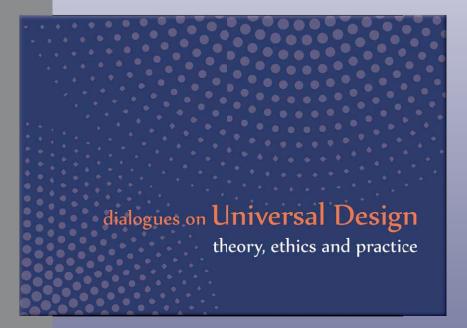
Design for Inclusion

Dialogues on Universal Design: Theory, Ethics and Practice



Editors: Ilaria Garofolo Giulia Bencini



Current ideas about human diversity often highlight the importance of the relational and dynamic nature of interactions across different domains of human function, activities and participation. Universal Design (UD) is defined as design that is usable by all people, to the greatest extent possible and without the need for adaptation or specialization. The term 'universal' is intended to embrace human diversity, making it the opposite of the one-size-fits-all approach.

The Universal Design conference series was started in 2012 with the aim of promoting UD as a discipline-independent philosophy and approach which can transcend the boundaries between communities of knowledge and communities of practice. The first part of this book is a collection of 6 invited papers arising from some of the informal and semi-formal discussions and debates which took place as part of the UD 2022 conference in Italy. Authors were invited to submit papers presenting real case studies, and asked to discuss not only the opportunities and strengths, but also the challenges encountered when implementing UD in various domains. The second part of the book presents 6 essays by researchers who have worked on different aspects of UD over the years, each written from the perspective of the author's own research strand.

The book will be of interest to all those working in the field of universal design and inclusivity.



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Dialogues on Universal Design: Theory, Ethics and Practice

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Building Accessible Cities: A Reflection Through Time, Towards Future Perspectives

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Abstract. Today, against the impacts of aging population and the increase in social unbalances and demands, the call to make European cities more inclusive, safe, resilient and sustainable puts the construction of equally distributed well-being conditions at the core of urban regeneration processes. From this perspective, accessibility to city spaces plays a significant role when understood as a right to citizenship, and as a crucial agent of socialisation. This chapter investigates accessibility as a set of spatial conditions allowing people (regardless of their age, gender, health, wealth and social status) to autonomously and sustainably move every day between their houses, public spaces and equipment. The assumption is that taking accessibility as a key attribute of cities helps conceptualise their spatial quality as a "performance feature" to be defined in relation to how individuals concretely act in places, according to their different bodies, needs, perceptions, lifestyles and co-existence habits. By recalling some past and present planning and design theories and practices, different physical and social dimensions of accessibility are questioned. The aim is to show the need to address urban regeneration towards the cities' transformation into more "place and people sensitive", inclusive and "proactive" environments.

Keywords. Accessibility; public space; urban planning and design; performance approach; proactive cities

1. Introduction: Accessibility and the Cities

All over Europe, urban settlements are facing structural changes: the impacts of aging population and migration trends [1, 2]; the growth in divides between dynamic and shrinking settlements and territories [3]; and the increasing demand for sustainable mobility and collective facilities to adapt to critical spatial, social, economic and environmental conditions [4]. Today, these issues build the background of impressive funding programmes –from the European Green Deal to the post-pandemic national Recovery and Resilience Plans [5, 6]. One of their key messages is that cities can be major driving forces for a just and green transition, provided that public policies are committed to enhance the spatial and ecological quality, functionalities and extended usability of urban spaces and equipment [7-9].

For years now, European and world agendas have shared the goal of making cities more inclusive, safe, resilient and sustainable, and the aim to offer better and equally

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distributed well-being conditions [10]. However, in spite of the efforts to showcase and disseminate a number of good practices and models [11-14], progress still has to be achieved in ordinary transformation processes and approaches to urban planning, design and governance [15, 16]. Apart from "extraordinary" pilot strategies and projects, strong is the need to orient "routine" instruments and actions towards more effective local communities' involvement in building synergies among diverse operational fields: the upgrade and further provision of primary welfare services and facilities (for education, social and health care, culture, housing, mobility and transportation, etc.), the increase of open and green spaces, the implementation of ecosystem services and climate change adaptation measures, and the improvement of their overall interconnection and effectiveness in providing answers to rising social demands. Better spatial accessibility is one of those demands. It concerns a growing number of citizens with different physical, sensory and cognitive frailties. Therefore, it should be taken as a general objective to strive for, and to help tailor solutions to the various spatial and social characters of existing urban settlements and populations.

