ISSN: 2029-7955 / eISSN: 2029-7947

VILNIUS TECH
Vilnius Gediminas Technical University

JOURNAL of ARCHITECTURE & URBANISM

2024
Volume 48
Issue 2
Pages 141–150
https://doi.org/10.3846/jau.2024.20757

COMPARATIVE STUDY OF SOCIAL SUSTAINABILITY BETWEEN WESTERN CITIES AND IRANIAN HISTORICAL CITIES

Safa SALKHI KHASRAGHI [1]✉, Asma MEHAN [2], Atefeh HAKIMI OSKUI [3]

[1]*Department of Art and Architecture, University of Bonab, Bonab, East Azarbaijan, Iran*
[2]*Architectural Humanities and Urbanism Lab (AHU_Lab), Huckabee College of Architecture, Texas Tech University, Lubbock, Texas, USA*
[3]*Department of Architecture and Urban Planning, Shahid Beheshti University, Tehran, Iran*

Article History:
- received 02 May 2024
- accepted 08 October 2024

Abstract. This study compares the social sustainability models of Western cities with those of historical Islamic cities in Iran, exploring their theoretical foundations and practical implementations. The research investigates whether the principles underlying Iranian Islamic cities align with Western standards of social sustainability, identifying similarities and differences between these models. Using a comparative analysis and an interpretative-historical approach, the study reviews the evolution of sustainable practices in both contexts. Concrete examples from Western urban models and Iranian cities are examined to assess their effectiveness in fostering sustainable communities and promoting sustainable behaviors. The findings highlight significant parallels between Western and Iranian Islamic models, with an 83% overlap, particularly with the new urbanism models of Europe and America, despite distinct approaches rooted in cultural and historical contexts. The study concludes that modern urbanism in the West and the Safavid era cities in Iran represent the most sustainable models within their respective regions.

Keywords: sustainable community model, historical Islamic cities of Iran, Western cities, similarities and differences, comparative study.

✉Corresponding author. E-mail: ***s.salkhi@ubonab.ac.ir***

1. Introduction

A city, as a work of art, can uniquely reflect its culture, nationality, and traditions (Hossien Zadeh Dalir & Ashena, 2011). This rich tradition of city design evolved alongside the development of modern urban planning theories. A notable shift occurred with the establishment of the Congress International d' Architecture Moderne (CIAM) and its fourth congress in 1933, where the Athens Charter was adopted. This charter marked CIAM's expansion into urban planning and introduced the principles of the "functional city," advocating for the organization of cities based on strict functional zoning. The charter's framework emphasizes the fragmentation of urban areas into distinct functions–residence, work, recreation, transportation, and central functions–reflecting a hierarchical approach to city planning (Alihodzic Jasarovic et al., 2015).

Without a doubt, in the same time, Ebenezer Howard has brought into action the conception of the garden cities in his creation "City Gardens of Tomorrow." Howard was a person who believed that it was possible to bring town and country together and create communities that were less commutative and such a situation could be fuelled by the interaction of people. The famous statement of him, "Town and Country must be married and out of this joyous union will spring a new hope, a new life, a new civilization", makes it clear that the main aim was the foundation of communities that are balanced and equate urban and rural facilities (Nikologianni & Larkham, 2022).

The 20th century was characterized by the emergence of a variety of movements like New Urbanism (1993) and Urban Renaissance (1999), which in connection with debates about sustainable development, raised by the readers of the energy crisis of the 1970s and the environmental risks, have shown the increasing need for the novel community building. This result of "socially to be sustainable architecture," which showed a community approach and a green solution as a secondary goal with the primary objective of good human relations within the communities. This new trend in architectural design is a major initiator of the problems that are occurring in urban areas (Raisi & Habibi, 2016).

The politics of sustainability was indeed not just a problem in the West. In fact, Iran's Islamic cities have been seen as one of the major sources of social and urban transformation in the Eastern world. As mentioned above, Islamic societies in Iran, where Islamic culture steers these cities, emphasize spatial unity, class breakdown, respect

Copyright © 2024 The Author(s). Published by Vilnius Gediminas Technical University

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (*http://creativecommons.org/licenses/by/4.0/*), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

for private and public boundaries along with public benefit mechanisms such as endowments (Asefi et al., 2019).

That is why, enclosed civic organization can be seen through different layers of cities such as houses, towns, alleyways, and passes, and at the same time, through walls. Besides markets, mosques are also integrated with these functions, and this makes them viable. Islamic cities have been able to remain sustainable over time because of these characteristics, the latter of which make them similar to contemporary Westers' sustainable cities.

As an illustration, Islamic cities' practice of setting gardens around them resembles Howard's city theory called the garden city, and the construction of suburbs adjacent to old areas is like the building of suburbs in the Western community (Nikologianni & Larkham, 2022) were some of the contemporary examples of the cities' development. Not only that, Islamic cities also have their own distinctiveness, which is a seemingly a chaotic layout meant to protect privacy and improve security, in contrast to the symmetrical and rectilinear planning characteristic of cities in the West.

The study of sustainable communities and urban development has evolved significantly in recent years, especially within the context of modern Islamic cities. This evolution reflects a growing interest in combining urban development, heritage conservation, and sustainable practices. Islamic cities, much like cities from antiquity, represent a complex interplay of cultural, historical, and social factors that shape their development (Boodaghi et al., 2022). Recent research has highlighted the importance of modernizing these cities while preserving their historical and cultural aspects.

For example Ragheb et al. (2022) scrutinize the hurdles confronted by the historical cities in Islamic zones, e.g. Fouh in Egypt. Their work, "Toward Sustainable Urban Development of Historical Cities: Case Study of Fouh City, Egypt," shows the urgency of infrastructures that are modern and keep the historical and architectural legacy of the location. This action has a double purpose as it not only maintains the cultural authenticity of the cities through culture and economic pressure, but it also conforms with the successful development objectives by integrating modern infrastructure with historical preservation.

An important part of the work is, Ali et al. (2023) research paper, "The Impact of Islamic Thought on Sustainable Development of the Arab Islamic City: Baghdad City as a Case Study." It is proved that Islamic principles are the ones, particularly those concerning environmental stewardship, social equality, and economic justice, that have been the ones guiding city development in Baghdad historically. The study explains that these principles are not just newly made things, but they have since the medieval period been a part of the Islamic urban planning. This direction disputes the idea that the cities can be perceived as a plain functional place, and on the contrary, they are considered to be sacred and communal both in Islam.

