Yard Recognition and Recreation and its Role on Residents' Satisfaction in High-Rise Housing Sets

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Abstract. Increase in home order and necessity of responding rate to it have caused to ignoring the qualitative dimensions of building such as proper lodgement of individual in the physical environment with peace and connection with open spaces which in longer time lead to residents' dissatisfaction. Considering the problems caused by yard elimination from residential housing, it seems open space and yard recreation leads to the reattachment of the human and natural environment and provide calm and satisfaction of residents by connection with open spaces to the large extent. This study aims to recognize the yard role and its importance in high-rise buildings after recognition of yard’s concept and status in residential architecture and its role in providing satisfaction and vitality of residents. The correlation method and library sources and available documents are used to measure the possibility of yard recreation in high-rise housing and final strategies are provided on the basis of three components of perception, behavior and quality with the aim of promotion of residents’ satisfaction.

Keywords: Satisfaction creation, yard recreation, high-rise housing

INTRODUCTION

Safe environment designation has undergone significant changes across new technologies for human life and by considering especial spaces used by men which are harmonic with human principal and spirits. Increasing development of the high-rise housing changes the present face of cities with justification of the saving in land consumption and prevents the uncontrolled growth of horizontal housing. Open space is mainly evaluated in the new figure resulting from the main changes in all components of building that has consisted the integral part of human life and also it is considered as supplement of living space in indoor sector and human lives through the relation with open space, but at today's high-rise housing human has to select the vertical location and disregard nature and relationship with it. Deletion of the innate desire and human requirement to open space has caused to imagine the concept of high-rise housing in comparison to incomplete house. Open space or yard has designated in two scales in Iran’s traditional architecture: great open space which has been responsive to big, ritual and military collections and small space which has been common in relation to routine applications and in small and residential buildings. While the most important criterion to select the study topic is its effect on society statues improvement, so configuration process of present study about yard recreation in high-rise housing and its emphasis on residents satisfaction is as follow.
CONCEPTS, IDEAS AND THEORETICAL FOUNDATION OF RESIDENTIAL SATISFACTIONS

Satisfaction concept refers to a wide spectrum of human trends and interests to meet the basic and high needs. Residential satisfaction is considered as a part of satisfaction from life in a common concept, although this concept is proposed in format of multiple features, initial studies have followed based on one-dimensional perspective. Generally, satisfaction in architectural and residential studies is defined as a criterion that meet residents’ needs and is equivalent to the satisfaction sense that a person or a member of a family experiences or perceives. In this regard, the most studies are conducted on residential environment.

The first theoretical model about satisfaction of location of residence is stated by Marena and They have known satisfaction of residential environment depending on the individual's understanding and evaluation from the environmental features like cleanliness, neighborhood security and individual characteristics such as gender, age, social class. One of the aspects of environmental satisfaction refers to the point that people life in different residential environments includes different levels of satisfactions, such that residents of different environments are satisfied by considering type of houses and their district. They have pointed that different features of a district are the most important indicator influencing the residential environment satisfaction. Various studies have confirmed this speech. This study in order to measure the satisfaction of residential environments utilized environmental indicators like districts cleanness, liking environment and attractiveness, relaxation and comfort, security, stability and environmental design type, modern place and availability and also took advantage of individual indicators such as social class, living history, the numbers of children and so on that are presented in figure 2.

Among the researchers who have worked on residential satisfaction from behavioral perspective and residential evaluation can be pointed to Amerigo and Aragones who conducted a study on residential satisfaction and evaluation and tried to recognize behavioral models which have a
meaningful relation with residential satisfaction. The results showed that participation in neighborhood unit activities and repetitive meetings with neighborhood have relationship with residential satisfaction (with high percent). Although, settlements can be different in terms of designation, type and size, in any case, it needs to measure their qualities and it can be sure that the design can meet family and cultural needs of residents. According to the conducted studies personal, social and psychological elements are associated to the residential satisfaction. But in detailed view aesthetic issues or visual attractiveness can be regarded as one of the important elements of satisfaction. The other study shows that nature and the existence of green regions in districts has a significant effect on creating a sense of security, using environment and social relations among residents which lead to residents' satisfaction. In general, according to figure 3, it can concluded that according to behavioral pattern the following seven criteria have had the most effect on satisfaction sense with location in researchers’ studies.

\[\text{Figure 3. Residential satisfactions pattern - Amerigo and Aragones.}\]

Bonaiu and Colleagues know satisfaction depending on physical aspects (The appearance of the space, environmental performance and presence in the environment), social aspects (people and social interactions), performance aspects (public, recreational, commercial, transportation services) and background aspects (health and care). They in a world study about perceived quality of residential environment considers eleven criteria in four groups include three units in relation to space aspects, one unit for humanity aspects, four units related to performance aspects, three units in relation to background aspects that have been brought in figure 4.

\[\text{Figure 4. Residential satisfaction pattern-Bonaiuto et al.}\]

Camp in 2003 created an interdisciplinary conceptual pattern about the quality of environment and life with the aim of the improvement of urban development process, environment quality promotion and human welfare. Some of these models have understood in following internal bond of residential environment variables and satisfaction. Residential environment satisfaction
directly depends on satisfaction rate in two criteria of residential units and district or neighborhood units and indirectly depends on personal, cultural, social features in experimental models of studies related to the quality of residential environment satisfaction rate with residential units is proposed as one of the main criteria. The position of satisfaction with residential units in residential environment's quality measurement model is shown in figure 5.

