

# MARINA EL-ALAMEIN

## SEASON 1999

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*With a view to a better understanding of the town plan and the location of the tombs in the southwestern cemetery, the team carried out in March a campaign consisting essentially of geophysical prospection of the area in question. One test trench was opened to verify the preliminary results of the geophysical research.*

<sup>1)</sup> The campaign, sponsored as usual by the Polish Center of Archaeology of Warsaw University, was staffed by Prof. Dr. Wiktor Andrzej Daszewski, head of the expedition; Mr. Tomasz Herbach, archaeologist (geophysical research using the magnetic method); Mr. Harald von der Osten, geophysicist of the Landesdenkmalamt in Stuttgart (DE System measurements); Mr. Mikołaj Budzanowski, archaeologist; Ms Teresa Kaczor, architect. The Supreme Council of Antiquities was represented by Mr. Abdel Latif el-Wakil, Director of the Marina archaeological site. We would like to express our sincere thanks to him for his considerate help and day-to-day assistance throughout the course of our work. The Mission also wishes to express its gratitude to Prof. Dr. Gaballa Ali Gaballa, Secretary General of the Supreme Council of Antiquities, and Mr. Abdel Salam Bakr, for their encouragement and unfailing interest in our researches. Last but not least, our thanks are due to Prof. Dr. Dieter Planck, Director of the Landesdenkmalamt Baden-Württemberg in Stuttgart for permission to use the DE System equipment and to Mr. Harald von der Osten for finding the time to come to Marina to carry out the research during his leave.