From this perspective, and through the lenses of urban planning and design, this chapter investigates accessibility as a set of spatial conditions allowing people (regardless of their age, gender, health, wealth and social status) to autonomously and sustainably move every day between their houses, public spaces and facilities, and as a key agent of socialisation. Understanding accessibility to collective equipment as a right to citizenship goes far beyond talking about soft mobility (pedestrian, cycle, or by public transport). The wider focus is on the role that the usability of urban spaces can play in enhancing individuals' capabilities to actively shape their own conditions of well-being and interaction with others. The assumption is that taking accessibility as an essential design component of physically interconnected systems of facilities can help urban policies and interventions set aside an often still abstract and parameterised notion of quality, and take on a people-centred idea of "quality in use". Namely, a conceptualisation of quality as a "performance feature" of space that needs to be defined and assessed in relation to how individuals concretely act in places, according to their different bodies, needs, perceptions, lifestyles and co-existence habits. Talking about accessibility therefore returns to question the very concept of public space as a collective process and a proactive support for a renewed liveability of cities.

Today, the rush to find quick and "new" answers to emergencies runs the risk of losing sight of issues that have long been recognised as fundamental to ensure urban comfort. Accessibility -with its many social and physical implications- is one of them. The aim of this chapter is to recall the depth -both in time and meaning- of a term that has been repeatedly associated to the theories and practices of modern and contemporary urban planning applied first to the expansion of cities, now to the regeneration of existing urban environments. However, the intent is not historiographical. In the following paragraphs, a selective "constellation" of past references will be associated with reflections on the present and the future, in order to understand the many scales (from that of the whole city to its single spaces), material and performance attributes, theoretical and operational issues, problems and potentials that accessibility calls into question, as well as the challenges that today arise from its application to problematic urban conditions. These challenges prompt us to overcome the trivial repetition of spatial models and technical solutions, whereas the quest is for a radical shift in our cultural approaches towards a more careful "place and people sensitive" way of redesigning existing cities. As the conclusions of this paper discuss, questioning the many dimensions

of accessibility may offer valuable clues to the critical construction of future planning and design perspectives.

2. Human-centred and Proximity-based Urban Models

A first journey through time starts from urban models that still play the role of significant theoretical and operational suggestions. They highlight how, since the origins of modern town planning, accessibility to public spaces and facilities has been understood as anything but accessory in the overall organisation of urban environments according to fundamental human functions.

The spatial issues related to the balance between physical movement and standstill are at the heart of Ildefonso Cerdà's Teoría General de la Urbanización and of his Plan for the expansion of Barcelona (1859) [17-19]. The Plan translated the principles of isotropy and territorial equivalence into a repeated orthogonal grid of streets (vias) and blocks of the same size (intervias, 113 metres per side). This choice stems from what Cerdà, drawing on the organic metaphor, called "urban functionomics" (funcionomía urbana): "urban life is composed of two essential elements that comprise all the functions and acts of life. Man rests, man moves: this is everything" [17] (p. 592 ff.]. On the one hand, vias are assigned not only the task of designing the network for pedestrian and fast mobility, but also that of providing additional fundamental services (i.e., light, air, water and sanitary infrastructures) on the city scale. On the other hand, intervias -originally imagined as built only on half of their surface- provide a kind of urban microcosm, a basic element of sociality, and the place where people move and meet on a daily basis. Furthermore, the aggregation of intervias offers a precise metric for the distribution of new facilities: every 25 of them, a social and religious centre; every 100, a market; every 200, an urban park; every 400, a hospital. In this way, a uniform provision of collective spaces, its implementation according to different degrees of proximity, are proposed as the key rules of a sound urban growth.

The idea of a city arranged into defined spatial units where essential services can be easily reached on foot orientates another long-lasting urban planning idea. Standing in between Howards' Garden City (1902) [20] and the following English and American New Towns [21], the "Neighborhood Unit" model was proposed by Clarence Perry in the Regional Plan of New York and Its Environs (1929) [22]. Again, the reference is to the human life cycle. The neighbourhood unit is the basic element of a polycentric urban environment based on integrated entities of dwellings and facilities. Its spatial and social focal point is the primary school –a community centre also offering adult education classes and cultural events. The walking and safe accessibility to the school rules the spatial dimensions and the overall organisation of the neighbourhood unit: traffic routes stand outside its borders, while *cul de sacs* residential streets are designed to induce the slow movement of cars. Many have been the critics to this model: from its being elitist and segregationist, to its over-simplification and somehow negation of social mix and spatial diversity [23]. However, its appeal remains, also due to the applicability not only to new expansions but also to the renewal of existing urban situations.

Both the Barcelona and the neighbourhood unit models have shaped —albeit in different ways— some recent urban regeneration projects, widely taken as examples of cities' resilience to the spatial and social impacts of the Covid pandemic. As a reaction to distancing measures, the sanitary crisis has brought back into sharp focus the issues of accessibility to collective spaces, as well as the importance that the material

configuration of places, their reachability as autonomously as possible, and a fair distribution of facilities can have in increasing the capacity of urban environments and policies to respond to critical events.

