Towards Sustainable Habitats in Turkey: Challenges and Prospects for the Future

Derya Oktay BArch, MArch, PGDipUD, PhD
Professor, Faculty of Architecture and Design, Maltepe University, Istanbul, Turkey

Abstract

Considering the serious environmental and social problems faced during the last few decades and the extensive neglect and devastation of local sources and values, urban development practice cannot be said to be meeting sustainability requirements in most habitats. Urban planning and design are not merely engaged in the visual qualities of urban places but should be recognized as processes through which we consciously shape and manage our habitats with a focus on meeting the requirements of sustainable urbanism. This article firstly explores the logic of sustainable urbanism through a review of its philosophical and practical framework; secondly, it provides a critical assessment of contemporary approaches to sustainable urbanism; and thirdly, it analyses the traditional Turkish (Ottoman) city, which provides valuable clues for sustainable habitats with identity. These evaluations indicate that instead of advocating compactness in all cases, randomly mixing of uses, and promoting car-oriented developments; planners and designers should promote context-sensitive compactness, completeness, and sustainable movement patterns and connectedness. Moreover, rather than relying on standardized urban design guides, practicing 'green-washed' architecture and urbanism, creating left-over spaces through planning, and ignoring the peculiarities of the community, practitioners should foster urban identity, promote access to nature and sensitivity to the natural ecology, create sustainable public spaces, and develop social sustainability. These alternative measures are essential for creating sustainability in the urban environment of future habitats.

Introduction

Industrial and technological developments since 1960s, and the process of globalisation for the last two decades have dramatically influenced our habitats. The socio-cultural changes which emerged in this context have driven the sprawling, rapid and uncontrollable growth of cities. This has caused increased travel distances, environmental, social, and economic deterioration, which in turn, has driven more non-sustainable urban developments.

The changes in transportation types, land use, and economy have had wrought their effects on city centres. Moreover, many cities have become overly reliant on the industrial sector, and this has resulted in a reduction of business diversity, which in turn has caused the lack of use of the city centres. In this context, the city centres have lost their meaning and liveability in many cities, especially in developing countries like Turkey, owing to the fragmentation of the urban fabric and the development with out-of-scale and inappropriate buildings lacking social use value. As the residents vacated the central areas and moved to suburban areas in response to the various problems they faced in central areas, city centres have become more problematic places; the buildings have been emptied, they have lost their functions, shops have closed, and most of the entertainment activities have moved away (Manzelat & Oktay, 2019, p. 24).

As cities have grown larger and spread wider, urban functions have disintegrated and public spaces have lost much of their significance in urban life. Streets, in particular, have lost their significance in our lives, and considering their configuration, shape or form, they have not received detailed consideration. To this point, the current coronavirus COVID-19 pandemic period should be mentioned. As the research and documentation on changes in cities over the past decade reveals, the current pandemic period does not look much different than what was experienced before in many cases in terms of limitations, social interaction in housing environments, opportunities for community development, social divisions of tangible and intangible kinds, lack of efficient use of public spaces, and so forth. These problems have existed since the beginning of the 'Modernist' urban planning period and pose a serious threat to the urban life. Harvey (2008), on the other hand, highlights the significance of freedom in the urban environment by saying that

> "The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights".

The majority of the new housing settlements developed in the last five decades have been subjected to a universal design standard that denies a sense of place and urban identity; rather, they reflect a dispersed and haphazard character contrary to the compact and regimented urban fabric in the central cores (Oktay, 2019, p. 31). The typical attempt here is a sort of standard international exercise, which makes no concessions at all to either climate or social life. In some cases, the housing areas spoil the precious land covered by edible landscape; the residential buildings in these areas are concrete apartment blocks isolated on their individual plots and/or tower buildings accommodating luxury residences (mainly in the last ten years) (Figures 1-4). Such developments could be

Figures 1-4: The aerial views of the newly developed areas in Istanbul, Turkey (Photos by author)

considered a threat to urban ecology, and the self-sufficiency of the city and the urban economy.

Today, all cities within the international milieu compete to be perceived as favourable places with international reputations for safety and investment. The resulting competition, along with other factors such as increasingly urban and diverse populations, the expansion of urban areas, the intensification of developments within existing cities and towns, the continued proliferation of the high rise and other intensive building types, and the deterioration of both natural and cultural resources, has been threatening the image and identity of settlements in the last few decades. In this context, the processes of urbanisation and globalisation, which have caused such rapid change to our environments, need to be considered together with the concept of identity and urban sustainability. These processes need to be reintegrated into the agenda of researchers and practitioners in the field of architecture and urbanism (Oktay, 2017a).