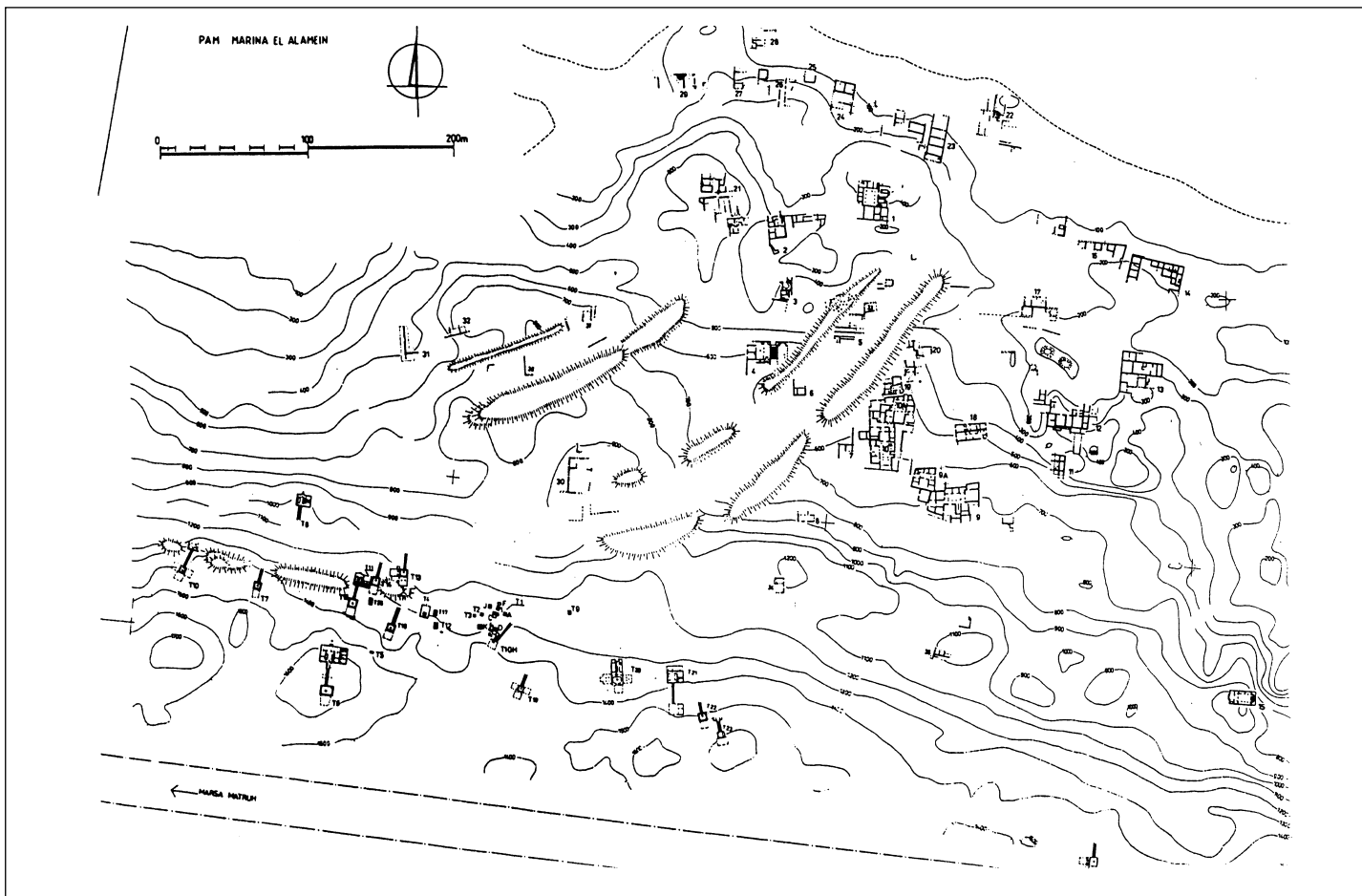


Fig. 1. General plan of the ancient town and necropolis  
(Drawing Polish Archaeological Mission: K. Kamiński, A. & J. Dobrowolski, T. Kaczor)

## GEOPHYSICAL RESEARCH

Two different prospection methods were applied: magnetic, using a Geoscan Research FM36 gradiometer, and the Dielectric Echo System.

The magnetic survey covered an area of 1.52 ha in three separate areas: A, B and C. Area A (0.74 ha) was located immediately to the north of the necropolis (i.e., north of T 1J, T 2, T 17, T 4, northeast of T 13, and south of structure no. 30, cf. plan, (*Fig. 1*). Area B (0.5 ha) was on the shore of the lagoon in the northern part of the town, i.e., south of structures nos. 23 to 29. Finally, there was Area C (0.28 ha) lying southeast of houses H 9 and H 9A.

No clear traces of walls were visible in Area A, except for the eastern edge of the sector where remains of some structures (houses?) were located. Parts of these walls were visible on the surface anyway. In the northwestern end of the surveyed area, a series of anomalies corresponds to a concentration of potsherds on the surface.

Measurements in Area B revealed no traces of houses, but the two strong anomalies discernible south of the center of this sector may perhaps be interpreted as kilns. Another anomaly north of the said center could suggest the presence of a layer of ashes. A linear anomaly running N-S across the area corresponds to a ditch that is part-

ly visible on the surface. In the northeastern corner of the area modern iron pipes interfered with the measurements.

Traces of houses were registered in Area C. Concentrations of walls and empty spaces in between were traced, the walls appearing as voids, since limestone, the common building material used on the site, has no magnetic properties. These "walls" were bordered by slightly magnetic material, ashes (?) perhaps.

The second type of investigation – the Dielectric Echo System – was used to explore a total of 1.5 ha in the Western Necropolis, beginning south of T 10 and moving eastwards to the area north of T 19, northwest of T 20 and encompassing T 9.

One thousand twenty profiles of an equidistance of 0.50 m were measured. Along each profile the measurements were carried out every 2 cm. The 1.9 MB of data thus acquired needs first to be processed, but the final readings already obtained have indicated the presence of a large rectangular structure oriented NE-SW and provided with a "dromos" on the north. Best visible at a depth of 2 to 3 m below the present ground level (*Fig. 2*), this structure lies about 23 m to the south of T 19. Excavations there will be carried out in the coming season.

## TOMB 25

In order to check right away some preliminary readings provided by the DE System, traditional methods of exploration were applied. A test trench was opened 10 m to the south of T 14 and 6 m to the east of T 16 (see plan, *fig. 3*), where a strong anomaly indicated the presence of a large tomb. Under a layer of clean sand ranging in thickness from 0.70 m (west) to 1.10 m

(east) there extended a layer of lime debris and loose stones sloping eastwards, apparently composed of waste material originating from the building of the neighboring tomb T 16. In this layer, practically engulfed by it, was a tomb (T 25), oriented E-W and comprising four *loculi* (*Figs. 4, 5, 6*). At first, the tomb apparently consisted of a large cubic box-like structure with two

