

# An Analytical Study on the Principle of Unity in Historical Neighborhoods (Case Study: Sarshoor Neighborhood, Mashhad City, Iran)

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**ABSTRACT:** One of the most important principles in the formation of Iranian-Islamic cities is the principle of unity. Observing the principle of unity in the physical-social space of historical neighborhoods has led to the organization and integration of them. A review of studies on this issue indicates that the principle of unity in the scale of urban neighborhoods has been less considered. The main question of the study is how and with what factors and criteria was the principle of unity formed in the physical space of Sarshoor neighborhood, Mashhad city? This study is historical and analytical research. The research process is divided into two main stages. In the first stage, it is attempted to determine how the spatial structure of the Sarshoor neighborhood was before the extensive physical-spatial interventions taken in the contemporary era. In the second stage, the factors and criteria related to the principle of unity are determined on the maps and photos of the neighborhood in an exploratory way and using the relevant graphical analysis. The results show that in the historical neighborhood of Sarshoor, a set of factors in a complex and close relationship with each other, have been effective in unifying the physical space of the neighborhood. Factors including "connectivity and continuity", "centrality", "hierarchy", "coordination", "interconnectedness" and "semantic unity" have been effective in realizing the principle of unity in the neighborhood by creating various qualities in different dimensions of physical space of the neighborhood.

**Keywords:** *Unity, Diversity, Historical neighborhoods, Sarshoor neighborhood, Mashhad.*

## INTRODUCTION

In the past, urbanism in Iran included some principles on which the city was formed. One of the most important principles seen in the Iranian-Islamic city is the principle of "unity in diversity". The fabric of Islamic historical cities has been strongly integrated and interconnected, indicating the observation of the principle of unity. About the Islamic cities and the principles forming them, many scholars have pointed to the application of the basic principle of unity in the city to organize and integrate the city, from the architectural scale to the city scale (Habibi, 2003, Naghizadeh, 2016 a, 193; Ardalan & Bakhtiar, 2001, 7; Ahari & Habibi, 2001, 75; Ismailian & Pourjafar, 2013). Some also believe that the broad complexity and diversity in Islamic cities founded in the past in different parts of the world where Islamic civilization has emerged, including Arab cities, have become integrated by the principle of unity (Ben Hamouch, 2011; Ben Hamouch, 2009; Hakim,

2002, 361).

The principle of unity is one of the principles derived from the Islamic worldview governing Islamic cities. Accordingly, in Iranian-Islamic cities, this principle shows the spatial connection and relationship between different and diverse elements in the past cities where all the spaces and elements in the city and neighborhood, at any scale and with any function, play their roles and create an integrated city. Meanwhile, the principle of unity is one of the basic principles, meaning most or all of the principles mentioned concerning the Iranian-Islamic city facilitate the emergence and manifestation of the desired unity in the structure of the Islamic city (Naghizadeh, 2016a, 250).

A review of the research background shows that although the principle of unity in cities and especially its various dimensions have been widely investigated, they have been less addressed on the scale of urban neighborhoods. Moreover, this

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principle has been mentioned in the studies but it has not been theoretically explained and no case study has been practically investigated to objectively represent the factors and criteria (Habibi, 2003) or only some criteria (but not all criteria) have been addressed on the neighborhood center scale (Saremi et al., 2016). Besides, there is less analytical research focused on the whole neighborhood fabric. What makes this study important and necessary are as follows: making urban neighborhoods integrated has always been one of the main concerns of urban planners and designers, knowing how the plans prepared at the scale of urban neighborhoods can have unity and integrity and analyzing historical neighborhoods in terms of the principle of unity make it possible to identify the dimensions and factors playing a role in creating unity in these neighborhoods and factors and criteria can be used in the design of new urban neighborhoods after being contemporized. Thus, the present study focuses on the factors generating unity in historical neighborhoods.

Mashhad City is considered as one of the historical cities of Iran due to the holy shrine of Imam Reza and there are several neighborhoods in its historical texture. The present study focuses on one of these historical neighborhoods (Sarshoor neighborhood) with unique features in its physical texture. The main question of this research is how and with what factors and criteria was the principle of unity formed in the physical space of the historical neighborhood of Sarshoor? Therefore, the present study aims to identify the components, factors, and criteria unifying the spatial structure of the neighborhoods in Iranian Islamic cities. In the present study, the Sarshoor neighborhood is investigated analytically to identify the factors and criteria related to the principle of unity.

### **The Concept of Unity**

So, unity refers to being united, integrated, and unique. One of the most important fundamental features of unity is its diversity according to which each component is placed in its proper place, or in other words, each component of any phenomenon must be examined and considered in terms of its tasks, conditions, characteristics, and expectations of it.

According to different schools of thought, observing or manifesting the principle of unity in their works is necessary to promote their efficiency and facilitate their movement towards the desired perfection and the ultimate goal of their creation. The principle of unity in diversity is a type of principle, which is true of material phenomena and should be considered as one of the factors, causes, and manifestations of the desirability of each set. Unity is one of the main thoughts of Islamic theologians, based on which one can find specific examples of it based on spiritual principles (Naghizadeh, 2016b, 124). In Islamic thought, the unity of the universe is a sign of the oneness of the Creator. The universe is ruled by unity, despite the considerable diversity and multiplicity in it. The unity of the universe is considered as one of the proofs for the unity of the

origin of the universe. The unity of the universe is introduced as a real and natural unity.

