URBAN FORM and LIVEABILITY

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INTRODUCTION

Urban Form and Liveability: *Towards A Socio-Morphological Perspective*

Olgu Çalışkan and Ebru Şevik

As inferred by Pacione (1990: 21), all the ideal city models, from Plato's early utopia to its modern counterparts like those of Ebenezer Howard (1898) and Pual and Percival Goodman (1960), embed an intrinsic search for a liveable human environment and community in different manners. Though the significance of liveability was historically conditioned by the development and transformation of the modern city, the introduction of the concept as an exclusive plan of contemporary planning and design is relatively recent.

On the verge of the new century, cities inherited a series of problems that required particular strategies. The emerging issues such as privatization of public space, socio-spatial fragmentation, gigantism by large-scale developments, and the loss of identity in the living environments were to condition the new urban agenda (Jacobs and Appleyard, 1987: 114-115). The urban contexts such as sprawled peripheries, leftover spaces, lifeless housing estates, and declined city centres have been the thematic sites to be converted into liveable environments by design (Girardet 2004: 163-164). Urban policies supporting the renewal projects that destroy the social fabric of cities and common planning practices prioritising vehicular traffic and functional zoning produced various instances that would require time for recovery. The process has frequently ended up with the dissolution of the compact (walkable and vibrant) traditional urban fabrics serving as a model for liveability (Lennard and Lennard, 1995: 1-3).

Liveability: A Conceptual Framework

As Kashef (2016: 240) discussed, liveability is an ambiguous term used with various connotations by different disciplinary fields. In its wider use, the term implies socio-economic, environmental, and political conditions that involve *job security, healthcare, educational standards, recreational and entertainment opportunities, clean air, soil, and water, biological domains, civic engagement, and equitable access to local and regional public services* (ibid: 250). Covering an extensive realm of wellbeing and quality of urban life, the concept has been utilized to index and rank the World's cities by their capacity to provide institutional, physical, and environmental amenities to the citizens. EIU metrics suggest one of the most comprehensive frameworks that measure urban liveability. The ranking system assesses the 140 cities for over 30 qualitative and quantitative factors across five broad categories: stability, healthcare, culture and environment, education, and infrastructure (Economist Intelligence Unit, 2021: 6).

The term liveability (*leefbaarheid*) was initially coined by the Dutch geographers and sociologists investigating the rural communities' emerging conditions against the rapid urbanization process after WWII. The concept was then *urbanized* by the social movements reacting against the urban renewal and revitalization projects enacted in many European and North American cities during the 1960s and 1970s (Kaal, 2011: 534-537). Since the mid-1990s, the notion has gained institutional legitimacy, especially following The United Nations Conference on Human Settlements (Habitat II) held in Istanbul in 1996. The conference manifested communities' aspirations for liveable human environments as the

guiding principle of the future practices of urban design and management (p. 19). The same view, later on, was preserved in the 'New Urban Agenda' (United Nations, 2017).

To Girardet (2004), liveability is a critical issue for both developed and developing countries. Therefore, it requires a contextual approach to adopt relevant strategic frameworks accordingly (p. 15). Yet, in general, the main policy objectives of liveability include;

- making places of beauty, diversity, and easy contact,
- developing vibrant communities and diverse living choices,
- integrating a diverse range of economic activities,
- enhancing the benefits of climate, natural setting, and architecture,
- *facilitating cycling, pedestrianization, and public transport* (ibid: 165-166).

Following a comprehensive review of the literature on the concept, Higgs et al. (2019) suggest a principal definition of urban liveability as the quality of "the communities that are safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities". (pp. 1-2).

As seen in the definition, liveability entails an enormous scope of quality aspects mostly corresponding to human settlements' social, economic, environmental, and health-related features. Within such a broad context, apart from the utilitarian view that reduces liveability into primary consideration of public amenities and health (Newman, 1999; Ghasemi et al., 2018; Alderton et al., 2019), there has been a robust humanistic perspective privileging the interaction between city dwellers and the urban environment. To Pacione (1990), liveability cannot be revealed without examining the relationship between the behaviour, perception, and actions of people and space (pp. 1-2). Likewise, for Southworth (2003), liveability has to deal with the experiential and sensory quality of the built environment (p. 344). Kamp et al. (2003) also designate the relevance of the liveability issue at the intersection between the environment and community. In contrast, the involvement of economics implies the overarching notion of quality of life (p. 11).

A Praxis of Urban Liveability

The emergence and development of the discussions on liveability represent a kind of praxis, the process by which the theory and conception are enacted and settled while being transformed by practice. Since the social theory of cities emerged, the indispensable relationship between society and space has been considered a norm. To Wirth (1945), physical factors of social life are "at best, conditioning factors offering the possibilities and setting the limits for social and psychological existence and development" (p. 487-488). In this regard, the early studies of environment and behaviour set an initial framework for further liveability research without an explicit (normative) focus on the issue. Among them, Porteous (1977) suggested a multi-scalar perspective on humanenvironment through micro (personal), meso (home-base), and macro (home-range) space hierarchy. Altman and Wohlwill (1976) questioned the extent to which the built environment influenced how people act, feel, and think in space in terms of human perception. Michelson (1970) pioneered the sociological outlook on the relationship between the form of cities and social life regarding the dimensions of lifestyle, stage in life-cycle, social status, and personality. He argued that the cultural values of different socio-economic classes frequently transform the type and the use of urban spaces (p. 194). Porteous (1977), in this regard, discusses the frequent 'mismatches between human behaviour and the built environment' in the form of personal anonymity, crowding, lack of privacy, identity, and flexibility in/of urban space (pp. 9-10). Those could be considered the shortcomings of the everyday urban environment calling for attention to have an integrative perspective on society and space.

In the planning literature, Wilson (1962) suggested one of the first studies used the term liveability, with a particular focus on well-being and satisfaction. In his paper, the author specified neighbourhood factors as more important than the city-wide factors in the definition of relative liveability of the environment (p. 381). That could be considered the early indication of liveability as an issue of community at the local level.

Though she put a critical reservation against modern 'the science of city planning and the art of city design' (p. 14), Jacobs (1961) provided a very operational perspective on the 'liveliness' of the cities in the name of convenience, safety, variety, and interest (p. 153, 210). In the same vein, Alexander et al. (1977) paved the way for developing a critical humanistic perspective on a spatial design by creating a multi-scalar vocabulary on the interaction between people and the built environment. Later, Whyte (1980) and Gehl (1987) elaborated on the perspective by suggesting a systematic outlook, focusing on public space for designing spaces for a vital social life. Without utilizing the notion of 'affordance', which was initially argued by Gibson (1979, 127-137) regarding the capacity level of the environment to provide for human perception and action, the emerging literature tended to reveal how the spatial quality could support a lively public life in cities.

Soon after, Lennard and Lennard (1995) elaborated on the issue in a comprehensive framework comprising both built and social environments. Looking closer at the lively historical centres of some selected European cities, the authors suggest the principles for restoring the historical centres, restructuring mass housing, reshaping suburbia, and designing new neighbourhoods in liveable manners (pp. 231-235).

