

Assessment of the Impacts of Security on Livability of Urban Distressed Textures and Provision of Strategies to Improve It; Case Study: Ansar Neighborhood, Mashhad

Farshad Nourian^{a*} - Seyed Sajjad Abdollahpour^b- Reza Ghazi^c- Mohammad Ghazaei^d

^a Associate Professor of Urban Planning, Faculty of Urban Planning, College of Fine Arts, University of Tehran, Tehran, Iran (Corresponding Author).

^b M.A. of Urban Planning, Faculty of Architecture and Urban Planning, University of Art, Tehran, Iran.

^c M.A. of Urban Planning, College of Fine Arts, University of Tehran, Tehran, Iran.

^d Ph.D. Candidate of Urbanism, Faculty of Architecture and Urban Planning, Tarbiat Modares University, Tehran, Iran.

Received 24 June 2018; Revised 15 September 2018; Accepted 30 September 2018; Available Online 20 March 2021

ABSTRACT

Physical and content deterioration of the distressed textures affect the residents' sense of social security in these textures and reduce their presence and interaction in the texture, resulting in the reduction of livability and vitality. As one of the distressed textures of Mashhad, Ansar Neighborhood has faced various issues regarding security, vitality, and people's presence in urban areas. Therefore, the current study aims to assess the impact of security on the livability of distressed textures (Ansar Neighborhood) with an emphasis on the CPTED approach and to provide the Strategies to improve the livability of the studied area. This study is analytical-descriptive research. 370 people are randomly selected from the residents of the Ansar Neighborhood to fill out the questionnaires. Data analysis is conducted using statistical tests, such as t-test, Friedman's test, Spearman's rank test in SPSS, and SWOT analysis. The research results indicate that the livability and security of the Ansar Neighborhood are not desirable. Among the livability and security indices, interaction, relationship, and tendency to surveillance are the most desirable indices, and satisfaction, trust in managers, and comfort, respectively, are the most undesirable ones. The results also show a positive correlation between security and livability. Among the security indices, lighting quality and residents' tendency to surveillance, respectively, have the highest relationship with livability. Based on the conducted analyses, the general strategic orientation of the Ansar neighborhood to improve the livability is of minimum-maximum and adaptive. Organizing the land use system and public open spaces to create vitality and security, and improving the meeting and gathering centers in the neighborhood are the identified solutions to increase the livability with an emphasis on security in Ansar Neighborhood.

Keywords: Livability, Security, Distressed Texture, CPTED Approach, Ansar Neighborhood of Mashhad.

* E_mail: fnoorian@ut.ac.ir

1. INTRODUCTION

Nowadays, various approaches have been raised and applied to solve urban issues and problems, especially urban worn-out textures, the most important of which is livability (Ghanbari, Shokouhi, Rahnama, Kharazmi, 2016, p. 130). As a living context for urbanist humans, worn-out urban textures have spatial-place instability due to the physical deterioration and vulnerable infrastructures (Nasiri, 2013, p. 270) and require providing livability standards (Heidary et al., 2015, p. 20). Various factors affect the livability in a place one of the most significant of which is social security (Khastoo & Saeedi Rezvani, 2010, p. 65). Thus, regions with lower crimes and fear of crime have more security and are more livable than other regions (Lorenc, Clayton, Neary, Whitehead, Patticrew, Thomson, Cummins, Sowden, & Renton, 2012, p. 759). This issue is more significant regarding the worn-out textures because these textures, due to their specific activity-physical features, provide a proper context for the crime hotspots and thereby social insecurity (Asgari Tafreshi, Adib Zadeh, Rafian, & Hoseini, 2010, p. 40) and lack of people's presence and interaction in the texture. However, if these textures have safe and desirable spaces and the organized healthy and vital recreations occur in them based on the values of society, people's active presence and consequently, the vitality and livability increase (Habibi, 2013, p. 76). These insufficiencies increase deterioration, lack of vitality, and decrease the quality of life and livability in these textures, comparing to other urban regions (Heidary, Shamsaee, Sasan Pour, Suleimani, & Ahad Nejad, 2017, p. 3). Currently, Iranian cities in general, and metropolitans, in particular, face this issue, and Mashhad metropolitan is no exception. As the second metropolitan and the largest pilgrimage city of Iran, Mashhad hosts a great number of domestic and foreign pilgrims. Obviously, the proper urban livability conditions are of significant importance, especially in terms of security. Security issues have been one of the concerns of the urban managers of Mashhad metropolitan, especially in the worn-out urban textures. More than 2302 hectare of worn-out texture in the city has led to the depression and abandonment of the worn-out texture and its declining trend. This issue has led to the lack of residents' presence in the neighborhood spaces and increased social insecurity, resulting in the livability decrease at a broad level of the urban neighborhoods of Mashhad. Accordingly, it is necessary to analyze and investigate the security of the worn-out neighborhoods of this city to improve their livability, which is done in the Ansar neighborhood, as a case study, located in the third region of the sixth district. In this regard, the current research aims to assess the impact of the sense of security on the worn-out urban textures' livability with an emphasis on the CPTED approach and provide solutions to improve the livability of the studied area.

Therefore, the main research questions are as follows: How is the situation of the livability and security indices in the Ansar Neighborhood of Mashhad? What kind of a relationship is there between the livability and security components in the Ansar Neighborhood of Mashhad? What is the general strategic orientation of the livability improvement emphasizing the security in the worn-out urban texture? Therefore, in the current study, first, a set of livability and security aspects, indices, and criteria are identified by theoretical foundations review and studying similar domestic and foreign research conducted in this regard. Then, the required information is extracted using these criteria, developing a questionnaire, and implementing the field study in the neighborhood. The analysis of the indices, significance difference, and the type of the relationship between the livability and security components are implemented using statistical tests. Finally, solutions to improve the livability in the Ansar Neighborhood of Mashhad are provided using the SWOT technique.

2. RESEARCH BACKGROUND

In general, it can be said that not many studies were done on the livability improvement of the worn-out urban textures. Therefore, the research conducted on the closest topic to this research topic in Iran and abroad was presented in the following. The results of the study (conducted by Shamaee et al. 2016) entitled "Livability Analysis of the worn-out urban textures (case study: the worn-out texture of Zanjan)" indicated that among the livability factors of the worn-out texture of Zanjan, there was a maximum correlation with the social indices. Among these indices, the most correlation was related to the development and evolutions of the social relations. The results of the study conducted by Heidary et al. (2015) entitled "Assessment of the Livability Capabilities of the Worn-out texture and Solutions to Improve it (case study: worn-out Texture of Zanjan)" showed that the worn-out texture of Zanjan had a higher potential in terms of livability opportunities and strengths. Then, an aggressive strategy were determined as the prioritized solution to intervene in the livability of the worn-out texture. Ahmadi et al. (2013), in a study entitled "The use of CPTED approach to Improve the Security in the Worn-out Urban Texture (case study: the worn-out texture of Urmia Downtown)" addressed the influential factors in the insecurity and creating criminal opportunities of the worn-out texture of Urmia downtown. The result of this study showed that given the insecurity reasons in the studied area, the principles of the CPTED approach could be influential in reducing the insecurity. Thus, at the end of the study, solutions were presented to improve the security in the studied area using an environmental design approach. Motallebi et al. (2016), in a study entitled "The Effect of Sense of Security in The Residential Satisfaction in 1000 Dastgah Residential Complex of Nazi Abad of Tehran based on CPTED model" showed that

there was a direct relationship between residential satisfaction and sense of security. Marvi and Behzadfar (2014), in a study entitled "Local sustainability with an emphasis on the CPTED approach" showed that the CPTED approach attempted to improve security and safety in urban spaces, which would increase sustainability in cities. Iqbal and Ceccato (2016), in a study entitled "Can the security of parks be improved using the CPTED approach?" showed that proper design and management could affect the security of Stockholm Park. For example, they showed that blind spots in the park led to the formation of many crimes or that the proper placement of sports equipment and facilities in the park attracted a large number of people, which improved night safety. Jongejan and Woldendorp (2013), in a study entitled "A Successful CPTED Approach" reduced crime and the fear of being in public spaces through environmental design. The results showed that the use of the CPTED approach reduced crime in urban areas so that in newly planned areas, 95% and pre-formed areas, 80% crime and misdeed were reduced. Painter and Farrington (2001), in a study entitled "Assessment of situational crime prevention using a survey of young people" showed that crime prevention through environmental design has made many changes in the rate of theft. As observed, a combination of domestic and foreign studies all believed that environmental design could increase safety and security at the level of neighborhoods and urban and public spaces and reduced crime. Also, studies indicated that the livability of urban textures was directly related to social indices. Therefore, since increasing safety and security can help the presence of people in space as one of the most important indicators of livability, and since these social indicators play a decisive role in livability, by emphasizing security as one of the missing links of the worn-out textures, the present study attempts to investigate its relationship with livability and in order to improve the situation depending on internal and external factors, provide strategies to improve the livability of these textures with an emphasis on security.

