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**Alexandria: Excavations and
Preservation Work 2001**

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ALEXANDRIA

EXCAVATIONS AND PRESERVATION WORK 2001/2002

Grzegorz Majcherek, Wojciech Kołataj

The Preservation and Archaeological Project at Kom el-Dikka is financed jointly by the Supreme Council of Antiquities and the Polish Centre of Archaeology of Warsaw University in Cairo. The campaign covered in this report was carried out between October 2001 and the end of June 2002.¹⁾ Work was largely conditioned by the demands of the Kom el-Dikka Preservation Project, requiring top priority to be accorded excavations and preservation activities in the Theatre Portico.

A project for the cleaning and conservation of the vast coin collection proceeded concurrently, as did a study of amphora stamps from earlier excavations. The latter has been concluded and the collection (578 objects in all) has been transferred to the SCA storerooms.

1) Until December the mission was headed by Dr. Wojciech Kołataj who has now retired after devoting more than 25 years of his professional life to the Project. From January 2002 onwards the mission was directed by Dr. Grzegorz Majcherek. The staff included: Mrs. Renata Kucharczyk, Mrs. Iwona Zych, Ms Grażyna Bąkowska, Ms Marta Żuchowska, archaeologists; Mr. Wiesław Kuczewski, Mr. Władysław Weker, Mrs. Ewa Parandowska, conservators; Ms Daria Tarara, architect; as well as Ms Eliza Szpakowska, Ms Agnieszka Niemirka, Ms Aleksandra Iwanowska and Ms Paulina Lis, students of archaeology. Due to a busy schedule, Prof. Barbara Lichočka, was able to join the team for a few days only. Messrs. Ahmed Mussa and Mohammed el-Senussi efficiently represented the Supreme Council of Antiquities. As always, the Mission was assured the invaluable help and friendly assistance of the SCA staff in Alexandria, to whom we are immeasurably indebted. Special thanks are due Dr. Zahi Hawass, Secretary General of the Supreme Council of Antiquities, and Dr. Mohammed Abdel Maqsd, Director General for Lower Egypt – without their support we could have hardly accomplished as much as we have over the course of this season.

EXCAVATIONS

Large-scale soil removal from the western section of the site permitted a stepping up of archaeological work in the area of the Theater Portico, where in the past four campaigns approximately 800 sq.m had been cleared.²⁾ The key objective this season was to extend the excavation northwards and uncover yet another portion of the so-called Upper Necropolis phase (11th-12th century AD) of the vast Moslem graveyard overlying the Theatre Portico.³⁾

AREA E

Altogether some 32 graves cleared last season (E 1-E 31) were excavated *in toto*.

This fragment of the cemetery shows clear signs of internal patterning. Some graves were grouped together forming separate entities enclosed within a perimeter wall. In most cases, however, the extant walls did not survive beyond the lowermost courses. At least three such enclosures were recognized (E 3, E 8, E 16), each grouping four to six graves. In all probability they may be viewed as familial groups. The anthropological research planned for the next season may shed more light on this question.

Remains of wooden coffins came to light most unexpectedly in two graves (E 3



Fig. 1. Area E. Moslem necropolis. Graves E 49-E 52, viewed from the west (Photo G. Majcherek)

2) For a general situation plan of the site, cf. G. Majcherek, *PAM XII, Reports 2000* (2001), Fig. 1 on page 24.

3) For previous exploration in the area, cf. G. Majcherek, "Excavations at Kom el-Dikka 1997-98. A Preliminary Report", *ASAE* 74 (1999), 39-55; id., *PAM XI, Reports 1999* (2000), 27-38; id., *PAM XII*, op. cit., 23-34; id., *PAM XIII, Reports 2001* (2002), 31-44.

and E 9A). This in itself was most unusual and contradictory to established Islamic burial tradition. In both instances, the coffins were placed on top of earlier burials in already existing graves. One possible explanation is that the bodies of the deceased were brought from elsewhere to be buried in family tombs. The coffins, although made as fairly simple board boxes, show some signs of skilled carpentry. The boards were dressed, carefully assembled and nailed together. Corners were additionally strengthened with vertical members. In one case a tenon joint was used to expand the width of the board. The type of timber used for the coffins is yet to be identified⁴).

