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Evaluation of the quality of participatory landscape perception in neighborhoods of cultural landscape to achieve social sustainability

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Abstract. Citizen communication creates the foundation for sustainable development by adopting the notions of social life, space and human behavior. Furthermore, the perceptions of the cultural landscape, and the social sustainability of the neighborhoods are assessed through the participation of the citizens. As such, to gain a more in-depth understanding of the issues, the passage of the Fil Bazaar in Eshagh Beig neighborhood and Haj Zainal passage in Sang-e Siah neighborhood in the historical context of Shiraz has been selected. This research used a mixed-methodology. Due to necessity, using the questionnaire method and the Likert scale, with the help of architectural and urban planning specialists, a survey was conducted. Lastly, the collected data were analyzed using MAXQDA-software and using the Halprin-cycle, criteria were analyzed and assessed. With the aid of the Halprin-cycle, it is established that factors, correlation, Communication, and social life will impact the social stability.

Keywords: Urban landscape perception, Citizen communication, Participatory landscape, Social sustainability, The cultural landscape of Shiraz.

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1. INTRODUCTION

Focusing on neighborhoods sustainability is one of the novel approaches to make decisions concerning. Neighborhoods On the other hand, the urban landscape has goals that have in its context the principles of sustainability This study also aims at building a connection between sustainability and urban landscape perception, such that it can be productive on a neighborhoods scale. "Neighborhood" is not a new word in the global urban planning literature, particularly in Iran. The primary form of this notion can be seen centuries ago, when the first central governments of Iran settled, in the form of "*Kohan Dezh*" (meaning old fortress) and "*Shaarestan*" (meaning city). The

word is so inherent in Iranian culture that it is extensively used even in popular literature, and its meaning is understandable to people. But when it comes to defining and proving its meaning, the same familiar, simple phrase molds in a twisted and variable form such that both ordinary people and the specialists in this domain are unable to specify it precisely. In defining the neighborhood, each distinct scientific area has detailed and applied it according to their particular theoretical disciplines and their perspective on the idea of the neighborhood. Historical neighborhoods are of particular significance because of their historical value and features. The *Baazarche-ye-Fil* passage in Es'hagh Beig neighborhood from the fabric of Shiraz (Case A) is chosen as the case study. This historical passage (the route from *Baazarche-ye-Fil* to Es'hagh Beig neighborhood of Shiraz) has its own spatial and unique values. Accordingly, this area must be protected from instability and its consequences and decline in the quality of landscape perception. Landscape perception and communication are some of the constructive layers of the urban landscape in neighborhoods with a Cultural Landscape that will influence social sustainability and promote the perceived quality of the environment in the perceptions of the people. Citizen communication is the connection between urban landscape perception and neighborhood social sustainability. The absence of dynamism in neighborhoods of the Cultural Landscape has prompted social instability in these neighborhoods. Particularly in the neighborhoods of the Cultural Landscape of Shiraz. High levels of social indifference and lack of vibrance in the historical context neighborhoods led to the social instability of the neighborhoods, particularly those within the historical context. To this end, the present study seeks to offer a response to the following research question:

What are the key elements in promoting social sustainability through cultural landscape perception in historical sites?

The final goal of the research is the strategies and policies extracted from the interaction of environmental perception with the cultural landscape in the two historical transitions of Bazarche Fil and Haj Zainel in the old context of Shiraz, which is considered one of the research strategies with the help of the foundational data theory, through which theorizing based on the main concepts obtained It is formed from the data in the field. After analysis using the content analysis method, some certain codes were obtained. Based on those codes, the elements that determine the perceived quality of landscapes with Cultural Landscape s from the perspective of experts and residents were determined.

2. LITERATURE REVIEW

Research within the expanding knowledge of landscape architecture is not only as important as research in other domains, but also because of the need to know more clearly the limits of this knowledge, it is classed as one of the paramount components needs to be addressed. The urban landscape has always been one of the principal issues of civil design, architecture, and landscape architecture, as reflected in previous research. During the past two decades and based on fundamental studies of researchers, the quantitative and qualitative assessment of the landscape has developed. Consequently, landscape can be measured in the form of landscape architecture knowledge, based on the research of its processes and patterns, and a distinct image of it can be perceived. In the 1980s, attempts were made to apply research techniques in the social sciences to use in landscape architecture, the most significant of which was the Seta Love practices at the University of Pennsylvania (Low, 1981). Economic and social notions have changed over the past four decades. However, the idea of communication has always been part of the development process and has gained increasing significance. The 1960s, known as the Decade of Development, was characterized by the development process with the excitement over approaches to decolonization and the political independence of Third World countries, the weight of popular movements, the impact of human contributions, and the presence of the people in society.

Describing people's actual perceptions of space has a lengthy history in the literature, starting with Kevin Lynch in 1960. Residents' communication in the living conditions of their neighborhood is an essential indicator of urban quality of life. This view, first put forward by Turner and Fichter (1972) and Turner (1977), is welcomed once again today. In particular, the communication of citizens in designing household areas to access more humane settings has been addressed in the West. But for modern urbanists, such as Krier and Porphyrios (1984), Duany and Plater-Zyberk (1991), although the idea of the neighborhoods symbolic, it is seen as crucial to set a connection between a "place" and an "activity".

2.1 The concept of the urban landscape and social performance

Activities in common areas can improve the quality and add to the number of people encouraged to stay and interact in these spaces. Public spaces present a platform for a broad range of activities, from daily activities to recurrent, personal and social, active, and inactive celebra-

Table1. Human and the urban landscape.

No.	Author	Research scope	Details
1	Crow et al. (2006)	The concept of the urban landscape	The urban landscape is perceivably the result of the level of contact between a man and the city, and respectively, a man not only influences the structure of the visual landscape of the city through his deed but also the behavior and mental perception of men area affected by the city (Crow et al., 2006, p. 282).
2	Gehl (1987)	The relationship between daily human activities and urban landscape	Jan Gehl argues that the growth of selective activities and, consequently, social activities are directly related to the quality of these spaces and their sense of hospitality. (Gehl, 1987, p. 68).
3	Lindholm (2011), according to Jacobs (1961)	The relationship between human activity and urban landscape	Similarly, Jane Jacobs considers the establishment of daily activities in the streets to attract others (Lindholm, 2011, p. 7). Like Gehl (1987), she argues that low-intensity forms of social communication are the main precursors to the vibrancy of the urban space, stating that cities will perish as soon as interesting, useful, and meaningful interactions between citizens are reduced to private relationships.
4	Cullen (1995)	The concept of the urban landscape	The urban landscape of any city is a response to human behaviors, climate, safety factors, and in other words, skillful interventions in line with the enhancement of the capabilities of the environment (Cullen, 1995).
5	Black and Street (2014)	The elements of urban space	Elements in the urban landscape lead to semantic associations, that is, evoke memories, including natural and artificial elements, urban spaces, people's perceptions of space, events and incidents, chronology, identity, culture, history, sacredness, signs, as well as physical and environmental elements, that can be directly perceived by the human senses (Black and Street, 2014).

tions. Activities like looking, listening and experiencing others, and active and passive communication in the place, enliven it (Gehl, 1987). Yet the activity dimension of public areas is directly related to the applications and functions around the environment. The greater the amount of charming and diverse functions in urban spaces, the more variety and diversity of activities will take place (Loukaitou-Sideris et al., 1998). Diversity in the planning of public areas can create opportunities for the presence of various individuals and groups in the place Table 1.

Social activities cover those that are most reliant on the presence of others in society. These include children's games, meetings, and brief conversations, various kinds of group activities, and ultimately, the most comprehensive model of social activities, passive communication including simply looking at or listening to people (Gehl, 1987). The passive communication is a pleasure that one sometimes achieves from looking at people's vibrant scenes of everyday life. On the other hand, active communication or active interaction implies the direct experience of an area and the people inside it. The pillar of this conflict is communication in activities. Just as some people enjoy watching others, others take an interest in direct contact with them, whether they are strangers or members of a group (Carr et al., 1992).

Jan Gehl regards the growth of selective and, therefore, social activities as directly linked to the quality of these spaces and their charm. According to him, when the open-air space is not of satisfying quality, only the essential activities are carried out, and people immediately return to their homes. In such a circumstance, people do not prefer not to hang around in the urban place. He states that individual activities never have a chance to thrive, develop, and become significant, and therefore will not encourage other events (Gehl, 1987, p. 68).

