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**Kom El-Dikka: Excavation and
Preservation Work, 2005**

Polish Archaeology in the Mediterranean 18, 29-50

2008

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

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KOM EL-DIKKA

EXCAVATION AND PRESERVATION WORK, 2005/2006

Grzegorz Majcherek

Following the summer break the PCMA's Polish-Egyptian Archaeological and Preservation Mission resumed work on 15 September 2005 and continued through the end of June 2006.¹

Last season saw considerable progress in the site presentation project with a thorough facelift of the immediate surroundings of the theater, initiated by the Supreme Council of Antiquities (see below).²

Accruing excavation dumps in the central and western parts of the site (altogether some 3000 cubic meters of soil and debris) were removed in an operation opening for further exploration the area believed to contain more of the Late Antique auditoria. The operation was made possible thanks to a generous contribution from Dr. Roger Bagnall (Columbia University) with funds provided by the Andrew H. Mellon Foundation.

1 The team headed by Grzegorz Majcherek included: Renata Kucharczyk (archaeologist, Deputy Director); Barbara Lichočka, numismatist; Emanuela Kulicka, Urszula Wicenciak, Marek Woźniak, archaeologists; Daria Tarara and Aureliusz Pisarzewski, architects; Wiesław Kuczewski, restorer; and Waldemar Jerke, photographer. The Supreme Council for Antiquities was represented throughout the season by Mohammed Senussi, Mohsen el-Sayeh, Khulud Shawky and Hossam el-Misiri, all of whom participated actively in our work. The Mission also offered field training for SCA junior personnel: Amal Hassan, Bahgat Ibrahim and Hossam el-Misiri.

The Mission would like to express its sincere gratitude to the Supreme Council of Antiquities of Egypt, especially to its Secretary General Dr. Zahi Hawass, and to Dr. Mohammed Abdel Maqsud and Dr. Atiya Radwan, respectively former and present Director of the Lower Egypt Antiquities, for their generous help and friendly support extended toward the Mission during its work. Last but not least, we would like to thank Mr. Ahmed Musa, Kom el-Dikka Site Director, for his valuable assistance in solving everyday problems and facilitating our work.

2 Site upgrading operations were supervised by Dr. Mohammed Abdel Maqsud of the SCA.



*Fig. 1. Path leading to the Villa of the Birds, current view
(Photo G. Majcberek)*



*Fig. 2. Restored portico, looking south
(Photo G. Majcberek)*

SITE PRESENTATION PROGRESS REPORT

Visitors paths around the theatre were remodeled and given a modern surfacing of prefabricated concrete pavers. New concrete surfacing was also introduced around the main entrance where heavy transport can be expected. Grass carpets were extended along the footpaths and integrated with existing structures. The stone-made auditorium built in 2000 in front of the Roman theatre and used for modern theatrical performances was also refurbished in order to make it more aesthetically compatible with the ancient monuments (for this auditorium, see Kołataj 2001: 24). A new perimeter fence of forged iron panels (each c. 11 m long), mounted on a reinforced concrete base and fixed to posts, replaced the old wall along the southern boundary of the site, opening the site visually and integrating it better with the modern city fabric.

The temporary display of objects retrieved during Franco-Egyptian underwater excavations near the Qait Bey fort

was thoroughly rearranged and a similar display of architectural pieces (columns, bases, capitals and fragments of statuary), coming from various sites in Alexandria and in temporary storage at Kom el-Dikka, was mounted along the footpath leading to the Villa of the Birds. The path itself, made in this stretch of salvaged basalt setts, was widened here to c. 3 m [Fig. 1]. The steps leading down to the Villa from the level of the cistern (Kołataj 1997: 22 and Fig. 3) were also similarly upgraded.

The most challenging operation of the season was the landscaping of the western part of the site. The entire excavated and restored section of the portico (some 70 m long) was leveled and scattered with gravel [Fig. 2]. A stone ramp was introduced to facilitate communication between the modern auditorium and the portico. The western edge of the excavation area was formed into a sloping escarpment and grassed. A new access road to the excavated part of the site was arranged.

EXCAVATIONS

AREA CW

Excavations started with the exploration of medieval Moslem graves CW 1 – CW 39, identified in this area during the previous season [Fig. 4] (Majcherek 2006: 25; for excavations in the adjacent area AS, cf. Majcherek 2004: 32-34; see also contribution by E. Kulicka, below in this volume). On-site anthropological examination was carried out by Robert Mahler from the PCMA.

In this part of the burial ground, the graves were packed in tightly. At least two separate clusters, each enclosed within a perimeter wall, were identified: graves CW 17-19 in the southern part of the area

and graves CW 24-26 lying further to the north. In both cases, the perimeter walls were structured of rather small stones set in lime mortar and preserved generally to a height of 0.20-0.40 m, although one section was even 0.90 m high. Of special interest was the southern perimeter wall (nos 20-21) preserving a small *mibrab* niche lined with plaster. Similar architectural features had been recorded previously in other areas of the cemetery as well (Promińska 1972: Plan II; cf. also Majcherek 1999: 34).

The construction of particular graves evinced some variability. As a rule, most of

the superstructures were constructed of small regular stones, very often lined with lime plaster and featuring some rudimentary decoration consisting of diagonal hatchings. The burial chambers were closed either with flat slabs or a pitched covering. Much smaller graves made of slabs set up vertically (CW 7-9, 34, 38-39), apparently belonging to the earlier phase of the cemetery, were found packed in tightly among the later graves. Cases of simple internment were also recorded between the built tombs with the bodies being buried in shallow trenches without any protective structure whatsoever.

