

Principles of Design and Planning of Residential Town in Reducing Crime

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Abstract: In this research, the design principles and features of urban architecture are investigated for planning residential settlements in reducing crime. Architecture is the dish of human life in all aspects of individual and social as well as in accordance with the biological and native conditions. With this view, the realization of architecture should not be taken into consideration only in its concrete and material terms, but it should also consider the human spheres. Specific changes in the design of the building of residential spaces, which increase the semi-private spaces for interaction with neighbors, increase natural monitoring, review and sense of ownership by residents, increase the attachment to the living environment, residents and neighbors, and reduce social anomalies. Therefore, due to the increase in mass in the physical structure of cities and the lack of attention of designers, architects and urban planners to the principles of environmental design to prevent crime, to create security and increase it by reducing the occurrence of crime as one of the important concerns of citizens, leaders and the political and social authorities of societies have become especially important in recent decades.

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1. Introduction

Individuals living in one place feel that the neighborhood has physical characteristics in a way that their inhabitants have friendly and face-to-face social relationships based on the sense of security, attachment, and cooperation.

"Crime as a social issue originates from the culture of any society and is always present in societies, and the problem of all societies through its direct or indirect impact on the lives of individuals, since security is a fundamental requirement of the quality of life of individuals. Therefore, the lack of it and the fear of physical crimes are one of the main problems caused by crime in current societies, which leaves inappropriate effects in people's lives and reduces the social interactions of individuals by reducing their presence in the outdoors. (Gorchi, 2005; Danesh 1995).

Security in human societies is one of the most important needs of individuals, which is in the hierarchy of Maslow's needs for basic human needs and is one of the main components of sustainable societies. (A. H. Maslow, 1943).

Therefore, social security of the inhabitants is important as one of the main factors in creating the satisfaction of the environment. Creating a sense of security and feeling makes it easy for people to follow up on the right issues and affairs, and people's satisfaction from the environment is shaped by their

needs and aspirations, and their abilities. (Mohit, 2010).

While around the world, especially in residential settings, the increase in crime rates is alarming and there are many spaces that are not desirable for the safety of individuals and which increase the growth of social harm, one of the important issues that has occurred over the past years for various reasons The attention of urban executives is the security of citizens.

Therefore, measuring the security of residential settlements and identifying and applying proper design methods to create a sense of security, especially through ordering the environment in residential complexes, is the main issue of this thesis, in order to take the necessary steps to adopt and develop appropriate methods for designing settlements and necessary measures. Control of delinquency and creating a sense of security in order to create healthy living spaces. In this regard, in view of the above, the present project seeks to build on the proper design of the physical environment with the aim of examining the effect of focusing on creating a sense of satisfaction from the living environment in residential settlements. By ordering the environment through creating a sense of security Due to the dissonance and insecurity it has decreased and the residents' satisfaction from the environment is effective. The security approach through designing healthy residential spaces is one of the most effective

and efficient principles of the field oriented and design oriented approach in this area in promoting environmental security that can play a significant role in the security of residential spaces.

However, there are many influential factors that independently affect the creation of a sense of security and have not been investigated and require further research on more specialized topics.

2. Purpose of study:

The presence of responsive spaces for social events and joint activities of people in the public space of housing increases the potential for the attraction and presence of individuals and groups, whose regular, continuous and active presence increases the social interactions of residents. In order to achieve these goals, the existence of qualities and spatial characteristics such as: natural factors, visibility and visibility, safety and security, physical accessibility, readability and easy routing in residential public spaces are necessary.

This research seeks to provide architectural solutions to increase the social interactions of residents in residential spaces. The practical objective of this research is to design the best public spaces in residential complexes. Since the regular and active presence of residents is due to the existence of a desirable space, identifying the factors that increase the visibility of residential spaces is the theoretical goal of this research.

Specific objectives of the research (including ideals, general objectives, specific objectives and applications):

1. The effect of environmental design on the establishment of control over residential spaces by creating enclosed spaces.
2. The effect of enclosed spaces in residential neighborhoods on creating a sense of security in individuals.
3. The effect of environmental design in residential settlements on creating a sense of security for residents.
4. The effect of security sense on residents' satisfaction from the environment.

3. Literature Review:

The CPTD approach was largely focused on the physical terms of the prohibited environment, and was less focused on the psychological and social aspects of the environment. Hence, in 1997, a group of thinkers after criticizing what CTVT's theorists have already believed in Their prime concern to Jakebz's "Eye-to-The-Eyes" theory was the foundation of his work and focused on the psychological and social aspects of the environment (Cleveland Sarl, 2003).

On the other hand, the results of the research confirm the direct relationship between disorder and crime rate and the sense of insecurity (Parkinset et al., 1993) and believe that disorder can seriously damage the behavior and norms of social control and control of the residents of the area (Hedayati, et al, 2016).