In Barcelona, the programme called *Superilles* (superblocks) started in 2016. Built upon Cerdà's grid, the programme demonstrates the adaptability to new needs of this urban pattern. The *superilla* is an aggregation of 9 *intervias* that can be replicated to create a city network of green hubs and squares where pedestrians have priority. The reduction and slowing down of traffic within the *superilla*'s perimeter have progressively transformed the streets into collective places, at first with tactical and temporary solutions, then through stable maintenance interventions based on the integration of different planning tools and strategies –including those addressed to climate change and urban biodiversity [24, 25].

Accessibility and urban life rhythms are equally central to the renowned idea of the 15-minute city, and to its many realisations across the world before and after it became a key message in the electoral programme leading to Anne Hidalgo's re-election as mayor of Paris in 2000 [26]. The Sorbonne professor Carlos Moreno describes "la ville du quarte d'heure" as a model for "un nouveau chrono-urbanisme", based on a critique of car-centred planning, and of the separation of urban space into monofunctional zones [27]. Proximity, *mixité*, density and ubiquity are the four principles for rearranging cities into neighbourhoods where a rich combination of urban equipment, business and social functions can be reached in less than 15 minutes by walking, cycling, public transport, and an extensive use of information and communication technologies [28]. The aim is to create a vibrant closeness of people, places and activities, according to a concept that can be replicated, like fractals, across the entire city [29].

However, even if accessibility and proximity are not original goals for town planning, some new factors make their actual use more difficult than in the past: the application to the existing city and the need for adjustment to different spatial, social and economic situations; the plurality of operational fields that are called into question (mobility, equipment and services, housing, work and commerce, environment, etc.); the ability of local institutions' to govern and match the interests of many public and private actors, times and modes of transformation.

In contemporary cities, proximity truly is a "hidden dimension" [30] to be rediscovered and enacted through a critical approach to urban geographies and lifestyles. The spatial fields of neighbourhoods cannot be identified on the basis of a simple 15-minute walkable distance; what is necessary is a deeper understanding of urban populations' daily movements, and of the complex relationships between the immaterial and material resources that characterise a specific city and its districts (i.e., social practices and imaginaries, equipment and goods, house and work places). Moreover, the strong selectivity of economic localisation factors, and the non-isotropic and hierarchical organisation of public services cannot be eluded.

Being accessibility much more than physical proximity, the call for re-centring planning on the neighbourhoods' local dimension thus involves several questions [26]. What is local and what belongs to broader urban relations? What does already constitute an asset and a lever of regeneration and what should be added as a new ingredient of habitability? How can we rethink the organisation of existing collective facilities in order to extend their uses in time and space, beyond their plots and institutional functions? Finally, putting into practice accessibility certainly implies the creation of an adequate system of soft mobility infrastructures (from cycle paths and real pedestrian areas, to the widening of pavements and the establishment of 30 km/h zones). This entails the

structural maintenance and redesign of mobility spaces and services, through interventions that are site-specific but also guided by an overall city vision. In other words, the 15-minute time parameter cannot be applied without considering different travel modes and speeds, and a broader project for public transport and multimodality [31, 32].

In order to overcome a simplified use of neighbourhood-based models, and to carefully address the complex spatial and social issues urban accessibility refers to, the introduction of further scales and critical approaches is, therefore, needed.

3. Democratic Spaces for Different Social Behaviours and Bodies

As a design topic, the conditions that make urban spaces truly "public" have been repeatedly questioned. In the late 1980's, more than forty years after Le Corbusier and the International Congresses of Modern Architecture (CIAM) had delivered La Charte d'Athènes [33], the Berkeley professors and practitioners Allan Jacobs and Donald Appleyard wrote about the "loss of public space" and the "placelessness" resulting from the implementation of functionalist principles. Their Urban Design Manifesto states that "Good environments should be accessible to all. Every citizen is entitled to some minimal level of environmental livability and minimal levels of identity, control, and opportunity. [...] We look toward a society that is truly pluralistic, one where power is more evenly distributed among social groups [...], but where the different values and cultures of interest- and place-based groups are acknowledged and negotiated in a just public arena" [34] (p. 116). Understanding accessibility as one of the main qualities of public spaces means focusing on the relationships between the physical features of urban environment and individuals' perceptions and actions; namely, on the qualities of the spaces where movement takes place, and on their correspondence to the needs and demands of all the persons who practice them.

Since the 1960's, this pluralistic approach has found expression in a number of theories. Adopting diverse lenses, they claim the "right to the city" as an extensive right to citizenship, starting from a reflection on the everyday dimensions of life, and on how social needs can find answers in spatial organisation. As Henry Lefebvre wrote, these needs are "opposed and complimentary" –i.e., "security and opening", "certainty and adventure", "similarity and difference", "independence (even solitude) and communication" [35] (p. 147); they can ultimately be summarised in the right to participate in decisions concerning space, and in the right to appropriation of space, which should therefore be designed to facilitate fruition and enjoyment [36].