If by sustainability we mean towns and cities which sustain themselves without any adverse impact on wider natural systems then it is impossible to envision a sustainable urban neighbourhood or a truly sustainable city. Nevertheless, the way we plan human habitats has an important role to play in increasing the sustainability of human activities and it is the responsibility of those who shape towns and cities to minimise their unsustainability and their impact on the natural environment (Rudlin & Falk, 1999, p. 167).

The article begins by exploring the current understanding of sustainable urbanism and reviewing contemporary approaches. It continues with an analysis of the traditional Turkish, or the Ottoman city, as an ideal model, where ecological and social concerns govern the formation of the city and architecture. It then considers how the author draws lessons from both contemporary and traditional approaches to sustainable urbanism.

A critical review: the concept of sustainable urbanism and contemporary paradigms

A globally accepted definition of sustainable development is that it meets the 'needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987). Research into various aspects of the city reveals that no city can be sustainable on its own. This means that it cannot be completely self-sufficient, economically, socially, or environmentally. Sustainable development, however, implies that, at all these levels, the aim should be the development which does not damage the environment, and does not import resources which adversely affect the global ecosystem or negatively affect sustainable development in other territories; instead, it improves the long-term health of human and ecological systems. In this context, local sustainable development is of great significance, as it is concerned with improving the quality of life of the local community and with the production of resources.

Most of the publications in the field have dealt with it so far simply as a general principle worth recommending in order to safeguard the main components of the ecosystem.

Recent debate about the theory of urban sustainability, however, indicates a tension between technical and social aspects, as much of the focus has been on ideas about active façade technology or purely technologically driven engineering solutions, despite the reality that cities are complex entities bearing both ecological and social problems including economic issues (Lehmann 2010, p. 66). On the other hand, since the city is an organic and dynamic entity and may take many different forms and meanings at different time intervals, we are bound to take the "time" factor into account. Sustainability, then, can be regarded as a perspective or paradigm in which we consider the three dimensions of society, economy and environment together, within the fourth dimension of 'time'.

Figure 5: The aerial view of the newly developed areas in Ankara, Turkey (Photo by author)

Sustainable urbanism grows out of three late 20th century paradigms to highlight "sustainable development": The 'New Urbanism', 'Smart Growth' and 'Green Architecture'. Each of these movements, however, has revealed certain narrow-mindedness.

The movement known as the 'New Urbanism', appeared in the early 1990s in the United States based on the 'walkable' neighbourhoods, villages and small towns with clearly defined centres and edges. It has become a strong force for re-evaluating the physical layout of communities. Walkability, based on an understanding through which the built environment supports and encourages walking by providing comfort, safety and visual interest for pedestrians, connecting people with varied destinations within a reasonable amount of time and effort, is certainly of great significance. However, it cannot be considered efficient and urban, as its focus was actually better suited to 'suburban' development. New Urbanism cannot be considered new either, as it simply revives many ideas about the city and planning that were mainstream before the Modern Movement. Another criticism about New Urbanism is about the elitism within the movement (Kelbaugh, 2002). Indeed, the movement is open to criticism on a number of fronts - in particular for being focused on better-designed suburban development, often for upper-income groups, rather than the creation of truly 'urban' places. It also failed to incorporate green building design and landscaping. Further, since the New Urbanism movement advocates standardisation through similar urban design guides for different regions, it can be said that the need for urban identity is ignored within this paradigm (Oktay 2017b).

In the mid-1990s, 'Smart Growth' evolved as an effort to recast the policy debate over sprawl in a way that more directly linked the environment, the economy and daily life concerns in pursuit of a positive and sustainable urban growth as essential to the quality of the city and urban life. The movement focused especially on mechanisms to promote more compact, walkable, and economically efficient urban development, by increasing the density of the development, ensuring a mix of uses, containing urban 'sprawl' and achieving social and economic diversity and vitality, often introduced as the concept of a 'compact city' (Jenks et al., 1996; Jenks and Dempsey, 2005).

