The third season of excavations at Marea, which lasted from August 10 until October 2, 2002, was possible thanks to a grant from the State Committee for Scientific Research of the Republic of Poland (no. HO1H 042 21) and resources provided by the Polish Center of Archaeology of Warsaw University and private sponsors.1)

The main objective of this year’s campaign was to locate the well from which water had been supplied to the Byzantine bath of the 6th through early 8th century, discovered during the two previous campaigns. Work in the bath itself was also completed.

1) The team was directed by Dr. Hanna Szymańska and comprised, Mr. Krzysztof Babraj (Deputy Director), Ms Joanna Szczepkowska and Ms Renata Kucharzyk, archaeologists; Mr. Grzegorz Kieferling, conservator and archaeologist; Dr. Grzegorz Majcherek, ceramologist; Ms Daria Tarara, architect; Ms Joanna Babraj, draftsperson; Prof. Dr. Elżbieta Mycielska-Dowgiallo and Dr. Barbara Woronko, geologists-sedimentologists; and Mr. Tomasz Kalarus, photographer. The Supreme Council of Antiquities was represented by Mr. Osama S. Kafafany, General Director of the Museum in Marina el-Alamein.

We would like to express our deepest gratitude to Dr. Zahi Hawass, Secretary General of Egypt’s Supreme Council of Antiquities, and Dr. Mohammed Maqsud, General Director of the SCA Egyptian Antiquities Sector, for their contribution to the success of the expedition. We would have hardly achieved as much as we have without the friendly assistance of Dr. Ahmed Abd El Fattah, General Director of Alexandrian Antiquities.
Fig. 1. Plan of features excavated in 2002 (Drawing D. Tarara)
Of the two areas explored this year, the first was located in a sector behind the east wall of the bath. The two water reservoirs, Y and Z, uncovered last year behind the east wall of the bath, were now fully explored. It turned out that the reservoirs had undergone alterations over time, with passages being cut through the steps in the north wall of Y and south wall of Z to reach the channel running alongside the wall. This year's extension of the trench to the east, measuring 8.30 m, led to the clearing of a spacious courtyard, F1 (8.30 by 10 m). The courtyard (Fig. 1) was paved with marble slabs, numerous fragments of which were discovered in the rubble. The lime-mortar bedding of this pavement preserved many imprints of these slabs (c. 75 by 30 cm). Two marble column bases had been inserted in the flagging (Fig. 2); stone walls were attached to these when the building was altered at some point. The rubble also yielded the shaft of a marble column (36 cm in diameter, preserved height 83 cm) and a matching marble Corinthian capital in excellent condition (Fig. 3). Its dimensions (height 35 cm, base diameter 36 cm) indicate that it must have formed a set with one of the bases and a missing column shaft.

To judge by a bench in the southern end, among other things, the courtyard must have functioned as a kind of waiting

Fig. 2. Courtyard F1. Marble column base surviving in situ, view from the south (Photo T. Kalarus)
area for the female customers of the bath, who entered the women's section of the facilities through a doorway in the east wall. There were four dig-ins to channel Q7, all started in antiquity (their presence had been observed already last year). The channel itself was covered with stone slabs. The courtyard could be entered also from the north through an entrance mounted by two steps. Next to it, a small channel with an arched brick covering was added at a later date; it served to drain water from the surface of the court. Two floors were recorded north of this minor channel, one on the same level as the courtyard and an earlier one 30 cm below the first (F2).

On the eastern side the courtyard was delimited by a stone wall, which was aggrandized during the rebuilding of the bath. The space behind this wall, excavated in a section 70 cm wide, proved to be a regular favissa where objects for which there was no more use had been thrown away. The fill yielded many small finds, including lamps decorated with a cross (Fig. 4), two clay jars, an ampulla with an ornament of relief dots in concentric circles, and a trove of about 30 coins, most of them dodekanoumia, dated to the 6th-7th century (Fig. 5).
LATRINE

Behind the north wall of the courtyard ran a passage leading to a rectangular stone structure, F5, which was enclosed by a separate wall. Between the wall and the building there was a narrow ditch that was 2 m deep. The only possible interpretation of the function of this structure was that it had been used as a latrine – toilets were essential to the functioning of a bath (Fig. 6). The facilities itself above this deep and narrow ditch have not been preserved, but it should be assumed that they were flushed with water from the bath pools, discharged through channel Q7, as well as by rainwater and sewage from the drainage system starting in the courtyard. A further section of the channel (Q7) was traced in the east wall of the latrine, where it turned at right angles to the north and joined the course of the E-W channel.