On the other hand, Al-Jayyousi et al. (2022) has a more detailed analysis of the Islamic development of sustainable economic geography by reviewing the different models, methodologies, and engines availing possibilities from which traditional Islamic sustainable development can be patterned in their systemic study "Re-Thinking Sustainable Development within Islamic Worldviews." The authors are of the view that existing economic systems, such as circular and doughnut economies, rarely include the values of the human being, whose humanity is the essence of the Islamic way of thinking. The investigation provided confirms the requirement of a development design which is both reliable and near to local culture and Islamic principles. This manufacted a better approach to sustainability.

This research is going to be looking at the patterns, their commonalities, and their differences and appraising that. Studying of the past sustainable communities gives the knowledge about what it should be like and what parts of our "the old ways" we need to leave (Raisi & Habibi, 2016).

The primary issue facing contemporary societies is not the lack of material living facilities but the erosion of social interactions and the spirit of neighborliness (Mehan, 2023a, 2023b). Today's communities are marked by a tendency toward isolation, a preference for solitude over communal life, and a decline in the quality of life, as well as in mental and physical security. The formation of sustainable communities has been a topic of intense debate in both the Eastern and Western worlds, with each adopting specific patterns while grappling with the crises brought about by weakened social bonds.

Despite the gains made in understanding the dynamics of sustainable development within religious contexts there are still some gaps to be filled (Mehan, 2023c). Most of the current literature are based on only the theoretical backgrounds of Islamic sustainable development or case studies of specific cities.

The study is meant to address the above problems by conducting a comparative analysis of the sustainable community models in the West and historical Islamic cities of Iran and providing information of the same. Through evaluating the diversities and commonalities and assessing the performance of these models in producing sustainable communities, this study aims to be part of the development of a more holistic and culture-linked sustainable urban planning.

2. Definitions

2.1. Sustainable development, sustainable architecture, social sustainability

Sustainability is the word of the last decade of the 20th century. The concept of sustainable development has become a reference for scientific research on the environment and has acquired a paradigm character for development (Ruggerio, 2021).

Several authors have pointed out that the emergence of the concept of sustainable development dates back to the early 1970s when the evidence and negative environmental effects of the Green Revolution in agriculture, industrial pollution, lifestyle, and urban growth were revealed (Ruggerio, 2021).

The report "Our Common Future" published by the World Commission on Environment and Development in 1987, defined the concept of sustainable development as "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs..." (Ruggerio, 2021).

Following the World Commission, the United Nations Conference in Rio in 1992 as well as World Summit in 2002 on the subject of Sustainable Development was established. Nowadays, the term sustainable development seems to have lost its true meaning. This is because the term has been overused in various situations and has become a stereotype (Fatourehchi & Zarghami, 2020).

Regarding the subject of sustainability, the discussion has oscillated between two antagonistic points of view: the very strong and the very weak sustainability approaches.

For the adherents of the very strong sustainability approach, the subject of sustainability is nature, and, so, the priority is the conservation of its attributes in the most pristine state possible, and, at extreme cases, even neglecting human societies (Ruggerio, 2021).

Today, sustainability in architecture is considered to be the most important factor in design, on which most of architects' endeavors to base their design.

The new definition of social sustainability can be the process for creating successful places which promote wellbeing, by understanding what people need from the places they live (Zarghami & Fatourehchi, 2020).

Global definitions of social sustainability, the needs of social groups involved in the construction process, e.g. occupants, contractors, etc., should be addressed to improve overall satisfaction them (Khasraghi & Mehan, 2023; Mehan, 2019a). This definition, social assessment indicators endeavored to focus on all stakeholders and construction industry (Fatourehchi & Zarghami, 2020).

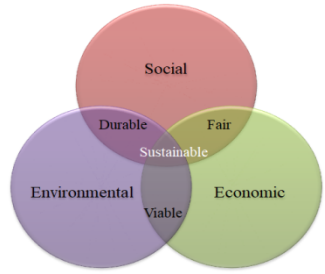

Figure 1. Sustainable development: Intersection of its three components (Adams, 2006)

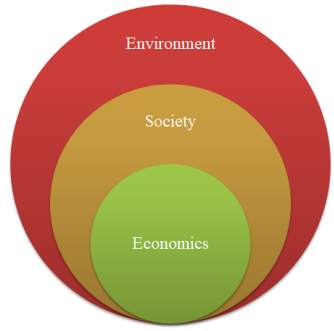

Figure 2. Strong, sustainable communities as concentric circles, showing how economic and social components are surrounded by environmental conditions (Ott, 2003)

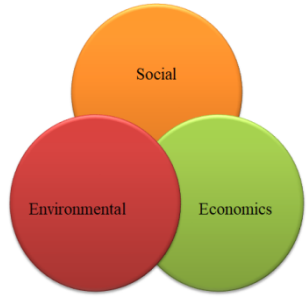

Figure 3. Community as three separate and unrelated sections (Traditional life indicators tended to measure these three parts separately) (Hart, 2010)

2.2. Sustainable community and sustainable architecture dimensions

Sustainable urban development constitutes a global goal (Mecca, 2023). Several definitions have been proposed for a sustainable community, all of which have highlighted a relationship among the three components of community, economy, and the environment (Hart, 2010; Khasraghi, 2008). Regards a socially sustainable community as follows: A community in which economic-social-environmental systems work in such a way that the community provides a healthy, fruitful, and meaningful life for all the residents in the present and in the future.

Based on the priority and sub-criteria weights, local experts ranked safety and security as the most important criteria in the design of residential buildings (Figures 2 and 3). Following this, the performance and flexibility of buildings in terms of architecture ranked as the third most important criterion in sustainable design (Mehan & Stuckemeyer, 2023a, 2023b). After considering the quality of life for residents, the next step is to integrate environmental sustainability by reducing damages and waste during construction (Figure 1). Public participation, another crucial element of social sustainability was also highlighted by local experts. This involvement not only addresses the needs of residents but also fosters a sense of belonging. As noted by Gholabchi and Taeri (2023) participation during the construction phase leads to lower costs, better resource distribution, project sustainability, and overall success (Fatourehchi & Zarghami, 2020).

