Effective Aesthetic Structures of Constructive Environment in Creating Security in Residential Complexes

Abstract

Psychological studies emphasize the deep connection between beauty and the feeling of peace and security. In today's society, human beings are facing unlike environmental changes. The creation of residential complexes is one of aforementioned fluctuations in the environmental structure of the society. One issue that can be raised is the impact of residential complexes, as new structural alterations, on the security of individuals. Hence, aesthetics is a science that can be applied to generate a sense of safety. Today, the existence of security, as one of the foremost requirements of human beings, is one of the most vital structural factors in the quality of life. This research has been accomplished with a descriptive and analytical method and with the application of both quantitative and qualitative approaches. The present study population includes more than 2000 as the research sample. After distributing the questionnaire, data was analyzed using SPSS software at both descriptive and inferential levels. Findings show that the five main factors have a significant impact on environmental security and crime reduction in the context of residential complexes. These 5 factors are physical security, surveillance, fear of crime, territory, management and maintenance. After comparing their means in the sample group, the results showed that the component of surveillance has a high average and the component of fear of crime beheld a lower average. Other variables (physical security, territory, and management and maintenance) also had a moderate value. Therefore, physical security, supervision, fear of crime, territory, management and maintenance have a significant role in environmental security in the context of residential complexes. Paying attention to these components along with creating natural environments has an imperative role in stabilizing the space with the dominance of beautiful and relaxing structures in residential complexes.

Research aims:

1. Investigating the role of aesthetic structures in creating a sense of security in residential complexes.
2. Identifying the most effective factors on the security of the residential context.

Research questions:

1. What factors play a role in creating environmental aesthetic structures in residential complexes?
2. Which factors have the greatest impact on creating a sense of security in the residential context?

Keywords: Environmental security, aesthetics, crime reduction, environmental factors, residential complexes
Introduction

The need for housing is one of the most basic human needs, and individuals have been searching for a place to live and reside since its commencement. Today, housing is a distinct concept of a place for residing and security, in addition, the existence of security is one of the most imperative structural factors of quality of life. In the classification of needs, Maslow is at the second level of the pyramid of needs after physiological needs. In this sense, residential complexes have become one of the most widely used residential areas in cities today. The characteristic of collective life in these places paves the way for a greater potential for crime. The occurrence of a crime by a group living in a residential complex causes the environment to be unpleasant and the beauty of the environment and the landscape in the residential complex to be lost. High-quality landscape evokes positive emotions such as security, peace, warmth, happiness or joy, and conversely, low-quality landscape is associated with stress, fear, insecurity, limitations, sadness or other negative emotions. Aesthetic features will have an impact on the creation of the observer's mental perception, which can be safe or insecure with a positive sense of environment in relation to the formation of an environment. The role of security in residential areas in the world is undeniable. For the past half century, crime prevention theory has used sophisticated scientific methods to understand and solve crime problems. At the same time, there have been dramatic changes in the way cities are designed and secured. In many cases, these developments culminated in a more complete reflection on urbanization and safety in the emerging cities of the 21st century. Considering these cases and the importance of studying the security of residential areas, this study seeks to investigate the structural factors of aesthetics affecting environmental security in the context of residential complexes.

No independent work has been written on this subject so far, however, works on the aesthetics of housing have been written. An article entitled "Assessing the Factors Affecting Aesthetic Quality in Urban Housing (Case Study: Jamalabad Magazine", has been written by Afsaneh Masoumi and Maryam Qalambar Zazfuli (1398). They have concluded that the constructive dimensions of space (physical, functional, social, perceptual and environmental) in the residential environment in the two domains of the building and the neighborhood have characteristics that provide the aesthetic quality of the environment in both objective and subjective contexts. This article examines the aesthetic category in urban housing, while the present study seeks to examine this issue in residential complexes with a focus on creating a sense of security.

