

## POLISH-EGYPTIAN RESTORATION MISSION TO MARINA EL-ALAMEIN, 1993

**Jarosław Dobrowolski**

The mission<sup>1</sup> organized as a joint project by the Polish Center of Archaeology and the Egyptian Antiquities Organization, worked from April 1 until July 30, 1993. As in the previous seasons,<sup>2</sup> restoration started immediately after the archaeological season had ended<sup>3</sup>, and concentrated on tombs dating from the Late Hellenistic and Roman periods discovered by the Polish mission.

### **TOMB T 1J**

This tomb was discovered in 1991. It belongs to the same type as neighboring tombs T 1 and T 1B restored in 1990 and

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<sup>1</sup> The mission comprised: Mr. Jarosław Dobrowolski (head of the mission), Mrs. Agnieszka Dobrowolska, Messrs Andrzej Pastewka, Dariusz Ostaszewski and Andrzej Kwiatkiewicz, architects. Among many people in the EAO whose efforts were essential to the mission's operation, special thanks are due to Dr. Kamal Fahmi, General Director of the Western Delta, as well as to the staff of the engineering sector at Kom el-Dikka, Alexandria: Mr. Hassan Shehata, Chief Inspector and Mr. Kamal Guma'a. Mr. Ezzat El-Hammahmy, Chief Inspector in El-Hammam, represented the EAO as inspector. His effective and friendly cooperation was truly indispensable to the mission's work.

<sup>2</sup> Cf. *PAM II*, 1989-90 (1991), pp. 44-47; *PAM III*, 1991 (1992), pp. 39-48.

<sup>3</sup> Excavations by a Polish mission headed by Prof. W.A. Daszewski, cf. report on pp. 21-33 in this volume.

1991.<sup>4</sup> The structure was built of well-dressed blocks of local limestone. Final exploration in April 1993 revealed that the roughly cubic base of the tomb was built over a rock-hewn trench containing a single burial. It was covered flat with stone slabs and a saddle roof was formed above it of other slabs, designed to relieve the stress on the pit's cover (Fig. 1: section). The middle part of the tripartite base of the tomb was then filled with sand and stone rubble, while side chambers with openings on the eastern side were left open for later burials. On top of the base was a stepped stylobate bearing a large square pillar with a simple base and a capital of extremely simplified form, typical of the site. On top of the capital there was another stepped base which presumably bore a miniature of the lower pillar to judge by the capital of identical form, but much smaller, which must have originally crowned the whole structure.

An earthquake probably toppled the pillar. Particular blocks, found lying on the ground by the archaeological mission, were now moved to a stonecutters' workstand, where their position was re-checked and new stones introduced in place of missing blocks. The blocks of the tomb's base, which had also partly collapsed, were thus exposed, numbered, and their position within the structure identified. The whole structure, which was originally founded on a sand dune approximately 0.50 m above bedrock, was then gradually supported on a new foundation resting directly upon bedrock.

The central chamber was filled with stones, stone rubble and mortar to create a solid foundation block under the pillar. The underground parts of the side chambers were filled likewise for

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<sup>4</sup> A theoretical reconstruction was prepared in 1991 by J. Dobrowolski.

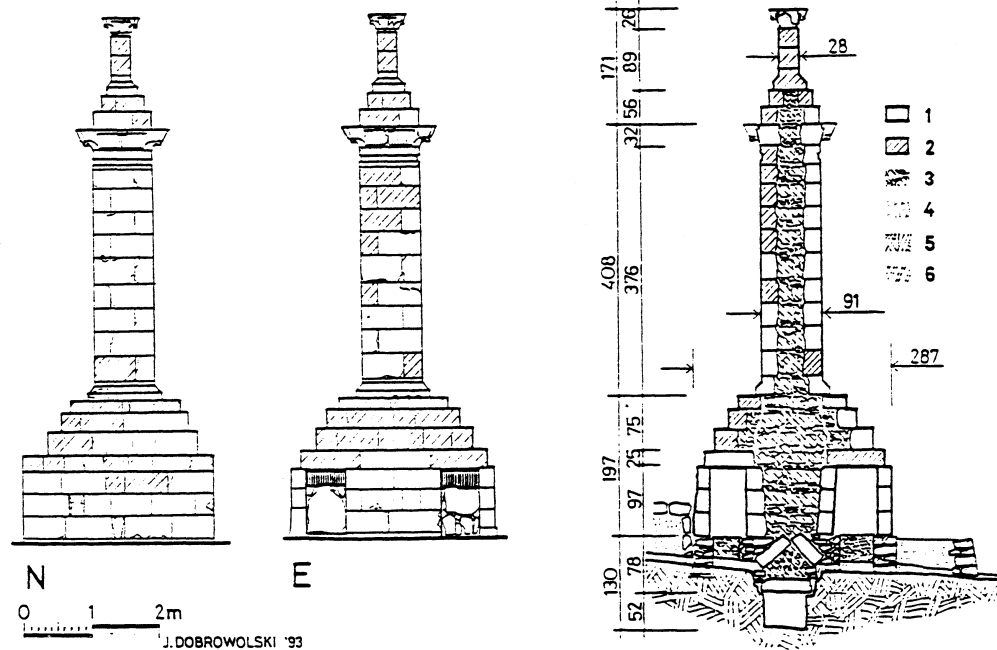


Fig. 1. Tomb T 1J after restoration: N - northern side, E - eastern side.