3. A literature review on the research topic and history of Islam in Iranian cities

3.1. Islamic city

An Islamic city is a city that follows the Qur'an and As-Sunnah and is inhabited by an Islamic community. His form is a city that was planned in the golden age of Islam such as Bahgdad, Cordova, Granada, Al Hambra and Isaffan. The mosque is the center of the city and public buildings surround themosque. Strategic location and can be reached from all directions. Social open space is an obligation.

Flood free but clean water channels are guaranteed to run smoothly and the flow of dirty water is maintained so it does not cause odors and is free from garbage, keeping the city clean (Malaysia, A.M.U.T., n.d.).

While any city where Islam, in the sense of peace and reconciliation with the environment, is established can be considered an "Islamic city," the closer this submission manifests in all aspects, the nearer it approaches perfection. Islam, among other beliefs, has placed the most emphasis on comprehensive submission, particularly to the truth. The efforts of Muslims over fourteen centuries to understand Islam have been reflected more prominently in their cities, bringing them closer to the essence of an Islamic city. However, it would be incorrect to label every city within the geographical boundaries of Islam or under Islamic governance as an "Islamic city." For example, Sultanate cities like Soltaniyeh, though founded by Muslim rulers, may not be considered truly Islamic if they are not in harmony with their material surroundings. In contrast, cities like Constantinople, although Christian and the center of Orthodox Christianity were in many ways at peace with their environment. An Islamic city is best realized where the essence of both city and Islam converge most authentically (Mehan, 2019b; Rajendran et al., 2021; Beheshti & Najar Najafi, 2021, p. 27).

Islamic city is not only the physical setting but it is a way of life-based on ethical, communal, and social principles contained in the Quran. While physically it is evident in the decentralization of power, and self-autonomy of communities adhered with strict observance of ethics and fulfillment of responsibilities. This behavioral model is the resultant of moral unity, social relations, and ethical responsibility (Ali & Shah, 2021).

3.2. Iran, after the rise of Islam

Islamic architecture extended a wide geographical extension from China in the east to Andalusia in the west and a long-time span of more than 14 centuries. Several influences have contributed to the formation of the characters of this architecture, including the different climate, materials, and methods of construction, and the political, legislative, and religious systems (Ali et al., 2023).

The first experiences of architecture and urban planning also started from the Prophet's (PBUH) house, and the first cities such as Kufa, Basra, and Fustat were created for Islamic armies. The end of civilization was simultaneous with the emergence of the modern era, i.e., Islamic civilization, which happened in Iran in the early 19th century (Naderi, 1996).

3.3. Effect of pre-Islamic civilizations on Islamic urban planning

Although the culture of Islamic urban planning and architecture draws from pre-Islamic civilizations like the Sassanids, pinpointing the exact process through which these characteristics were transmitted to Islamic cities is challenging. It is evident that Islamic urban traditions were shaped by pre-Islamic planning principles, but these traditions evolved significantly due to the incorporation of various religious elements, which led to new approaches in city construction. On one hand, these traditions continued to build upon earlier urban planning practices, while on the other, innovations emerged, particularly with the development of religious structures like mosques and madrasas (Kiyani, 1986).

The intricate layout of urban spaces, including markets, dead-end alleys, and the central courtyard typology, was not exclusive to Islamic civilization. However, these features were adapted and applied in Islamic cities in a distinct manner, differentiating them from earlier cities. This planning approach was deeply influenced by the lifestyle, social structure, and functional needs that arose after the advent of Islam (Kiyani, 1989, Vol. 2). In broader terms, the foundation of Islamic arts and architecture stems from a fusion of the artistic traditions of the conquered territories, including those of the Sassanian, Byzantine, and Coptic cultures in Egypt (Kiyani, 1986).

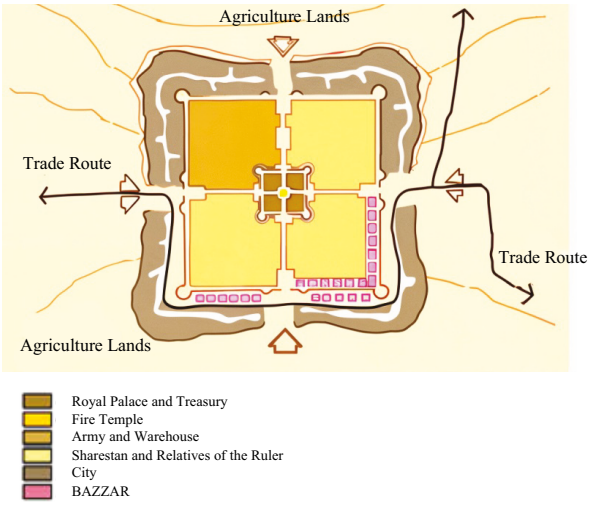

Figure 4. Physical construction of city in Sassanid period (Habibi, 2008)

3.4. Islam and urbanization

From the perspective of Ibn Khaldoun (9th century, a Muslim historian and sociologist), the cities were formed because of not only economic factors but also religion. According to some evidence, Islam is basically an urban (civil) religion (Safar et al., 2018). Accordingly, Islamic civilization was not just a set of religious beliefs and laws; however, it was an Islamic community leading Muslims' lives towards the formation of a community and urban communities. In other words, Islam encouraged people to build a city. On the other hand, the Islamic State was also born in a city.

Ahmad Ashraf, in his sociological review of the history of urbanization, studies urbanization in Iran after Islam and points to the rapid expansion of this civilization. He writes, "Urbanization in the Islamic period is the continuation and transformation of the metadata of the Sassanid's urban life emerged under the new conditions of the Islamic Empire. The political, economic, and social conditions of the city remained intact, and exchanges flourished in the third and fourth centuries of urbanization due to the extent of the Islamic Empire and the expansion of the market, thereby changing the appearance of cities. Religious organizations also became highly important during the Islamic era in the foundation of urban life as such the Adina Mosque or the Jame Mosque was one of the main components of the social system of a city. During this period, the surrounding cities and villages were linked together in regional systems and formed a complex. The basis of such a link was the undifferentiated correlation of handicrafts and commerce with agricultural activities (Mahdavi, 1996).

