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CASE STUDY RESAERCH PAPER

Analysis of the model of sustainable development in the traditional bazar of Iran (Case study: The traditional Bazar of Qom)

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ABSTRACT

Throughout history, urban spaces have played an important role in the socioeconomic life of residents and have acted as a center of communication and transformation in cities. In the modern era, with the profound changes that have occurred in all aspects of life and living, most of the urban spaces have turned into places of speculation and have been influenced by bazar forces to serve the interests of limited flows. Iran's traditional bazars with their ancient history have had an active social role in addition to the economic aspect, and in many cities of our country we can see the juxtaposition of religious and cultural elements with the fabric of the bazar. The purpose of this article is to discover the commonalities and the origins of the space. A city is in the process of sustainable development. To achieve this goal, the role of traditional bazar spaces has been briefly examined with regard to the social, economic and environmental aspects of sustainable development. The historical review of the bazar space will inform us to some extent about the process of space production throughout history and will help in better understanding the role of urban spaces in sustainable development. In this way, both the components of sustainable development are explained and urban spaces in the new position of the "beating heart of the city" appears and in urban spaces, the social, economic and environmental role of cities is strengthened. Questionnaire and analysis of findings with spss software.

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1. INTRODUCTION

Architecture is a cultural heritage and relates to the social and cultural aspects of life. With social changes, new forms of architecture are formed, this problem can be seen especially in the bazar and modern shopping center in Iran. Modern shopping centers have existed in Iran since the sixties, and a few years after the Iraq-Iran war, we suddenly faced an unprecedented growth of such centers, these centers are based on popular styles and fashions regardless of the model and scientific law, are built, while the Iranian traditional bazar has a specific and precise pattern, and effective steps can be taken in the design of contemporary spaces by examining and extracting the architectural principles of the traditional Iranian bazar. One of the most important things that appear due to the occurrence of accidents and incidents in cities, especially in the post-accident stage and the level of tolerance of cities in city centers like bazars. (Al-kuni and Refaat, 2023) As an urban space that connects many urban functions like a backbone, Oom bazar is not without this issue. In this research, an attempt is made to address the qualitative aspects of bazar body design that have been effective in environmental sustainability. The research question is as follows. What factors in the architectural design of traditional bazars have led to environmental sustainability?

MATERIALS AND METHODS

Methodology

The research method is descriptive, analytical-historical, and using library and field information collection methods, observation and examination of the body of the current situation of the Qom bazar have been done. For this purpose, the most important written documents and information including previous researches and printed articles, magazines and historical books, travelogues and maps and using photography of Qom bazar have been examined. Components of sustainability in urban spaces The Iranian architect, taking with him the histor-

ical experience and the collective wisdom of the architects of the generations before him, looks at the methods of heating and cooling the building in a comprehensive and all-round way, and at the same time avoids any extravagance and extravagance. It is based on these documents that everyone believes that Iran's past architecture was stable in the field of architecture. In the traditional architecture of Iran, the building, based on its geographical location, deals with the outside environment in a way that makes the best comfort of the interior possible without the use of complex, energy-consuming and polluting devices. In other words, our predecessors knew the laws and passive solar systems in the best way and have continuously used it to achieve an eternal stability of the building. But until now, none of these elements have been investigated completely and in a scientific way, and their relationship with each other has not been presented scientifically. In addition to the environment, sustainable development affects the economy, culture and social issues. The main issue in sustainable development is to pay attention to the needs of the future generation while meeting the current needs of the society. Achieving the improvement of quality in urban environments by creating the quality of life and freshness of the environment is formed in the city. Human happiness is the product of cultural vitality, social participation, the freshness of the environment and sustainability of development. The main hypothesis of the proponents of socialism is that the society has advanced too much in the direction of individual rights and has moved away from the concepts of social responsibilities and commitment to the biggest community of the city. . In a sustainable city, citizens feel responsible for the environment and by maintaining it and committing to the environment, they try to preserve and improve its quality. Leave it for the next generation. (Fig.1)

It has affected the housing. Based on this fact, it is clear that even the traditional spaces are facing changes, willy-nilly. The formation of shopping