Finds from associated layers demonstrated the usual breadth of category, from glazed pottery to lamps and glass weights. Most of the collected pottery fragments, both imported and local, belong to the 10th-12th century horizon. The Egyptian



Fig. 3. Middle Necropolis Grave in Area CW (Photo G. Majcherek)

ceramic industry was represented by a variety of Fatimid and Ayyubid glazed pottery, including Fatimid Luster Ware bearing potter's marks on the base.



Fig. 4. Area CW. Moslem burial ground, seen at the beginning of the season (Photo G. Majcherek)

Graves of the so-called Middle Necropolis phase were cleared directly below the Upper Necropolis level. Despite serious damages caused by the digging of later internments, a few of the graves turned out to be in surprisingly good condition. The aboveground superstructures of these earlier tombs were usually built of larger blocks, forming rectangular structures [Fig. 3]. Floors were covered with a thin layer of pebbles as a rule. Interestingly enough, in several cases funerary stelae were found where they had been immured.

Some graves of the Lower Necropolis, scattered among the higher preserved walls of Late Roman structures, were also explored.

LATE ROMAN AUDITORIA IN AREA CW

Fieldwork in recent seasons had brought the discovery of a large and well-preserved complex of lecture halls (auditoria) of Late Roman date. So far, 17 auditoria situated along the Theater Portico have been identified and explored (Majcherek 2004: 27-32; 2005: 19-22; 2007: 25-28). Since there was every reason to believe that similar halls lined the entire length of the portico, further structures of the kind were anticipated in the yet unexplored Area CW. This was indeed the case with three more halls (RS, T and W) being cleared here this year [Fig. 5].

Construction in this area appears to have been determined by a single architectural plan. Structures predating the building of auditoria in the late 5th-early 6th century were found to be mostly dismantled down to the ground. The prevailing technology for raising new walls, from scratch as a rule, was the pillar technique. The auditoria were also

generally larger, there being no imposed constrictions of space.

Hall T (c. 9.00 by 4.70 m) featured a standard arrangement with two rows of benches running around three of the walls [Fig. 6]. The southern section with the dais has been preserved only as an imprint on the ground. An upturned marble base found close to the northern end of the benches may have served as a small pedestal, set in the middle of the room in a manner similar to the pedestals

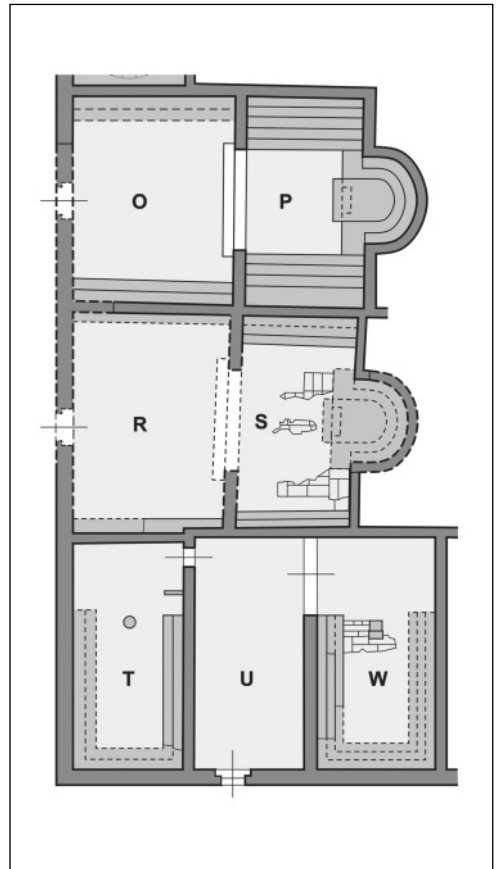


Fig. 5. Late Roman auditoria
(Plan A. Pisarzewski)

uncovered in halls M, K and J. The auditorium was most probably originally accessed from the portico, although the poor state of preservation of the portico back wall makes a positive identification of this entrance practically impossible.

Auditorium W followed the same design. Likewise oriented N-S, it had three rows of benches along the walls (only the western run has been preserved) [cf. *Fig. 7*]. In its northern part, a low pedestal made of a large block of nummulithic limestone was found *in situ*. It has a small rectangular hollow evidently serving to mount some additional furnishing. The only viable entrance to this hall, which had its back to the bath passage, was from the vestibule in unit U which had a doorway opening onto the passage. In a later phase, auditorium T was also entered from this vestibule.

Hall S, uncovered further to the north, turned out to be completely different in plan and orientation [*Figs 5, 7*]. It was much larger, forming together with its vestibule (R) a rectangle 12 by 19 m. Aligned E-W, it had an apse projecting eastward, beyond the rectangular outline of the room. The walls of the apse have not survived above the foundations, but sufficiently however for a full graphic reconstruction including semicircular benches (preserved in the northern part), clearly in imitation of a *synthronos*. The regular benches along the walls were replaced in this case with an asymmetrical pair of stands on opposite walls, three rows on the north wall, but only two on the south one.

A partition wall of little substance, evidently not meant to carry any substantial weight, separated the hall from

a much bigger unit (R) to the west of it and directly adjacent to the back wall of the portico. Indeed, it seems that instead of a solid wall with a doorway leading through it into Hall S, we should rather envision low lateral walls screening the sides of the benches but not hampering a view of the apse. This vestibule was furnished with a single-step bench of stone blocks lining the opposite walls on the north and south (where some remnants were recorded). It appears to have been entered from the portico.