The term CTVT was first introduced in 1971 by the criminologist Jeffrey of Florida, with the publication of his book on the same name. His work was based on empirical psychological rulings based on the idea that the crime would not occur by removing the reinforcement of the crime. The research papers and numerous attempts made by Jacobs and Jeffrey in the 1960s-70s led to the development and development of the theory of crime prevention through the environment. The proposed theory is a design methodology based on which the appropriate and targeted design of the human environment is used, architects and urban planners can reduce the risk of crime and crime and improve the quality of life (Atlas, 2008).

At the same time as Jeffrey's view, Scharniuummann's scientific studies took place in the late 1970s. In his book entitled "Defensible space, people, and design in crime-making cities", he described his ideas, which included four main elements. Territory, monitoring, improving the quality of the environment, the use of residential space with other facilities needed by the people (Newman, 1972).

With the advocacy of crime prevention through environmental design, Elizabeth and Lenhel were among those who supported it. Angel believed that by specifying the scope of ownership, reducing or increasing access to the site, as well as increasing the control of citizens through physical environment, Can be directly applied to the reduction of crimes and increase the satisfaction of housing (Rabins, 1996, 15).

4. Methodology:

The method of this research is summarized below:

1. The present study is a quantitative research in the form of case study based on a survey method and a questionnaire has been used as a tool for data collection. The statistical population of the study is people over the age of 18 who reside in the studied regions for at least 2 years. Since the sampling unit of this research, the household has been determined. One of the members older than 18 years of age was asked by questionnaires containing several sections with the aim of identifying personal information and behavioral, physical, functional and social characteristics such as sense of security, feeling of satisfaction from the environment and disorder symptoms and the role of confinement in generating

security. The order in the studied area is designed. The sampling method is a systematic method with a random start point. Accordingly, systematic sampling is performed by determining the sampling distance and selecting the first sample randomly.

2. In order to establish the basis of coherence, this qualitative research method has also been selected and used during the research process. In general, this research is descriptive in terms of the purpose of the research (in order to show the facts with an emphasis on information gathering), and then analytically (by examining the samples and achieving the actual facts in them), and in terms of applied results.

5. Social-Spatial Pattern of Iranian House

A system of discipline, a system that identifies the structure of the patterns of motion and life, makes it possible to create the ability to fulfill various functions. This system brings forth a vast amount of space in which the events and functions of being are realized, and, like the tar, creates a general woven arrangement, as well as an infinite variety of texture and role in the shape of the shape. (Devil, 2007: 50) The environment, and especially the type made by man or, in other words, architecture, is a complex and complex set of space systems that affect each other, cover each other, interact with each other or compete with one another.

Such spaces combine to organize space that responds to the functional requirements and visual values of each as a prerequisite for the Iranian architect, and its sufficient condition is the success of the creation of space qualities such as the sense of existence, comfort and belonging to use which is in the space created by the Iranian architect.

The oldest, most authoritative and enduring common pattern of space organization in these homes is the pattern of "room + patio + yard". Another criterion, which is identical to the previous standard in the organization of the space of these houses, is the presence of an invisible three-dimensional network with an emphasis on the third dimension and the specification of the connection and expansion possibilities of spaces in six directions. In the space organization of the houses, each of the three space groups must define each other. This definition should be considered in the third dimension. Any deployment and architectural composition of the three space groups should be based on the space network as a framework for space guides simultaneously (Haeri, 2009: 137).

6. Semi-public and semi-private spaces

In the categorization of residential buildings, spatial separation has been divided into four categories of public, private, semi-public and semi-

private spaces, which has led to an increase in public oversight and, consequently, social security within these four categories. We further built our theory based on this, focusing our attention on semi-public and semi-private spaces. This section will explain how different patterns of a building create different spaces outside buildings that ultimately have a significant impact on the ability of residents to control the environment.

In this section, the residential unit is an apartment or house (this space can be a unit of a house or a high-rise complex), which in fact how the units are placed in different shapes alongside, internal and external spaces with personality (Newman, 2008: 13).

To simplify the problem, we examine different types of housing divided into three categories. These three categories are: single-family houses, 2 or 3-storey houses, and residential complexes. In single-family houses, within the four walls of privacy, a family is defined, and no interior space in these buildings can be seen to be used publicly or belong to more than one family. Therefore, all indoor spaces are private. (Falahat, 2013: 4).

