Identifying and Explaining the Components Influencing the Quality of Environmental Perception in Residential Complexes (High-Rise Building)

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Research Article

Abstract

Citizens' dissatisfaction has been generated by the reduction in the quality of residential settings as a result of cities' fast expansion and development, which has led to issues such as mental depression and different types of urban unrest and damage. In such conditions, several architectural and urban planning thinkers and theorists have recommended "enhancing the quality of the living environment" as a means of reaching the aim of "environmental perception." The approach's major goals are divided into two categories: improving the physical state of the living environment and enhancing residents' mental perceptions of the quality of their living environment. This is accomplished by attempting to generate favorable physical/environmental circumstances as well as a positive assessment of the environment's objective and observable elements. To achieve this, it is necessary to identify the variables and components that affect the quality of the living environment, as well as to measure the level of residents' perception of each component, to develop appropriate strategies if there is a clear difference between the measured and desired situations, so as to enhance and improve the quality components. Thus, the current study attempted to provide a model using a descriptive - analytical method by examining various theories and experiences in the field of quality, so that it can be used in Shiraz city's environmentally and socially for evaluating the perception of residential environment and to take action on the specified goals. Once the primary factors, which include physical, functional-functional, and social variables, have been identified, the factors impacting perception of the environment were then assessed using the field survey and

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questionnaire, with the spatial physical variable receiving the highest score. In this respect, the enhancement of urban life and the inhabitants' perceptions of the environment in their region pave the way for the eradication of many social issues that is now influencing residential environments.

Keywords: Housing; Residential Complex; Environmental Psychology; Improving Quality of Environmental Perception; Design Strategies

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1. Introduction

An architect owes it to the public to see the space in its totality. In fact, the space is offered to the audience inside the structure. The art of architecture has the responsibility of gathering the features of the environment and displaying them in the location by artistically making it. Of course, it has been a very successful and inefficient moment in history in order to accomplish this objective. Traditional Islamic-Iranian architecture may have had a lot to say in this respect, but wandering through the city's streets and alleyways has made it forget its original character. People now live in buildings that were designed and built without consideration for man's psychological requirements, resulting in issues such as a diminished feeling of belonging, tranquility, and security. Housing has always been a source of worry for people at different stages of their lives. Its development throughout time, from the time when man lived in the jungle to cave-building and tool-making, etc., has been founded on his bodily and emotional requirements. Human beings have used the desire for shelter as a beginning point or starting point for building from a variety of angles. The numerous schools of thought have all attempted to explain how this urge emerged in man. In most of the responses, man is shown as a wandering creature in nature who seeks safety in caves or trees, and it is here that he is inspired by a pattern such as a cave (Nurberg Schultz, 2002).

Shelter is a material, spiritual, and natural need. "And God has fashioned you a place of habitation (and serenity) from your homes, and from the skins of living animals, and he has also given you houses that you can easily move from your day of movement and from their wool and shaggy hair, for you to construct," says the Bible (and various means of life), until a specific point in time (Sura al-Nahl verse 80).

The functionalism of modernist viewpoints has alienated growth, man, city, and architecture from the sensation of emptiness, and has rendered man fearless and indifferent via mass manufacturing of boundless and fearless places.

2. Concept of Environment

The term "environment" has different meanings, making it difficult to come up with a single definition. The scope or circumstances in which any phenomena or species lives or operates are defined by Oxford culture in establishing its habitat. Everything that exists around and has the ability to interact with the person is referred to as the environment. However, receiving all accessible information is not feasible. The environment is all of the data that comes in from the world around us (Pakzad, 2007: 45). This potential data may be sent from both natural and man-made surroundings. Architects, psychologists, sociologists, and geographers all have varied definitions and classifications of the environment, making it impossible to pin down a precise term. "The environment is a multidimensional notion with many dimensions. Environmental factors include spatial data, social, cultural, physical, architectural, symbolic, geographical, historical, and biological components " (Mortazavi, 2001) Literature about the environment differentiate between

physical, social, psychological, and behavioral environments. In the realm of architecture, "ambient space" is the primary requirement for defining the environment. As a result, whenever we discuss architecture, we are referring to the man-made space that surrounds us.