Jane Jacobs further regards the existence of everyday activities on the streets as a method of attracting others. She declares states that the activity of all those who go shopping, or those gathered only to drink or eat somewhere, is in itself a method of drawing others to a place (Lindholm, 2012). She indicates that the city will die as soon as interesting, beneficial, and significant synergies between citizens and private relationships decrease. She considers the quality of urban spaces to be effective in shaping such connections and emphasizes the diversity and practical appeal of the place. She also notes that a thriving urban space depends on a location that is linked to human activities (Lai et al., 2013). In terms of performance, spaces must satisfy basic requirements, like an active engagement with the setting and the possibility of discovering the environment. The installation of fountains, the creation of appropriate views, the use of components of public art, and the holding of various exhibitions create the opportunity for passive communication with the space. Because of this arranging various elements, benches, telephone booths, water fountains, statues, and sales booths can, to a small extent, bear social communication (Carmona et al., 2010).

2.2 Perception of the urban landscape in the interaction between human and the environment

The landscape is an objective, subjective, dynamic, and relative phenomenon that is the outcome of human interaction with the environment and society with history (Mansouri, 2005). Landscapes can be understood in the context of human activities, perceptions, and actions (Norman, 2011). Overall, the perspective may involve the study of anything relevant to appearance or the manifestation and experience of an environment or fabric (Hutchinson et al., 2012). Elements in the urban landscape, such as natural elements, artifacts, urban spaces, people's perception and mentality of space, events and happenings, time, identity, culture, history, sacredness, signs, as well as physical and environmental elements that can be perceived directly by the human senses (Black et al., 2014) and evoke memories. One of the aspects of urban landscapes is their objectivity, which is because of the quality of the introduction of physical factors in the environment. But gradually, due to the presence of historical conditions and repetition for the group of human beings who perceive it, this dimension obtains a sort of mental existence and becomes the joint element that joins the people of the society (Golkar, 2006).

2.3 Cultural landscape

The landscape is defined as the container of intangible values. The notions of the cultural landscape have been developed to scrutinize the interaction and evolution between biological and cultural diversity (Hill, 2011). Landscape embodies history and epitomizes intangible aspects of urban culture (Türkyılmaz, 2016). Therefore, tangible and intangible identities, given their attribution to the characteristics of the surrounding world and human experiences, are closely affiliated to the concept of place, hence its significance to human beings. The cultural landscape has become one of the most sought-after academic notions in world heritage and even beyond. In general, it represents the level of contact between culture and nature, tangible and intangible identities, and biological and cultural diversity, thereby reflecting a close affiliation of a network of affairs, identities, and cultures (Rössler, 2006). Since 1972, the UNESCO World Heritage Convention has been the first international body to recognize the notion of cultural landscape (UNESCO, 1972). UNESCO does not provide standards for a cultural landscape management plan, but some of the proposed elements of the cultural landscape, where the use of land reflects a combination of the proposed element as a module (UNESCO, 2008). The cultural landscape is where land application reflects a combination of environmental opportunities and human endeavors (Azari-Dehkordi, 2011). To understand the cultural landscape, the examination of cultural and natural components is of paramount importance. In general, UNESCO has divided the cultural landscape into three categories, namely:

1. Man-made landscapes (parks, recreational gardens, plazas, squares, cemeteries, promenades, and courtyards, among others)
2. Landscapes that have evolved naturally (organic landscapes)
3. Semantically associative cultural landscape: concerning religious, cultural, and natural components (Carreno, 2006).

Using the Historic Landscape approach increase the people perception of the local inhabitants where many difficulties conflict with the sustainable development of the town. The Intangible urban heritage values lead to the protection of cultural sustainability (Prabowo, 2020). Theories related to the urban landscape are presented in Table 2.

Many challenges in urban conservation persists, however, which include the prevalent centralized heritage governance, lack of community participation, unclear land and building ownership patterns, high pov-

Table 2. Theories related to the urban landscape.

No	Author	Research scope	Comments
1	Azari-Dehkordi (2011)	Formation of unique places with distinct environments and economies	A cultural landscape can manifest itself in the combination of natural and cultural elements of terrestrial ecosystems (Azari-Dehkordi, 2011)
2	Kaya and Weber (2003)	The identity of each space as the consequence of the interaction of nature and the cultural components of the landscape over time	The cultural landscape is not confined to a specific time and place (Kaya and Weber, 2003)
3	Nohl (2001)	Cultural landscape and sustainability	The urban landscape is disturbed in terms of aesthetic quality. The better the improvement of landscape aesthetics, the better landscape improvement in economics, ecology, and culture (Nohl, 2001).

erty rate among the residents, low construction quality of buildings, and informal urban expansion in historic areas (Silva, 2019). In a highly significant article, Araoz (2008) has addressed the evolution of the notion of the value in the historic-urban landscape with an authenticity assessment approach, arguing therein that organized transition from a "historic city" to a "historic urban landscape" in the 2005 Vienna Memorandum has expanded the values of historic urban areas, and emphasizes on the dynamic historical patterns of its evolution and shifts (Araoz, 2008). He further discusses that historic urban landscape is a new avenue by which UNESCO seeks to achieve a sustainable future and that the ultimate goal of the historic urban landscape is to manage urban sustainability and the resulting alteration to preserve objective and subjective values. A comprehensive comparison of values indicates that the values of natural or artificial contexts in the form of a city or natural landscape, intangible values of perception or commemoration, and collective values developed by the people progress the heritage-related cultural values of the historic urban landscape, making it highly distinctive in the aftermath (Khorasani, 2020). Pingyao's urban morphological study reveals the historical expressiveness or historicity of its urban landscape forms as both spatial-temporal and representational creations. An approach to the historic urban landscape that includes both integrated and morphological values is fundamental to the development of historic and public urban development and preservation plans. (Wang et al., 2020).

2.4 Historical fabric

Historic sites are significant because they are meaningful to people they share cultural and historical ties (Lennon and Davis, 2020). In an important article, Araoz (2008) discussed the evolution of the concept of historical urban landscape value with the approach of authentic evaluation and believes that the exemplary transition from "historical city" to "historical urban landscape" in the 2005 Vienna note has led to the expansion of the values of historical urban areas and It focuses on the dynamic historical patterns of evolution and change. Historical fabrics refers to that, notwithstanding wear and tear, have valuable urban buildings, complexes, equipment, and facilities, or a collection of these in their span (Sharan, Consultant Engineers, 2005). The historical urban landscape is a new tool of UNESCO in order to achieve a sustainable future, and the ultimate goal of the historical urban landscape approach is to manage urban continuity and changes resulting from it in order to preserve tangible and intangible values. Traditional-Cultural

Landscape are the indisputable reality of cities with historical backgrounds. These kind of fabric are part of and field of the city that have been sustained for some time and embraced the commutations and material and spiritual trading of the people of that time. In other words, the historical urban fabric is a creative and alive and allows one to understand the status of human the world and their association with the past. It is a place to modify the environment and change one's perspectives on the present and future life (Habibi, 2006). Cultural Landscape can be described in any form of built space in which the image of the organized, constant, and designed progress of human thought can be recognized in a period of the past. Thus, the Cultural Landscape of cities is a part of the memory and identity of the people of that area (Mahjoor, 2014). Cities used to possess visual unity, and with forms that increasingly gained more intricacy, they created the social bedrock of the neighborhoods (Piran, 2005).

2.5 The concept of neighborhood

The semanticization of human beings in the setting is obtained through features that can be examined in various physical, social, and process dimensions. Physical and social aspects of the environment can improve the quality of life of citizens (Moulay et.al, 2018). Neighborhood-related theories are presented in Table 3.

The notion of the local neighborhood can be studied and analyzed from four perspectives:

A) Social concept: An assortment of people with mutual interests, organization, and law. This concept is the oldest concept of the local neighborhood in sociological thought.

B) Legal-economic concept: Highlights the element of joint interests and ownership in the definition of the local neighborhood.

C) Geographical-spatial concept: Maintains the component of place in the description of the local neighborhood and covers those people who live in a specific geographical location.

D) Ecological concept: In this concept, the local neighborhood is defined as the assimilation of organisms with mutual connections with each other.