The trench was expanded westwards for another 5-6 m, clearing graves which were also grouped and enclosed by perimeter walls. Two such enclosures came to light. The larger one to the south grouped eight graves (E 41-E 48) and the smaller one to the north comprised four graves (E 49-E 52) (Fig. 1). This section of the cemetery

overlying the Portico stylobate is scheduled for excavation in the next season.

Seventeen graves (E 100-E 118) of the Middle Necropolis (9th-10th centuries AD) were found immediately below the Upper phase. They were built as large rectangular structures (c. 2 by 2.5 m) of 2-3 rows of limestone blocks, occasionally plastered. They usually accommodated several burials, some of them as simple internments, others enclosed in masonry boxes.

Once the burial ground had been abandoned, it was turned into a large dumping ground and sealed by quickly accumulating layers of urban refuse. The associated layers yielded the usual broad range of assorted finds, largely similar to that recorded previously in medieval strata overlying the cemetery. Several fragments of funerary stelae bearing Quranic verses in Kufic script were found in different locations: reg. no. 5070 in grave E 114 (Fig. 2) and no. 5068 close to grave E 7 (Fig. 3). The artefactual corpus of finds from the graveyard also included an

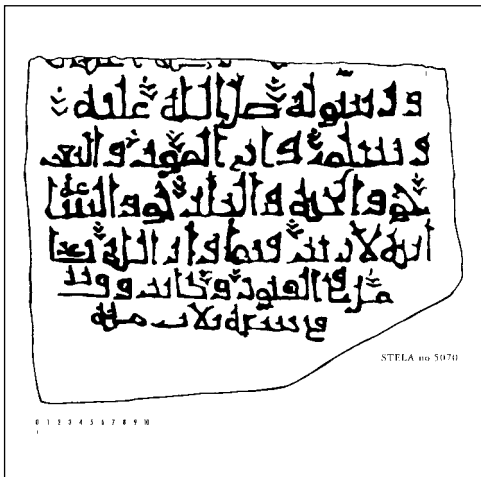


Fig. 2. Funerary stela from near tomb E 114 (reg. no. 5070) (Drawing M. Redlak)

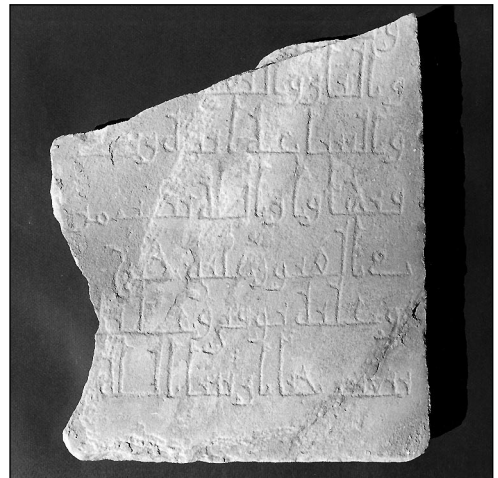


Fig. 3. Funerary stela from near grave E 7 (reg. no. 5068) (Photo G. Majcherek)

4) For more details, see contribution by I. Zych in this volume.

assortment of Egyptian and imported glazed-pottery sherds, lamps, and glass fragments. The pottery types were a representative cross-section through the medieval glazed ware repertoire. As before, Egyptian Fatimid and Mamluk Sgraff and Slip Painted wares formed what is numerically the largest group. They were accompanied by a few finds of wares imported from production centers within the Byzantine realm (Cyprus and the Aegean). Some fragments of Maghrebi and Yemeni pottery were also recorded.⁵⁾

Immediately below the graves of the Middle Necropolis three toppled granite columns were cleared. All were found broken, but their position indicates that they had not been moved. Two of them (nos. 15 and 17) were found practically *sub situ*, their lower parts still on the stylobate, while the third (no. 14) had rolled over and now lies close to the Portico back wall (Fig. 4).

