing, Sydney.
- World Tourism Organization (UNWTO) (2015), *Tourism and the Sustainable Development Goals*, UNWTO, Madrid.
- Wise, R.M., Fazey, I., Smith, S.M., Park, S.E., Eakin, H.C., Archer van Garderen, E.R.M., and Campbell, B., (2014), Reconceptualising adaptation to climate change as part of pathways of change and response, *Global Environmental Change*, 28, 325-336, <http://dx.doi.org/10.1016/j.gloenvcha.2013.12.002>
- Wittmayer, J. M. and Loorbach, D. (2015). Governing Transitions in Cities: Fostering Alternative Ideas, Practices, and Social Relations Through Transition Management. In: Loorbach, D., Wittmayer, J.M., Shiroyama, H., Fujino, J., Mizuguchi, S. (Eds.), *Governance of Urban Sustainability Transitions. European and Asian Experiences* (2016).
- Wittmayer, J. M. and Schapke, N. (2014) Action, Research and Participation: Roles of Researchers in Sustainability Transitions. *Sustainability Science*, 9(4), 483-496.
- Wittmayer, J.M., F. van Steenberg, A. Rok and Roorda, C. (2016). Governing sustainability: a dialogue between Local Agenda 21 and transition management, *Local Environment*, 21:8, 939-955, DOI: 10.1080/13549839.2015.1050658
- Wolfram, M., (2016). Conceptualizing urban transformative capacity: A framework for research and policy, *Cities*, 51, 121-130, <http://dx.doi.org/10.1016/j.cities.2015.11.011>
- Wolfram, M., Frantzeskaki, N., Maschmeyer, S. (2017). Cities, systems and sustainability: Status and perspectives for research on urban transformations. *Current Opinion in Environmental Sustainability*, 22
- Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27:151–208.
- Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *World Bank Research Observer*, 15:225–49.
- Woolley, H., Rose, S., Carmona, M. & Freeman, J. (nd) *The Value of Public Space, How High Quality Parks and Public Spaces Create Economic, Social and Environmental Value*, London, CABE Space.
- World Health Organization, 2016, *Global report on urban health: equitable, healthier cities for sustainable development*, UN Habitat
- World Health Organization. (1948). Preamble to the constitution of the World Health Organization. Adopt. Int. Health Conf., 19–22 June 1946, New York. Retrieved from <http://www.who.int/about/definition/en/pr>
- Woronkiewicz, J. (2015), “Art-making or place-making? The relationship between open-air performance venues and neighborhood change”, *Journal of Planning Education and Research*, Vol. 36 No. 1, pp. 49-59.
- Worpole, K. & Knox, K. (2007) *The Social Value of Public Spaces*, York, Joseph Rowntree Foundation.
- Worpole, K. (1999) Open all hours, like it or not, *New Statesman*, 26 April 1999.
- Wright, S. (2005). *Loneliness in the Workplace*. PhD, University of Canterbury, Christchurch.
- Yaguang, S. (2011). Development and characteristics of central business district under the philosophy of health. *Procedia Engineering*, 21(1), pp. 258-266.
- Yin, R.K. (1994) *Case Study Research: Design and Methods*, Sage Publication: London
- Yosso, T. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education*, 8(1):69–91.
- Zakariya, K., Harun, N. & Mansor, M. (2014). Spatial Characteristics of Urban Square and Sociability: A review of the City Square, Melbourne. *Social and Behavioural Sciences*, 153(1), pp. 678-688.
- Zetter, R. & Butina-Watson, G. (Eds) (2006) *Designing Sustainable Cities in the Developing World*, London, Ashgate.



Zhang, T (2012) The Creative Economy and the English Speaking Communities in Quebec, QUESCREN is a joint initiative of the Canadian Institute for Research on Linguistic Minorities and Concordia University's School of Extended Learning, School of Extended Learning, Montreal. [https://www.ic.gc.ca/eic/site/com.nsf/vwapj/report\\_oncreative\\_economy.pdf/\\$file/report\\_oncreative\\_economy.pdf](https://www.ic.gc.ca/eic/site/com.nsf/vwapj/report_oncreative_economy.pdf/$file/report_oncreative_economy.pdf) Accessed: 1/1/2019.

Zuk, M., & Chapple, K. (2015). Case studies on gentrification and displacement in the San Francisco Bay Area. Center for Community Innovation, University of California, Berkeley.

Zukin, S. (1991) Landscapes of Power. From Detroit to Disney World. Berkeley, University of California Press.

Zukin, S. (1995) The Cultures of Cities, Oxford, Basil Blackwell.

Zukin, S. (1995), The Cultures of Cities, Blackwell Publishers, Oxford.

Zukin, S. (2009). Naked City: The Death and Life of Authentic Urban Places. Oxford: Oxford University Press