Compact cities are argued to offer opportunities to reduce fuel consumption for traveling, as homes, work and leisure facilities are closer together. They are also favoured by many in the field of urbanism because urban land can be re-used, while rural and edible land beyond the urban edge is protected. However, the case for the compact city is far from won. There are many counter arguments highlighting its limitations. Many still consider that the focus on higher density negates the benefits of suburban living; the convenience created by concentrated housing might actually result in congestion that would outweigh any of the energy consumption benefits created by the compact city (Oktay 2002, p. 262).

Learning from the traditional Turkish (Ottoman) city

The Ottoman city is built in a geographical setting extending beyond Anatolia from Middle Asia to the Balkans. It demonstrates sensitivity to local topography, Islamic and Christian philosophies about the natural world, and local habits and traditions built from a diverse cultural perspective over centuries (Cerasi,1999). It is a good example of a sustainable city from many points of view.

Figure 6: The typical layout of a *mahalle* on a hilly setting in Cumalıkızık, Bursa, Turkey (Bursa Metropolitan City Archive)

The main characteristic of the Ottoman city was its compartmentalisation by *mahalles*, neighbourhoods, the outcome of ethnic peculiarities and religious differences. The *mahalle* was both a geographical entity and a homogeneous community where social ties were strong and economic collaboration took place in the same relationships among the inhabitants. So, it was not only

sustainable ecologically and socially but also paved an economically sustainable ground through its religious-social centre, small local market, fountains, *imaret* (open kitchen) and at times, workshops (Oktay, 2004).

The Ottoman city possessed various attributes that generated an ecologically sustainable environment. Regional climatic characteristics were reflected in the patterns of settlements, and accordingly, every region produced its characteristic urban texture and architecture, hence identity. For instance, in Safranbolu, one of the most characteristic towns in the northwestern Black Sea region of Anatolia (Turkey), hard winters with strong winds forced the people to settle in sheltered valleys (Günay 2005, p.21), whereas, in the Mediterranean region of Anatolia, the settlements were developed along narrow streets protecting people from the sun. The materials and colours were also appropriate in terms of supporting the climatic design and a sense of place (Figures 7-9).

The green gardens, i.e. vegetable gardens and patches (*bostan*), orchards, and so forth, divided the *mahalles* (neighbourhoods). They also bounded the town and supported the self-sufficiency of the city. The small squares at the intersection of streets with trees created the opportunity for access to nature in the public realm as well. The streets, being divided into two by a 10-14 cm water canal running through the middle, helped distribute water to gardens, and prevented the rainwater from flowing into courtyards. The courtyard, with its trees of various kinds of fruits, flowers and small kitchen garden, was the closest relation the house had to nature, and thus it also provided the inhabitant with direct access to nature, enhancing both the building ecology and self-sufficiency of the house, an important aspect of economic sustainability.

The *mahalle*, formed as a unity of residential clusters consisting of dead-end streets within a hierarchical order, provided privacy for the individual houses, an important need for the Muslim community at the time, and was mostly pedestrian. The organic character of the street that was defined by high walls of the courtyards provided a protected and comfortable space, and significantly contributed to the identity in the Ottoman city (Oktay 2004).

Figure 7: The view of the traditional townscape in Safranbolu, Turkey (Photo by Faruk Soydemir)

Figure 8: The street pattern in Safranbolu, Turkey (Photo by Faruk Soydemir)

The city centre provided for all kinds of public use, such as trade and commerce, religion, education, administration and encompassed urban facilities, resulting in a fine-grain mixed-use character which enabled users to socially interact easily, to minimize distances and thus the need for transportation. The main public node and the representation of people's power were conferred to the citadel, the Friday mosque and its courtyard, and the bazaar. One of these elements, the main street or streets of the city, the bazaar or *arasta*, functioned also as a communication channel for people, connecting them to the less important facilities such as public baths, water storage points, and educational centres, hence creating a vivid public realm in a spatial continuum.