3.5. Main components and periods of Islamic cities

A comparative analysis of many cities from different periods and regions reveals the key components of an Islamic city. The central core, known as the "Shahrestan" or "Christian," often included markets adjacent to the major gates, extending towards the city center, and housed religious, cultural, and commercial centers, toward which all main roads were directed (Figure 5). Surrounding this core were residential areas called "Parvast," later referred to as "Rebaz," which were accessible through a complex network of secondary roads (G. S. Khasraghi et al., 2023) The fortified section of the city, known as "Kohandej," served as the seat of government and often contained a castle, with fortifications either inside or outside the city walls. It was sometimes surrounded by a wall or moat, and in some cases, had a double fence. Additionally, the outskirts of the city featured various equipment and complementary service spaces.

Islamic urban planning in Iran can be divided into three key periods: (1) The cities of the early Islamic centuries, including newly built cities such as Mashhad and transformed cities such as Rey. (2) Medieval cities, including the reconstruction of destroyed cities such as Tabriz, and newly built cities such as Soltanieh. (3) The cities of later centuries, particularly during the Safavid-Qajar period, exemplified by cities like Isfahan (Kiyani, 1986).

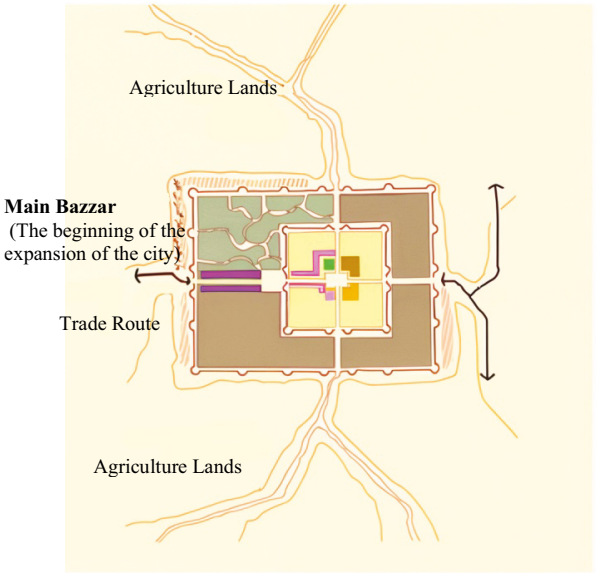

Figure 5. Physical construction of cities in the Islamic period (Habibi, 2008)

3.6 Course of the historical development of theoretical foundations of sustainable social models in the West

Throughout history, cities have always been considered places for people's gatherings as such, the magnetism of the city has always been an attractor of different strata of individuals. In these places, social interaction has increased due to the concentration of facilities, houses, and individuals, and they respond to the long-standing need of mankind, i.e., "Living in a community." Before the industrial revolution, social issues were not much highlighted; Perhaps the main reason should be sought in the existence of strong communities, a sample of which is the image of an interwoven village such as the village in the "Mrs. Marple" series, which evokes a full-fledged community in mind. Following the industrialization of the cities, despite the migration of some villagers to the cities due to more frequent job opportunities and living conditions with comfort and convenience, an opposite trend was also formed in the movement towards the suburbs. This was mainly because of decreased sense of community in traditional cities' large and dense areas. Zoning based on "the land use in each area" caused the dispersion of the city and thus weakened social bonds and enhanced anonymity and the fragmentation of urban life. This problem, on the one hand, and the failure of the suburbs due to the separation of commercial and residential functions, low density, and car-dependent development, on the other hand, prompted city planners to think of a solution to the crisis of social issues (Mehan et al., 2022). The modern movement offered two solutions (with the formation of the International Congress of Modern Architecture: SIAM). The first solution was proposed by Le Corbusier's theory of the shining city with an emphasis on vertical development and liberating perspectives. The second solution was in the

form of neighborhood unit models, garden cities, and the developed model of the neighborhood unit called Superblock (Radburn), which were proposed by Clarence Perry, Ebenezer Howard, and Clarence Stein, respectively. They all aimed at idealism and achieving human cities to respond to fragmented industrial cities (Mehan, 2024). However, the anti-social spirit of the modern movement was criticized by theorists such as Jacobs, Lynch, Bentley, Alexander, and Carrier. Their proposals were inspired by traditional neighborhoods, increasing density, pedestrian-centricity, lack of dispersion, emphasis on urban concentration, people's involvement, and others, which formed the foundation of "New Urbanism." In Europe, New Urbanism was followed by the models of "Urban Renewal," "Urban Village," "Utilitarian-Oriented Housing." In America, the models of "transportation-oriented development (TOD)," "traditional neighborhood development (TND)," "Pedestrian-oriented progress (P > P)," and "compact community (C. C)" were presented. All these models aimed to achieve lasting communities (Tappert et al., 2024; Mehan et al., 2023).

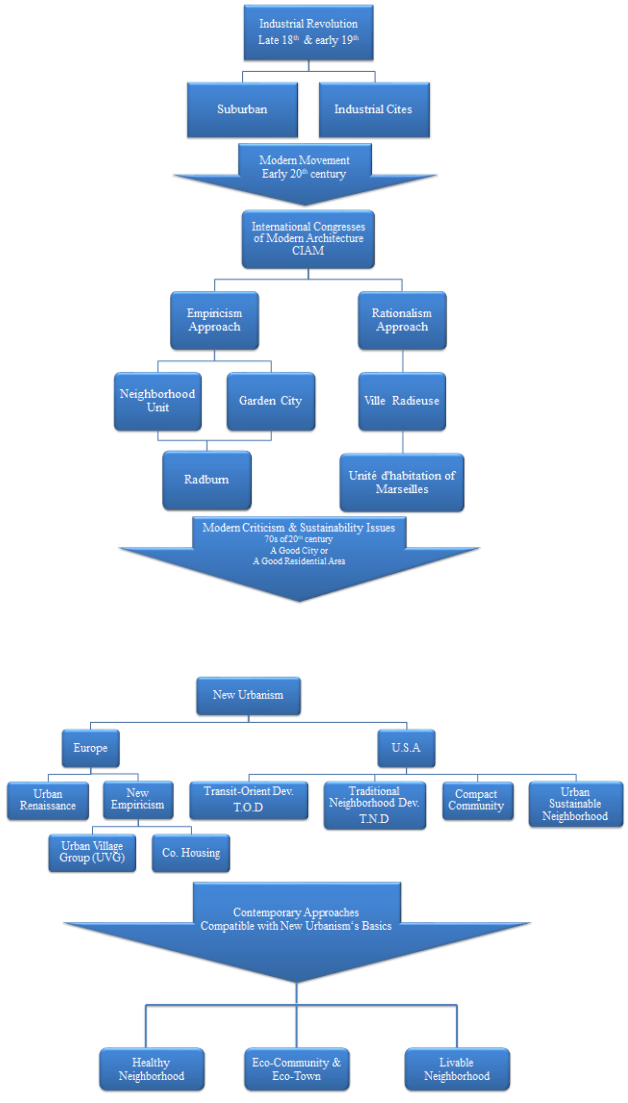

Figure 6. Evolution of sustainable communities in the West, from the industrial revolution to the present era

