



Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: A coastal area in Ahvaz - Iran)

Farnaz ATTAR^{1,*}, Mohammad Ebrahim MAZHARI²

¹*Master of Architecture, Teaching at Islamic Azad University of Ahvaz*

²*Assistant professor and full time faculty member of Ahvaz University*

Received: 01.02.2015; Accepted: 06.06.2015

Abstract. As the heart of urban and social life, urban spaces are the main element in city identification and developing its culture and citizen's relations, therefore the city as the context of human life should be full of social arenas for social and human interactions in order to raise human creativity, create a shared public memory and sense of belonging to space. In addition positioning and planning public spaces in cities regarding the concept of sustainability that means durability in attracting citizens and their presence in the city during some time ensures social sustainability of urban space; but it is important to match the urban public spaces with the needs and demands of citizens and also pay attention to the quality of the physical and functional spaces in order to define and create various cultural and social events. In this study which has been conducted using qualitative approach and survey – correlation method attempts have been made to get more reliable results after reviewing the theoretical issues with testing indicators in the form of a case study; in this regard for determining the qualitative elements of public space that leads to creation of sustainable spaces, a coastal area in Ahvaz went under assessment and after completing 380 questionnaires the SPSS software was used to analyze and prove the hypothesis. Results of this study show that planning public space offering optimal environmental qualities related to the security factor will have a direct effect on relations of the citizens and the current activities improve the quality of human presence and city liveliness. Finally, with regard to the results of analysis for achieving the above mentioned goal, some strategies were provided to restore the spirit, liveliness, and achieve sustainable urban spaces.

Keywords: Public space, citizen relations, urban environment, social interactions, social sustainability

1. INTRODUCTION

Arenas and ideal public spaces coordinated with culture, features and social needs which are appropriate with environmental conditions can be seen as undeniable values in today's desirable urban spaces. Society escape, reluctance of people to socialize and social assistance, challenging behaviors and their indifference to public arenas, consequences of fast life, successive migration and the instability of living in specific locations on one hand, and lack of appropriate public spaces and places on the other hand, intensifies the need of planning and building (Jan Gehl, 1936:21). Generally urban space and its governing social system are in direct interaction with each other, as the physical structure of the city and the layout of urban elements will have some effects on the social systems, in contrast social relations also has a profound effect on urban fabric with aim of strengthening the sense of correlation (Habib et al., 1388). The emphasis on the city form and paying attention to its physical characteristics is because of this fact that urban fabric can be seen as the structure reflection of social interactions in urban community, urban areas are the milestones of human societies and public centers (Madanipoor, 1384:3).

Today, it is believed that high quality and positive urban life in public spaces are necessary conditions for society so that people can get benefit from social interactions and it is possible for citizens to have active participation (Rooman 2008:14). Pay attention to the social sustainability in architecture and urbanism which has been addressed in the last few decades is an approach to organize the participation and social interactions in these spaces. Generally social sustainable development can be regarded as positive social changes in the society that has a special effect on the city's sense of community. Physical characteristics of a sustainable city help to create a sense

* Corresponding author. *Email address:* frz_attar@yahoo.com

of community that is a sense of ownership, commitment and sense of belonging to a larger collection (Bahreini 1375:3). The main purpose of this study is to analyze the mutual effects which exist between social interactions and factors of urban life quality in order to achieve sustainable urban environment. Certainly, recognition of factors influencing the social interactions in quality development of cities can be citizens' first step in changing the direction from slogan participation towards a limited partnership and finally their real participation.

Based on the latest official statistics, 32% of Khuzestan's province people live in Ahvaz metropolis. 35% of this population lives in suburbs, so Ahvaz is in the second position after Mashhad metropolis in suburb living. According to the given statistics of management and planning organization in 1385, the population of Ahvaz was 1,081,826. Rapid growth of the urban population in Ahvaz is a warning alarm for special problems in cities, different kinds of social abnormalities that may occur in the big cities, in this regards Ahvaz was selected as the study area.