The destruction of the Portico may likely be connected with an earthquake that devastated Alexandria in AD 796.⁶⁾ Apparently, the columns collapsed on some



Fig. 4. Area E. Theater Portico. Fallen columns found underlying the Moslem cemeteries layers, viewed from the west (Photo G. Majcherek)

5) For a brief account of the Medieval glazed pottery repertory from the site, cf. W. Kubiak, "Overseas Pottery Trade of Medieval Alexandria as shown by recent archaeological discoveries", *Folia Orientalia* 10 (1969), 5-30; id., "Kom el-Dikka, Islamic Finds – Storehouse Survey", *PAM VIII, Reports 1996* (1997), 32-39.

6) For earthquakes in medieval Alexandria, cf. M.A. Taher, *Les seismes à Alexandrie et la destruction du phare, Alexandrie medievale 1*, eds. Ch. Decobert and J.-Y. Empereur (Cairo 1998), 51-56.

graves of the Lower Necropolis dated to the 8th-9th centuries AD, and were found to have graves of the Middle Necropolis (9th-10th centuries AD) superimposed on them. About 40 m of the original level of the portico has been exposed by now. Two extant sections of the pavement were cleared along the stylobate and the back wall.

AREA M

The work in Area M was concentrated immediately north of the Theatre, behind the Portico back wall. An existing trench was enlarged toward the north to uncover the course and relation to other features of a peculiar double-walled structure that was first excavated in the 1960s. The two walls, set some 1.90 m apart, were built in identical pillar technique, the space between the pillars filled with a double-

faced curtain wall (0.55-0.60 m thick) made of small irregular stones set in an ashy mortar. The walls were additionally joined with random crosswalls, the resulting effect being a casemate of sorts. The theory has already been advanced that the structure was designed to retain a large mound that had formed behind the Theatre by the end of Antiquity.

Several graves of the medieval cemetery were explored in this area (*Fig. 5*). Tombs of the Upper Necropolis (nos. M 350-M 357) were cleared at c. 12-12.50 m above sea level. They were largely disturbed and poorly preserved, most of the aboveground structures damaged, especially in the area adjoining the portico back wall (possibly due to later stone robbing).

Finds from this section of the cemetery included the usual range of glazed pottery



Fig. 5. Area M. Moslem necropolis, view from the east (Photo G. Majcherek)

dated to the 11th-13th centuries AD and a fragment of funerary stele found north of grave M 357 (reg. no. 5066).

The exploration of levels trapped under the fallen back wall of the portico provided some chronological clues. The wall sealed some graves of the Lower Necropolis; its fall could be attributed, therefore, to a period not earlier than the 8th century AD. The scanty ceramic assemblage retrieved from layers trapped underneath was composed primarily of Late Roman amphora sherds along with a few fragments of cooking pots. Most of the artifacts can be safely attributed to the 7th-8th centuries AD.

Pre-medieval strata were reached directly underneath. The area was closed from the south and from the north with

regular-masonry walls (1.10 m wide) abutting the Portico back wall and forming a large hall (11.50 by 5.50 m), apparently to accommodate an auditorium (M) (*Fig. 6*).

In similarity to previous discoveries of the same nature, the lecture hall was equipped with three wings of benches placed along the walls, with a prominent chairing seat constructed in the middle of the southern end of the room. The inner face of the southern wall was not aligned with the back-wall piers; to overcome the architectural problems caused by this irregularity, the south bench had to be built slightly askew to make up for the recessing wall. This is clearly visible in the case of the topmost row of benches. The resulting gap was not completed with



*Fig. 6. Area M. Auditorium M, looking south
(Photo G. Majcherek)*

blocks, but simply filled with rubble and plastered over.

Of the two parallel lines of auditorium seats, the eastern one was almost entirely preserved (close to 7 m in length), the western one being shorter by 1.20 m, where a grave of the Lower Necropolis (M 363) had cut into it. The bench impression preserved on the wall leaves no doubt, however, that the structure must have been originally of the same length.