3. Environmental Perception

Because the environment is the source of all information, perception is at the heart of all environmental activity. The environment stimulates all of the senses and overwhelms the individual with information. As a consequence, perception is not the same as sensation; rather, it is the outcome of the individual's cognitive experience improving his or her processing. Because it has been argued that we are nothing more than our cognitive and long-term memory, Itelson claims that the person is a member of the perceptual system. It is difficult to separate the person from the environment throughout the perceptual processing process. Because these two are always interacting and perceptions are based on what the person is doing (Mortazavi, 2001), in environmental perception, the perceiver is a part of the observed environment and plays an important role in defining limits and other features through his behavior and movement in space. In other words, the observer's actions and aims are crucial in defining the environment's and space's bounds. From the perspectives of environmental psychology, perception, cognition, and conditions, we can consider space as an individual experience that is the result of his perceptual processes, as well as attributing specific meanings to the whole, components, and connections between those components in space (Matlak, 2001). An environment that is interwoven and entangled, particularly when the perception of things is separated from the sense of the surroundings. Because the individual travels in space and meets the environment according to assumptions and particular practical aims, environmental perception involves more variables and circumstances, and perception has a broader scope (Mortazavi, 2001).

Being human is a continual attempt to comprehend identity via perception of the environment. The perception of the environment, it may be argued, plays the most important function in human comprehension of the environment. Perception, in general, refers to a person's knowledge and awareness of the world around him as well as the world inside him, and it has long been a topic of debate among philosophers as the foundation of human cognition and identity.

Human mental state at the time of perception, as well as the ambiance of the surroundings at the time of perception, are factors that influence human perception. - the viewer's unique mood, which is formed by all of the viewer's previous experiences and occurrences - genetic influences as well as the social environment, Personal variables such as personal experiences, age, gender, and education are examples of psychological factors. Cultural elements are examples of factors that are not generated by learning or experience. In this respect, environmental stress is added, which is a physical environment aspect that creates a negative emotional response since it is frightening. Environmental stressors are variables that, over time, decrease a person's capacities by causing them to become stressed. Some of these elements, like noise, have an immediate impact on a person's performance, while others, like air pollution, have a longer-term impact. Noise, congestion, and other variables are examples of these. Almost everyone is affected by noise, heat, or humidity in some way. On the other side, you may experience anxiety and fear upon approaching a space or a location for no apparent cause. Environmental stresses are the initial instance in environmental psychology. Environmental stressors are threatening elements that generally elicit a negative emotional reaction. This response differs from one individual to the next. The way you perceive the surroundings has a major impact on how stressed you feel. It is one of the many elements that influence one's perception, including life events, genetics, and so on. There are various perceptual

elements that may make individuals apprehensive about the surroundings, apart from personal aspects that influence how a person views the world as stressful. Experiments have shown that if a person is completely ignorant of the environment, or the information received from the environment is so limited that he is unable to expand his knowledge of his surroundings, or on the other hand, the volume of information received from the environment is so large that he is able to expand his knowledge of his surroundings, he is unable to expand his knowledge of his surroundings. If a person grows to the point where he is no longer able to evaluate and pay for knowledge, he will experience unpleasant mental states such as boredom, unwarranted worry, and nightmares, among other things (Grütter, 2020).

3.1. Place and Space

According to the Oxford Geographical Dictionary, "place" refers to a distinct spot on the earth's surface that is an identifiable location for a circumstance in which human values are produced and evolved. In addition to the geographical idea, Webster's English dictionary refers to how individuals are situated in society in distinct regions (social dimension of space) [5]. Table 1 shows how various theories describe space, whereas Table 2 shows how space is defined.

Table 1 Definitions of place (Source: authors)

Theorists	Theory
Kanter (1971)	According to Kanter's model, place is a component of built or natural space that is the outcome of interrelationships between three factors: human behavior, meanings and ideas, and physical qualities, with these three components determining the quality of the environment.
Ralph (1976)	He considers place to be a phenomena that obtains its fundamental meaning not from its surroundings or functions, but from the civilization that inhabits it. Places, in his opinion, are a blend of natural order and human people, and they are crucial global experiences.
Johnston (2001)	Place is a section of geographical space occupied by a person or thing.
Partovi (2004)	Place is more than simply an abstract location from a phenomenological standpoint. A location is a collection of real-world things that includes materials, materials, forms, textures, and colors. The interaction of these components determines a location's environmental character. Place is considered as the product of a multitude of political, economic, social, and psychological influences that impact it at a given moment in time in traditional environmental psychology. These forces are thought to be able to modify the location if they intervene properly. The foundation for activities is location, which has an identity that encompasses a wide range of social realms and a history that spans the past, present, and future.
Davoodi (2008)	A place is a location where man has a complete perception of his being.
Habibi (2009)	The most important aspect of a person's identity is their location. Man may get information by knowing where he is.
Afshar Naderi (2012)	Place, he imagines is the outcome of the interplay of three aspects of human conduct: conceptions, physical qualities, and human behavior. As a result, "location" might be thought of as the experience of "inner worlds" vs "outer realms," which encompasses a variety of characteristics and openings.