Besides paying attention to economic and environmental considerations, it also highlighted the social aspect. This dimension was to improve the quality of life and the equality of social classes and justice within and across generations (Mehan & Mostafavi, 2024).

In short, due to the lack of necessary comprehensiveness in the proposed models during the ups and downs of urban planning, Western communities only witnessed the trials and errors of the theories presented by urban planning experts. In this regard, three turning points are as follows: (1) the industrial revolution/industrial cities and suburbanization, (2) the modern movement, and (3) the environmental and social crisis of the 1970s. Following each crisis or turning point, the communities sought a solution, which, because it was usually accompanied by haste and did not have the required comprehensiveness, they always suffered failures along with small and time-dependent achievements (Mehan, 2022). With the formation of the Congress of Modern architecture, the Congress of New Urbanism, and the World Environment Commission have declared danger (Mehan, 2016, 2017). Finally, it has become a general summary mentioned in the form of sustainable communities (Figure 6). Instead of new experiences and renovation, efforts have been made to identify and strengthen the old strong communities and models, and, instead of applying new laws, the current communities should be left to themselves so that the residents can be the builders of their own community and develop it over time.

3.7. Pre-Islamic influence and early Islamic urban development

Before the advent of Islam, Iranian cities, shaped by their unique civilizations, had developed sustainable patterns

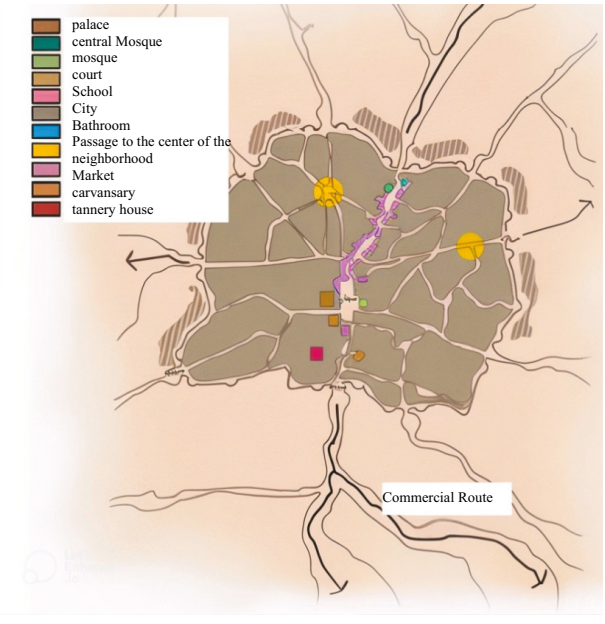

Figure 7. Physical construction of city in Safavid era (Habibi, 2008)

over time, such as the market and the square, which strengthened urban structures despite existing social injustice. With the introduction of Islam, the caste system, which divided cities like Cairo into sections (Kohandej, Sharistan, and Rebaz), was replaced by a new Islamic vision. The school of Islam emphasized equity, brotherhood, and the rejection of ethnic-racial discrimination, aiming to create a unified community, or "ummah." The core features of the Islamic city–mosques, markets, and neighbourhoods–supported this societal transformation, reflecting Islamic ideals in urban planning (Figure 7).

3.8. Islamic urban models and city structures

Islamic cities followed three key models of development: (1) the reconstruction of existing urban spaces, focusing on the rapid expansion of Rebaz (outer city) compared to Sharistan (inner city); (2) the establishment of new cities next to old ones, often for political or religious reasons, such as the construction of Mashhad around an Imam's shrine; and (3) the creation of functional cities, categorized by specific roles like aspiration, power, and wealth. These cities maintained continuity with pre-Islamic urban principles, such as those seen during the reign of the Abbasid caliphs. Local governments flourished, contributing to a cultural and scientific renaissance, and cities continued to reflect old Sasanian city layouts, including the transformation of Kohandej into Dar-al-Emarah, and the restructuring of Sharestan and Rebaz into districts with distinct social and cultural identities.

3.9. The Isfahan school and the peak of Islamic urbanism

The period of Al-e-Buya marked the peak of transformation and revival in Iranian Islamic cities. Despite the disruption caused by the Mongol invasions, which brought about a temporary decline in urbanism, the emergence of the Isfahan school signaled a turning point. This era saw the development of an Islamic utopia, characterized by centralized governance, the rise of a national identity under a shared belief system, and innovative urban designs. Notable developments included the introduction of the street and Chaharbagh, the zoning system, and the construction of integrated complexes. These advancements represented the physical manifestation of Islam's utopian aspirations, establishing Isfahan as a model for Islamic urbanization. Figure 8 shows the evolution of Islam in Iranian cities from the rise of Islam to the Isfahan school in a hierarchical manner.