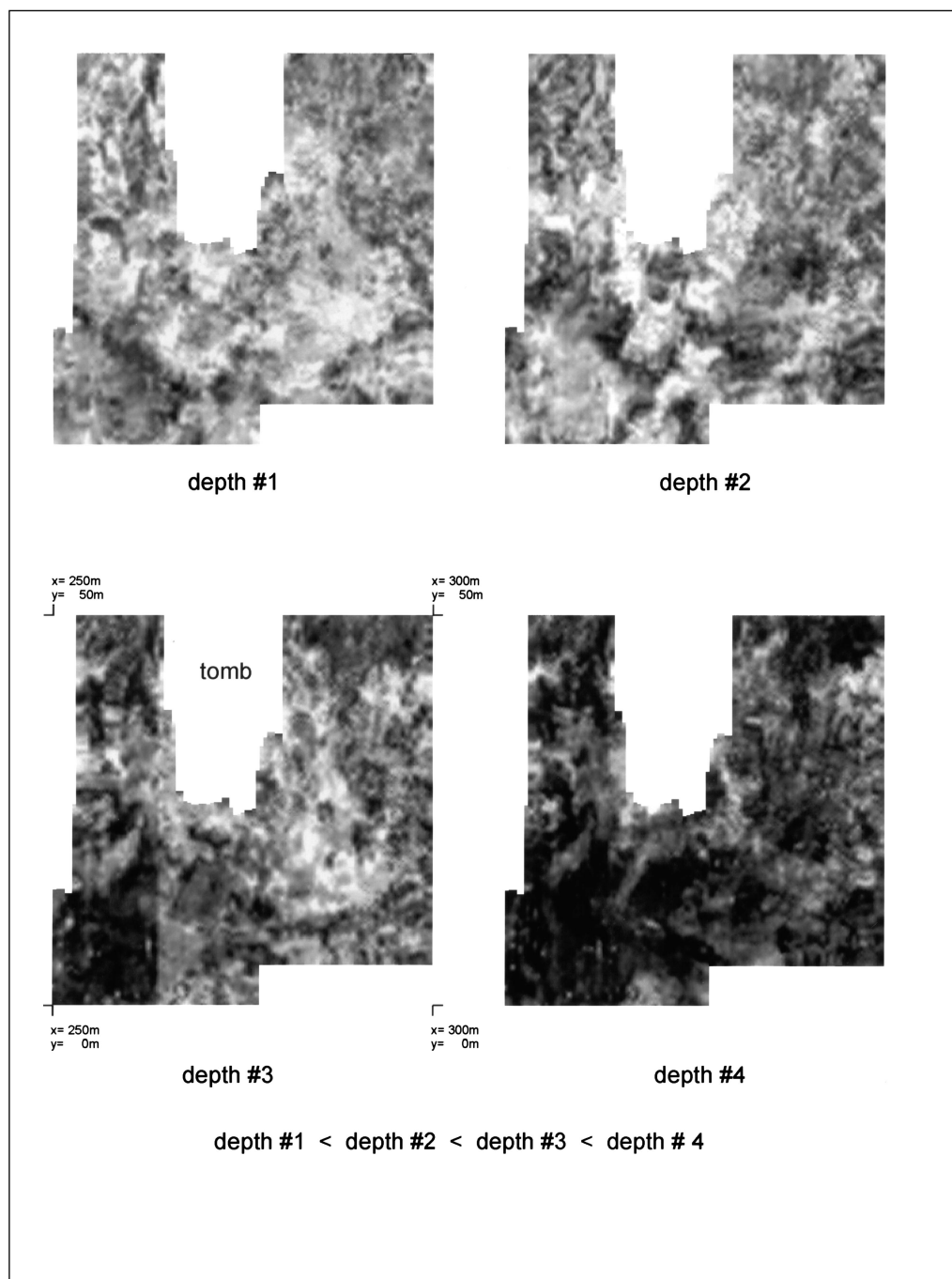


Fig. 2. The rectangular structure revealed in geophysical research of the cemetery area  
(Photo H. von der Osten)