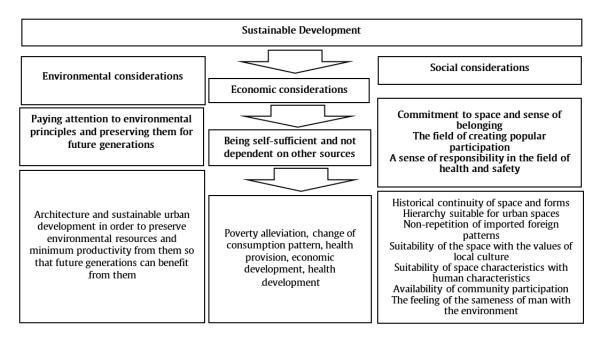


Figure 1: Axis of sustainable development

centers with large architectural volumes and depending on their access by car was formed in the 20th century in Europe. What currently guides the design of shopping spaces in our country is the modeling of the works that architects and employers in the West shape their commercial spaces according to the needs of their society. unfortunately, the lack of attention to the valuable architecture of traditional Iranian commercial spaces leads to the creation of spaces It has become low-quality and purely material in many cities of Iran, and contrary to the all-round influence we have had in traditional Iranian bazars, it can be seen that in modern commercial complexes, it often has an economic aspect and emphasizes many human needs, including social activities, connection with nature, Religious, ideological and cultural concepts have received less attention. In a comparative comparison between the traditional bazar and modern commercial complexes, the differences between these two spaces were discussed in terms of physical, semantic, and functional dimensions. These items can be seen in Table 1.

By comparing the traditional bazar space with modern spaces, it is possible to notice changes in the structure of new spaces, which can be contrary to the goals of sustainable development. The traditional bazar space has been successful in three areas of social, economic and environmental issues. In the following, by examining the dimensions of sustainability in the Qom bazar as one of the old and living bazars of Iran, the hypothesis will be analyzed.

Architectural dimensions in the traditional bazar of Oom

In the development of the city during the Islamic period, the passage that passed by the fortress gradually turned into a bazar, and the most important urban elements were built at its main entrance, the old square. The bazar is located around the most important communication highway of the city and has a direct connection with the social base of the city. In the past, the old square was always considered as the center of the city and it was the intersection of various roads that passed through the city. (Rasmi et al., 2023) The network of the main passageways of the ancient fabric, each branch of which is

Model of sustainable development in the traditional bazar

	Attributes	Modern shopping centers	Traditional bazar	
	Style	Modern architectural style	Traditional and native architecture	
	Spaces	Paying attention to human scale and dimensions is less important	The scale is close to human dimensions	
	Texture and materials	Modern materials such as glass, ceramic, tile, metal and plastic	Traditional and natural materials such as wood, soil and stone	
		Transparent and flexible texture	Lack of transparency and matte surfaces	
	Geometry	Asymmetric and fragmented - no hierarchy	Symmetrical - spatial hierarchy with high importance	
	Ownership	Shops are often rented out	Salespeople are often owners and ownership is important in relationships	
Physical		Modern appliances	Lack of mechanical access and no facilities for the disabled	
	Accessibility	Access and movement in length and height	Accesses on horizontal levels	
		Surrounded by streets and accesses and ranges	Access to streets and urban elements	
	Sizes	Small boutiques without warehouse	Big shops with extensive warehouse	
	Green Space	Natural and artificial greenery	Natural greenery including plants and large trees	
	Color	Shiny and attractive	Most natural colors	
	Light	Bright and transparent - light provided by artificial lights	Dim and gloomy light supply by skylights and skylights	
	Sound and smell	Modern music, perfumes, fashionable products, food products	The sound of ocean and professions - the smell of vegetables, food and spices	
	Religious	Less religious shopkeepers	Most salespeople maintain belief characteristics	
		Little connection with religious centers - inactive during holidays and celebrations	Communication with religious centers and activities in celebrations and ceremonies	
ິ	Linkage to the past	Not related to historical periods	Related to historical features	
Semantic	Familiar relationship	It is not related to family relationships	It is related to family relationships	
	Social interac- tions	Non-permanent and unstable social relations	Strong and stable social relationships	
	Identity	Social identity is not very strong	The concept of social identity is available	
	Sellers	Young sellers with the demands of the young generation	Sellers are older and with traditional behavior	

