

Great Mosque of Djenné

DJENNÉ, MALI

Constructed by the community in 1906 on the remains of a pre-existing mosque, the Great Mosque of Djenné is the largest historical mud mosque in the sub-Saharan region and is considered by many to be the greatest achievement of the Sudano-Sahelian architectural style. It is located in the centre of Djenné alongside the marketplace, making it the city's focal social point. In 1988 the site was included in UNESCO's World Heritage List, together with the entire Old City.

Djenné is a small town of 13,000 inhabitants, located away from the main streams of development of Mali. The main income sources on which the local community is dependent are limited to the weekly marketplace and foreign tourism. While urban life is divided by neighbourhoods, the local community leaders play a major role in the city's decisions. The city has no proper sanitation system and waste waters flow in the middle of the tiny streets before reaching the Bani River, causing major environmental hazards. Solid waste is being accumulated on the shores of the river, forming a fill on top of which the poorest segment of the population has settled.

The Mosque has been preserved till now thanks to the yearly community effort of maintenance coordinated by the *barey-ton*, the local corporation of traditional masons, holding technical capacities in earthen architecture but also considered to have magical powers.

In spite of its yearly maintenance campaigns, the Mosque was in poor condition in terms of structural load-bearing walls and the roof. Based on a full documentation via topographic and architectural surveys, a damage assessment was drafted. The project scope was to guarantee the stability of the building by consolidating the carpentry and wall-bearing system. The Mosque interior was also subject to full conservation including rehabilitation of the Mosque's interior and exterior surfaces, eviction of the bats, and replacement of the defective sound, ventilation and lighting installations.

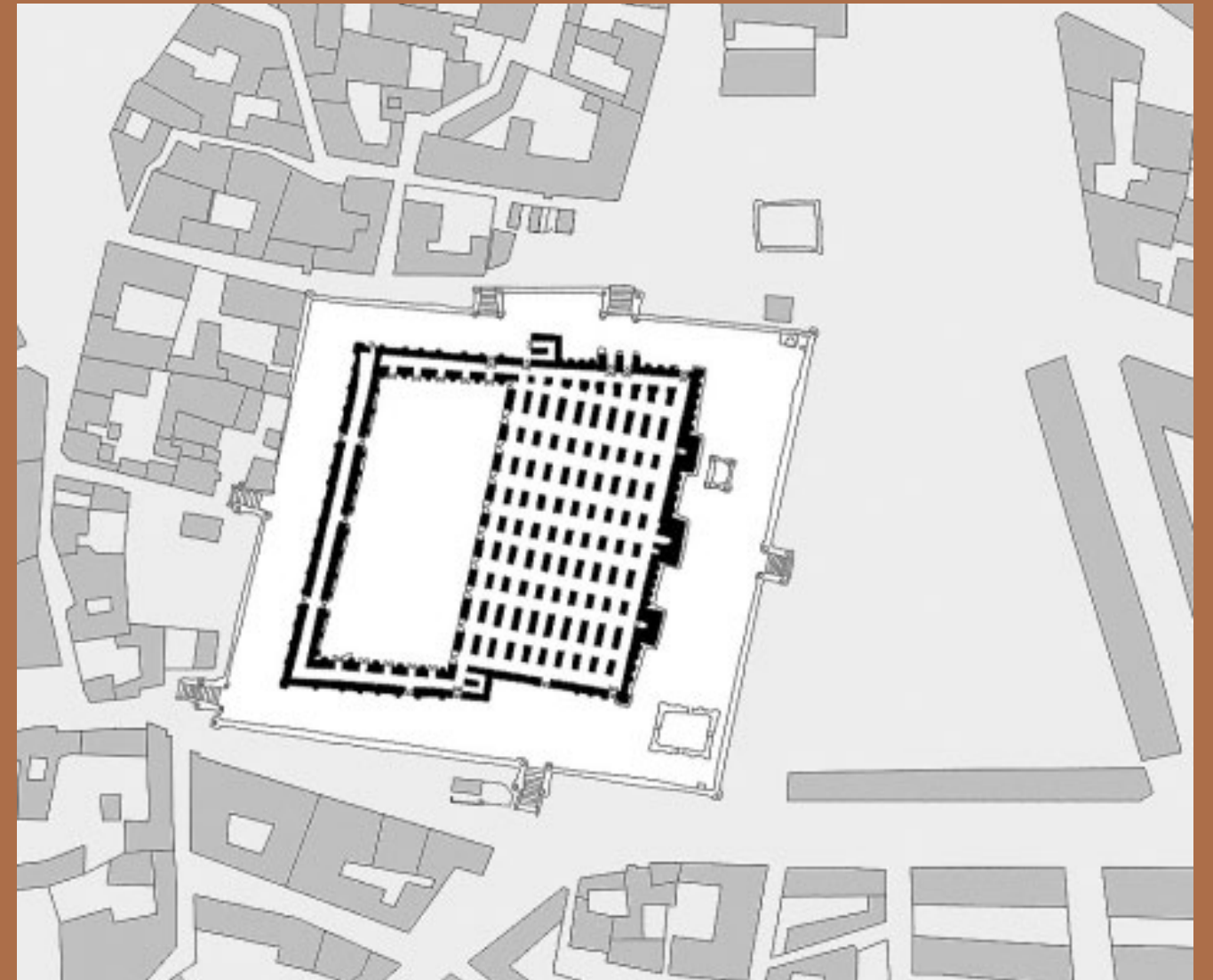
Due to a lack of qualified contractors for monument conservation in Djenné, the work was entirely in-house managed. This also enabled direct quality control, flexibility in resource allocation and on-the-job training in conservation methods to more than 120 community masons.