Among the many forms that public space takes on, the street is one of the most investigated; here, in fact, accessibility expresses itself in various facets and contradictory dimensions. The street is the public space that people practice on a daily basis; a sensible manifestation of "life between buildings" [37]; a place of travelling, wandering, unplanned encounters, where coexistence happens among a number of activities, individuals, and behaviours. The street can, therefore, be understood as a place of "cityness" *par excellence*, where "the intersection of differences [...] actually produces something new", and the "publicness" of space happens through people's ordinary practices and uses [38] (p. 14-15).

One of the most well-known behavioural approaches to the study of street life is that of Jane Jacobs, the journalist and activist who, in 1961, published *The Death and Life of Great American Cities* [39]. This book is an explicit critique of some of the dogmas of

modern planning (mainly the focus on car traffic issues), and a manifesto against the replacement of small neighbourhoods made up of liveable and busy streets with the large economy-driven and top-down projects (shopping malls, highways and skyscrapers) envisaged by Robert Moses, advisor to New York mayor Fiorello La Guardia. "Streets in cities serve many purposes besides carrying vehicles, and city sidewalks —the pedestrian parts of the streets— serve many purposes besides carrying pedestrians. [...] Streets and their sidewalks, the main public spaces of a city, are its most vital organs" (p. 29). As Jacobs highlighted, "contact" is among the "uses" characterising sidewalks and helping generate "the conditions for city diversity": sidewalks "bring together people who do not know each other in an intimate, private social fashion and in most cases do not care to know each other in that fashion" (p. 55).

However, provided that sidewalks are where the everyday "casual" public life of cities develops, not only the neighbourhood functional and social assets and dynamics they are framed in, but also the overall physical layout and uses of streets play a pivotal role in making these spaces really welcoming and inclusive.

More than twenty years after Jacobs, the book edited in 1987 by Anne Vernez Moudon, Public Streets for Public Use, provided a multi-perspective reflection on how the design of streets can determine their degree of accessibility to the widest range of users. In his essay, the American architect and planner Mike Francis focused on the very concept of "democratic street": "Friendly to pedestrians and livable for residents", it "does not exclude the automobilist but provides space for vehicles by striking more equitable balance with other street users, namely, pedestrians and bicyclists. Like the livable street, it stresses safety and comfort. Yet the democratic street also emphasizes the access and needs of many different kinds of people" [40] (p. 28). In his foreword to the same book, Donald Appleyard further added: "the street is open to all. Its detailed design, however, can subtly favor one group over another. By changing the surface, by erecting a sign, by adding a bench, one obliges certain users at the expense of others. [...] Several competing population groups, establishments, public agencies, and professions vie with one another for control of the street space [...]. The most powerful and well-established groups often win, but they do not by any means represent the public interest. [...] Not everyone can get what they want from the street, but it [...] should be the policy of public agencies and their representatives to support the weaker users of the streets -pedestrians, residents, children, old people, the handicapped, and the poorbecause the powerful can generally look after themselves" [41] (p. 9).

Today, these reflections are still topical for their call to rely street quality not just on the use of technical and prototypical solutions (i.e., pedestrianisation, environmental design for liveable streets, speed-reducing traffic devices and *woonerf*, play streets, removal of architectural barriers). Both Francis and Appleyard highlight the difference between public and democratic spaces, whereas the latter are the result of a more complex and site-specific process of discussion and negotiation among the conflictual stances expressed by different users, in relation to their social conditions, habits and movement capabilities.

The picture becomes even more complicated if we add another significant aspect: "the relationship between places and people can be interpreted as a mutual dialectic, in which streets exercise a form of agency: city streets and squares act on our lives, helping to make them what they are" [42] (p. 14) [43]. This action/interaction between space and social behaviours finds in people's bodies –and in their differences— an unavoidable medium. By critically analysing another important planning and design line of theories and practices, Cristina Bianchetti reminds us that: "Relationships with space are built

through physical experience: action, perception, and the senses. [...] Space opens up to us through our body; through its position, faculties, strengths, and frailties" [44] (p. 9). Today, "health, sickness, ageing, environmental changes, the plurality of practices, and the political nature of space" are among the most urgent urban issues that planning and design are called to face (p. 13); they highlight the need to rethink urban environments (and urban projects) through the lenses of individuals' bodies, of how they act and suffer in the city, connect and collide with space and other bodies. By claiming "accessibility for all", this is exactly the invitation that major international organisations have been addressing to urban policies for some time now.

With the motto "healthy places for healthy people" the World Health Organization (WHO) has underlined the strong connection between the social determinants of health and the spatial organisation of the urban environment, as well as the direct influence of spatial accessibility over the promotion of cities' and citizens' well-being [45]. Similarly, Universal Design (UD) is defined as the conception of products, spaces, and services to be usable by all people, to the greatest extent possible, without the need for adding specialised devices. The assumption is that disability (in its various forms) is not a condition intrinsic to a person, but the result of the interaction with everyday living spaces [46], and can, therefore, temporarily or permanently affect everyone in their different phases of life. By taking on these perspectives, "Healthy Cities" and "Vital Cities" [47, 48] are among the many labels that have been recently adopted by international city networks sharing the effort to address a variety of actions: the refurbishment of public spaces as usable by people with different capabilities; the combined implementation of mobility, green and healthy infrastructures, and of equipment for outdoor motor and sports activities; and the rethinking of the spatial setting of social and health care facilities.