Within the skeleton of these notions, the local neighborhood can be split into two categories: local neighborhood based on shared interests and relations, and local neighborhood based on place or geography (Askari, 2005). The neighborhood is considered an example of the creation of a link between the structure and the citizens and the setting. Table 4 shows the concept of neighborhood from the social aspect from the view of experts.

Table 3. Theories related to neighborhood.

No	Author	Research scope	Comments
1	Shokoie (2007)	Neighborhood as a decisive element in organizing people's behavior	The neighborhood is a space that engages a significant share of interactions and activities of the citizens (Shokoie, 2007, p. 48).
2	Barton et al. (2003)	Local community	The concept of the local community is a network of popular communities with shared identities, interests, and theories at the local level that provide the grounds for cognition, opportunity, and mutual support for mutual interaction (Barton et al., 2003, p. 4).
3	Blummer (1985)	Organizing urban neighborhoods	The design and organization of urban neighborhoods are defined based on the development model of the social type, hence reflecting micro or macro approaches (Blummer, 1985)

Table 4. The concept of neighborhood in the social dimension from the perspective of experts (authors based on research findings).

Experts	The concept of neighborhood
(Barton, 2003)	In the social dimension, the neighborhood is a section of the city's space organization in which people's interactions happen face to face and can be described by factors such as administrative communication and social perspectives of residents of the neighborhood.
(Thomlinson, 1976)	To create an urban neighborhood three conditions are necessary: to cover a large or small geographical area of the city, to form a small community of a group of people in the city, and lastly, to have and create interdependence between social groups.
(Schoenberg, 1979)	A neighborhood is a region in which the limited territory is recognizable by its residents, there is more than one institution and organization in its space, and there are numerous nodes of mutual public spaces or social networks.
(Rapoport, 1982)	The neighborhood is viewed as a public place that is used every day by residents.
(Howard, 1957)	Neighborhood as a method to enhance the quality of life of citizens
(Krier et al., 1984)	Neighborhood social dimensions are usually interpreted socially. That is, the locality is no longer feasible or advantageous, and that modern urban life is no more a place for a sense of neighborhood.
(Keyes, 1973)	The creation of urban neighborhood, in turn, can create a powerful sense of neighborhood.

2.6 Sustainable development and sustainable community and improvement of neighborhood social capital

The link between landscape and sustainable development was established by Brandt & Tress's studies and the Roskilde International Conference in 2000 (Brandt et al., 2000). Therefore, sustainable development goals require a harmonious relationship between the needs and aspirations of a society, and achieving a good life must be consistently pursued (United Nations, 2012). The expression "sustainable development" refers to the advancement of the situation. The most prominent feature of a sustainable neighborhood is that it is presented as a "sustainable social-spatial structure" (Roca-Puig, 2019). The physical elements of living environments are an essential part of the setting of human living that provide the conditions for the environment that may increase spatial attachments and the resulting outcomes by satisfying needs (Beery et.al, 2017).

The communication of the inhabitants of the neighborhood greatly impacts the promotion of social capital according to the stated factors. Social capital exists in historical sites as a value in the subset of cultural values. Social capital reflects the various aspects of social organization such as trust, norms, and networks that can improve neighborhood efficiency by facilitating collaboration. As such, social capital provides the opportunity of achieving goals (Putnam, 2001). The elements defined by Putnam for social capital, which are trust, norms, and networks, are maintained by keeping fitting appropriate communication in the neighborhood. such as proper communication of neighbors, recognizing them from each other, and the existing respect (Poursarrajian, 2016).

2.7 Factors influencing the occurrence of social interactions in neighborhood

Four principal factors are more critical in measuring the quality of urban public spaces. These factors are access and communication, mental image and comfort, applications and activities, and social accountability

Table 5. The Impact factors on social interactions (source: authors).

Main factors	The Impact factors on social interactions
The sociability of public spaces	Social events as the enhancer of the relationship between place and the interaction of people in the community
Creating diverse spaces and landscapes	Diverse landscapes involved in the vibrancy of public spaces
Presence and social interaction of individuals	Social interaction as the element improving the security of public spaces
Comfort and convenience of people in space	Physical organization of space as an effective factor in the comfort and convenience of people in public spaces
The optimal mental image of people from space	The visual pleasure of the space as an effective factor in attracting and attending to people

(Project for Public Spaces (PPS), 2009). The influence of factors on social interactions is presented in Table 5.

Empowered by its potential, public spaces present an equal chance for all residents to build and maintain social activities (albeit frail and unstable) in the first place. In the following step, after the first coagulation of social interaction, the differences at the social, economic, and cultural levels that provide various behavioral patterns will pave the way for the establishing of coherent and sustainable social connections (Ghanbaran, 2004).

The two factors of body and anticipation and the formation of social events are prominent in the presence and social interaction of individuals, which is also effective in developing a sense of belonging to the place

(Lennard et.al, 1984). The tranquil atmosphere, natural factors, space privacy, and vehicle control are effective in this regard. Humanity's need for direct contact with the environment reflects the direct experience of space, people, and social activities, including interaction with acquaintances, gathering, walking, games, recreation, sports, physical activities, and the possibility of competition, which have a direct role in creating the desired mental image of people from space, dynamism, and excitement, gaining new experiences and environmental education (Whyte, 1980). Another requirement is to be able to observe and monitor others and the events that are happening, which is one of the decisive factors in the extent of responsiveness of the space (Carr et al., 1992).

Hence, social interactions are more consciously defined with the presence of objects, various kinds of accesses, different applications, and even different types of imaginations in the neighborhood. The social dimension of public places is based on a triangle of human, space, and collective life (Daneshpour et al., 2007). Responding to these dimensions demands attention to the items listed in Figure 1.
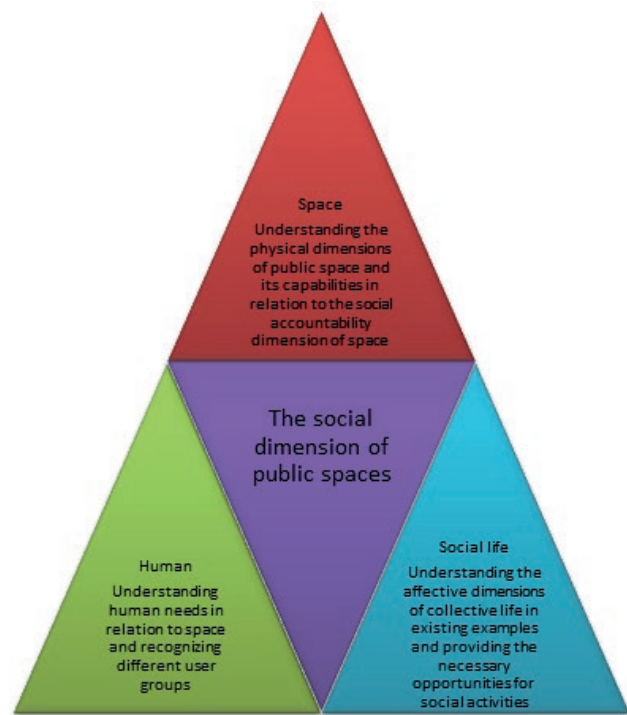
2.8 Environmental and cultural landscape perception criteria in historical fabrics

Based on the researches, the perception of the environment for the social sustainability of neighborhood levels is a reciprocating relationship in which humans and perception have a two-way relationship with each other both of which are affected by the social conditions of the society and the environmental conditions of the society, which ultimately leads to a two-way relationship between the perception of the environment and social stability. As a result, each environment has found a specific pattern based on the way people in the society relate to the physical environment and the social structure that governs the space and interacts with humans in a distinctive way. In developing countries, the affecting Factors of sustainable environmental development based

Figure 1. The social dimension triangle of public spaces (authors based on research findings).

Table 6. The relationship between environmental perception and cultural landscape in historical contexts (source: authors).