Table 2 Definitions of space (Source: Authors)

Theorists	Theory
Shakubi (2000)	The idea of space as a component of socioeconomic structures. Space reflects man's knowledge of the world, his life experiences, and his intentional reliance on his surroundings. Individual or collective human choices, voluntarily or coerced, consciously or subconsciously, modify and manifest space across time.
Heidegger (2001)	In essence, space is something that has been made available, something that has been given up. Places, not space, provide the essence of spaces in this manner.

Almost every human being detects and experiences space more readily than space, and he simply feels the significance of place for individual and communal existence in contrast to space. People even comprehend space via location and discover an inconceivable realm independent from place. This distinction between place and space perception stems from the fact that space is more abstract than location (Pakzad, 2007). Although there is space everywhere, there is also a distinct sense of location. Envisioning everywhere must undoubtedly be more difficult than imagining a specific location. Space is a type of vacuum, yet place contains substance. Space is simpler to define and restrict than space, despite the fact that space is decentralized and limited (Purdihmi, 2008). In reality, locations are frequently environmental broad terms like nations, regions, landscapes, settlements, and structures. As a result, terms like island, promontory, bay, woodland, forest, square, street, yard, floor, wall, roof, window, etc., or names, are used to refer to them. The usage of names validates the acknowledgment of locations as actual and existing entities. Spaces, unlike locations, are frequently described as communication systems, which are usually articulated in prepositions. Additional letters such as door, inside, face, top, side, from, and so on are employed to accomplish this.

3.2. Factors Affecting Environmental Perception

Perception and cognition are impacted by psychological elements (such as wants, motives, and past acquisitions) that are also influenced by environmental circumstances, both in the stage of gathering information and in the stage of interpretation (cognition). Accept. These elements may be classified into two groups. The doer is regarded a component of the observed environment in the perception of the environment (Mortazavi, 2001: 90).

Some attribute the wide range of perception and cognitive processes to the variety of human nature, while others attribute it to the diverse experiences of people, and still another group attributes it to both. The organs detect information during perception and cognition, such as seeing a picture of objects and environmental stimuli in the retina (Mortazavi, 2001: 88). Life stages, spatial ability, familiarity with location, gender, and cognitive-spatial mistakes are among the five criteria that researchers have given more attention to than others (Grütter, 2020: 18). Table 3, summarizes the factors influencing the perception of the environment from the perspective of different thinkers and researchers.

Table 3 Components influencing environmental perception

Factors influencing the formation of environmental perception and the occurrence of perceptual diversity	Name of the thinker
Previous experiences / social class / cultural background	Amos Rapaport, 2005
Changing individual abilities due to learning / gender / culture	Duard Hall, 2009
Social and psychological factors / cultural differences	Jürg Groter, 1996
Past experiences / requirements and motivations / cultural environment / individual human personality	John Long,2003)
Social and cultural developments / personal experiences / value system / personality differences of individuals	Cremona et al. 2009
Social, cultural and economic indicators / distance and proximity / residence history	Brody et al. 2004
Physical and environmental factors of the environment / Social indicators / Individual indicators / Housing characteristics	Santos et al. 2009
Physical factors of the environment / interests, feelings, memories and expectations / social context / time	Vischer, 2008
Worldview (designer and society) / culture / history / times and expectations of society / different human forces	Naghizadeh, 2008

4. Methodology

In order to develop a model that can be utilized by Shiraz city's Environmental and Social to assess how residents perceive their surroundings and to take appropriate action toward the set objectives, the current study made an effort to examine various theories and experiences in the field of quality. Following the identification of the main elements, which include physical, functional-functional, and social variables. The variables influencing how people perceive their surroundings were then evaluated in the field and through a questionnaire, with the spatial physical component earning the highest rating.

5. Results

The Factors influencing the promotion of environmental perception in residential spaces were obtained according to the review of the resident's environmental perception questionnaires.

5.1. Sociability

The features of man-made settings impact establishing a suitable number of collective interactions in living environments as one of the components determining the quality of the environment and environmental perception (Mortazavi, 2001: 64).