3. THEORETICAL FRAMEWORK

Livability is a general concept associated with some other terms and concepts, such as sustainability, quality of life, the vitality of the place, and healthy communities (Norris & Pittman, 2000). It has been considered since the late twentieth century, and a

clear and single definition has not been presented so far (Laby & Hashim, 2010). Cowan (2005) defines livability as appropriate for living and a provider of the desirable quality of life. In contrast, he considers urban vitality a reflection of the city's crowd at different times of the day and various parts. Landry (2000) also knows livability as the long-term self-sufficiency, sustainability, compatibility, and self-repairment of a place. In general, it can be said that there a broader diversity of definitions for livability, and most researchers find it difficult to define so that Southworth (2004) considers it a relatively vague concept yet confirmed by all that has been interpreted in different ways. Suzan et al. (1995) believe that livability connects the city's present to the past. People respect the historical monument (as the residents' root) and those who have not been born in the livable city (Crowhurst, Lennard, Stenberg, & Lennard, 1999). A livable city is appropriate, safe, valuable, and attractive for everyone and all classes and not only for the specific age groups or high-income people (Lennard, 1997). Song introduces the livable city as a place for a healthy life that provides opportunities for easy movement through bicycle, walking, public transportation, or any other transportation option (Song, 2011). It can be also said that the livable settlement is where the transportation, housing, and commercial development are simultaneously developed, and people have adequate access to the movement sustainable options in terms of quality, efficiency, and sufficiency (Southworth, 2004). Livability is identified by three main categories: environmental quality, local facilities, and individual wellbeing (Mousavi Noor, Varytisi, & Mohammadi, 2016, p. 243). Livability includes security, health, local environmental conditions (cleanness, noise, dust, air quality, and water quality), social relations quality, entertainment and recreational opportunities, aesthetics, unique environmental and cultural sources (Victorian Competition and Efficiency Commission, 2008). Oberlink (2008) considers housing, transportation and movement, land use, cooperation and interaction, local social understanding and planning, and leadership as livability components (Oberlink, 2008, p. 5). According to the aforementioned, livability is a multifaceted and intricate concept, which makes it hard to evaluate the livability level of a city (Iranlost, Isa Lou, & Shahmoradi, 2016, p. 106). However, according to the conducted studies, aspects, indices, and criteria of a livable city with an emphasis on livability in the worn-out textures have been presented in Table 1.

Table 1. Aspects and Indices of the Worn-Out Texture Livability

Aspects	Indicator	Criteria	References
Environmental-Physical	Pollution	Noise and Air Pollution, Garbage Collection Quality, and Quality of Surface Water Disposal	(Bandar Abad, 2011; Khorasani, Rezvani, Motiee Langrodi, & Rafian, 2012; Shamaee, Sasan Pour, Suleimani, & Heidary, 2016)
	Public Spaces	Enclosure and Presence in Space, Quality of Pavements, and Urban Furniture.	
	Building and Texture	Building Age, Materials Quality, Texture Permeability, Density, and Number of Floors	

Aspects	Indicator	Criteria	References
Historical	Sense of Belonging	The Tendency to the Residence, Hope to Improve the Conditions and Hold Celebrations and Ceremonies	(Bandar Abad, 2011; Khorasani et al., 2012; Shamaee et al., 2016)
	Interaction and Relationship	Recognition and Communication of Residents, Teamwork Spirit, Duration of Residence, Membership in the Association, and Willingness to Participate	
Economic	Financial Affordability	Financial Participation in Projects, The Proportionality of Household Income and Expenditure, Diversity in Housing Options, and Desirability of Support Loans	(Shamaee et al., 2016; Haji Nejad, Rafian, & Zamani, 2010)
Urban Facilities and Equipment	Education and Health	Quality of Education and Health Centers, Desire for Participation in Educational Classes.	(Michel, 2005; Haji Nejad, Rafian, & Zamani, 2010; Rezvani & Nowruzi, 2013; Shamaee et al., 2016)
	Recreation and Leisure	Distribution of Leisure Equipment Per Capita Recreational Use and the Extent of Equipment Used	
	Access Quality	Convenient Access to Services, Interference of the Vehicle and Pedestrians	
	Transportation	Variety of Options and Quality of Transportation and Access to the Public Transportation	
Urban Management	Trust and Satisfaction	Trust in Urban Management Decisions, Participation in Decision Makings, Observing Justice in Sharing the Projects' Benefits, Developing Facilities for the Texture Residents, and Presence of Experts in the Managerial Body	(Evans, 2002; Habibi, Pourahmad, & Meshkini, 2008; Habibi, 2013; Irandost, Isa Lou, & Shahmoradi, 2014)

Various factors affect the livability in a place, one of the most important of which is security (Ghanbari et al., 2016, p. 129). Security is one of the most significant features of the worn-out textures affecting their livability and presence. Considering the transformations that they endured in social and physical aspects, worn-out textures face spaces empty from the original population and lacks surveillance, affecting the degree of security in these textures. Security is the human's most vital need mentally. Security is considered the most significant purpose of life and the nature of the person's mental health (Qaraee, Radhoonani, & Rashidpour, 2010, p. 18). It is known as a basis for development and progress in many research. Sense of security is the mental comfort and peace, which is a cause to create stability, peace, and pleasure in the urban public spaces (Ziari, Mehdi, & Mahdian, 2013, p. 25). It is a situation in which the citizens can move freely and interact with each other and do social activities (Anamradnejad & Sassanpour, 2014, p. 45). The CPTED is one of the most prominent approaches in urban planning to improve the security of the urban spaces, especially in worn-out textures. The current approach can be considered an efficient design and optimal application of all elements in an artificial environment to reduce urban crimes that are directly and indirectly influential in improving the quality of life, increasing citizens' satisfaction, enhancing the social capital and welfare, and in total, enhancing the livability of urban spaces (Salehi, 2011, p. 23). National Institute of Crime Prevention considers this approach to reduce or prevent crimes and improve the quality of life in designing and proper use of the built environment (NICP, 2006). The International Compliance Association of the CPTED also defines it as smart use

of the built space in the designing and planning process of the artificial environment to prevent crimes (ICA, 2005). The current approach provides the opportunity to avoid creating proper environments for the crime by the physical design of the city through building physique, plan design, and access to the crime hotspots (Petrella, 2004). Therefore, it can act as a deterrent to crime and, while increasing security, contribute to the presence and viability of as many textures as possible (Cozens, Saville, & Hillier, 2005, p. 331). In designing urban environments, the CPTED approach includes five main principles: access control, territoriality, maintenance and repairment, natural surveillance, and supporting social activities (Elika & Elika, 2012; Kruger, 2012; Plaster & Carter, 1993; City of Durham County, 2008; Sajjadian, Amanpour, & Joibari, 2015). Minnery and Lim (2005) include the physical criteria affecting reducing the space crime based on the CPTED approach as follows: space form, visual and environmental comfort, space dimension, spatial organization and permeability, housing quality, and land use (Minnery & Lim, 2005, p. 332). As previously mentioned, due to the deterioration in the body and content and gradually lack of maintenance, the worn-out textures face a decrease in desirability by residents of the same texture and residents of other textures, and this provides grounds for reducing the presence and sense of belonging to the texture. This process reduces the tendency to settle in the texture, life expectancy, trust in urban management, and material and spiritual participation in the city and texture, associating with the decline in the livability and security level of the texture. The CPTED approach is one of the approaches raised to improve the security level in the textures by physical intervention in the urban environment. While

this approach considers the social factors along with the physical factors in its designs, it provides the ground to remove or moderate the crime hotspots of the neighborhood and contributes to increasing the security level in the neighborhood by increasing social surveillance and support. On the other hand, since it is assumed that increasing the security is related to an

increase in the presence and consequently livability, the relationship between these two concepts in the worn-out neighborhoods of Mashhad was investigated in the following. The possible relationship between security and livability and the influential components, criteria, and indices in each of them was presented in Figure 1.