Elements	Types of the cultural landscape / Factors affecting perception	Cultural landscape	
		Natural-historical	Artificial-functional
Environmental perception	Cultural values	Historical context as a part of cultural asset	Architecture and urban planning in accordance with local and indigenous values
	Social values	Promoting public participation in maintaining and improving spaces	Paying attention to sexual and age groups and other special groups, Paying attention to the mobility status and the vehicle carrying the audience, Paying attention to the observer's height, Paying attention to the observer's movement or stillness, Paying attention to citizenship or touristic intentions of the observer, Paying attention to the observer's direction, Paying attention to the instance of observation, among others
	Physical values	Use a variety of vegetation for demarcations	Physical continuity with construction in the lands between the bodies
	Identity-related values	The authentic presence of native-natural factors	Body and activity-specific and appropriate to the character of the city, elements, and monuments, etc.
	Intuitive values	Striking the perfect balance between	Hierarchy in the process of construction and activities
	Aesthetic values	Cleanness from various forms of environmental pollution	Making use of local renewable materials
	Subjective values (sensory richness)	Preservation and promotion of ecological elements, especially those with a high sensory richness	Mental disturbance of humans owing to intangible factors such as smell

on traditions, correct cultural, indigenous and natural values, are considered (Naveh, 2007). According to the topic, explaining the relationship between environmental perception and cultural landscape in historical fabrics is presented in Table 6.

When considering social factors in the neighborhood and perception of the environment and landscape, Brown and Werner (1985) associated attachment to place with three factors: 1- Group and individual characteristics of location users; 2- The degree of connection and intimacy of people in the place; and 3- communication in group activities and mass ceremonies (Brown et al., 1985). Increased satisfaction and support of informal communication and communication in social activities, and thus, the development and improved attachment of people to the place due to receiving the desired social space is essential (Erkip, 2010). Sense of belonging is associated with the negation of local and spatial self-alienation and with a sense of tranquillity and satisfaction with the setting. The existence of this sense, on the one hand, causes the individual to act progressively and dynamically in the neighborhood and the environment, and on the other hand, enables the individual to consider the society and the place (neighborhood and city) as their own and to work for its development and advancement. Having a sense of belonging constitutes a partnership, collaboration, and communication among

the members of a group and neighborhood (Taghvaei et al., 2009).

Each environment finds a special pattern based on the way people in the society relate to the physical environment and the social structure that governs the space and interacts with humans in a distinct way. Since the aim of this article was to achieve a new approach of environmental perception in the historical context for the social stability of neighborhoods, according to the studies and analyzes presented in this regard, to improve the quality of neighborhood environment perception through subjective perception with the help of perception indicators. Visibility and components of social stability leads to an increase in communication with the environment and a better understanding that the practical result of these indicators and components will increase and continue the social participation of people in the neighborhoods.

3. METHODOLOGY

This research employs a mixed-method approach that includes content analysis and field survey. The theoretical framework of this research has been presented using library documents and archives and through reviewing the academic articles of the relevant literature.
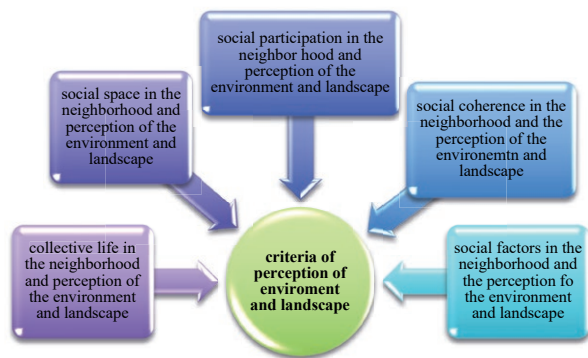
Figure 2. Criteria for perception of the environment and landscape.

It has been by using the content analysis of the shared data between the participants, the localities of the historical context have been investigated. Initially, a set of perspective factors and areas of Cultural Landscape and communication were generated. These factors were then classified in detail, and the content index parts of each were then merged. Ultimately, by analyzing the content of the data, the common data between the people communications, historical neighborhoods, and landscape perception were collected Figure 2.

According to the results achieved and, it was necessary, active experts in the field of Cultural Landscape were used. The survey was conducted employing the Likert scale-based questionnaire method in the scope of the case study (passage of the Baazarche-ye-Fil in Es'hagh Beig neighbourhood (Case A)). Twenty-five experts and 100 citizens familiar with the district were surveyed in order to answer this question. After analysis using the content analysis method, some certain codes were obtained. Based on those codes, the elements that determine the perceived quality of landscapes with Cultural Landscape s from the perspective of experts and residents were determined. Then, by attending the study neighborhood, the problems and deficiencies in the desired pass were recognized they were expressed in the form of five indicators of content analysis, including social factors, social correlation, social communication, social space, and social life. These factors were examined using MAXQDA[1] software, and then the results

were assessed in the Halprin cycle (R.S.V.P.)[2]. The Halpirin cycle with the help of MAXQDA software in this article is a new and at the same time effective cognitive method that we have reached the final results with the help of extracting the effective factors in the researched area. One of the solutions is the pathology of the subject under investigation and the various theories of theorists are determined in which groups they are placed in terms of the effective factors extracted through the Halperin cycle. Halperin's cycle is an evaluation method, but so far it has not been used in landscape architecture. In this article, an attempt has been made to use this cycle to evaluate the extracted data. The expected results found their main concept in this research when the Grand Detour method of Max Kyuda software has components that are formed with the help of Halperin's basic theories. With the evaluations carried out in the Halperin cycle, the chart of the effective indicators of landscape perception in the historical context of cultural neighborhoods to achieve social stability has been obtained. This cycle was implemented in four steps: reviewing the resources available to do the job, structured scoring for description, evaluating the collected resources, and finally, assessing the performance of the resource evaluation and scoring. This was inspired by the evaluation process of Chengzhi Peng's (1994) article, "The Discovery of Participatory Design Communications: Collaboration of Architectural Modeling". Based on the appraisals, a chart of the effective indicators of landscape perception in the Cultural Landscape of neighborhoods to achieve social sustainability was created. Figure 3 displays the method and steps of the research.

3.1 Case study

Eshagh Beig neighborhood: Shiraz is one of the five largest cities in Iran and the capital of Fars province (Abdullahi, 2015). The Es'hagh Beig neighborhood: is one of the historical neighborhoods of Shiraz. In the current

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[1] One of the most important and efficient tools for data analysis in this research is thematic analysis, and its tool is the use of MAXQDA qualitative data analysis software; the first version of this software was published in 1989 and currently The following programs are for qualitative data analysis around the world, which are used to create and test theoretical frameworks and draw conclusions from the analysis of various qualitative data. The application is designed for iPhone phones and was launched on the market in February 2014. In addition to being usable in a wide range of fields, this software provides users with the ability to

work with text, audio, image and photo data in various formats. brings (MAXQDA, 201:online).