Liveability has become one of the core issues discussed in urban design literature since the early-1980s as it appeared to be a growing concern in the popular literature (Kashef, 2016: 243)¹. In this context, Appleyard (1981) explicitly used to term in his comprehensive analysis of the American residential streets. He investigated the critical factors that would turn the streets into a safe, healthy, pleasant community environment. With the rejection of the imposed modern planning standards that seriously damaged the urbanity of the cities, Jacobs and Appleyard (1987) manifested liveability as the primary goal of urban design practice and research. In the same genre, Tibbalds (1992) reinterpreted liveability with the notion of 'people friendliness' (p. 27). Accordingly, he called for a return to the essential spatial characteristic of traditional towns and cities consisting of rich, vibrant mixed-use and activity environments.

New Urbanism has suggested a strong operational track combining the liveable community ideal with urban design (Duany et al., 2000). In the name of 'repair' or 'retrofit', transforming the modern peripheral (suburban and the edge city) developments lacking habitable cohesiveness and identity into compact, walkable, mixed-use precincts has been a prominent planning agenda of the New Urbanist literature (Lukez, 2007; Dunham-Jones and Williamson, 2009; Tachieva, 2010). The design codes and solutions in those studies essentially provide robust morphological know-how for the liveability policies aimed at improving walkability and connectivity in suburban environments.

Urban Form and Liveability

The concept of urban form covers location, shape, geometry, and relationships of/between the spatial elements (i.e., streets and roads, plots and buildings, public spaces, and green areas) within the built environment. It varies in scale from the building block to the urbanized region (Hack, 2012: 33). In the literature of urbanism, there are two approaches to defining urban form. The first approach conceptualizes the form of the city with its microscopic qualities such as type, *quantity, density, grain,*

organization, and pattern of the spatial elements (Lynch and Rodwin, 1958), and their collective composition and assemblage called the *fabric* or *tissue* (Caniggia and Maffei, 1979; Kostof, 1991; Habraken, 2000; Panerai et al., 2004). Alternatively, the other approach to urban form is constructed on a macroscopic framework considering the higher-level pattern and structure of the cities. Such a view tends to view the built fabric as the surface of the housing or employment densities in relation to transport links and nodes (Newton, 2000). The macro perspective is also defined by Lynch (1981) with the concept of 'city form'. Using the term interchangeably with 'settlement form', Lynch (1981) refers to the form of the city as the spatial pattern of the large, inert, permanent physical objects in a city (i.e., buildings, streets, utilities, hills, rivers) (p. 47). That implies the overall form and structure of the city rather than its partial textures called the 'fabric'. Such a view, essentially, conditions the way of considering the physical form of the city through the indicators of density, size, amount of open spaces, and compactness that are primarily discussed within the literature on urban planning and geography (Haughton and Hunter, 1994; Banister et al., 1997; Frey, 1999). In that view, the metropolitan form is frequently characterized not by the physical fabric but by the population's size, density, distribution, and centrality over the settlement system (Tsai, 2004: 143-45). The archetypal models of, for instance, the core, star, ring, and polycentric net (Lynch, 1961) do not necessarily inform the internal quality of urban form, which primarily conditions the perceived liveability of the built environment².

The relevance of discussing liveability in consideration of urban form is because the physical features of a built environment significantly contribute to the long-term performance of a place to live (Southworth, 2003: 345). It affects the choices of individuals in organizing their life, delimits or provides some opportunities for the societal allocation of resources and amenities; facilitates human movement, therefore, conditions social interaction, learning, and enjoyment (Hack, 2012: 33-35).

For Bosselmann (2008), liveability is a measurable quality since it focuses on the perception of concrete physical elements (p. 143). More recently, there have been pretty few researches that explicitly questioned the measurable relationship between urban form and liveability (Southworth, 2003; Ewing and Clemente, 2013, Topcu and Southworth, 2014; Mauriz et al., 2017; Martino et al., 2021) following the early study of Smith et al. (1997) that assessed the life quality of the physical form of the neighbourhoods.

Focusing on the socio-spatial dimension of the issue, it is possible to delineate the significant aspects of liveability in relation to urban form. Accordingly, one could delineate *sociability, integrity and cohesion, vitality, accessibility, diversity, equity,* and *safety* as the key issues within this framework. Those could also be considered the primary indicators for measuring the liveability of urban form.

Sociability, in this context, refers to people's behavior patterns and the built environment's intrinsic capacity to enable social contact and interaction in public space. Physical comfort, safety, convenience, territoriality, and control on the street as the prominent place of social life in the urban fabric, are considered the preconditions for successful public spaces regarding sociability (Mehta, 2013). The Project for Public Spaces, a non-profit organization promoting successful public spaces in the United States since the 1970s, addresses sociability as one of the significant goals of placemaking (Project for Public Spaces, 2000). Following the theoretical track by Gehl (1971) and Whyte (1980) on the affordance of public space for effective sociability, the emerging literature on the issue enwidens the scope to the alternative typologies of public space that increase the social potential of the city. In this regard, the notions such as "play in public" (Stevens, 2007), "personalisation" (Mehta and Bosson, 2010), and "in-betweenness" (Simões Aelbrecht, 2016) stand out as the behavioural aspects addressed to support social interaction in space. From this point of view, Palaiologou and Vaughan (2014) signified the street network configuration, plot layout, and façade organization as the basic properties of the built form generating street liveability.

As a prerequisite of social peace, *integrity and cohesion* represent the other set of criteria for liveable urban environments. The notions similarly imply the co-presence of different social groups by spatial proximity or through interaction and encounter. In this regard, they represent the counter-condition of segregation preventing cultural tolerance and mutual learning. Having worked with her colleagues (2005) on Charles Booth's poverty map of London (1889), Vaughan (2007) has been the precursor relating urban morphology to socio-spatial segregation by configurational analysis showing a consistent correspondence between the pattern of poverty and that of syntactic segregation within the urban fabric. In the same vein, Legeby (2010a, 2010b) elaborated on the issue of segregation by looking at the spatial relations of different neighbourhoods through public space. Raman (2010) revisited the notion of social cohesion concerning the number and strength of social integration regarding the density and layout characteristics of the housing environments. More recently, having re-framed the original conception of Freeman (1978), segregation as a form of 'restriction on contact', Netto (2017) analysed the city as 'a system of encounter'. In that view, the lack of co-presence of the different groups within the spatial network fabric of the city is considered the main factor generating social segregation.

