# KOM EL-DIKKA EXCAVATIONS AND PRESERVATION WORK, 2002/2003 

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The season, which lasted from September 2002 to the end of June 2003, ${ }^{1)}$ should be seen as a continuation of the ongoing Alexandria Kom el-Dikka Site Preservation and Archaeological Project. Fieldwork this year focused primarily on the sectors of the Theatre Portico and the Baths complex. The project to classify and document the medieval ceramics collection progressed as well, with another class of the material, the Syro-Egyptian Underglazed Painted Pottery produced between the late 12 th and early 16 th century $A D$, being studied in detail. ${ }^{2)}$

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Fig. 1. Area E. Moslem Upper Necropolis, graves E 42-45. View from the west (photo G. Majcherek)


Fig. 2. Area E. Moslem Upper Necropolis, graves E 33-35. View from the west (Photo G. Majcherek)

## EXCAVATIONS

As in previous seasons, fieldwork this year was concentrated mainly in the area of the Theatre Portico, where the exploration of the remaining section of a medieval graveyard overlying the Portico remained one of the top priorities. The trench of 2001 (Area E) was again expanded northwards and yet another section of the cemetery that had been identified and cleared of topsoil in the previous season was subsequently explored. ${ }^{3)}$

## AREA E

Altogether, some twenty graves belonging to the so-called Upper Necropolis phase were excavated. These structures, located in the northern and western parts of the area, paralleled in form previously recorded tombs from various sectors of the site. They fell into two different types, reflecting the stratigraphic and chronological development of the cemetery.

The earlier graves usually consisted of simple shallow pits that were occasionally covered with slabs. Aboveground, they featured an open rectangular casing made of thin upright slabs (E 42-44) (Fig. 1). Later graves were usually made as stone chambers covered with slabs that were either laid flat or else pitched. The structures were equipped occasionally with additional shafts placed at the eastern end of the box grave, apparently to facilitate secondary internments. The superstructures of the later group of tombs (E 33-35; E 49-52) displayed more diversity compared to the earlier ones
(Fig. 2). They were built of small blocks bonded in mortar and often lined with elaborate plastering that was decorated with a combination of listels, indentations or cross-hatching. Some of the tombs had the western end shaped like a mibrab niche. ${ }^{4)}$

The spatial distribution of graves in the excavated area revealed some internal patterning, which may reflect social stratification as much as limitations putatively imposed by the terrain. As before, several graves were found clustered behind enclosure walls (E 18) and should be deemed as belonging to specific families. These enclosures were rather poorly preserved, but the available evidence is sufficient to attempt a reconstruction of their original appearance. Given their thickness, the character of the building material and the system of structuring etc., they could have been no higher than 1.001.50 m , making them little more than a screening wall.

Skeletal material recovered from the graves was as a rule very poorly preserved. Skeletons were often seriously disturbed and in many cases almost totally decomposed due to the highly corrosive environment: humidity, soil acidity, salination etc.

As usual, the finds from layers associated with the graveyard included an assortment of Egyptian and imported glazed pottery sherds, lamps and glass fragments. The artefactual evidence supports the previously established chronol-

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Fig. 3. Area H, Moslem Upper Necropolis
(Drawing T. Pelc)
ogy for this phase of the necropolis, i.e., 11th-13th centuries AD. The vast range of imported ceramics, ranging from Cypriot Glazed Pottery through Italian and SiculoMaghrebi proto-Majolicas to Tunisian and Spanish wares, is perhaps the best evidence for Alexandria's lively trade contacts in the medieval period. ${ }^{5)}$ In the accompanying debris a number of funerary stelae bearing Kufic inscriptions were also recorded. None of them, however, could be safely associated with any of the excavated structures. Most of them were of earlier date and could be dated on paleographical grounds to the 10th-11th centuries.

An interesting discovery was made in grave E 47, where two copper anklets (reg. nos. 5072-5073) were found preserved on the skeleton.