In Surah Al-Mulk, Noble Quran, GOD says:

“[And] who created seven heavens in layers. You do not see in the creation of the Most Merciful any inconsistency. So return [your] vision [to the sky]; do you see any breaks? Then return [your] vision twice again. [Your] vision will return to you humbled while it is fatigued.” (Verses 3 and 4).

In these verses, God clearly describes the true unity in the universe. In this regard, Motahari said: the connectivity between the parts of the world is deeper than the connectivity between the parts of a machine, it is of the connectivity between the members of a body, meaning that single life and a single personality rule the world. Unity is the dominant quality of the universe (Naghizadeh, 2016b, 194).

In other words, the most obvious manifestation of monotheistic thought in the environment is the different forms of unity. This concept has emerged in various forms in the historical Islamic cities, and thus the diversity of urban environments and spaces becomes united with the principle of unity.

In the field of the principle of unity and its various forms in the city, Iranian and Western thinkers have pointed to various issues. Christopher Alexander mentions the principle of unity in many of his works. In one of his works, he points out that cities grow as a whole and under their rules of wholeness. This wholeness is observed in all scales, from the largest scale to the details (Alexander, 1987, 75). Certainly, one of the rules of wholeness is unity. In another work, he uses patterns as a tool to achieve structural integration and emphasizes integrating and unifying structures in the urban environment (Alexander et al., 1977, 25). Emphasizing on having a structure, Edmund Bacon believes that that structure, whose individual components are related to each other based on the process of organic growth, has unity (Bacon, 1974, 300). Iranian scholars have also expressed their views on the principle of unity. Mahmoud Tavassoli believes that a balanced combination of mass and space is achieved by observing principles and rules. Some of these principles, such as the built-up area, are measurable and easily understood, but some principles such as unity, composition, coordination, and connectivity are complex and difficult to perceive (Tavassoli, 2003). The desired wholeness provided as a result of the unity and coordination of the components is an orderly composition and also shows unity (Tavassoli & Bonyadi, 1993, 35). He also believes that in the past, the collection of cities, neighborhoods, and city centers have physically and spatially created a unified and integrated composition (Tavassoli, 1997, 17).

Mohammad Naghizadeh, in the description of the theory of the space for a pure life and the principles of the Islamic city, says: Unity is of the principles derived from the Islamic worldview governing Islamic cities. Most of all of the principles mentioned concerning the Iranian-Islamic city facilitate the emergence and manifestation of the desired unity in the structure of the Islamic city. For example, one can interpret balance as the unity

of weight, homogeneity as the unity of kind, symmetry as unity in distance, coordination as unity in purpose, integration as unity in diversity. He introduces many different aspects for the manifestation of the unity principle in the urban environment, from design philosophy to social, physical, managerial dimensions (Naghizadeh, 2016a, 250). Ardalan & Bakhtiar (2001, 28) consider the principle of unity as the most important principle in the formation of Islamic works and arts and architecture and urbanism (from the scale of artistic symbols, micro-space to the city). According to them, through his artistic forms, man imitates this order by creating geometric forms that are symmetrical to the center and a symbol of unity within unity, i.e. the first principle of the religion of Islam (monotheism). To mention diversity, they write: it includes concurrent, rich, and rhythmic cycles that have neither a beginning nor an end. It is a system symbolizing the infinite diversity of creation, and an existence originated from a single being, i.e. "diversity in unity." Hossain Bahraini, in his works on the principles of urban design, also mentions the principle of unity and writes: Unity means discipline and order, and diversity means variety, choice, freedom, and flexibility. The order represents unity and disorder represents diversity (Bahraini, 1998, 315). About Isfahan city and principles and criteria of the Isfahan school in urbanism, Mohsen Habibi (2001, 125) refers to the principle of unity and writes: Urban space, in its compacted form and correlated complex, represents unity, the sameness in this school represents composition, and homogeneity in this composition has a unique identity and presents a special personality, that regardless of how its components and elements are composed, is solved in this overall identity and becomes unique.

According to the opinions of scholars on the manifestation of different levels of unity, various qualities can be mentioned. The principle of unity is directly related to qualities such as being structured through the connection between all components, association, and agreement between components in a whole, the interconnectedness of spaces with each other, and the factors of connectivity and continuity, and these qualities create unity in the city environment. Moreover, qualities such as distribution, complexity, diversity, and contrast in different dimensions are qualities creating diversity in the urban environment (Ansari et

al., 2013; Saremi et al., 2016). In figure 1 theoretical model of research with 6 factors that have directly affected the principle of unity was presented.