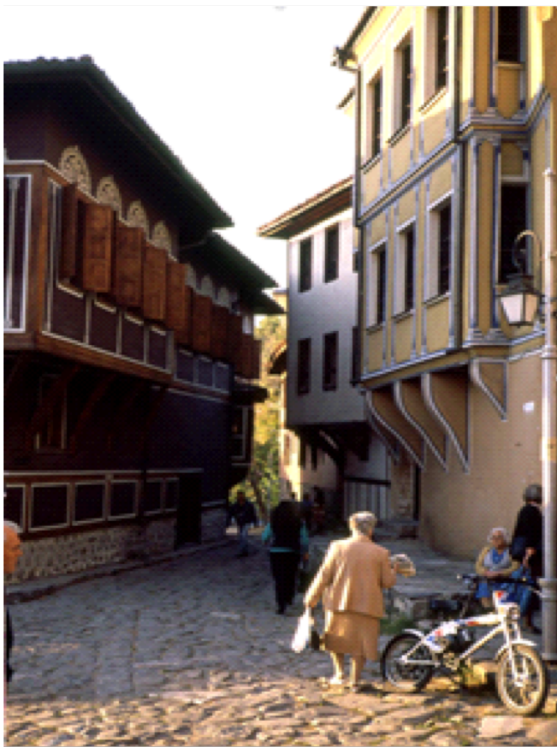

Figure 9: The typical street in the - originally Ottoman - city of Plovdiv (Filibe), Bulgaria (Photo by author)

Although it may seem less viable today, especially given the concerns facing contemporary cities, all the qualities of the Ottoman city described above make it an ideal model for an ecologically and socially sustainable city.

Determining the essentials of sustainable habitats

The above review of contemporary approaches to sustainable urbanism and our analysis of the traditional Turkish (Ottoman) city as a precedent for sustainable habitats demonstrate that the urban planning and design activities and the development process need to take into consideration the following aspects: Context-sensitive compactness; completeness: good mixed-use; sustainable movement patterns and connectedness; sensitivity to nature and ecology; sustainable public spaces; social-cultural sustainability; and sustainable lifestyle.

Context-sensitive compactness. The recent literature indicates that a denser, more compact city is a better city, and more compact denser living is a more sustainable way of living. However, as it is revealed in the traditional Ottoman city that complies with regional characteristics, it cannot be expected that all cities should fit the same model (Oktay, 2017b). What is needed is a comprehensive analysis of the given land, highlighting the physical and social characteristics of the place, its specificities, demands and dynamics, and an estimation and evaluation of the urban development processes, which compares the demand with the land's potential for urban growth.

As taught by the Ottoman city, the contemporary city could be envisioned as an entity made up of well-defined neighbourhoods, and a good range of smaller settlements that could be proposed in the vicinity of the city to avoid unacceptable degrees of urban density and population. The entity could be enhanced further through the redevelopment and densification of the existing core and the regeneration of formerly industrially used sites and docklands. Such so-called 'brownfield development' is essential for sustainable urban development. According to an ecological design approach, density should be related to design in such a way that the advantages and disadvantages of its level are investigated by considering both existing social dynamics and environmental values.

Completeness: good mixed-use. Fine-grain or good mixed-use, an important component of the public realm in the Ottoman city, is important for the presence of people, hence for vitality in central areas. Containing all the collective activities, i.e. trade and commerce, religion, education, administration, and urban facilities, the central parts of the city revealed a fine-grain mixed-use character and helped the local people meet with each other and with the outside world (despite the limited frequency by women owing to the cultural codes of the time). The Ottoman city has proved that retail, in particular, has a power to anchor a community; the *arasta*, the open-air shopping strip in the Ottoman city has supported social interaction and passive contact by supporting people's encounters and shop owners' daily communication in front of their shops. The traditional coffee-house frequented regularly has served as a community centre as well.

Sustainable movement patterns and connectedness: In the last decade of the 20th century, it has become obvious that driving must be reduced to minimize pollution, save energy, and rejuvenate community life. Cars also impose repressive demands on developers, who come across questions of street placement, and the need for costly new roads, curbs, highways, and parking areas. It is pleasing that the idea of 'walkable' settlements is on the agenda of many planners, architects and developers in the world cities, but despite this growing awareness, most of the developments are still being largely planned to accommodate the car, forgetting the value of pedestrian-oriented or humane cities. It is agreed by a number of researchers (i.e. Lund, 2002; Kim and Kaplan, 2004; Khandokar, 2009; Oktay, 2001) that pedestrian-oriented communities can put urban environments back on a scale for sustainability of resources, both natural and economic, and lead to casual interactions and socialisation, physical fitness, safety and amenity, hence more liveable urban environments.