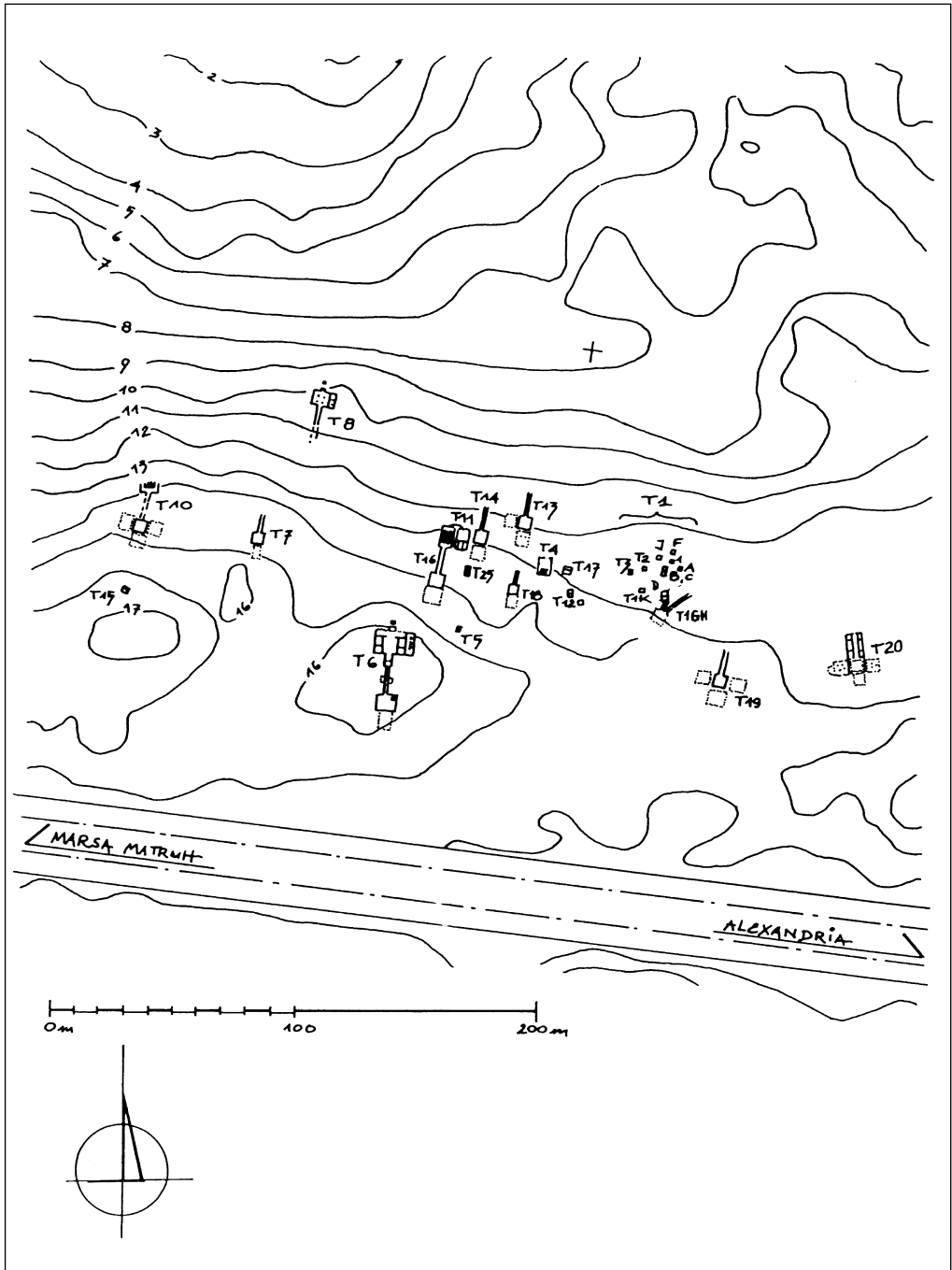


Fig. 3. General plan of the Western Necropolis (note the revised labeling of some of the tombs)  
(Drawing Polish Archaeological Mission: J. Dobrowolski et al., T. Kaczor)

*loculi* inside and two steps on top forming a sort of square pedestal for a monumental decorative column.

The tomb thus belongs to the category of "pillar" or "column" tombs that is well known from the necropolis in Marina as testified by T 1; T 1B, T 1J, T 1K<sup>2)</sup> etc. Only the lower part, that is, the box with two *loculi* has survived down to our times, the decorative superstructure having been dismantled (or destroyed), with the exception of a few identifiable fragments, when the neighboring hypogeum T 16

was being constructed.<sup>3)</sup> At a later date, but prior to the construction of T 16, two additional *loculi* were added to the original tomb, one on either side, on the south and north of the tomb. Such extending of the initial structure appears to have been much in favor on the necropolis in Marina as testified by T 12A and T 1D, for instance.<sup>4)</sup> The original structure of T 25 measured: 2.30 m in length (N-S), 2.27 m in width (E-W), 1.35 m in height. The diameter of the crowning column was c. 0.60 m. Of the two additional *loculi* the northern one

