



**Title:** The late Roman harbor temple of Berenike. Results of the 2010 season of excavations

**Author(s):** Joanna Rądkowska, Steven E. Sidebotham, Iwona Zych

**Journal:** *Polish Archaeology in the Mediterranean* 22 (Research 2010)

**Year:** 2013

**Pages:** 209–228

ISSN 1234–5415 (Print), ISSN 2083–537X (Online)

**Publisher:** Polish Centre of Mediterranean Archaeology, University of Warsaw (PCMA UW),  
Wydawnictwa Uniwersytetu Warszawskiego (WUW)

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**Keywords:** Berenike, Late Roman, temple, South Arabian, ostrich eggs, cowry shells, coral heads

# THE LATE ROMAN HARBOR TEMPLE OF BERENIKE

## RESULTS OF THE 2010 SEASON OF EXCAVATIONS

Joanna Rądkowska,<sup>1</sup> Steven E. Sidebotham,<sup>2</sup> Iwona Zych<sup>3</sup>

<sup>1</sup> PCMA affiliate, <sup>2</sup> University of Delaware, <sup>3</sup> PCMA UW

**Abstract:** Excavations in 2010 in the southwestern harbor at Berenike documented two distinct structures. One built of white gypsum/anhydrite ashlar was the earlier of the two. The later one, with walls composed mainly of extinct coral heads, but incorporating portions of the earlier ashlar structure, lay immediately southeast of the former. The later edifice, and the focus of this article, dated to the 4th and 5th centuries AD and clearly had a religious function. Excavations documented two major phases of this shrine and suggested that multiple creeds were venerated here, including one perhaps of South Arabian origin. Along with numerous cult objects made of metal, stone, terracotta, ostrich eggs and cowry shells there was ample floral and faunal evidence for offerings made or consumed by devotees.

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A low mound rising above the smooth flat sandy ground in the lower parts of the southwestern bay of Berenike had been visible from the start of the project and was identified as the location of a rectangular structure built of coral heads during the first topographic ground survey of the site (Aldsworth, Barnard 1996). A geophysical survey using the magnetic method, carried out in this part of Berenike in 2009–2010 (Herbich 2011; see also Zych, Sidebotham 2010: Fig. 1), revealed the existence of two different structures. The results of this prospection verified and supplemented observations made during a ground survey of the area in 1994 and again in 2008 (the magnetic prospection of the southern part

of this area was completed during the 2012 season) [Fig. 1].

Two features could be recognized on the magnetic map. The one on the west was rectilinear-shaped (work inside this structure started in the 2010 season and was continued in 2011, BE10/11-70, see Zych, Sidebotham 2010: text and Fig. 11; Zych, Sidebotham 2011: text and Figs 9–14; Sidebotham, Zych 2012: text and Figs 17–19). It was also the smaller of the two. The structure on the east, identified with the rectangular feature mapped on the topographical plan of the site in 1994, was the larger one. This was the structure selected for archaeological testing in the 2010 season.

The present report covers the results of five weeks of excavations in this feature<sup>1</sup> and is a preliminary presentation and discussion of the finds related primarily to the latest phase of the structure. Owing to the delayed publication of the report, the authors have had an opportunity to test their ideas against the results of seasons of fieldwork that followed in 2012 and 2013; nonetheless, the original results and their interpretation stand largely as discussed

herein. The broader view given by the work that has been conducted in the area since 2010 lends credence to the assumption that the excavated structure was part of a larger temenos located on higher ground at the entrance to the Berenike harbor, which — to judge by the currently available archaeological evidence — had gone out of use by the 4th and 5th century AD, when this sanctuary and its latest phase in particular was functioning.

