Investigating the Effects of Environment on Human Behaviors in Iranian Traditional Social Places with Regard to Spatial Security and Social Interaction

Mitra GHAFOURIAN\textsuperscript{1,\*}, Ehssan HANIF\textsuperscript{2}

\textsuperscript{1}Assistant Professor of Architecture, Iran University of Science and Technology, Iran
\textsuperscript{2}MSc in Architecture, Iran University of Science and Technology, Iran

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Abstract. Human being has always been looking for security. In traditional societies, because of smaller society, the spatial security rate and the social interactions rate were higher. As a result, more sustainable societies had been developed. But when the societies started to be crowded and expanded more, spatial structure and spatial relations in traditional societies started to be demolished and consequently the rate of social interactions and spatial security started decreasing, when the discussions about social sustainability with goals such as decreasing the security for human in social spaces started to be developed. In this research, in order to determine the relationship between the environment and behavior, the spatial security as an environmental factor and the social interaction as a behavioral factor were used. The spatial security could be investigated in two aspects: physical security and spiritual security. This study was a qualitative study that aimed to understand the characteristics of safe spaces in a way that the social interaction rate goes up. In addition, it would example some instances of the social places in traditional Iranian architecture. The study insists on the spiritual aspect of the security and leads to spatial security in three factor of: identity, sanctum and physical structure of space with effects on increasing the social interactions.

Keywords: Spatial security, social interaction, Iranian traditional social places, identity, sanctum, physical structure of space

1. Introduction

One of the characteristics of a sustainable space is high rate of social interaction. Social interactions make people closer. Meeting each other, walking together and using public facilities cause more social interactions. The possibilities of an environment in a special situation produce a potential environment for human behaviors. In other words, some requirements are easier to be achieved in some environments than some others (Lang, 1987). Therefore, in order to make some behaviors possible to happen, the characteristics of that potential space should be available. Environments in many situations are determinant factors for some special behaviors to take place.

If people feel scared, it is a less possible situation to develop social interactions with neighbors in ways such as conservations, reunions or helping each other in daily life (Kim, 2010). Therefore, it can be stated that one of the determinant factors for social interactions to happen is the security of the space. In other words, if a space were not safe its less possible for social behaviors would happen and in contrary, it can be stated if public spaces had entertainments activities and safe spaces they would attract more people (Jacobs, 1961; Whyte, 1980).

In another respect, the density of social relationship in a district and the rate of mutual exchanges and social coherence between neighbors affect sense of security (Mair, 2010). Therefore, through a suitable environment design with the goal of citizens’ presence within urban spaces, promoting interactions and facilitating the citizens’ social monitoring on criminal behaviors, the rate of crime would decrease and the sense of belonging would increase (Giles-Corti, 2008). In other words, increasing the rate of social interactions increases the security. In fact, a kind of dialectic between the rate of social interactions and the spatial security can be found. But, the physical part of this relation could be controlled through a correct planning. In other words, as the spatial security is an environmental factor, it can be controlled more easily. Therefore, paying attention to this part is more important.
Because of the physical effects on behaviors, in this relation the environment should be designed in such a way that it can encourage people to live longer in public spaces. By living in public spaces such as urban districts, the rate of criminal behaviors can be reduced, and, it happens due to more presence of humans. Districts with more public influences and more social & political actions have more possibilities to create a safe environment (Roman, 2008). Therefore, it can be stated that increasing the spatial security could increase the rate of social interactions. Therefore, in order to create a space with high level of social interactions, the spatial security should be defined first.

According to Maslow, security is one of the human’s essential needs. Even for most of poor people, and depending on their life styles, security is important (Rainwater, 1966). He also stated that when the physiologic needs were met, people’s attentions went to upper levels of needs like security. The needs are precisely related to the social and physical environment possibilities (Salehi, 2008). Therefore, it can be stated that between the environmental human needs, security is the most important. Therefore, the proposed hypothesis are as follow:

1- Physical elements could have effects on behaviors.
2- Increasing the security as an environmental factor could increase the rate of social interactions as a behavioral factor.