	Attributes	Modern shopping centers	Traditional bazar	
	Infrastructure	Considering the infrastructure in the spaces in the initial design	Without infrastructure and their addition after the modernism period	
	Cooling and heating	Modern systems in shops and in corridors	Modern systems in shops and natural ventilation in corridors	
	Parking	Consider parking in the design	No parking and using areas for parking	
	Placement position	Separated and away from the historical core - distributed in the suburbs	Historical extension - located in the central core of the city	
	Showcase	Windows are decorated showcases	Simple and unadorned windows	
lal	Furniture	Use of furniture such as benches, trash cans, pots	It has no special furniture	
Functional	Buy And sell	No high purchase among shopkeepers	Integrate high purchase with respect to charity and board of trustees	
Fu	Timing	Rigid rules and deadlines	Greater flexibility in timing	
	Economic	Modern centers have become consumers of goods	The traditional bazar is producer and consumer	
		The great importance of modern and foreign goods and foreign taste	The importance of local and often traditional products and home products	
		Non-Iranian foods	Food and traditional foods	
		The offered product is a selection of limited goods and high prices	Various and different products, various goods, and various prices	
		Definitely and specific trades, accessories, decorations and decorations	Various guilds, repair guilds, food guilds, etc.	

Table 1: Comparison of traditional bazar with modern commercial spaces

considered one of the old neighborhoods, is connected with the passages of the Labchal neighborhood and Old Square, respectively. The old city of Oom has a central core. This center consists of various residential functions, bazar, square and historical and religious places. Most neighborhoods are organized like sectors of a circle around this center. Each of these neighborhoods is connected to the communication center of the old city by means of their main passageways, i.e. Old Square and Labchal Alley, the end of the bazar also ends at Old Square, and currently it is a rectangular square surrounded by various shop. In his travelogue, Chardon mentions the bazar of Qom and writes, "A very magnificent bridge has been built at the eastern end of the river. It also has large and good bazars where wholesale and retail sales are carried out" (Chardon, 1957) Ambrosio Contarini also writes that "Qom is a small but beautiful city located in a plain and surrounded by walls, everything is found in abundance, and it has good bazars, which is the center of trade in handicrafts and It's fastnesses." (Kantarini, 1970) The Safavids paid a lot of attention to Qom, and this city followed the path of perfection following the Timurids and Qara Quyunluhs, which at that time had started to develop, and became one of the prominent cities of Iran in terms of development and population. The famous Safavid kings used to come to Qom and do their work, including Shah Ismail Safavid, who stayed in Qom during some winters. After the Afghan strife, Oom fell into ruin and no one paid attention to it, and this continued until the Qajar period, and the writers and travelers who described Qom pointed out its ruin and destruction. The poets of the Oaiar era also called Qom a ruined city. Have known Qajar sometimes paid attention to Qom, such as Fath Ali Shah, due to the vow he made, he decorated the dome of the shrine, and Naser al-Din Shah also gave orders for Qom's settlement. (Faqihi, 1971) During the era of Nasser al-Din Shah, the bazar of Qom began to expand and a new bazar was built, and on both sides of this new bazar, buildings such as the large Timcheh were built. In the first years of the Pahlavi period, sections were added to the new bazar based on the existing commercial needs. (Noban, 2002)





Picture 2: Picture of the bazar entrance from the side streets

This covered bazaar includes coppersmiths' bazaar, cobblers' bazaar, Raste bazaar and Hosseinabad bazaar. The bazar goes from Mesgarha Bazaar to 19 Di Street and from Hossein Abad Bazaar to Taleghani Street. The length of the bazaar is about one kilometer and its width reaches six meters. The structure of Qom bazar is organic and lacks fixed and simple geometrical order. Initially, it was built linearly and in a unified way and continued from Old Square to Alikhani Bridge. In the bazar of Qom, there is no Chinese introduction and background for the new spaces located on the path of movement, and many sights and perspectives are discovered at once. Nodes such as the entrance to the service spaces

and the squares around the bazar are turning points in the structure and backbone. They are the main order and create diverse landscapes. There are no residential houses in the middle of the bazar, but the architecture of Ajin blends with the texture and landscape of the city and has creatively created spaces within it.