### Neighborhoods and the Principle of Unity

The emergence of a concept such as "neighborhood" has a long history in the urbanization system of Iran and the world and is rooted in the collective life of people and their social relations (Ashraf, 1974; Soltanzadeh, 1989, 192; Falamaki, 1995, 122; Falamaki, 2005; Smith, 2010). Iranian neighborhood is a social and spatial unit so that the concept of traditional Iranian-Islamic neighborhood was formed based on the social concept of residence. In the urbanization system of Iran, urban neighborhoods have had a special position in the city as the urban life of Iranians has existed at three levels of home, neighborhood, and city (Falamaki, 1987, 217). Thus, the neighborhood was considered as the basic unit of the physical-social structure of historical cities. On the other hand, in most of the historical cities of Iran, the spatial organization of cities has been based on the connection between the city center and neighborhood centers through main passages and squares (Tavassoli, 1997, 15) and thus the neighborhood space had a special role. Moreover, in contemporary urbanism, neighborhood planning and design are considered an important issue (Hajipour, 2006; Saghatoleslami & Aminzadeh, 2013; Hester, 1984, 56; Rohe, 2009). Explaining the principles and criteria for urban neighborhood design, including the principle of unity, and contemporizing its principles and criteria are very important in contemporary conditions. Observance of the principle of unity has led to the discipline, cohesion, and integrity of historical neighborhoods.

### MATERIALS AND METHODS

The present study is historical, analytical research in which first, the theoretical foundations of the principle of unity were examined descriptively, and a set of factors, components, and criteria forming the concept of unity was developed. Next, the Sarshoor neighborhood was investigated analytically. This section is divided into two main stages. In the first stage, the spatial structure of the Sarshoor neighborhood existed

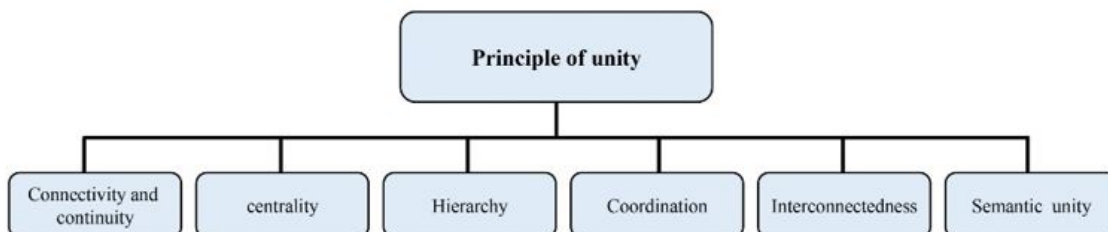


Fig. 1: Theoretical model of research.

before the extensive physical-spatial interventions taken in the contemporary era was determined. It should be noted that what is now known as the Sarshoor neighborhood is very different from the Sarshoor neighborhood in the past. So, first, the historical structure of the neighborhood should be identified. To this end, historical maps, an aerial photograph of the neighborhood taken in 1956, and archived references describing how the neighborhood was in the past, were used. In the second stage, the factors and criteria related to the principle of unity were specified on the maps and photos of the neighborhood in an exploratory way and using the relevant graphical analysis. In this stage, specialized field analyses were also used.

### Case Study

The holy shrine of Imam Reza is the origin of Mashhad City and the appellation of the city is that it is where the eighth Imam of Shiites, i.e. Imam Reza was martyred and buried in 818. Mashhad City, with more than 1200 years of history, is considered one of the historical cities of Iran. According to historical references, the ancient Mashhad City was composed of 6 large and ten small neighborhoods (Modarres Razavi et al., 2007, 45). The Sarshoor neighborhood was one of the oldest neighborhoods of Mashhad city after Noghan and Sarab neighborhoods and also was one of the most aristocratic and affluent neighborhoods after Sarab neighborhood. The main passage of the grand bazaar of Mashhad City started from this neighborhood and reached the Noghan neighborhood after

intersecting the holy shrine. one part of the mentioned bazaar is still in this neighborhood with the name of Sarshoor Bazaar. In the past, the Sarshoor neighborhood was bordered by the holy shrine and Chaharbagh neighborhood to the north, Qareh Khan Watercourse to the south, the Eidgah neighborhood to the east, and Arg neighborhood to the west. The old Sarshoor neighborhood (with an area of about 70 hectares) was one of the large neighborhoods of Mashhad City.

Sarshoor neighborhood was selected as the case study for the present research for the following reasons: this neighborhood is one of the most important historical neighborhoods in Mashhad City. It has a very long history and its formation started almost since the formation of Mashhad City. It is located near the holy shrine of Imam Reza. In recent decades, the central urban fabrics have experienced many physical changes. This is true of Mashhad City and Sarshoor neighborhood. Sarshoor neighborhood has experienced extensive physical-spatial interventions in the contemporary era, i.e. from the first Pahlavi period until now. Nowadays, due to the measures and interventions carried out under the rehabilitation and renovation plan developed for the textures around the holy shrine, the spaces in the neighborhood, the connections between them, and how it is connected to the holy shrine have changed widely.

### Documentation of the Spatial Structure of Sarshoor Neighborhood

To document the spatial structure of this neighborhood, the historical map of Mashhad City (developed in 1875), aerial

