

CAIRO

FUNERARY COMPLEX OF AMIR KEBIR QURQUMAS

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The present report covers the period from 1 January to 31 December 1996.¹ The work included conservation and re-building of some parts of the complex, as well as point excavations.²

THE KHANQAH (arawaqa)

The process of replacing the deeply eroded ashlar masonry in the ground-level units was continued with special attention for the vaulted structures. Considerable parts of walls have been dismantled despite the apparently good condition of the original ashlars, because of the weak mortar

¹ The Polish members of the Mission were: Mr. Jerzy J. Kania, M.Sc.Eng., architect, project head, director of the Mission (February - June 1996; from September 1996 on a year-round basis); Mr. Zdzisław K. Baster, D.Sc.Eng., architect, chief designer (from November 1996 on a year-round basis); Dr. Maciej G. Witkowski, archaeologist (January - June 1996; October - November 1996); Mr. Leszek Słoiński, M.Sc.Eng., civil and sanitary engineer, chief of the site (March - June 1996); Mr. Zygmunt Bator, electrical engineer (April - June 1996); Mr. Adam Krajewski, D.Sc.Eng., mycologist (February 1996); Mr. Antoni Tokarski, sculptor-conservator (February - March 1996); Mr. Dimitri Kirinitsjanow, arabist (volunteer, January - July 1996); Mr. Maciej Kwaśniewski, arabist (volunteer, from August 1996 on a year-round basis); Mr. Dominik Mączyński, M.Sc.Eng., architect (February - March 1996).

The Egyptian side was represented by Mrs. Fatin Hassan el Fayyez, archaeologist, site inspector; Mr. Nazmy Daoud Attiya, eng. architect; Mr. Mohammed Osman Mousa, archaeologist, chief inspector; Mr. Rifa'i Mohammed Agami, in charge of the workers; Mr. Medhat el Minnabawy, Islamic archaeologist, General Director for Foreign Missions (Islamic and Coptic Sector of SCA), until the end of June 1996, his daily presence at the site and consultations were found to be of priceless help in the restoration work.

² Previous reports in *PAM VII*, pp. 23-28 (by J. Dobrowolski) and pp. 29-39 (by M.G. Witkowski).

bonding the *opus emplectum*. Samples of inner mortar of walls were secured for chemical analysis and to see what action is necessary.

The missing outer doorsills in units nos 1, 3, 4, 8 were reconstructed in a hard limestone and set in their original positions (Fig. 1.B). The paving of units nos. 1, 2, 3, 4, 8 (vestibules, storerooms, lavatories) was brought to an end (Fig. 1.A), followed by the replacement of ashlar in the walls and barrel vaults. The reconstruction of the staircases according to a prepared technical design is a task intended for the summer of 1997.

THE QASR (founder's residence)

After exploration of grave G-20 under the arcades, surplus earth and debris were removed, leaving the area free for leveling and final paving, which started in mid March 1996 and lasted until October 1996 (Fig. 1.C). The *qiblah*-wall composed of three mihrabs has thus regained its distinguished and expressive character.

Changes for the worse were observed in the structure of the westernmost spheroid dome (Fig. 1.D). Weakened joints between the ashlar close to the keystone caused considerable danger to the stability of this part of the Qasr. Required technical and safety measures were taken. The spheroid dome is now supported by square-sawn timbers based on steel-pipe scaffolding.

The stone pavement in the *mabit* of the residential part was dismantled and filling materials were removed. The upper part of the spheroid is still uncovered after reinforcing. A special mortar was used to fill the voids between ashlar and the joints between of walls and dome in order to be more resistant against seismic movements.

In the ruins of the mill (*tahuna*) emergency repairs, such as the replacement of eroded stone blocks in the upper parts of endangered walls bordering with the Guirbash-Qashuq funerary yard, were carried out in November - December 1996 (Fig. 1.E).