The uncommon arrangement of the interior and the furnishings in this hall with its vestibule and the previously discovered units O+P (cf. *Fig. 6*) points to a more complex function for these auditoria, one that must have differed to some extent from that of the other lecture rooms (Majcherek 2004: 33-36 and *Fig. 6*).³

AREA L

A fragment of the medieval Moslem cemetery overlying the southwestern part of the cistern (for explorations of this part of the site, cf. Kubiak 1967: 75-77, Pl. II) was explored, uncovering graves of the Upper Necropolis immediately below the present topsoil (c. 16.90-17.00 m a.s.l.). Graves were clustered in the middle of the excavated area [*Fig. 8*], the ones at the south and west edges apparently destroyed by modern construction works in the 1960s. The tombs were oriented SW-NE, in keeping with traditional Islamic funerary practice, the head of the deceased placed in the direction of the *qibla*. Altogether 12 graves (L 1-L 12) were excavated, representing two basic types of construction already identified in other areas of the cemetery.

3 The affinity with church architecture is striking: apse, *synthronos*, clear division into two parts corresponding to the presbytery and the part of the building intended for the congregation. Nonetheless, units R+S were apparently an integral part of the academic complex and were used as an auditorium.



Fig. 6. Late Roman auditoria T and W, looking south
(Photo W. Jerke)



Fig. 7. Auditorium S with vestibule R in front, looking east
(Photo W. Jerke)

Upon exploring the graves, a stretch of Late Roman water-channel was cleared. The channel, which runs northward, appears to have supplied water from a nearby drawing well to the tanks of the cistern. Trapezoidal in section, it was built of red bricks, heavily lined with waterproof plaster and covered with horizontal slabs. Some sections of the channel were heavily damaged by medieval internments.

The outer wall of the cistern complex was cleared at the western edge of the

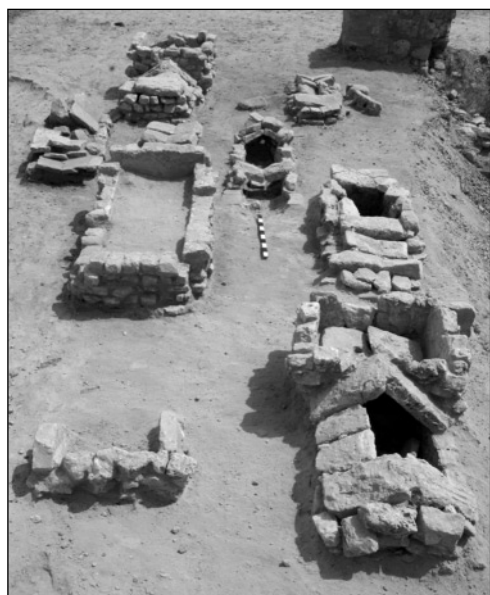


Fig. 8. *Upper Necropolis graves in Area L*
(Photo W. Jerke)

trench. The wall with its buttresses proves to have been largely dismantled sometime in the 9th-10th century, but before the area started being used for graves belonging to the Upper Necropolis.

AREA F

Landscaping of a small stretch of ground sandwiched between the baths and Street R4 quite unexpectedly revealed remnants of a large public latrine. The structure built next to the huge outer wall of the baths was excavated c. 0.80 m below the present surface. The rectangular building featured a typical arrangement with a channel running along its four sides (see appendix by M. Woźniak, below in this volume). It is presumed to have measured 10 by 5 m, ending most probably on the wall bordering street R4, the latter unfortunately not preserved, having been dismantled sometime in the Middle Ages. The discovery of a latrine apparently on the bath premises goes a long way to solving the functional issue connected with the other two latrines discovered west of the bath (Kołątaj 1992: Fig. 35 – general layout of the baths; Rodziewicz 1984: 287-292; 1991: 103-106). These western latrines lie already outside the bath complex proper and it now seems that they would have easily served the needs of the public frequenting the portico and adjacent auditoria rather than the bathers.

CONSERVATION WORK

Active participation of PCMA mission staff and manpower in the site-upgrading operation compelled substantial readjustment of the annual restoration program. Regular conservation work was therefore delayed and did not start until January 2006. As in previous campaigns, it was

focused on the architectural monuments making up the core of the future Archaeological Park.

THEATRE AREA

Limited conservation undertaken in the theatre comprised the outer wall, which

had suffered extensively from damp and moisture, especially in the areas untreated during recent conservation work in the 1980s (Kołątaj 1994: 5-8). In accordance with previously developed principles and methods, the intervention was limited to conservation in the most critical areas. In several places erosion of limestone masonry or brick lacing was visually dramatic. Conservation treatment entailed the replacing of badly deteriorated stones or bricks with new ones and repair of missing jointing. In some cases, a masonry infill was also applied. To arrest ongoing decay, the protective anti-damp layer on the wall coping was repaired and expand-

ed. As a rule, all interventions were done in traditional materials: lime-sand mortar and seasoned limestone blocks.

Some damages to the modern drainage system especially, resulting from unchecked vandalism, were also repaired. New gravel surfacing was introduced along the entire semicircular wall of the theatre.

Limited restoration work was also performed in front of the theatre, where a 6 m-long stretch of the portico back wall was restored. The wall was restructured in original blocks salvaged from nearby excavations and apparently originating from the structure itself.



*Fig. 9. Outer wall of the bath complex, after partial restoration
(Photo G. Majcherek)*

BATHS

The conservation effort this season was focused on the baths. Two vaults already successfully restored in the underground service area (Majcherek 2004: 35, 37, Fig. 10; 2005: 27-29) were given an additional 2-3 rows of blocks, necessitating the consolidation of extant vault springs. This was done using new blocks in order to secure structural stability.