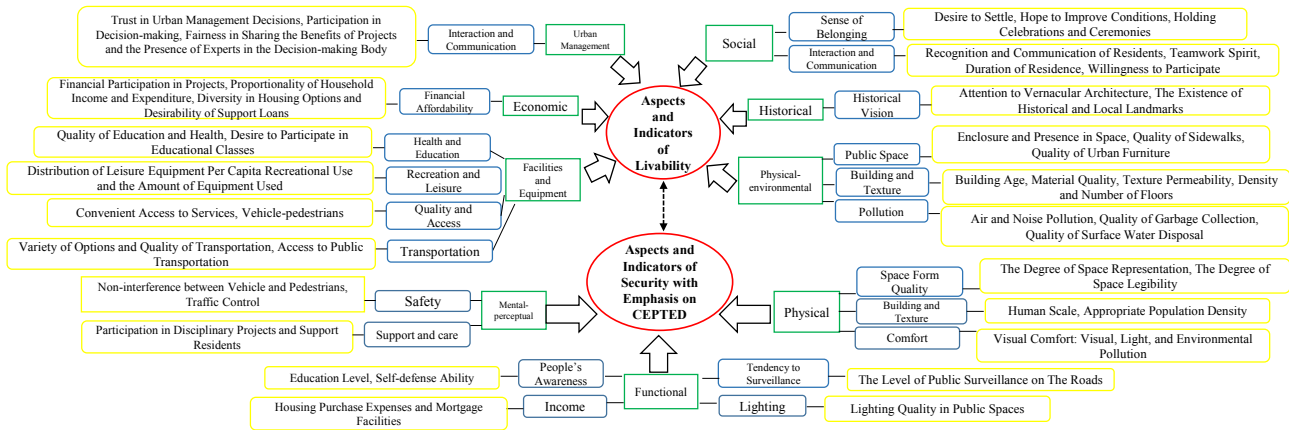


Fig. 1. The Relationships between the Components, Criteria, and Indices of the Livability and Security in the Worn-Out Textures

(Smith, 1996; Meyer & Qhobela, 1998; Mahmoudi Jankhi & Gourchi Beigi, 2009; Kihl et al., 2005; Bandar Abad, 2011; Shamaee et al., 2016; Khorasani et al., 2012; Rezvani & Nowruzi, 2013)

4. RESEARCH METHOD

The current research is a descriptive-analytical study conducted using a questionnaire and field observation. First, a set of aspects, indices, and criteria were identified using library studies on livability and security. Then, their relationships were evaluated using a public questionnaire on the Likert scale. The validity of the questionnaire was confirmed and corrected by experts and academics' opinions, and its reliability was assessed using Cronbach's alpha. The alpha value was obtained 0.87, indicating the acceptable level of the research tool (questionnaire). The statistical population of the research included 9393 residents of Ansar Neighborhood, Mashhad, and the sample size was determined 370 using Cochran's formula at the confidence level of 95%. The sampling method was simple random sampling in a way that by numbering the plots of the area, some questionnaires were distributed among the plots based on the obtained number. Also, the statistical tests specific to the data extracted from the questionnaires were used (one-sample t-test to study the sense of security and livability of the area, Spearman's correlation coefficient to study the correlation between the indicators of the livability and security, and Friedman's test to evaluate the significance different of the livability and security components). Finally, according to the results obtained

from the statistical tests, field observations, mainstream documents, questionnaire results, the matrices of the internal and external conditions of the neighborhood were developed. This matrix provides the possibility to develop four choices or strategies to improve livability with an emphasis on security in the neighborhood. In practice, some of these strategies might overlay and be implemented simultaneously or in accordance with each other. According to the situation of the neighborhood studied, four groups of strategies can be developed that might be different in terms of the degree of action: strength-opportunity strategy (Aggressive), weakness-opportunity strategy (adaptive), threat-strength strategy (contingency), and threat-weakness strategy (defensive). After determining the influential internal and external factors, their effectiveness in increasing the livability with an emphasis on security was calculated in the effectiveness scoring part and factors' ranking by the experts (according to Table 2) in the significance ranking part. By multiplying these two scores, the total score column was obtained (Table 3). Eventually, total scores of each of the internal factors (weakness-strength) and external factors (threat-opportunity) were calculated to determine the type of the final strategy to improve the livability of the Ansar Neighborhood of Mashhad with an emphasis on security. Then, the recommended policies were presented.

Table 2. Characteristics of the Experts Participating in Ranking the SWOT Factors

	Experts with the Master of Urban Planning	Experts with the Master of Urban Design	Professors with Urban Planning Expertise	Professors with Urban Design Expertise
Number	12	9	5	4

Table 3. Scoring Method in SWOT Analysis

Effectiveness	Very Much	Much	Medium	Few	Very Few
	5	4	3	2	1
Significance	Very Important	Important	Relatively Important	Less Important	Not Important
	1	0.75	0.5	0.25	0

5. INTRODUCTION OF THE STUDY AREA

In recent decades, due to uncontrolled and sprawl expansion, the city of Mashhad has observed the emergence of many deteriorated and inefficient urban neighborhoods, such as the Ansar neighborhood located in Region 3, District 6. According to the master plan of Mashhad, the mentioned neighborhood is among the worn-out neighborhoods with high crime in the city. According to 2016 Iranian Population and

Housing Census, it has a population of 9393 people and an area of 94.4 hectares. About 50% of the neighborhood area is composed of barren and ruined lands such as wasteland and ruins. The southern side of the neighborhood, which reaches Hor Boulevard, has small industrial land uses (manufacturing unit), the western side has commercial land use, inner areas of the neighborhood are often covered by residential land use with mostly two-story floors and low quality, and the northern and eastern sides of the neighborhood form the city limits.

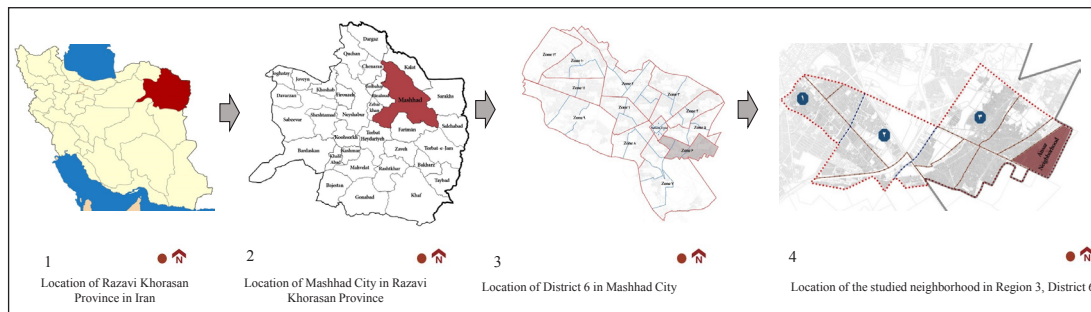


Fig. 2. Location of the Studied Neighborhood

6. RESEARCH FINDINGS

In this part, livability and security were evaluated in the studied samples. Then, the relationship between the livability and security in the texture of the neighborhoods under study was assessed using statistical tests. After evaluating the livability and security of the neighborhoods and their relationship, strategies were presented to improve and promote the current conditions with an emphasis on the neighborhoods' security.