AREA F3

The space between the courtyard and the other site of concentrated activities this season was occupied by a number of structures of unidentified purpose. The reused column shafts set up in a semicircle in F3 could have been used as a screen for a bonfire that may have burned here, to judge by the 10-20 cm thick layer of ashes visible in the eastern trench wall, as well as in a baulk left in the northern part of the area. One of the shafts, which appeared to be damaged by erosion, had been plastered and painted red. The assemblage from the actual fireplace was quite uniform, including

Fig. 6. Latrine. View from the north, area of the courtyard in the background (Photo T. Kalarus)
Fig. 7. Well with two horizontal crossbeams one above the other (Photo T. Kalarus)

Fig. 8. Vaulted cistern connected with the well, viewed from the south (Photo T. Kalarus)
The other feature explored this season was situated about 4.75 m to the north of the bath and can safely be identified as a well operated by a saqiya (cf. Fig. 1). The well (G6) was 5 m deep, rectangular in plan (1.00 by 3.40 m), built of stone blocks and buttressed from the inside by two horizontal stone crossbeams one above the other (Fig. 7). The water in the well came from a spring discovered in its northwestern corner, supplied from underground sources. In the north wall of the well there was a rectangular outflow hole opening onto a channel, which ran for 9 m to a brick-vaulted semicircular cistern (Fig. 8). At a distance of 3.80 m from the outflow hole there was a shaft reaching the channel from the surface, its sides cut by characteristic footholds for scaling it. It was presumably operated as an inspection shaft. The bottom of both the well and the cistern was strewn with potsherds from the 6th-7th centuries, the majority of these representing saqiyah-pots. The well occupied a spot in the western part of a walled circle of an outer diameter of 8 m, raised of stone blocks (averaging 30 x 55 x 40 cm in size) bonded in mortar and partly robbed out. Masonry marks in the form of red crosses were painted on some of the blocks. This structure was buttressed in stone—two buttresses on the north, one on the west side and another one on the east. South of the well and level with its rim did not appear before the final abandonment of the bath. In the eastern part of area F3, in the east trench wall and in the baulk, two separate floor levels were recorded, the upper one 40 cm below the surface and the lower one another 30 cm lower down.

SAQIYAH AND WELL

Fig. 9. The substructure under the saqiyah (Photo T. Kalarus)

2) Cf. L. Ménassa, P. Laferriere, “La saqia. Technique et vocabulaire de la roue à eau égyptienne”, BdÉ LXVII (Le Caire 1974), passim. Few ancient wells with saqiyah installations have been found in Egypt. A saqiyah dating to the 5th or 6th century was explored at the Byzantine monastery of Abu Mena and another dating to the 1st or 2nd century was uncovered at Hermopolis Magna in Middle Egypt. At Kom-el-Dikka in Alexandria a team from the Polish Centre of Archaeology uncovered a cistern that assured the water supply of the 4th century Roman baths; this cistern was serviced by two saqiyah installations.
there was the floor of a basin made of fired bricks in waterproof mortar, presently weathered to a dome-like shape. The basin (1.10 x 1.50 m), which was filled with water from the well, was reinforced on the south with a few layers of stone blocks. In the bottom row there was a small clay pipe draining water from the basin to a presumed washstand (?) of which nothing has survived.

The space between the well and the stone ring-wall was filled with regular layers of alternately clay and stone debris (Fig. 9). This formed an appropriate surface for the animals turning the saqiyah wheel. No potsherds were found in these layers. The clay in the second layer from the top, some 30 cm thick, was compacted by the water overflowing from the qawadis-pots. The installation can be reconstructed on the grounds of parallels with surviving saqiyah constructions from Upper Egypt, e.g. Dendera.2) Remains of two other installations of this type can be seen in Marea, in the area west of the bath explored by the Polish team.

