

The Physical Representation of Memory and Place Attachment in the Historic Neighborhoods of Hamedan: An Analytical-Field Study to Identify Identity-Forming Components

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Detailed abstract

Introduction

Neighborhoods are among the most fundamental components of urban structure and function as micro-social institutions where individual experiences, collective memories, cultural practices, and physical environments interact. In historic Iranian cities, neighborhoods have traditionally played a significant role in shaping social identity and establishing emotional relationships between residents and their living environments. Unlike contemporary residential developments, historic neighborhoods are not merely physical settings; they represent accumulated experiences, shared memories, cultural meanings, and social interactions that contribute to the formation of place identity.

The concept of place attachment refers to the emotional, cognitive, and behavioral relationship between individuals and their surrounding environment. This relationship emerges through continuous interaction between people and places and is influenced by physical characteristics, social relationships, cultural values, personal experiences, and the passage of time. A place becomes meaningful when residents develop memories, recognize its identity, participate in its activities, and perceive it as part of their personal and collective life experiences.

The physical design of neighborhoods plays a significant role in creating and strengthening place attachment. Elements such as street patterns, spatial organization, accessibility, public spaces, visual qualities, material characteristics, and environmental conditions influence how residents perceive and experience their neighborhoods. Physical characteristics can support social interaction, facilitate daily activities, preserve collective memories, and reinforce the identity of a place.

Historic neighborhoods of Iranian cities contain valuable physical and cultural structures that reflect the relationship between human life and built environments. However, rapid urban transformations, uncontrolled development, and changes in traditional urban patterns have resulted in the decline of many identity-forming elements. Therefore, understanding the relationship between physical characteristics and residents' sense of belonging is essential for developing appropriate conservation and regeneration strategies.

This research investigates the relationship between physical design characteristics and place attachment in the historic neighborhoods of Hamedan. The study aims to identify the physical and environmental

components that contribute to the formation of local identity and to examine how neighborhood design influences residents' emotional connections with their living environment. The main research questions are: How do physical elements of historic neighborhoods affect residents' sense of place attachment? Which physical components have a significant relationship with the formation of neighborhood identity?

Materials and Methods

This research employed a mixed-method approach combining theoretical analysis, field observation, and quantitative assessment. The study was conducted through a case-study strategy focusing on two historic neighborhoods of Hamedan: **Kolpa** and **Kababi**. These neighborhoods were selected because they have preserved relatively significant portions of their traditional structure and still maintain important neighborhood elements, including religious buildings, commercial functions, and social spaces.

The theoretical framework of the research was developed through reviewing concepts related to place attachment, neighborhood identity, environmental perception, and physical design. Based on previous studies, place attachment was considered as a multidimensional concept influenced by physical, social, cultural, individual, and temporal factors.

The physical design variables examined in this study included:

- Visual quality and landscape characteristics
- Spatial-functional organization
- Social interactions
- Accessibility patterns
- Quality of neighborhood spaces
- Facilities and amenities

Field data were collected through self-administered questionnaires distributed among residents of the selected neighborhoods. A total of 100 residents participated in the survey, with an equal distribution between Kolpa and Kababian neighborhoods. The questionnaire examined residents' perceptions regarding neighborhood physical characteristics, their relationship with the place, and their level of attachment.

The collected data were analyzed using SPSS software. Descriptive statistics were used to examine demographic characteristics of participants, while the Spearman correlation test was applied to evaluate the relationship between place attachment and physical design variables.

The participants included 54% men and 46% women. Regarding ownership status, 51% were property owners and 49% were tenants. The average age of participants was 37 years, while the average duration

of residence in the neighborhoods was approximately 11 years. These characteristics indicate that participants had sufficient familiarity with their residential environments to evaluate neighborhood qualities and attachment levels.

Findings

The findings demonstrate that physical characteristics of historic neighborhoods have an important relationship with residents' sense of place attachment. The results indicate that neighborhood form, spatial organization, environmental quality, and physical identity contribute significantly to residents' emotional and cognitive connections with their surroundings.

The analysis showed that historic neighborhood structures provide more than functional spaces; they create opportunities for social interaction, collective experiences, and memory formation. Traditional elements such as neighborhood centers, streets, public spaces, religious buildings, and local commercial facilities continue to support social relationships and contribute to residents' perceptions of belonging.

The results of the correlation analysis confirmed a meaningful relationship between place attachment and physical design components. Variables including social interactions, accessibility, facilities, spatial organization, environmental quality, and visual characteristics demonstrated statistically significant relationships with place attachment at the 99% significance level.

The study revealed that residents who had stronger familiarity with their neighborhoods and longer periods of residence generally demonstrated higher levels of attachment. Long-term experience with a place allows individuals to develop memories, recognize environmental meanings, and establish emotional bonds with the physical setting.

The findings also emphasized that neighborhood identity is not produced solely by architectural form. Instead, identity emerges from the interaction between physical structures and human experiences. Physical elements become meaningful when they support daily activities, social communication, cultural practices, and personal memories.

The research findings suggest that the preservation of historic neighborhood structures should not be limited to maintaining old buildings. Instead, conservation strategies should consider the broader spatial patterns, social functions, and environmental qualities that create residents' sense of belonging.

Discussion and Conclusion

The relationship between physical design and place attachment demonstrates that urban environments influence human experiences beyond their functional purposes. Historic neighborhoods represent a combination of physical structures and intangible meanings created through continuous interaction between residents and places. Therefore, successful neighborhood regeneration requires attention to both material and symbolic dimensions of the environment.

The study confirms that physical design is one of the major factors influencing place attachment. Streets, public spaces, spatial organization, accessibility patterns, and neighborhood facilities provide the

framework through which residents experience their environment. When these elements respond to social needs and preserve local identity, they strengthen emotional relationships between people and places.

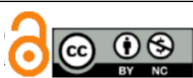
The historic neighborhoods of Hamedan demonstrate how traditional urban patterns can support identity formation. Their spatial organization encourages social interaction, maintains collective memories, and provides residents with a sense of continuity. The presence of meaningful physical elements, such as neighborhood centers and shared spaces, contributes to the development of social cohesion and local identity.

The research findings provide valuable implications for architects, urban designers, and planners. Conservation and regeneration projects in historic neighborhoods should avoid replacing traditional structures with anonymous and disconnected forms. Instead, interventions should respect existing spatial patterns, preserve identity-forming elements, and involve local communities in decision-making processes.

A neighborhood is not only a collection of buildings and streets; it is a living environment shaped by memories, experiences, and relationships. Therefore, future urban design approaches should integrate physical quality with social participation and cultural continuity. By considering the relationship between built form and human attachment, planners can create residential environments that are functional, meaningful, and sustainable.

In conclusion, the physical representation of memory in historic neighborhoods plays a fundamental role in strengthening place attachment. The findings of this study indicate that thoughtful physical design can enhance residents' sense of belonging while preserving cultural identity. The integration of physical conservation, social participation, and identity-sensitive planning can provide effective strategies for revitalizing historic urban neighborhoods.

Keywords: Physical Design; Place Attachment; Historic Neighborhoods; Environmental Factors; Urban Identity; Collective Memory; Neighborhood Design; Hamedan Historic Context



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