People are gathered for market day in Djenné with the Mosque in the background.

Opposite page:

A view of the facade with an area for making *banco* to reface the Mosque in front of it.

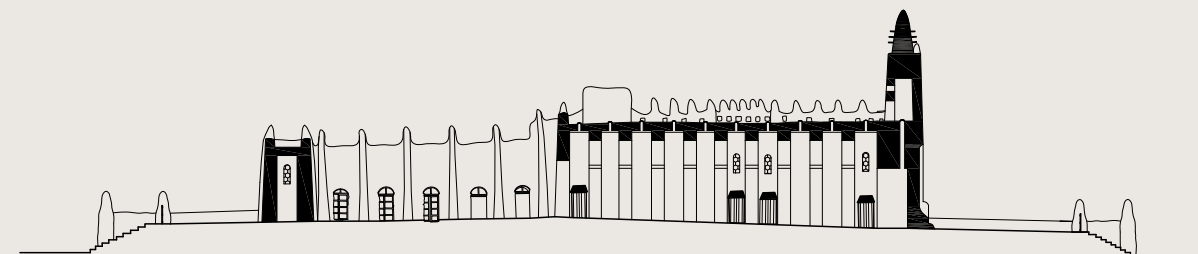


N
25 m

Project Scope/Objectives

This conservation project guaranteed Djenné Mosque's stability by consolidating carpentry and the wall-bearing system. The Mosque's interior and exterior surfaces were rehabilitated, and sound, ventilation and lighting systems installed.





Above, the north-south section of the Great Mosque in Djenné showing the main prayer hall and the courtyard.



Below: the west elevation of the Mosque.

Opposite page:
Minarets feature on this part of the east facade of the Great Mosque in Djenné, before restoration.

10 m

Background

BRIEF HISTORY OF PROJECT SITE

Djenné is a small town (13,000 inhabitants), remote from the main stream of development in Mali but well-known for the number of its *madrasas*, where young pupils receive a basic education grounded in Qur'anic reading. The main income sources are limited to the weekly marketplace and foreign tourism. Built by the community in 1906 on the remains of a pre-existing mosque, the Djenné Mosque is the largest historical mud-brick mosque in the sub-Saharan region. Its symmetrical layout and arches reflect European influence. The Mosque has been preserved thanks to the yearly community maintenance effort coordinated by the *barey-ton*. This local corporation of traditional masons have technical abilities but are also believed to possess magical powers. In 1988, the site was included in UNESCO's World Heritage List, together with the entire Old City.

Challenges

PROJECT RISKS

Urban life is divided by neighbourhoods, with local community leaders playing a major role in the town's decisions. Located in the heart of the town, the Mosque is a focal point, making its conservation a highly sensitive issue to Djenné residents.

INFRASTRUCTURE

Djenné lacks a proper sanitation system. Waste waters flow through its narrow streets before reaching the Bani River.

BUILDING CONDITIONS

The Mosque suffered from the weakened structure of the wall-bearing system; water ingress in the roofing due to defective slopes and accumulation of earth fill; and accumulation of earth plaster on walls, hiding architecture and filling windows and doors.

Significant Issues and Impact

DATA COLLECTION/SURVEYS

The AKTC project performed the first topographic and architectural surveys of the Mosque in 2008. Documentation of the work in progress is compiled on a regular basis and a set of as-built drawings is being prepared.

HISTORIC BUILDINGS/MONUMENTS CONSERVED

Conservation of the historic Mosque was the main objective of the AKTC project. Its interior area of 1400 m², as well as 800 m² of courtyard spaces was fully restored.

COMMUNITY INVOLVEMENT/PROGRAMME

The community and its leaders played an important role in the decision-making process of the conservation through regular information and discussion sessions.

VOCATIONAL TRAINING/CAPACITY BUILDING

Some 120 community masons and labourers were trained in earthen conservation methods. Literacy classes were offered to members of the implementation crew and foremen were trained in basic computer skills.

CONTRACTING METHODS

Due to a lack of qualified contractors for monument conservation in Mali, the work was entirely in-house managed. This enabled on-the-job training, direct quality control and flexible use of local resources.

NEW TECHNOLOGIES INTRODUCED

New sound, electrical and ventilation systems were installed in the Mosque's interior.

RELEVANT CODES/STANDARDS ADOPTED

Although there are currently no building codes applicable to earthen architecture, the project is in line with conservation principles drawn up by ICOMOS and calls on the best practice of earth architecture specialists.

Partners

PUBLIC PARTNERS

Ministry of Culture, Republic of Mali.

COMMUNITY PARTNERS

Comité de gestion de Djenné.

Authoritative Framework

'Memorandum of Understanding' signed in 2004 between AKTC and the Ministry of Culture, providing the framework for an Earthen Architecture Programme in Mali.