The present applied research was accomplished by a descriptive-analytical method. In data collection, two documentary and field methods were used. The sample of this research includes more than 100 available residents from the context of Azadegan and Pardisan residential complexes in Rasht. A researcher-made questionnaire was used to collect data. This questionnaire has 32 questions that were divided into 5 main components (physical security, supervision, territory, management and maintenance) after analyzing the confirmatory factor. The face and content validity of this questionnaire was confirmed by five professors of architecture. Cronbach's alpha was used to obtain the reliability of the questionnaire. The results of Cronbach's alpha test for each of the research components showed a value between 0.7 and 0.82, which shows that the questionnaire has acceptable reliability. The exact value of Cronbach's alpha and the scoring method of each questionnaire are given in Table (1).
### Table 1 - Reliability of the research questionnaire (Source: Author)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Questions</th>
<th>Number of Question</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Security</td>
<td>5</td>
<td>5</td>
<td>80/0</td>
</tr>
<tr>
<td>Monitoring</td>
<td>7</td>
<td>12</td>
<td>75/0</td>
</tr>
<tr>
<td>Fear of crime</td>
<td>6</td>
<td>18</td>
<td>70/0</td>
</tr>
<tr>
<td>Territory</td>
<td>6</td>
<td>24</td>
<td>82/0</td>
</tr>
<tr>
<td>Management and maintenance</td>
<td>8</td>
<td>32</td>
<td>77/0</td>
</tr>
</tbody>
</table>

The vastness of the city of Rasht as well as its compactness and high density have made this city sensitive in terms of security and the extent of crime, and the need to reduce lawbreaking and increase safety is of particular importance. The residential contexts studied in this study are the neighborhood of two residential complexes (Pardisan and Azadegan). Azadegan is located in the center of Rasht on Saadi Street, which is limited to Golsar intersection on one side and to Moallem and Rasht Municipality joints on the other. This texture is around the residential complex located in Pich Saadi, one of the oldest residential complexes in Rasht. Due to its location in an older texture than other residential complexes in the metropolis of Rasht, this residential complex has the best option to study the conditions of environmental security, considering that years have passed since the beginning of the activity of this residential complex. Pardisan residential complex is located on Ansari Street at the entrance of Rasht city from Anzali city and has a special position in terms of location. It is also in a newer context in terms of construction time and is a newer project.

![Figure 2- Pictures of the studied residential complex above Azadegan and below Pardisan](image)

### Conclusion

Residential areas with all their features can shape a space with a positive or negative type of security. In other words, it can be said that spaces, due to their characteristics, can have a high capacity to produce crimes. The emergence of misconduct and related issues in a number of urban areas indicate that control and monitoring in various areas (such as lighting) is at a minimum acceptable level and it is clear that a reduction in security levels are seen. Alleys and streets that have the least amount of traffic and light, due to the lack of minimum supervision, are witnessing an increase in all kinds of crimes. Urban lighting design is a traditional and modern way to provide better security and comfort and environment. Criminals take advantage of the lack of sufficient light to hide, and by destroying existing light, they create darkness to provide their own corrupt environment. Hence, one of the main items in the monitoring component was lighting. Today, lighting is an imperative factor in creating a sense of security, and the lack of light and the
darkness of the night cause complications such as increased accidents, coincidences, crimes and delinquency, and finally reduced social security. In the field of design and architecture, not only light is used for lighting for it is considered by designers and architects as one of the main components of design. Examination of the results by using one-sample t-test showed that the mean of monitoring in the research sample is high. Fear of crime is another indicator of the residential environment that is one of the effective factors in the level of residential complex and crime reduction. Fear of crime and being a victim is very much related to the attractiveness of the residential environment. It can destroy the residential areas. It creates an insecure environmental mentality in the inhabitants of the residential regions. In contrast, the beauty and regularity of environmental factors will create a safe and crime-free environment. Territoriality is another factor influencing environmental security, despite which the destruction at the complex level will be significantly reduced in residential complexes; Territory is considered as a part of residential complexes that an individual or a group of people use for personal gain and defend because of their sense of belonging and ownership of the place. Any personalization and marking in the environment or protecting an area from harassment is a territorial behavior. If public realms in residential complexes are not clearly and properly separated, there will be turmoil that will reduce the security of residential complexes. Examination of the results also using one-sample t-test showed that the average physical security in the research sample is moderate. The main part that affects the increase of aesthetic index in the residential environment is management and maintenance. Which is another effective factor of environmental security in the context of residential complexes; Maintenance management is the effective planning and execution of activities related to the maintenance and repair of tools and equipment. Which have been destroyed and damaged. This is the case with Project Ego Residential Complex, which covers a wide range of tasks and responsibilities, from designing maintenance activities to providing and managing the resources needed. Examination of the results also using one-sample T-test showed that the average physical security in the research sample is moderate.

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