Objective of the study
Based on the research background, the following objectives can be proposed:

What are the characteristics of a safe space?
What factors can be involved in studying the effect of safe physical space on increasing the rate of social interactions?

Background of the study
Spatial security
The spatial security is important in all scales of life, such as a home that prepares a safe shelter for a family; an urban space should also prepare it for all the residents as well (Mtani, Lubuva, 2004). In a research on physical aspects, it was resulted that the best urban environments are those matched with the city pattern then promotes public security (Boyle et al, 2001). Security in urban environment could be studied in two fields; physical security that discusses criminal behaviors and mental security that discusses personal imagines about certain environments. Now as an introduction each of these concepts are defined and then the discussion continues with characterizing mental security concept.

In some cases, safe spaces are called defensible spaces which is in fact somewhere that invites people in, to act more and there is more sense of security within them, therefore, the criminals’ behaviors will be decreased (www.dacorum.gov, UK, 2004). This kind of security is the most basic one, and although it was an ideal in most utopian societies, it was obtained less. For instance in “La città del sole” presented by Tommaso Campanella, there were seven rings of walls that have surrounded the city, and also there were some rules for increasing the welfare, calmness and security (Fakouhi, 2004).

Ray Jeffery (1971) studied on crime prevention through environment design (CPTED). And accordingly, in general it can be stated that the manmade environments effects on crime in a society could be approached by the point that the relation between the manmade environment and the behavior patterns is so similaire to the relation between containers and the containerized, in a way that any problems in container would affect the containerized (Salehi, 2008). The basis of this subject deals with environment designs and how to increase the security in spaces. Although this kind of security is usually subjected physically but it also relates to the mental security, therefore, in this discussion some suggested ways that help to increase the physical security in relation to mental security are studied.

The definition of security in each society is the tranquility (Sherman, 1988). Security is the sense of calmness and feeling safe regarding all the human rights. This exclusive value is one of the essential subjects in both social and private life (Kamiar, 2000). Therefore, the mental aspect of security is as
Investigating the Effects of Environment on Human Behaviors in Iranian Traditional Social Places with Regard to Spatial Security and Social Interaction

important as its physical aspect. Also in order to obtain the mental security, the environment should be studied first. Because, there is very close relation between the mental security and the physical security. Jacobs (1961) in defining the urban security, focused on interaction between physical space and social processes that creates the environment, and insists on active spaces as a feature that helps create a safe and successful environment (Elyaszade & Zabetian, 2011). Therefore, the environment should be studied in order to understand the subject of spatial security.

Jacobs (1961) have also stated that contemporary urban design has made people to interact less. It caused people’s self-controlling to be decreased and as a result increasing the rate of crime and insecurity in environment. In cities most of people do not know each other and it helps hide the crimes. But in villages with traditional societies, no one is stranger and all people are deeply introduced to each other (UN. 1975). In fact, face to face relationship between people in villages and the intimate atmosphere between residents prevent many crime to happen (Salehi, 2008). Therefore, it can be stated that in traditional societies, the rate of spatial mental security was higher than today’s societies. In our past architecture cities and urban spaces were more human oriented and helped to have more security. As an example in “Qajar” era, there were some small squares in urban design that formed the structure of a district. In this era’s urban spaces, small districts and the social relation’s within them, and also the presence of people, had an important role in creating more safe cities (Afsharkohan & Rahighiyazdi, 2013). What are stated about the spatial security can be summarized in Table 1:

<table>
<thead>
<tr>
<th>Definitions</th>
<th>Physical security</th>
<th>Oscar Newman</th>
<th>Ray Jeffery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental security</td>
<td>Barrie Sherman</td>
<td>Jane Jacobs</td>
<td></td>
</tr>
</tbody>
</table>

Ref: Authors

In smaller societies, the informal controls, prevents social exclusions, especially in public types. One of the urban society’s features is the weaken of this social system’s function. On the other hand, city can be described through diversity; this feature in addition to bigness and anonymity provide a potential situation for criminal behaviors (Nourbaha, 1998). However there is a good imagine of cities causing better quality of life, there is also a bad imagine of them causing high rate of crime and violence. Studies have explored that the rate of urban violence per a year in all over the world have been increased from 2% to 5% through the last two decades. And also have found that in a period time of 5 years, 60% of occupancies in cities with more than 100000 populations were victims by urban violence (Vedera, 1997, according to Salehi, 2008). Therefore, it can be stated that in order to study the concept of spatial security, traditional societies are better examples. Therefore, in this study after discussing each of the topics (identity, sanctum, structure of space), it presents some practical instants of Iranian traditional architecture.