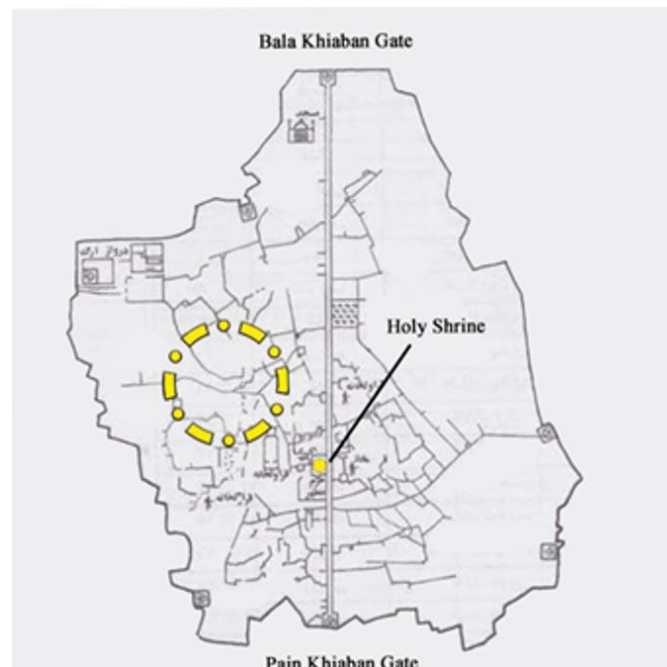


Fig.2: Historical neighborhood of Sarshoor located near the holy shrine of Imam Reza in Mashhad City and the location of Sarshoor Bazaar. The map was drawn in 1875 by Colonel MacGregor (British Military Attaché). It is one of the oldest and most complete maps of Mashhad City. (Source: Modarres Razavi et al., 2007, 170)

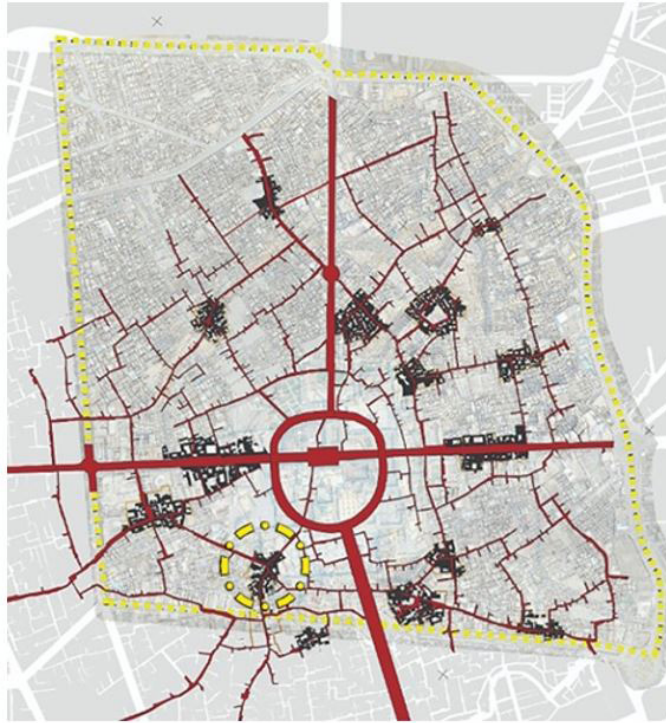


Fig. 3: Historical fabric of Mashhad city and the location of historical ways and historical neighborhood's centers around the holy shrine of Imam Reza. Sarshoor neighborhood's center is southwest of the holy shrine. (Source: University of Tehran, 2020, 50)

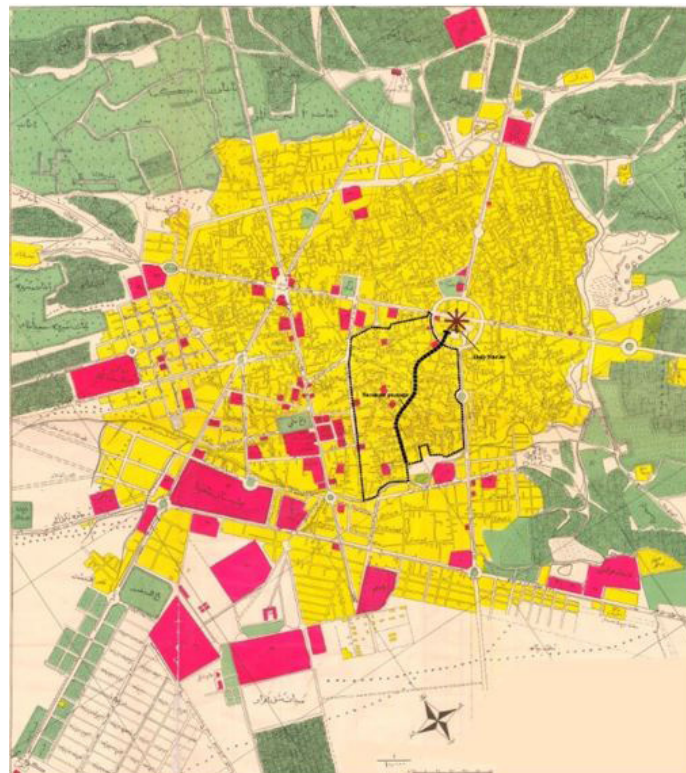


Fig.4: Historical map of Mashhad city (drawn in 1944), which was used as the main basis for various analyses. This map was prepared by the army in cooperation with Mashhad Municipality. The map shows the locations of the Sarshoor neighborhood, Sarshoor bazaar, Grand bazaar, and holy shrine. (Source: Comprehensive Encyclopedia of Mashhad al-Reza, 2015)

photographs were taken in 1956 and descriptive information and archived references describing how the neighborhood was in the past are used.

## RESULTS AND DISCUSSION

In this part, the Sarshoor neighborhood is analytically investigated in different physical-spatial aspects to examine the principle of unity in it. This analysis focuses on the physical-spatial aspects of the neighborhood and its social or managerial aspects are not examined in this analysis. To perform this analysis, first, the qualities affecting the diversity of the neighborhood are examined. Then, those qualities influencing its unity are examined.