Cultural elements such as kind of traditions, culture, family structure, and attitudes toward privacy of inhabitants have a major effect in their happiness, according to research studies, and

cultural similarities among complex residents may boost satisfaction with the complex (Hip, 2010: 25).

5.2. Environmental Conditions

Climate change, bright sunlight, freezing and dropping temperatures, strong winds, dryness or high humidity, and rainfall are all factors that influence how people perceive their living environment. Providing people with comfort by shielding them from harmful elements such as sunshine or wind, paying attention to the microclimate of the place, and preventing abrupt changes in climatic conditions in a row may all contribute to the creation of a comfortable atmosphere.

5.3. Satisfaction

In study, the realm of architecture and housing, contentment is often described as a criterion that fits the demands of occupants. According to John Lang, an environmental planning and design specialist, independent of the demands of space users, it may cause significant physiological and psychological harm to individuals. The presence of green areas, fountains, and other natural elements in the open spaces of residential complexes have a significant impact on the creation of a sense of security, belonging to the place, efficient use of space, and promotion of social relations among residents, all of which contribute to residents' satisfaction. Seven factors, including the size of the space, social interactions, security, and infrastructure, as well as communication with the outside world, urban activities, and natural open spaces, have the biggest influence on the construction of environmental perceptions in residential complexes (Asghari, 2014).

5.4. Providing the Expectations of Residents from the Residential Environment

Kanter presented functional parameters as factors determining residential complex satisfaction in his 1977 investigations (Kanter, 1977: 152). Public services, recreational services, commercial services, and transportation services were introduced as sub-criteria of functional and significant elements in this sector (Benaito et al., 1999: 333).

5.5. Activities in Public Space

According to Carney's findings, inhabitants' most significant criterion of pleasure are social ones, but planners, designers, and architects focus more on physical qualities). According to his findings, community factors, rather than physical traits, have a larger impact in predicting the pleasure of older inhabitants. Even in circumstances when other things are not pleasant for the new inhabitants, contentment with the living environment is better in cases where individuals are happy with their neighbors. Physical aspects are crucial variables in people's contentment, according to Potter and Cantarro, for new inhabitants. Social elements and connection with neighbors are regarded more relevant variables with a longer history of dwelling (Potter and Cantarro, 2006: 623). As social elements determining inhabitants' contentment, Bialps emphasized local ties, involvement, and individual shared values (Barati and Kakund, 2013: 17).

5.6. Security

Human security refers to the safeguarding of individual, economic, cultural, social, and political rights and security. Human security has two dimensions: a minimum (sufficient) dimension in

which members of society are able to provide for and ensure their livelihood, survival, and security; and a developmental (welfare) dimension in which people are able to feel happy and secure in their lives and psychosocial security. Personal security, however, is more essential to individuals than other human security in the meanwhile. In truth, people's feelings of insecurity in a society may have a variety of implications. Withdrawal behaviors might also be triggered by a lack of trust or apprehension about numerous concerns. If they are able, people may flee insecure locations. Citizens may see that the location is unsafe because of the uncontrolled chaos (Giddens, 1999.) The theoretical underpinnings of order and security are one of the most important components of every civilization, focusing on the philosophy of their existence and the link between their interactions in society. As a consequence, the loss of order and security in any society will result in that society's disintegration; on the other hand, the cornerstone of every sustainable social organization is made up of its fundamental and matching components of social order and security (Salehi, 2008: 17). Security is a sense of calm and certainty that one's life, property, and other human rights will not be violated. One of the needs of individual and communal existence is monopoly value. In the past, cities were fortified by walls and ditches that surrounded them, protecting them from foreign assault (Kamyar, 2003: 33). Spiritual stability is seen as the most essential aim of life and the cornerstone of mental health (Forum, 1981: 11). Security is the second most significant category and the most fundamental requirements in Maslow's hierarchy of needs, after physiological needs (b and food, etc.). When people's physiological requirements are addressed, according to Maslow (1968), they become more intimately related with their capacity to meet and satisfy higher-level wants like security. These requirements are intertwined with the social and physical environment (Salehi, 2009: 22).

The individual characteristics like social status, personality, roles (age and social class, family support, being a student or worker, etc.) and these issues in identifying the comfort of these people also influences their understanding of the vulnerability of a place, and these problems in identifying the comfort of these people also influences their understanding of the vulnerability of a place (Howard 219: 1999).