However, the application of "healthy" and "UD" stances does not necessarily produce democratic or inclusive spaces. In fact, a sectoral implementation of their principles can lead to dedicated solutions, like the ones addressed to the removal of single obstacles, or to the introduction of technological devices to overcome specific motor, sensorial or cognitive disabilities. In this way, the movement of some groups of persons is confined to places other than the ones dedicated the so-called "normal" people (i.e., those who are male, young, healthy). In these approaches we can detect the emergence of "new functionalisms": in the name of ergonomic parameters tailored on specific body frailties, interventions simply add exceptional elements to traditional and often poor ways to design single open and built spaces. As a result, every day and "for all" accessibility becomes not a structural but a remedial and segregating component of city regeneration.

4. A Performance Approach

Today, in the face of increasingly complex urban and social issues, the implementation of accessible and inclusive cities escapes easy reductionism. If taken seriously, these terms prompt urban planning and design to set aside the application of merely functional and quantitative solutions, regulations and standards, and to progress towards a performance- and goal-oriented approach.

In 1981, questioning how to "build a general normative theory about cities", the American planner Kevin Lynch wrote: "The linkages of very general aims to city form are usually incalculable. Low-level goals and solutions, on the other hand, are too

restrictive in their means and too unthinking of the purposes. In this dilemma, it seems appropriate to emphasize the aims in between, that is, those goals which are as general as possible, and thus do not dictate particular physical solutions, and yet whose achievement can be detected and explicitly linked to physical solutions. This is the familiar notion of performance standards, applied at the city scale" [49] (p. 108). Among the performance dimensions of a good city form -namely, those that can be understood as "important qualities for most, if not all, persons and cultures" (p. 111)- "access" is defined as "the ability to reach other persons, activities, resources, services, information, or places, including the quantity and diversity of the elements which can be reached" (p. 118). "Access is one fundamental advantage of an urban settlement, and its reach and distribution are a basic index of settlement quality. [...] the obstacles to it may be physical, financial, social, or psychological" (p. 203). Being interconnected with a plurality of urban, social and human factors, the significant role of accessibility can be also acknowledged in all the other basic dimensions of performance and meta-criteria the Lynchian theory builds on: "vitality", "sense" and "control"; "efficiency" and "justice" (p. 118).

Further clues for dealing with the normative dimensions of accessibility are offered by past and recent Italian debate on planning standards. Ruled in 1968 by the Interministerial Decree no. 1444, this fundamental tool is still used in town plans to assess and provide the respondence of public assets and facilities (parks and sports fields, schools and libraries, civic and cultural resources, social and health care centres, parking areas) to quantitative parameters established as square meters per inhabitant. Although soon moved to the background, reflections on accessibility can be found in the discussion that preceded the delivery of the Decree, as well as in a number of manuals and practices that in Italy -since the 1940s- have provided its premises, also referring to the neighbourhood model legacy and to its application in the construction of new public housing districts [50, 52]. This rich array of considerations highlighted the need to address accessibility from a number of perspectives and performance dimensions: the relationships between types of equipment, their role in the design of new neighbourhoods, the capabilities of their users, the time and distances that could be covered on foot; the perceived quality and material comfort of urban scenes; the coordination of easy pedestrian usability with the public transport network as a criterion for a sound configuration and reachability of public facilities, their effective spatial connection and integrated service provision [52]. Before defining quantitative thresholds, the call was therefore for a responsible and critical use of planning standards as "a term of reference', provisional and constantly evolving, aimed at pursuing the greatest social balance in the distribution of all 'urban values' and their accessibility"; "an instrument of social claim and balance"; "a flag [...] that at each milestone must be renewed so that it maintains its value" [53] (p. 110, 111).

No wonder then that, more than fifty years after the enforcement of the Decree, and with an ever-increasing demand of welfare facilities due to ageing processes and economic crisis, discussion has revamped [54, 55]. Among the main topics, two have direct implications on accessibility. On the one hand, the quest to review the list of the equipment identified as standards to include new types of facilities (from ecological services to sustainable mobility infrastructures), and to support their realisation with a proper availability of public land. On the other hand, the need to rethink how the implementation and management of the provided spaces and services are ruled, and how quantitative and performance dimensions can be joined in order to pay attention also to their physical and "in use" qualities. In this sense, the invitation is to take accessibility —

and in particular the combination of greenways and spaces for soft mobility— as an opportunity to focus on the material features of places where the "chain" of daily movements unfolds between one's house and the public facilities that standards have produced over time. Even when numerous and varied, this equipment often takes the form of a disconnected and introverted set of buildings and plots, hardly reachable without cars and where access limitations (i.e., to certain hours, users and activities) prevent this estate to act as an overall system of public spaces.