Vitality is a term that is used almost interchangeably with liveability. In Good City Form, Lynch (1981) defined vitality as 'the degree of support offered by a settlement for the biological and survival requirements of a society' (p. 118). That suggests a condition for a healthy life with fundamental access to natural and urban amenities. Unlikely, Montgomery (1998) offered a more sociological interpretation of the term with a clear emphasis on the capacity of urban space to support public life and cultural activities across different times of the day and over the year, respectively (pp. 98-100). We can define social vitality as the capacity of a place to facilitate the exchange of information, knowledge, and services generated by local interaction and contact. Accordingly, vibrancy and conviviality become the essential features generating urban vitality. For Jacobs (1961), vibrant communities benefit from social networks provided by high human interaction. Accordingly, she addressed urban diversity, the property of having urban spaces with different land uses and activities enabling socially and culturally vibrant urban environments. Then, Shaftoe (2008) discussed conviviality as a consequence of effective public spaces and argued that size, shape, and type as the key spatial quality factors in attracting more people to a joyful and socially interactive environment. While vitality frequently refers to the spaces that feel lively to people, viability, more specifically, considers the extent to which they have a capacity for commerce to live in it (DoE, 1994: 55 cited in Balsas, 2010: 103). Altogether, they indicate the liveability performance of the city centres (Balsas, 2010; Ravenscroft, 2000).

Ensuring vibrancy and viability of space, *accessibility* is another key feature of liveable environments. Without characterizing it necessarily as a liveability factor, Hillier et al. (1993) initiated the idea of network configuration as the main generator of the movement patterns that condition the accessibility of the retail and public facilities located in the city. Frequently, accessibility of a spatial network is discussed concerning walkability as an indicator of health and wellbeing that is highly conditioned by urban form -through, for instance, typological diversity and density of plots and buildings- (Davern, 2020). Having addressed wide-ranging strategies for the (trans)formation of a more walkable city, Speck (2018) revisits spatial accessibility as an indicator that supports social equity and community by providing people with more affordable mobility options (i.e., biking and walking) through higher ability to engage in the social and cultural life (pp. 8-11). Then, Bosselmann (2008) argued the proximity of built forms to the transit stations as a liveability factor of accessibility in addition to the frequency of entrances to the properties in the block for a walkable environment (pp. 177, 207).

Since it provides the freedom of choice to the groups and individuals for alternative lifestyles and affordability (Smith et al., 1997: 230), (spatial) *diversity* is considered another prerequisite of urban liveability. It is discussed either in socio-economic or socio-cultural terms. In this context, Jacobs (1961) addressed a close-grained variety of uses, a dense concentration of population, and the availability of

buildings of different ages as four primary conditions to ensure economic (and social) diversity (pp. 143-222). Recently, Yoshimura et al. (2022) revisited Jacobs's (1961) claimed importance of diversity by quantifying the indicator as the level of economic activity at the neighbourhood scale and confirmed the positive correlation between the local economic prosperity and functional diversity in urban form. Likewise, Sung et al. (2015) and Rosner and Curtin (2015) measured the significant effect of Jacobsian urban diversity on pedestrian activities and retail investments, respectively. Within this framework, Low et al. (2005) stated that the contemporary planning and design policies had already acknowledged cultural diversity in the public realm as an objective besides the comfort and vitality of space (pp. 165). In this sense, the layout of the space in high integrity with the different living fabrics is a crucial concern for the inclusivity of public space for different social classes and ethnic groups of varying income and educational statuses (ibid: 203-2004). Talen (2008) enlarged the scope of the issue to generate socially diverse neighborhoods and suggested supporting the mix of housing typologies, maximizing connectivity, and ensuring security as the urban design strategies (pp. 113-175). More recently, following a spatial analysis, Oliveira (2021) argued a correlation between the network integration, block size, plot density, the so-called (building and plot) frontage coincidence, and social diversity (in education, employment, and income).

Since the publication of 'The Defensible Space' by Newman (1972), the safety of a built environment has been a core issue for liveability. Without disregarding the critical role of the social structure of the communities at the crime level, environmental design literature has discussed the effect of urban form and configuration on the sense of safety in space. Having introduced territoriality as the significant design aspect, Newman's (1972) socio-physical theory provided a counter-argument against the open (permeable) model of environment championed by Jacobs (1961). Such an approach to safety has been criticized as responsible for the exclusive modern housing environments at the cost of more vital human-environment interaction observed in the traditional urban fabrics (Steventon, 1996). In response to the critiques, Hillier and Sahbaz's (2008) evidence-based research suggested a critical perspective on both (open vs. closed) approaches. They emphasised the presence of dwellings and the patterns of network integration for creating safe and civilized streets. As argued by Leby and Hashim (2010), natural surveillance that is supported by all the approaches performs as the fundamental condition of safety regarding urban form. Then, in addition to crime prevention (Oc and Tiesdel, 1999; Wheeler, 2001), traffic reduction and control by design is another aspect of liveability and vitality through safe environments (Dumbaugh, 2005). As Appleyard (1981) discussed, traffic is a factor affecting the social behaviour of the people living on the street and the neighbouring patterns as liveability dynamics of the community (pp. 20-24).

Finally, equity could be considered the last liveability indicator discussed in the literature. As discussed by Sharma and Lee (2020), rapid economic growth and urbanisation have resulted in inadequate technical and social infrastructure along with an intensified vulnerability of a large portion of the population, the so-called 'urban poor'. That inevitably brings the concerns of social equity and justice into the agenda of urban liveability. Social justice and equity concerns of urban liveability mainly include social activism for better community features (Herman and Lewis, 2017: 8). Reviewing the emergence and transformation of the liveability conception through urban social movements in history, Kaal (2021) discussed the notion based on democracy and justice. Then, with Covid-19, the question of density concerning its certain effect on the vulnerability of the communities against the pandemic turned the issue of spatial form into a matter of liveability (Hamidi et al., 2020). Further research related the topic to social justice in the way of equitable access to urban services and green infrastructures as a factor in reducing the actual risk of the epidemic (Maroko et al., 2020; Teller, 2021). This confirms Hankins and Powers' (2009) early call for a renewed understanding of liveability through repairing social inequality via better access to the basic amenities (i.e., safe streets and public institutions) in living environments. Within their recent 'Manifesto for The Just City', Rocco et al. (2021) defined the relevance of spatial form with the indicators of compactness, connectivity, and coherency of the fabric for a just provision of access, safety, and livelihood (p. 85).

To have an accurate idea of the intrinsic relationship between urban form and liveability, we still need further studies cross-checking the conditioning effects of the morphological indicators on the particular dimensions of liveability. This is mainly due to the lack of an adequate number of studies explicitly focusing on the given aspects. Martino et al. (2021) addressed the need for a bidirectional outlook considering the social forces that affect urban form, at that point, for the studies that tend to correlate physical attributes of the cities with socio-economic quality indicators (p. 238). This point would represent what we tend to discuss in the current context.

Need For a Socio-Morphological Perspective for Liveability

Following its theoretical transformation in history, Paul and Sen (2020) criticize the current conception of liveability dominated by the physical (infrastructural) and financial aspects in consideration. Then, they address the need for the involvement of more socio-cultural dimensions in assessing the cities (p. 91).