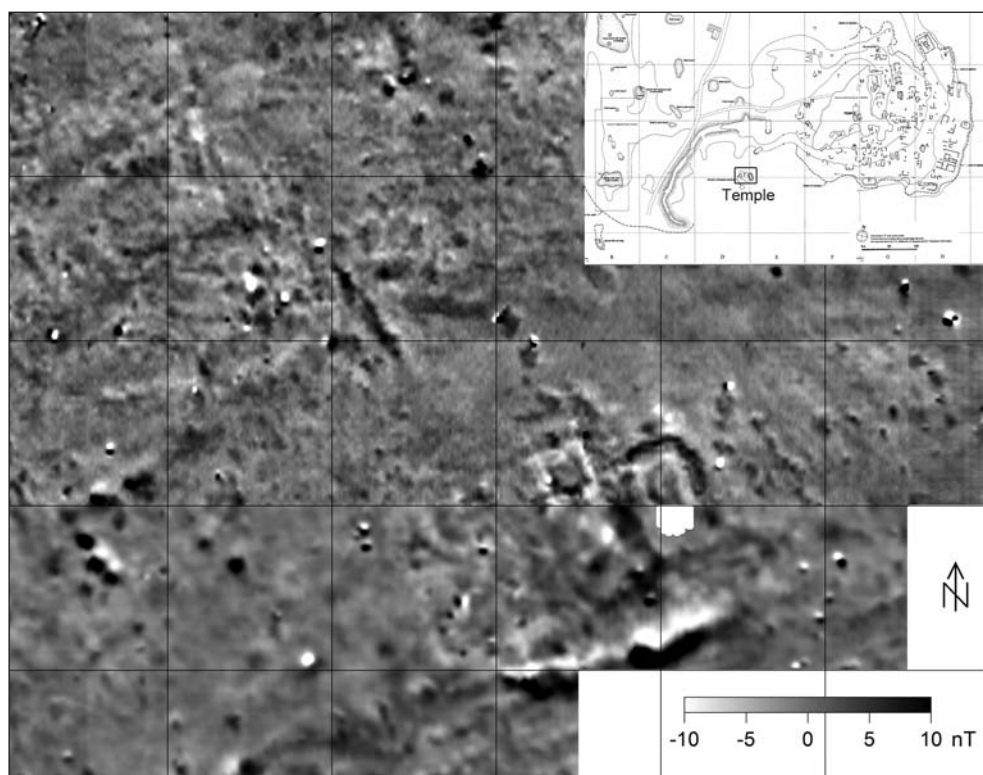


Fig. 1. Fragment of the magnetic map of the southwestern bay of Berenike showing the anomalies sited on the location of trench BE10-61 (map completed in 2012; Fluxgate gradiometer FM 256. Sampling rate 0.50 x 0.50 m. Dynamics -10/+10 nT (white/black); inset, plan of the site with the location of the temple (Map processing T. Herbich; plan Berenike Project archives)

<sup>1</sup> The temple at the mouth of the bay was only one of a number of locations excavated in 2010 by the team. The full report of the 2010 and 2011 seasons is in preparation and will duly be published as a volume in the *PCMA Excavation* series.

## THE EXCAVATION

The first trench (BE10-61) was traced at the southeastern corner of the eastern architectural feature. It covered an area of 9 m<sup>2</sup> (3 m by 3 m), but was rapidly extended once it became clear that the tumble of small stones and coral heads, concreted in salt, gave the outline of a building. In effect, the trench covered about 35 m<sup>2</sup> inside the walls, permitting a consistent, layer by layer exploration of the entire interior of the structure.

Previous exploration in Berenike (Sidebotham, Wendrich [eds] 1995 and later; for an up-to-date list of references, see Sidebotham, Zych [eds] 2011) showed that sand and precipitating salt in the surface layers tended to form a concreted mass of the tumbled tops of coral head walls, making it practically impossible to discern the course of a wall by digging from the surface. An optimal solution in such cases is to pick away at the mass, removing loose coral heads and sand until the sides of the salt-concreted tumble are revealed and then to proceed by hacking away at the tumble, carefully and systematically, until a sound wall face is reached. Application of this method in trench BE10-61 quickly revealed the outline of all four walls in their upper parts. It also

became evident that while all the walls were made of coral heads, the northern one was lined up against another wall built of large dressed ashlar of gypsum anhydrite. An opening interpreted as the entrance was located in the south wall, facing onto the lagoon and not the town.