The traditional Turkish (Ottoman) city is a good example of a walkable city, as the streets are enhanced by human scale, physical convenience (protection from the elements) due to the narrow and winding streets following the natural contours of the land, and continuous walls of the houses and courtyards. From these, one important lesson for the contemporary city is designing the city streets first for people, taking into account their functional and aesthetic needs, and only than complying with the requirements of cars.

Sensitivity to nature and ecology. Green spaces in a city contribute to human activity, climate amelioration and ecological diversity (Oktay, 1998, p. 283). The traditional Turkish (Ottoman) city is the perfect example of the habitat's integration with the natural environment and climate. The pre-existing topographic character of the site is apparent at the urban scale even in intensely built-up areas. In this context, in the older days, it was a valuable characteristic that each house was positioned on the land with sensitivity to others so that none of the houses were blocking others' view and breeze. In the general layout of the city, gardens perforate an otherwise dense urban fabric, providing relief to streets and to public and private structures. The presence of a variety of house plans, especially those with a courtyard, *avlu*, or garden reveals the fact that there is a natural relationship between such a layout and the Anatolian life-style (Kuban, 1986). With its trees, flowers and small vegetable plot, the *avlu* is the closest relation the house has to nature; and thus it also provides the inhabitant with direct access to nature.

Owing to the fact that Ottoman urbanism was never based on the kind of strong formalism characteristic of western cultures, a generally informal character was dominant in cities. In this context, there were no formal public open spaces, i.e. well-defined squares, or monumental axes to be found in the cityscape. However, despite having no planned squares and the lack of an active use by people, there was a social and psychological tendency towards meeting and gathering in open spaces of natural character, called *meydan* (Cerasi, 1999; Eldem, 1987).

In the contemporary Turkish city, the mentioned qualities could be a basis for an attempt at integrating such features as edible landscapes of fruit trees and large vegetable patches (allotments) into the city in order to lower heating and cooling bills, lower food costs, and reduce risk of flooding and landslide damage. Trees with canopies can be used for shade, and for the definition of spaces both in

streets and courtyards. At the building scale, other important aspects to ecological sensitivity are the use of local and regional materials of natural character, conformity of the building to its environs and in particular to the climate, the flexibility to adapt to changing conditions over time, and the rich variety of spaces extending from interior spaces to open spaces through various types of semi-open spaces.

Sustainable public spaces. It is well known that the place where cities get 'remade' is in the public rather than the private sphere (Mumford, 1961; Jacobs, 1961). As emphasized by Jane Jacobs, in her pioneering book *The Death and Life of Great American Cities*, public spaces have an important role as containers of human activity and places of social interaction (Jacobs, 1961, p. 386). The same kind of detailed observation informed subsequent work in this tradition, such as Jan Gehl's studies of public space in Scandinavia (Gehl 1987, first in 1971) and William H. Whyte's *The Social Life of Small Urban Spaces* (Whyte, 1980). Bentley, on the other hand, proposes that "cities exist for processes of communication and exchange between people - that is the only reason for having them in the first place - and public space is a key medium through which these processes take place (Bentley, 1993, p. 72).

The organic street structure of the Ottoman city comprising three-dimensionally defined street-space and its social meaning, despite some limitations of privacy, both at the city centre (i.e. men's sitting at coffee-houses and in front of shops in the main street) and in the residential quarter (i.e. children's playing, gathering at wedding and circumcision parties, etc.) show that they were an integral part of our lives in the past. As such, the street was a vital part of the urban landscape with its own specific set of functions and played a key role in the formation of community.

Social-cultural sustainability. Sustainable urbanism is never complete without social sustainability. Social sustainability is a system of social-cultural relations in which the positive aspects of disparate cultures are valued and promoted and there is widespread participation of citizens in all areas of urban life environment. As stated by Keleş (2007), it is concerned with the development of a society that ensures and reconciles social justice, economic efficiency, democratic participation, cultural diversity and rational environmental governance. What could be added to these are social interaction and networks, pride and sense of place, stability, safety, and community outreach and involvement, along with the sustainable neighbourhood unit with its social benefits.

As the most appealing aspect of sustainable urbanism is the sustainable neighbourhood with its societal benefits, we must widen our definition of the sustainable urban neighbourhood to include social as well as environmental concerns as reflected in *mahalle*, the cohesive neighbourhood unit in the Ottoman city. The self-sufficient *mahalle* teaches various lessons, but most clearly paves the way towards neighbourhood identity, economic sustainability and social sustainability.