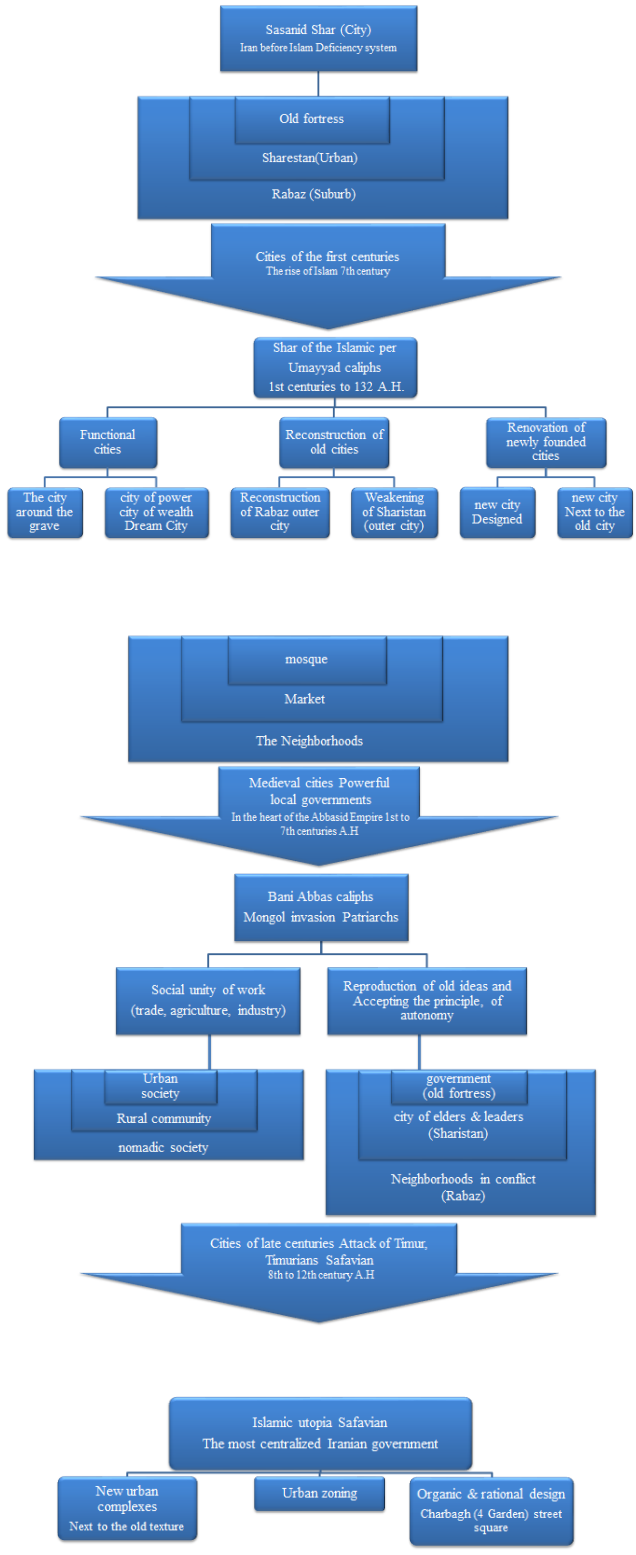

Figure 8. Evolution of Islam in Iranian cities, from the rise of Islam to Isfahan School

4. A summary of research findings

According to the comparative Tables 1–4 presenting the similarities and differences of the western and Islamic community models of the cities and a review of the relevant literature (the historical development of two categories of communities), factors involved in the sustainability of the communities can be classified into two categories of social/demographic factors and non-social/physical environmental factors:

Table 1. Common social/demographic factors involved in community sustainability

Islamic Iranian cities	Sustainable communities in the West
Houses of the introverted tradition: lasting for several successive generations	Personal ownership of housing/length of stay
Neighborhoods include sub-classifications, including Barzon, Koi, Koiche (alley)	Small communities
People's participation in the construction of neighborhoods/ participation in religious ceremonies and attendance at the mosque/construction of public buildings by the people (waqf)	Participatory design/democratic structure/promotion of citizens' participation and involvement/participation in community
Rich and poor in the same neighborhood/large and small houses together	Diversity of demographic structure of resident/settlement types of households
Secrecy/aristocracy: internal and external	Environmental solitude
Extended and nuclear families/special importance for family foundation in Islam	Number of residents in the houses/the presence of children
Islamic brotherhood/brotherhood and equality/neighbor's rights/ enjoining good and forbidding evil/seeing and visiting etc.	Contact among residents (material assistance, social support, information sharing, interviews, emotional assistance, etc.)
Negation of deficiency system of pre-Islamic periods/Muslim unity	Homogeneous and interconnected communities/healthy and strong social networks/cohesive local community
Attention to deprived classes of community/negation of any social discrimination	Equality of social classes/social justice/equality between generations and within generations/physical and mental well-being
Communities with union similarities, religious and national similarities, geographical similarities	Forming communities with similar social values

Table 2. Distinct social/demographic factors involved in community sustainability

Islamic Iranian cities	Sustainable communities in the West
Each neighborhood belongs to a family and tribe/distinct and conflicting neighborhoods	Housing for different strata of suitable social and demographic composition (racial, cultural, ethnic, occupational, age diversity, etc.)
Attention to spiritual health along with material well-being/ performing religious duties	Individual well-being/meeting basic needs

Table 3. Common non-social/physical environment factors involved in community sustainability

Islamic Iranian cities	Sustainable communities in the West
The principle of autonomy/local administration by Kadkhoda, Naeb, Ayaran, etc.	Autonomous housing/local control power/self-reliance community
Observance of hierarchy and order in urban structure: the two main lines in the four directions in the place of formation of the square and around it, Divans, Jame' mosque, and the market; the market in its movement towards the gates, creating different neighborhoods and taking root in them	Hierarchy of access from macro to micro/ease of access/ accessibility for the public
Equipping each neighborhood with its own public uses (mosque, bath, square, bazaar, water storage, etc.)	Mix and match functions
Compact texture/compilation rather than building a single building	High density and compactness/rejecting the dispersion of communities
The system of closed neighborhoods and dead-end roads, neighborhoods with gates, gates and squares	Recognizable centrality and privacy (squares, neighborhood center, gates, historical and geographical borders, etc.)
Each neighborhood with a special profession	Neighborhood job/development and creation of employment at the neighborhood level/creation of job positions at the neighborhood scale
Public spaces in the backbone of the city/every biological complex with a center of gravity or square	Public functions/local facilities concentrated in the center of the neighborhood
Mosques: places of public gatherings with high social functions (city administration, legal proceedings, announcing news, teaching, studying, consulting, etc.)	Defined public spaces (multi-role and multi-purpose) with high social function
The multi-functional market (religious, social, and cultural activities in addition to earning a living) is the backbone of the city. The market is in the heart of the Islamic city, next to the Jame' Mosque/healthy management and far from corruption	Building a strong urban economy
Towers, ramparts and gates/gated areas/protection and safety system on the country's roads and equipping them with caravanserais	Security/defensible, crime-free, controllable and monitored space
Types of houses: private, group, caravanserai, quarter, Haush	Construction of various types of houses in a neighborhood: rental housing, private ownership, cheap and self-sufficient housing