Undisturbed habitational strata lay under a fairly thick (about 30 cm) surface of broken coral and salt-concreted sand. Individual contexts were identified and successively explored, making full use of on-the-spot expertise of specialists in archaeozoology and archeobotanics, particularly in the case of “sensitive” layers, producing large amounts of organic animal bone and plant samples. Stone, clay and metal, as well as other finds were documented in their original positions and subsequently removed to the Project’s field lab to undergo specialist field preservation by the team’s conservators. The exploration was labor-intensive and time-consuming, but in the end it produced extensive documentation essential for a comprehensive and three-dimensional reconstruction of the appearance of the temple and of the ritual activities that may have taken place inside it in the different phases.

## THE BUILDING AND THE FINDS

The architectural remains uncovered in the course of the first season of excavations in trench BE10-61 clearly belonged to two structures of different date. The earlier one, of undetermined purpose, was attested only by some wall remains. The later one, dated to the 4th–5th century, evidently made use of standing ruins, incorporating the older wall in its structure. It has

been identified as a shrine of a pagan cult, although the deity or deities worshipped here continue to be unknown.

### EARLY ROMAN(?) STRUCTURE

Nothing certain can be said about the character, purpose or even the extent of this building. Its northern wall has been traced, partly in the excavation and partly

following telltale marks of crumbled and melted gypsum anhydrite on the surface. It was approximately 0.50 m wide. The later 4th-century building incorporated this wall into its structure, using it as the back wall of the cella; the northeastern corner with four ashlar blocks of gypsum anhydrite marking the beginning of the eastern wall of the later building is probably still *in situ* [see *Fig. 2A*]. Despite the fact that the northwestern corner was not revealed this season, a similar projection of blocks appears to have marked the northern end of the eastern wall of the later structure. Excavations to the northwest of trench BE10-61, in the 5 m of space between the temple and the structure in trench BE10-70, revealed an extensive tumble of gypsum anhydrite ashlar blocks, resembling the blocks in the north wall of the temple. The thickness of the collapsed wall differed from that of the standing remains and its orientation as well did not match. It was not clear (and still is not despite two further seasons of exploration) from which wall the collapsed blocks derived.

#### TEMPLE (4TH–5TH CENTURY)

The foundation date of the structure cannot be determined without an examination of the foundation courses of the walls and these were not reached this season. A 4th–5th century AD date was suggested by significant parallels with a previously excavated temple from Berenike, which was dated to this period on archaeological grounds (trenches BE98/99-23 and BE99/00-32) (Sidebotham 2000: 134–144; Sidebotham, Wendrich 2001–2002; Sidebotham 2007: 77–89). The available

archaeological evidence from the temple corroborated this tentative dating as regards the late phase and abandonment of the structure.

#### The architecture

The building was a regularly shaped rectangle aligned NW–SE, the entrance being from the south, set symmetrically on the long axis [*Fig. 2A*]. Unworked coral heads (about 25 cm by 25 cm and smaller) were used for wall construction. The width of the walls, suggested by shading in *Fig. 2A*, was estimated by tracing apparent regularities of coral-head course-work in the top of the tumble. It would have been about 0.50–0.60 m on all sides except the south, where the wall appeared to be much thicker. As this is the wall of the entrance, some kind of more monumental framing of the doorway should be expected.<sup>2</sup> An effort was made to estimate original wall height by the quantity of loose building material, that is, coral heads, found in the tumble, the assumption being that unlike dressed stone, broken coral heads would not have been a coveted building material to be removed to other parts of the site, especially since the site was abandoned altogether in the early 6th century and the temple was already in an out-of-the-way location. The southwestern bay was apparently no longer used, at least as a harbor, by the 4th–5th century. Based on an estimate of tumbled coral heads, it does not seem that the wall was much higher than the standing wall of gypsum anhydrite ashlar blocks lining the northern side of the shrine. The latter wall may have been used for a purely practical building purpose, to bond the corners