After biological requirements, safety needs, according to Abraham Maslow, are the most fundamental human wants, which psychologically imply the human desire for peace and mental comfort, as well as the avoidance of upheaval and structural disorder in society (Samadifard, Movahed). The problem of environmental security is one of the most critical issues determining the quality of public places (Jahanbakhsh, 1932). Environmental insecurity has an impact on all human activities, and in certain situations, it may even interrupt normal social activity. Providing security in residential areas has a number of advantages, including improving the quality of life and increasing citizen satisfaction, encouraging people of all social classes to visit these places, increasing social interactions and cooperation, the volume and distance between buildings (masses in space), and neighborhood participation, and finally reducing urban crime. People who spend time in open places are seen to be successful in decreasing crime and boosting their security (Purdihmi 2008).

5.7. Sense of Belonging to a Place

The realm develops a psychological connection to a location and becomes a sign of ownership and physical composition (Sholeh, 2006, quoting, Pastslsn, 1970: 101-88). Residents believe their place of residence has specific characteristics, and although they are interested in it, they prefer to satisfy their requirements within its confines (same source quoted by Pollaway and Hillbert, 2012: 71). Lang is thought to have understood "to put" as a feeling of place citizenship (ibid., Cited in 85

and 19, 1994). Lang 291 Today, given the massive changes in the organization of cities' social institutions, and also, the investment system's orientations in the area of development and production of urban spaces, people's feeling of belonging to communities and urban spaces is eroding. Karami and Shariati (2008) although humans have differed in terms of biological geography and cultural surroundings across time, they share many of the same fundamental requirements. The human approach to urban design places people's common needs in the framework of time for long-term urban development in many cultures and climates at the forefront of its activities. Urban planners and designers may create acceptable models for sustainable physical, cultural, environmental, and economic development by paying attention to the role of human aspirations in the evolution of communal life (Motalebi, 2006: 58).

Table 5 Design solutions to increase the sense of belonging in residential complexes (Source: Authors)

Components	Providing an architectural solution
Proper physical access by facilitating riding and walking access	The rule of outdoor sidewalks To reduce the danger of accidents for residents, separate pedestrian pathways from pedestrians and prevent dividing open space with automobile lanes. More chances to reduce the negative impacts of automobile traffic, boost yard efficiency, and design flexibility are available with underground stops.
Suitable space for various activities through facilities and amenities,	Predicting public areas for sports, exercise, sports fields (football, tennis, volleyball, etc.), bodybuilding equipment, chess and ping pong tables, and children's playgrounds (sand playground, Skating rink and play equipment such as swings, slides and swings). Special occurrences that occur in space Regard activities such as playing music that provide a dynamic soundscape. Establishment of commercial (supermarket, bakery, fruit store, etc.) and recreational (club and swimming pool) purposes in order to offer 24-hour activities and secure space in the complex at night.
Sense of security	Design of restricted entrances for a residential complex with guards present and the ability to monitor the residents. Paths, green spaces, and sitting places should not be constructed in such a manner that lack of monitoring and sight is a possibility. Creating a welcoming environment for women's presence Enough illumination to make nighttime maintenance of entrance points, access roads, and public parking lots easier.
Clarity and legibility of spaces through no confusion in finding paths	Provide collections with well-defined inputs to avoid uncertainty for clients and residents. With a mix of building form, landscape design, and basic and readable markers, pedestrian access pathways may be made more visible and straightforward.
Separation of public-private space	Hierarchies of public, semi-private, and private open spaces are used. Sound transmission from spaces such as restrooms and toilets, kitchens, washing machines, and family living rooms to calm regions of the house such as the living room, bedroom, and study or work room may be prevented by properly placing functions within the home.
Landscape and use of nature	On the southern front, deciduous trees are used, whereas on the western front, evergreen trees are used. To generate variety and inhabitants' contentment with the environment, the trees' colors should be varied, and they should be planted in four seasons.
Social Relations	Designing the movement routes in the whole complex The compliance of component performance with total function

	Multi-functionality of spaces The proportion of components together
Color, texture and material	Form, construction materials, color, texture, and required apertures in building volumes are all coordinated with the surrounding texture. Create a continuous and dynamic shell and create movement in the entire set by moving it at a high level and seeing the entire set Use new materials in a part of the building: for example, emptying a part of the body of the space and transposing it - Create a continuous and dynamic shell and create movement in the entire set by moving it at a high level and seeing the entire set Garden design with a mix of old and new ideas (association of Iranian garden movement system and garden pits)
Associations of memories	Applying the fountains, lighting, sculptures and spaces with a special form Using the water as a focal and cumulative element in the landscape design

6. Conclusion

Because of the rapid growth and development of cities, there has been a decline in the quality of residential environments, which has contributed to problems like mental depression and various forms of urban unrest and destruction. Many architects and urban planners have suggested "improving the quality of the living environment" in these circumstances as a means of achieving the goal of "environmental perception."