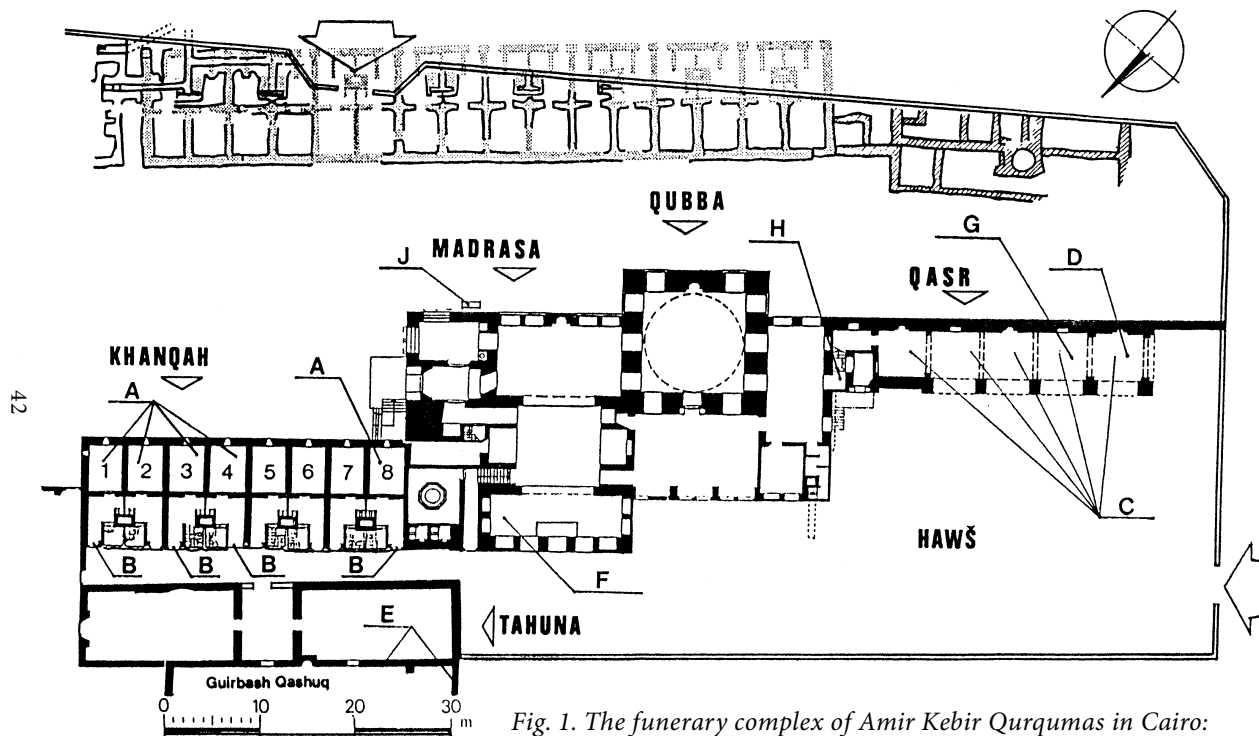


Fig. 1. The funerary complex of Amir Kebir Qurqumas in Cairo: key plan with topography of the restoration works (consult the text for descriptions).

Madrasa

The conservation work on the original wooden ceiling, altogether 36.63 sq.m of surface in the Northwest *liwan*, took place from 1 February until 31 March 1996 (Fig. 1.F). The choice of method for protecting the original painted ceiling was based on conclusions contained in the conservation expertise commissioned in 1984, and was as follows:

- removal of loose deposits of dirt and dust by mechanical means;
- soaking timber elements in a solution of acrylic copolymer (Paraloid B-72) thinned with an organic solvent (i.e., toluene);
- saturation with a water acrylic dispersion offering the most effective resistance against possible fungal development;
- strengthening the powdered polychromy and gildings, spraying with a weak (0.1-0.5%) solution of Paraloid B-72 in an organic dissolvent;
- full photographic and descriptive recording of the ceiling before and after conservation.