<sup>2</sup> Subsequent excavations carried out in front of the entrance to the temple, as well as on the western and northern sides have confirmed, to some extent, these early assumptions.

of the structure (and generally reinforce the north facade) in much the same way as similar stone blocks were used in the analogous temple from Berenike, situated in the northwestern part of the town mound (Sidebotham 2000: 134, see also Fig. 2-90; 2007: 77–89). There is nothing in the record to permit a prejudgment of what the roof, assuming there was one, might have been like. A flat roof seems most tenable, however, in view of local architecture models and building materials. It is also reasonable to expect a light and breezy roof construction, perhaps a roof gallery around the sides with an opening in the center (suggested by Alexander Sedov, personal communication) or at least small windows in the upper part of the walls considering the substantial archaeological evidence from inside the temple for intensive burning of incense of different kinds (resinous and herbal: myrrh, sage, gilly flower, basil, coriander, bay leaf, cedar) and burnt offerings, consisting of figs, wheat, balsam apple and barley among the identified plants and fruits (J. Zieliński, personal communication), which would have made for a ‘heavy’ atmosphere inside the shrine.

The interior dimensions of this building approximated 4 m in width and 8.10–8.20 m in length. The door opening was found to be 0.90 m wide inside the frame. No evidence of the actual door was discovered except for two successive thresholds. The lower threshold used with the door of the earlier, perhaps original phase of use of the shrine, was 0.10 m wide. Another stone, also 0.90 m long and 0.32 m wide was installed 0.20 m higher up, presumably corresponding to the raised level inside the building.

### Earlier-phase furnishings

The older phase, which was uncovered in part at the season’s end, appears to have been connected with a tripartite division of the space inside the building. The arrangement of these ‘aisles’ at the shorter back end was indeterminate at this stage of the excavations. Two rows of rough stones, all of small size (about 0.20 by 0.25 m) set off the central area, which was 1.60 m wide [Fig. 2B]. The side aisles were both 1.20 m wide as well. A similar arrangement had been recorded in the other Berenike temple (Sidebotham 2000: 134–144; Sidebotham, Wendrich 2001–2002: Fig. 11; Sidebotham 2007: 77–89). There, the side sections were interpreted as benches; in our case there was an additional feature: a clay-plastered matting [Fig. 3], which was recorded in patches in the middle of the western ‘aisle’ (about 0.90 m long by 0.30 m wide) and at both ends of the eastern one (about 0.40 m long by 0.20 m wide). Thin white fibers, lying parallel at a distance of half a centimeter from one another, were interwoven with single fibers running crosswise. They were plastered with a thin coat of clay applied on top. Archaeobotanical macroexamination of the remains in the field, later corroborated under the microscope, indicated that the mat had been made of locally available tamarisk twigs; the plant material had disintegrated, leaving a ‘shell’ of salt (hence the white color) as a kind of skeletal matting on the floor (J. Zieliński, personal communication) [Fig. 3].

Pressed into the matting were large numbers of sherds from small bowls that had apparently been filled with animal bones. The bowls represented typical white Aswan ware, individual vessels having a rim diameter of about 10 cm

