



Islamic Azad University-Ahar Branch  
Geographic Space  
An Approved Scientific, Research-based  
Quarterly

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## **Analysis of Urban Historic Core Transformation by Applying Space Syntax Theory (1907- 2007)**

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### **Abstract:**

In this article, transformation of urban historic core was attended according to spatial parameters. Main question of this research was how physical changes can effect on spatial structure of a Sabzevar city? Physical- spatial structure is one of the parameters that can be considered as an indicator in urban transformation. This article aims to describe physical-spatial structure transformation of Sabzevar city from 1907 to 2007. Methodology of this article is quantitative-comparative and is based on the space syntax theory and spatial measurements such as integration value, mean depth, control and connectivity in each period. in 1907, analysis indicated that, in historic core, parameters

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as mean integration was 0.4946, while mean depth was 18.6059, the connectivity 2.1661 and control was 0.9983. According to these, Sabzevar city is consistent with the hierarchy and solidarity structure and bazaar is the most integrated city space (0.7433). In this period bazaar had a major role in the development and transformation of the city. But at the present time, destroyed bazaar and construction of various streets in addition to the physical separation in space and the whole city has created historical context with caused isolation of historic core. Analysis indicates that parameters such as mean integration were 0.8715, mean depth was 12.5638, the connectivity being 2.3759 and control to be 1.0239. The highest integrated space is Beihagh street with integration value of (1.216).

**Keywords:** Physical- Spatial Structure, Space Syntax Theory, Spatial Parameters.