2. THE SIGNIFICANCE OF STUDY

Human being is always in need of space where can see himself with others and test his social abilities. That is why the traditions of gathering have deep roots during the history and different kinds of these public places have been formed in various nations and cultures and it is considered as an integral part of the city (Rahimi 1386:48). In general, urban public areas not only have the most connection with citizens and their living places, but also play a significant role in creating a sense of identity and peace in cities. These kinds of spaces considering three dimensions as body, function and meaning, aimed at increasing the quality of urban life and encouraging citizens to have more social interactions in urban environments. In this regard urban view as one of the forming part and physical perception of urban public spaces directly influences the desirability or non-desirability of public spaces and then has some effects on citizens, their activities and behaviors, as the main users of the environment (Moayed 1392:3). Thus, urban space as a platform for the crystallization of social life has a significant role in identification and creation of human interaction, and also reinforcing and creating a sense of belonging for future generations (Cliff 1987:12). There is no doubt that, without efficient manipulation in urban spaces, no improvement can be made in life quality and social satisfaction in urban structures. Now the question is that "what quality and specifications are necessary for public spaces for maintaining and increasing social interactions which lead to sustainability of urban environment?" in order to answer the above mentioned question we need to answer this question; "in public areas which factors are involved in the formation and increasing the participation of the citizens to maintain the social and urban sustainability?" also "in the study area what is the quality level of public spaces?". In this research based on the wide range of studies which have been done about public spaces on one hand and the raised qualities of the urban spaces on the other hand, such spaces are the reflections of mental structures and citizens' way of thinking, and the mirror of all policies, thoughts, ideas and cultures, also a complex set of factors including; economical, cultural relations, social activities, etc. influence the formation of public spaces. What was discussed clarifies the necessity of research in this field. This means that it is not possible to recognize the attitudes, behaviors, and requirements of social interactions in the community especially desirable public spaces without doing several researches.

3. REVIEW OF LITERATURE

Public spaces are the advent arena and social aspect of human life in the community. Hence, these spaces are as old as the history of human life and considered as part of the community. With emergence of new forms of human life in modern life (especially modern urban life), many thinkers have warned about the danger related to the collapse of social spaces and arenas. In addition, in contemporary Iran, most of traditional and social spaces of the cities, which mostly were formed in the shelter of old trees and pause spaces, have been destroyed and still there is not

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

enough attention to the constructive role of these spaces in social interactions, or citizen satisfaction and improving the quality of human life, which is the main objective of social sustainability.

In recent years the most important issue in scientific community, is citizens' participation in sustainability of urban space, which is often at the center of discussions. For centuries, this idea has been the thought of thinkers and evolved as it is today based on scientific results, in fact, each of the individuals and institutions based on specific aspects have described the concept of sustainable city. For instance, as Herbert Girardet claimed, a sustainable city is organized in such a way that all its citizens while trying to meet their needs and improve their living conditions should not cause damage to the nature and put the lives of other people into danger (Girardet 1383, introduction). According to Jenks and Dempsey sustainable communities are those cities that have taken some actions in long term to stay healthy, sustainable communities have a strong sense of place. These cities have some places for social gatherings, which were accepted by all sections of the society and actively promoted by the citizens, in these communities, public debates are responsibly, comprehensive and constructive. Stephen Miller in his paper in 1998 provides a framework that can help to better understanding the shape of a sustainable city. Elements of this framework include intensive and efficient use of land, optimal use of natural resources, social participation and intervention, creating sustainable urban views for citizen relations, preserving local cultures and talents (Wheeler 1998). There have been written many articles about this issue in professional magazines and conferences that mainly focus on the social gatherings in sustainability of urban environment but what we have examined in this study is to recognize the effective factors in the role of social spaces which is the center of facilitating relations and refining social structures in sustainable urban environment.

4. RESEARCH METHODOLOGY

Present study aims at integrating and connecting social space with sustainable urban space, in order to achieve some results in Ahvaz. The methodology used in this study is a combination of survey – correlation method; this means that we have tried to identify the logical relations and analyze the concepts by studying the documents and writings of experts. Libraries and questionnaires were used for data collection in analyzing this issue. The questionnaire of this study is based on content validity, and was revised several times by professors and master students. For data analysis, the SPSS software was used. The statistical population of the study consisted of educated citizens of Ahvaz and random sampling has been applied. According to the population of Ahvaz 1081826 and with the use of Cochran method 380 questionnaires were required. In order to analyze the observations and accept or reject the research hypothesis descriptive and analytical methods were used. Charts and tables of frequency distribution were applied in descriptive section and for the analytical part (Kolmogorov-Smirnov test) the single-T sampling and Friedman ranking were used.

The main objectives of this study are:

1. To study the effective factors in improving the quality of urban space using social spaces and arenas' planning in order to meet the human physical, spiritual and emotional needs for social sustainability.
2. To provide suggestions and recommendations to improve and increase the role of social space in the sustainable development of urban environment.

5. RESEARCH VARIABLES

According to the previous studies those factors which affect the role of social space in developing urban environment, were summarized as the following and the relationship between variables was tested empirically.

Independent variables: social interaction, sense of belonging, education, awareness, security, making memories, dynamism and liveliness.

Dependent variables: citizen participation, social sustainability.

6. THEORETICAL FINDINGS OF RESEARCH

6-1 Concepts of social space

Social space except for physical aspects, is a kind of conceptual and symbolic space with systematic character and combined nature, is inextricably bound social time and culture of society in addition social and cultural relativity are effective in its perception and these spaces carry the historical and cultural heritage of society. The existence of social spaces has a very important role in attracting and attendance of people in the cities. This attendance provides opportunities for social interactions and creates a common collective and a sense of belonging to space (Yazdani 1389:42). Generally social spaces are the most important elements of city's space structure, where most of citizens' actions and their mutual relations occur in them and provide the mainstream of functional activities and ceremonies for citizens (Andalib 1389:18). Today, have a especial view towards social arenas as a necessity shows the reproduction of these spaces in strengthening the social and cultural aspects of city.