### Factors Related to the Concept of Diversity in Sarshoor Neighborhood

There are numerous factors and criteria for creating diversity that can be considered in the Sarshoor neighborhood. In the Sarshoor neighborhood, the concept of diversity has existed in different physical-spatial aspects. Various land-uses have been in this neighborhood. Residential land use has occupied the largest area of the neighborhood in the past, followed by commercial land-uses in the Sarshoor Bazaar. There were various commercial activities in the neighborhood, from retails to commercial activities such as dried fruit shops, perfume shops, jewelry shops, portraits studio, etc., and some of which still exist now. Also, there were several local mosques such as Mirhawwa Mosque, Sahleh Mosque, Ali Mosque, and Shah Mosque, and several baths and water reservoirs in the neighborhood. There has also been a spatial contrast in the Sarshoor Bazaar and the Grand Bazaar located in the direction of it, due to the formation of static and dynamic spaces. The various turns in the Sarshoor neighborhood provide a wide variety of views along the Sarshoor passage, and this has also been observed in the side passages and alleys.

### Factors Related to the Concept of Unity in Sarshoor Neighborhood

There are numerous factors and criteria for generating the concept of unity in physical and spatial aspects, which can be considered in the Sarshoor neighborhood. This section analytically discusses them.

#### Connectivity and Continuity

One of the main factors effective in creating unity is the connectivity and continuity between the components of a whole. In the Sarshoor neighborhood, there have been connectivity and continuity between different spaces of the neighborhood. This concept has existed in different dimensions in the Sarshoor neighborhood.

Connectivity on the main path of Sarshoor neighborhood: In the past, in the Sarshoor neighborhood, the main path was continuous, meaning that there was connectivity between

Sarshoor Bazaar and the holy shrine of Imam Reza. This passage, with the role of the main structure and skeleton of the neighborhood, started from the southernmost point of the neighborhood and continued to the holy shrine. During this passage, there was a series of static spaces in the form of local squares, which have gradually disappeared with the construction of streets. Also, in the Sarshoor neighborhood, there were strong connectivity and continuity between the neighborhood and adjacent neighborhoods through passages such as the Eidgah axis, Chahar Bagh axis, and Khamenei passage.

Connectivity between the activities on the main path of the neighborhood: There has been a strong relationship between the activities in Sarshoor Bazaar and the Grand Bazaar located in the direction of it. Most of the activities on the main axis of Sarshoor Bazaar were commercial activities meeting local people and pilgrims' needs, followed by several baths that were on this path and in Grand Bazaar, which were used by both locals and pilgrims, especially during special religious days.

Connectivity between neighborhood landscapes: In the Sarshoor neighborhood and some passages in it such as the Sarshoor passage and Khamenei passage, there was a visual connection with the holy shrine. The height of the buildings around the holy shrine was such that pedestrians could easily see the golden dome of the holy shrine or the dome of Goharshad Mosque by moving along the passages. Also, in the Sarshoor passage and various spaces in the neighborhood, such as alleys and side passages, there were a strong connection and integration between the bodies and walls in terms of height, materials, and proportions used in the facade of the passage. Also, due to the turns that existed along the Sarshoor passage, the observer could not see the landscape at a glance, and he/she could fully perceive the space through a continuous movement along the path. See table 1.

#### Centrality

Another factor playing a role in creating unity in neighborhoods is the formation of the center and the adherence of it by other elements.

Spatial centrality: In the Sarshoor neighborhood, the center of the neighborhood extended linearly along the axis of the Sarshoor market and has been changed into open and static spaces in two points.

The point at which it reached Grand Bazaar, which was the gathering place of some activities such as Shah Mosque and historic baths and in the middle of the axis of Sarshoor Bazaar, which was destroyed in the 1960s with the construction of Khosravi Now Street.

Functional centrality: In this regard, both axes of Sarshoor Bazaar and Grand Bazaar have played the role of a strong functional center for the neighborhood and even the surrounding neighborhoods and have met the functional needs of the neighborhood. See table 2.

Table 1: Factors and Criteria effective in creating connectivity and continuity in the main path of Sarshoor neighborhood (Sarshoor Bazaar).

Factors		Criteria	
Connectivity and continuity	Connectivity on the main path	Connectivity between the main path of the neighborhood and adjacent neighborhoods The main path of the neighborhood reaches an outstanding element of a specific place	
	Connectivity between activities	Connectivity in the main path of the neighborhood	
	Connectivity between landscapes	Connectivity in the main façade of the main path	

Table 2: Factors and Criteria effective in creating centrality in the Sarshoor neighborhood.

Factors		Criteria	
Centrality	Spatial	Presence of neighborhood center (in a linear or central form)	
	Functional	Presence of neighborhood center and provision of functional needs	

**Hierarchy**

In the old Sarshoor neighborhood, the principle of hierarchy has existed in different forms. There were three types of hierarchies.

**Access hierarchy:** There were three levels of access in the Sarshoor neighborhood. The main path of the neighborhood was Sarshoor Bazaar, which stretched along with the neighborhood as its main structure, and the minor paths branch off from it. Some passages were connecting the neighborhood to adjacent neighborhoods, such as the Eidgah axis and the continuation of the Chaharbagh axis; and the alleys of the neighborhood, which provided access to residential areas of the neighborhood.