Opposing the concept against the notion of sustainability having a broader and long-term motivation, Gough (2015) and Kamp et al. (2003: 11) emphasize the local nature of liveability through a narrower spatial scale relevant to the daily life of communities within geographically smaller areas. To Ruth and Franklin (2014), while sustainability refers to a long-run global perspective on social and environmental issues, liveability is about the 'here' and 'now'. In other words, it is more immediate and tangible through the achievable aspirations of a safe and healthy environment and reliable provision of public amenities (p. 19). On that basis, Gough (2015) asserts that liveability gives priority to local activities and, preferably, assigns context-dependent differential weights to measure the performance of any locality. (p. 148).

The abovementioned critical points on liveability address the need for a research agenda combining sociological and morphological perspectives. In this sense, the latter point about the temporal and spatial scale of liveability entails the relevance of urban morphology that focuses on the micro relational structure of urban form with a high resolution, mostly from the plot to the fabric. Moreover, Higgs et al. (2019) asserted that the current liveability indices were mainly applied at the city-level assessments, failing to reveal the spatial variation within cities. This point could be considered another reason why the liveability issue requires further insight via urban morphology that frequently investigates the partial characteristics of the city fabrics.

Since the 1970s, the so-called 'spatiality of social life, has been progressively revealed as one of the core issues of social theory (Sayer, 1985: 59; Soja, 1985: 90). Nevertheless, it would not be wrong to claim the dominance of the highly abstract notion of 'space' within social theory, without giving systemic attention to the form and structure of the city fabrics. In this regard, because social interactions occur within particular physical settings of the local community (Urry, 1985: 40), one could argue the potential role of urban morphology in elaborating on the generative relationship between the spatial structure and societal formation. The common interest within urban morphology in local fabrics (through various scale levels) would be considered the facilitating factor for such a solid theoretical linkage.

According to Marcus (2007), the dominancy of the typological discourse in urbanism results in weak ties between design and the socio-spatial characteristics of urban life (p. 9). Such critique would be valid in the context of the descriptive theory of urban form based on the typological perspective that is keen on taxonomies rather than a performative examination of spatial fabric.

Considering the overall tendency to reveal the conditional relationship between the built environment and social life (in terms of liveability) that we briefly reviewed above, one could claim the emergence

of a new track in morphological research focusing on the social performance of urban form and fabric. In this sense, we can revisit the concept of *social morphology ("morphologie sociale")* originally coined by Durkheim (1898) as a sub-field of sociology. While its original use implies the study of the *physical* (material) *form of societies* through the spatial (geographic) structure of populations, i.e., its volume, density, and disposition in space (Durkheim, 1898: 520-21 cited in Duncan and Pfautz, 1960: 9-10), within the current context, the so-called socio-morphological perspective connotes to the studies of urban form with direct reference to the social and cultural structure of communities, their (re)productive interaction with or in the built environment. In this sense, while the former (original) interpretation takes population as the principal subject matter of research (Halbwachs, 1946: 31-41), the latter would mainly focus on the spatial form of the environment by acknowledging the critical role of the social phenomena (i.e., demography, relationships, behaviours, and culture) over urban morphology.

The claimed perspective has already been discussed by Griffiths and von Lünen (2016), with a particular emphasis on 'spatial culture' at the intersection of the *material infrastructure* of the cities and everyday social life. The authors call for developing a transdisciplinary field including human geography, history, sociology, and anthropology (ibid: xxi-xxvii). In our context, more specifically, we tend to open up a discussion on the possibility of developing an alternative (social) track within urban morphology. As Liebst (201) discussed before, though the so-called Durkheimian sociology initially provided a basis for the development of the space syntax theory³, there has been no systematic linkage with sociology to develop a school of social morphology within the field -of sociology- (p. 224). Then, one could argue the possibility of such a coalesce with the lead of urban morphology. Yet, in the current context, the renewed perspective has to embrace the other (i.e., typological, historico-geographical, and morpho-metric) approaches in addition to the configurative methods (i.e., space syntax) within the studies of urban form.

The renewed interpretation of social morphology (with a specific focus on liveability) requires a composite methodology coalescing sociological and morphological research. Such a programme, doubtlessly, requires a systematic inquiry to develop a linkage between the established research methods in sociology (Neuman, 1991; della Porta and Keating, 2008) and those of spatial morphology (Oliveira, 2016; Kropf, 2017).

To Kashef (2016), considering the need for coordinating socio-economic and physical development for culturally responsive and just environments, *'urban liveability must consider urban morphology as an "incubator" of social and economic functions'*. (p. 252) The basic assumption behind the point is that *urban space envelops the day-to-day life experiences of city dwellers* and affects the overall societal quality of urban life (ibid: 250). Though such a perspective sounds relevant regarding the relationship between cities and people, in general, it disregards society's active role in the (re)production of physical space and form. The alternative perspective would, essentially, add another dimension to approaching urban form from the side of societal dynamics and capacities for liveability, as well. That would also provide a more spatio-temporal insight into urban morphology, focusing more on formation and experience rather than form and perception.

Despite the emerging interest in the sociological aspects of urban form in relation to liveability, a literature review of the publications made in the journal of *Urban Morphology* for the last twenty-five years shows the current level of the accumulated influence of the sociological outlook on the research field, so far. Accordingly, only 10% of the total publication is devoted to either social or cultural issues worldwide.⁴ Such a review makes the claim of the so-called French school of urban morphology, which is associated with a robust sociological perspective (Moudon, 1997; 1998: 145), questionable. Developing an international and multi-disciplinary research convention bringing the sociological question back in urban morphology more strongly in this regard would be set as a new mission

statement within the emerging agenda of the *"need for change in the study of urban form"* (Larkham, 2022).

This Issue

From this perspective, this issue of Built Environment discusses the aspects of liveability with a specific concern of urban form. In doing so, it aims to explore the possible ways to inject a sociological perspective into urban morphology on such a performative basis. To that end, seven papers in the issue cover the different dimensions of urban form and liveability.

To start with, Netto et al. consider vitality in relation to the economic viability of an urban fabric. They investigate the intrinsic relationship between the architectural form and pedestrian behaviour, which, in turn, affects the diversity of local retail and services in a fabric. Developing an archetypical perspective by reducing the building typology into two categories (i.e., detached versus continuous type), the authors correlate the building configuration and the architectural features at the block level with the social and economic variables in the case of Rio de Janeiro, Brazil. They eventually address the superior capacity of compact city blocks over the detached building fabrics along with the supporting micro-spatial features that support the micro-economic diversity on the street level. The study's findings suggest considerable significance, especially in the rapidly developing and transforming countries such as China, Brazil, and Turkey, where the real-estate sector highly relies on the high-rise tower-block residential typologies and their variations. Typological design guidance still has a critical role in generating resilient settlements with a strong local economic performance by planning.

