
Typology of Traditional Houses in the Historical Districts of Kashan

(A Case Study of the Farshchi House in Panjeh-Shah Neighborhood)

Parnian Gholipour

Master of Architecture, Faculty of Architecture and Art, University of Kashan, Kashan, Iran. Email: parnian24.arch@gmail.com

Hamidreza Farshchi

Assistant Professor, Department of Architecture, Faculty of Architecture and Art, University of Kashan, Kashan, Iran. (Corresponding Author) Email: farshchi46@kashanu.ac.ir

Mahdis Madihian

Bachelor of Architecture, Faculty of Architecture, Islamic Azad University of Kashan, Kashan, Iran. Email: mahdis24.madihian@gmail.com

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Extended Abstract

Introduction

The historical houses of Kashan are among the most valuable examples of Iranian residential architecture in hot-arid climates. They have been developed based on fundamental principles such as introversion, the central courtyard, coherent spatial organization, and adaptation to climatic conditions. In these houses, the courtyard serves not only as a functional open space but also as the organizing core of the dwelling, providing natural daylight, ventilation, privacy, and spatial connectivity among different parts of the building.

Although the historical houses of Kashan have been examined in numerous studies, most have focused on a few well-known residences and many insufficiently documented and analyzed the other valuable yet less-recognized houses. The Farshchi Historical House—located in the historical neighborhood in Panjeh-Shah, Kashan—is one of them. To date, no comprehensive study has investigated the architectural characteristics or position of this house within the typology of Kashan's traditional houses. This study aims not only to document the house but also to reconstruct its original architectural configuration, to analyze its physical and spatial characteristics, and finally to determine its place among the houses in the same period. It addresses the question of whether the Farshchi House follows the conventional single-courtyard typology of Kashan's traditional houses or it exhibits distinctive architectural features that justify its classification as a unique residential type.

Materials and Methods

This study is descriptive–analytical in nature, adopting a historical research approach. The data of this study were collected through the examination of historical sources, an analysis of archival documents and of aerial photographs, field surveys, the preparation of architectural drawings, photography, sketching, and direct observation. Semi-structured interviews were conducted with the property owners, long-term residents, specialists in historic urban fabrics, and other knowledgeable individuals to identify the building's original conditions and to trace its physical transformations.

The interview findings were subsequently cross-checked with documentary and historical evidence to enhance the reliability of the findings.

Following the documentation process and the reconstruction of the original floor plan, the architectural characteristics of the house were analyzed, including its spatial organization, courtyard layout, access pattern, orientation of spaces, the location of the courtyard pond, the ratio of built to open space, massing composition, and the arrangement of the principal spaces. These characteristics were, then, comparatively analyzed against several traditional Qajar-period houses, including the Atarha, Modarresian, Bani-Kazemi, Moghadam, and Mohseni-Arasteh houses, in order to identify both their common features and their distinctive architectural characteristics.

Results

The findings of this study indicated that the Farshchi Historic House preserved the fundamental principles of Kashan's traditional residential architecture while exhibiting distinctive spatial and physical characteristics. The reconstruction of the building's original configuration demonstrated that the house's primary architectural structure, despite alterations caused by the construction of a new street and the destruction of part of the surrounding urban fabric, remains sufficiently intact for analysis and interpretation.

The most distinctive feature of the house is its entrance sequence. Unlike the conventional layout of traditional Kashan houses, the entrance portal is followed by a narrow open-air passage enclosed by high walls, which leads to a vestibule-like transitional space and finally to the central courtyard. While maintaining visual privacy, this arrangement presented an alternative interpretation of the hierarchical spatial sequence characteristic of traditional Iranian houses.

The spatial analysis, furthermore, revealed that the building masses were primarily concentrated along the southern and western sides of the courtyard, whereas the northern side lacked a major building mass. This contrasted with the typical layout of contemporary Kashan houses, where buildings usually occupy three or four sides of the courtyard. As a result, the Farshchi House contains a larger proportion of open space, creating a distinct spatial character. In addition, unlike the conventional arrangement, the courtyard pool is positioned near the southern side rather than at the geometric center of the courtyard, establishing new functional relationships among the surrounding spaces.

The geometric analysis of the plan also showed that, in addition to the principal longitudinal axis, the house incorporates two independent transverse axes. This configuration creates a distinctive composition of open and enclosed spaces, producing a layout comparable to a "cane-shaped" plan, a feature not identified in the comparative case studies. Furthermore, the analysis of the ratio of built area to open space indicated that the proportion of open space, unlike most historic houses in Kashan, exceeded that of the built area. This characteristic enhances daylight penetration, natural ventilation, environmental quality, and the overall spatial legibility of the house.

Conclusion

The findings of this study indicate that the Farshchi Historic House follows the fundamental principles of Kashan's introverted residential architecture, although its spatial organization, massing composition, arrangement of geometric axes, placement

of the central pool, and the proportion of open to built spaces distinguish it from the conventional pattern of late Qajar single-courtyard houses. These findings suggest that the typological classification of Kashan's historical houses should not rely solely on the number of courtyards or the general spatial configuration. Instead, a greater emphasis should be placed on the criteria such as geometric order, spatial hierarchy, massing arrangement, the ratio of solid to void, and the functional relationships among architectural components.

The principal contribution of this research lies in documenting and introducing one of Kashan's less-known historical houses, reconstructing its original configuration based on field evidence and historical documents and clarifying its typological characteristics through a comparative analysis with contemporary houses of the same period. Beyond enriching the existing knowledge of Kashan's traditional residential architecture, the findings provide a valuable foundation for the conservation, restoration, and adaptive reuse of historic houses, while offering a methodological framework for similar studies in other historical cities across Iran.

Keywords: traditional houses, central courtyard, proportions, Panj-e Shah neighborhood, Kashan