**Public-to-private hierarchy:** Another form of the principle of hierarchy in the Sarshoor neighborhood has been a public-to-private hierarchy. Sarshoor Bazaar has been the most public part of the neighborhood, and as one moved towards the minor paths, spaces have become less public and more private. In other words, the publicity of space has decreased while its

privacy has increased.

**Spatial hierarchy:** In this regard, Sarshoor Bazaar, as the most important space, had the biggest dimensions, and with movement towards minor paths and alleys, spaces became smaller. (See table 3)

**Coordination**

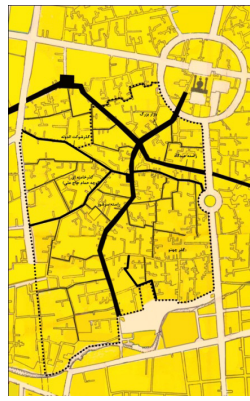
The quality of coordination is important because it plays a key role in regulating the connection between the components and elements of a set and also it is a feature of a complete and complex order and discipline. There have been various forms of the quality of coordination in the old Sarshoor neighborhood.

**Coordination between neighborhood buildings in terms of height:** There was coordination between adjacent subdivided lots in terms of size, between the buildings in terms of height, and between masses in terms of their location in the subdivided lots (emphasis on the central courtyards).

**Coordination in space syntax:** Almost all residential units in

Table 3: Factors and Criteria effective in creating hierarchy in the Sarshoor neighborhood.

Factors		Criteria
Hierarchy	Access	Presence of access hierarchy
	Public to private	Presence of public-to-private hierarchy at the neighborhood level
	Spatial	Presence of a specific hierarchy in the distribution of uses and activities at the neighborhood level



the neighborhood have used the central courtyards to organize their interiors. In residential units with central courtyards, two parts can be identified. The northern part of the courtyard that was south-facing; and the south wall of the courtyard.

Coordination in activities: In the Sarshoor neighborhood, the land-uses have been in strict coordination with each other so that there have been a variety of local services and services required by pilgrims in Sarshoor Bazaar and Grand Bazaar located in the direction of it and residential activities have also been in the residential area. See table 4.

#### Interconnectedness

In the historic neighborhood of Sarshoor, residential units with the central courtyard and other elements of the neighborhood, such as commercial spaces, mosques, baths, are interconnected and form an integrated complex. None of the buildings in the neighborhood looks separate from the rest, and as a result, the neighborhood has an interconnected and integrated texture.

Interconnectivity: In the Sarshoor neighborhood, the public spaces in the neighborhood were surrounded by building masses or walls, and there was no abandoned or non-enclosed space in the neighborhood. Accordingly, space was completely defined, and thus space and mass formed the texture of the neighborhood through the strong interconnectivity between

them.

Being co-directional: One of the factors effective in the interconnectedness of residential units in the neighborhood is the approximate observance of the Qibla direction in most residential units. Although the major and minor paths of the neighborhood are not in the Qibla direction, in most of the residential units in the neighborhood, it has been tried to observe the Qibla direction in the subdivision and orientation of the central courtyard. In Mashhad City, the Qibla direction is an angle of 55 degrees from south to west. See table 5.

#### Semantic Unity

Another quality that has been significantly present in urban areas in the past is meaning. In the Sarshoor neighborhood, beyond its body and appearance, there has been a ground for the transfer of many values and norms (especially spiritual values) to the perception of residents. This meaning has been derived from the values of Islamic culture, which was manifested in the form and function of the neighborhood.

Using the Islamic architecture style in the design of buildings, the simplicity of forms and materials used in the facades of buildings, using the arched form, Islamic symbols, and signs in neighborhood spaces, Quranic cornices on the facades and entrances of the buildings, the simplicity of the materials used

Table 4: Factors and Criteria effective in creating coordination in the Sarshoor neighborhood.

Factors		Criteria
Coordination	Physical space of the neighborhood	Coordination between adjacent buildings in terms of height
		Coordination between the units and elements in terms of architecture style
		Coordination in terms of size
	Neighborhood functions	Coordination in terms of composition and syntax of mass and space
		Coordination between adjacent activities






Table 5: Factors and Criteria effective in creating Interconnectedness in the Sarshoor neighborhood.

Factors		Criteria
Interconnectedness	Interconnectivity	Integration of mass-space composition
	co-direction	Approximate observance of the Qibla direction in the central courtyards of residential units



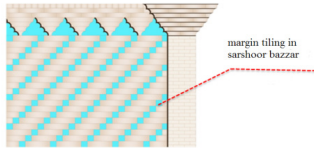



Table 6: Factors and Criteria effective in creating Semantic unity in the Sarshoor neighborhood.

Factors		Criteria
Semantic unity	Physical space	The use of Islamic architecture style for façade
		Absence of individualism in the design of buildings
	Perceptual	The simplicity of the forms and materials used in the façade
Neighborhood functions		Presence of religious buildings (mosques and Hussainiyah) in the neighborhood
		Holding religious ceremonies on special days in the major path of the neighborhood

in the walls have all been effective in conveying the message of spirituality. Since the aforementioned items have been applied in different spaces of the neighborhood in harmony with each other, semantic unity and coherence have been formed in the whole neighborhood. Moreover, there has been the transfer of

spiritual messages in the neighborhood through the functions in the neighborhood. There has been a significant presence of religious spaces such as mosques and Hussainiyahs in the neighborhood and their dominance over other buildings in terms of height is also observed. Moreover, Sarshoor Bazaar

Table 7: Factors and criteria for realizing the principle of unity in the Sarshoor neighborhood.

