Citizens’ Perception on Urban Responsive Environments and its Role in Place Attachment (Case Study: City of Arak)

Rana Shaykh-Baygloo¹
Assistant Professor of Geography and Urban Planning, Shiraz University, Shiraz, Iran

Received: 23 July 2016 Accepted: 21 June 2017

Extended Abstract

1. Introduction

Cities are vast arenas for the concentration of population and activities, and human health has an inseparable connection with the conditions and quality of urban environments. The quality of urban environment is an important factor in the way of providing health and life satisfaction. The dynamics, vitality and attractiveness of urban environments have a great influence on the creation of sensory richness and place attachment. Environment and place attachment meanwhile create the feeling of pride, effectively increase the social responsibility and people participation in the affairs of their quarter and city. The experience of executing urban plans in Iran has not shown any success in creating high quality urban environments. Regarding the importance of the quality of urban and residential environments in creating place attachment, recognition of difficulties and insufficiencies of these areas is essential. Studying the factors creating and reinforcing place attachment is a critical issue in the way of creating sustainable urban environments and quarters; in this respect, Bentley, Alcock, Murrain, McGlynn, and Smith (1985), clarifying principles and attributes of responsive environments including permeability, variety, legibility, robustness, visual appropriateness, richness, and personalization, have introduced a step by step process to achieve urban environment qualities. The present study, while explaining the characteristics of the responsive environments, has investigated the role of the indicators and components of the responsive environments- which are mainly related to the physical environment- in creating sensory richness and place attachment of citizens living in Arak.

2. Methodology

This study is analytic and applied research that investigates the effect of responsive environment indicators on place attachment. The needed data have been collected through library studies, interviews, and a questionnaire. The geographical area of the study is Arak city. Based on the population and housing census in 2011, the population of Arak was 484212. The statistical population of the study is citizens living in Arak, but to reach the reliable results, citizens over 18 were considered as the basis for the study. Sample size was determined using Cochran formula with error level of 5% that is equal to 384. The studied indicators in this paper are the same as responsive environment indicators including permeability, variety, legibility, robustness, visual appropriateness, richness, and personalization. The indicator of sensory richness was named as place attachment because of its implicit meaning. Each of the mentioned indicators was introduced by some related criteria; then, the effect of six indicators namely permeability, variety, legibility, robustness, visual appropriateness, richness, and personalization was analyzed on the indicator of sensory richness, namely, place attachment. The needed data was collected through library studies, interviews, and a questionnaire. The reliability of questionnaire was tested using Cronbach’s alpha coefficient ($\alpha=0.89$). The level of desirability of indicators of

¹. Corresponding author. E-mail: r_shaykh@shirazu.ac.ir
responsive environments from the viewpoint of citizens was also assessed using one-sample T test. Then, the correlation coefficient of the indices of responsive environments was calculated and finally, regression analysis of place attachment index (sensory richness) and other indices of responsive environments was carried out.

3. Results

The present study investigated the responsive environment indicators in Arak city. For this purpose, a questionnaire with Likert scale was prepared. After collecting the needed data, one-sample t-test was carried out. The numerical mean of indicators showed that convenient accessibility of house from different ways (Mean=3.80), existence of various services and facilities in quarter and city (Mean=3.48), unique features of streets for routing guide (Mean=3.16), potential of home interior spaces for performing various alternatives of furniture design (Mean=3.11), tendency to change the residential space scene according to individual desire (Mean=4.05), and tendency to continue living in this quarter (Mean=3.10), have the highest average number respectively; none of the criteria related to visual appropriateness had a mean value higher than test mean value.

To explain the relationships between each pair of indicators, Pearson correlation was calculated. Except for the correlation of personalization with variety, visual appropriateness, and richness, all correlations were significant. The maximum correlation belonged to the pairs of richness and visual appropriateness ($r=0.614$), and richness and robustness ($r=0.465$), and the minimum correlation belonged to personalization and robustness ($r=0.120$).

In the regression analysis of indicators, the indicator of sensory richness (place attachment) was assumed as the dependent variable, and other six indicators as independent variables. Based on adjusted $R$ square, 53.2% of the changes of place attachment is explained through linear combination of independent variables. The indicators of visual appropriateness and robustness had the maximum effect on place attachment whose influence coefficients are 0.453 and 0.192, respectively. The effect of the indicator of personalization was not meaningful.

4. Conclusion

The results of this study showed that the indices of responsive environments have a significant effect on place attachment. Regarding the objective and physical nature of the mentioned indicators, it is suggested that the effect of other indicators especially social criteria on creating place attachment in urban environments be studied in future studies.

Key words: Arak city, Place attachment, Responsive environments, Urban environment quality, Urbanity

References (in Persian)


References (in English)


**How to cite this article:**


**ISSN:** 2538-3531