People-oriented urban space, can control the behavior of citizens and help to increase the safety, because the increase of people's attendance in urban space reinforce the positive social interactions between the citizens and this leads to the formation of social groups with ideal shared features (Schulz 1389). Human being is a part of space and gives meaning to this space with values and norms (rules of conduct and action), the pattern of social relations is not fixed and a space becomes different in face after replacing the special social relations (Habibi & Maghsudi 1386,8). In this regard social spaces have important role in attraction and attendance of people in cities. Social spaces have different functions in urban areas such as; strengthening the social role of citizens to achieve a sustainable development, strengthening the identity and the sense of place among the citizens, creating a collective, a place for celebrating the social ceremonies. The squares of the city, centers of the neighborhoods, the streets around the residential neighborhoods, are considered the most obvious examples of social spaces and have a significant impact on citizens' lives and give identity to the city, in present study the coastal area of Karun River (District – 4 Ahvaz) has been selected as the social space, this area as the gathering space of citizens, and holding rituals and cultural festivals gives a different view to Ahvaz.

2- Social spaces and formation of social interactions

A city is a social – spatial context that we as an individual or group enter into it, and interact with it in order to use or modify it. Architecture and urbanism scientists believe that urban space is beyond its physical and geometric components. According to Cullen, urban space is the most important place to show up and emphasize the social events (Cullen 1377, 11), Jane Jacobs also emphasizes on the role of urban spaces in creating social interactions and participation (Pakzad 1386, 3). Ker et al. (1992), consider urban space as a shared context for functional activities and public events such as festivals, rituals, and cultural traditions, political and social tools. Another perspective on this issue claims that, the definition of urban spaces is not limited to the geometric aspects and sizes, because this definition of space is mainly impressive in the field of architecture; aesthetic criteria ease of social and behavioral communication, in superior level that changes the space to be urbanized and space gets appropriate and inappropriate character in proportion to the

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

needs of time and place in the society (Golany, 1996). Based on this social spaces' duties can be presented as a tool for communication and social networking interaction, a place of meeting each other, ceremonies of citizenship, management and coordination of citizen activities. In other words, urban space is a container of urban activities, a basis for social interactions and leads to formation of unity and social cohesion (Gehl, 1987). While studying theoretical points of research, opinions of experts on this subject have been collected in table 1:

Table 1. A summary of experts' ideas related to the social and cultural relations in urban space.

Experts	Relationship between urban space and social interactions
Kevin Lynch	Transmission of information, values, and feelings in social communication are done only through urban physical environment
Rob Carrier	Emphasizing and paying attention to a kind of social customs that connects an individual to a group through organizing public urban spaces
Camillo Sitte	Social life is in urban public space and the physical environment is ideal when the needs of citizens are implemented physically and mentally
Manual Castlles	Spatial organization of city's reproduction process and changing social relations in the constriction of the city
Lewis Mumford	A city is a sample and form of unified "social interactions" and the emergence of the human social needs

Source: Authors based on the study sources

3-6 Social sustainability and social space

One of the important aspect related to the sustainable development is social sustainability that because its nature has been paid less attention. So far a wide range of concepts have been stated such as social capital, sustainable communities, social tolerance, social development, social capacity, social welfare and exclusion (Barron and Gauntlett, 2002, 4-5). Social sustainability has been defined as a productive and healthy life that is in harmony with nature. In this definition, community survival is along with maintaining the environmental quality and related to economic systems in order to achieve the highest level of life satisfaction (GTZ, 2004, 2).

A group of researchers have pointed out four main elements and determinants in the definition of social sustainability: social justice, social solidarity, participation and security. In this sense, elements such as equal opportunities with development for all human beings, life with cooperation, equal opportunities for all people to play their social role along with subsistence security and safety of human settlements against natural hazards, have been set as basis for measuring social sustainability (DFID, 2002, 2). In addition, paving the way for the emergence of creativity, mobilizing the people in order to meet the objectives of sustainable development, ensuring "a better future for all" with a focus on the welfare of indigenous people and emphasizing on their vital role in environmental management and development are the pillars of social sustainability development (Moffatt, 1996, 35). In social sustainability, the sources must be exploited in such a way that future generations being capable of deciding to supply their needs with the highest level of satisfaction. In this definition the decision makers emphasize on the policy of winner – winner in order to achieve economical, social and environmental developments (Martin, 2001, 4). It seems that there is no consensual idea to define the content and prospect of social sustainability. Despite these disputes, the definition which is referred to for the concept of social sustainability is as this; social sustainability means that how individuals, communities and

societies live together, how they achieve their developmental goals (which they have chosen for themselves) and perceive the physical boundaries of their land as an integrated entity. In this sense, social sustainability combines the political and social principles such as justice and health with the issues related to participation, need, social capital, economy, environment, and more recently with the concept of happiness, prosperity and life quality. In the figure of city three elements including urban view, urban form and public domain are considered as the core of urban design. The concept of social sustainability is mostly monitoring to have less concentration on construction and architecture of buildings and to pay more attention to public and social space, streets and walking paths which are discussed as the urban figure and public realm.