Figure 5. Experimental model of residential units' satisfaction measurement.

YARD CONCEPT AND POSITION IN RESIDENTIAL ARCHITECTURE

Yard is a part of building that with no building and ceiling on it [1] Yard is a central space with numeral order, introspective which is associated with surrounding spaces and organizational axis and is consists of garden that has a close interaction with climate and has two applications: house apron and the land in front of building that its around is covered. The parts that are not applied in the building with potting and planting [2] Yard in old houses is the center and heart of the building and usually is square, the number and performance of surrounding spaces determine the yard’s dimensions. Yard is used in different forms in Iranian houses such as the sign of estate boundary, unity of the multi-element of home, relating multiple spaces, creatig a racy and fresh environment, as an artificial ventilator to pass the proper flow of winds, a main element for organizing different spaces and the most important as a safety and calm sanctum for family welfare [3].

TYPE OF YARDS AND OPEN SPACE

Open space in early houses is in the center of homes to supply safety and create a private and sanctum boundary. Yard is considered as the most important part of open space of home. Despite yard, there are various spectrums of open spaces in different height that incorporate and develop internal and external spaces by intermediate spaces like platform, Charmin and patio. Open spaces of these houses start from yard surface and form to sky in different surfaces. There is platform a bit higher than yard that is called terrace. There is Charmin a bit higher than platform that is an open sidewalk to supply the availability of some spaces in upstairs. There is belvedere higher than Charmin and finally, housetop is above all of open spaces (Haeri, 2009).
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BACKGROUND OF STUDY

A review on different models which discuss about residential environment quality from the perspective of residential satisfaction can be useful to recognize the satisfaction concept and its effective variables. First efforts for measuring the satisfaction with life quality in terms of history are emanated from social indicators motion. The study results of Baba and his colleagues in 1989 showed that people with high social-economic status, old people and owners were satisfied with their physical features of district and neighbor units in comparison to people with low social-economic status, younger people and tenants. The most studies about residential environment are conducted in this regard. One of the aspects of environmental satisfaction is paying attention to the point that people life in different residential environment includes different levels of satisfaction. Some of people who have worked in this regard are Amrigo and Aragones who have done a study on satisfaction and residential evaluation. They tried to recognize the behavioral models that have a meaningful relation with the degree of residential satisfaction. In their study seven criteria including space area, social interactions, safety, infrastructure installations, relation to around world, urban activities, and natural open space had the most effect on formation of satisfaction sense to the location. Also some of researchers investigated the elements influencing residents' evaluation in terms of residential area satisfaction and the most important variables include beautifulness, development and natural region, social interactions, service safety, facilities, maintenance, environmental welfare.

DISCUSSION

There are more points in the findings of other researchers about residential satisfaction. But most researchers have considered the satisfaction topic from the same point of view and most of them have investigated satisfaction factor from the perspective of physical consumption and some of them have studied behavioral aspects dominant in residential buildings. Whatever is important in this step is to decrease the area qualities by changing the housing pattern to residential buildings with yard elimination that this point finally has led to resident’s dissatisfaction.

On this basis, the desired indicators in the present study are based on evaluating the effective factor on residents' satisfaction by recreation and creating the yard from three components of behavior, quality and perception that is assumed ignoring each one have direct effect on residents' satisfaction reduction. Thus, it is tried to obtain promotion of residents' satisfaction in high-rise housing by obtaining constitutive factors of each of three elements and by considering the sum of all three indicators.

CONCLUSION

Yard recreation hypothesis in high-rise housing with realization of qualitative criteria can increase residents' satisfaction, such that paying attention to the way and combination of each residential unit with its open space by considering all effective phenomena in space formation and utilization especially some phenomena related to natural and artificial area can provide the positive effects on using yard trend for residents. Also, paying attention to cultural phenomena in yard formation
will lead to maintaining private boundary of family in these sets. Therefore, the positive works of yard recreation in increasing the residents' satisfaction can be stated as follow:

**Table 1.** Positive works of yard recreation in increasing the residents' satisfaction.

<table>
<thead>
<tr>
<th>Positive works of yard recreation in increasing the residents' satisfaction</th>
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<tr>
<td>- Designation of entry hierarchy, development of public spaces to private spaces</td>
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<tr>
<td>- Relationship with nature, supplementary of adequate vision and use from natural scene.</td>
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<tr>
<td>- Supplement of the condition for active and inactive presence in space</td>
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<tr>
<td>- Creating a safety and calm boundary for family welfare.</td>
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<tr>
<td>- Spending free times in a semi-private space around residential buildings</td>
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<tr>
<td>- Creating a social interaction with others.</td>
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<tr>
<td>- Positive mental and psychological effects on residents.</td>
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<tr>
<td>- Adjustment of humanity and buildings density</td>
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<tr>
<td>- Needed body supplement for some activities that is impossible in close levels.</td>
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<td>- Causer factor of a proper continent against external unfavorable condition.</td>
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The results of this study show that the satisfaction promotion methods of high-rise housing sets is achievable by yard recreation based on three factors of quality, perception and behavior that determined by configuration of three main standards of satisfactory, some factors dependent on architectural and environmental features of any indicator. The present pattern has investigated the satisfaction sense by considering the sum of multiple factors in high-rise housing including maintenance of cultural, physical, social features.

![Figure 7. Determining the dependent factors to satisfactions.](image)

**REFERENCES**