The identity of place

The identity that is a synonym of the sense of belonging, the self-respect and the self-booming, creates a special character and role for a person in society (Lang, 1987). And also the humankind looks for their identities within the environment identity (Afsharkohan & Rahighiyazdi, 2013). Therefore, by powering the environment identity, the rate of inhabitant’s satisfaction will increase (Lalli, 1992). Therefore, it can be stated that the personal identity is the same as the environment identity, and by powering the environment identity the personal identity can also be powered and by knowing the environment identity the personal identity can also be understood.

Identity is related to the objects in an environment expressed as shapes in relation to the context and the meaning is both the practical and sensational efficacy of environment elements (Lang, 1987). On the other hand, one of the environment effects, is the sense of belonging that depends on the environment identity. As a result, the territorial is a characteristic consists of all the behaviors and knowledge that a person or a group own, based on the ownership feeling of the physical space. (Kalantari, 2011). Therefore, at the moment these three concepts should be defined; the meaning of place, the sense of
belonging to place, and the territorial. What is important here is the relationship between these three concepts and the identity. In their relationship, the territorial is the bridge concept between the spatial identity and the sanctum that in discussion about the sanctum and its relationship with the security are discussed. But two other concepts; the meaning of place and the sense of belonging to place are discussed here.

The meaning of place is in fact what the human understands in dealing with the environment. It can be defined as the legibility in dealing with environment. According to Lynch about the legibility in cities; the legibility is a quality of a thing that made it possible to an observer to have a more powerful imagine. The purpose of the legibility is to make the environment more recognizable, and it will happened by using, shape, color, organizing the elements and creating an environment with a more powerful structure (Lang, 1987). In other words, the legibility is a quality that makes it possible to recognize a physical space from others, and by differences between the senses, two environments are appeared.

The sense of belonging to place is the same as the human`s desirable sense toward the environment created through familiar images from an environment. Repeating the familiar sights in public urban spaces not only annihilates the sense of anxiety and being stranger, and helps people in navigating but also it can be an urban furniture in examples such as bench, bus stations and so on (Burton & Mitchel, 2006)

Place is defined as an existence between different aspects of sensational and physical characteristics, and insists on saved perceptions, and also expresses that the place has the ability to create the collective images (Stokols and Shumaker, 1981). The sensational characteristics that show the function of an environment toward the humankind is what called legibility. And the physical characteristics are defined as the familiar images of space and the sense of belonging to place. Therefore, it can be stated that the eligibility and the sense of belonging are the main factors that create the human`s images toward an environment. In fact, all of them in a place may create a behavior setting. A behavior setting increases the rate of satisfaction for a person (Barker, 1960). The behavior setting is kind of space that creates the human`s sense of security. It enables the human to be relaxed.

In discussion the meaning of sense of belonging to place the example of composition of mosque and bazar in Iranian traditional architecture are presented. In Iranian traditional architecture, bazar and mosque are two indivisible parts and are always attached together. it can be seen in bazar and Jameh Mosque of Isfahan. On one hand, the commercial situations increases the rate of criminal behaviors (Bell, 1998) and in contrast, the mosque is one of the public spaces with an important role in increasing the rate of security in a district (Qarayee & Rad, 2010). This composition is the result of two mosques` conceptual features consisting of the meaning and the sense of belonging to a space. The mosque with its dome and menars, presents itself as an sensational landmark, in such a way that everyone could guess its function. On the other hand, its familiar image which is resulted in repetition during the times insure the human`s sense of security and calmness.

