

Construction Techniques and Conservation Issues in Traditional Elmalı Houses: A Case Study From İplik Pazarı Neighborhood



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ABSTRACT

Antalya's Elmalı district constitutes a significant cultural landscape characterized by the continuity of settlement since the Neolithic period and by vernacular construction traditions based on the combined use of stone, earthen (adobe), and timber systems. The central neighborhoods of Elmalı preserve numerous examples of traditional residential architecture dating to the Ottoman and Early Republican periods.

This study aims to investigate the transformation of construction techniques and related conservation issues within the traditional residential fabric of Elmalı through a selected case study located in the İplik Pazarı neighborhood. The dwelling situated on block 187, parcel 26 was examined through in-situ observation, architectural documentation, and typological analysis, focusing on spatial organization, structural system, material composition, and state of deterioration.

The findings reveal that the building employs a hybrid structural system combining load-bearing adobe masonry and timber-frame construction with adobe infill (hımış). While this system demonstrates the adaptability and efficiency of earthen materials, the building has undergone significant spatial and physical transformations due to user interventions. The subdivision of floors into independent units and inappropriate repairs have negatively affected the building's authenticity. The study also highlights the transition from outer hall (dış sofalı) to inner hall (karnıyarık) plan typologies and identifies key conservation challenges related to material decay and user-induced alterations. It provides a scientific basis for documentation, interpretation, and sustainable conservation strategies for earthen architectural heritage.

KEY WORDS: Elmalı, earthen architecture, vernacular housing, adobe construction, Conservation.