

Ksar Aït Ben Haddou, Morocco: Traditional Earthen Architecture in the Context of Sustainability



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Located in southern Morocco and inscribed on the UNESCO World Heritage List, Ksar Aït Ben Haddou represents a significant example of traditional earthen architecture shaped by the interaction of local materials, climatic conditions, traditional craftsmanship, and social practices. Its architectural character is examined through adobe and rammed earth (pisé) construction techniques, timber floor and roof systems, defensive walls and towers, and the compact settlement pattern. The adaptation of earth- and timber-based construction systems to hot and arid climatic conditions, together with the use of local resources and relatively low energy requirements, highlights the settlement's relevance to contemporary discussions on sustainable architecture. At the same time, major conservation challenges, including water-related deterioration, surface erosion, lack of maintenance, abandonment, and the use of incompatible modern materials, threaten the continuity of this architectural heritage. The conservation of Aït Ben Haddou therefore requires not only the preservation of its historic fabric and original building materials, but also the continuation of traditional knowledge associated with the production, application, repair, and maintenance of earthen construction. From this perspective, Aït Ben Haddou can be regarded as an important example demonstrating how traditional building culture and vernacular knowledge can contribute to contemporary approaches to sustainable architecture and cultural heritage management.

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