



Analysis of the Impact of Spatial Territory Components on Residents Satisfaction with an Emphasis on Physical Factors in Residential Complexes (Case Study: Mehr Housing and Iran-Zamin Complexes in Arak City)

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Abstract

The concept of spatial territory plays a crucial role in shaping residents' satisfaction, influencing their values, attitudes, and more specifically their individual and social behaviours within residential environments. Therefore, examining this concept in the context of residential complexes is of particular importance. The aim of this study is to identify the magnitude of the impact of spatial territory components on residents' satisfaction, with a specific focus on the role of physical factors in enhancing the quality of the living environment. The research method of this study is quantitative and correlational. In this regard, the analysis of the views of experts was used to produce the theoretical framework of the project. The statistical population in this study is consisted of residents from the Maskan Mehr and Iran-Zamin residential complexes in Arak city that their numbers were estimated approximately 200 households and the statistical method for data was also based on content analysis and using purposive sampling which was constructed through variables related to spatial territory that contribute to residential satisfaction. The research findings show that spatial territory factors exert a significant influence on residents' satisfaction in residential complexes. Results indicate a positive and statistically significant correlation between all spatial territory components in residential complexes and physical factors. The correlation coefficient between environmental component and physical factors was 0.459 ($p < 0.05$). Then increasing in environmental component in residential complexes has been effective in increasing the physical factors of the respondents and conversely decreasing the environmental factor in complex will reduce physical factors of the respondents. Similarly, the correlation coefficients for semantic, contextual, cultural, and behavioural-activity components with physical factors were 0.418, 0.239, 0.238, and 0.357, respectively (all $p < 0.01$). These results confirm that increases in any of these factors in spatial territory in residential complexes while the variable amount of physical factors will increase, and with a decrease in each of these influencing factors, the variable amount of physical factors will increase and while with the reduction in any of these influencing factors, the variable amount of physical factors will decrease. .

Keywords: Spatial Territory; Residential Complexes; Residents Satisfaction; Social Territory; Physical Factors

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Extended Abstract

Introduction

The rapid trend of urbanization and the expansion of mass housing settlements in recent decades have caused the quality of residential environments to attract greater attention from policymakers, urban designers, and researchers. In this regard, satisfaction with the living environment, as a qualitative and multidimensional indicator, plays a significant role in enhancing the quality of urban life (Francescato et al., 2018). This satisfaction is not only dependent on the physical attributes of residential areas but is also influenced by the mental and social dimensions of space, such as *spatial territory*—a concept referring to individuals' sense of belonging, security, control, and both psychological and physical ownership of space (Anbari et al., 2016). The significance of this research lies in its effort to define the relationship between the mental and physical dimensions of space, offering practical strategies to improve the quality of residential environments, increase residents' sense of satisfaction and belonging, and enhance urban design. The results, apart from enriching the theoretical field of housing planning and design, can serve as a foundation for future housing policy-making and the design of sustainable, human-centered residential complexes. The aim of this study is to analyze the extent to which various components of spatial territory affect resident satisfaction, focusing on physical variables. The research method is quantitative and correlational, and data have been collected through structured questionnaires and content analysis of theoretical views. Statistical analysis of the relationships between spatial territory components and physical factors was carried out to identify the most influential indices.

Data and Method

This research is quantitative and correlational in nature. At first, in this research by analyzing and reviewing expert and academic perspectives, an appropriate theoretical framework for the study was collected. The statistical population comprises residents of the Maskan Mehr and Iran-Zamin residential complexes in the city of Arak, estimated at around 200 households. To determine the sample size, Cochran's formula for unknown samples was applied. The main research variables include spatial territory and resident satisfaction and the impact of factors influencing spatial territory on satisfaction of residents within these complexes was examined. Finally, 120 households were selected using a convenience



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sampling method. Each question in the questionnaire was scored on a five-point Likert scale, ranging from “very high” to “very low.” To ensure instrument validity, the face validity of the questionnaire was approved by experts and its reliability was calculated using Cronbach’s alpha, yielding values of 0.9 for spatial territory and 0.77 for satisfaction. The collected data were entered into SPSS software for analysis and interpretation to examine the relationships between the variables.

Results and Discussion

Examining the overall relationship between spatial territory and satisfaction with residential complexes leads to the conclusion that there is a direct and significant relationship between the two. Given that each of these components is an interval variable, so the Pearson correlation coefficient was applied for testing. The correlation coefficient between spatial territory and satisfaction in residential complexes is 0.525. This means that as the spatial territory variable increases, satisfaction with residential complexes rises, and when it decreases, satisfaction diminishes accordingly. After reviewing the demographic variables of the study, the relationships between the components (variables) of spatial territory and satisfaction factors in the Maskan Mehr and Iran-Zamin residential complexes in Arak were examined using Pearson’s correlation test. As shown in Table (3), the Pearson test output indicates that all components affecting spatial territory in residential complexes have a significant positive relationship with the physical component of satisfaction. Furthermore, the environmental-physical component of spatial territory has the highest correlation and significance level with the social factors’ component of satisfaction. But the contextual and cultural components of spatial territory have the lowest correlation and significance level with the social factors’ component of satisfaction.

Conclusion

The findings indicate a direct and significant correlation (0.525) between spatial territory and satisfaction, as well as relationships between the factors influencing both variables. The greatest correlation is between the environmental-physical component of spatial territory and the social factors component of satisfaction, while the least correlation and significance are between the contextual and cultural components of spatial territory and the social component of satisfaction. Among the subcomponents, all those affecting spatial territory in residential complexes have a positive and significant relationship with physical factors. The correlation coefficient between the environmental component and physical factors is 0.459, with a significance level of less than 0.05. Thus, increasing the environmental component in residential complexes positively influences respondents’ physical factors, and conversely, decreasing it reduces them. The correlation coefficient between the semantic component and physical factors is 0.418; between the contextual component and physical factors, 0.239; between the cultural component and physical factors, 0.238; and between the activity–behavioral component and physical factors, 0.357, with all significance levels below 0.01. This means that increasing each factor influencing spatial territory in residential complexes leads to an increase in the physical factors’ variable, and decreasing them lowers the same. Influential factors on spatial territory in residential complexes environmental-physical, semantic, contextual, cultural, and activity behavioral are predictors of respondents’ satisfaction. A significant linear relationship exists between environmental-physical, activity–behavioral, and semantic components and satisfaction.



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Ultimately, if the environmental-physical, semantic, and activity-behavioral components are considered in the spatial territory design of residential complexes, resident satisfaction will be enhanced.

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