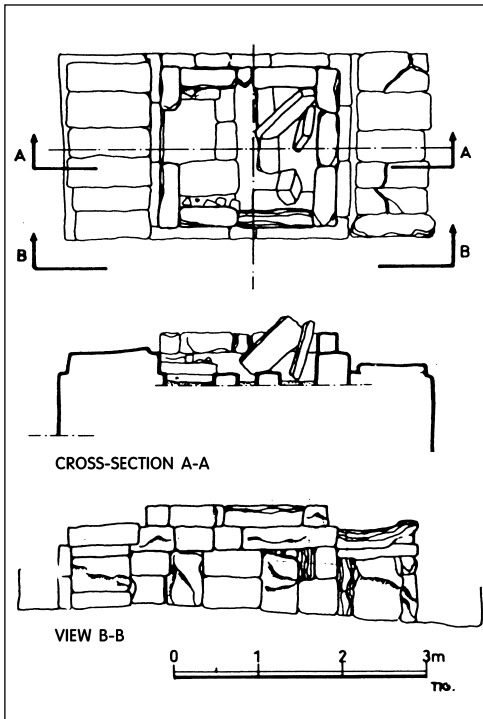


Fig. 4. Tomb 25. Plan and cross-sections (Drawing T. Kaczor)

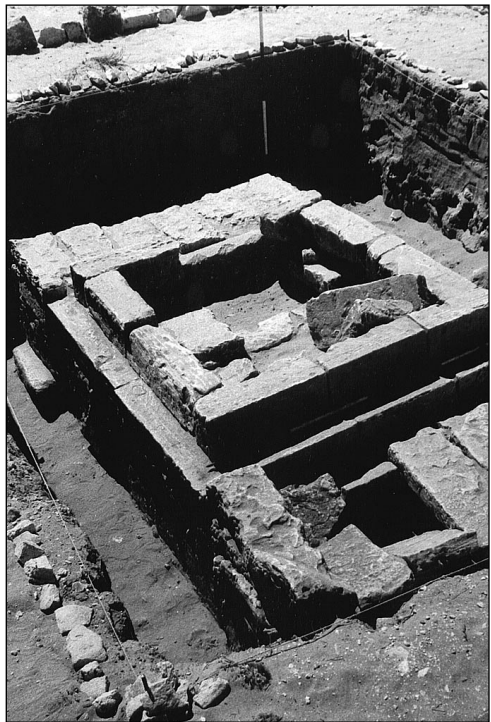


Fig. 5. Tomb 25. View from the southeast (Photo W. A. Daszewski)

<sup>2)</sup> Cf. W. A. Daszewski et al., *MDAIK* 46 (1990), 24-27, figs. 7, 8; also id., *PAM III, Reports* 1991 (1992), fig. 4; id., *PAM VI, Reports* 1994 (1995), fig. 2.

<sup>3)</sup> W. A. Daszewski, *PAM IX, Reports* 1997 (1998), 61-67.

<sup>4)</sup> W. A. Daszewski, *MDAIK* 46, op. cit., p. 29; also id., *PAM IV, Reports* 1992 (1993), 27-28; id., *PAM VI, Reports* 1994 (1995), 31-33.

was 2.35 m in length, 0.91 m in width, and the southern one 2.31 m and 0.96 m respectively. The tomb was built of finely dressed rectangular limestone blocks with rectangular slabs for covering the *loculi*. Exploration of the *loculi* was postponed until the coming season.

Potsherds were found in quantities in layers accompanying the tomb. These were amphorae and tableware as a rule, the latter represented by Cypriot Sigillata exclusively. Fragments of Tripolitanian amphorae of the 2nd-3rd cent. AD were found in the upper layers, as well as Mau form 27/28 (2nd-3rd century AD); two pieces of Cretan

amphorae (2nd century AD); fragments of Mareotis amphorae of the 2nd and 3rd century AD; and sherds of Cilician amphorae of the 1st and 2nd century AD.<sup>5)</sup> In the layer corresponding with the construction level of the tomb, fragments of Cypriot Sigillata of forms P.40, P.12, P.27(26) were found in some quantity, the forms ranging in time from the 1st century to the early 2nd century AD. Also found were fragments of Mareotis Dressel 2/4 type amphorae.

It thus seems that the tomb originates from the late 1st century AD. This date corroborates the dating of other "pillar" tombs on this necropolis.