Table 4. Distinct non-social/physical environment factors involved in community sustainability

Islamic Iranian cities	Sustainable communities in the West
Disorganization and irregularity of the city network (biological order)	A city with a geometric and regular structure
Winding alleys with dynamic geometry (due to security issues)	Readability of the city
In addition to the separation of public and private spaces, spatial separation by gender	Separation of public, private, and semi-public areas

5. Conclusions and recommendations

A review of sustainable communities in the East and the West documents that one of the main factors in the sustainability of communities is preventing the uncontrollable and indiscriminate growth of cities. By comparing cities to the human body, James Wood compares the growth of uncontrollable cancer cells with the dispersion of cities. Like cancer cells, the uncontrolled growth of cities eventually leads to the destruction of social ties in a city. Urbanization in the West and in the Islamic world has observed relatively similar experiences (ups and downs). Some examples are the trend of suburbanization in the West and its similarity with suburbanization during the Afghan period in Iran, Bagshahrs in the West versus Chaharbaghs in the School Isfahan, TOD system in new urbanism versus the traditional context of Islamic cities (the main path of the city and the concentration of business units around it and the neighborhoods surrounding them). Despite the adoption of different solutions, this kind of similarity can also be observed in the urban management and administrative system. For example, in the Radburn model, an integrated planning system is set, and urban planning is formed based on it. In Islamic cities, due to the lack of urban management laws, systems to some extent were to manage and build public services and facilities. Looking at the other dimensions of sustainable development, such as economic development in the West, one can look for its eastern manifestation, the protection-safety system governing Iran's roads. In this system, inner-city and suburban caravanserais, each with its own function, played a critical role in the economic development between cities and foreign countries.

According to comparative tables and social and non-social factors involved in the sustainability of communities, the similarity between the two categories of models is more significant than their differences (83% similarity and 16.6% difference), taking into account the greatest overlap of Islamic cities with the models of new urbanism in Europe and America and the least overlap with garden cities and neighborhood units (modern urbanism in general). Among all the Western models, the modern urbanism model, both in Europe and America, is assumed as the most successful sustainable model in the West and among the Islamic utopias from the beginning of Islam to the Safavid era, and the Safavid utopia is the most sustainable model regarding the complete compliance of its body with sustainability criteria and the ideals of Islamic urbanism.

The present research aimed to adopt a deeper look at Iranian sustainable models arising from the Islamic worldview and its confrontation with sustainable communities in the West to reach further and better knowledge of sustainable Iranian-Islamic communities. The comparison of these models with global standards would provide the grounds for continuous and more comprehensive reports on sustainable Iranian communities. In this study, theoretical foundations in which physical factors were rooted were less considered because of the extent and multiplicity of the models. Future studies would deal with this dimension in detail.

References

Adams, W. M. (2006). *The future of sustainability: Re-thinking environment and development in the twenty-first century.* Earthscan.

Ali, A. I., & Shah, A. M. W. (2021). Integration of Islamic principles in the planning and designing of urban public spaces. *Bannu University Research Journal in Islamic Studies*, *8*(1).

Ali, M. A., Kahachi, H. A., Al-Hinkawi, W. S., & Shok, M. I. (2023, June). The impact of Islamic thought on sustainable development of the Arab Islamic city: Baghdad city as a case study. In *AIP Conference Proceedings* (Vol. 2820, No. 1). AIP Publishing. https://doi.org/10.1063/5.0150741

Alihodzic Jasarovic, E., Komatina, D., Paunovic Zaric, S., Murgul, V., & Vatin, N. (2015). Decentralization as a cause of spatial segregation. *Applied Mechanics and Materials*, *725*, 1134–1140. https://doi.org/10.4028/www.scientific.net/AMM.725-726.1134

Al-Jayyousi, O., Tok, E., Saniff, S. M., Wan Hasan, W. N., Janahi, N. A., & Yesuf, A. J. (2022). Re-thinking sustainable development within Islamic worldviews: A systematic literature review. *Sustainability*, *14*(12), Article 7300. https://doi.org/10.3390/su14127300

Asefi, M., Khasraghi, S. S., & Roders, A. P. (2019). Art and technology interactions in Islamic and Christian context: Historical approach to architectural globalization. *Frontiers of Architectural Research*, *8*(1), 66–79. https://doi.org/10.1016/j.foar.2018.12.003

Beheshti, S. M., & Najar Najafi, E. (2020). Where is the Islamic City? *Conservation of Historical Area*, *1*(1), 1–25.

Boodaghi, O., Fanni, Z., & Mehan, A. (2022). Regulation and policy-making for urban cultural heritage preservation: A comparison between Iran and Italy. *Journal of Cultural Heritage Management and Sustainable Development*. https://doi.org/10.1108/JCHMSD-08-2021-0138

Fatourehchi, D., & Zarghami, E. (2020). Social sustainability assessment framework for managing sustainable construction in residential buildings. *Journal of Building Engineering*, *32*, Article 101761. https://doi.org/10.1016/j.jobe.2020.101761

Gholabchi, M., & Taeri, B. (2023). *Sustainable architecture* (*strategy towards low carbon architecture*). Pars University of Architecture.

Habibi, S. M. (2008). *From flux to the city: Historical analysis of the concept of the city and its physical appearance/thinking and influence*. Publishing and Printing Institute of Tehran University.

Hart, M. (2010). *Introduction to sustainable development*. Earthscan.

Hossien Zadeh Dalir, D., & Ashena, L. (2011). Visual order in traditional Iranian urban planning (case study: Tabriz bazaar). *Geography and Planning Quarterly*, *16*(37).

Khasraghi, G. S., Volchenkov, D., Nejat, A., & Hernandez, R. (2023). University campus as a complex pedestrian dynamic network: A case study of walkability patterns at Texas Tech University. *Mathematics*, *12*(1), Article 140. https://doi.org/10.3390/math12010140

Khasraghi, S. S., & Mehan, A. (2023). Glocalization challenges and the contemporary architecture: Systematic review of common global indicators in Aga Khan Award's winners. *Journal of Architecture and Urbanism*, *47*(2), 135–145. https://doi.org/10.3846/jau.2023.17176

Khasragi, S. S. (2008). *Sustainable housing* (*looking at social relations*). University of Tehran, Tehran.