Newly restored parts of the vaulting were covered with additional protective layers structured in small assorted stones. Exposed faces of adjacent additional bedding of the passage pavement were screened with protective walls. In the southeastern corner of the baths, one additional chamber was cleared of modern

backfill in order to introduce a modern access staircase which will permit the underground structure of the bath to be visited as part of the tourist itinerary.

A major restoration operation was conducted in Area F, where a large section of the huge outer wall of the bath was rebuilt [Fig. 9]. Prior to that, the wall was tested archaeologically down to the original footing at c. 1.40 m below the floor level of nearby Early Roman house F. The wall disappeared apparently in the Middle Ages, dismantled in a large-scale robbing operation. The original pillar structure composed of pillars made of large masonry blocks and intervening sections built in *opus caementicium* with limestone facing enclosing a rubble core (c. 1.60 m



Fig. 10. Street R4 after conservation in 2006
(Photo G. Majcherek)

wide) was robbed out in a characteristic manner, already evidenced at the site: little if anything remained of the pillars, while the extant screening walls were in very poor condition. These were treated first, consolidating the core of the wall and restoring the masonry facing wherever necessary. The rebuilding operation entailed also some protective dismantling of adjacent extant parts in order to deal with dangerously overhanging blocks. The dismantled wall sections were duly marked and stored for reassembly once the rebuilding has been completed.

The new wall footing was made structurally sound and the whole wall was rebuilt to about 1.60 m above the floor level of the adjacent Early Roman villa. The operation will be continued next season when the wall is planned to be restored to a final height of close to 5 m.

STREET R4

Street R4 and the adjoining domestic quarter is planned as an essential part of the future Archaeological Park. The idea is to present the multiphase character of the area with its various structures covering a wide span from the Early Roman to the Byzantine age. The street itself, giving also access to the Villa of the Birds housing Roman mosaics, will constitute a major part of the visitors itinerary. The 2006 operation entailed not only landscaping, but also substantial conservation work [Fig. 10].

The street elevation for a stretch of some 40 m was treated. Badly eroded stones were replaced with new ones, missing joints restored and the whole structure thoroughly consolidated. A considerable section of the wall enclosing rooms G 2-3, originally structured in the pillar technique like many other features of the period, was restored to a height of some 1.10 m in order to comply visually with other extant walls. Next, the row of antique shops uncovered in front of House G was partially restored. The shops had been found almost entirely dismantled, save for small sections of the walls in the southern part (Majcherek 2000: 37-38). Only one course of the original masonry was restored, however, in an effort to retain the balance between restored and original fabric.

The whole run of the street was cleared and the Late Roman surface exposed. A deep manhole used to service the ancient sewage system in the street was consolidated and partly restored. The head was built in new stone masonry, protruding c. 0.30 m above the ground level and secured with a wooden cover to avoid any hazards. The whole run of the street was then covered with a gravel layer c. 0.10 m thick. In order to cope with the increasing number of visitors, a modern staircase previously built at the southern end of the street (Kołątaj 1999: 24 and Fig. 11), was substantially expanded. Two more runs of steps were added and the whole width enlarged to about 6 m.

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APPENDIX I

NEWLY DISCOVERED LATRINE ON
KOM EL-DIKKA (2005/2006 SEASON)

Marek Woźniak

Fieldwork in 2005/2006, designed to prepare the area for a reconstruction of the robbed out outer wall of the bath (in Area FE), brought to light in the eastern trench wall a surprisingly well preserved sewage channel from a big latrine.

The trench was located on the site of a medieval robbers' pit which had destroyed almost completely a longitudinal section of the east bath wall, running to the north facade of the block of cisterns. Extending work in the trench to the east uncovered badly damaged remains of a floor paved with severely cracked limestone slabs. Evident traces of feces on the pavement and the situation of the floor to the west of the sewage channel identified the remains as the inside of a latrine. The location of this unit on the plan of this sector suggests the builder's intent to place the latrine near one of the main communication passages inside the Late Roman Bath complex, running from a monumental gate opening on Street R4 in the east to the actual entrance to the baths and the gate at the western end which opened into the Theater Portico. This evident topographical link with the bath complex implies a date for the newly uncovered remains in connection with the baths as a whole, and more specifically with the first phase of bath operation, that

is, the end of the 4th and the early 5th century AD.

Further excavations traced the sewage channel also along the mostly unpreserved northern and southern walls of the facility [Figs 1, 2]. The width of this channel in the upper part was 0.50 m, but lower down it was made narrower by about 10 cm because of the projecting wall footing. The depth, based on measurements of the completely preserved inside wall of the channel in the western part of the room, was determined as 2.50 m from the level of the pavement. The other walls of the channel were completely robbed out, but an analysis of the preserved parts of the inside walls (the foundation walls of the carrying walls served as the outer ones) revealed that they were constructed of two rows of solid limestone blocks. The pavement extended over the inside row, nearer to the center of the room, while the other row presumably supported the blocks which had a narrow trough cut in them for supplying the water for soaking the toilet sponges. One of these blocks, preserved in very good condition, was discovered inside the southern sewage channel [Fig. 3]. As was to be expected, the channels were not paved, allowing the liquid component of feces to soak even 2 m through the ground. This manner of