3-6 View and sustainability of environment

Sustainability is one of the theoretical fields of this study which covers different aspects of today's human life policies in cooperating with the environment. Today, concepts such as sustainable development, sustainable place, and sustainable society include various aspects of human interaction with environment. Barton believes that sustainable development is the focus of development on people and to establish social justice for current and future generations (Azizi 1380, 5). According to the aspects of social sustainability, one city is sustainable that while taking into account the specific objectives, like appropriate and affordable shelter, health and care and other basic services to the citizens can provide a safe, active, and humanitarian environment, which is free of crime.

Integration of social and environmental considerations is the prominent characteristics of a sustainable environment (Bahraini 1390, 32), in this regard, Bahraini sees putting the emphasis on pedestrians, combining and mixing the land uses and emphasizing the social functions as a unifying factor of buildings and social spaces as the most important components of sustainable city (Bahraini 1376, 53). Moreover it is necessary to pay attention to the people's need of open public spaces, where they can rest, relax and have activities and communicate with citizens in order to improve their social interactions. The common word of most contemporary literature emphasizes on this point that view paves the effective way to know the world (Seddon 1997: 2). This issue provides a conceptual framework of the environment in which we live, the environment in which we analyze what we see and then feel ..., in addition view prepares a systematic basis for understanding the physical – spatial patterns, the processes around us and the way people align their needs with the environment; therefore view perception provides the space of environment consideration in a various ways (Swaffield 2005: 12). Generally the base of a comprehensive view means the integration of natural and human aspects in a sustainable way. Preserving heritage, cultural and natural values of view leads to the sustainability of existing values in environmental interventions. There are many principles and criteria for sustainable environment among available theories. Most of researchers consider sustainability as a monitor of identity, security, participation, social interaction, making memories, mobility, and liveliness; these principles are discussed in the following:

- **Social interaction**

Social interaction means creating the relations between two or more which leads to their reaction, this type of reaction is known to both sides. Therefore, meaningless relations are not included in this definition. Of course, there are other definitions for social interaction for instance, social interaction and communication can be a physical issue, a look, a conversation and relations between individuals, which itself requires the definition of appropriate events and activities and thus taking people into space and their membership in social groups and networks (Daneshpour & Charkhian 1386: 22). Sufficient knowledge of human being and his relationship with others can affect environment forming to establish more interaction, so in this process by studying human as a social creature, that has various levels of quality and quantity of social interactions, knowing behavioral bases, social events and potential activities for social interactions and

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

meaningful relation is important. Different people tend to have different levels of social interaction; the desired level of interaction definition can be achieved mentally of people's words and objectively of normative positioning toward a good life, both of above definitions are high in value and have social and political orientation (Leng, 1381).

▪ **Belonging sense of social identity**

According to the theories of sociologists, the identity is made within time and space, and in theories of social psychologists, mental processes play vital role in making social identity (Sarokhani & Rafaatjah 1383: 74). From psychological point of view having personality is seen as having a sense of identity for an individual (Behzadfar 1387: 21). Also from the philosophical and mystical perspective identity means internal consistency and the relationship between surface and depth (Noghrehkar 1387: 55).

Accordingly, place identity is created as a result of direct experiencing physical environment. It is also the reflection of social and cultural aspects of space and refers to the detectable features of outer space; while spatial identity, is a kind of sense in an individual or a group which is motivated by their relationship with one place (Ghasemi Isfahani 1381: 74). Spatial identity points to some aspects of a person that personal identity in relation with physical environment defines beliefs, preferences, feelings, values, goals, behavioral tendencies, and skills related to the environment through a complicated pattern of conscious and unconscious ideas (Proshunsky 1978: 155) and plays an important role in perception of environmental changes and social environments.

Therefore, in urban studies, spatial identity always has been considered as one of the main criteria of quality and among important indicators of urban life quality which takes experts' attention and is effective in creating sense of place belonging. The sense of belonging can be defined as dependence on a specific group or community. In other words, someone who has a sense of belonging and commitment is an inseparable member of the group. Being a member of a group gives identity to an individual and that person often, involves in values, experiences and feelings of others in that group; s/he respects the group, is committed and cooperated with the group (Tommy & Koutaba 2010). Pay attention to have a complete mental image and space identity for its logical perception and if repeated, creates a kind of physical belonging feeling, and this makes my and our feeling in environment, sense of security, comfort, confidence, versatility and adaptability to space (Zadrafiei 1384, 15).