Immediately below the Upper Necropolis, some graves of the so-called Middle Necropolis phase were cleared (E 118-130). They turned out to be largely destroyed by later burials. Yet another column of red Aswan granite, broken in three, was found lying below graves E 34-35 (cf. Fig. 2). This brings the total number of columns discovered in this area to four.

## AREA H

The main objective of the season was to extend the excavation area behind the portico back wall. In 2001, a large auditorium (M) of Late Roman age located immediately north of the Theatre was cleared and it was suggested then that a line of similar halls should be expected all along the Portico. ${ }^{6)}$ This hypothesis is now fully supported with further evidence
obtained during clearing work behind the portico back wall. Following exploration of a yet another section of the medieval cemetery located there (graves H 22-35, Fig. 3), two more auditoria of the kind were excavated in area $H$, north of the earlier discovered unit M. They adjoined it, apparently forming one large complex. While their state of preservation varies considerably, it may be said with certainty that they shared the overall dimensions (c. 11 by 5.5 m ) and internal arrangement. Both halls had rows of stepped benches placed along the walls. The benches formed a hemicycle at the southern end of the rooms. They were made of large limestone blocks (c. $35-40 \mathrm{~cm}$ high). The gaps behind the benches were filled with rubble and plastered over. In auditorium L, extensive dismantling activities already in Late Antiquity left solely what amounts to a small fragment of the lowermost row forming the hemicycle. An identical arrangement was found almost intact in the adjoining auditorium K , which is the best example of this type discovered so far (Fig. 4). Three rows of benches (c. 7 m long) were aligned along the walls, forming a hemicycle at the end. A prominent seat at the back of the hemicycle, rising c. 0.90 m above the adjacent benches, was accessible by specially built stairs (Fig. 5). In similarity to hall M, the remains of two small water tanks occupied a spot at the end of each wing of seats. Surprisingly enough, the floor in both rooms was found to be of rather mediocre quality, made of tamped earth mixed with lime.

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Fig. 4. Late Roman Auditorium K
(Drawing G. Majcherek)


Fig. 5. Late Roman Auditorium K, view from the north
(Photo G. Majcherek)


Fig. 6. Late Roman Auditorium P
(Photo G. Majcherek)

Both excavated auditoria were built in the same manner, taking advantage of existing construction. Large buttresses supporting the Portico back wall were extended eastwards with walls ( 1.25 m thick), built of large masonry in isodomic bondwork. The long east walls were structured differently, however. Although again formed of isodomic courses of large dressed stones (some reaching $0.60-0.70 \mathrm{~m}$ in length), they had only one face, the one on the inside. The outer (eastern) face was left rough, with stones set haphazardly, some protruding from the wall. It is quite obvious that the structure was designed as a retaining wall counteracting the heavy load of the adjacent mound which had started to accumulate beginning in the 6th century in the vast abandoned area between the Theatre and Bath complex. The mound composed mostly of thick deposits of rubble, urban refuse and ashes from the bath furnaces stood well above the surrounding area. Its heavy load caused a dangerous inward bulging of the walls, a feature particularly well visible in auditorium L.

Quite unexpectedly, explorations revealed a substantial section of toppled masonry, obviously originating from the top parts of the east wall. It was apparently built in the pillar technique, with smaller dressed stones filling the intervals. The dimensions of the fallen fragment combined with the height of extant walls gave an estimated original height of the halls K and L at close to 6 m .

While it is still unclear when these structures were built (available conjectural evidence points to the late 5th century), the date of their last occupation can be established more securely. A group of broken pottery vessels found in the northeastern corner of auditorium K , including imported Late Roman

Amphorae 1 and 4, as well as some Egyptian containers, suggests the mid-late 7th century AD as the most plausible time for their abandonment. A chronological assessment of these structures is underway and conclusive evidence is expected from the exploration of under-floor layers.

## AREA AS

A new trench was also opened in area AS situated at the northern confines of the site, the intent being to verify the stratigraphy and to assess the archaeological potential of this area. A group of graves of the Upper Moslem Necropolis (AS 100122), found virtually at present topsoil level (c. 11 m above sea level), was first cleared. All the graves fell within the same typological groups already described above.