In the following paper, Abeer Elshater, Hisham Abusaada, Menna Tarek, and Samy Afifirevisit revisit vitality from another perspective of conviviality, the liveliness of an environment enabling individuals to interact and satisfy their needs comfortably. The paper problematizes the deep-down effects of the urban infill projects on the existing neighbourhood's conviviality. Learning from the relative successes of the project(s) via spatial and ethnographic research conducted in Cairo, Egypt, the authors emphasise the criticality of integrating the public space that includes services and facilities promoting convivial liveability within the revitalised urban fabrics. The research also indicates the significance of the proximity between the civic/commercial places with the surrounding residential fabric for the desired socio-economic impact of the infill projects.

Next up, Şevik and Çalışkan explore the relationship between social encounters and spatial form regarding the question of integrity and cohesion for liveability. Following a review of the social and spatial theories of coexistence and urban threshold, we discuss the issue in the case of Bursa, Turkey, an exemplar context of social segregation within an open fabric. Based on the theoretical construction already developed so far, the paper suggests a holistic (multi-scalar) perspective on the concept of encounter as a critical condition of cohesion within a social fabric. In addition to the (macro) configurational analysis, we provide an index involving the micro-morphological features and settings of possible urban thresholds, the so-called 'micro-publics'. The morphological analysis and explorative research, thus, tend to reveal the multi-layered characteristics of the issue that would inform the responsive design strategies for liveability.

Gerhard Bruyns, Henry Endemann, Veronica Ching Lee, and Darren Nel then investigate the impact of the compact morphology of the commercial fabric of Hong Kong on the socio-behavioural patterns of people in the public space. In this sense, the authors discuss the sociability dimension regarding the privatisation and interiorisation of the public realm through the specific typology of podium development. Introducing 'volumetric urban compaction' (VUC), the paper tends to expose the social externalities of hyperdensity urbanism in East Asian cities. With a snapshot analysis parallel to the 3D-

visual representation of the complex spatial pattern, the authors demonstrate the observed stratification and distancing within the public interior and withdrawal of social programs from the urban ground outside the commercial complexes. The paper implicitly questions the categoric supposition of density in support of sociable urban life and liveability.

In this regard, the paper authored by Anna Kovács-Györi, Günter Gruber, Michael Mehaffy, and Lei Ma contributes to the issue (of urban density) from another perspective within a different context. Running a GIS-based analysis, the authors discuss the subtle relationship between access to greenery and walkability and the densification processes. With the metric indicators of connectivity greenery and urban form complexity, the paper suggests an accessibility assessment of urban density in the case of Salzburg, Austria. The authors, in this context, emphasize the critical implications of densification (i.e., the possible loss of amenity spaces, increased pollution, and traffic) that would harm the liveability conditions in cities.

Then, Yun Han, Zihao Zhou, Teng Zhong, and Yu Ye provide a complementary perspective on accessibility with a different conceptual and methodological framework. The authors elaborate on the issue of urban liveability with the conception of 'living convenience', *the number and diversity of facilities within a 15-minute distance*. For this purpose, they introduce a comparative city-wide analysis in the case of Beijing and Shanghai, China. They incorporate demographic and socio-economic structure (population density and housing prices) and some selected morphological metrics (i.e., network integration, FAR, block size, building density, and height) to map out their correlation with living convenience. In this way, an objective assessment of liveability as a decision support system could be achieved for planning.

To Herman and Lewis (2017), social justice and equity are the most neglected categories in the current literature on urban liveability (p. 10). Elaboration on the issue concerning urban form is relatively weaker in the contemporary literature than on the other aspects mentioned above. In this context, discussing the role of urban social movements, the paper authored by A. Burak Büyükcivelek, Pinar Çobanyılmaz Öztürk, and Ecem Kutlay supports the development of that specific literature from a dual (socio-political and morphological) perspective. In the article, the authors consider urban social movements as the communities' claim for liveable environments, then investigate the areas of movements regarding their scalar and locational character with respect to living fabrics. The spatial analysis of İstanbul, Turkey, shows that the uncontrolled capital investments in urban land are the prominent factors challenging the perceived liveability of the rapidly developing and transforming cities. That implies the necessity to asses any urban project regarding its possible consequences on the living fabrics and the settled social life embedded within themselves.

Considered together, the papers cover a broad scope of the issue based on five (out of seven) dimensions of urban liveability that we re-framed above. Indeed, each paper could be considered an exemplar case to elaborate on the issue within a given thematic orientation. Such multiplicity in discussing urban liveability could provide a robust conceptual framework on which one would apply alternative methodologies further in different contexts.

As Kashef (2016) discussed, measuring urban liveability in an international context is difficult with the absence of cross-cultural research on the quality of life (p. 249). In this sense, comprising the eight cities from five countries, the issue is believed to offer a prolific basis for further studies revisiting the liveability factors within different cultural contexts. 'Prolific', in this regard, implies a more objective and integrated outlook (Han et al.) that could be utilized in various socio-cultural environments but, at the same time, open to political re-interpretations (Büyükcivelek et al.) in particular socio-economic contexts.

All the papers focus on the performance of the morphological setting rather than solely discussing the form itself. In this sense, we could argue that the notion of liveability calls for urban morphology to develop a better comprehension of urban form on a performative basis. Due to the nature of urban liveability, such a perspective has to construct itself with the conceptual and methodological support of the social theory. The issue, in this sense, is less of a claim of a fully accomplished attempt to that end than the indication of a long-run research agenda.

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REFERENCES

- Alderton, A., Davern, M., Nitvimol, K., Butterworth, I., Higgs, C., Ryan, E., Badland, H. (2019) 'What is the meaning of urban liveability for a city in a low-to-middle-income country?: Contextualising liveability for Bangkok, Thailand', Globalization and Health 15(51), <u>https://doi.org/10.1186/s12992-019-0484-8</u>, accessed in May 2022.
- Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., Angel, S. (1977) *A Pattern Language*, New York: Oxford University Press
- Altman, I., Wohlwill, J.F. (1976) *Human Behavior and Environment: Advances in Theory and Research*, New York: Plenum Press.
- Appleyard, D. (1981) *Livable Streets*, Berkeley: University of California Press.
- Aziz, N. A., Hadi, A. S. (2007) 'Linking Urban Form to A Liveable City', *Malaysian Journal of Environmental Management* 8, pp. 101-122.
- Balsas, C.J.L. (2004) 'Measuring the Livability of An Urban Centre: An Exploratory Study of Key Performance Indicators', *Planning, Practice & Research* 19(1), pp. 101-110.
- Banister, D. Watson, S., Wood, C. (1997) 'Sustainable Cities: Transport, Energy, and Urban Form', *Environment and Planning B: Planning and Design* 24, pp. 125 -143.
- Blumenfeld, H. (1949) 'Theory of City Form, Past and Present', Journal of the Society of Architectural Historians 8(3/4), pp. 7-16.
- Cambridge: The MIT Press
- Caniggia, G., Maffei, G. L. (1979 [2001]) *Architectural Composition and Building Typology: Interpreting Basic Buildings,* Florence: Alinea.
- Davern, M. (2020) 'Liveability Indicators, Local Neighbourhoods, Urban Planning, and Health', <u>https://newcities.org/the-big-picture-liveability-urban-health/</u>, accessed in May 2022.
- della Porta, D., Keating, M. (eds.) (2008) *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective,* Cambridge: Cambridge University Press
- Department of the Environment (1994) *Vital and Viable Town Centres,* Meeting the Challenge, London: HMSO.
- Dumbaugh, E. (2005) 'Safe Streets, Livable Streets', *Journal of the American Planning Association* 71(3), pp. 283-300.
- Duncan, O., Pfautz, H.W. (1960) 'Translators' Preface' in M. Halbwachs, *Population and Society: Introduction to Social Morphology*, Illinois: The Free Press of Glencoe, pp. 7-30.
- Dunham-Jones, E. and Williamson, J. (2009) *Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs*, Hoboken, N.J.: John Wiley & Sons.
- Durkheim, E. (1898) 'Note Sur La Morphologie Sociale', L'Année Sociologique, pp. 520-521.