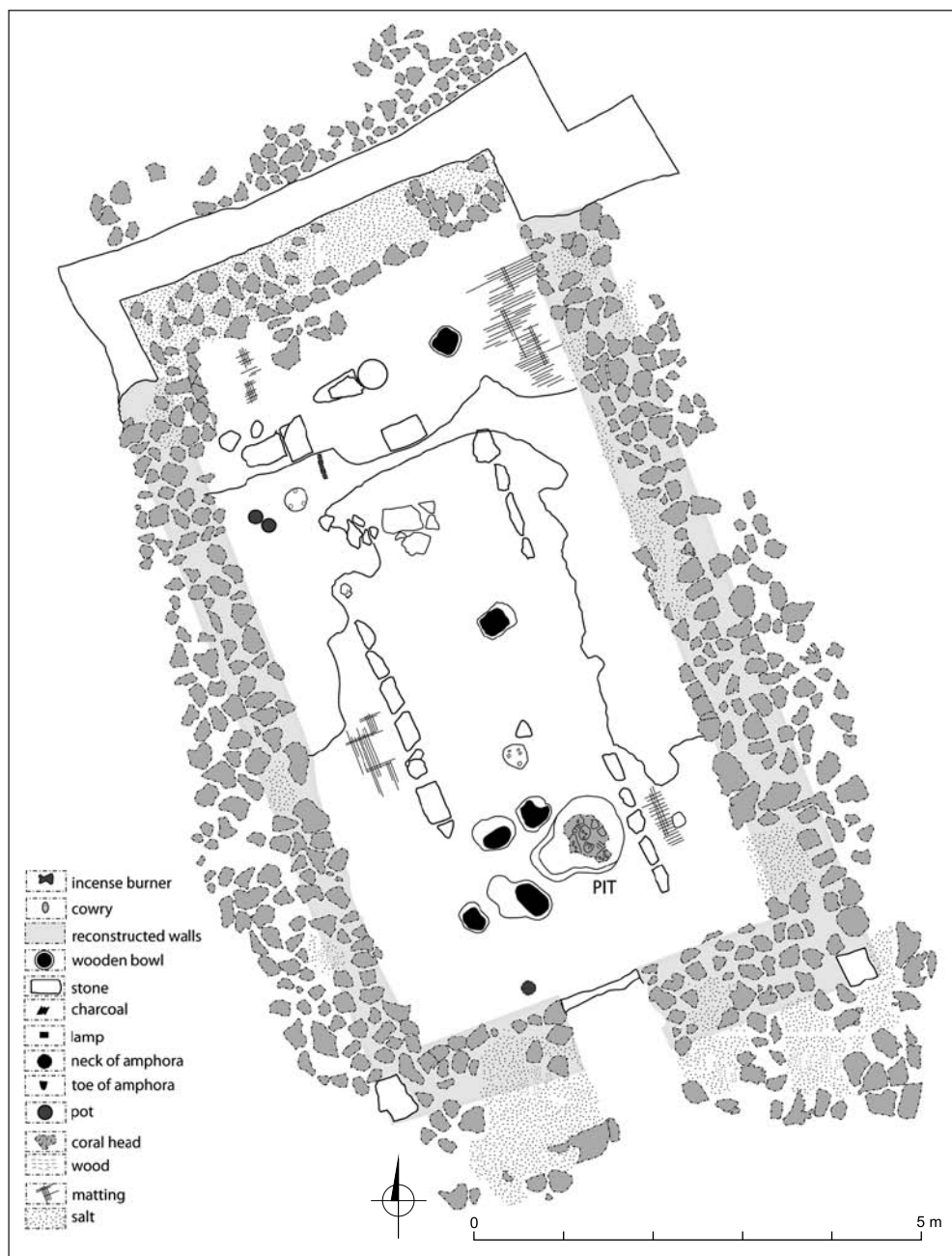


Fig. 2A. Plan of the harbor temple in the earlier phase (4th/5th century), preliminary plan at the end of the 2010 season (Drawing J. Rądkowska; digitizing S. Maślak, U. Wicenciak)

(R. Tomber, personal communication), whereas the animal bones were identified as remains of ovicaprid meat, evidently boned and possibly served in thick gravy (M. Osypińska, personal communication).