[2] One of the measurement and evaluation methods in landscape architecture and urban planning is the P.V.S.R model, which was formed in the 1970s. A review of the literature and experiences in this field shows that the main reasons for the emergence of this model by Lawrence Halperin are to make trends visible, establish communication and also ensure the diversity, pluralism and participation necessary for growth, change, especially in large-scale projects, as well as the ability Measurement and evaluation of all environmental events in tandem until reaching the product is through the cycle of four components. In this model, the four main components R, S, V and P are considered as the main components forming the cycle. The relationship and order between the components determines the type of process that can perform the best performance of the model.
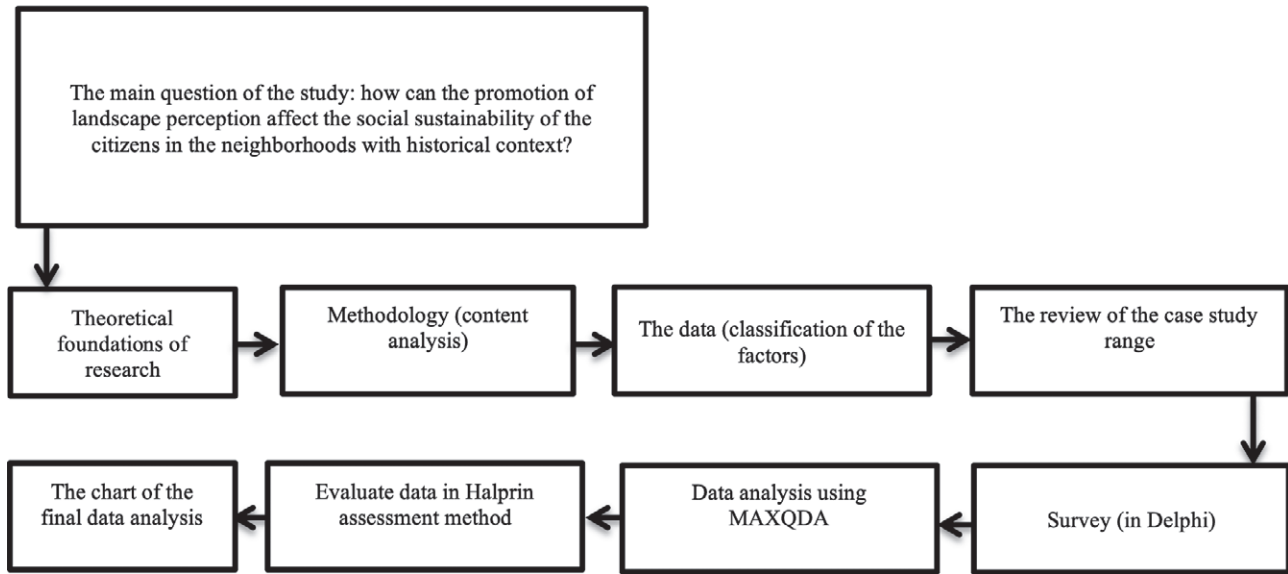
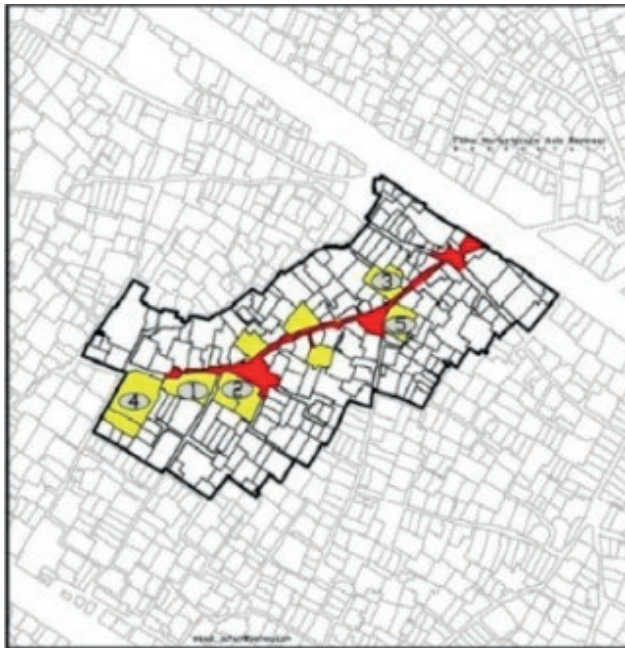**Figure 3.** Research Methodology Framework (Authors).

Figure 4. The passage of the *Baazarche-ye-Fil* in Es'hagh Beig neighborhood (CaseA) and the index-oriented historical buildings (marked on the Tavassoli map).

Figure 5. The passage of the *Baazarche-ye-Fill* (Case A).

situation, this neighborhood has passages and corridors that are considered part of the physical skeleton of the historical city of Shiraz (Figure 4 and Figure 5).

One of the historical routes in the Es'hagh Beig neighborhood is the "*Baazarche-ye-Fil* passage" (Case A) (Figure 5). Along this passage, valuable historical build-

ings have been built, most of which are evocative of the Qajar era. According to Figure 3, each of the applications along the passage (baths, mosques, and schools), once active and sustainable social centers, have now been demolished or are governed by the Cultural Heritage organization. These applications have virtually lost their prominent role in cultural landscape perception through communication in neighborhood sustainability.

Figure 6. Active and stable social centers along the *Baazarche-ye-Fil* passage (Case A).

After surveying using the questionnaire method, different problems and issues were raised about the market, which are the products of the decline of the socio-cultural quality level of the span. The presence of addicts and criminals, the conversion of residential applications into warehouses, visual signs disturbing the environment, and the establishment of unsupervised restaurant use in the neighborhood, the conversion of active social applications to ruins, and conversion of the current route in the center of city (bazaar) into a parking lot are among the most critical problems in this area. Table 8 presents the marks of social instability on the *Fil* route (bazaar) in the Es'hagh Beig neighbourhood (Case A), together with corresponding images (Table 7 and Table 8).

Sang-e-Siah neighborhood: In 2013, the city of Shiraz was divided into ten regions, encompassing an area of 19,322 hectares, of which the Sangeh Siah neighborhood is located in the historical context of this city (Setavand et al., 2019). Sang-e-Siah neighborhood is among the historical neighborhoods of Shiraz. Sang-e-Siah and Sardozak neighborhoods are situated in the western part of the Cultural Landscape (Figure 7 and Figure 8).

One of the historical passages, located in the eastern part of Sang-e-Siah neighborhood and the western section of Sardozak neighborhood, is acknowledged as "Haj Zeinel Passage" (Case B) (Figure 5). In fact, this passage was part of the *Alamdaar* historical passage. Alamdaar route had a religious function and was the access between the two prominent gates of the city, namely *Kazerun* Gate and *Qasbehkhaneh* Gate. After the widening of Ahmadi Street, the role of Alamdaar Passage in the area has declined and has split into two lanes. The northern part of this passage is called the "Haj Zeinel

Table 7. Signs of social instability in the historical context of Shiraz.

Fil Bazaar in the Eshagh Beig Neighborhood (Case A)		Haj Zainal passage in the Sange-e Siah and Sardazak neighborhood (Case B)	
Factors and places studied	Effective factor hindering social sustainability	Factors and places studied	Effective factor hindering social sustainability
The current center of the passage (bazaar, car park lot)	Lacking collective life	The active and functional role of mosques, reservoirs, and tombs in the past	Lack of social coherence
Connection to one of the local accesses (outdoor)	Lacking social interactions	Cars in the pedestrian passage	Diminishing social elements
Establishment of a restaurant without supervision in the neighborhood (presence of clients' cars)	Diminishing social elements	Visual cues disturbing the environment	Lack of desire for collective life to improve the environment
Nazar Ali Bath (derelict)	Loss of social space	Constructing new building incongruent with the rest of the passage in terms of height	Lack of sense belonging to the space
Visual cues disturbing the environment	Lack of desire for collective life to improve the environment	Connection to one of the local accesses (outdoor)	Lacking social interactions
Turning residential applications into warehouses	Destruction of human living space	Incomplete destruction of the old bath to disband drug seller	Loss of social space
The prominent role of Saqakhaneh in the participation and stability of the neighborhood in the past	Lack of social participation	Unused open spaces	Lack of desire for collective life to improve the environment
The active and functional role of mosques in the past	Lack of social coherence	Presence of addicts and criminals	Diminishing social elements
Presence of addicts and criminals	Diminishing social elements	*	*

Table 8. Signs of social instability in the Es'hagh Beig neighbourhood.

The current passage center (bazaar) (car park)
(No collective life)

Connection to one of the local branches (outdoor)
(No social interactions)

Establishment of unsupervised restaurant application in the neighborhood
(presence of the customers' cars)
(Weakness of appropriate social factors)

Nazar Ali Bath (Ruined)
(Loss of social space)

Visual signs disturbing the environment
(Lack of propensity to collective life to improve the setting)

Conversion of residential applications into warehouses
(Among social instability factors of the neighborhood)

The prominent role of Saqakhaneh (public drinking place) in the community
communication and sustainability in the past
(No social communication)

The active and functional role of mosques in the past
(No social correlation)

The presence of addicts and criminals
(Weakness of proper social factors)
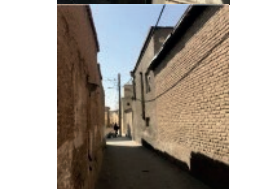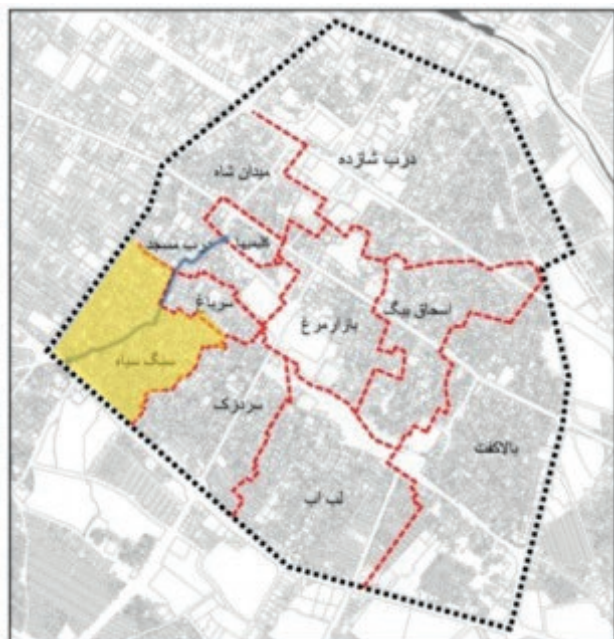
Figure 7. The span of Sang-e-Siah neighborhood in the old fabric of Shiraz (marked on the Tavassoli map).

