

Evaluating flexibility factors on the quality of belonging to residential complexes

Mohsen kameli^{1*}, Fatemeh Bahirae²

^{1,2} Department of Architecture, Saveh Branch, Islamic Azad University, Saveh, Iran

Received: 04 April 2025
Revised: 14 June 2025
Accepted: 18 June 2025
Available Online: 01 July 2025

Article type: Research Paper
<https://doi.org/10.82394/sbea.2025.1203061>

ABSTRACT

Research Problem:

With the expansion of human societies and the change in human social needs, the necessity of being present in residential spaces and identifying the components that influence the promotion of a sense of belonging to place in order to carry out some human activities has become very important. Behavioral patterns require changes in the environment due to changes in spatial patterns resulting from changes in the social level of the household. Because with changes in the socio-cultural level of the household, the way of communicating with those around them, spatial needs, spatial composition, the presence of new people in the household and the spatial needs corresponding to it, the type of belonging to place in individuals will change over time. On the other hand, one of the missions of designers and architects is to create a harmonious relationship between humans and the body around them. To achieve this goal, space creators must have a correct understanding of human behavior in different environments, in a way that strengthens the bond between humans and place. It can be said that physical design is an attempt to objectify the thoughts, values, and spiritual treasures of society, so that it can use knowledge and technology to build an efficient, dynamic, adaptable, responsive, and sustainable environment. Housing is also a part of the human built environment that includes the relationships between people and people, people and things, and things and things. The rapid progress of construction technology and new materials has brought about tremendous changes in the world of architecture and has allowed the realization of imaginations and mentalities. As the world changes, the needs and desires of humans from their surroundings change. In the field of construction, which is often designed in a fixed and static manner, it is almost impossible to adapt changing needs to fixed conditions and facilities. To solve this problem, in recent decades, a new phenomenon called flexibility has entered the field of architecture and urban planning, in which space must be designed in a way that is appropriate to the needs and meets the changing mental and physical demands of individuals and provides peace and comfort to users. It is recommended that designers and planners pay more attention to the quality of spaces and built environments and try to recognize and improve these qualities in response to human expectations and

needs, identify the meanings of the built environment, and the importance of a sense of place for residents.

Research Question:

The main question of this research is to examine and analyze the qualitative components that constitute medium-density residential spaces in Tehran, extract the qualitative components of physical, activity, and perceptual flexibility, and evaluate them at the scale of the residential complex, as well as the manner and extent of the impact of physical form components in creating a sense of attachment to the place and subsequently improving the quality of residential spaces.

Research Method:

The research method of the research is applied in terms of purpose and descriptive-analytical method based on survey. Considering the number of the statistical population, the sample size was evaluated as 50 and the present study sought to determine the relationship between independent and dependent variables, therefore the regression method was used. Then, the flexibility characteristics of the physical form of residential spaces were evaluated as an independent variable and the sense of attachment as a dependent variable. By considering the factor loading of each measure and the amount of latent error, the position of each of the constructed variables in the theoretical model is determined. Flexibility as a factor controlling the physical characteristics of the space causes a match between the mentality of each user and the existing objectivity of the space and, in a process, creates the user's satisfaction and attachment to the environment as his or her personalized territory. If this satisfaction and attachment continues, it will create a sense of place and belonging to the place in users. For this purpose, questionnaires were administered to a sample of 50 people, 29 of whom were women (58%), 21 of whom were men (42%), 33 of whom were married (66%) and 17 of whom were single (34%).

The Most Important Results and Conclusion:

The results of this study show that flexibility as a factor controlling the physical characteristics of space causes adaptation between the subjectivity of each user and the existing objectivity of the space and, in a process, creates satisfaction and attachment of the user with the environment as his or her personalized territory. If this satisfaction and attachment continues, it will create a sense of place and belonging to the place in users. Based on the correlation matrix information, all the relationships between the components of flexibility and belonging have become significant, except for the relationship between versatility with the functional/activity, emotional/perceptual, and belonging variables, which have not become significant. The results showed that the average response to the emotional/perceptual components of belongingness had the highest score with a value of 52.12. After the emotional/perceptual components, with a slight difference, this average was obtained in the formal/physical components of 46.24, which indicates the importance of these two components; but this value was obtained in the functional/activity components of belongingness and the variability components of flexibility, respectively, equal to 28.34.

and 33.96, which indicates the low importance of these components in the impact of flexibility on belongingness.

KEYWORDS

Sense of Belonging, Physical Form, Residential Complex, Flexibility