Urban spaces for their physical aspects are a kind of symbolic, conceptual, physical and real space bonded deeply with city and its body. Thus a social space as a part of urban space can be considered as the identity giving element of a city and by applying the principles and elements of identity and access to a comprehensive model of social identity, strengthen citizen's sense of belonging to social urban spaces and they can use space without any fear and anxiety.

▪ **Security**

This term is derived from the Latin root "Secures" that literally means have no fear and concern, and includes issues such as get rid of danger, threat, harm, anxiety, fear, concern with safety, certainty, comfort, trust, security and warranty. Security in Persian culture also means freedom and peace, have no fear and no attacks (Salehi 1387, 86).

Thus, according to the definitions stated by scholars and experts, today security is claimed to be one of the most important basic human needs in cities and communities. In a way that Maslow assigned the second place of his proposed hierarchical pyramid of human needs to security. In fact security has an effective status and a key role in the formation and evolution of human life patterns and also the main cause of emerging social and sedentary life of people in the history of

mankind. This issue (security) begins from an individual, continues in family and society and finally ends in international system. In a safe city, security has been provided in urban spaces and the person feels the sense of security and no risk well (Rezvan 1384, 31).

On this basis security is considered a sense of inner peace and comfort, which is achieved from active components of environment and creates a sense of being safe after subjective perception. Sense of security comes when a human being exposes to environmental conditions as a form of “psychological understanding” that is different from one particular cultural and urban structure to other socio – cultural structure. Therefore psychologically formation of security sense depends on environmental conditions in one hand, and type of perception and perceptual levels on the other hand (Hosseini 1387, 24). So having access to some indicators that measure citizens’ sense of security is important while using social spaces related to the level of mental satisfaction and sense of peace. Thus based on past studies, factors such as environment attraction, clarity and readability, and social monitoring are used as indicators to measure the sense of security in social urban spaces.

▪ **Memory creation**

In Dehkhoda Dictionary, memory has been defined as this: “what is passed on a person and traces of it remain in one’s mind, human’s past. Past events that people have seen or heard them. Past seen or past heard.” (Dehkhoda 1339: 64). Memory in Longman dictionary is, “a person’s ability to remember things, places, experiences, and etc.” (Longman 2010: 1093). In other definition, memory changes from a unique phenomenon in the minds of involved people to a phenomenon in the past (Eyerman 2002: 6). Thus memory is a social phenomenon, and a ring that connects the individuals with the society (Ahmadi 1387: 31). According to Halbovax theory of collective, a French sociologist, being a member of one group helps an individual to remember or forget the events and without this, recalling is not possible (William & Darity 2008: 7). So collective memory and the memory of experienced events by individuals are in social framework and mutual interaction of individual and group and will be possible through remembering people, things, places and experiences using mechanisms of association. In other words “collective memory means those memories shared by groups and communities” (212: 2008 Lewicka).

Good memories of urban spaces and environments guarantees the presence of human in space and the city’s view is a tangible element of in direct contact with citizens has an effective role. Accordingly two main factors cause to remember space. First role playing shows the existence of remarkable and physical functions, concepts and features which are easily attached in mind. The second is giving positive feeling to citizens and creating a friendly environment (Pakzad 1385: 103). So preserving and reinforcing the factors of making memories is a tool that connects the residents and citizens to the environment and deepen their sense of belonging.

▪ **Citizen participation**

Participation literally means, to have share in something which is not yours (Aryanpour 1374). In addition, there are various definitions of participation in different fields of social sciences. Social participation includes those voluntary activities through which members of a community participate in neighborhood affairs and are involved directly or indirectly in shaping social life (Mohseni Tabrizi, 1369: 108). Sanoff believes that public participation means people’s cooperation in following objectives that have been defined by them. In his view, the social participation is people’s intervention in establishment and management of their natural and artificial environments, and the social participation is valuable when it passes from the traditional and professional teachings and boundaries. Social participation action is based on this principle that if citizens be active – rather than they are treated as passive customers – and intervene in creation and management of their artificial and natural environments, then the environment will have better performance (Sanoff, 2000). In other words, the participation of citizens in this way,

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

not only fosters the improvement in social conditions, but also strengthens the local social cohesion.

- **Mobility and liveliness**

The life of individual is to be in a group and what gives life to a space is people's active and passionate presence in space (Pakzad 1382: 98). In order to have a live city or liveliness in urban environment, there should be provided some places and situations to create lovely experience (Lennard 1377: 82). Our main objective in definition of social space is skillful intervention in urban elements to get livelier city by putting together the pleasing sights (Cullen 1387: 8). The variety of activities which occur in one place in 24 hours a day, seven days a week, indicates the liveliness of a place (Chapman 1386: 149). According to Lynch liveliness is one of the seven main axes in city's quality. These seven main axes are: liveliness, meaning, relevance, access, monitoring and power, efficiency and justice. He defines the liveliness as this: the liveliness means that to what extent the city's form supports the vital functions and biological needs, and most importantly how make it possible for all creatures to survive (Lynch 1376: 154).