Figure 8. Haj Zeinel's passage in Sang-e-Siah and Sardozak neighborhoods(CaseB) in the old fabric of Shiraz.

Passage" (Case B). Each of the facilities along the passage (baths, mosques, and schools), once active and sustainable social centers, have now been demolished or are governed by the Cultural Heritage organization. These applications have virtually lost their prominent role in landscape perception through communication in community sustainability (Figure 6).

Figure 9. Active and stable social centers of the "Haj Zeinel Passage" (Case B).

Religious places have been active in the application level of the neighborhood and have kept their connection with different social strata. The most significant reasons for the activity of this passage is the existence of small commercial shops, the proximity of the residential area, and the long acquaintance with the people who attend to it. Consequently, if the neighborhood was divided up based on the mosques and commercial shops in it, the inhabitants of each area prefer to be close to the nearest mosque. But sadly, the functional and social role of mosques has declined. One of the reasons for the decline in social communications is the decline in the security function of security at the neighborhood level.

The survey using the questionnaire technique, revealed many problems and issues with the "Haj Zeinel Passage" (Case B) that is the outcome of the decline of the socio-cultural quality level of this span. The presence of addicts and criminals and visual signs disturbing the environment are the most fundamental problems of this passage. Table 9 shows the marks of social instability in the "Haj Zeinel Passage" in Sang-e-Siah neighborhood (Case B) parallel with the corresponding images (Table 9).

The following table presents strategies and policies extracted from the interaction of environmental perception in the cultural landscape in two historical passages of Haj Zainal (Case B) and Fil Bazaar (Case A) in the old texture of Shiraz to offer in-depth knowledge of the relationship between environmental perceptions and cultural landscape (Figure 7).

3.2 Analysis of Indicators of cultural landscapes of Fil Bazaar (Case A) Haj Zainal (Case B) and in the Old texture of Shiraz

According to the urban-historical view, nature, society, and culture go hand in historical cities, hence making up an intertwined layer of diverse and sometimes contradictory values that have received less attention in conservation-based approaches in the last century. Due to the disregard for heritage (cultural) landscapes, visual disturbances resulting from the absence of related laws

Table 9. Marks of social instability in the "Haj Zeinel Passage" in Sang-e-Siah and Sardozak neighborhoods (Case B).

The active and functional role of mosques, water reservoirs and tombs in the past
(No social solidarity)

Connection to one of the local branches (outdoor)
(No social interactions)

The presence of cars on the sidewalk (weakness of appropriate social factors)

Unsuccessful demolition of a dilapidated bathroom to reduce the gathering place of drug dealers
(Loss of social space)

Visual signs disturbing the environment
(Lack of propensity to social life to improve the setting)

Open space unused
(Lack of propensity to social life to improve the setting)

Develop a new architecture with a height inconsistent with the passage

The presence of addicts and criminals
(Weakness of appropriate social factors)

are becoming increasingly prevalent. The following table presents the main indicators for identifying the cultural landscape in the historical passage of Haj Zainal (Case B) and Fil Bazaar (Case A) in the old textures of Shiraz (Table 10).

Considering the cases stated in the factors of social sustainability through communication, by attending this historical lane ("Haj Zeinel Passage" (Case B)), Halprin's evaluation was performed. Considering the commercial application of this passage, such as supermarket, bakery, mosque, cistern, fast food, and tailor's shop, it is feasible to create beneficial behavior sitting by decorating the green space with public activities like showing movies with projectors, organizing shop signs, and turning the whole

Figure 10. Active and stable social centers of the "Haj Zeinel Passage" (Case B).

passage into commercial stores relevant to the fabric. By organizing these activities, people's communication should improve, and the environment should flourish.

3.3 Analysis of research findings

From the conclusion of quality criteria for the perception of public spaces considered by experts, a set of elements and criteria were obtained. By generalizing them to local levels, we also established criteria on a local scale and per specific perceptual characteristics at the level of neighborhoods of the Cultural Landscape in cities (Table 11). The results of theorizing about the qualitative criteria of landscape perception in neighborhoods are summarized in the Table 11.

In the present study, to discover the opinions of experts with respect to the perception of landscape in the historical neighborhood (*Baazarche-ye-Fil* route in Es'hagh Beig neighborhood of Shiraz (Case A)) with the help of communication, the survey technique was used. The type of questions is usually illustrated. It should be noted that in the questionnaire section, five components that were extracted from the literature of the subject were selected, analyzed and evaluated after the survey. These five components include social factors, social correlation, social communication, social space, and social life. This process was analyzed with the help of MAXQDA software in five steps: 1- Coding and continuous adjustment of concepts, 2- Discovering the existing relationships between categories, 3- Summarizing and concluding the interviews, 4- Breaking the codes and identifying the lanes, and 5- Re-evaluating the data within the emerging theory. Finally, the criteria of environmental perception in a cultural landscape in the neighborhoods of the historical context are presented in Figure 2. Ultimately, the degree of people's communication in social sustainability was examined by using a questionnaire with the help of MAXQDA quality software and displayed in diagram 3 and 4. Furthermore, the extent of compliance of experts in this field with the status of the *Baazarche-ye-Fil* route in Es'hagh Beig neighbourhood (Case A) and "Haj Zeinel Passage" in Sang-e-Siah

Table 10. Environmental perception of the historical passage of Haj Zeinel (Case B) and Fil Bazaar (Case A) by the observer through indicators of the cultural landscape.

Heritage-related elements of the passage (Cultural landscape indicators)	Cultural landscape Artificial/functional	Historical passage of Haj Zainal (Case B) in the old context of Shiraz	Historical passage of the Fil Bazaar (Case A) in the old context of Shiraz
Commemorative	Exhibiting the principles of local architecture in the construction	Baghdadi, Siavushun, and Imam Ali mosques	Adineh Mosque
Cultural	Architecture and urban planning in accordance with the values of traditional architectural texture	Tomb of Sibouyeh the Poet	Heshmat Pahlavi School
Social / Popular	Establishment of exhibitions and handicraft workshops	Behavioral camp and gathering of people in the bazaar of the middle of the passage	Behavioral camp and gathering of people in the bazaar of the beginning of the passage
Historical	Existence of historical monuments	Reservoir of Siavushun Mosque	Nazar Ali Bath
Physical elements	Physical continuity by reviving the abandoned building between the bodies	Variety of functions and applications in the vicinity to each other	Variety of functions and applications in the vicinity to each other
Intangible – sensory depth	The smell of old-fashioned Sangak bread and the smell of sweets from old-style confectionery workshops	The smell of old-fashioned Sangak bread	The smell of old-fashioned sweets
Memory-inducing elements		Faloodeh Shops of the bazaar of the middle of the passage	Old murals in the bazaar of the beginning of the passage

Table 11. Effective criteria in the perception of the urban landscape and historical sites in terms of social sustainability.