Yet another large hall (P), seemingly also used as an auditorium, was excavated immediately below the burial level. It was most unusual, however, for it appeared to follow in orientation as well as layout, a typical church design featuring a rectangular plan complete with apse (Fig. 6). Unlike the structures excavated in the southern end of the site, this building had more bulky proportions ( 10 by 7 m ) and followed an $\mathrm{E}-\mathrm{W}$ axis. A small apse ( 3.5 m in depth) was added to the eastern wall, creating thus a peculiar design. Three rows of stepped seats, apparently imitating a synthronos, were found partly preserved in the apse. The benches in the main aisle were much higher, featuring as many as five rows of stepped seats, as evidenced by those preserved along the northern wall. Most of the seats, however, were damaged, some dismantled and others destroyed by the burials of the medieval necropolis. All the benches had been coated with plaster, which was found still adhering to the surface in places. The fill contained much
painted wall plastering, as well as a marble base and a small granite column ( 1.20 m long, dia. 0.25 m ), suggesting a fairly elaborate internal decoration.

The auditorium was accessible from the portico through a vestibule (not yet excavated). The building was apparently adapted from a previously existing structure of unknown function to serve as an auditorium. Abundant finds from deposits sealed under the seats, including well-dated tableware fragments (Egyptian, African and Cypriot Red Slip pottery), provided a chronological clue. All the recorded forms belonged invariably to the late 6th-early 7th century AD horizon. It is quite surprising that this remodeling took place at such a late date. It would testify to a growing demand for public installations. Even at this stage of research, it has become increasingly obvious that, contrary to prevailing views, the social life of Alexandria in Late Antiquity was not only far from slipping into decline but actually flourishing.

There is little doubt that the recently uncovered auditoria belong to a large complex of lecture halls located within the urban public space in the center of the city. They were all built along the Theatre Portico, which is in fact the eastern colonnade of a large square (presumably an agora) in the center of the Late Antique city.

Some of the auditoria were uncovered as early as in the 1980s, but it is only now, following additional research, that we have been able to reach the conclusion that this entire complex represents the remains of
one of the academic institution for which Alexandria was renown in antiquity. Our recent discovery threw also an entirely new light on the function of the nearby Theatre in late Antiquity. Apparently, it was part of the same complex, serving the needs of larger groups of students.

The intellectual life of late antique Alexandria is well documented in written sources as the city was famous for its philosophical, juristic and medical academies. Although no epigraphical evidence can be directly associated with our auditoria, numerous names of both the professors and students are preserved in letters and biographies. ${ }^{7)}$ The importance of these recent findings can hardly be overestimated, not only for Alexandrian, but also for Roman archaeology in general. It is for the first time ever, that such a complex of lecture halls has been uncovered on any Graeco-Roman site in the entire Mediterranean.

An unexpected discovery was made while carrying out the conservation of a $2 \mathrm{nd}-3$ rd century AD mosaic found a few years back in a deep trench behind the Theatre. ${ }^{8)}$ The initial trench was expanded as required by conservation procedures and the mosaic was cleared almost in its entirety ( 2 by 3 m ). The fairly well preserved multi-colored opus tesselatum mosaic featured a purely geometrical carpet, composed of a combination of squares, lozenges and trapezes. The central element, cruciform in shape, was filled with a double-strand rope pattern. The forepart on the threshold was designed as

[^3]a large tabula ansata framing an inscription greeting visitors in Greek.

The surprise came when, at the far end of the mosaic, a multi-colored opus vermiculatum emblema featuring a bearded man holding a cup (Dionysus-Bacchus) was uncovered (Fig. 7). It was made of extremely small tesserae (c. 3 mm ), mounted on a round terracotta tray (dia. c. 0.60 cm ) and inserted into the ready mosaic floor. The emblema had been damaged already in antiquity, the missing part at top left being rather crudely completed with lime mortar. This constitutes yet another rare example of figural decoration, paralleling
the best in the fine mosaic craft of Alexandria.