Sustainable lifestyle. Everything we do as professionals and as human beings in the name of sustainability means very little if we do not actually change the environmental behaviours of consumers, companies, communities and governments. Adopting sustainable lifestyles requires incorporating a range of behavioural responses from energy saving and water conservation, to waste recycling and green consumption, and these would influence the quality of urban life without damaging the planet for the future. In the Ottoman city, in the early Ottoman and Seljuk periods in particular, owing to the preferred simplicity in every aspect of life and self-sufficiency in many senses, people generally adopted a sustainable lifestyle, and it was a healthy and contented community. In today's cities, what is needed for a sustainable lifestyle is "education for sustainable development" and hence a notion of 'ecological citizenship' that would enable urban residents to develop the knowledge, values and skills to participate in decisions about the ways they do things individually and collectively, both locally and globally.

Conclusions

Thoughtfully designed habitats are needed to improve the quality of life in our cities while reducing the negative effects of the global warming on the environment. In this vein, sustainable urbanism provides a reliable context through which the built environment could be designed or redesigned.

A critical review on the paradigms namely New Urbanism and Smart-Growth (Compact City) suggests that these approaches need to be understood provided that the local conditions and characteristics are taken into consideration. Urban design of compact cities can obviously contribute to a more sustainable way of life, particularly in industrialised societies. However, since cities are all different in form and structure owing to a host of place-specific factors, it cannot be expected that they should all fit the same formula when it comes to the question of a sustainable urban form and its density. The degree of compactness and/or defragmentation, an issue that is currently in the forefront of the debates about how the cities will be reshaped after the coronavirus COVID-19 pandemic, should, therefore, be context-sensitive and be decided very carefully. It should not be ignored that there is a need for balancing the competing demands of public health and environment without neglecting its ecological and social-cultural dimensions.

Traditional cities are excellent examples to learn from regarding various dimensions of sustainable habitats. Inspired by the traditional Turkish (Ottoman) city and *mahalle* that comply with local environmental and social-cultural values of the time, the contemporary city could be reconsidered as an entity made up of identifiable districts, and smaller towns of functional diversity could be created in the vicinity of the city rather than reaching unacceptable levels of density and population. In this context, the definition of the sustainable urban neighbourhood must be widened to include social as well as environmental concerns as reflected in *mahalle*. In the new settlements, there must be places that foster social-cultural rituals where all residents come together in common pursuit and observance as used to be done in the streets and courtyards. There should be places, which support multiple public activities, recreation, and settings arranged to enable people to socialise while providing alternative settings for their integration with nature.

Producing standardised urban design guides for places with different geographical and climatic conditions and

social-cultural characteristics is a major threat to quality of community life, hence, social sustainability and urban identity. In times of rampant globalisation, the need for responsible development or social sustainability is more critical than ever, and both globalisation and the imperative of sustainable development demand increased responsiveness to the local peculiarities. A sustainable community endeavours to promote multi-functional rather than mono-functional settlement patterns by providing compact and regimented urban centres, with a broad range of services and amenities in close proximity. This reduces the need for vehicular and public transport, thereby decreasing demands on infrastructure and energy resources, while promoting walkability and community. The main shopping strip and the bazaar or *arasta* in the Ottoman city functioned as a communication channel, connecting the main activities to each other, and created a vivid public realm in a spatial continuum. These characteristics can be re-interpreted as a model when planning and/or re-designing our cities whose central parts are deteriorating owing to the lack of diversity of main functions (business, commerce, housing, recreation) and the effects of privately owned, introverted spaces of modern urban commerce and design. The new urban areas could be planned and designed around a hierarchy of spaces for different purposes, the idea of main shopping strip could be revived in order to prevent the shopping malls to be the norm, and the street pattern could be organized in a way that each street has an identity through the continuity, design and functional layout of buildings.
In the course of environmental transition, cities could target as many as possible of the environment-sustainability ingredients including green spaces. Since green spaces in a city contribute to human activity, climate improvement and ecological diversity (Oktay 1998), an attempt at integrating such features as edible landscapes and directing some of the efforts of greening towards streets would be beneficial. Moreover, the access to nature in the neighbourhood is important for inhabitants' well-being and may help them overcome the stress of everyday life while allowing for physical distancing needed to reduce the spread during the unfortunate times of the pandemic.

