## POLISH-EGYPTIAN MISSION FOR ISLAMIC ARCHITECTURE IN CAIRO: AMIR KEBIR QURQUMAS PROJECT SEASON 1992-93

## Jarosław Dobrowolski

The mission organized jointly by the Egyptian Antiquities Organization and the Polish Centre of Archaeology worked from 1 December 1992 to 30 June 1993. This season was the first after the PKZ company withdrew from the project and the Polish Centre took full responsibility on the Polish side. All the restoration work was done by the mission and the EAO staff directly, with no contractors involved.

The main task was to install a new and independent roofing over the badly damaged original ceiling in the western *liwan* of the *madrasa* of Amir Kebir Qurqumas. The decorated panels of the original ceiling have been taken down for future conservation. The new roof was introduced over the entire western part of the *madrasa*, including passages in the outer walls. It rests on a grid of welded steel beams which is designed to compensate for the thermal movements of the structure. Special care has been taken to ensure proper water disposal. The space between the

The mission comprised: Mr. Jarosław Dobrowolski (head of the mission), Mr. Błażej Małczyński, architects, Messrs Rafał Wiśniewski and Paweł Jackowski, restorers, Dr. Tomasz Scholl, archaeologist, and Mr. Henryk Hamulec. The EAO was represented by Mrs. Merwet Saad Badawy, Chief Inspector, and Mr. Hisham Abdel-Latif, Inspector. Special thanks are due Mr. Medhat El-Mennabawy, Director General of the Foreign Missions Department in the Islamic and Coptic Section of EAO, for his deep personal involvement which was essential to the mission's success.

roof and the old ceiling is ventilated and accessible for inspection. Construction work ended in May 1993.

Eroded stones were replaced in the eastern wall of the ground storey of the *qasr* of Amir Qurqumas, including the lower parts of three *mihrabs* decorated with corner columns. Eroded blocks were also replaced in a staircase between the *madrasa* and the western courtyard.

Excavations were continued east of the qasr, tomb and *madrasa*, with Dr. Tomasz Scholl in charge of the work.<sup>2</sup>

Cracks were discovered in the vaults, arches and pillars of the arcade forming the ground storey of the *qasr*. In one of the pillars the cracks demonstrated a tendency to open up. The structure's already disturbed equilibrium was further aggravated by the earthquake of 1992. The whole building requires comprehensive treatment. The endangered pillar has been braced provisionally with five steel rings of C-beams and threaded rods.

The mission's arrival in Cairo coincided with the strong earth quake of October 12, 1992. The Polish Centre offered help in coping with the aftermath and was assigned to assess the damage done to the area of the Eastern Cemetery. A report on the state of over thirty monuments in the area and suggested protective measures, prepared by Agnieszka Dobrowolska and Jarosław Dobrowolski, was presented to the EAO on October 26, 1992.

The report found the direct damage in most cases to be minor. However, earlier damage to the structure of many of the monuments was dangerously aggravated by seismic shock. Gypsum control seals, which were placed over cracks in endangered

<sup>&</sup>lt;sup>2</sup> The results of the excavations are presented in a separate report on pages 52-54 in this volume.

MOSQUE+TOMB OF SULT. AL ASIRAF E  northern wall: under weatern window  inalae the entrance veattern window  wall in front of the entrance in t
MADRASA + TOMB OF SULTAN QAITBAY  24   western will iven night form sidiling. 25   as 24   western will over the linter  26   same as 25   crack left of the linter  27   same, under the window  28   mausol. SITT NANDA: springing of the southern corner pillar  29   same, on the arch  30   mausol. SITT NANDA: northern wall of hosh the base of the madrasa, crack at the base of the madrasa, crack at the base of the madraset  32   same, near the crenellation under northern window
SABIL SULT. QAITBAY  acuthern wall: crack on the left adde  anne, crack left of the lintel  anne, on the lintel  - mark intact  X- mark broken, file a report

Fig. 1. Monitoring Sheet used in the Earthquake Damage Assessment project.

places were regularly monitored afterwards and found to be intact. However, the inspection made after the earthquake demonstrated that most of the monuments in the area are in dire need of prompt restoration.

A separate problem was the damage caused to the top storeys of four Mamluk minarets featuring colonnaded pavilions at the top. The monolithic marble columns of these pavilions have all been broken at the base, making the structures extremely vulnerable to any horizontal stress. One of the columns in the Amir Qurqumas minaret is missing altogether, having splintered into small fragments. The tops of the minarets of Amir Qurqumas, Sultan Farag ibn Barquq (two minarets) and Sultan Qaitbay were temporarily shored with wood in November 1992. At the request of the EAO, the Mission also assisted an EAO team in installing similar supports in the minaret of Abu Bakr Muzhir in the Gamaliya district.