Objects believed to be of a cultic nature were recorded from this phase and some were obviously still in use in the later phase. This was undoubtedly true of the column altar for incense burning and two smaller incense altars located in the northern end of the cella. The column altar, made of gypsum anhydrite, was 30 cm in diameter and at least 60 cm high (its base was not reached this season). It stood in the middle of the shrine's width, 0.90 m south of the north wall. Its top was damaged, but it probably had a similar cavity for burning incense as its counterpart from the other

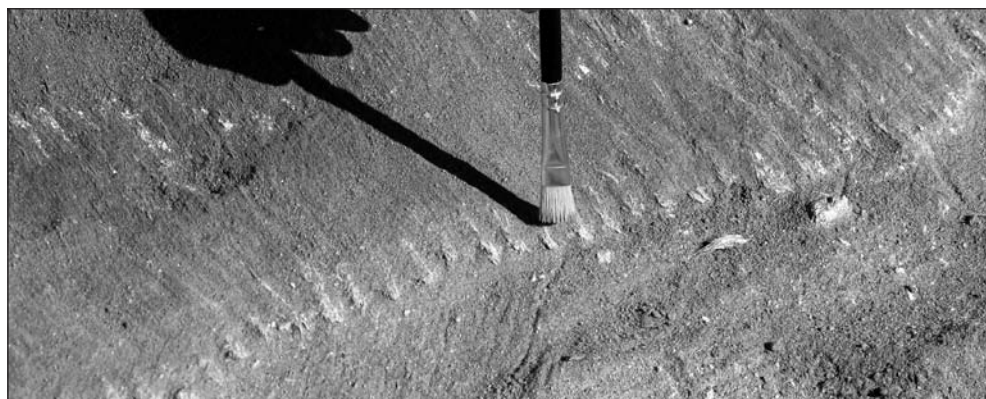
Berenike temple (Sidebotham 2000: Pl. 2-94; Sidebotham 2007: 77–89).

The pair of small altars stood by the western wall at the northern end of the temple [Fig. 4; see also Figs 2A,B]. The left one of the two (on the south side) was a plain quadratic prism (43 cm high, 24 cm wide, 15 cm thick), the top furnished with two long rounded projections along the side edges. The altar on the right consisted of a shaft (25.5 cm high, 20 cm wide, 13 cm thick) bearing a top in the form of a quadratic prism (20 cm high, 17.5 cm wide, 14 cm thick) carved with horns at the four corners, supporting a kind of oval bowl (10 cm and 16 cm diameter on the short and long axes) cut in the stone. Ash and a single piece of animal bone were found in this bowl. Altars of this kind were



Fig. 2B. General view of the harbor temple looking northwest in the earlier phase (state at the end of the season in 2010); scale 0.50 m (Photo S.E. Sidebotham)





*Fig. 3. Remains of tamarisk matting  
(Photo J.K. Rądkowska)*



*Fig. 4. Two incense altars (24 and 20 cm wide respectively) with the upper part of a frog lamp in front of them (Photo S.E. Sidebotham)*

used for burning incense; hence, the bone should be considered as accidental in this case. Chiseling marks on the underside of the shaft suggested deliberate shortening of the altar to fit the other one in height — both are now 43 cm high. The poor condition of the gypsum anhydrite, from which the altars were made, especially in the case of the former of the two, suggests that it could have remained in use for a long time and in conditions that were less than sheltered. The presence of two altars set up as a pair — one massive and plain and the other much more decorative and lighter in shape — could mean that we have here the symbolic presence of a pair of deities, possibly male and female respectively. The stylistic features of the two altars, especially the ‘female’ one, suggest a tentative South Arabian or Axumite provenance. An altar from Khor Rori/Sumhuram in Oman,

which is very similar in form, is considered by the excavator as possibly of Axumite origin (Avanzini 2011; Van Beek 1967; Katz 1954).

Heavy sprinkling of the ground around the column altar with white, black and gray particles of ash and charcoal may be evidence of intensive burning of cultic offerings.