What matters in terms of 'green architecture' or 'sustainable buildings' is that the concept of the relationship between nature and the architecture as a design philosophy be restored, without resorting to superficial mimicry. It should be accepted that a city is not a simple collection of buildings and green buildings alone do not create a sustainable city. What is important to green architecture is the use of local and regional materials, conformity of the building to its environs and in particular to the climate, the flexibility to adapt to changing conditions over time, and the rich variety of spaces extending from interior spaces to open spaces through a variety of semi-open spaces as observed in the traditional houses in Turkey.

The research and documentation on changes in cities over the past decade suggests that the restricting coronavirus COVID-19 pandemic period does not look much different from what was experienced before in many cities in terms of limitations, i.e. limited social interaction in housing environments, lack of opportunities for community development, social divisions of tangible and intangible kinds, lack of availability of green spaces at the district scale, lack of variety of open and semi-open spaces at the residence scale, inefficient use of public spaces and so forth. Therefore, any considerations about the 'new normal' must go deeper than those short-sighted solutions, i.e. dining in streets and squares or in glass cubicles provided at restaurants, creating social distancing circles to help people enjoy the outdoors or other artificial methods that mask the challenges of a human-centred perspective. In this vein, what is needed is to develop a human-centred mindset and to build solidarity to find solutions that bring people together while isolating them at the neighbourhood and public and/or semi-public spaces when needed.

To this end, it should be accepted that sustainable development is also a political challenge and requires rethinking not only the city and city region but also of current policies, approaches and professional responsibilities as well as education. For sustainable urbanism to move forward and gain power, it is essential to establish an appropriate application strategy taking into consideration the need for a broad-based, interdisciplinary and human-centred approach to the complex challenges facing today's built and natural environments.

References

Bentley, I., Alcock, A., McGlynn, S., Murrain, P., & Smith, G. (1985). *Responsive Environments*. London: Architectural Press.

Cerasi, M.M. (1999). Osmanlı Kenti: Osmanlı Kentinde 18. ve 19. Yüzyıllarda Kent Uygarlığı ve Mimarisi. Istanbul: Yapı Kredi Yayinlari.

Eid, Y. Y. (2003). Sustainable Urban Communities: History Defying Cultural Conflict, in G. Moser et al. (Eds), *People, Places and Sustainability*. Seattle: Hogrefe & Huber Publishers.

Eldem, S.H. (1987). Turkish Houses, Ottoman Period, Volume III. Istanbul: T.A.Ç.

Gehl, J. (1987, first published 1971). *Life Between Buildings: Using Public Space.* New York: Van Nostrand-Reinhold.

Günay, R. (2005). *Safranbolu Houses*. Istanbul: Yapı Endüstri Merkezi (YEM).

Harvey, D. (2008). The Right to the City. *New Left Review 53*, Sept-Oct 2008. https://newleftreview.org/issues/II53

Hough, M. (1990). Out of Place: Restoring identity to the Regional Landscape. New Haven: Yale University Press.

Jacobs, J. (1961). The Death and Life of Great American Cities: The failure of modern town planning. New York: Random House.

Jim, C. Y. (2004). Green space preservation and allocation for sustainable greening of compact cities. *Cities, 21*(4), 311-320. https://www.sciencedirect.com/science/article/abs/pii/S026427510400054X

Jenks, M. et al (Eds) (1996). *The Compact City: A Sustainable Urban Form*. London: E&FN Spon.

Jenks, M. & Dempsey, N. (Eds) (2005) *Future Forms and Design for Sustainable Cities.* Oxford: Architectural Press.

Kelbaugh, D. S (2002). *Repairing the American Metropolis: Common Place Revisited*. Seattle: University of Washington Press.

Keleş, R. (2007). Sustainable urban development under unsustainable conditions. In D. Oktay (Ed.) *Inquiry into Urban Environment: Issues Concerning Urban, Housing and the Built Environment* (pp. 27-28). Famagusta: EMU Press.