7. DESCRIPTIVE FINDINGS OF RESEARCH

7-1 Genders of respondents

Figure 1 of the study presents the gender composition in population distribution of the respondents; there are 228 male that is 60% of population and 152 female that is 40% of population.

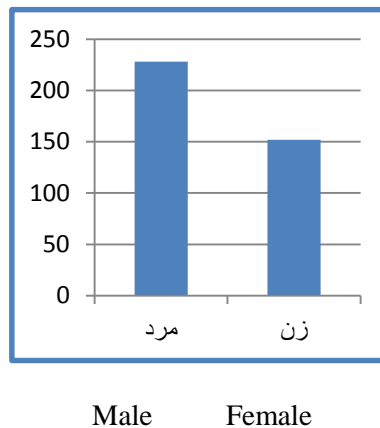


Figure 1. Diagram of respondents' distribution according to their gender.

2 – Educational status of respondents

Evaluating the respondents' level of education shows that the highest number of respondents is that 43.9% have bachelor degree, 31.8% have associate degree, and 24.2% have degrees higher than bachelor.

	Frequency	Percent
Associate	121	31.8
Bachelor	167	43.9
Master and higher	92	24.2
Total	380	100.0

Figure 2. Diagram of the educational status of respondents

3 – Inferential statistics

In this section, we will test the research hypothesis using relevant statistical methods.

Inferential method (Kolmogorov – Smirnov Test)

Table 2. The results of Kolmogorov – Smirnov Test.

Variable	Number	Test statistics	Level of Significance
Training and awareness	380	1.877	0.002
Mobility and liveliness	380	1.327	0.059
Social interaction	380	1.443	0.031
Security	380	1.989	0.001
Memory creation	380	1.313	0.064
Belonging sense	380	1.745	0.005

In Kolmogorov – Smirnov Test the research hypothesis are defined as follows:

$$\begin{cases} H_0 : \text{The observation follow the normal distribution} \\ H_1 : \text{The observation do not follow the normal distribution} \end{cases}$$

Therefore considering that the significance level of all variable is not higher than 0.05, the hypothesis of normal observation (Null hypothesis) is rejected. Since the total sample is more than 30, T – Student Test can be used according to central limit theorem.

Single sample student T - Test

This test has been designed to compare a variable mean with a fixed amount. In this test the research hypothesis (in the form of Null hypothesis and research hypothesis) are as follows:

$$\begin{cases} H_0 : \mu = 3 \\ H_1 : \mu \neq 3 \end{cases}$$

Table 3. Mean comparing test based on Single sample student T - Test

Variable	Mean	Standard Deviation	T-Test statistics	Significance level	Lower bound	Upper bound	Confirm or reject the hypothesis

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

Training and awareness	3.21	0.929	3.170	0.002	0.081	0.346	Confirmed
Mobility and liveliness	3.19	1.031	2.567	0.059	0.045	0.339	Confirmed
Memory creation	.31	0.971	4.36	0.001	0.168	0.446	Confirmed
Security	3.49	0.994	6.826	0.001	0.001	0.635	Confirmed
Social interaction	3.28	0.918	4.217	0.001	0.031	0.064	Confirmed
Social belonging Sense	3.18	0.919	2.47	0.007	0.052	0.005	Confirmed

The Single sample student T – Test results are shown in table 3. All 6 variables including training and awareness, mobility and liveliness, memory creation, security, social interaction, and social belonging sense stay in the model and the social security has been identified as most effective variable for increasing people’s participation in improving quality and sustainability of the urban life.

8. SUMMARY AND CONCLUSION

With the rapid growth of cities and urbanization major changes have been emerged in urban communities so these developments and changes are considered as the most important phenomena recently. According to qualitative and quantitative development in cities, public and social spaces and arenas play a constructive role in facilitating social relations, sense of solidarity and correlation, participation and achieving common aspects among the members of a society. Social spaces should be regarded as a place for creating and improving culture and reaching to a shared social identity; and thereby it is closely connected to sustainability of a society and its unity preservation. Members of a society as humanistic and social capitals play a key role in sustainable urban environment; our findings suggest that strengthening social participation requires motivations and creating sense of belonging towards urban environment. In this regard, culture promotion and education will be important. Urban view is the first point of human contact with the environment that human senses confront and receive information from it. Studies show that besides its aesthetic aspect the more this view gives relevant information to human being needs the more the city will be safe according to citizens. As the results of present research confirms the accuracy of this issue.