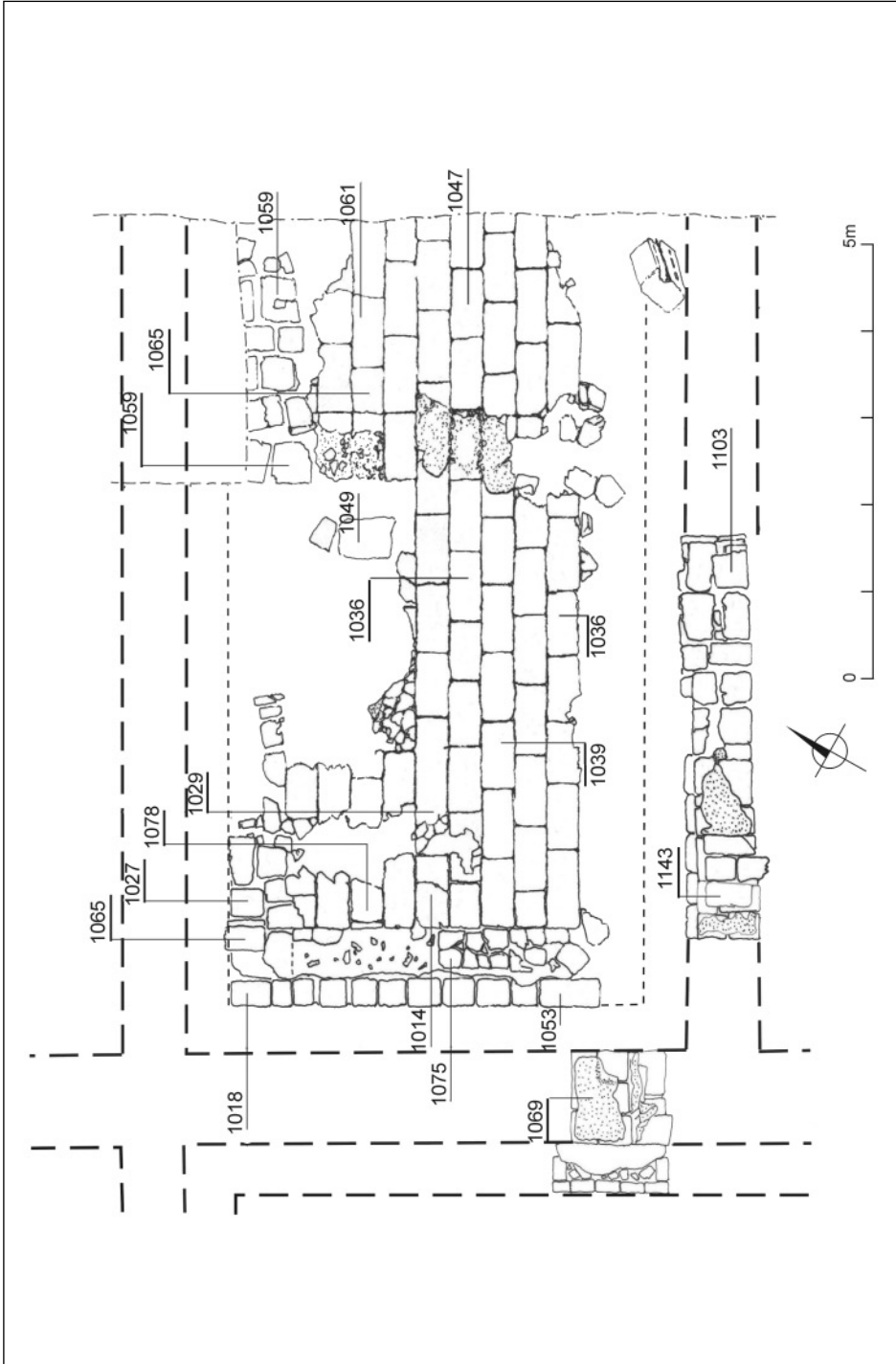


Fig. 1. Plan of the latrine in Area FE
(Drawing M. Woźniak)



*Fig. 2. The latrine in Area FE, looking west
(Photo W. Jerke)*



*Fig. 3. Block with trough-like channel from the latrine
(Photo G. Majcherek)*

construction solved the problem of emptying the latrine channels. The rest of the job had to be accomplished with more traditional methods, like water-sluicing, the sewage being emptied into a collector which would have been situated most probably under or next to Street R4.

Dividing the channel by the north wall was a kind of wide pavement made of regular limestone blocks, suggesting the location of the entrance to the facility in this spot. The evidence for a door is equally circumstantial, as all the walls with the exception of small parts of the foundations and a part of the south wall just above the ground, were completely destroyed by medieval stone robbers in search of building material on Kom el-Dikka.

The pavement of the latrine was composed of limestone slabs measuring c. 0.80-0.90 by 0.40 m and c. 4 cm thick. These slabs are now badly cracked and in many places completely destroyed. The slabs were laid in latitudinal rows, the only exception being one row alongside the western channel, which was laid with the short ends of the slabs to the north and south. The actual number of flagstones is difficult to calculate due to the damages.

The pavement suffered presumably because of the smaller soil fraction being washed out from under it in the direction of the robbers' pits. This phenomenon appears

to have been especially intense in the center of the room, resulting in the displacement of the ground toward the north where, unlike the western and northwestern part, no surviving walls could hold back the process. This ground displacement resulted in uneven settling of the floor, causing the pavement to crack and forming as a result three different levels. About 40% of the floor surface is still on the original or approximately original level. The lowermost level of the pavement is currently some 40 cm below it and is preserved at the western extreme edge of the pavement. The practically original level of the pavement in the northeastern part of the room is presumably due to the presence of the stone passage cutting across the northern channel, perhaps leading to the latrine entrance.