5. Conclusions: Towards a Proactive Perspective

In the frame of the present European cities' regeneration season, the overall performance of urban habitats and their accessibility are key features. Planning and design are often called to combine "intensive" transformations (i.e., the reuse of brownfields and abandoned areas) with "spread" modification of existing urban spaces. However, it is in this latter field of actions that the quality of everyday life in the cities, and its "inclusiveness" attribute gain an evident significance. Both at the urban and the neighbourhood scales, the question is how can we shape what Bernardo Secchi called a "project of the soil", namely a project that starts from the re-knitting of existing open and collective spaces to define new "space-and-time rhythms and sequences where the social practices of our time can be recognised", and daily enacted [56] (p. 160].

As the proposed excursus across past and present theories and models has tried to show, the challenge is to frame the re-design of soft mobility connections among public spaces and facilities into a broader and more complex set of physical interventions aimed to build a new "public city" spatial system, where collective equipment can work as an integrated service and a "social and care" infrastructure. To this purpose, associating the term accessibility to that of "motility" provides further inputs. It helps focus on the quality of life that a person can reach in relation to the physical configuration of the urban environment where they daily move and live. As Vincent Kaufmann points out, "motility" is a "conditioned", "conditioning" and "enabling capital" [57] (p. 37-46). It happens when a person's specific physical, economic, social and cultural capabilities and conditions match with adequate levels of spatial accessibility. In turn, the degree of expression of this capital affects the development of further capabilities, aimed at better organising, interacting and/or adapting one's lifestyle to contextual conditions. Transforming cities into enabling environments can thus lead to new social practices, interactions, and citizen's active involvement in building their own state of well-being.

This approach prompts to take on the perspective of the most vulnerable persons to conceive spaces that are comfortable and usable for everyone. However, the challenge is to make a step beyond, and to more radically rethink cities as "proactive" environments. Namely, as places where a better usability of public spaces and facilities is part of integrated urban regeneration strategies and welfare policies, aimed not just at removing obstacles to accessibility, but at offering individuals the material conditions to move independently and to perform healthy behaviours, while respecting their diverse bodies, genders, cultures, social and economic needs [58].

Making our cities truly accessible and inclusive is therefore not a matter of applying universal standards, nor of implementing single spatial interventions. It is a matter of quality of city design and planning, and of (re)cultivating their capacity to: anticipate and recompose the unavoidable conflicts that in our pluralist cities occur among different habits, lifestyles and capabilities; build inclusive and participatory processes where

citizens can be actively involved in conceiving urban transformations; integrate the refurbishment and upgrading of the physical equipment with a careful rethinking of the provision of welfare services [15]. The reference is, therefore, not only to technical advancement, but to a more complex and deeper cultural change in the ways we take care of our cities and their inhabitants, in our ability to interpret and translate into spatial solutions the complex, contextual and subtle relationships between places and people.