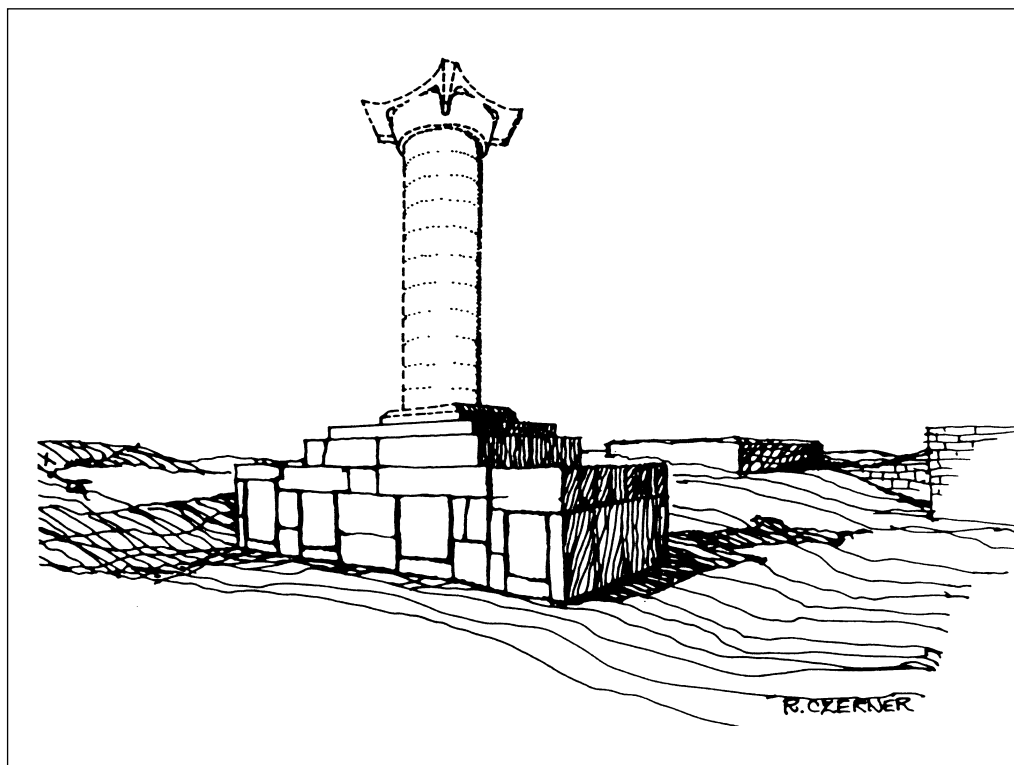


Fig. 6. Tomb 25. Reconstruction of the pillar rising on top of the structure (Drawing R. Czerner)

<sup>5)</sup> The amphorae were identified, as in every season, by Dr. Grzegorz Majcherek, who is preparing a publication of this material.

## OTHER INVESTIGATIONS

Another trench was opened at a distance of 13 m to the west of the aboveground mausoleum of T 16 in order to check for yet another "pillar" tomb in the area. A wall was discovered, 0.78-0.86 m thick, made of big, flat but irregular chips of limestone bonded in a mud mortar. The L-shaped wall runs from S to N for a distance of 3.70 m, gently curving westwards to continue for another 1.90 m. No accompanying occupation level was identified. It is not clear what kind of structure this wall had belonged to. Although located inside the necropolis area, it does not seem to form part of any funerary structure whatsoever.

Additional investigations were carried out in T 14.<sup>6)</sup> The walls of the funerary chamber were examined for tracing lines drawn in red marking the position of *loculi*, including ones to be cut. These were registered. The lines had been made by means

of a string dipped in red paint stretched across the whole length of the wall and then pressed to the wall surface. They mark off three rows of *loculi*, each niche measuring 0.87 m in width and 0.93 m high. The curtain walls between neighboring *loculi* are 18.5 or 20 cm thick. This arrangement was repeated on all three sides of the chamber with the exception of the northern entrance wall. However, the highest row of *loculi* had never been completed except for one *loculus* (no. 7) in the southwestern corner of the chamber.

Several *loculi* were provided with sockets for fixing limestone slabs to close the entrance. One *loculus* (no. 10) in the south wall had five peg holes above the upper edge, apparently serving to fix a curtain.<sup>7)</sup> Another *loculus* here (no. 12) had some short narrow indentations suggesting that a closing device of wood had been used.

<sup>6)</sup> Daszewski, *PAM VIII, Reports 1996* (1997), 75-79; also id.; *PAM IX, Reports 1997* (1998), 67.

<sup>7)</sup> This kind of closing of the *loculi* has already been observed in other hypogea in Marina, in T 7, for example.