A small, almost square brick-made basin (c. 1.25 by 1.20 m, c. 1 m deep) was built at the end of the eastern row of benches, its inner surface lined with hydraulic mortar. The auditorium was accessible from the portico through large doors placed in the portico's back wall. In similarity to other auditoria previously uncovered at the site, the space immediately behind the door was separated from the rest by a thin brick-made curtain wall and served as a vestibule.

A complete stratigraphic profile was obtained in a probe dug next to the western wall of auditorium M. Available pottery evidence suggests that the benches were introduced most likely in the late 5th-early 6th century AD, i.e., roughly in the same period when the theatre was substantially remodeled and turned into a large auditorium, too. The exact chronology, however, has yet to be established.

The results of this season's work have shed an entirely new light on the character of the public complex of Late Roman date previously uncovered within the limits of the site, notably the Portico and the Theatre. The number of auditoria hitherto identified at the Kom el-Dikka site has reached nine.⁷⁾ It is almost certain now

that a line of similar halls should be expected all along the portico.

The function of all such halls is apparently determined by their internal arrangement and there is little doubt that they must have been used as lecture halls. A key issue, however, remains unsolved: What was the exact nature of the gatherings held in these halls? Since these rooms were invariably located within the urban public space of what seems to have been a large square surrounded with porticoes, an agora presumably, they may have been used for schooling or academic purposes. The intellectual life of Late Antique Alexandria is relatively well documented in various historical sources.⁸⁾ There is also little doubt that it survived well into the 6th century, past the infamous Justinian edict closing the Athenian Academy. In short, it is quite probable that the buildings discovered at Kom el-Dikka are the only physical remains of the educational institutions for which Alexandria was renown in antiquity.

AREA AW

Limited archaeological investigations were carried out at the extreme northern end of the Portico within the confines of the site, next to auditorium no. 2. Several graves of the Upper Necropolis (AW 100-AW 107) were explored in a trench measuring approximately 9 by 10 m. They all represent structures typical of this phase of the cemetery and are paralleled by graves from sector E.

The entire area appeared to have been seriously disturbed by robbing in medieval times, when both the Portico stylobate and

7) M. Rodziewicz, "Excavations at Kom el-Dikka in Alexandria 1980-81", *ASAE* 70 (1984), 236-240; see also the set of auditoria located close to the southern passage of the Baths, cf. Z. Kiss et al., *Fouilles polonaises à Kom el-Dikka 1986-1987, Alexandrie VII* (Warsaw 2000), 9-33.

8) Ch. Haas, *Alexandria in Late Antiquity, Topography and Social Conflict* (London 1997).

back wall were largely dismantled. Next to the auditorium wall a small patch of the portico pavement was cleared. As in the southern section near the theater, it was made of large limestone slabs set in ashy mortar. The most interesting find, however, was made while clearing the adjacent sec-

tion of the stylobate. Quite unexpectedly, a marble base (column no. 35) came to light *in situ*. The base had subsided substantially due to severe robbing of foundations in antiquity and is now some 0.60 m lower with regard to the original level of the stylobate in the Theater Portico.

PRESERVATION WORK

The minimum-intervention approach employed for the past few years is in keeping with international preservation procedures and regulations, and places emphasis on preservation rather than reconstruction. Limited rebuilding is undertaken only when absolutely essential for structural or integration reasons, e.g. reconstruction of foundations or missing parts of walls. All the materials used in preservation (limestone blocks, bricks, lime-sand mortars, etc.) are individually adapted to the condition of particular structures. The use of original stone material retrieved from excavations is preferred.

THEATER PORTICO

In the first of three areas where work continued this season, in the Theater Portico, two more columns were raised. The southern one (no. 10) in front of the Theater (approximately a third of the original height preserved) was mounted on a marble base surviving here. A third of this base had to be restored in artificial stone made of ground marble mixed with white cement and some sand (the volume ratio: 13:6:1). The surface of the cast part was worked with a tooth chisel to give it a texture closely recalling the original marble bases.