Environmental dimensions of the traditional bazar of Oom

Most of the Qom bazaar plans are designed in two parts, and with the middle part, the main space is separated from the back part. In the design of the cells, domes are placed on these two parts. With ceiling holes, the possibility of natural light is provided in them. By examining the cells of the Qom bazar, it can be seen that the dome shape of the cell roof has provided the possibility of natural ventilation from the roof, and besides that, natural light has been provided in the cell during many times of the day. The layer and clay are brick-faced, and the foundation is made of limestone. Bricks with plaster mortar have been used in the bazaar's arches and accessories. This method is one of the usual methods in the implementation of traditional structures in Iran. The use of layer and clay itself is a kind of insulation against rising humidity. And the sequence of bazaar arches can be resistant to earthquakes.

Understanding the ventilation of Qom bazar

In the investigation of the ventilation system, it has been determined that the air flow in the direction of the bazar has been established automatically and permanently. This process returns to the geometric shape of the roof, the movement of people and materials, and the shape of the roof. With the successive placement of circular domes with relatively the same height, it has become the factor of forming a movement corridor in the bazar. The presence of circular holes at the top of the domes is the same factor of the movement flow along the corridor. Due to the speed of the wind blowing on the roof, these holes have a lower pressure on the inner edges and cause the air layers to move inside the dome, this air flow has been providing the bazar air ventilation.

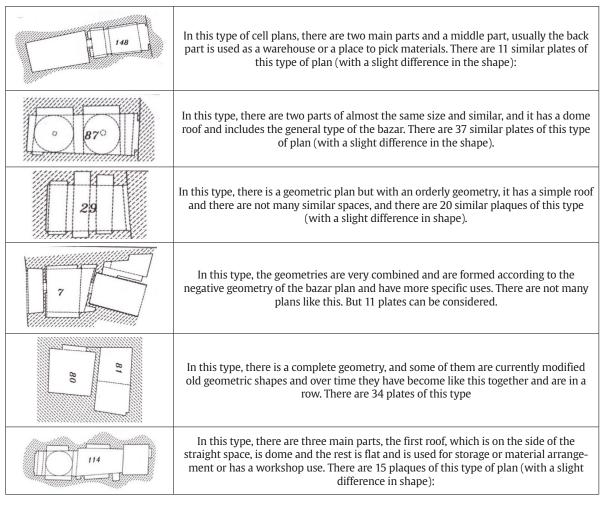
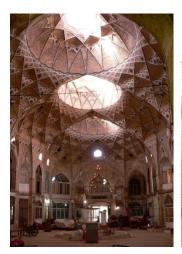