6.1. Security and Livability Evaluation in the Area

According to Table 4 (livability t-test results) and Likert Scale designed for the questionnaire (1: minimum, 5: maximum), interaction and communication indicator was the only indicator with desirable condition among the developed indices for the livability in this research. The weighted average of this indicator (3.62) was more than the theoretical median, and according to t-test analysis, other indices were in an undesirable situation. These values indicate that although the Ansar Neighborhood has physical and content deteriorations, the residents can maintain communication and interaction with each other in comparison with other indices. Also, since interaction and communication affect security and livability directly, there are necessary capacities to improve the livability and security levels

in the neighborhood. T-test results also showed that the livability of the Ansar Neighborhood of Mashhad was very poor with an average of 2.11, indicating the low level of other indicators in the Ansar Neighborhood. One of the most important indicators is the low level of satisfaction and trust of residents in urban management, which indicates the deep gap that has been formed between people and urban management. The results of the Friedman test also show that there is a significant difference between the components of livability in the Ansar neighborhood of Mashhad. This test, which confirms the results of the previous test, shows that the interaction and communication indices with an average rank of 11.31 and the quality of public spaces with an average rank of 8.09 are the most effective, and trust and satisfaction with managers are the least effective indices in the viability of the studied texture. Therefore, in general, in relation to Ansar neighborhood, it can be said that although the level of livability is in unfavorable conditions, despite the physical and content problems of the residents, they have maintained their communication to the desired level, which can be the basis for institutional and social actions. The high score of public spaces quality also confirms this issue. In fact, the context has been provided to maintain this interaction. In contrast, low trust in managers and low quality of access and other indicators, despite their low impact, has led to a decrease in livability in the neighborhood.

Table 4. Results of the One-Sample T-Test and Friedman's Test of the Livability Indicators in the Ansar Neighborhood of Mashhad

Aspects	Indicator	Value	Significance Level	Average	The Difference between Indicators Based on Friedman's Test
Physical-Environmental	Pollution	46.266	0.000	2.42308	7.63
	Public Spaces Quality	51.968	0.000	2.54808	8.09
Historical-Identity	Building and Texture	47.913	0.000	1.99359	6.22
	Historical Vision	47.705	0.000	2.03526	6.42
Social	Sense of Belonging and Durability	35.922	0.000	1.98077	5.78
	Interaction and Communication	85.819	0.000	3.62500	11.13
Economic	Financial Affordability	40.145	0.000	1.84936	5.63
Urban Facilities and Equipment	Health and Education	49.330	0.000	1.85897	5.47
	Recreation and Leisure	46.669	0.000	1.69551	5.06
Urban Management	Access Quality	33.312	0.000	1.68269	4.90
	Transportation	49.719	0.000	2.20513	7.09
	Trust and Satisfaction	5.460	0.000	1.48397	4.22
Total		45.019	0.000	2.1151	-

The results of a one-sample t-test with an average of 1.95 show a very low level of security in the neighborhood in residents' opinion (Table 5). Among all the indicators related to security, the tendency to surveillance among the residents is in a relatively favorable situation (average of 3.20) than others. The high average value of this indicator shows the residents' desire to improve the security level to continue living in the neighborhood. However, a number of other factors, which are not necessarily available to them, have prevented this from happening. For instance,

physical aspect and form and space comfort have had the most undesirable conditions in residents' opinion in the neighborhood. Therefore, it seems that the physical intervention to improve the level of these indicators in this neighborhood can contribute to enhancing the security level based on the CPTED principles. The results of the Friedman test also show that the indicators of a tendency to surveillance have the most and comfort have the least effect on the level of neighborhood security.

Table 5. The Results of the One-Sample T-Test and Friedman Test of the Security Indicators in the Ansar Neighborhood of Mashhad

Aspects	Indicator	Value Number	Significance Level	Average	The Difference Among Indicators Based on Friedman's Test
Physical	Space Form	43.401	0.000	1.58654	4.05
	Space Proportion	53.652	0.000	1.91667	5.11
	Comfort	36.891	0.000	1.54167	3.86
Functional	Tendency to Surveillance	57.558	0.000	3.20192	7.83
	Lighting	43.857	0.000	1.80128	4.69
	People's Awareness	40.789	0.000	1.82692	4.77
Perceptual	Income	41.258	0.000	1.71474	4.43
	Safety	34.711	0.000	1.66026	4.15
	Support and Care	48.884	0.000	2.31090	6.11
Total		44.556	0.000	1.9512	-

6.2. Evaluating the Relationship between Livability and Security Indices

The evaluation results indicate a positive and relatively strong relationship between the livability and security components in the Ansar Neighborhood. As presented in Table 6, the results of the correlation test show a positive and relatively strong relationship

between the livability and the space form quality (0.001=R= 0.57 Sig). Also, Spearman's correlation coefficient shows a strong and positive relationship between the space proportions and livability with a value of 0.62. Given the significant level of less than 0.05 and confidence level of 95%, it can be said that there is a significant and direct relationship between the space proportion and livability. Therefore, as the

form quality and space proportions improve and the crime hotspots are removed or modified, the level of livability that is associated with the presence of people and the eyes on the street will increase. Regarding the comfort indicator, the results of the mentioned test also show a positive correlation. According to the Table, lighting has the highest correlation value. Therefore, to improve the level of livability in the texture, one of the most necessary measures is to identify dark roads and passages and improve their light level to increase the presence and sense of security in space. Based on the obtained results, improving the level of livability does not only depend on physical interventions or

improving the level of urban facilities and equipment, and empowerment and social activities can also lead to improving the level of livability in worn-out textures. For instance, the positive correlation between livability and individual awareness shows that steps must be taken to improve the awareness level in the neighborhood level using the potential of the creative class or emphasize the transparency and responsiveness of the urban management. Moreover, the positive correlation between the livability and income level shows that the livability level can be improved considering the financial facilities for the residents.

Table 6. Spearman's Correlation Coefficient, Investigating the Intensity and Direction of the Relationship between the Livability and Security Indicators

	Space Form	Space Proportion	Comfort	Tendency to Surveillance	Lighting	Personal Awareness	Income	Safety	Support
Spearman's Rho	0.57	0.62	0.39	0.75	0.82	0.48	0.45	0.58	0.74
Sig (2-tailed)	0.001	0.012	0.002	0.001	0.001	0.001	0.031	0.001	0.000
N	312	312	312	312	312	312	312	312	312

6.3. Analyzing Findings and Presenting the Strategies to Improve the Livability with an Emphasis on the Security

Investigating the results in the previous part showed that the Ansar Neighborhood of Mashhad is not in desirable conditions in terms of security and livability. Also, the findings indicate that although the studied area enjoys low livability and security, it is in a desirable condition in terms of variables, including citizens' interaction and communication with each other, public spaces quality, and people's movement (transportation), resulting in the livability and tendency to the surveillance and support and care which lead to the security. The evidence also shows that there is a significant and direct relationship between livability and security. A set of this evidence together in the one hand, and the significance of the livability and security in the urban neighborhoods on the other hand, as well as investigating the influential internal and external

factors, indicate that there are required potentials and motivations to improve the livability with an emphasis on security in the Ansar Neighborhood of Mashhad. Therefore, in order to determine the strategic orientation appropriate to the neighborhood and present operational goals - according to the developed indicators and the knowledge gained from the relationship between them and also evaluating these indicators in the form of the public survey and mainstream reports - strengths, weaknesses, opportunities, and threats were identified in the study area to improve its livability with emphasis on texture security (Table 7). Then, the effectiveness and significance of each of the influential factors were determined using the experts' opinions. Finally, strategic orientations (aggressive, adaptive, contingency, and defensive) and their appropriate strategies were presented to improve the conditions in each aspect and livability of the Ansar Neighborhood of Mashhad.