Another column (complete shaft of gray granite) was raised at the very end of the Portico, marking the far end of the structure within the limits of the site. The column (no. 38) had lain exposed for a long time and its upper surface had begun to flake as a result of high temperatures and rainwater penetration. The column was subjected to conservation treatment applied already in the 1992/93 season by T. Kołataj: PARALOID B-72 diluted in toluene (10% solution) to fill the crevices and PARALOID-marble mixture putty (1:5) to complete losses and larger crevices.⁹⁾ The column was raised by crane and topped with a capital. The missing base was replaced with a new one cut from a limestone block.

Although the portico foundations in the southern section were found to be generally quite well preserved, some limited restoration proved necessary. Spot damages to the stylobate, resulting mostly from medieval grave digging, were repaired. Two gaps, not exceeding 2 m each, were completed with new stones bonded in lime mortar.

The restoration of the massive portico back wall, which was c. 1.55 m wide, was one of the most important operations undertaken this year. Two sections of the

9) Cf. W. Kołataj, *PAM IV, Reports 1992 (1993)*, 7-10.

back wall, measuring some 26 m in length, were restored in the course of the season.

The wall had a core of irregular stones thickly poured with ashy lime mortar and a facing made of regular courses of smaller dressed blocks, with conspicuous brick lacing laid every seventh course. The disintegrated core was consolidated and the missing facing duly rebuilt to a height of 3 m above the portico pavement, using original stones taken from the immediate vicinity. Brick lacing was restored with new bricks cut to the required dimensions (*Figs. 7, 8-10*). (The wall coping in the northern section will be completed following a thorough clearing and examination of the other (eastern) facing.) The newly restored wall facing, albeit done in original stones, was clearly separated from the extant original masonry with a layer of

bitumen tarpaper and additionally with two slightly recessed courses of new blocks. Moreover, the bitumen tarpaper introduced into the wall structure also works as an insulation layer, preventing damp and salt migration.

As part of the final display of the site, several sections of walls in structures adjoining the Theatre on the north were also restored. Two long parallel walls, forming a sort of casemate structure running north for some 18 m, were discovered to be partly dismantled. The eastern wall was seriously damaged and distorted. It was rebuilt up to 1.40-1.60 m above ground level using original stones found nearby. It will be restored eventually to a height of c. 2-2.30 m to serve as a retaining wall counteracting the load of the adjacent escarpment.



Fig. 7. Theater Portico. The back wall in sector M, view after restoration (Photo G. Majcherek)



*Fig. 8. Theater Portico. The back wall in sector L, view prior to restoration
(Photo G. Majcherek)*



*Fig. 9. Theater Portico. The back wall in sector L, view after restoration
(Photo G. Majcherek)*

AREA AW

Preservation work at the far end of the Theater Portico concentrated on restoring the walls of one of the auditoria (no. 2) uncovered there in the late 1970s.¹⁰⁾ The auditorium built behind the Portico back wall had been dismantled completely in the medieval period. Restorers cleared the foundation trench to a depth of some 2.60 m below the floor level of the auditorium (i.e., to the level of the original footing). Since the missing section of the portico back wall was some 13.50 m long here, it proved necessary to restore also an adjacent section of the northern wall to provide for lateral stability.

Ancient building principles were followed strictly in the restoration of the foundation. The lower courses (up to c. 2.00 m above the footing) were made of coursed squared rubble topped with two layers of small dressed stones. An additional bonding course of small blocks was introduced at mid-height. For the upper courses larger blocks of a size similar to those used originally were used, there having been quite a number excavated in the vicinity. The wall was restored from one to three courses above the pavement of the portico. The section of the northern wall (c. 6 m long, 1.30 m wide) was rebuilt in the same manner and the missing facing