Finally, mention should be made of a number of artifacts found in good condition in the fill removed from a subterranean vaulted cellar in the Baths complex, excavated prior to undertaking the planned preservation work. Two glass vessels and two complete lamps were recovered from a thick layer of ashes accumulated under the vaults near the furnaces. ${ }^{9)}$ All the finds, accompanying pottery were dated to the 5th century AD and should be considered as referrig to the second building phase of the Baths.


Fig. 7. Figural emblema from the mosaic found below the theatre (Photo W. Jerke)
9) Cf. communication by R. Kucharczyk in this volume.

## PRESERVATION WORK

Architectural conservation work was continued over the course of the 20022003 season on various monuments at the site. The restoration of the massive portico back wall was one of the most important operations undertaken this year. The wall was c. 1.55 m wide, its core originally structured of irregular stones set in a thick layer of ashy lime mortar. The facing was made of regular courses of smaller dressed stones, with conspicuous brick lacing laid every seventh course. Three more sections of this wall ( $\mathrm{H}, \mathrm{J}$, and K ) were rebuilt this season, bringing the already restored length to a total of some 65 m . As before, the restoration procedure amounted to consolidation of the much-disintegrated core and rebuilding of the missing facing with original stones found nearby during the excavations (Figs. 8-9). In several cases, extant lower courses of the masonry had to be reinforced with new mortar, and some of the more seriously damaged blocks replaced with new ones to make the wall structurally sound prior to receiving a new facing. The missing brick lacing was restored with new bricks cut to required dimensions. The facing was rebuilt in places up to 4 m above the portico pavement. 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. The bitumen tarpaper has the additional advantage of acting as insulation to prevent damp and salt migration. The newly applied limesand mortar was made in similarity to the original one.

Minor conservation procedures were also applied in the Theatre Portico itself. Several missing sections of the stylobate
foundations (some exceeding 2 m in length) were restored with original stones found nearby. The stylobate was thus prepared for a forthcoming anastylosis of four granite columns uncovered nearby.

Conservation proceeded also in the Baths complex, focusing as in the last few seasons on the preservation of the southern wing of the subterranean service area. Two additional vaults leading to the hypocaust furnaces located close to the sudatorium were thoroughly restored (Fig. 10). Extant sections of the vaults were first consolidated. Existing void joints were filled in and some loose blocks were fixed with new mortar. Missing parts of the vaults were restored with new limestone blocks, whereupon the outer coating made of smaller irregular stones was rebuilt.

Furthermore, the restoration of a large ( 20 m long) section of a brick-made water conduit running on top of the vaults along the façade of the bath was brought to a successful close. Extant original fragments were cleaned and reinforced with new mortar, and missing sections completed with new bricks.

The work in this area advanced the project for a visitor's path, which is to be opened through this area in the near future. Sections of walls adjacent to the walls were also reinforced and retaining walls were introduced wherever necessary to support the future paths.

Restoration work was also continued in the northern part of the site. Two sections (c. 11 m long) of a huge wall bordering the passage leading to the Bath complex were partially rebuilt. The work in this area will be continued in the next season.

The transfer of the Early Roman mosaic discovered behind the Theatre in 1993, of which the figurative emblema unearthed


Fig. 8. Theatre Portico. Segment H of the back-wall, before the 2002 restoration (Photo G. Majcherek)


Fig. 9. Theatre Portico. Segment H of the back-wall, after restoration
(Photo G. Majcherek)
this season is part (cf. Fig. 7), was one of the key conservation issues this season. The mosaic, which had been found at the bottom of a very deep trench (c. 8 m below the topsoil), had been in constant danger of seasonal flooding that was also hardly fortunate for the adjacent, exposed section of the outer wall of the Theatre. The mosaic was successfully transferred to an on-site field laboratory where the conservation treatment could be continued. ${ }^{10)}$ The mosaic will be displayed either in a specially built exhibit room or in the Mosaic Museum to be opened soon in Alexandria.