The main objectives of the method can be broken down into two categories: raising residents' mental evaluations of the quality of their living environment and improving the physical condition of the living environment. This is achieved by making an effort to create advantageous physical and environmental conditions as well as a positive evaluation of the environment's objective and observable components. To do this, it is necessary to identify the factors and elements that influence the standard of the living environment, as well as to gauge how residents perceive each of these elements. This is necessary so that, in the event that there is a glaring discrepancy between the measured and desired conditions, appropriate strategies can be developed strengthen and improve the components of quality. To accomplish this, focusing on typical public and private high-rise residential buildings in shiraz, users' perceived importance of key attributes, The variables influencing how people perceive their surroundings were then evaluated in the field and through a questionnaire, with the spatial physical component receiving the highest rating. Once the main elements have been determined, which include sociability, environmental conditions, satisfaction, activities in public space, security, sense of belonging to a place, in these attributes were studied.

Thus, by examining various theories and experiences in the field of quality, the current study attempted to provide a model using a descriptive and analytical method, so that it could be used in Shiraz city's Environmental and Social to assess the perception of the residential environment and to take action on the specified goals. There is little doubt that the improvement of urban life and residents' impressions of their local environment pave the way for the eradication of many social ills that now have an impact on residential environments.

In conclusion, the outcome demonstrates that the design of the flat buildings and residences should be designed with full awareness to the needs and demands of the residents. The results can help to determine the areas for improvement in new building designs and facilitate prioritization of limited resources for upgrading building performance.

References

Asghari, M. (2014). *A way to reach the alphabet of urban design from valuable traditional textures*. Master Thesis, Shahid Beheshti University, 55.

Afshar Naderi, K. (2012). A look at residential architecture after the revolution. *Architect Magazine, 18*, 47.

Beer, A., & Higgins, C. (2004). *Environmental planning for site development: A manual for sustainable local planning and design*. Routledge.

Chapman, D. (2005). Creation of Neighborhoods and places in man-made environment. *Translated by Tabibian, M. & Faryadi, Sh., Tehran University Press, Tehran*.

Fuller, M., & Moore, R. (2017). *An Analysis of Jane Jacobs's: The Death and Life of Great American Cities*. Macat Library.

Grütter, J. K. (2020). *Basics of Perception in Architecture*. Springer Nature.

Golkar, K. (2000). Components of urban design quality. *Soffeh, 11*(32), 38-65.

Irvani, M., & Khodapanahi, M. K. (2002). *Psychology of Emotion and Perception*. Tehran, SAMT, 11th edition.

Mohseni, S. (2009). Understanding the nature of architectural space by reflecting on the similarity of space in indigenous settlements. *PhD thesis in architecture. Faculty of Architecture, Fine Arts Campus, University of Tehran*.

Mortazavi, Sh. (2001). *Environmental psychology and its application*. Tehran, Shahid Beheshti University Press.

Moore, A. (2005). The impact of sustainable development on the process of urban landscape design with the aim of improving the quality of life (Aboutaleb, N. Trans.). *3rd International Conference on Science and Engineering, Istanbul, Turkey, Vira Capital of Ideas*.

Nurberg Schultz, K. (2002). *The concept of housing: towards an allegorical architecture* (Yaz Ahmadi, A. Trans.). Tehran: Tehran Publishing.

Parkinson, J. (2006, June). Holistic democracy and physical public space. In *British Journal of Political Science Conference* (pp. 1-17). London: British Academy.

Pakzad, J. (2007). The appearance of the city and what Kevin Lynch understood from it. *Abadi Quarterly Journal of Urban Planning and Architecture, 16*(53).

Purdihmi, Sh. (2008). *Residential open space*. 36.

Unpal, D. (2001). A Study of the method of using traditional architectural elements in modern residential houses (Fereydoun, A., & Abedi, M. H. Trans.). *International Conference on Architectural and Urban Engineering*, Tehran.