Table 3: Typology of the plan of cells in Qom bazar



Big Timcheh Bazar Qom



Old Bazaar Corridor



The space in front of Haj Asgar bathroom

According to the materials used for the roof and the feature of the dome, from the geometrical point of view, the heating effect of sunlight is the factor of air displacement inside the dome in such a way that with the heating of the outer surface of the dome, due to the low thermal conductivity coefficient of the dome material, there is a suitable temperature difference on both sides of the roof. It comes into existence and becomes the factor of air displacement inside. Another factor of ventilation is constantly related to the number and volume of movement of people inside the main passage. This factor is due to the body heat and the temperature difference inside the main passage, and it establishes the ventilation flow along the bazar line. Currently, a number of units have tried to ventilate their residences by installing electric devices such as fans and coolers. These units have been facing ventilation problems due to the changes that have taken place, including the destruction of parts of the roof covering of the bazaar. On the other hand, the installation of these equipment, especially the water cooler, only ventilated a small area and causes many other problems. One of the fluid and continuous flows in the bazar is light. One of the most important factors that can be seen when facing the Oom bazar and its main spaces is the active presence of light, which the architect has masterfully used in the space. It is constantly seen in most parts of the bazar. Light covers spaces directly and indirectly. Open spaces are a source of direct light, and the surrounding spaces benefit from direct light thanks to this source. The space of caravanserai, Sarai Abbasgoli Khan, Razavieh School and many other spaces have saturated light due to the courtyard, and the space of Bazar Row and Timcheha has local light. In the direction of the bazaar, it offers a local light that is appropriate to the level of attention and pause. In front of each cell, an aperture pours the light down, and the passer-by sees a place brighter in every few steps. The arches and hollows of the cells come and draw the customer's attention to the cells. This rhythm of light and shadow becomes a factor for movement in the bazar. In addition, the contrast of the light in the semi-dark space of the bazar and the saturated light source in the space makes one move and points to the different spaces. The valves are seen in the shape of a circle on the top of the dome and in the shape of a heart on both sides. The combination of the light that shines from the ceiling and the dome volume of the ceiling creates a pleasant atmosphere. At the points of pause, the intensity of this light is increased and the dimensions of the roof opening become larger, for example, in the great Timcheh, the increase in height and the beauty of the Yazdi constructions and applications are unique in their kind. The dimensions of the openings in the roof have been increased and indicate the distinctiveness of the space. The architecture of Oom bazar in terms of plan design, materials and use of natural ventilation system has come close to the principles of sustainable architecture and has been able to save energy consumption to a great extent by using static and self-sufficient systems in energy consumption. Social and economic dimensions of the traditional bazar of Qom

The bazar, as a communication axis, interacts with the surrounding spaces, and by actively participating in collective activities and creating a basis for participation, it had established its place in the heart of the public's life. The traditional bazar has played an important role in the economic dimension from the past to the present. Traditional bazars, including Tehran's Grand Bazaar, are operating on a macro scale, and due to their characteristics, they have been able to operate effectively on a micro to macro scale. Paying attention to the economic, production, storage, political, cultural, religious and service aspects of the traditional bazar has maintained its dynamism and with its performance on a micro and macro scale, it has caused new centers to operate under the support of the traditional bazar in most cities. The diversity of time and the provision of services on a permanent and temporary basis in the traditional bazar is another of its features. Guilds with great diversity and appropriate establishment have placed side by side activities. The attraction and tension of specialized lines makes people choose among the goods with peace of mind. The security and economic value of the goods are guaranteed in this way, and the buyer can compare similar goods without worry. Convergence of compatible activities and divergence of incompatible activities in traditional bazars strengthens the economic dimension along with respect for humanity and humanity.

The social dimensions of sustainability are an important part of the process of sustainable development. If the building or the city space is completely designed based on respect for the environment and the environment, but the users do not respect the culture and manners of using it, the effort to achieve the principles of sustainable development will definitely fail, will be faced In this regard, having a sense of belonging and the identity of people with the environment plays an effective role. As a rich environment, the Iranian bazar has been able to create a suitable atmosphere by using the cultural, social, and religious contexts instead, the components of the Iranian bazar space by creating mental and perceptual images towards the signs, refer to an immaterial concept and in this way to the quality The perception of architectural space and the sense of place are affected. The most important effective factors in creating a sense of place in the Iranian bazar are the values in the physical structure and the meanings of the space. Physical factors have improved the meaning of activities through the quality of design, paying attention to the proper connection between the bazar and the city, the combination of uses, the combination of open and closed spaces, and the creation of appropriate quality in the design of spaces, and by satisfying different human needs, it has caused a series of perceptions, satisfaction and finally They feel the place. In the following, the social dimensions of the bazar are analyzed using a questionnaire.

DISSCOUSION AND FINDINGS

Data analysis

In this research, focusing on the proposed concepts, questionnaires including 20 closed questions were prepared, the main purpose of which is to evaluate the variables of sense of belonging to the environment, sense of place, and sense of identity, and to discover the degree of correctness or priority of them from the people's point of view, in line with the components of the sense of belonging. Sense of place and collective memory of three questionnaires were prepared. Reliability assessment in this research was done with the help of SPSS16 software. The reliability coefficient of the questions was calculated and the coefficient was 0.96 for the sense of place, 0.89 for the sense of belonging and 0.90 for collective memory, considering that the limit and foundation of reliability is 0.7. The coefficients are very satisfactory and acceptable, which indicates the high validity of the present research questionnaire. Therefore, the results of its analysis have high reliability and are considered as acceptable scientific findings.

