

Seismic Vulnerability and Conservation of Rural Earthen Architecture: The Case of Zeynep Böyük House in Düğer Village, Burdur



MSc. Architect Sezen Özkan Çetin¹ (Speaker)

¹Antalya Muratpaşa Municipality, Antalya, Turkey
sezzen.ozkan@gmail.com



Prof. Dr. Ayşe Esin Kuleli²

² Antalya Bilim University, Faculty of Fine Arts and Architecture,
Department of Architecture, Antalya, Turkey. esin.kuleli@antalya.edu.tr

ABSTRACT

Traditional earthen buildings in rural settlements represent an important part of architectural heritage, reflecting local construction knowledge, environmental adaptation, and cultural continuity. However, many rural earthen structures in Türkiye are increasingly threatened by neglect, material deterioration, changing living conditions, and seismic risk.

This study focuses on the documentation and conservation of the Zeynep Böyük House, a traditional earthen dwelling located in Düğer Village, Burdur. The building represents a distinctive example of rural earthen architecture shaped by local materials and traditional construction techniques. The methodology includes architectural survey, on-site observation, photographic documentation, and material and damage analyses. The findings revealed structural deterioration considered to be associated with the 1971 Burdur Earthquake. Material loss in earthen plasters, moisture-related deterioration, surface cracks, and localized structural deformations were identified. In addition, incompatible later interventions were found to negatively affect the building's integrity and authenticity.

The study emphasizes the urgent need to preserve rural earthen architecture, which embodies local construction knowledge, cultural continuity, and environmental adaptation. In this context, the findings advocate a holistic conservation approach aimed at sustaining the authenticity, resilience, and long-term continuity of vulnerable earthen heritage in rural settlements.

KEYWORDS: Earthen Architecture, Rural Architectural Heritage, Seismic Vulnerability, Architectural Conservation, Traditional Construction Techniques.