Factors	Dimension	Criteria
A. Connectivity and continuity	Access	a 1: Connectivity between the main path of the neighborhood and adjacent neighborhoods
		a 2: The main path of the neighborhood reaches an outstanding element of a specific place
	Functional	a 3: Connectivity in the main path of the neighborhood
	Visual	a 4: Connectivity in the main façade of the main path
B. Centrality	Spatial	b 1: Presence of neighborhood center
	Functional	b 2: Presence of neighborhood center and provision of functional needs
C. Hierarchy	Access	c 1: Presence of access hierarchy
	Physical-Spatial	c 2: Presence of public-to-private hierarchy at the neighborhood level
	Functional	C3: Presence of a specific hierarchy in the distribution of uses and activities at the neighborhood level
D. Coordination	Physical-Spatial	d 1: Coordination between adjacent buildings in terms of height
		d 2: Coordination between the units and elements in terms of architecture style
		d 3: Coordination in terms of size
		d 4: Coordination in terms of composition and syntax of mass and space
	Functional	d 5: Coordination between adjacent activities
E. Interconnectedness	Physical-Spatial	e 1: Integration of mass-space composition
		e 2: Approximate observance of the Qibla direction in the central courtyards of residential units
F. Semantic unity	Physical	f 1: The use of Islamic architecture style for façade
	Perceptual	f 2: Absence of individualism in the design of buildings
		f 3: Simplicity of the forms and materials used in the facade
	functional	f 4: Presence of religious buildings (mosques and Hussainiyah) in the neighborhood
		f 5: Holding religious ceremonies on special days in the major path of the neighborhood

has been one of the main routes for religious ceremonies, such as the movement of mourning processions to the holy shrine. What is mentioned above has provided the ground for the semantic unity of the neighborhood. See table 6.

Each of the factors in different dimensions has been related to some criteria. All the factors and criteria that have played a role in the manifestation of the principle of unity in the historical neighborhood of Sarshoor are listed in table 7.

This research represented that 6 factors and 21 criteria have played a role in the realization and manifestation of the principle of unity in different dimensions of physical space, functional, accesses, neighborhood landscapes, and perceptual effects of the neighborhood atmosphere on the residents in the historical neighborhood of Sarshoor.

## CONCLUSION

The present study analyzed the principle of unity as the most important principle in organizing and integrating urban neighborhoods in one of the historical neighborhoods of Mashhad (Sarshoor neighborhood). The principle of unity is one of the timeless and placeless principles in spatial organization and originates from traditional values in Iranian-Islamic urbanism. These principles can be used at any time and any place. Although the principle of unity has been very effective in various social, cultural, and managerial dimensions of historical neighborhoods, the present study focuses on the physical-spatial dimensions of the neighborhood. Since in the last century, the textures of historical neighborhoods in the cities have been influenced by physical interventions, like the texture of the Sarshoor neighborhood studied in the

present study, one of the main issues in such research is to determine the spatial structure of the neighborhood had in the past. In the present research process, the spatial structure of the neighborhood was first identified using historical studies. The results show that in the Sarshoor neighborhood, the concept of diversity has existed in different physical-spatial aspects. The presence of different spaces with a variety of activities, various types of spatial contrasts, and a wide variety of landscapes in the neighborhood represent the concept of diversity in the Sarshoor neighborhood. Also, in the historical neighborhood of Sarshoor, a set of principles and rules, in a complex and close relationship with each other, have been effective in unifying the physical space of the neighborhood, among which 6 factors have directly affected the unity of the neighborhood: "connectivity and continuity", "centrality", "hierarchy", "coordination", "interconnectedness" and "semantic unity". The factor of "connectivity and continuity" in the main path of the neighborhood, the activities on the main path and neighborhood landscapes, the factor of centrality" in spatial and functional dimensions, the " factor of hierarchy" in the dimensions of access, the connection between public and private spaces, the " factor of coordination" in the dimensions of physical and functional spaces of the neighborhood, the " factor of interconnectedness" in two dimensions of interconnectivity and co-direction and the " factor of semantic unity" in physical space and neighborhood functions, have been effective in unifying Sarshoor neighborhood. These factors and related criteria can be used in the physical-spatial dimensions and in the planning and design of new urban neighborhoods to achieve integrated and cohesive neighborhoods in cities.