- Economist Intelligence Unit (2021) *The Global Liveability Index 2021: How the Covid-19 Pandemic Affected Liveability Worldwide*, research report, <u>https://www.eiu.com/n/campaigns/global-liveability-index-2021/#mktoForm anchor</u>, accessed in May 2022.
- Elmahdy, N.M., Kamel, R.R., Nasreldin, R. (2021) 'Contextualizing Urban Liveability Indicators to Create Liveable Neighbourhoods', *International Journal of Engineering Research and Technology* 14(1), pp. 56-68.
- Ewing R and Clemente O (2013) *Measuring Urban Design: Metrics for Livable Places*, Washington: Island Press.
- Freeman, L. C. (1978) 'Segregation in social networks', Sociological Methods & Research 6(4), 411-429.
- Frey, H. (1999) Designing the City: Towards a More Sustainable Urban Form, London: E&FN Spon.
- Gehl, J. (1987), *Life Between Buildings: Using Public Space*, New York: Van Nostrand Reinhold.
- Ghasemia, K., Hamzenejad, M., Meshkinia, A. (2018) 'The Spatial Analysis of The Livability of 22 Districts of Tehran Metropolis Using Multi-Criteria Decision-Making Approaches', *Sustainable Cities and Society* 38, pp. 382–404.
- Gibson, J.J. (1986) The Ecological Approach to Visual Perception, Boston: Houghton Mifflin.
- Girardet, H. (2004) *Cities People Planet: Liveable Cities for A Sustainable World*, Hoboken, NJ: Wiley-Academy.
- Goodman, P., Goodman P. (1960) *Communitas: Means of Livelihood and Ways of Life*, New York: Vintage Books.
- Gough, M. (2015) 'Three Reasons to Use Livability as a Vehicle for Sustainability', Planetizen, <u>https://www.planetizen.com/node/77426/three-reasons-use-livability-vehicle-sustainability</u>, accessed in May 2022.
- Gough, M.Z. (2015) 'Reconciling Livability and Sustainability: Conceptual and Practical Implications for Planning', *Journal of Planning Education and Research* 35(2) pp.145-160.
- Griffiths, S., von Lünen, A. (eds.) (2016) *Spatial Cultures: Towards a New Social Morphology of Cities Past and Present,* London and New York: Routledge
- Habraken, N. J. (2000) The Structure of the Ordinary: Form and Control in the Built Environment,
- Hack, G. (2012) 'Shaping Urban Form' in (eds.) B. Sanyal, L. J. Vale, and C. D. Rosan *Planning Ideas That Matter: Livability, Territoriality, Governance, And Reflective Practice,* Cambridge, Mass.: MIT Press.
- Halbwachs, M. (1946 [1960]) *Population and Society: Introduction to Social Morphology*, Illinois: The Free Press of Glencoe
- Hankins, K.B., Powers, E.M. (2009) 'The Disappearance of the State from "Livable" Urban Spaces', *Antipode* 41(5), pp. 845–866.

Haughton, G. and Hunter, C. (1994) Sustainable Cities, Jessica Kingsley Publishers, London.

Herrman, T., Lewis, R. (2017) *What is Livability? - ? Research Initiative 2015-2017: Framing Livability,,* University of Oregon/Sustainable Cities Initiative, <u>http://efaidnbmnnibpcajpcglclefindmkaj/https://sci.uoregon.edu/sites/sci1.uoregon.edu/files/s</u> ub 1 - what is livability lit review.pdf , accessed May 2022

- Higgs, C., Badland, H., Simons, K., Knibbs, L.D. Giles-Corti, B. (2019) 'The Urban Liveability Index: Developing A Policy-Relevant Urban Liveability Composite Measure and Evaluating Associations with Transport Mode Choice', *International Journal of Health Geographics* 18(14), https://doi.org/10.1186/s12942-019-0178-8, accessed in April 2022.
- Hillier, B. (1989) 'The Architecture of the Urban Object', *Ekistics* 56(334/335), pp. 5-21
- Hillier, B., Penn, A., Hanson, J., Grajewski, T., & Xu, J. (1993) 'Natural Movement: Or, Configuration and Attraction in Urban Pedestrian Movement', *Environment and Planning B: Planning and Design* 20(1), pp. 29–66.
- Hillier, B., Sahbaz, O. (2008) 'An evidence based approach to crime and urban design, or, can we have vitality, sustainability and security all at once?', Bartlett School of Graduates Studies University College London, <u>https://spacesyntax.com/wp-content/uploads/2011/11/Hillier-Sahbaz_Anevidence-based-approach_010408.pdf</u>, accessed in May 2022.
- Howard, E. (1898 [1965]) *Garden Cities of To-Morrow*, London: Faber and Faber.
- Jabobs, A. (2011) The Good City Reflections and Imaginations, New York: Routledge.

Jacobs, A., Appleyard, D. (1987) 'Toward an Urban Design Manifesto', *Journal of the American Planning Association* 53(1), pp. 112-120.

Jacobs, J. (1961 [2000]) The Death and Life of Great American Cities, London: Pimlico.