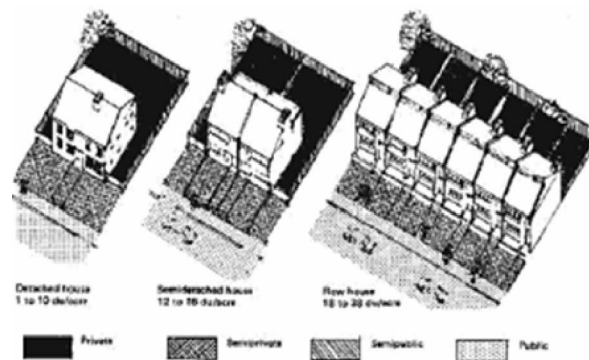


Figure 1. Single-unit houses (Source: Falahat, 2013)

The second category of buildings is 2 or 3 floors. In this type of building we see spaces that are public because they are shared between several families. Mostly, the land in which 3-story houses are located (the front and back yards of the building) belong to all the sack families in the collection and so can not be private.

In addition, the space in front of these buildings is connected to a public street; therefore, the front of the building is placed in the category of semi-public spaces. The back ground is also not assigned to a single family and is often used for car parks, placed in the semi-public category (ibid., 6).

The last of the three types of building are residential complexes. These are elevator buildings with common interior spaces between units. Because of the number of people using these spaces, interior spaces are known as semi-public spaces and even

public spaces. Even the corridors of each floor fall into the category of semi-public spaces. Ultimately, open spaces outside the buildings, despite the lack of subscription between a number of distinct units, can be considered general (ibid., 7).

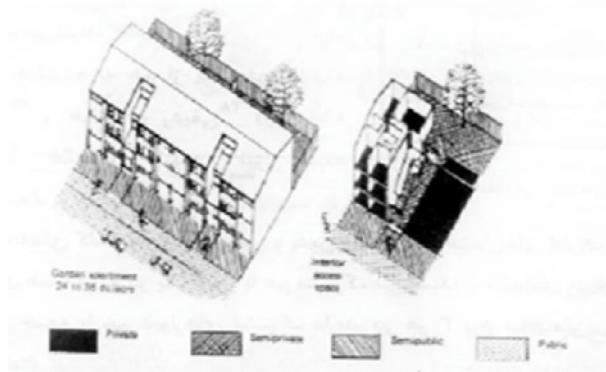


Fig. 2. Story apartments (Source: Falahat, 2013)

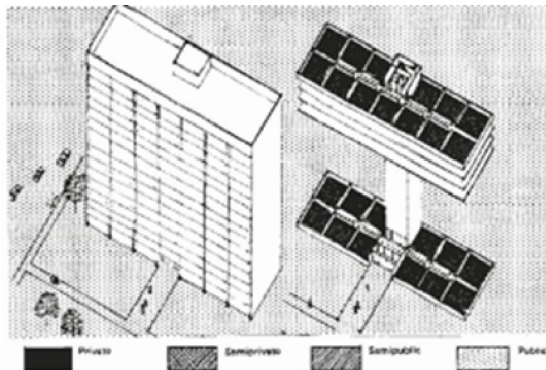


Fig. 3. Residential Complex (Source: The same)



Fig. 4. The residential complex of the sun located in Zanjan (Source: the same)

7. Security and semi-public and semi-private spaces

The encirclement of a family is reduced to an area proportional to the increase in the number of households sharing this space. As far as the number of people using a common territory is concerned, the

rights that each person feels towards that territory is less. So, when the number of households is less than a common space, whether they use an interior space, such as the corridor or outside the building, it's easy to understand how much space can be used for each family.

But when the number of surviving families increases from one territory, the level of understanding of the space between them decreases, so that users do not find any other useful use other than walking in that space, instead they are allowed for any use. Therefore, the greater the number of people who use a collective space, the more difficult it is for the residents to regard it as their own domain or to have the right to control or shape a particular activity.

This will make it easier for strangers to access the living space and reduce the security of the inhabitants. On the one hand, as the publicity of the house diminishes and the open spaces in front of them turn into private spaces, public monitoring and participation from the residents of the neighborhood are reduced. And their sense of youthfulness decreases and the grounds for crime are provided by strangers.

Outdoor activities

In social design of the public exterior, social activities have not been sufficiently taken into consideration because social planners are more concerned with the design of these spaces than forms and forms rather than activities. In modern urban design, zoning is common, but the division and separation of individuals within intergroups often leads to weakening of social activities in societies, and on the other hand, the need for personal privacy also encourages people to keep distance from each other.



Fig. 5. Optional activities such as sitting, walking, and setting up a position for social interaction. (Source: Bahrami, 2013)

In addition, modern housing offers its own homes for the people and separates families from the community. One way to solve this social problem is to use public open spaces that not only emphasize social diversity, but also encourage residents to engage in positive ways. Madinpour (1996) claims that "open space plays an important role as a place to meet social activities." Suitable public and semi-public spaces can have a huge impact on people's social activities. Social activities "all activities that depend on the presence of others in public spaces." Stopping in public spaces is the starting point for physical contact, when a person is standing in public and looking at passers-by, has increased the position to create social interactions. Some elements such as chairs, fruit trees, water and environment are among the factors that can encourage people to stay in outer space and, moreover, stopping in space can create more activities (Zhang, 2009).