Table 7. SWOT Analysis and the Type of Its Strategic Orientation

Aspects Indicator	Influential Factors	Type of Factors	Effectiveness Score	Significance Score	Total	Score			
						T	O	W	S
Physical Aspect Space Form	Organic Passages and Diversity of Views	S	5	0.5	2.5	1	6.25	3	4.75
	Possibility of Shaping the Hierarchy of Open Spaces	O	3	0.25	0.75				
	A Proper Combination of the Fine-Grained and Coarse Bodies	S	3	0.750	2.25				
	Using Abandoned Spaces to Increase the Permeability	O	3	0.5	1.5				

Aspects	Indicator	Influential Factors	Type of Factors	Effectiveness Score	Significance Score	Total	Score			
							T	O	W	S
Physical Aspect	Space Proportion	Lack of Coordination Between Building Blocks	T	2	0.5	1				
		The Illegibility of the Neighborhood Entrance From the Main Streets	W	3	0.5	1.5				
		Ability to Shape Visual Corridors	O	4	1	4				
		Disturbances in the Walls And Facades and Disturbances in the Visibility	W	3	0.5	1.5				
		Increase Cohesion and Enclosure Along Roads	O	3	0.75	2.25	0.75	2.25	1	1.5
		Low Population Density (99 Per Hectare)	S	2	0.75	1.5				
	Comfort	Lack of Appropriate Facilities to Enrich the Leisure Time of Young People Due to the High Population of Young People	W	2	0.5	1				
		The Destruction of the Human Scale of Spaces Due to Irrational Actions in The Renovation of Worn-Out Texture	T	3	0.25	0.75				
		Undesirable Quality and Placement of Furniture in the Texture	W	3	0.5	1.5	2.25	3	3.75	0
		The Disarranged and Disharmonic Pavement in the Ground Image and Lack of Willingness to Be Present in the Public Spaces	W	3	0.75	2.25				
		An Increasing Trend of Throwing Garbage and Construction Waste Into the Ruined Lands and Abandoned Spaces	T	3	0.75	2.25				
		The Opportunity to Improve the Ecologic Environment and Presence of Water and Plants in the Public Spaces to Attract People.	O	3	0.5	1.5				
		The Use of Better Plant Species to Increase the Desirability of the Neighborhood's Spaces to Increase the Presence	O	3	0.5	1.5				
		Total Scores in the Physical Aspect						4	11.5	7.75
Functional Aspect	Personal Awareness	Increase in Vulnerability Due to the Lack of Personal Awareness	T	4	0.75	3	3	4	0.75	4.5
		Tendency to Voluntary Participation to Solve the Issues in Neighborhood	S	3	0.5	1.5				

Aspects	Indicator	Influential Factors	Type of Factors	Effectiveness Score	Significance Score	Total	Score			
							T	O	W	S
Functional Aspect	Income	The Low Willingness of the Residents for the Financial Participation in the Projects	W	3	0.25	0.75				
		The Tendency to Participate as the Human Force in the Projects	S	3	0.25	0.75				
		The Low Ratio of Illiteracy of the Population (11%)	S	3	0.75	2.25				
		The Possibility to Use the Public Participation in the Texture Regeneration	O	4	1	4				
		Increase in the Neighborhood's Deterioration Due to the Low Financial Affordability	T	5	0.5	2.5	2.5	1	1.5	2.25
		Prosperity and Concentration of the Service Activities in the Margin of the Neighborhood	S	3	0.75	2.25				
		Agricultural Lands Potential for the Economic Growth of the People	O	2	0.5	1				
	Surveillance	The Contradiction between Income and Household Expenses	W	3	0.5	1.5				
		Lack of Land Use with Night Time Function in The Neighborhood	W	4	0.5	2	2.5	5	4	0
		Lack of Vital Activities in the Main Pedestrian for the Transparency of the Main Roads	W	4	0.5	2				
		The Tendency to the Surveillance Among tThe Residents	O	5	1	5				
		A Reduction in Residents' Presence in the Public Spaces at Night	T	5	0.5	2.5				
		Increase in Crime in the Corners of the Neighborhood Due to Low Lighting	T	5	1	5	8.75	2	1.5	0
		Reduction in the Security of the Neighborhood Due to the Lack of Lighting	T	5	0.75	3.75				
Lighting	Possibility of Lighting the Prominent Buildings at Night	O	4	0.5	2					
	Lack of Proper and Adequate Lighting Furniture in the Neighborhood	W	3	0.5	1.5					
	Total Scores of the Functional Aspect						16.75	12	7.75	6.75
	Perceptual – Mental Aspect	Safety	Increase in Damages Due to the Interference of the Vehicle and Pedestrian	T	2	0.5	1	1	0	5
Observing Roads Hierarchy in the Neighborhood			S	4	0.5	2				
Lack of Proper Definition of the Sidewalks in Most of the Paths			W	3	0.5	1.5				

Aspects	Indicator	Influential Factors	Type of Factors	Effectiveness Score	Significance Score	Total	Score			
							T	O	W	S
Perceptual – Mental Aspect	Support And Care	The Cars’ Stop in the Paths and Public Spaces	W	4	0.5	2				
		Disorganization in the Network Access and Vehicle and Pedestrian Movement	W	3	0.5	1.5				
		Low Willingness to Stay Out of Interest	W	3	0.5	1.5	1	3	7	2.25
		The Economic and Financial Inability of People and Their Lack of Participation	T	2	0.5	1				
		Interaction and Intimacy between the Neighbors	S	3	0.75	2.25				
		Lack of Sense of Honor and Emotional Attachment to the Neighborhood	W	3	0.5	1.5				
		Attracting People’s Participation in the Improvement of the Worn-Out Texture	O	3	0.5	1.5				
		The Possibility of the Participation of the Public, Private, and Governmental Sector in the Improvement of the Worn-Out Texture of the Neighborhood	O	3	0.5	1.5				
		The Lack of Security and Disciplinary Surveillance	W	4	1	4				
		Total Scores of Perceptual-Mental Aspect							2	3
Total							22.75	26.5	27.5	17.5

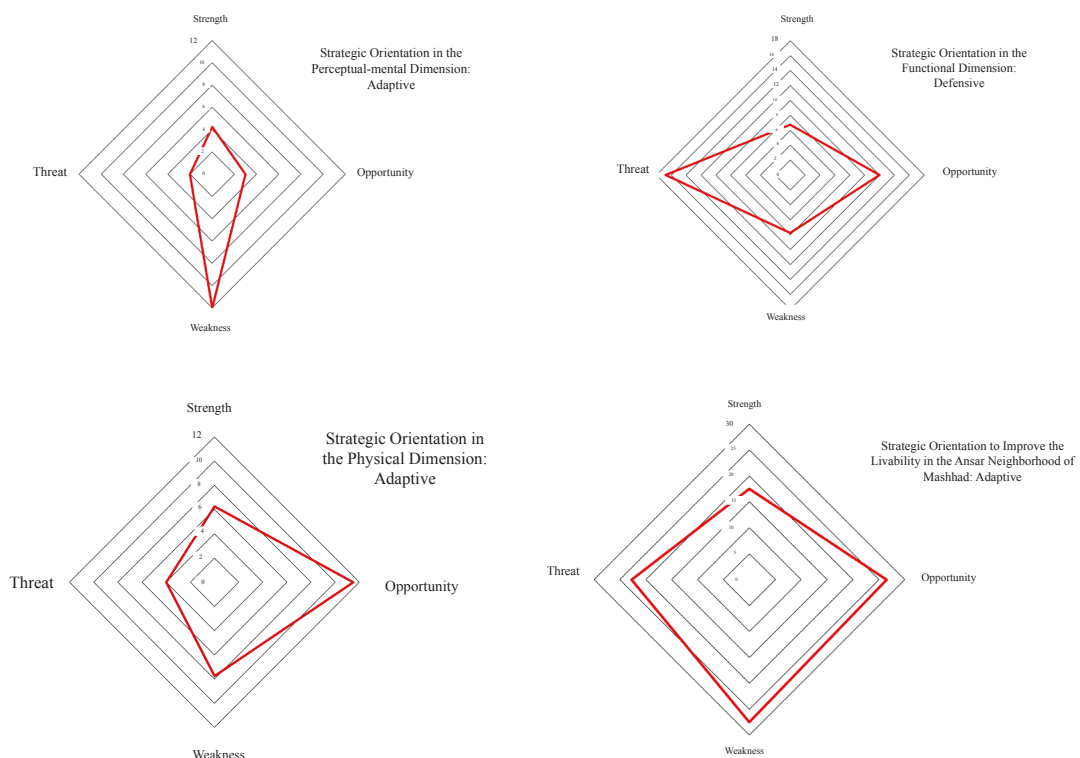


Fig. 3. Strategic Orientation of the Livability Improvement of the Ansar Neighborhood with an Emphasis on the Security

As Table 7 presents, given the total score of the internal and external factors in the physical aspect, the proper strategy is the weakness-opportunity (adaptive). Similarly, in the functional and perceptual-mental dimensions, the proper strategies are as follows, respectively: weakness-threat (defensive) and weakness-opportunity (adaptive). Finally, since in the improvement of the livability by emphasizing the security of Ansar neighborhood of Mashhad, weaknesses are more important and influential

compared to strengths in the matrix of influential internal factors and opportunities are more important and effective than threats in the matrix of effective external factors. Thus, the overall strategic orientation of the Ansar Neighborhood to improve the livability is the maximum-minimum and adaptive. Then, based on the strategic orientation, which is minimizing the weaknesses using the opportunities, the strategies were presented in Table 8 per indicators.