Natural rooms (G1 to G7) were formed between the buttresses and also between the walls added later; these were used presumably for various purposes while the well was in operation. Room G4a resulted from the extension of the sides of the western buttress. A small channel was discovered between the rooms (G4 and G4a). Two water troughs were located in G4 proper, one in the northwestern corner, the other in the western one. This room screened a furnace, traces of which, in the form of a layer of burnt soil and ashes 20 cm thick, filled the southwestern end at a depth of 50 cm, counting from the wall between G4 and G3. In G4a, there was a small rectangular furnace (O3), measuring 75 by 80 cm, built of stone-lined bricks; it is the same kind of structure as in F3. In all these sections the fill consisted substantially of potsherds from the 6th and 7th centuries with merely a few that could be attributed to the 8th century.

BATH

The season also saw the end of the excavations in the bath itself. Below room C, which had a secondary floor of two layers of stone blocks, another furnace was uncovered (O1). Access to it was made through the cellar under chamber B and it was serviced from the service area below the apodyterium (A2). The heat it produced warmed the hypocaust cellar under the caldarium (F) in the women's part of the bath. Removal of the blocking closing off part of the cellar made it possible to explore another furnace (O), the top parts of which had been uncovered during the first campaign in 2000. At the bottom of the hearth there was a small pottery bowl with magic signs painted in black on it and inside it an askos used as an oil-lamp filler (Fig. 10).

THE FINDS

In similarity to previous years, the assemblage of small finds from this year's excavation was mixed and could not be assigned to specific archaeological layers. The coins are a case in point; 136 were discovered in various loci, but even after cleaning by the team's conservator only 51 of these could be identified. The biggest group is constituted by dodekanomia of the 6th-7th century (cf. Fig. 5). This could have been the price of entering the bath. The coins were found in the area around
the bath, as well as the well and cistern. They confirm the dating of the complex to this period\(^3\). Also found were 20 oil lamps, complete and fragmentary, featuring a variety of ornaments - rays, dots and vegetal scroll - that are typical of 6th-7th century production.\(^4\) An interesting find is also a flask of St. Menas with an inscription; a bone penholder, potsherd with a Greek inscription (likely the owner's initials) and numerous fragments of Coptic vessels.

**POTTERY\(^5\)**

The pottery excavated this season is largely similar to the finds recorded during previous campaigns. All the classified and datable sherds belong to the 6th-7th century horizon with some forms assigned to the 8th century. Most of the pottery comes from the fill in different rooms, apparently post-dating the abandonment and destruction of the baths. So far no pre-construction layers have been excavated. Some accidental sherds of earlier date (mostly 2nd-3rd century) were found associated with the construction trench for a channel running from the well, but their stratigraphical position is as yet unclear. Most of the recorded common ware fragments found this year represent vessels produced in the Mareotic district. The repertory of forms is mostly limited to an array of locally made carinated bowls showing great diversity in rim and body profiles. Some of them are additionally painted. Several Coptic-period jugs and filters with painted decoration were also recorded. All the forms of amphorae belong to the 6th-7th century type series.

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\(^3\) Prof. Dr. Barbara Lichocka kindly identified the coins.

\(^4\) Cf. H. Szymańska, K. Babraj, *PAM X* III, Reports 2001 (2002), 56, Fig. 11.

\(^5\) Remarks on the pottery assemblage contributed by Dr. G. Majcherek.
Fragments of jugs, pitchers and small flagons were found in almost all of the loci.

GLASS
Many fragments of glass vessels, which include bottles and flasks of various size used in bathing, small toilet bottles for cosmetics or perfumes, occurred in great quantity in the glass assemblage from this season. The presence of considerable numbers of fragments of vessels of this kind is evidence of their wide and daily use. Undoubtedly they must have been locally made. They are dated to the 5th-7th centuries AD.

FUNERARY CHAPEL
Explorations also began on a small funerary chapel, traces of which were recorded to the south of the bath (Fig. 11). It was a three-aisled building with an apse in the east and an entrance leading to it from the north. There were probably five tombs inside it. Excavations will be continued in the next season.

PRESEVATION WORKS
Some reconstruction works have been carried out in the bath: brick walls in the hypocaust cellar under room F were preserved with mortar and a wooden-pier structure supporting the vaults in the cellar under room A2 was introduced.

Fig. 11. Funerary chapel discovered south of the bath
(Photo T. Kalarus)

5) Information on the glass finds has been drawn from a report prepared by R. Kucharczyk.