Analysis of findings

According to table (4), the level of significance obtained for all variables is significant at the level of 89.2% (90%). This means that the research variables follow the normal distribution.

According to table (5), the significance level obtained for all variables is significant at the 80% level. This means that the research variables have homogeneity of variance.

Bartlett and KMO statistics in the traditional bazar of Qom (sense of place), considering that the significance level of the Bartlett test in the traditional bazar is 0.05, the desired matrices in the Oom bazar are the same

Bartlett's statistic and KMO in the traditional bazar of Qom (sense of belonging), considering that the significance level of Bartlett's test in the traditional bazar is 0.05, the desired matrices in the Qom bazar are the same.

Considering that the significance level of Bartlett's test in the traditional bazar is 0.05, the desired matrices are the same in the Qom bazar. In order to check the statistics of the questionnaires displayed in the traditional bazar, Bartlett's and KMO's test were used separately. The significance of all the main components in the traditional bazaar was 0.05, and according to the comparative comparison, it is concluded that the research variables centered on the concepts of sense of place, sense of belonging and collective memory have been realized in the traditional bazaar of Qom and lead to the creation of

meaning in the place. has been In the traditional bazar of Qom, paying attention to perceptions, identity, beauty, and proper relationships has been more effective than other factors, and on the other hand, the sense of community due to the decrease in social relations of the traditional bazar in the contemporary era and the feeling of satisfaction due to non-compliance with some needs of the modernism era are the least had allocated the percentages.

component	K-S statistic	Significance level
Belonging to Qom bazar	1.35	0.72
A sense of place in the Qom bazar	1.54	0.83
Collective memory in the bazar of Qom	1.4	0.75

Table 4 Kolmogorov-Smirnov test to determine the normality of the data

component	F statistic	Significance level
A sense of belonging to the Qom bazar	2.04	0.46
A sense of place in the Qom bazar	3.14	0.81
Collective memory in the bazar of Qom	2.08	0.48

Table 5 Levine's test to determine the homogeneity of data variance

Place	Component	KMO statistics	Bartlett statistics	Significance level
	Feeling satisfied	0.742	63	0.05
	Sense of participation	0.682	61	0.05
	Relationships and placement	0.802	91	0.05
Qom traditional bazar	Decorations and walls	0.723	84	0.05
	Semantic perception	0.854	93	0.05
	Attention to identical dimensions	0.840	93	0.05
	Beauty and symbols	0.865	94	0.05

Table 6 Bartlett and KMO statistics related to the activity component in the traditional bazar of Qom

place	component	KMO statistics	Bartlett statistics	Significance level
	Feeling satisfied	0.742	63	0.05
	Sense of participation	0.682	61	0.05
Qom tradition- al bazar	Semantic perception	0.854	93	0.05
ar sasar	identity	0.840	93	0.05
	Beauty and symbols	0.865	94	0.05

Table 7 Bartlett and KMO statistics in the traditional bazar of Qom (sense of belonging)

Place	Component	KMO statistics	Bartlett statistics	Significance level
	Feeling satisfied	0.742	63	0.05
0	Sense of participation	0.682	61	0.05
Qom tradi- tional bazar	Concepts of environmental aesthetics	0.723	84	0.05
	Emphasis on identifying concepts	0.840	93	0.05
	Symbolizations	0.865	94	0.05

Table 8 Bartlett and KMO statistics in the traditional bazar of Qom (collective memory)

CONCLUSION AND RESULTS

From the physical point of view, the structure of the bazar in the old cities of Iran forms the backbone of the city and places other important urban elements in its context. The connection with other urban elements created a continuous network in the cities, the traditional Iranian bazar has usually reflected the identity of the people due to the inclusion of the main elements of economic, political and cultural life. The most important ideological and religious elements can be found in mosques, schools, and the most important of these elements are located in the bazaar. The traditional bazaar is an example of sustainable architecture and urban planning. and an environment responsive to many sustainability components.