- Kaal, H. (2011) 'A Conceptual History of Liveability. Dutch Scientists, Politicians, Policy Makers and Citizens and The Quest For A Livable City', *City* 15(5), pp. 532-547.
- Kashef, M. (2016) Urban Livability Across Disciplinary and Professional Boundaries, *Frontiers of Architectural Research* 5, pp. 239–253.
- Kostof, S. (1991) *The City Shaped: Urban Patterns and Meanings Through History*, London: Thames & Hudson
- Kropf, K. (2017) *The Handbook of Urban Morphology*, Chichester: Wiley.
- Larkham, P.J. (2022) 'Editorial Comment: The Need for Change In The Study Of Urban Form', Urban Morphology 26(1), pp. 3-4.
- Leby, J.L., Hashim, A.H. (2010) 'Liveability Dimensions and Attributes: Their Relative Importance in the Eyes of Neighbourhood Resident', *Journal of Construction in Developing Countries* 15(1), pp. 67–91.
- Legeby, A. (2010) 'From Housing Segregation to Integration in Public Space: A Space Syntax Approach Applied on the City of Södertälje', *The Journal of Space Syntax* 1(1), pp. 92-107
- Legeby, A. (2010) Urban Segregation and Urban Form: From Residential Segregation to Segregation In Public Space, Doctoral thesis, KTH: Stockholm, <u>https://www.diva-</u> portal.org/smash/get/diva2:362593/fulltext01.pdf, accessed in April 2022.
- Lennard, S.H.C. and Lennard H.L. (1995) *Livable Cities Observed: A Source Book of Images and Ideas For City Officials, Community Leaders, Architects, Planners And All Other Committed To Making Their Cities Livable*, CA: Gondolier Press.
- Lennard, S.H.C. and Lennard, H.L. (1995) *Livable Cities Observed: A Source Book of Images And Ideas For City Officials, Community Leaders, Architects, Planners And All Other Committed To Making Their Cities Livable*, Carmel, CA: Gondolier Press.
- Liebst, L.S. (2016) 'Reassembling Durkheimian Sociology of Space', in S. Griffiths and A. von Lünen (eds.) *Spatial Cultures: Towards a New Social Morphology of Cities Past and Present*, London and New York: Routledge, pp. 214-224.
- Low, S., Taplin, D., Scheld, S. (2005) *Rethinking Urban Parks: Public Space and Cultural Diversity*, Austin: University of Texas Press.
- Lukez, P. (2007) Suburban Transformations, New York: Princeton Architectural Press.
- Lynch, K. (1961) 'The Pattern of the Metropolis', *The Future Metropolis* 90(1), pp. 79-98
- Lynch, K. (1981) Good City Form, Cambridge, Massachusetts: The MIT Press.
- Lynch, K., Rodwin, L. (1958) 'A Theory of Urban Form', *Journal of the American Institute of Planners* 24(4), pp. 201-214
- Marcus, L. (2007) 'Spatial Capital and How to Measure It: An Outline of an Analytical Theory of Urban Form', The Sixth International Space Syntax Symposium, Istanbul, <u>http://spacesyntaxistanbul.itu.edu.tr/papers/longpapers/005%20-%20Marcus.pdf</u>, accessed in May 2022
- Maroko, A.R., Nash, D., Pavilonis, B.T. (2020) 'COVID-19 and Inequity: a Comparative Spatial Analysis of New York City and Chicago Hot Spots', *Journal of Urban Health* 97(4), pp. 461–470.
- Martino, N., Girling, C., Lu, Y. (2021) 'Urban Form and Livability: Socioeconomic and Built Environment Indicators', *Buildings and Cities* 2(1), pp. 220–243.
- Mehta, V. (2013) The street: A Quintessential Social Public Space, Oxon: Routledge.
- Mehta, V., Bossom, J.K. (2010) 'Third Places and the Social Life of Streets', *Environment and Behavior* 42, pp. 1–27.
- Michelson, W.H. (1970) Man and His Urban Environment: A Sociological Approach, Reading, Mass., Addison-Wesley.
- Montgomery J (1998) 'Making A City: Urbanity, Vitality, and Urban Design', *Journal of Urban Design* 3(1), pp. 93-116.

- Moudon, A. V. (1998) 'The Changing Morphology of Suburban Neighborhoods', In (ed.) A. Petruccioli *Typological Process and Design Theory*, Cambridge, MA: Agha Khan Program for Islamic Architecture, pp.141-157.
- Moudon, A.V. (1997) 'Urban morphology as an emerging interdisciplinary field', *Urban Morphology* 1, pp. 3-10.

Netto, V. M. (2017). *The Social Fabric of Cities*, New York: Routledge.

Newman, O. (1972) *Defensible Space People and Design in the Violent City*, London: Architectural Press.

- Newman, P.W.G. (1999) 'Sustainability and Cities: Extending the Metabolism Model', Landscape and Urban Planning 44, pp. 219-226.
- Newton, P. (2000) 'Urban Form and Environmental Performance', in (eds.) M. Jenks, K. Williams and E. Burton, *Achieving Sustainable Urban Form,* New York: E & FN Spon.
- Oc, T., Tiesdell, S. (1999) 'The Fortress, The Panoptic, The Regulatory and The Animated: Planning and Urban Design Approaches To Safer City Centres', *Landscape Research* 24(3), pp. 265-286.
- Oliveira, O. (2021) 'Urban Form and The Socioeconomic and Environmental Dimensions of Cities', Journal of Urbanism: International Research on Placemaking and Urban Sustainability, DOI: 10.1080/17549175.2021.2011378, accessed in March 2022.
- Oliveira, V. (2016) Urban Morphology: An Introduction to The Study of The Physical Form of Cities, Switzerland: Springer.
- Pacione, M. (1990) 'Urban Liveability: A Review', Urban Geography 11(1), pp. 1-30.
- Palaiologou G., Vaughan L. (2014) 'The Sociability of The Street Interface Revisiting West Village, Manhattan', in V. Oliveira, P. Pinho, L.M. Batista, T. Patatas and C. Monteiro (Eds.) Our Common Future in Urban Morphology, Porto: FEUP, pp. 88-102. <u>http://discovery.ucl.ac.uk/1471085</u>, accessed May 2022
- Panerai, P., Castex, J., Depaule, J. C., Samuels, I. (2004) *Urban Forms: The Death and Life of the Urban Block*, Oxford: Architectural Press
- Paul, A., Sen, J. (2020) 'A Critical Review of Liveability Approaches and Their Dimensions', *Geoforum* 117, pp. 90–92.
- Porteous, J.D. (1977) *Environment and Behavior: Planning and Everyday Urban Life*, Reading: Addison-Wesley.
- Quentin, S. (2007) *The Ludic City: Exploring the Potential of Public Spaces*, London: Routledge.
- Raman, S. (2010) 'Designing a Liveable Compact City: Physical Forms of City and Social Life in Urban Neighbourhoods', *Built Environment* 36(1), pp. 63-80.
- Ravenscroft, N. (2000) 'The Vitality and Viability of Town Centres', *Urban Studies*, 37(13), pp. 2533-2549.
- Rocco, R., Newton, C., d'Alençon, L.M.V., van der Wat, A. (2021) *A Manifesto for the Just City: Cities for All*, Delft: The Global Urban Lab, https://doi.org/10.34641/mg.14, accessed in May 2022
- Romice, O., Thwaites, K., Porta, S., Greaves, M., Barbour, G., Pasino, P. (2017) 'Urban Design and Quality of Life', in (eds.) G. Fleury-Bahi, E. Pol, O. Navarro *Handbook of Environmental Psychology and Quality of Life Research*, Springer, Cham., pp. 241–273.
- Rosner, T., Curtin, K.M. (2015). Quantifying Urban Diversity: Multiple Spatial Measures of Physical, Social, and Economic Characteristics. In: Helbich, M., Jokar Arsanjani, J., Leitner, M. (eds) Computational Approaches for Urban Environments. Geotechnologies and the Environment, Springer, Cham. https://doi.org/10.1007/978-3-319-11469-9_7, accessed in May 2022.
- Ruth, M. Franklin, R.S. (2014) 'Livability for all? Conceptual Limits and Practical Implications', *Applied Geography* 49, pp. 18-23.
- Sayer, A. (1985) 'Social Relations, Space and Time, in (eds) D. Gregory and J. Urry, *Social Relations and Spatial Structures. Critical Human Geography*, London: Palgrave, pp. 20-48.