1 - original stones, 2 - new stones, 3 - fill of stone rubble and mortar, 4 - sand, 5 - bedrock, 6 - sandy clay (original surface).

Drawing J. Dobrowolski.

increased stability. Over the restored base the pillar was re-erected in a manner much resembling the original method of construction, i.e., using wooden scaffolding and a pulley.

The corner section of the northeastern segment of the pillar's capital was found broken off when excavated. It was fixed in position with brass rods set in drilled sockets. The capital of the small upper pillar was found in extremely poor state, broken into four pieces and so badly eroded that over 60% of its original surface was gone. The pieces were bound together with reinforcing rods of brass wire and missing parts were supplemented with artificial stone. The capital was then treated with Paraloid B-72.

Altogether 54 new stone blocks were installed in the structure, amounting to 30% of the total number. New blocks were made of Helwan limestone and to distinguish them from the original ones they were given a slightly different surface finish,

Total height of the reconstructed monument is 6.50 m (7 m above bedrock), the main pillar itself is 4.08 m high.

## **UNDERGROUND TOMB TIGH**

Protective measures aimed at assuring the structural safety of the monument were continued. In the burial chamber, the dangerously cracked ceiling was supported with two pillars built of small blocks of local limestone. This measure, although it necessarily alters the original layout of the tomb, has the advantage of relying solely on traditional materials of known durability; it is also totally reversible. Eroded rock-hewn walls of the light and air shaft were supplemented with mortar and stones and given a finish of artificial stone. The reassembly of the dismantled blocks of the shaft was then begun. The clearing of the open staircase of the tomb had to be stopped for safety reasons.

Dangerously inclined walls of the staircase have been temporarily shored up with wood and should become the mission's concern in the coming season.

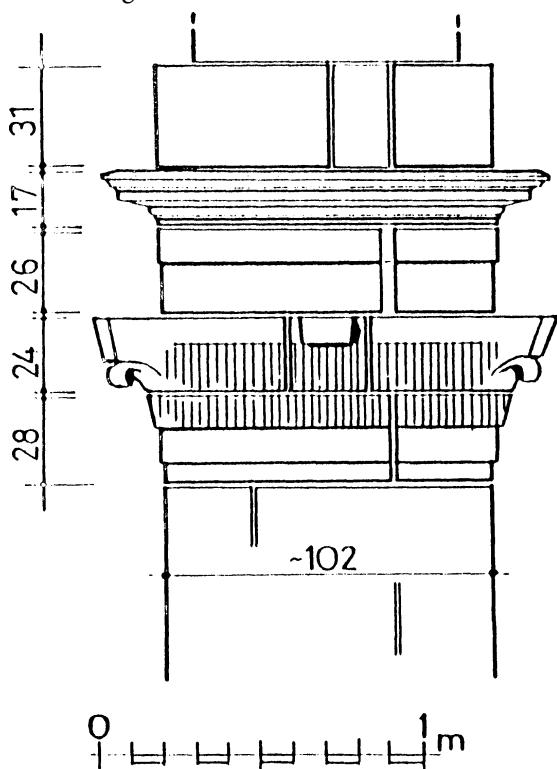


Fig. 2. Theoretical reconstruction of the top part of tomb T 1K.  
Drawing J. Dobrowolski.

### TOMBS T 2 AND T 3

These were excavated by Polish Mission in 1987. They have the form of a small stepped pyramid with a pedestal on top. The

tombs were consolidated by filling in all the voids with mortar, reinstalling fallen blocks and introducing new stones for the missing ones.

#### **NEWLY DISCOVERED TOMB T 1K**

Clearing sand from the area south of T 2 revealed stone blocks belonging to the toppled superstructure of another pillar tomb designated as T 1K. The top section of the pillar was excavated, recorded and the blocks marked. A theoretical reconstruction was made to serve the purposes of restoration in the future.

#### **OTHER ACTIVITIES**

Surveying was continued in an effort to update the general site plan. The western and central parts of the site have already been completed, leaving the eastern sector to be surveyed. A feasibility study for the restoration of houses H 9 and H 9a, excavated earlier in the ancient city by an Egyptian team, was prepared and presented to the EAO.<sup>5</sup>

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<sup>5</sup> This was based on a study prepared for House H 9 in 1987 by a PKZ team headed by Dr. W. Bentkowski, cf. *PAM* II 1989-90 (1991), pp. 40-42.