<table>
<thead>
<tr>
<th>The identity</th>
<th>Defining factors</th>
<th>Spatial related features</th>
<th>Results</th>
<th>Examples in Iranian traditional architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>The meaning</td>
<td>The legibility</td>
<td>The ability to recognize an environment from another one</td>
<td>The mosque and the bazar</td>
<td></td>
</tr>
<tr>
<td>The sense of belonging to place</td>
<td>The desirable sense toward the familiar images</td>
<td>Preventing from being lost and scared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The behavior setting</td>
<td>In relation to the spatial sanctum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ref: Authors

The spatial sanctum

The discussion about the identity and its relation to the spatial security have led us to concept of behavior setting. But a behavior setting should have some other features except the sanctum. The
sanctum of a behavior setting is a confine that the behavior will happen within it. The wall is an idealistic sanctum preventing getting in and out. Qualities such as fading the vision and sounds are important in creating the sanctum. If the sanctum of behavior settings was not enough transparence, its explanation would be difficult (Bechtel, 1977). In other words, the sanctum is a spatial confine that due to creating a more controllable space for people, it will establish a more powerful sense of spatial security. Using walls, curtains and both symbolic & actual impression for specifying the territory of a place are all ways in order to create privacy in control of environment designers (Lang, 1987). Excessive privacy leads to the social seclusion and lack of privacy leads to the sense of being in an overcrowded space (Altman, 1975). Therefore, the concept of sanctum should be in a parity rate. This parity rate creates an environment that at the same time keep its own sanctum and link itself to outside. This parity rate is named as the personalized space.

Personalized space is a confine of the natural or manmade environment that has been specified as the territory (Becker, 1978). it is an invisible confine around a person that according to the hedgehog in a legend told by Arthur Schopenhauer, people like to become close together as feel their intimacy and friendship and become far than others not to annoy each other. The personalized space is neither always a volume nor spreads equilibrium through all dimensions. But it is just the same as a conch, a soap bubble, a light radiant or an oxygen tent (Sommer, 1969). Therefore, personalized space, keeps its own sanctum, as well as interacts with the outer spaces. In addition, personalizing the places, can meet many other goals such as mental security, symbolic beauty and adopting the environment with special needs (Lang, 1987). The personalized space creates a kind of privacy space with its own characteristics. Therefore, the rate of security increases the rate of social interactions and it can be stated that if the people’s social needs and the sense of personal independence coming from the privacy, have become balanced, having social interactions will be easier (Lang, 1987).

The suitable rate of privacy depends on public agreements and rules on becoming public or private. And also it depends on predicted rules for public organizations and the definition of social groups. In this case, if all of the residents in a district were relatives, a small public space is made in order to receipt strangers. But on the other hand in residential areas where nuclear families are living, the number of public and private spaces become too much more and the main accepted public space is formed through collecting these public spaces (Rapoport, 1977). Therefore, depending on the shape of society and the social relations between people, the rate of privacy and personalized space are different. In addition, barriers are used to represent a privacy are different. The barriers could be actual ones such as doors and wall or symbolic ones such as a sign or even a building for representing an ethnic group (Lang, 1987). But totally in any environments shaping privacy increases the rate of security and consequently the rate of social interactions.

Privacy generates a sense of defense between the residents. Defending the private territory in which they are living. This territory is a confine space that people and groups use it as dedicated confine. The territory obtains a psychological identity through a place, and through the sense of ownership and physical composition becomes a symbol (Pastalan, 1970). This human’s behavior in relation to personalized environment is called territorial behavior. The territorial behavior is a way to set the sanctum between ourselves and others. The territorial behavior could be expressed by personalizing or impressing a place or object and making it to be belonged to a person or group (Altman, 1975). Now the territory of place can be characterized by these features: 1- the sense of ownership and human rights toward a place 2-personalizing and impressing a confine 3-the right to defend 4-supplying functions that includes physiologic, aesthetic and cognitive needs (Lang, 1987).