Despite extensive damages, the appearance of the facility can be reconstructed. The location of the channels clearly indicates the arrangement of the seating. The look of the block with the trough, as well as traces at the edge of the pavement will permit a partial reconstruction of the water installation inside the facility. It will be important for the reconstruction study of this public toilet facility to verify excavation data with parallels provided by exceptionally well preserved latrines discovered in Lepcis Magna, Scythopolis and other Roman-age cities of North Africa and the Near East.

APPENDIX II

MOSLEM CEMETERY IN AREAS CW AND L ON KOM EL-DIKKA

(EXCAVATIONS IN THE 2005/2006 SEASON)

Emanuela Kulicka

During the 2005/2006 excavation season, new sections of the Moslem burial ground known to have occupied successively most of the Kom el-Dikka site were explored in Areas CW (northern part of the Theater Portico) and L (cistern in the southeastern quarter of the site). In the former area, all three phases of the cemetery were recorded:

Upper from the late 11th and early 12th century, Middle from the end of the 9th and early 10th century, and Lower from the 7th/8th century. In Area L, the Upper Necropolis level was superimposed directly on top of the Late Antique remains of drawing wells and water channels (for details, see above, the main body of the report).

AREA CW

UPPER NECROPOLIS

Area CW lies immediately to the northeast of the spot where the southern bath passage intercepts the Theater Portico. On the east it is bordered by the latrine, on the north by lecture hall AS. Excavations in this area, which measures 20 by 16 m, uncovered a total of 67 tombs from the Upper Necropolis [*Fig. 1*].

The layer containing the graves is strongly inclined, the difference between the eastern and western parts being more than 2 m. In the western part, which lay at an exceptionally low level, the tomb superstructures rested on the stylobate of the portico, while the burial chambers reached down even a meter below that.

Eleven of the preserved superstructures were constructed of vertical limestone slabs: CW 8, 9, 29, 38, 39 (41, 42 were damaged), 53, 54, 56, 66. This kind of superstructure appears to be the oldest among the types distinguished in the Upper Necropolis. Burials CW 8, 39, 53, 54 and 56 were simple internments and so the bones have not been preserved. The other six tombs had cases built of small dressed stones, plastered on the inside and covered with limestone slabs. All the superstructures measured 2.10 m by 1.20 m, the cases being 2.00 m by 0.70 m. Some of the graves were damaged by later tombs, indicating that this simplest type was at the same time

the oldest kind of grave built in the Upper Necropolis.

The superstructures of 33 graves measured 2.00 m by 1.30 m and were constructed of small dressed stones which were plastered along with the floor inside the walls. Limestone slabs covered the cases in graves CW 4a, 6, 12, 12a, 18, 24, 26, 28, 30, 34a and 52, while graves CW 3, 4, 5, 7, 9a, 10, 14, 17, 19, 32, 33, 34, 36, 44, 60 and 67 had pitched roofs. CW 36 was the only grave in the construction of which mortar was used instead of the internal plastering which was the rule.

The third group includes superstructures of the same kind as already described, but much richer in form, with the plasterwork featuring a mihrab (CW 11, 13, 15, 25, 27 and 63). These superstructures were furnished with run-off channels draining fluids from the grave. The burial chamber accompanying this kind of superstructure was usually covered with a pitched roof of limestone slabs.

Most of the graves in the Upper Necropolis were multiple burials. Secondary internments were made through a special

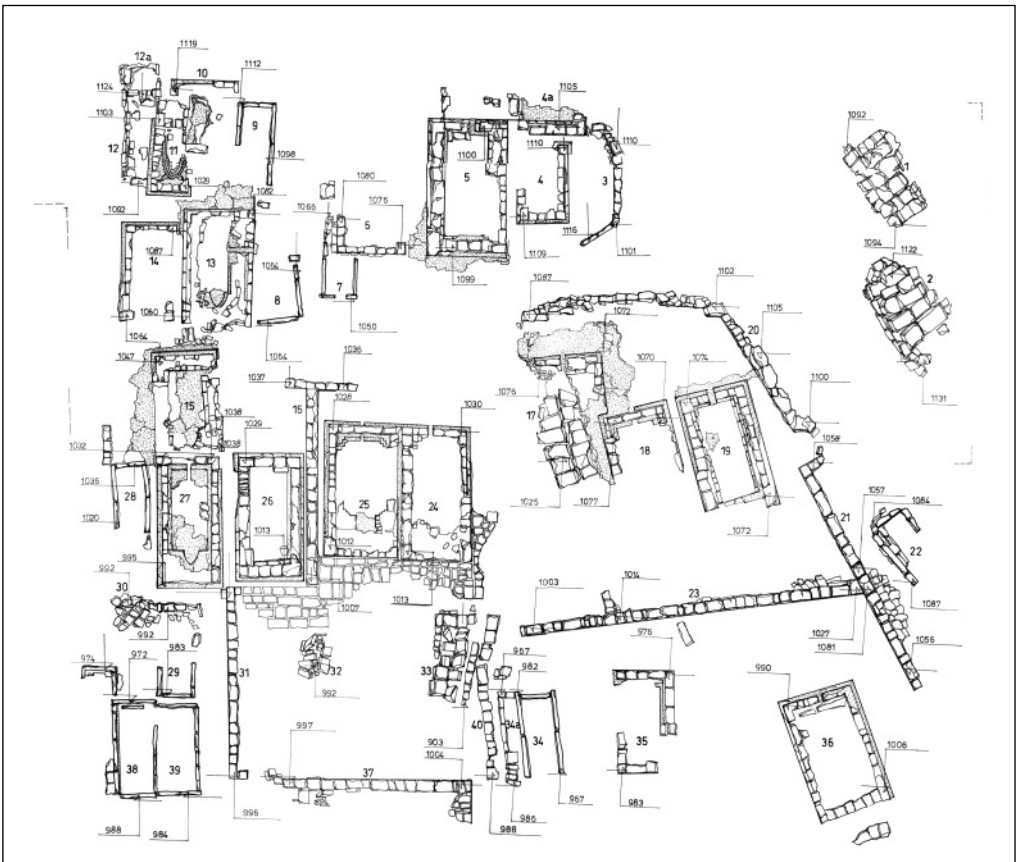


Fig. 1. Plan of the Upper Necropolis in Area CW
(A. Pisarzewski)