References

- Eurostat. Eurostat Regional Yearbook. Publications Office; 2022. Available online: https://ec.europa.eu/eurostat/en/web/products-flagship-publications/-/ks-ha-22-001 (accessed on 08/04/2023).
- [2] Margaras V. Demographic Trends in EU Regions. European Parliament; 2019. Available online: https://ec.europa.eu/futurium/en/system/files/ged/eprs-briefing-633160-demographic-trends-eu-regions-final.pdf (accessed on 08/04/2023).
- [3] Espon. Inner peripheries in Europe. Possible development strategies to overcome their marginalising effects. Policy Brief. 2020. Available online: https://www.espon.eu/sites/default/files/attachments/ESPON-Policy-Brief-Inner-Peripheries.pdf (accessed on 08/04/2023).
- [4] European Environment Agency. Urban sustainability in Europe opportunities for challenging times. 2021. Available online: https://www.eea.europa.eu/publications/urban-sustainability-in-europe/urban-sustainability-in-europe (accessed on 08/04/2023).
- [5] European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Executive Agency for Small and Medium-sized Enterprises, Durieux E., Hidson M. Local green deals: a blueprint for action: the European Commission's 100 intelligent cities challenge. Publications Office; 2021. Available online: https://data.europa.eu/doi/10.2826/94389 (accessed on 08/04/2023).
- [6] European Commission. Recovery and Resilience Facility. Available online: https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility en (accessed on 08/04/2023).
- [7] Eurocities. Cities Leading the Way on Climate Action. 2019. Available online: https://eurocities.eu/latest/cities-leading-the-way-on-climate-action (accessed on 08/04/2023).
- [8] European Environment Agency. Urban Sustainability in Europe. What is driving cities' environmental change? EEA Report No. 16. 2020. Available online: https://www.eea.europa.eu/publications/urbansustainability-in-europe-what (accessed on 08/04/2023).
- [9] European Commission. EU Mission: Climate-Neutral and Smart Cities. Available online: https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/climate-neutral-and-smart-cities_en (accessed on 08/04/2023).
- [10] United Nations. The Sustainable Development Agenda. Available online: https://www.un.org/sustainabledevelopment/development-agenda (accessed on 08/04/2023).
- [11] C40. Green & Just Transition. Available online: https://www.c40.org/what-we-do/green-just-transition (accessed on 08/04/2023).
- [12] UIA. Projects. Available online: https://www.uia-initiative.eu/en/uia-cities (accessed on 16/02/2023).
- [13] URBACT. URBACT Good Practices. Available online: https://urbact.eu/good-practices (accessed on 08/04/2023).
- [14] New European Bauhaus. Progress Report. Available online: https://new-european-bauhaus.europa.eu/about/progress-report_en (accessed on 08/04/2023).
- [15] Lowe M et al. A Pathway to Prioritizing and Delivering Healthy and Sustainable Cities. Policy Guidelines. Journal of City Climate Policy and Economy. 2022;1(1):111-23, doi: 10.3138/jccpe-2022.1.1.0008
- [16] Marchigiani E, Chiarelli B, Garofolo I. Spatial accessibility as a driver to build an inclusive and proactive city. Urbani Izziv. 2022;32(supplement):7-21. Accessible online: https://www.urbaniizziv.si/portals/urbaniizziv/kompletni_pdf/UIZZIV_supplement_32_2021.pdf (accessed on 08/04/2023).
- [17] Cerdà I. Teoría General de la Urbanización Y Aplicación de sus Principios y Doctrinas a la Reforma y Ensanche de Barcelona. Madrid: Imprenta Española; 1867.
- [18] Neuman M. Ildefons Cerdà and the future of spatial planning. The network urbanism of a city planning pioneer. Town Plan. Rev. 2011;82:117-144, doi:10.3828/tpr.2011.10.