According to Heidegger the main features of territory are defensible and characterized (Afsharkohan & Rahighiyazdi, 2013). Its defensible feature shaped a concept called defensible space. Defensible space is a word defining series of spatial systems including; actual and symbolic barriers, defined spheres of influence and more possibility to supervise, the whole of these makes an environment under the residents’ control. The defensible space in a residential environment is planned in such a way that insure the security for families, neighbors and friends (Newman, 1972). The defensible space has the ability to make people dominate the environment and in other words residents dominate the environment by using different ways. Oscar Newman (1972) had presented that if the confines of a territory of place
became more transparent, people would have more ability to control the events and visible disturbances. Chermayeff and alexander (1963) also confirmed that privacy and social interactions are very close concepts. Therefore, privacy shapes the defensible space and the defensible space increases both the rate of supervision on environment and the rate of social interactions.

As a result it can be stated that in many situations the basis of crime prevention is related to strengthening the environment which includes increasing the rate of sense of security by increasing the rate of informal supervisions (Fleissner & Heinzelmann, 1996). The rate of security of environment will increase by increasing the rate of supervision, decreasing the possibilities to hide, providing a suitable legibility and preventing troublesome people to go in, (Bell, 1998). Therefore, the rate of privacy in an environment increases by people’s supervision, because criminals do not like be seen. Therefore, increasing the number of eyes in streets provides more chances to supervise abandoned places through a good planning. And people have more sense of security (www.pps.or, 2005).

It can be resulted that all the new developments should be designed in such a way to increase the opportunity for natural supervising (Monahan, 2006). In other words, privacy and the personalized space should be shaped in such a way to create a defensible space, in which residents supervise informally. In this case, Iranian traditional district centers are good examples, where at their center the commercial spaces were placed, and local sellers have the authority to supervise the district.

Table 3. The spatial sanctum.

<table>
<thead>
<tr>
<th>The sanctum</th>
<th>defining factors</th>
<th>spatial Related features</th>
<th>results</th>
<th>Example in Iranian architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>The behavior setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The transparency</td>
<td></td>
<td>Fading vision and sounds</td>
<td>The defensible space</td>
<td>Iranian traditional district centers</td>
</tr>
<tr>
<td>Territorial behavior (the privacy and the personalized space)</td>
<td>Defending the space</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ref: Authors

The safe structure of space

Different structures or patterns in physical environment supply different behaviors (Lang, 1987). Human’s behavior in different spaces and places are different and sometimes the space is itself a driving factor for criminals’ behaviors (Afsharkohan & Rahighiyazdi, 2013). For example, underpasses are among indefensible spaces (Nouroozi & Fooladisepehr, 2010). Therefore, the physical structure and shape of space influence the spatial security and the rate of social interactions.

Therefore, it is important to study the physical structure of spaces and in this case studying the physical structure of cities is more important, because cities are more populated and as a result have potentials for both shaping more social interactions and more criminal behaviors. Georges Picca in criminology (1987) stated: “the crime is related to cities’ developments, studying the relation between city and crime is an important subject in sociology of crime”. The density of urban population attracts criminals because of more possibilities for criminal behaviors. City is a center of collected wealth and also is where the discrimination happen. And finally according to the social controls such as police control and family control contemplate population density should be contemplated unanimously and mobility in order to prevent criminals to escape (Picca, 1987). Therefore, it can be stated that too much presence of humans is not always due to high rate of social interactions. But there is an efficient rate of activities called the vitality. In fact in environmental psychology, the vitality is at the middle of overcrowded and privacy (Lang, 1987). But the population growth cannot be stopped, hence it is better to find suitable ways according to nowadays conditions.