Externally, public spaces are, in the simplest possible way, divided into three categories of activities that are necessary for selective activities and social activities. The necessary activities are those that are almost compulsory, such as daily commuting (going to work, shopping, etc.). Selective activities are carried out under conditions where there is a willingness to do them and favorable environmental conditions (sitting, playing, etc.). Social activities are those activities that are more than anything else dependent on the presence of others in the public domain (watching people, talking, etc.) The more public spaces in the residential complexes are of higher quality, the ground for social interactions following the activities of the community, such as visitation, chat, play, sports, etc., as mentioned above, are provided and the spaces mentioned above turn into a place that has the characteristics of civilization and vitality. (Yazdanfar, 139: 20) So in the definition of open spaces, residential complexes can be said that they are without personal ownership and are often owned by the same group with unit management. Open space residential complex may consist of open spaces, pedestrians and cabins, green spaces, public and communal spaces, parking spaces and temporary and temporary accommodation, landscapes, furniture and equipment, guide boards and guides. The main role of open space is the residential complex to modify construction and human constraints, as well as to provide the appropriate levels for providing the necessary bodywork for activities that can not be done in closed spaces. Although the performance of these spaces is one of the most important issues of urban planning, but in most cities, due to the high cost of land, especially the speculative encounter with the city, their quantitative and qualitative development is not very noticeable (Mohammadzadeh, 2011: 31).

8. Architectural and environmental factors

Architectural and environmental factors have a great impact on the priorities and satisfaction of the home. At a glance architectural and environmental factors can be divided into access, mass and space, urban design, environment, quantitative and qualitative features of units and facilities.

In the context of access, access and pedestrian access and their separation in residential complexes will be one of the factors affecting the satisfaction of individuals. Pedestrian access in a residential complex should be such that the complex is not only accessible to pedestrians, but pedestrian access is more attractive than a ride. The importance of pedestrian access is so much that in the Western neighborhoods, the title of their first principle has been chosen.

In terms of mass and space, the optimal layout of the blocks relative to each other in order to create a spatial orientation, to provide open space with dignity, and to create an aesthetic combination between the mass of the building and the urban space can be one of the factors affecting the satisfaction of individuals.

In terms of urban design in a residential complex, coherence and unity, coordination with the texture around it and the posture is somehow effective in the level of people's satisfaction.

In addition to the mentioned social relations and public affairs, people are involved in public behavior, and individuals are attracted to sites that have the ability and willingness to adapt to the constant patterns of behavior that they are going through. The important thing about the need to create synergy, adaptability, and compatibility between the pattern of behavior and the physical environment is the behavior that takes place. This feature makes some places more appropriate and more capable of communicating with some behavioral patterns. (Aminzadeh, 2002: 47) The social dimension of public spaces is based on a triangle of human, space, and collective life, which requires attention to the dimensions to the following:

- Understanding the needs of humans in relation to space and the recognition of different groups of space users.
- Understanding the physical dimensions of the public space and its capabilities in relation to the social dimension of time.
- Understanding the effective dimensions of collective life in existing instances and providing physical and opportunity opportunities for the development of social activities.

9. Conclusion

In a residential complex, physical factors, psychological factors, green space, community space, physical characteristics, and architectural and

environmental factors shape the individual's satisfaction from the complex. Also, the influential factors in the center of the neighborhoods, can be referred to calm, intimate and cozy. No matter how much the feeling of satisfaction is towards the environment, people feel more attached to the environment and feel more relaxed in that environment, and ultimately, the relationships in the warmer environment and the impact of the environment on more people.

Considering the stated issues regarding the following in the design of residential complexes, it is possible to take an effective step in promoting the interactions of the residential complexes:

1. To create multiple urban and social spaces for the duration and increase interactions of inhabitants of residential complexes such as local parks, recreation spaces and children's playgrounds.

2. The comfort inside the house is due to the order of the general parts and the correct operation of the joint mechanical and electrical facilities and vice versa.

3. By designing a dedicated parking and storage space for each unit, somehow it can be arranged because many tensions and conflicts caused by uncertainty or car parks are created elsewhere, with appropriate design, mental comfort, and the health of relationships and satisfaction. Neighbors will be realized, and consequently social sustainability will arise.

4. The adjacent entrance and other spaces within the residential enclosures must be made in such a way that the external view of the entrance to the internal spaces is seized and the aristocracy to these spaces is minimized.

5. Failure to create dark and unobtrusive spaces and cozy spaces to create security.

6. Increase visual visibility of urban space so that residents can observe public places.

7. Increase visual visibility of urban space so that residents can observe public places.

8. Establishing the fit between population density and residential complexes.

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