In places where the ground is thin, the obtained level of the polychromy hardening can be considered satisfactory, but where these undercoats form thicker layers (for example, in the fold of sculptured surfaces) the process must be continued.

The Grave G-20 was discovered in the ground-floor of the Qasr (Fig. 1.G) in January 1996, during leveling work carried out under the arcades.³ After clearing the immediate vicinity, the tomb was explored and recorded. The skeletons were removed from the grave and await anthropological examinations.

The grave, oriented longitudinally almost exactly along a NE/SW axis, was situated almost centrally under the second transversal arcade from the south, in a place that did not undergo exploration during the 1986-1987 season. It has a shaft that develops at the

³ M.G. Witkowski, Grave G-20: Result of Archaeological Investigation, *ms*, Cairo 1996; J. Brzozowski, Preliminary report on the excavations, *ms*, Cairo 1987 and Summary of the excavations 1986-87, *ms*, Cairo 1987.

bottom into two elongated, trapezoidal burial niches, the western one containing five bodies, the eastern one only three, all buried in the traditional Muslim way, that is, lying on their right side with heads facing Mekka. The shaft entrance was blocked with five rectangular limestone slabs. The two southernmost slabs were sealed with hand-applied lime plaster. The joints between the other slabs remained unsealed, the bigger gaps being filled with small limestone chips.

The tomb dates almost certainly from after the original arrangement of the Qasr had gone out of use, that is, not before AD 1608, a date constituting an evident *terminus post quem*.⁴

Documentation work proceeded on the pottery (domestic wares and pipe-bowls) found in excavations during the second half of 1995 and the reported season, and the similar, but dispersed finds from previous seasons (1985-92). Once completed, the material should provide a basis for a corpus of pottery forms from the Amir Kebir Qurqumas complex.

Epigraphical recording did not progress as significantly, with just small improvements being made in the documentation from the previous season. Using the opportunity of a closer approach to the ceilings due to conservation work in the northwest *liwan* of the Madrasa, the facette with inscriptions was recorded photographically.

STUDY OF THE LIGHTING AND ILLUMINATION OF THE QASR

The study contains a historical outline of lighting systems in Mamluk times and some descriptions of modern solutions already implemented in certain historic structures in Cairo.

⁴ J. Wronecka, The Kitab al Waqf of Amir Qurqumas as an example of a legal document from the Mameluke Period (1250-1517), in: *Mausoleum of Qurqumas in Cairo. Results of Investigations and Conservation Works*, vol. III, Warszawa 1991, pp.66-71.

Historical research has not provided a definite answer to the question whether there were any lamps in the Qasr and if so, what kind of illumination was used. At the current stage of research it is suggested that the illumination of the Qasr be modern and not modeled on historical forms. The illumination should only emphasize the historical value of the interior and bring out the interesting elements of architecture.

The design for interior illumination fulfills appropriate electrical regulations and gives as examples of modern and proper illumination solutions, the Harawi House and the Madrasa Gawhariyya, both close to Al-Azhar Mosque in Cairo.

The window openings with iron grilles and two-leaf wooden shutters should be equipped with glass panes to fulfill conditions required by the adaptation to multi-functional purposes (exhibition hall or design office). Since these openings were never closed, wooden frames with glass panes will be discreetly introduced into the original substance. They will be of uniform color that will compare with existing wooden elements.

The condition of all the wooden ceilings, windows and doors in the funerary complex of Qurqumas was evaluated.⁵ Saprophytic molds from wooden samples were cultivated. Old traces of operation by larvae of the domestic longhorn beetle, *Hylotrupes bajulus* L., in the coniferous wooden ceiling above the northern *liwan* of Madrasa have been observed (Fig. 1.F.). Adults of solitary wood-bees, *Xylocopa aestuans* L., have also been noted as making progressive inroads into the palm-wood.

⁵ A. Krajewski, Grzyby i owady niszczące drewno w meczecie Emira Kebira Kurkumasa w Kairze, *Ochrona drewna - XVIII Sympozjum 1996*, Warszawa 1996.