Khandokar, F., Price, A., Austin, S., & Paranagamage, P. (2009). Briefing: User-perspectives on Walkable Neighbourhoods. *Proceedings of the Institution of Civil Engineers: Urban Design and Planning, 162*/DP4, 155-158. https://doi.org/10.1680/udap.2009.162.4.155

Kim, J. and Kaplan, R. (2004). Physical and Psychological Factors in Sense of Community. *Environment and Behaviour, 36*/X, 313-340. https://doi.org/10.1177/0013916503260236

Kuban, D. (1986). *Turkish Culture and Arts*. Istanbul: BBA.

Lang, J. (2016). Urban designing in heterogeneous cities: issues and responses, Proceedings of the Institution of Civil Engineers: Urban Design and Planning (Themed Issue on Urban Identity in the Era of Globalisation - Part One; Ed: D. Oktay), 169(6), 258-267. https://doi.org/10.1680/jurdp.15.00032

Lehmann, S. (2010). The Principles of Green Urbanism: Transforming the City for Sustainability. London: Earthscan.

Lund, H. (2002). Pedestrian environments and sense of community. *Journal of Planning Education and Research 21*, 301–312. https://doi.org/10.1177/0739456X0202100307

Manzelat, R. R., & Oktay, D. (2019). The Quest for Livable City Centers: A Study in Famagusta (Gazimagusa), North Cyprus, *Journal of Civil Engineering and Architecture 13*, 23-30. https://doi.org/10.17265/1934-7359/2019.01.003

McKenzie, S. (2004). Social Sustainability: Towards Some Definitions. *Hawke Research Institute Working Paper Series*. No 27.

Mumford, L. (1961). The City in History: Its origins, its transformations and its prospects. New York: Harcort Brace Jovanovitch.

Oktay, D. (2019). Urban Transformation and Identity in Samsun, Turkey: A Future Outlook, *Open House International, 44*(4), December 2019 (Special Issue on Urban Transformations in Rapidly Growing Contexts, Ed: M. A. Salama), 27-35. http://openhouse-int.com/abdisplay.php?xvolno=45_1_5

Oktay, D. (2017a). Reevaluating Urban Identity under changing circumstances: The Case of Samsun, Turkey, *Proceedings of the Institution of Civil Engineers: Urban Design and Planning, 70*(5), 189-204. https://doi.org/10.1680/jurdp.17.00001

Oktay, D. (2017b), Lessons for Future Cities and Architecture: Ecology, Culture, Sustainability. In A. Sayigh (Ed.) *Mediterranean Green Buildings & Renewable Energy* (pp. 259-274). Cham: Springer. https://link.springer.com/chapter/10.1007/978-3-319-30746-6_19

Oktay, D. (2011). Sustainable urbanism revisited: A holistic framework based on tradition and contemporary orientations, In O. Y. Ercoskun (Ed.) *Green and Ecological Technologies for Urban Planning: Creating Smart Cities*, Pennsylvania: IGI-Global. https://www.igi-global.com/chapter/sustainable-urbanism-revisited/60594

Oktay, D. (2004). Urban Design for Sustainability: A Study on the Turkish City, *International Journal for Sustainable Development and World Ecology, 11*(1), 24-35. https://doi.org/10.1080/13504500409469808

Oktay, D. (2002). Design with the climate in housing areas: An Analysis in Northern Cyprus. *Building and Environment, 37*(10), 1003-1012. https://doi.org/10.1016/S0360-1323(01)00086-5

Oktay. D. (2001). *Planning Housing Environments for Sustainability: Evaluations in Cypriot Settlements.* Istanbul: Yapı Endüstri Merkezi (YEM).

Oktay, D. (1998). Effects of green spaces on the ecological quality of housing settlements. *Ekistics, 65(391/392/393)* (Triple issue), 1998, 283-291. https://www.jstor.org/stable/43623310?seq=1

Rudlin, D, & Falk, N. (1999). *Sustainable Neighbourhood: Building the 21st Century Home*. London: Architectural Press.

Shenker, J. (2020, March 26), Cities after coronavirus: how Covid-19 could radically alter urban life. The Guardian. Retrieved from https://www.theguardian.com/world/2020/mar/26/life-after-coronavirus-pandemic-change-world

Whyte, W. H. (1980). *The Social Life of Small Urban Spaces*. Washington DC: Conservation Foundation.

World Commission on Environment and Development (WCED) (1987). *Our Common Future (Brundtland Report)*. Oxford: Oxford University Press.

Keywords

Sustainable habitats, contemporary paradigms, traditional Turkish (Ottoman) city, challenges, lessons for future cities.