Theorists	Qualitative indicators	Effective criteria	Findings
Brown and Werner (1985)	Social factors	1. Group and individual features of location users. 2. The level of contact and intimacy of people in the place. 3. Communication in group activities and mass ceremonies.	1- Increased satisfaction and encouraged informal communication and communication in social activities. 2- Cause of development and improvement of attachment to place.
Alvaani and Seyed Naghavi (2003)	Social correlation	Local-scale Individual relationships and communication networks between individuals and prevailing informal norms and values.	3- The extent and severity of neighborhoods, the existence of formal and informal social networks in the neighborhood, causes public communication in the neighborhood and social trust among the people of the neighborhood
		Minor scale Local groups and institutions such as associations, clubs and popular organizations, social and cultural characteristics of the residents of a neighborhood.	2- Social cohesion is one of the main components of social capital. 3- Social capital is the driving force for moving towards sustainable development.
Carmona et al. (2003)	Social communication	Communication in the process by which a person voluntarily engages in social activity through a sense of belonging to a group and active and voluntary communication. Some experts have looked at the definition and analysis of communication from a macro perspective.	1- Active communication of individuals in political, economic and cultural life and in general all aspects of life. 2- The increasing impact of this on local levels and citizens' communication of the quality of the environment.
Carmona et al. (2003)	Social space	Social relationships can be formed in space and threatened by the shape of space.	1- Dynamic interaction, information exchange, gaining environmental experiences, the possibility of creative expression of individuals and groups. 2- Increasing the sense of social correlation and as a result more satisfaction.
Whyte (1980)	Social life	An opportunity to get rid of the stresses of everyday life, to spend leisure time, social interactions and gatherings of different individuals and groups, and a platform for presence, freedom of speech, and their tools in space.	Social interaction and communication, physical subject, one look, one conversation and communication between people.

and Sardozak neighborhood of Shiraz (Case B) regarding social sustainability was analyzed by survey with the help of MAXQDA quality software.

Next, to examine the perception of the landscape along the *Baazarche-ye-Fil* route in Es'hagh Beig neighborhood in the Cultural Landscape of Shiraz (Case A), based on the available data, the evaluation of the Halprin (R.S.V.P.) participatory model was used. This appraisal was carried out in four steps: 1- Resources (R): Means the resources available to do the job. Resources refer to data about space, time, ideas, intentions, and manpower in terms of people's mental abilities that can be used to produce new ideas. 2- Scores (S): Means rating a framework for describing, analyzing, ranking the needs and ideas, and the outcomes of public decision-making. 3-Valuation (V): Means the process of social sustainability of urban neighborhoods dynamically in response to requirements and needs and based on preferences. This stage included analyzing the results of activities, possible choices, and decision making. 4- Per-

formance (P): Lastly, in this step, the results gathered from resource valuation and rating were executed. Next, the operational determinants of landscape perception regarding the social sustainability of available resources were presented (Figure 13 and Figure 14).

4. CONCLUSION

By relying on the results of theoretical foundations and field studies performed on the *Baazarche-ye-Fil* route in Es'hagh Beig neighborhood in the Cultural Landscape of Shiraz (Case A), social sustainability was assessed with the aid of landscape quality evaluation. The authors considered that focusing on urban landscape perception would be useful in strengthening people's communication and thus elevating social sustainability. Employing the Halprin cycle further shows that factors such as social factors, social correlation, social communication, social space, and social life are effective in accomplish-
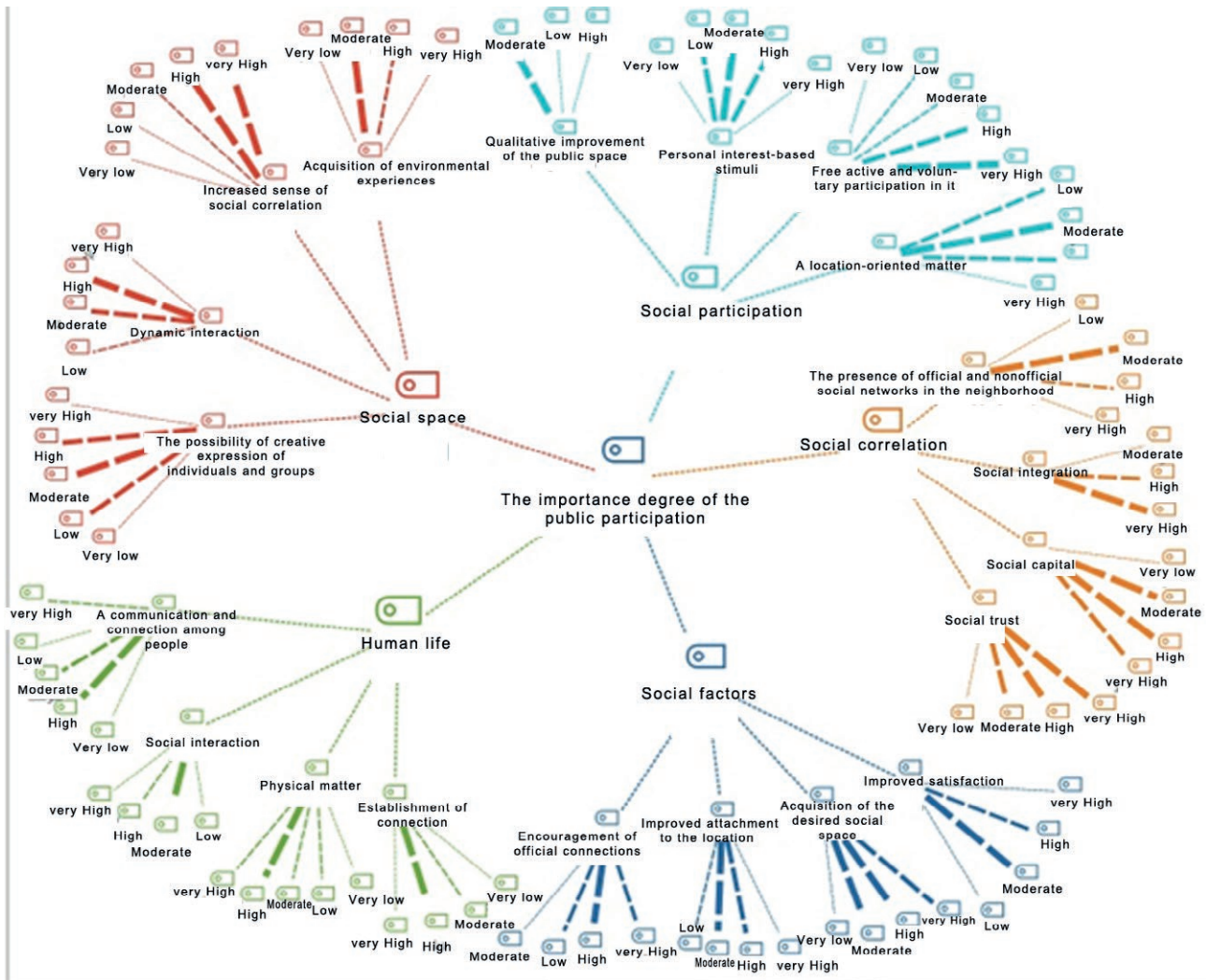
Figure 11. The degree of people's communication in social sustainability through a questionnaire and analysis with the help of MAXQDA quality software.

ing social stability. Resident communication is the tie between urban landscape perception and neighborhood social sustainability and presents sustainable development through the concepts of social life, space, socialization, and human behavior. That is, social revitalization of a neighborhood or lane in the city will lead to enhanced quality of relationships between people in that neighborhood or passage by promoting sustainability, and this will create higher communication of inhabitants. To this end, the urban landscape perception by encouraging the communication and interaction of residents improves social relations and the social stability of neighborhoods.

After examining and analyzing landscape perception in Cultural Landscape spaces, the data diagram collected from the research was plotted and present-

ed. According to these data, qualitative indicators and urban landscape perception criteria affecting social sustainability in historical sites were identified. These indicators and criteria are divided into five parts: social factors, social correlation, social communication, social space, and social life. Based on theories of theorists, the Halprin (R.S.V.P) participatory model was adopted. After analyzing the data, the connection between Halprin's cycle evaluation model and urban landscape perception in Cultural Landscape neighborhoods in terms of social sustainability is presented in Figure 15.

Neighborhoods emerge following a particular function to respond to specific behavioral patterns.