## REFERENCES

- The Holy Quran.
- Ahari, Z., & Habibi, S.H. (2001). *Isfahan School in Urbanism: The Grammar of Designing Urban Foundation*. Tehran: Honar University.
- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A Pattern Language: Towns, Buildings, construction*. New York: Oxford University Press.
- Alexander, C. (1987). *A New Theory of Urban Design*. New York: Oxford University Press.
- Ansari, M., Sharifian, E., & Abdollahi Sabet, M. M. (2013). Unity as a Main Factor in Divine Approach to Urban Design. *Hoviatshahr*, 7(16), 27-38.
- Ardalan, N., & Bakhtiar, L. (2001). *Sense of Unity, The Sufi tradition in Persian architecture*. (H. Shahrokh, Trans.), Isfahan: Khak.
- Ashraf, A. (1974). Characteristics of urbanization in Iran, Islamic period. *Sociological Studies*, 1(4), 7-49.
- Bacon, E. (1974). *Design of Cities*. London: Thames & Hudson.
- Bahraini, S. H. (1998). *Urban Design Process*. Tehran: University of Tehran.
- Ben Hamouch, M. (2009). Complexity in urban fabric in traditional Muslim cities: importing old wisdom to present cities. *Urban design international*, 14 (1), 22-35. Doi:10.1057/udi.2009.7
- Ben Hamouch, M. (2011). Fractal geometry in Muslim cities, How success in law shaped morphology. *Nexus Network Journal*, 13 (1), 235-251. Doi:10.1007/s00004-011-0062-8
- Comprehensive Encyclopedia of Mashhad al-Reza (2015, Aug 9). Historical maps of Mashhad. Retrieved Jun 20, 2018, from [http://www.mashhadenc.ir/historical\\_maps.html](http://www.mashhadenc.ir/historical_maps.html)
- Falamaki, M.M. (1995). *Revitalization of Historic Buildings and Cities*. (3rd Ed.), Tehran: University of Tehran.
- Falamaki, M.M. (2005). *Eco-Neighborhood Culture of Iranian Cities, Roots, and Trends* in M.A. Iman pour (Ed.), *Neighborhood Development, Vision of Sustainable Development of Tehran, Proceedings of the Conference on Neighborhood Development*. Center for Social and Cultural Affairs Research of Tehran Municipality. February 28-30 (pp.321-330). Tehran: Tehran Municipality.
- Falamaki, M.M. (1987). *The Formation of Iranian Cities* in M. Y. Kiani (Ed.), *Iranian Cities (Vol.2)*, Tehran: Iranian Student Book Agency.
- Hajipour, K. (2006). Neighborhood-based Planning: An Effective Approach to Urban Management. *Honar-ha-ye Ziba*, 26, 37-46.
- Habibi, S. M. (2001). *From city to urban (Historical Analysis of the Concept of the City and Its Physical Structure)*. (3rd Ed.), Tehran: University of Tehran.
- Habibi, S. M. (2003). How to model and renew the structure of the neighborhood. *Honar-ha-ye Ziba*, 13, 31-39.
- Hakim, B. S. (2002). *Arabic-Islamic cities, Building and planning principles*. (Hussain Malek Ahmadi & Ali Aghvami Moghaddam Trans.), Tehran: The Ministry of Culture and Islamic Guidance.
- Hester, R. T. (1984). *Planning Neighborhood Space with People*. Berkeley: University of California.
- Ismailian, S., & Pourjafar, M. (2013). Finding Main Factors Affective in Creating the Network of Urban Spaces in Historical Textures of Iran Case Study: Isfahan, Dardasht. *Urban Management*, 11 (31), 65-82.
- Modarres Razavi, M., Fayaz, A, Sabeti, S.A., Molavi, A., & Farokh, M. (2007). *Mashhad at the beginning of the fourteenth century SH*. Mashhad: Ahang Ghalam.
- Naghizadeh, M. (2016a). *Theory of the space for pure life: Ideal city of Islam*. Tehran: Islamic Azad University, Science and Research Branch.
- Naghizadeh, M. (2016b). *Design principles for Iranian cities and urban spaces: basics, principles, criteria, and examples*. Tehran: Khorshid Baran.
- Rohe, W. M. (2009). From Local to Global, one Hundred Years of Neighborhood Planning. *American Planning Association*, 75 (2), 209-230. Doi:10.1080/01944360902751077
- Saghatoleslami, A., & Aminzadeh, B. (2013). A comparative study on the concept and design principles of Iranian Mahalleh and Western Neighborhood. *Hoviatshahr*, 7 (13), 33-45.
- Saremi, H., Taghinejad, K., & Piri, S. (2016). Manifestation of the principle of unity in diversity in the neighborhood center of the Islamic city Case study: Abbas Ali Square in Gorgan. *Research on Iranian-Islamic Cities*, 7(26), 21-29.
- Soltanzadeh, H. (1989). *Neighborhoods and Residential Units in Iran in Iranian Cities* in M. Y. Kiani (Ed.), *Iranian Cities (Vol.3)*, Tehran: Iranian Student Book Agency.

Smith, M. E. (2010). The archaeological study of neighborhoods and districts in ancient cities. *Anthropological Archaeology*, 29 (2), 137-154. Doi.org/10.1016/j.jaa.2010.01.001

Tavassoli, M. (1997). *Principles and Methods of Urban Design and Residential Spaces in Iran*. (Vol. 1), (4th ed.), Tehran: Urban Planning and Architecture Research Center of Iran.

Tavassoli, M., & Bonyadi, N. (1993). *Urban space design*. (Vol. 2),

Tehran: Urban Planning and Architecture Research Center of Iran.

Tavassoli, M. (2003). The principle of connectivity in urban design. *Honar-ha-ye Ziba*, 14, 32-39.

University of Tehran (2020). *Summary report of the Special detailed plan in the Surrounding fabric of The Holy Shrine of Imam Reza (PBUH)*. Mashhad: The organization of road and urban development.