The results show that from the residents’ point of view, social security in the study area (coastal area in Ahvaz 4) is the most effective variable in improving social relations for having sustainable environment. Therefore on spatial planning it is necessary to predict strategies in order to define its role for creating the sense of security in the neighborhoods. Pay attention to the variables such as readability of environment, visual permeability, not having a feel of turmoil, security and liveliness, good orientation and etc. will have a great impact in increasing the security sense of urban environment. In this regard, the present article proves the effectiveness of developing social spaces and arenas for increasing social interactions and providing the context in formation of social rituals and events. Finally some recommendations have been presented so that social spaces help to establish the sustainability of social relations among citizens to have a sustainable urban environment.

- Defining and reorganizing the urban space, adding quality objective to the collection of urban objectives, and creating a appropriate environment for designing strategies in order to ensure the welfare of citizens such as perfect lighting at night and appropriate urban furniture to improve the environmental quality

- Using the indicators which give identity to Iranian architecture and adopting it to the present time and establishing gathering spaces and social arenas for social interactions, performing Artistic – cultural festivals and religious ceremonies for better performance and more satisfaction of citizens
- Emphasizing on social and cultural elements in Ahvaz and normalizing them, conducting more functional researches in order to get accurate identification of life style and identity components in this city and predicting some programs related to cultural and local identity sources for citizens' leisure time in Ahvaz
- Participation of citizens and the public in planning and implementation process (interactional – perceptual – sustainable planning) in holding artistic – cultural festivals
- Interacting and connecting different social groups and forming public institutions by designing public arenas of artistic – activity
- Maintaining and restoring the social arts and rituals through planning furniture and temporary urban view; in order to have social and cultural interactions, create social memories and express feeling
- Establishment of justice, urban liveliness and happiness, and developing the management of urban quality

REFERENCES

- [1] Aryanpour Kashani, Abbas & Manouchehr Aryanpour Kashani, (1374), English – Persian University Dictionary, Tehran: Sepehr
- [2] Schulz, Don, (1389), “Personality Theories”, Yousef Karimi, Eighth Edition, Tehran, Arasbaran Publication
- [3] Bahraini, Seyyed Hosein, (1375), “Development and Sustainable Development: A theoretical Analysis”, Sustainable development and environment conference, Expert Association of Iran Environment, Tehran University
- [4] Bahraini, Seyyed Hosein, (1376), “Urban Planning and Urban development”, Rhyaft Magazine, No.17
- [5] Bahraini quoted from Maleki, Seyyed Hosein, (1390), “An Introduction to Sustainable Urban Development”, First Edition, Martyr Chamran University Publication
- [6] Behzadfar, Mostafa, (1387), Urban Identity, “A Look at Tehran Identity”, Second Edition, Tehran: Tehran
- [7] Pakzad, Jahanshah, (1375), “Identity and Identity of Space”, Saffeh Journal, No. 21, Tehran
- [8] Pakzad, Jahanshah, (1386), “Articles on Urban Planning”, volume 1, Shahidi Publication
- [9] Tibbalds, Francis, (1383), “Building Popular Cities”, Morvarid Ghasemi, Iran Journal of Architecture, No. 55
- [10] Jamshidzadeh, Ebrahim, (1390), “Public Participation and Urban Affairs Barrier investigation, Problems and Strategies of Public Participation Development”, Tehran: Society and Culture
- [11] Chapman, David, (1386), “Creation of Neighborhoods and Places in Man-Made Environment”, Manouchehr Tabibian, Tehran: Tehran University Publication
- [12] Habib, Farah, Noushin Karimi & Nasim Karimi, (1388), “An Analytical Approach to Social Interaction Between Social Rituals and Physical Structure of Traditional Cities in Iran (Case Study: Zanjan)”, Journal of Fine Arts, No. 39
- [13] Habibi, Seyyed Mohsen & Maghsoudi, Maliheh, (1386), “Urban Repairmen”, Tehran University Publication, Tehran

Identifying and analyzing effective factors on the role of public space in sustainability of urban environment Case Study: a coastal area in Ahvaz - Iran)