Table 8. Recommended Strategies and Policies to Increase the Livability of the Area With an Emphasis on the Security

Indicator	Strategy	Recommended Policies
Space Form	Improving the Physical Image of the Texture	<ul style="list-style-type: none"> - Organization of the wall image of the Hor Boulevard - Designing land image and proper pavement in the pedestrian network of Shahid Sabeti and Shahid Bakhshi Streets - The use of colors or materials with visual attraction in the construction of the pavement and the wall of the sidewalks or its combination with the vegetation in the direction of the pedestrian movement.
	Increasing the Legibility of the Neighborhood	<ul style="list-style-type: none"> - Creating sign elements in the proper places and important situations of the spatial organization, including the intersection of Shahid Sabeti 1 and Hor 56 and the center of the Ansar neighborhood - Designing the entrance of the neighborhood to improve the quality of the sense of inviting to the texture, including Hor entrances of 44 and 56 - Making legible and paying attention to visual corridors and various movement sequences in traffic routes of Hor 58 and 60
	Improving the Spatial Organization of the Neighborhood	<ul style="list-style-type: none"> - Making legible the relationship between the key elements of the spatial organization such as Imam Hussein Mosque (AS) and other important buildings and public spaces in the neighborhood such as Raja Park - Redefining the enclosure of paths - Creating spatial openings for the presence of pedestrians in the main centers within the neighborhood, such as Shahid Sabeti and Shahid Bakhshi streets - Optimal and active use of urban spaces and prevent them from turning into abandoned spaces in the north and east of the neighborhood - Location of local parks in appropriate positions and its uniform distribution in the center of the neighborhood and the neighborhood unit
Space Proportion	Redefining the Enclosure of Neighborhood Spaces in Renovation Projects	<ul style="list-style-type: none"> - Creating covered space in Hor Boulevard - Developing height regulations, including observation of the proper ratio of width to the height of the roads in Shahid Sabeti and Shahid Bakhshi Streets
	Improving Gathering and Meeting Centers in the Neighborhood	<ul style="list-style-type: none"> - Increasing possible interactions between neighbors and neighborhood people by creating different pauses at the intersections of Hor 54 and Sabeti 7, Hor 48 and Sabeti 13 - Increasing the presence of people in public areas by designing recreational and leisure spaces in the center of the neighborhood - Reviving the neighborhood settings and neighborhood paths to residents' gathering and encourage movement in the texture.
Comfort	Increasing Environmental Qualities in the Open and Public Spaces of the Neighborhood	<ul style="list-style-type: none"> - Increasing the vegetation, especially in the open and abandoned spaces of the northern and eastern parts of the neighborhood. - Creating climate comfort for the pedestrian presence in the public areas through physical and natural elements of Sabeti, Hor, and Bakhshi Streets. - Combination of the water and plant in the public spaces, such as Raja Park and Neighborhood Center.
	Paying Attention to the Environmental Health of the Neighborhood	<ul style="list-style-type: none"> - Organization of the garbage collection and construction waste in a specific place in the main streets. - Using clean energies.
Personal Awareness	Enhancing the Public Education Level	<ul style="list-style-type: none"> - Increasing and improving the educational institutes, such as Imam Khomeini High school and Her Highness Zahra (PBUH) High school. - Developing a Cultural Center in the neighborhood center to improve the cultural level of the residents.
Income	Regenerating the Residence and Livelihood Systems in the Texture	<ul style="list-style-type: none"> - Creating local businesses in the depth of the residential texture. - Enhancing the land value (creating value-added in the property) - Creating proper occupational opportunities in the main street for the residents (Hor, Sabeti, and Bakhshi Streets).

Indicator	Strategy	Recommended Policies
Tendency to Surveillance	Organization of the Land Use System and Open Public Spaces to Create Vitality and Surveillance	<ul style="list-style-type: none"> - Creating active and vital land uses and spaces in the public areas and neighborhood center. - Developing and proper distribution of the land use with night-time function along the main paths of Hor, Sabeti, and Bakhshi as well as the Ansar Neighborhood Center. - Preventing the conversion of the open space of the neighborhood center into a car parking lot
Lighting	Reducing the Social Harms Due to the Crime	<ul style="list-style-type: none"> - Increasing the presence of people to increase security in areas where there is a history of crime, such as waste and abandoned lands in the north and east of the neighborhood - Restoration of valuable buildings and renovation of worn-out and worthless texture and increase of public surveillance and security - Providing the required services in the neighborhood at the desired distance in the form of mixed rows and as a result, the pedestrian movement in the texture and increasing public surveillance - Improving lighting in the main paths or the neighborhood
Safety	Paying More Attention to the Pedestrian Traffic Inside the Neighborhood	<ul style="list-style-type: none"> - Creating wide sidewalks to facilitate pedestrian movement in the public areas of Sabeti, Hor, and Bakhshi streets - Creating continuity of pedestrian paths and preventing them from being blocked in Sabeti Street of the neighborhood
	Modification of the Vehicle Paths	<ul style="list-style-type: none"> - Geometric correction of roads in Hor 46, 60, 68, Bakhshi13, 11 and Sabeti 9 - Modifying the width and role of the roads according to the hierarchy of the roads - Maintaining the hierarchy of roads in the texture
Support and Care	Increasing the Sense of Belonging of Residents to Their Neighborhood	<ul style="list-style-type: none"> - Increasing the social status and belonging of the residents of the neighborhood by improving the quality of the environment, Land image, Vegetation, Pavement, etc. - Preserving the collective memories of the old inhabitants of texture and providing an environment for them
	Increasing the Participation of Different Institutions in Improving and Renovating the Neighborhood	<ul style="list-style-type: none"> - Financial encouragement to create the tendency to the private sector investment - Encouraging public institutions to participate in the improvement and renovation of the neighborhood. - Independency of the local management in decision-making regarding the neighborhood regeneration

7. CONCLUSION

The current study aimed to evaluate the impact of security on the livability of the worn-out urban textures and recommend strategies for its improvement. The results indicated that a set of indices that leads to the livability and security at the neighborhood level is in an undesirable condition in the Ansar Neighborhood. The average value of the texture livability was 2.11 in the Ansar Neighborhood, and this value was 1.95 for the security based on the neighborhood residents' opinion. Also, there is a significant, positive, and direct relationship between the livability and security in the Ansar Neighborhood so that it has a medium correlation with the livability indicators of space form, space proportion, weak correlation with comfort, personal awareness, and strong correlation with the tendency to the surveillance, lighting, and residents' support. The direct and positive relationship between the security and livability in the Ansar Neighborhood shows that the livability in the neighborhood can be improved by promoting the situation of each of the mentioned indicators. Moreover, according to the analysis of

neighborhood strategies to improve neighborhood livability with emphasis on the CPTED approach, the overall strategic orientation of the neighborhood (using integrated analysis and identifying strengths, weaknesses, opportunities, and threats) with emphasis on internal and external factors was determined as minimum-maximum (adaptive) type. Based on this orientation, strategies should be formulated to take advantage of opportunities to minimize the weaknesses of the neighborhood in which they have reduced their livability.