Between the different economic and financial sectors of the bazar and the type of building structure and its architecture, a reasonable coordination has been established gradually and with the passage of time. The urban landscape of the bazar and the definition of the role of the bazar in spatial systems in the city are very important. Iranian traditional bazars used to present themselves as complete and all-purpose collections in the city, but now they are threatened by the creation of new commercial centers, and in a number of cities, their uses are limited and they are devoted to traditional and non-modern goods, and they are welcomed by the young generation. They don't take it, while the bazar as the core of every city in Iran, if it is alive and remains alive, most of the urban spaces of Iranian architecture (such as baths, schools, large mosques) will be preserved and as a result, the cultural heritage will also be preserved.

REFRENCES

Pirnia, Mohammad Karim 1347, Illness Boulevard, Art and People, July

Pirnia, Mohammad Karim 1384, Introduction to the Islamic architecture of Iran, Soroush Danesh, 9th edition

Sultanzadeh, Hossein, 1362, The process of formation of cities and religious centers in Iran, Agha, Tehran

Habib, Farah 2015, Harmony of Light and Color in Iranian Urban Spaces, Fine Arts Magazine, Number 27, Autumn

Cantarini, Ambrosio, 1349, Safarmaneh, translated by the power of Allah Roshni, Sepehr printing

Abbasi, Mohammad, Sharden travel book, Amirkabir publishing house, 1336

Naghizadeh, Mohammad, 1386, perception of the beauty and identity of the city in the light of Islamic thinking, Isfahan Municipality

Nuban, Mehr al-Zaman, 1381, Qom province cultural heritage image, publications and cultural productions

Rahai, Omid, 2013, cultural identity and its effects on local methods of natural ventilation of the old bazar of Dezful, the artisans' row, Bagh Nazar Quarterly, 10th year

Barq Jaloh, Shahin Dekht, 2018, Physical Structures of Physical Centers of Iran, Page No. 33, Volume 11

Biglari, Esfandiar, 1355, Iranian Bazars, Art and People Magazine, No. 162

Pirnia, Mohammad Karim, 1370, about urban planning and traditional architecture of Iran, Abadi Quarterly, first year, first issue

- Pour Jafar, Mohammad Reza and Alipour Jafar, 1390, the role of social capital in the economic situation of traditional bazars in Iran, Urban Management, spring and summer issue
- Tosali, Mahmoud, 1369, principles and methods of urban design and residential spaces in Iran, publications of the Center for Studies and Research of Urban Planning and Architecture, Ministry of Housing and Urban Development
- Habibi, Seyyed Mohsen, 2013, From Shar to Shahr, 11th edition, Tehran University Press
- Hosseininejad, Zilla, 2018, investigation of damage reduction methods in the bazar against earthquakes, Beheshti University master's thesis
- Rajabi, Azita, 1386, Morphology of Bazar, Aghah Publishing House, Tehran
- Rahai, Omid, Nikbakht, Maryam and Rahai, Ali, 2018, Dezful Old Bazar and sustainable strategies of native architects, review of climate solutions, materials and implementation methods, Abadi Quarterly, 19th year, number 64, pp. 20-25
- Sultanzadeh, Hossein, 1362, The process of formation of cities and religious centers in Iran, Agha, Tehran
- Najafi, Abolhassan, 1307, Farhang Persian Folklore, Tehran, Nilufar Publications
- Rasmi, S., Majedi, H., & Zarabadi, Z. S. S. (2023). Evaluation of mental image of topological representation method with emphasis on urban identity (Case study: the central area of Kashan city). Journal of Urban Management and Energy Sustainability, (), -. doi: 10.22034/jumes.2023.2001000.1138
- Al kuni, O., & Refaat, H. (2023). Explanation of urban resilience criteria in an Islamic City. Journal of Urban Management and Energy Sustainability, 5(1), 18-36. doi: 10.22034/jumes.2023.2000317.1135