- [14] Hoseini, Farzaneh, (1387), "Study and Provide Effective Physical – Functional Indicators in Improving Public Urban Spaces, Case Study: Student Park", MSc Thesis of Urban Planning, Tehran, Tarbiat Modares University
- [15] Khasto, Maryam & Saeidi Rezvani, Navid (1389), "Effective Factors in Liveliness of Urban Spaces; Creating Liveliness Urban Space Relying on the Concept of Walking Shopping Center", Urban Identity Journal, No. 6
- [16] Rahimi, Mohammad Ali, (1386), "Cultural Collection of Performing Arts with Emphasis on Public Participation", Supervisor: Mehdi Hojat, MSc Thesis of Islamic Azad University, Tehran Branch
- [17] Rezvan, Ali, (1385), "Urban Security and the Role of Urban Planning in Its Development A Case Study: District 17 of Tehran", MSc thesis, Tehran, Tarbiat Modares University
- [18] Zadrafiei, Naser, (1384), "Social – Spatial Process of Urban Identity", Abadi Journal, Fifteenth Year, No. Studying the Role of Urban View Factors in Promoting the Sense of Security in Public Urban Spaces, Forty Eighth
- [19] Girardet, Hebert, (1383), "How to Build a Sustainable City", Fariba Gheraati, Deneshnama, Isfahan
- [20] Sarokhani, Bagher & Rafaatjah, Maryam, (1383), "Effective Sociological Factors in Redefinition of Women's Social Identity", Women's Research Journal, 2 (1): 71-91
- [21] Salehi, Esmail, (1387), "Environmental Features of Secure Urban Spaces", Tehran, Study and Research Center of Urban Planning and Architecture
- [22] Azizi, Mohammad Mehdi, (1380), "Sustainable Development Sustainable City: Interpretation and Analysis of the Worldviews", Saffeh Journal, Shahid Beheshti University, No.33
- [23] Andalib, Alireza, (1386), "Public Urban Spaces", Journal Specialized City' Environmental View, Architecture, No. 3
- [24] Ghasemi Isfahani, Morvarid, (1383), "Where we come from? Identity Giving to Residential Contexts", Tehran, Rozaneh Publication
- [25] Cullen, Gordon, (1377), "Selection of City's View", Manouchehr Tabibian, Tehran, Tehran University Publication
- [26] Golkar, Kouros, (1380), "Factors Affecting Urban Quality Environment", Saffeh Journal, Shahid Beheshti University, No. 32
- [27] Lennard, Henry & Ker, Suzan, (1377), "Planning Urban Space and Social Life", Rasoul Mojtatabapour, Architecture and Urban Planning, No. 44
- [28] Leng, John, (1381), "Creation of Architecture Theory", Alireza Einifar, Tehran, Tehran University Publication
- [29] Lynch, Queen, (1376), "Theory of a Good City", Hosein Bahraini, Tehran, Tehran University Publication
- [30] Noghrekar, Abdolhamid, (1387), "An Introduction to Islamic Identity in Architecture and Urban Planning", Ministry of Urban Development, Tehran, Payam E Sima Publication
- [31] Mohseni, Tabrizi, Alireza, Tabatabaei, Mahmoud, Marjayi, Seyyed Hadi, (1385), "Psychological Theories and Integrated Approaches of Participation", Journal of Internal Policy, First year, No.1
- [32] Madanipour, Ali, (1384), "Urban Space Planning: Review of Social Spatial Process", Farhad Mortazaei, Urban Process and Planning Company

- [33] Yazdani, Kiyomarsi & Aziz Zade, Majid, Hasan, Alireza, (1391), “Applying Knowledge of Environmental Psychology in Shaping the Public Spaces to Achieve Sustainable Architecture”
- [34] Barron, L. and Gaunlett, E., 2002, Housing and Sustainable Communities, Indicators project, western Australian council of social service
- [35] Bentley, I., et al. (1992). Responsive Environments. Translated by Behzadfar, M. Tehran : Elm o sanat.
- [36] DFID, 2002, Indicators for Socially Sustainable Development, <http://www.livelihood.org/info/docs/wssd-indbr.pdf>
- [37] Garcia- Roman, (2004), “Urban Planning, Gender and The use of public space in a Peripheral Neighbourhood of Barcelona”, *Cities*, Vol.21, No.3, P. 215-223
- [38] Gehl, Jan, (1936), *Public spaces and Public Life*, City of Adelaide 2002, Copenhagen: Danish Architectural Press
- [39] Gehl, J. (1987). *Life between Buildings*. Translated by Koch,J. New York : Van Nostrand Reinhold
- [40] GTZ, 2004, *Chance for Sustainable Development*, Programme Office for Social and Ecological Standards, Email: social-ecological-standards@gtz.de
- [41] Golany, G. (1996). *Geo-space urban design*. New York : John Wiley & Sons
- [42] Lewicka, M. (2008). Place Attachment, Place Identity, and place memory: Restoring the forgotten city past, *Journal of Environmental Psychology*, 28, 209-231
- [43] Longman Dictionary of Contemporary English (2010), new edition, Pearson Publishing
- [44] Martin. P.J., 2001, Speech delivered to the Conference on “The European Social Agenda and the EU’s International Partners”, *The Social Dimensions of Sustainable Development*, Brussels
- [45] Oxford Advanced Learners (AOL), (1989), *Dictionary of Current English*
- [46] proshunsky,H.M. (1978),The city and self- identity. *Environment and Behavior*,10. 147-169
- [47] Wheeler, Michael, 2006, *Sustainability: The Issue of our age a concern for local Government, Public management*, No 88, pp 8-12
- [48] William A., Darity Jr. (Eds). (2008). *International Encyclopedia of the Social Sciences*, 2nd edition, Macmillan References