Kiyani, M. Y. (1986). *A brief overview of urbanization and urban development in Iran*. Islamic Guidance Publication.

Kiyani, M. Y. (1989). Cities of Iran. In *Islamic culture and guidance publication* (Vol. 2). Tehran.

Mahdavi, S. (1996). Establishment and planning of Islamic cities. *Abadi Magazine*, *22*, 54–63.

Malaysia, A.M.U.T. (n.d.). *Application of the concept of the Islamic city and its influence on the social culture of the community*.

Mecca, B. (2023). Assessing the sustainable development: A review of multi-criteria decision analysis for urban and architectural sustainability. *Journal of Multi-Criteria Decision Analysis*, *30*(2), 1818–1841. https://doi.org/10.1002/mcda.1818

Mehan, A. (2016). Squares as tools for urban transformation: Foundations for designing the Iranian public squares. *Revista Brasileira de Planejamento e Desenvolvimento*, *5*(2), 246–254. https://doi.org/10.3895/rbpd.v5n2.4479

Mehan, A. (2017). In razing its modernist buildings, Iran is erasing its past Western influence. *The Conversation*, *26*, 1–7.

Mehan, A. (2019a). The challenges of "comparative urbanism" in post-Fordist cities: The cases of Turin and Detroit. *Outline Journal*, *4*(Comparing Habitats), 1–14.

Mehan, A. (2019b). Emerging spatialities of discontent in modern Tehran. *QU3: iQuaderni di U3: 19*, *1*, *2019*, 63–71.

Mehan, A. (2022). *Tehran: From sacred to radical*. Routledge. https://doi.org/10.4324/9781003140795

Mehan, A. (2023a). Re-narrating radical cities over time and through space: Imagining urban activism through critical pedagogical practices. *Architecture*, *3*(1), 92–103. https://doi.org/10.3390/architecture3010006

Mehan, A. (2023b). Re-theorizing the collective action to address the climate change challenges: Towards resilient and inclusive agenda. *Canadian Journal of Regional Science*, *46*(1), 8–15. https://doi.org/10.7202/1097156ar

Mehan, A. (2023c). Gio Ponti and Villa Namazee: (De)listed modern heritage. *Heritage*, *6*(2), 789–801. https://doi.org/10.3390/heritage6020043

Mehan, A. (2024). From exported modernism to rooted cosmopolitanism: Middle East architecture between socialism and capitalism. In *Rooted cosmopolitanism, heritage and the question of belonging* (pp. 227–245). Routledge. https://doi.org/10.4324/9781003348740-12

Mehan, A., & Mostafavi, S. (2024). Immersive art and urban heritage: An interdisciplinary study of socio-environmental justice in Houston and Amsterdam. In F. Moral-Andrés, E. Merino-Gómez, & P. Reviriego (Eds.), *Decoding cultural heritage*. Springer. https://doi.org/10.1007/978-3-031-57675-1_19

Mehan, A., & Stuckemeyer, J. (2023a). Urbanismo en la era de las transiciones radicales: hacia paisajes urbanos postindustriales. In *Transición energética y construcción social del territorio ante el reto del cambio climático y el nuevo marco geopolítico* (pp. 145–174). Aranzadi.

Mehan, A., & Stuckemeyer, J. (2023b). Collaborative pedagogical practices in the era of radical urban transitions. *Dimensions of Architectural Knowledge*, *3*(5), 125–142. https://doi.org/10.14361/dak-2023-0508

Mehan, A., Lima, C., Ng'eno, F., & Nawratek, K. (2022). Questioning hegemony within white academia. *Field*, *8*(1), 47–60.

Mehan, A., Odour, N., & Mostafavi, S. (2023). Socio-spatial micro-networks: Building community resilience in Kenya. In A. Cheshmehzangi, M. Sedrez, H. Zhao, T. Li, T. Heath, & A. Dawodu (Eds.), *Resilience vs pandemics* (pp. 141–159). Springer. https://doi.org/10.1007/978-981-99-7996-7_9

Naderi, K. A. (1996). The urban development commonalities of the Islamic world. *Abadi Magazine*, *22*, 35–46.

Nikologianni, A., & Larkham, P. J. (2022). The urban future: Relating garden city ideas to the climate emergency. *Land*, *11*(2), Article 147. https://doi.org/10.3390/land11020147

Ott, K. (2003). The case for strong sustainability. In *Greifswald's environmental ethics* (pp. 59–64). Steinbecker Verlag Dr. Ulrich Rose.

Ragheb, A., Aly, R., & Ahmed, G. (2022). Toward sustainable urban development of historical cities: Case study of Fouh City, Egypt. *Ain Shams Engineering Journal*, *13*(1), Article 101520. https://doi.org/10.1016/j.asej.2021.06.006

Raisi, I. M., & Habibi, A. (2016). An essay on social sustainability in housing. *Abadi Magazine*, *55*(1), 11–16.

Rajendran, L., Molki, F., Mahdizadeh, S., & Mehan, A. (2021). (Re) framing spatiality as a socio-cultural paradigm: Examining the Iranian housing culture and processes. *Journal of Architecture and Urbanism*, *45*(1), 95–105. https://doi.org/10.3846/jau.2021.14032

Ruggerio, C. A. (2021). Sustainability and sustainable development: A review of principles and definitions. *Science of the Total Environment*, *786*, Article 147481. https://doi.org/10.1016/j.scitotenv.2021.147481

Safar, N. S. M., Yahya, S. A., Usman, I. M. S., & Ismail, A. H. (2018). Ibn Khaldun's theory, principles, and concepts on urban planning. *Journal of Design + Built*, *10*(1), 1–8.

Tappert, S., Mehan, A., Tuominen, P., & Varga, Z. (2024). Citizen participation, digital agency, and urban development. *Urban Planning*, *9*, Article 7810. https://doi.org/10.17645/up.7810

Zarghami, E., & Fatourehchi, D. (2020). Comparative analysis of rating systems in developing and developed countries: A systematic review and a future agenda towards a region-based sustainability assessment. *Journal of Cleaner Production*, *254*, Article 120024. https://doi.org/10.1016/j.jclepro.2020.120024