superstructure in the eastern part of the tomb, pushing back toward the western end the bones from earlier burials. Burial chambers CW 15 and 25 were furnished with shafts which could be opened repeatedly; in CW 25 the special superstructure was positioned not in the eastern, but in the western end of the grave, and the bones were pushed to the east and not to the west as was common.

In a number of cases (graves CW 22, 35, 55, 58, 61-65), no cases were recorded and the bones in these earth burials were found completely decayed.

Some damaged cases could not be connected with any superstructures. They were presumably remnants of earlier graves belonging to the Upper Necropolis, destroyed by later and much more elaborate tombs.

Graves CW 17, 18 and 19 were surrounded by a low wall, which is interpreted as separating a family group from other graves in the cemetery.

MIDDLE NECROPOLIS

The Middle Necropolis layer [Fig. 3] slopes down in the same westerly direction as the overlying Upper Necropolis. Yellow seaside sand with pebbles and seashells is scattered inside the burial cases and the surrounding area.

All 24 superstructures of the Middle Necropolis (CW 200-224), mostly measuring 2.20 m by 2.50 m, are definitely bigger than those of the Upper Necropolis. They were built of one-to-two courses of big, regular stone blocks, sometimes plastered. All the burials in this phase were earth internments and therefore no bones have been preserved. Their presence is recorded as observable changes in the color of the soil and a smell of ammonia noted during exploration.

Marble stelas were found mounted in place at the western ends of the superstructures CW 200, 217 and 222 [Fig. 2]. Only the mounting of similar stelas was discovered in the superstructure of graves CW 204 and 216.

The superstructures of the Middle Necropolis were partly founded on ruins of Late Antique buildings, in this case of the auditoria. Many were damaged and destroyed by later tombs belonging already to the Upper Necropolis, which was not much higher up in the stratigraphy. Indeed, the two cemetery layers are practically conjoined.

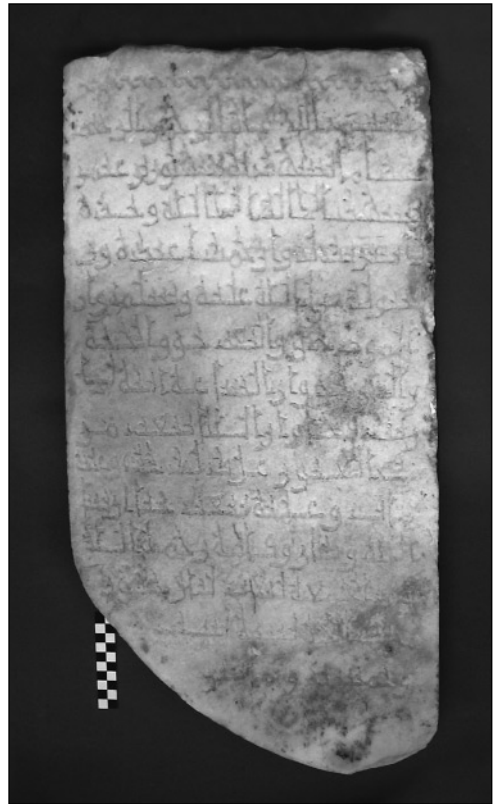


Fig. 2. Funerary stela from grave CW 217 (Reg. No. 5022) (Photo E. Kulicka)