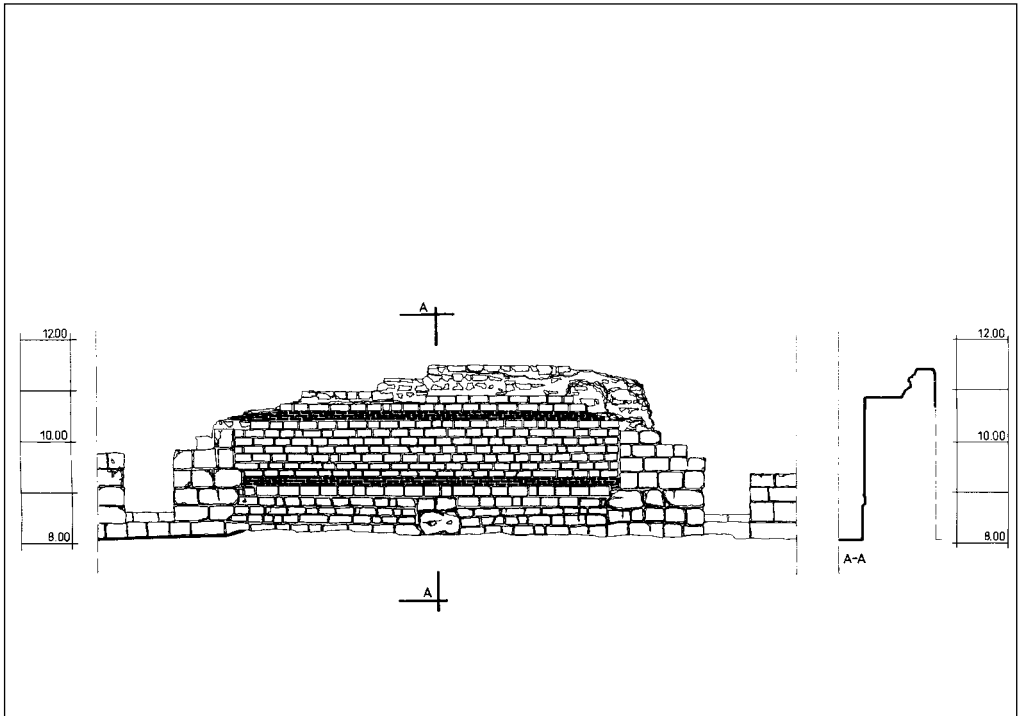


Fig. 10. Theater Portico. The back wall in sector L, after restoration
(Drawing A. Pisarzewski)

10) Rodziewicz, op. cit., 236-240.

completed in new masonry (Fig. 11). During accompanying archaeological exploration preceding the restoration work, it was ascertained that the northern wall of the auditorium ended with a pilaster-like projection (ca. 0.70 m), flanking the entrance to the northern passage of the bath complex. The lower part of the pilaster was duly restored to its original shape.

BATH COMPLEX

The southern passage of the baths will eventually form one of the axes of the Archaeological Park exhibition to be created at the site. The restoration work in this area focused on the preservation of the underground vaulted structure used as the

bath service area. The dismantled vaults of the entrance to one of the furnaces in the *destrictarium* were entirely restored in new stone. In another chamber, most probably used as the southeastern entrance to the underground structure, a vault partly restored last season was now completed. Conservation measures were also undertaken in two additional vaults in the same area in order to stabilize their condition. Seriously weathered blocks were replaced, new springing was set in position and extant arches expanded by adding more voussoirs. This procedure not only protected the structural integrity of the vaults, but also made their display visually more attractive.



Fig. 11. Area AW. Northern auditorium (no. 2), view after restoration
(Photo G. Majcherek)

The restoration of an arch supporting the western gate to the bath was completed this year.¹¹⁾ The northern section of the wall abutting the bath building was rebuilt in large blocks patterned after the extant southern part. The threshold on top of the

arch was also restored. A large nummulithic limestone block with a door socket, which had been found nearby, was positioned next to the southern one (preserved *in situ*), thus clearly marking the span of the original double-winged door (*Fig. 12*).



Fig. 12. Bath complex. Restored arch of the underground service passage supporting the western gateway to the baths, view after restoration (Photo G. Majcherek)

11) For previous work, cf. W. Kołataj, *PAM XIII*, op. cit., 23-29, Fig. 5.