Comparing the results of the current study with the conducted studies in this regard shows that the results of the current research are consistent with the studies conducted by Shamaei et al. (in which there are a high correlation and relationship between the livability and the social indicators), Motallebi et al. (in which the relationship between the sense of security and social components, such as interaction, participation, and surveillance has been evaluated positively), and a part of the results of the study conducted by Iqbal and Ceccato (in which people's presence in the urban spaces increases the security), and Marvi and Behzadfar (the

relationship between the security and sustainability and livability). The results of the current research are not in accordance with the results of the study conducted by Heidary et al (identifying the aggressive strategy as the prioritized strategy to intervene in the texture).

Since most of the cities of Iran, especially Mashhad, face the worn-out texture phenomenon, low livability that can affect social security is inevitable. This inadequacy can lead to weakening citizens' personal identities, reduced interactions between classes, segregation, reduced social status, unbalanced distribution of services, multiple social harms, slowing economic growth, and ultimately exacerbating inequalities and spatial gaps between worn-out neighborhoods and other existing neighborhoods in the city. According to the results of the present study, it seems that it can contribute to urban management.

REFERENCES

- Ahmadi, B., Afroz, M., & Dadgar, M. (2013). Application of Environmental Design Approach (CPTED) to Improve Safety in Urban decay (Case Study: Urmia City Center), First National Conference on Geography, Urban Development and Sustainable Development, Tehran, University of Industrial Aviation. <https://civilica.com/doc/265773/>
- Asgari Tafreshi, H., Adib Zadeh, B., Rafian, M., & Hosieni, A. (2010). Investigation of Effective Environmental Factors in the Modernization of Urban decay Towards to Increase Local Security (Case Study: Vanity Textures of Nematabad District, Tehran District 19). *Journal of City Identity*, 4(6), 39-50. <https://www.sid.ir/fa/Journal/ViewPaper.aspx?id=112372>
- Bandar Abad, A. (2011). *The City Is Livable From Basics to Meanings*, Azarakhsh Publishers, Tehran.
- City of Durham County. (2008). *Crime Prevention through Environmental Design: Durham Guide to Creating a Safer Community*, Durham County, North Carolina. https://iscpp.org/Resources/Documents/ICPS%20Library/CPTED/CPTED%20Manuals%20and%20brochures/cpted_manual_durham.pdf
- Cowan, R. (2005). *The Dictionary of Urbanism*, Streetwise Press, London.
- Cozens, P.M., Saville, G., & Hillier, D. (2005). Crime Prevention through Environmental Design (CPTED): A Review and Modern Bibliography. *Journal of Property Management*, 23(5), 328-356. <https://doi.org/10.1108/02637470510631483>
- Crowhurst Lennard, S.H., Sternberg, S., & Lennard, H. (1999). *Making Cities Livable*. International Conferences of Making Cities Livable, Indiana, the US. <https://www.livablecities.org/>
- Elika, SH., & Elika, SH. (2012). Reducing Crime in Reconstruction of Earthquake-Stricken Urban Areas through CPTED Approach with Emphasis on Crisis Management Cycle (Case Study: Bam Reconstruction after the 2003 Earthquake). *Journal of Urban Management*, 10(29), 305-320. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=175260>
- Evans, P. (2002). *Livable Cities? Urban Struggles for Livelihood and Sustainability*, University of California Press, California.
- Ghanbari, M., Shokouhi, M., Rahnama, M., & Kharazmi, O.A. (2016). An Analysis of Urban Livability with an Emphasis on Security and Sustainability Indexes (Case Study: Mashhad Metropolis). *Journal of Political Geography Research*, 1(3), 129-154. <http://ensani.ir/fa/article/377024>
- Habibi, D. (2013). Investigating the Factors Affecting the Decline in the Sense of Vitality and livable in Historical and Worried Tissues (Case Study: Shiraz Sang Siah neighborhood). *Journal of Islamic Iranian Studies*, 4(14), 75-80. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=257082>
- Habibi, K., Pourahmad, A., & Meshkini, A. (2008). *Improvement and Renovation of Ancient Urban Texture*. Kurdistan University Press and Urban Development and Improvement Organization.
- Haji Nejad, A., Rafian, M., & Zamani, H. (2010). Investigating Individual Variables Affecting Citizens' Satisfaction with the Quality of Life (Case Study: Comparison of Old and New Tissue in Shiraz). *Journal of Geography and Development*, 8(17), 63-82. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=101395>
- Heidary, T., Shamaee, A., Sasan Pour, F., Suleimani, M., & Ahad Nejad, M. (2017). An Analysis of Factors Affecting on livability in Urban decay (Case Study: Urban decay in the Central District of Zanjan). *Journal of Geographic Space*, 17(57), 1-25. <http://ensani.ir/fa/article/368284>
- Heidary, T., Shamaee, A., Sasan Pour, F., Suleimani, M., & Ahad Nejad, M. (2015). Evaluating the livability in the Urban Decay and Its Strengthening Strategies (Case Study: Worn Texture of Zanjan City). *Journal of Sustainable City*, 2(2), 19-34. <http://ensani.ir/fa/article/359102>
- Howley, P., Scott, M., & Redmond, D. (2009). Sustainability versus Liveability: An Investigation of Neighbourhood Satisfaction. *Journal of Environmental Planning and Management*, 52(6), 847 -864.
- International CPTED Association (ICA). (2005). *Basic Level Cpted Course Crime Prevention through Environmental Design*, International Conference, Alberta, Canada. <https://www.edmontonpolice.ca/communitypolicing.aspx>
- International CPTED Association (ICA). (2005). <https://doi.org/10.1080/09640560903083798>
- Iqbal, A., & Ceccato, V. (2016). Is CPTED Useful to Guide the Inventory of Safety in Parks? (A Study Case in Stockholm, Sweden). *International Criminal Justice Review*, 26(2), 150-168. <https://doi.org/10.1177/1057567716639353>
- Irandost, K., Isa Lou, A., & Shahmoradi, B. (2016). Indicators of livability in Urban Areas (Case Study: Central District of Qom). *Journal of Urban Economics and Management*, 4(13), 101-118. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=269621>
- Isa Lou, A., Bayat, M., & Abdul Ali, B. (2014). The Livability Model, A New Approach to Improving the Quality of Life in Rural Communities (Case Study: Qom, the Galaxy District). *Journal of Housing and Rural Environment*, 33(146), 107-120. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=223895>