Although cities provide suitable environmental conditions for criminal but there are too many other factors that helped this. Among all factors such as the scale, the rate of population growth, the spatial structure of districts, the quality of spatial distribution of facilities, the quality of housing and the pattern of land use are called (Salehi, 2008). In this case some other traditional ways may be used for today.
The first solution that the humankind used was the squares which at first were created through collecting houses around an open area. This structure not only had provided a very high rate of supervision on inner space but also through minimizing the surface of outer wall, had made it more possible to defend towards outer attacks. This kind of courtyards gradually had become more symbolic and had been used for religious spaces (Such as Agora, Forum, Mosque and so on) (Krier, 1984). Therefore, the goal of the square was to increase the rate of spatial security in some ways. As Krier (1984) stated “the street is a result of sporadic housing when the area around the square are housed fully. This urban structure results in a kind of singleness for the pieces of land. The street is more functional than the square, but the square due to its dimensions is more attractive to stay in. The architecture behind the street is seen just on the movement. Our past streets were planned based on human scale and carriages for a different function they. Although these kinds of streets are not suitable for cars, they are suitable for human activities. The streets do not often work as an independent space. This happens just in villages shaped along a street. Totally, streets are parts of a network (Krier, 1984). At the case the street could be defined as a transformed shape of square that have less functions. But anyway the street is a result of learning from past architectural experiences towards nowadays problems.

However, in this shape of past architecture new ways can be found in order to supply nowadays human’s needs. For example although streets are not restricted and stable the same as squares, but by focusing on vertical lines, their fluidity and dynamicity decreases. (However, focusing on horizontal lines increases it but the disordered skyline decreases the effect of perspective and the space is divided into different parts and decreases the fluidity of space.) (Salehi, 2008).

Another problem is about the size and the scale of space. According to Camillo Sitte “the size of space influence on social interactions, in smaller dimensions, more intimate relations would occur” (Tavalayee, 1993). Also, Lewis Mumford (1987) through discussion about the human scale in urban constructions, has presented the defensive wall of city as a symbol for the unity and the security of traditional cities. Even there is an anxiety disorder called Agoraphobia, which a person feels anxiously in openness or crowdedness environments, and it is in contrast to the small traditional squares (Salehi, 2008). The spatial dimension and scales are the problems which the humankind has been always deal with them. So as the scale is not a problem that could be abandoned, we should find solutions for that through studying the traditional architecture. In this case in Iranian traditional architecture we could find many examples; such as Peimun that was a modular scale in Iranian traditional architecture, Ezareh and Katibe that were usually used in giant areas (for example at Shah Mosque in Isfahan) in order to make the scale smaller.

In addition, the physical structure of space have been changed in many other ways; such as traffic jam that puts the fear into people and causes more noise pollution and increases the possibility of getting robbed (Pain & Toowanshend, 2002). But these problems are caused by the development of human societies and in order to solve them, the traditional architecture should be studied more.

Therefore, the spatial structure of space or in other words the form of space has an important role in creating a defensible space, therefore the qualities of form of space are important to be studied (Salehi, 2008). Some physical structures have been changed during the times such as the changes in structure of square to street, and some of them have not been changed such as the scale and dimensions, and some others have been created based on nowadays’ situations such as traffic jam. But anyway, according to the fixed and changeable human’s needs, some general principles can be found through studying the traditional architecture.

Table 4. The safe structure of space.

<table>
<thead>
<tr>
<th>The safe structure of space</th>
<th>Defining factors</th>
<th>Spatial related features</th>
<th>Examples in Iranian architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through an comparison between the local vitality and the overcrowded cities</td>
<td>The focused shaping of spaces</td>
<td>The square towards the street</td>
<td></td>
</tr>
<tr>
<td>The Human scale towards the car scale</td>
<td>Katibe and Ezareh</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ref: Authors
CONCLUSION

All the studies have indicated that creating a safe environment attracting people to live in and having more social interactions, not only helps to increase the rate of general quality in public urban spaces but also increases the number of supervisors may help to increase the rate of sense of security (Bemanian et al, 2009). The characteristics of the concept of spatial security should be studied in three aspects consist of the identity, the sanctum and the physical structure of space. The identity relates to the mental aspects of security and the sanctum relates to the physical aspects of security but both physical and mental aspects are related together. And the physical structure of space is in fact a collection of practical ways that the humankind has been used toward different conditions, during the times. Therefore, it is resulted that if a space having its own identity, sanctum and territory, the rate of spatial security and the rate of social interactions are increased by using a suitable physical structure.

References

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