Sayer, A. (1985) 'The Difference that Space Makes Retheorisation', in (eds) D. Gregory and J. Urry, *Social Relations and Spatial Structures. Critical Human Geography*, London: Palgrave, pp. 49-66.

Shaftoe, H. (2008) Convivial Urban Spaces: Creating Effective Public Places, London: Earthscan.

- Sharma, M., Lee, H.S. (2020) 'Redesigning Cities for Resilience and Livability', <u>https://development.asia/insight/redesigning-cities-resilience-and-livability</u>, accessed in may 2022.
- Shima Hamidi, Sadegh Sabouri & Reid Ewing (2020) Does Density Aggravate the COVID-19 Pandemic?, Journal of the American Planning Association, 86:4, 495-509
- Simões Aelbrecht, P. (2016) 'Fourth Places': The Contemporary Public Settings for Informal Social Interaction Among Strangers, *Journal of Urban Design* 21(1), pp. 124-152.
- Smith, T., Nelischer, M., Perkins, N. (1997) 'Quality of an Urban Community: A Framework for Understanding the Relationship Between Quality and Physical Form', Landscape and Urban Planning' 39(2–3), pp. 229–241.

Social theory

- Soja, E.W. (1985) 'The Spatiality of Social Life: Towards a Transformative Retheorisation', in (eds) D. Gregory and J. Urry, *Social Relations and Spatial Structures. Critical Human Geography*, London: Palgrave, pp. 90-127.
- Southworth, M. (2003) 'Measuring the Liveable City', *Built Environment* 29(4), pp. 343-354.
- Speck, J. (2018) Walkable City Rules: 101 Steps to Making Better Places, Washington, DC: Island Press.
- Steventon, G. (1996) 'Defensible Space: A Critical Review of The Theory and Practice of a Crime Prevention Strategy', *Urban Design International* 1(3), pp. 235-245.
- Sung, H., Lee, S., Cheon, S. (2015) 'Operationalizing Jane Jacobs's Urban Design Theory: Empirical Verification from the Great City of Seoul, Korea', *Journal of Planning Education and Research* 35(2) pp. 117-130.

Tachieva, G. 2010. Sprawl Repair Manual, Washington: Island Press.

- Talen, E. (2008) *Design for Diversity: Exploring Socially Mixed Neighborhoods*, London and New York: Routledge.
- Teller, J. (2021). Urban density and Covid-19: towards an adaptive approach. *Buildings and Cities*, 2(1), 150–165.
- Tibbalds, F. (1992 [2001]) *Making People-Friendly Towns: Improving the Public Environment in Towns and Cities*, London: Spon Press.
- Topcu, M., Southworth, M. (2014) 'A Comparative Study of The Morphological Characteristics of Residential Areas In San Francisco', *ITU A*/*Z* 11(2), pp. 173-189.
- Tsai, Y.H. (2005) 'Quantifying Urban Form: Compactness versus 'Sprawl'', *Urban Studies* 42(1), pp. 141–161.
- United Nations (UN) (1996), Report of The United Nations Conference on Human Settlements (Habitat II), Istanbul, Turkey, <u>https://digitallibrary.un.org/record/222703?ln=en</u>, accessed in May 2022.
- United Nations (UN) (2017), New Urban Agenda: Report of The United Nations Conference on Housing and Sustainable Urban Development (Habitat III), <u>https://habitat3.org/the-new-urban-agenda/</u>, accessed in May 2022.
- van Kamp, I., Leidelmeijer, K., Marsmana, G., de Hollander, A. (2003) 'Urban Environmental Quality and Human Well-Being: Towards A Conceptual Framework and Demarcation of Concepts; A Literature Study', *Landscape and Urban Planning* 65, pp. 5–18.
- Vaughan, L. (2007) 'The Spatial Form of Poverty in Charles Booth's London', *Progress in Planning* 67, pp. 231-250.
- Vaughan, L., Chatford Clark, D.L., Sahbaz, O., Haklay, M. (2005) 'Space and Exclusion: Does Urban Morphology Play a Part in Social Deprivation?', *Area* 37(4), pp. 402–412.
- W. Lawrence Neuman, W.L. (1991 [2014]) Social Research Methods: Qualitative and Quantitative Approaches, Essex: Pearson
- Walters, D. (2007) *Designing Community: Charrettes, Masterplans and Form-based Codes*, Burlington, MA: Architectural Press
- Wheeler, S.M. (2001) *Livable Communities: Creating Safe and Livable Neighborhoods, Towns, and Regions in California,* working paper, University of California at Berkeley: Institute of Urban and Regional Development, <u>https://escholarship.org/uc/item/8xf2d6jg</u>, accessed in May 2022.
- Whyte, W.H. (1981) The Social Life of Small Urban Spaces, New York: Project for Public Space.

Wilson, R.L. (1962) 'Liveability of the City: Attitudes and Urban Development', in (eds.) F. S. Chapin and S. F. Weiss, *Urban Growth Dynamics in A Regional Cluster of Cities*, New York: John Wiley and Sons Inc.

Wirth, L. (1945) 'Human Ecology', American Journal of Sociology 50, pp. 483-488.

Yoshimura, Y., Kumakoshi, Y., Milardo, S., Santi, P., Arias, J. M., Koizumi, H., Ratti, C. (2022) 'Revisiting Jane Jacobs: Quantifying urban diversity', *EPB: Urban Analytics and City* Science 49(4), 1228–1244.

¹ Acting as a platform that gathers decision makers, design and planning practitioners and academics, in this regard, the conference series, *International Making Cities Livable* (IMCL) has been the most influential and long-lasting campaign about the issue of urban liveability since the first meeting held in 1985 in the States. See: https://www.livable-cities.org/about-us, accessed in May 2022.

² As the root of such theoretical outlook from a historical perspective, see: Blumenfeld, 1949

³ For an explicit argumentation, see: Hillier, 1989: 6

⁴ According to the literature review, the overall thematic distribution of the 172 papers involved in *Urban Morphology* journal is as follows: 60 *physical/spatial*, 28 *academical* (i.e., schools and traditions), 24 practical (i.e., design, planning and management), 16 *epistemological/methodological*, 12 *cultural* (i.e., building and utility codes of conducts), 9 *political/ideological* (i.e., production and control regimes), 7 *functional* (i.e., use, utility and performance of form), 6 legal/administrative (i.e., land systems, control and property), 5 *social* (i.e., publicness, place experience, typological processes), 3 *ecological* (i.e., landscape ecology), 2 *economic*.