

Evaluation of Rammed Earth Construction in the Acıpayam Canyon Visitor Reception Building



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ABSTRACT

The Acıpayam Canyon Visitor Reception Building, located at the entrance to Acıpayam Canyon in the Acıpayam district of Denizli, Türkiye, was designed to organize visitor access and accommodate security and ticketing functions and was opened to the public in May 2022. Designed and constructed under the direction of Erkan Alışan, the building employs rammed earth construction, a technique based on the use of natural and locally sourced materials. Ten columns, forming part of the building's structural system, define the main axis, while four additional columns delineate the circulation axis directing visitors toward the canyon entrance. The security and ticketing units, each with an approximate usable floor area of 16 m², are symmetrically positioned on either side of this axis, and their walls were constructed using the rammed earth technique.

This study aims to examine the application of rammed earth construction in a contemporary architectural project through the case of the Acıpayam Canyon Visitor Reception Building. Within this scope, the relationship between the construction system and the climatic conditions of the region, the decisions concerning materials and construction techniques, the stages of implementation, and the challenges encountered during the on-site construction process are evaluated. By documenting the experience gained throughout the process from design to construction, the study seeks to discuss the practical opportunities and limitations of rammed earth construction. Furthermore, it aims to contribute to the documentation of contemporary rammed earth applications in Türkiye and to provide a practice-oriented reference for the construction processes of similar future projects.

Keywords: Rammed Earth, Earthen Construction, Sustainable Architecture, Lime Stabilization, Local Materials, Natural Building, Hybrid Structural System.