- Jongejan, A., & Woldendorp T. (2013). A Successful CPTED Approach: The Dutch 'Police Label Secure Housing'. *Built Environment*, 39(1), 31-48. [10.2148/benv.39.1.31](https://doi.org/10.2148/benv.39.1.31)
- Khasto, M., & Saedi Rezvani, N. (2010). Factors Affecting the Vitality of Urban Spaces, the Creation of a Lively Urban Environment, Relying on the Concept of "Shopping Center". *Journal of City Identity*, 4(6), 63-74. <https://civilica.com/doc/1004525/>
- Khorasani, M., Rezvani, M., Motiee Langrodi, S., & Rafian, M. (2012). Measuring and Assessing the Viability of Villages in Urban Areas (Case Study: Varamin County). *Journal of Rural Research*, 3(4), 79-104. https://jrur.ut.ac.ir/article_30233.html
- Kihl, M., Brennan, D., Gabhawala, N., List, J., & Mittal, P. (2005). *Livable Communities: An Evaluation Guide*, AARP Public Policy Institute, Washington, DC. https://assets.aarp.org/rgcenter/il/d18311_communities.pdf
- Kruger, T. (2012). Safer by Design-Towards Effective Crime Prevention through Environmental Design in South Africa, Pretoria, CSIR. <https://issafrica.org/research/monographs/monograph-16-safer-by-design-towards-effective-crime-prevention-through-environmental-design-in-south-africa>
- Landry, C. (2000). Urban Vitality: A New Source of Urban Competitiveness, Prince Claus Fund Journal, Archive Issue Urban Vitality-Urban Heroes. [https://www.scirp.org/\(S\(i43dyn45teexjx455qlt3d2q\)\)/reference/References-Papers.aspx?ReferenceID=1662466](https://www.scirp.org/(S(i43dyn45teexjx455qlt3d2q))/reference/References-Papers.aspx?ReferenceID=1662466)
- Leby, L.J., & Hashim, A.H. (2010). Liveability Dimensions and Attributes: Their Relative Importance in the Eyes of Neighbourhood Residents. *Journal of Construction in Developing Countries*, 15(1), 67-91. <https://doaj.org/article/0a3b8c3e6a3a462d90e28070fde01670>
- Lennard, H.L. (1997). Principles for the Livable City in Lennard, International Making Cities Livable Conferences, Gondolier Press, Carmel, CA.
- Lorenc, T., Clayton, S., Neary, D., Whitehead, M., Petticrew, M., Thomson, H., Cummins, S., Sowden, A., & Renton, A. (2012). Crime, Fear of Crime, Environment, and Mental Health and Wellbeing: Mapping Review of Theories and Causal Pathways. *Health & Place*, 18(4), 757-765. [10.1016/j.healthplace.2012.04.001](https://doi.org/10.1016/j.healthplace.2012.04.001)
- Lotfi, S., Bardi Anamradanejad, R., & Sassanipour, M. (2014). Investigating the Sense of Security in Public Spaces. *Journal of Urban Planning and Research*, 5(19), 39-56. http://jupm.miau.ac.ir/article_615.html
- Mahmoudi Jankhi, F., & Gourchi Beigi, M. (2009). The Role of Environmental Design in Crime Prevention. *Journal of Private Law Studies*, 39(2), 345-367. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=94260>
- Marvi, L., & Behzadfar, M. (2015). Local Sustainability with Emphasis on CPTED Approach (The case of Abkooh Neighborhood in Mashhad). *Procedia-Social and Behavioral Sciences*, 201, 409-417. <https://doi.org/10.1016/j.sbspro.2015.08.194>
- Matlabi, Q., Khudadadi Agh Qala, F., & Akbari, A. (2016). Effect of the Sense of Security of Housing Satisfaction in Naziabad Residential Complex in Tehran Based On C.P.T.E.D Model. *Journal of Fine Arts*, 21 (1), 67-78. [10.22059/JFAUP.2016.59690](https://doi.org/10.22059/JFAUP.2016.59690)
- Meyer, T., & Qhobela, M. (1998). The History of Crime Prevention through Environmental Design: A Comparative Study, Pretoria, CSIR.
- Michel, A.L. (2005). *Great Neighbors: The Livability and Morphology of High Density Neighborhoods in Urban North America*, University of California, Berkeley. <https://search.proquest.com/openview/735365bb25cdec5781e-175a685814bbc/1?pqorigsite=gscholar&cbl=18750&diss=y>
- Minnery, J.R., & Lim, B. (2005). Measuring Crime Prevention through Environmental Design. *Journal of Architectural and Planning Research*, 22(4), 330-341. <https://doi.org/10.1016/j.sbspro.2012.04.198>
- Mohseni, M.R., Zandi Mokhtar, A., & Massoud, M. (2013). Comparative Study of Physical Elements of Old Shiraz Neighborhoods with CEPTED Approaches. *Journal of Iranian Studies*, 4(13), 6-72. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=257106>
- Mousavi Noor, A., Varytisi, H.R., & Mohammadi, J. (2016). Evaluation and Analysis of the Components of Tehran's Metropolitan Area's Livability. *Journal of Geography*, 15(51), 237-258. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=299703>
- Mousavi Noor, A., Varytisi, H.R., & Mohammadi, J. (2017). Presentation of the Livability Pattern of Tehran Metropolis Based on Infrastructure Indicators. *Geography Quarterly*, 15(53), 181-204. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=299703>
- Nasiri, I. (2013). Spatial Instability Analysis of Urbanized Urban Decay (Case Study: Ten District of Tehran). *Urban Management Journal*, 11(31), 269-280. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=188442>
- NICP, National Institute of Crime Prevention. (2006). CPTED Training, [online] accessed, <http://www.cptedtraining.net>
- Norris, T., & Pittman, M. (2000). The Health Community's Movement and the Coalition for Healthier Cities and Communities. *Public Health Reports*, 115(2-3), 118-124. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1308699/>

- Oberlink, M.R. (2008). Opportunities for Creating Livable Communities, AARP Public Policy Institute, Reprinting with Permission Only, Washington, DC. <https://www.aarp.org/content/dam/aarp/livable-communities/old-learn/planning/in-brief-opportunities-for-creating-livable-communities-2008-aarp.pdf>
- Painter, K.A., & Farrington, D.P. (2001a). Evaluating Situational Crime Prevention Using a Young People's Survey, *British Journal of Criminology*, 41(2), 266-284. https://popcenter.asu.edu/sites/default/files/139-painter_farrington-evaluating_situational_crime_preven.pdf
- Petrella, L. (2004). Urban Space and Security Policies: between Inclusion and Privatization, UN-HABITAT, World Urban Forum, Barcelona, Spain. https://www.researchgate.net/publication/338356795_Privatization_of_urban_public_spaces_and_its_impact_on_sustainable_cities_and_social_inclusion
- Plaster, S., & Carter, S. (1993). Planning for Prevention: Sarasota, Florida's Approach to CPTED, Florida Criminal Justice Executive Institute, Florida Department of Law Enforcement, and Tallahassee, Florida. <https://www.ncjrs.gov/pdffiles1/Photocopy/143817NCJRS.pdf>
- Qaraee, F., Radhoonani, N., & Rashidpour, N. (2010). Surveying and Measuring the Sense of Security in Different Urban Areas (Case Study: Tehran 2 and 11 Regions). *Journal of Uranushahr*, 3(4), 17-32. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=154893>
- Rezvani, N., & Nowruzi, F. (2013). Measurement of Urban Quality of Life in Urban Decay of Sepah Quarter in Qazvin, The First National Conference on Urbanism and Architecture over time, Imam Khomeini International University, Qazvin. <https://civilica.com/doc/232102/>
- Sajjadian, N., Amanpour, S., & Joibari, M. (2015). An Analysis of the Environmental Safety of the Operation of Urban Gardens Based on the CPTED Approach. *Law Enforcement Geography*, 3(10), 87-110. <http://ensani.ir/fa/article/download/360031>
- Salehi, A. (2011). Environmental Planning and Environmental Design in Urban Green Space, Jahad University Press, Tehran.
- Shamaee, A., Sasan Pour, F., Suleimani, M., & Heidary, T. (2016). Analysing the Urban Decay. *Human Geography Research*, 48(4), 783-799. <http://ensani.ir/fa/article/368284>
- Smith, M.S. (1996). Crime Prevention Through Environmental Design in Parking Facilities, U.S. Department of Justice, National Institute of Justice, Crime Prevention and Architectural Design, Washington, D.C. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=157310>
- Song, Y. (2011). A Livable City Study in China: Using Structural Equation Models, thesis Submitted in Statistics, Department of Statistics Uppsala University, Sweden. <https://www.semanticscholar.org/paper/A-Livable-City-Study-in-China-Using-Structural-Song/35c01ed1dff3d609732ee3947a7d559e274353b5>
- Southworth, M. (2004). Measuring the Livable City. *Built Environment*, 29(4), 343-354. https://www.researchgate.net/publication/250139568_Measuring_the_Liveable_City
- Victorian Competition and Efficiency Commission. (2008). A State of Liveability: An in Inquiry in to Enhancing Victoria's Liveability, A draft Report for Further Consultation and Input, Melbourne Victoria, Australia. <https://apo.org.au/node/124771>
- Ziari, K., Mehdi, A., & Mahdian, M. (2013). An Analysis of the Security of Public Spaces (Case Study: Parks in Quaternary Areas of Qom Municipality). *Journal of Space Geography*, 3(7), 25-50. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=240918>

HOW TO CITE THIS ARTICLE

Nourian, F., Abdollahpour, S.S., Ghazi, R., & Ghazaei, M. (2021). Assessment of the Impacts of Security on Livability of Urban Distressed Textures and Provision of Strategies to Improve It; Case Study: Ansar Neighborhood, Mashhad. *Armanshahr Architecture & Urban Development Journal*. 13(33), 259-275.

DOI: 10.22034/AAUD.2021.137079.1583

URL: http://www.armanshahrjournal.com/article_127779.html