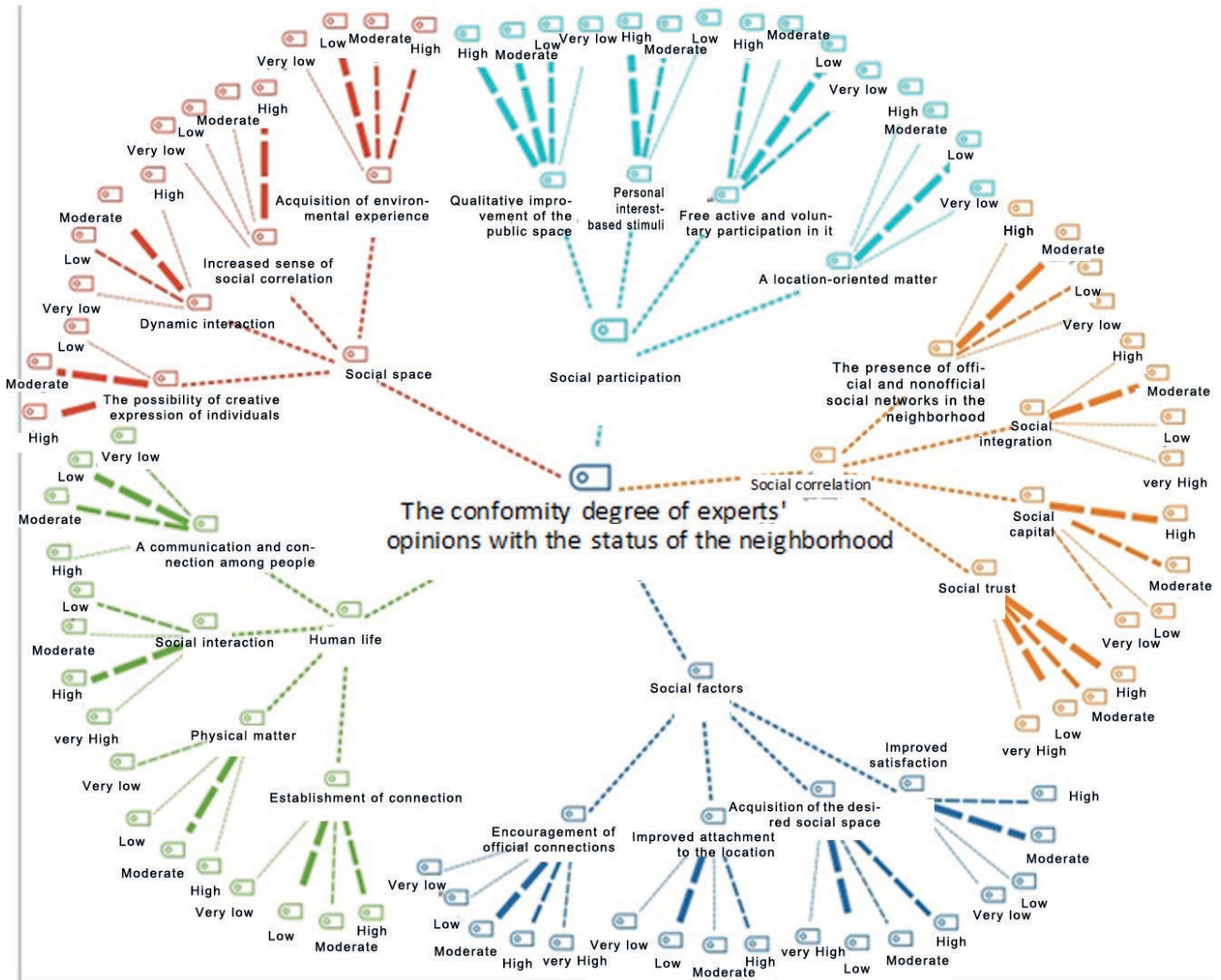They transform under the influence of changes in habitat and behavioral patterns and take on a new form

Figure 12. The extent of compliance of experts in this field with the status of the *Baazarche-ye-Fil* route in Es'hagh Beig neighbourhood (Case A) and "Haj Zeinel Passage" in Sang-e-Siah and Sardozak neighborhoods of Shiraz (Case B) regarding social sustainability was analyzed by survey with the help of MAXQDA quality software.
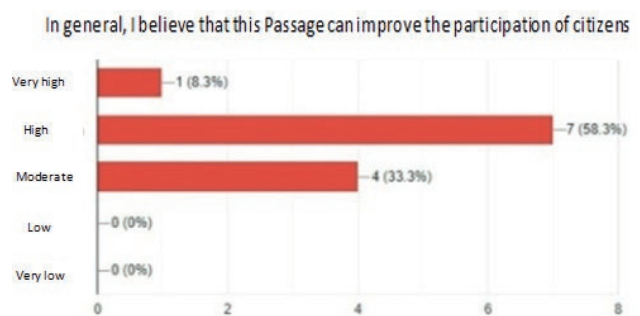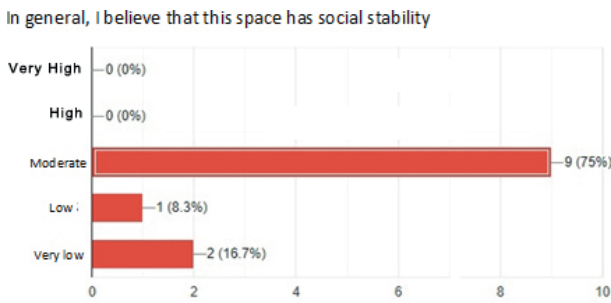

Figure 13 and **Figure 14**. The operational determinants of landscape perception regarding the social sustainability.

Figure 16. Citizen communication is the connection between urban landscape perception and neighborhood social sustainability.

between urban landscape perception and neighborhood social sustainability
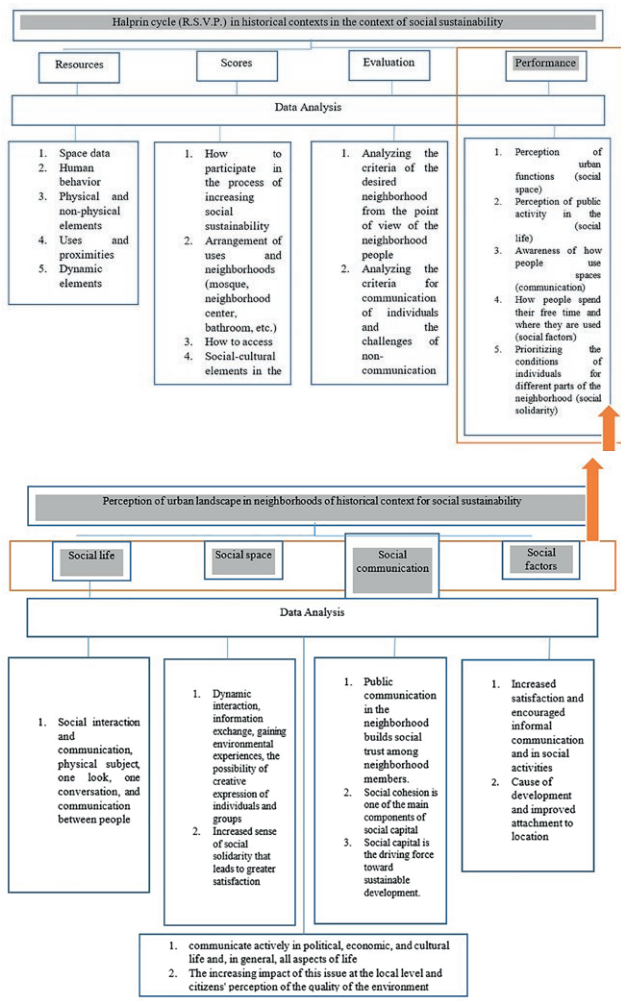

Figure 15. The connection between Halprin's cycle evaluation model and urban landscape perception in Cultural Landscape neighborhoods in terms of social sustainability.

in proportion to these changes. In this respect, the constituent elements and factors of the neighborhood should be established in such a way that they can provide the space for interaction between the masses and the space and perception of the residents. Residents must further be able to perceive a continuous flow of collective and homogeneous experiences when moving in the space between elements. Given the two-way connection that exists between perception and perspective, a linking factor is needed to obtain a two-way relationship between people and interactions. This factor is the communication of the citizens (derived from the performance of the Halprin cycle in Figure (15). Figure (16) shows Citizen communication is the connection
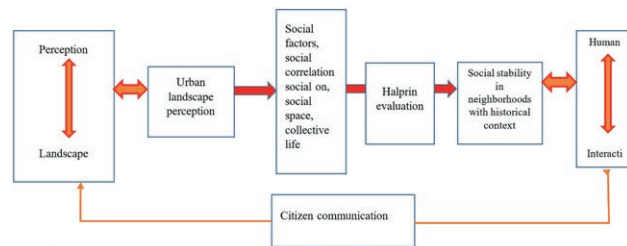
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