Some supplementary conservation work was also undertaken in the Villa of the Birds which had been restored in 1999. ${ }^{11)}$ The mosaic with panther ( $\alpha-6$ ) had been seriously endangered last year by water seeping from a nearby broken pipeline, causing a most dramatic resurgence of the effects of increased damp. Instead of detaching the mosaic, it was decided to treat it in situ. The efflorescence of water-soluble salts appearing on the surface was carefully removed mechanically and the surface was rinsed with $5 \%$ ammonia. To assure unimpeded drainage, piping was introduced into the mosaic substructure, c. 30 cm below


Fig. 10. Roman Baths. Vault of the underground area after restoration
(Photo G. Majcherek)
10) Cf. communication by J. Lis in this volume.
11) The restoration of the Villa of the Birds had been sponsored under an USAID/ARCE Grant. Cf. W. Kołątaj, PAM XII, Reports 2000 (2001), 17-22. The present supplementary conservation work was carried out by E. Parandowska assisted by W. Kuczewski.
the surface. Altogether five sections of perforated PVC pipes (dia. c. 5 cm ) were installed in specially drilled holes. Yet another preventive measure was introduced by separating the mosaic from the adjoining walls
of the shelter in order to minimize the contact zone with the surroundings. To prevent water penetration, additional styrofoam insulation was introduced on adjacent sections of the foundation walls.


[^0]:    1) The Preservation and Archaeological Project at Kom el-Dikka is financed jointly by the Supreme Council of Antiquities and the Polish Centre of Archaeology in Cairo. The staff included: Dr. Grzegorz Majcherek, director; Mrs. Renata Kucharczyk, Mrs. Iwona Zych, Mr. Tomasz Pelc, Mr. Piotr Jędroszyk, Ms Anna Szczepanik, Mrs. Małgorzata Redlak, Mr. Dominik Elkowicz, Ms Dobrochna Zielińska, archaeologists; Ms Joanna Lis, Mrs. Ewa Parandowska, Mr. Piotr Wilczyński, Mr. Grzegorz Kieferling, Mr. Wiesław Kuczewski, conservators; Mr. Aureliusz Pisarzewski, architect; and Mr. Waldemar Jerke, photographer. Mr. Ahmed Moussa and Ms Hosnaa Mohammed Fahmi, SCA inspectors, shared with us the burden of work. As always, the Mission enjoyed the invaluable help and friendly support of Dr. Zahi Hawass, Secretary General of the Supreme Council of Antiquities, as well as of the various SCA authorities both in Cairo and in Alexandria. Our thanks to all of them.
    2) Cf. communication by M. Redlak in this volume.
[^1]:    3) For previous work in this area, cf. G. Majcherek, PAM XIII, Reports 2001 (2002), 31-44; id., PAM XIV, Reports 2002 (2003), 19-31.
    4) For the Islamic necropolis in general, cf. E. Promińska, Investigations on the population of Muslim Alexandria (Warsaw 1972); G. Majcherek, "Excavations at Kom el-Dikka 1997-98. A Preliminary Report", ASAE LXXIV (1999), 39-55; Z. Kiss et al., Fouilles polonaises à Kom el-Dikka 1986-87, Alexandrie VII (Warsaw 2000), 35-98.
[^2]:    5) For a brief account on 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.
    6) For similar structures, cf. M. Rodziewicz, "Excavations at Kom el-Dikka in Alexandria 1980-81", ASAE 70 (1984), 236-240; also the auditoria located close to the southern passage of the Baths, cf. Z. Kiss et al., op. cit., 9-33.
[^3]:    7) For a brief account of intellectual life in Late Roman Alexandria, cf. D. Roques, "Alexandrie tardive et protobyzantine" (IVe-VIIe s.): témoignages d'auteurs", in: Alexandrie: Une megapole cosmopolite (Paris 1999), 203-236.
    8) G. Majcherek, "Excavations in Alexandria, 1992-93", PAM V, Reports 1993 (1994), 11-20; G. Majcherek, "Mosaic floors from Roman triclinia in Alexandria" Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists, Cairo 2000 (Cairo 2002), 319-327.