- [19] Pallares-Barbera M, Badia A, Duch J. Cerdà and Barcelona: The need for a new city and service provision. Urbani Izziv. 2011;22:122-136, doi: 10.5379/urbani-izziv-en-2011-22-02-005.
- [20] Howard E. Garden Cities of Tomorrow. London: Swan Sonnenschein & Co.; 1902.
- [21] Osborn FJ, Whittic A. New Towns: Their Origins, Achievements, and Progress. London: Leonard Hill; 1977 (1st ed. The New Towns – The Answer to Megalopolis; 1963).
- [22] Perry C. The Neighborhood Unit. In: Regional Survey of New York and its Environs; vol. 7. New York: Regional Planning Association; 1929.
- [23] American Society of Planning Officials. Neighborhood Boundaries. Information Report no. 141; December 1960. Available online: https://www.planning.org/pas/reports/report141.htm (accessed on 08/04/2023).
- [24] Ajuntament de Barcelona. Superilles. Available online: https://ajuntament.barcelona.cat/superilles/en (accessed on 08/04/2023).
- [25] Rueda S. Superblocks for the Design of New Cities and Renovation of Existing Ones: Barcelona's Case. In: Nieuwenhuijsen M, Khreis H, editors. Integrating Human Health into Urban and Transport Planning. Cham: Springer; 2019. p. 135-53, doi: 10.1007/978-3-319-74983-9 8.
- [26] Marchigiani E, Bonfantini B. Urban Transition and the Return of Neighbourhood Planning. Questioning the Proximity Syndrome and the 15-Minute City. Sustainability. 2022;14,5468:1-29, doi: 10.3390/su14095468.
- [27] Moreno C. La Ville du Quart D'heure: Pour un Nouveau Chrono-Urbanisme. La Tribune. 05/11/2016. Available online: https://www.latribune.fr/regions/smart-cities/la-tribune-de-carlos-moreno/la-ville-du-quart-d-heure-pour-un-nouveau-chrono-urbanisme-604358.html (accessed on 08/04/2023).
- [28] Moreno C. Droit de Cité. De la "Ville-Monde" à la "Ville du Quart D'heure". Paris: Éditions de l'Observatoire; 2020.
- [29] O'Sullivan F, Bliss L. The 15-Minute City—No Cars Required—is Urban Planning's New Utopia. Businessweek. The New Economy. 12/11/2020. Available online: https://www.bloomberg.com/news/features/2020-11-12/paris-s-15-minute-city-could-be-coming-to-an-urban-area-near-you (accessed on 08/04/2023).
- [30] Hall ET. The Hidden Dimension. New York: Anchor Books; 1966.
- [31] Duany A, Steuteville R. Defining the 15-Minute City. Public Square. 08/02/2021. Available online: https://www.cnu.org/publicsquare/2021/02/08/defining-15-minute-city (accessed on 08/04/2023).
- [32] Marchigiani E. Il Progetto della 'città dei 15 minuti': esercizi critici di prospettiva e di memoria. Urbanistica Informazioni. 2021;300:7-11.
- [33] Le Groupe CIAM-France. Urbanisme des C.I.A.M. La charte d'Athènes. Paris: Plon; 1943.
- [34] Jacobs A, Appleyard D. Toward an Urban Design Manifesto. Journal of the American Planning Association. 1987;53,1:112-20, doi: 10.1080/01944368708976642.
- [35] Lefebvre H. Right to the City. In: Id. Writings on Cities. Oxford: Blackwell Publishers Ltd.; 2000 (1st ed., Le droit à la ville; 1968).
- [36] Mazza L. Cittadinanza e diritto alla città in Patrick Geddes ed Henri Lefebvre. Contesti Città Territori Progetti. 2016;1-2;18-35. Available online: https://issuu.com/dida-unifi/docs/contesti_1_2_2016 (accessed on 08/04/2023).
- [37] Gehl J. Life Between Buildings. Using Public Space. New York: Van Nostrand Reinhold; 1987 (1st ed.; 1971).
- [38] Sassen S. Cityness. Roaming Thoughts About Making and Experiencing Cityness. ex aequo. 2010;22:13-18. Available online: https://scielo.pt/pdf/aeq/n22/n22a03.pdf (accessed on 08/04/2023).
- [39] Jacobs J. The Death and Life of Great American Cities. New York: Vintage Books; 1961.
- [40] Francis M. The Making of Democratic Streets. In: Vernez Moduon A, editor. Public Streets for Public Use. New York: Van Nostrand Reinhold; 1987. p. 23-39.
- [41] Appleyard F. Foreword. In: Vernez Moudon A, editor. Public Streets for Public Use. New York: Van Nostrand Reinhold; 1987. p. 9-12.
- [42] Paba G. Democratic Streets (and Cities). Contesti Città Territori Progetti. 2016;1-2;6-17. Available online: https://issuu.com/dida-unifi/docs/contesti 1 2 2016 (accessed on 08/04/2023).
- [43] Kallianos Y. Agency of the street: Crisis, radical politics and the production of public space in Athens 2008-12. City. 2013;17,4;548-57, doi: 10.1080/13604813.2013.812368.
- [44] Bianchetti C. Bodies. Between Space and Design. Berlin: Jovis; 2020.
- [45] Commission on Social Determinants of Health. Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health. Geneva: World Health Organization; 2008.
- [46] Arenghi A, Garofolo I, Lauria A. On the Relationship Between 'Universal' and 'Particular' in Architecture. In: Petrie H et al., editors. Universal Design 2016: Learning from the Past, Designing for the Future. Amsterdam: IOS Press; 2016. p. 31-39.
- [47] WHO. Healthy Cities. Available online: https://www.who.int/southeastasia/activities/healthy-cities (accessed on 08/04/2023).

- [48] URBACT. Vital Cities. Available online: https://urbact.eu/networks/vital-cities (accessed on 08/04/2023).
- [49] Lynch KA. Theory of Good City Form. Cambridge, London: The MIT Press; 1981.
- [50] Falco L. I "nuovi" standard urbanistici. Roma: Edizioni delle autonomie; 1993.
- [51] Basso S, Marchigiani E. Quartieri di edilizia pubblica e attrezzature collettive nel dopoguerra: gli anni di una ricerca sperimentale. Territorio. 2018;84:41-54, doi: 10.3280/TR2018-084006.
- [52] Basso S, Marchigiani E. Questioni di accessibilità: gli standard per un progetto di formazioni urbane più sane e inclusive. In: Laboratorio Standard. Diritti in città. Gli standard urbanistici in Italia dal 1968 a oggi. Roma: Donzelli; 2021. p. 43-54.
- [53] Tutino A. Gli standard urbanistici nell'edilizia popolare. In: Società Umanitaria, La legge urbanistica e le cooperative di abitazione. Firenze: La Nuova Italia Editrice; 1965. p. 107-16.
- [54] Giamo C, a cura di. Dopo 50 anni di standard urbanistici in Italia. Verso percorsi di riforma. Roma: INU Edizioni; 2019.
- [55] Laboratorio Standard. Diritti in città. Gli standard urbanistici in Italia dal 1968 a oggi. Roma: Donzelli; 2021.
- [56] Secchi B. Prima lezione di urbanistica. Roma, Bari: Laterza; 2000.
- [57] Kaufmann V. Rethinking the City: Urban Dynamics and Motility. Lausanne: EPFL Press; 2011.
- [58] Marchigiani E. Healthy and Caring Cities: Accessibility for All and the Role of Urban Spaces in Re-Activating Capabilities. In: Gabauer A et al., editors. Care and the City. Encounters with Urban Studies. New York, London: Routledge; 2022. p. 75-87.