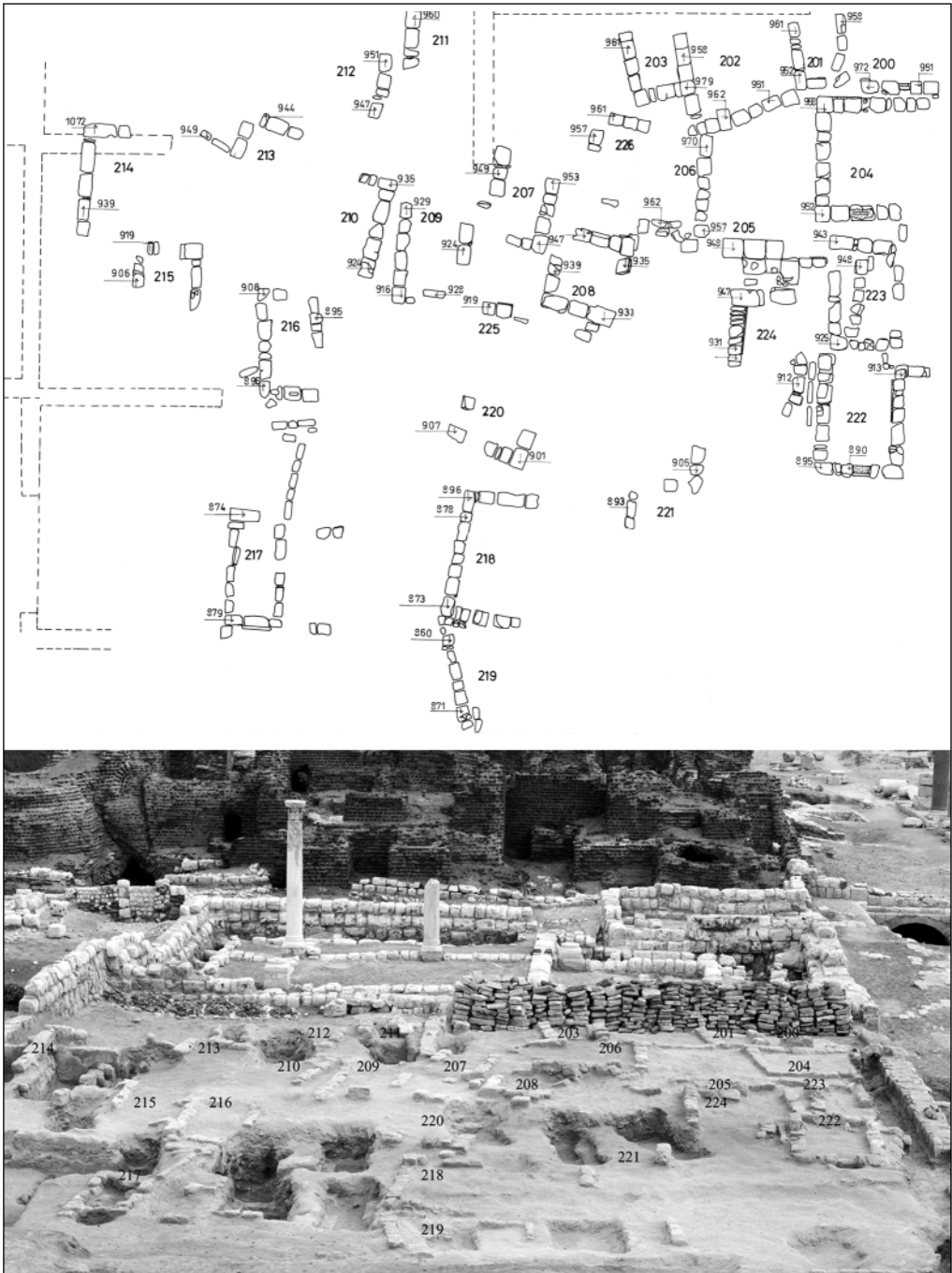


Fig. 3. *The Middle Necropolis in Area CW, plan and view from the west incorporating tomb numbers (Plan E. Kulicka, photo R. Mabler)*

LOWER NECROPOLIS

The level of the Lower Necropolis in Area CW was barely above the floor of the auditoria. Eleven tombs, measuring 1.80 m by 0.80 m (CW 300-310), were constructed in the same way: big limestone blocks covered with limestone slabs. Grave CW 305 was dug into the southeastern

corner of the room using the ancient walls; consequently the burial chamber needed to have walls added only on two sides and was covered with limestone slabs.

The Lower Necropolis tombs characteristically are devoid of any superstructures. The condition of the bones in the burials was very poor.

AREA L

UPPER NECROPOLIS

Area L, which was explored in 2005, is situated in the southwestern part of the ancient cistern. Altogether twelve burials from the Upper Necropolis have been preserved, some so fragmentary that it is difficult to attribute them to any specific type [Fig. 4]. Graves L 2, 4, 7 and 8 are simple earth internments with superstruc-

tures in the form of a rectangular case erected of upright limestone slabs. What sets these tombs apart is the use of stone clamps set in holes drilled in the sides of the slabs to hold the superstructure together.

The rectangular cases of two superstructures, L 3 and 9, were constructed of small dressed stones and the space inside was plastered. The burials in this type of



Fig. 4. *The Upper Necropolis in Area L, view from the southwest with the ruins of the cistern in the background (Photo W. Jerke)*

tomb were made in cases of stone covered with limestone slabs.

Despite heavy damages to their superstructures, graves L 5 and 6 still reveal traces of decoration in the form of a *mibrab*. Bricks were also used in their construction. The burial chamber in grave L 5 had a pitched roof; in L 6 it was flat.

Three graves (L 1, 10, 11) had shafts for multiple burials; unfortunately the superstructures in these cases were not preserved [Fig. 5].

Finds from the immediate neighborhood of the graves can be attributed to the three phases of the burial ground. The objects come from the layer into which the graves were excavated and their presence inside the graves is largely accidental. Glass vessels and Islamic glazed wares are the most numerous category of finds; glass weights, glazed oil lamps and bronze coins and unidentified fragments of bronze have also been recorded.

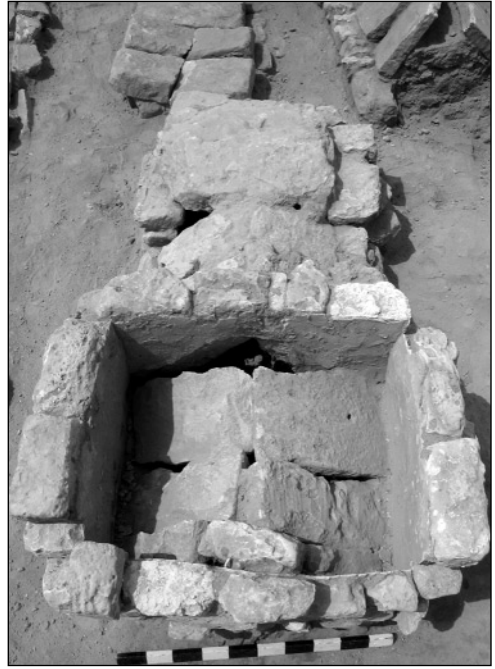


Fig. 5. Grave L 1. Burial chamber with shaft on the west side, view from the east (Photo E. Kulicka)