Apart from the stone cultic objects, which presumably enjoyed extended use in the later phase, there were some objects and features that disappeared from view once the transition had been made to the later-phase temple. Among these were definitely six wooden bowls traced in the central part of the temple, between the two rows of stones: two wooden bowls were found next to the column altar in the northern part of the temple, four others next to a pit with a piece of coral in the southern part



*Fig. 5. Remains of burned wooden bowls surrounding a pit with a piece of coral apparently in place at the bottom (possibly part of the fossil reef); scale 0.50 m (Photo S.E. Sidebotham)*

(see below). The bowls were manifested as irregular black patches of rotted wood, surrounded by white lines representing the salt encrustations that accompanied such perishable organics in these climatic conditions [Fig. 5]. The patches featured diameters of close to 20–30 cm, indicating that the bowls could have been of this size (ethnographic evidence suggests that bowls of this kind would have had fairly thick walls and been some 12–15 cm high).

Also lost from view in the late phase was an ovoid stone of black basalt, its diameter about 20 cm, which had been erected on the long axis of the entrance and column altar [see Fig. 5 and plan in Fig. 2A]. Its purpose or cultic significance is still unknown. On the same axis and directly between the entrance and the basalt stone was a pit with a diameter of approximately 1.20 m, filled almost completely with damp coarse-grained sand. The fill proved to be devoid of archaeological material (except for two minuscule, non-diagnostic potsherds). Half a meter down was a huge irregular coral head about 0.40–0.45 m in diameter, still firmly embedded in the ground at the very center of the pit. The nature of this feature still escapes interpretation.

Other curious elements of the arrangement of the central area of the temple in this earlier phase are features made of some smaller rough stones and a few larger ones (the biggest ashlar is 0.60 m long, 0.40 m wide and about 0.10/0.15 m high), one located about 1.50 m south of the column altar and another one just in front of it [see Fig. 2B].

#### TEMPLE

#### IN THE 5TH CENTURY AD

It has already been noted that some of the cultic objects of stone continued in

use from the earlier phase, but overall, the interior arrangement of the shrine changed completely [Figs 8A,B]. For one, the division into three 'aisles' disappeared completely. For unknown reasons, the temple caretakers spread the entire surface with a clayey level, which should be seen as a transition — soft and fluent rather than dramatic — from the old to the new. The pit with coral was buried and not a single wooden bowl was recorded. On the other hand, there is substantial evidence of a program of repairs for the column altar and the two small incense altars. The smaller altar was strengthened in position by flat stones and amphora sherds placed against its front and back. A temple pool of gypsum anhydrite was reused in this role of a supporting stone set against the northern side of the altar (seen in Fig. 4). The column altar was also repaired. A shallow pit in front of the altar and some damage to its surface might indicate an attempt at repairs or at least checking its state of preservation in the lower part. Flat ashlars of gypsum anhydrite (0.50 m by 0.30 m and 0.30 m by 0.20 m) propped it up from the west. A bronze bowl with a scrolling-vine ornament in the repoussé technique, fixed on three iron legs, lay apparently discarded upside down on this transitional layer [Fig. 9].

The relevant contexts yielded significant numbers of Aswan bowl fragments containing bones of young ovicaprids, which, judging by the butcher marks, appear to have been served as cuts of meat in a thick gravy (R. Tomber and M. Osypińska, personal communication).

Excavations around the column altar recorded within a radius of about 2 m at least two smashed ostrich eggs. Some of the fragments preserved traces of decora-

tion in red paint, possibly magic formulae or incantations (R.S. Bagnall, personal communication). One of the motifs on the fragments appeared to be an anchor or an omega in the shape of an anchor, accompa-

nied by what appeared to be Greek letters, two examples of a star or pentagram, as well as apparently purely decorative bands of checker pattern and other ornaments [Fig. 10]. The apotropaic character of



Fig. 6. Southern end of the temple with the entrance (the outline of the filled-in coral pit can be seen in the center foreground); scale 0.50 m (Photo S.E. Sidebotham)



Fig. 7. Cult objects concentrated in the southwestern corner of the temple; pot with board of silver ornaments standing in the corner of the building; scale 0.20 m (Photo S.E. Sidebotham)

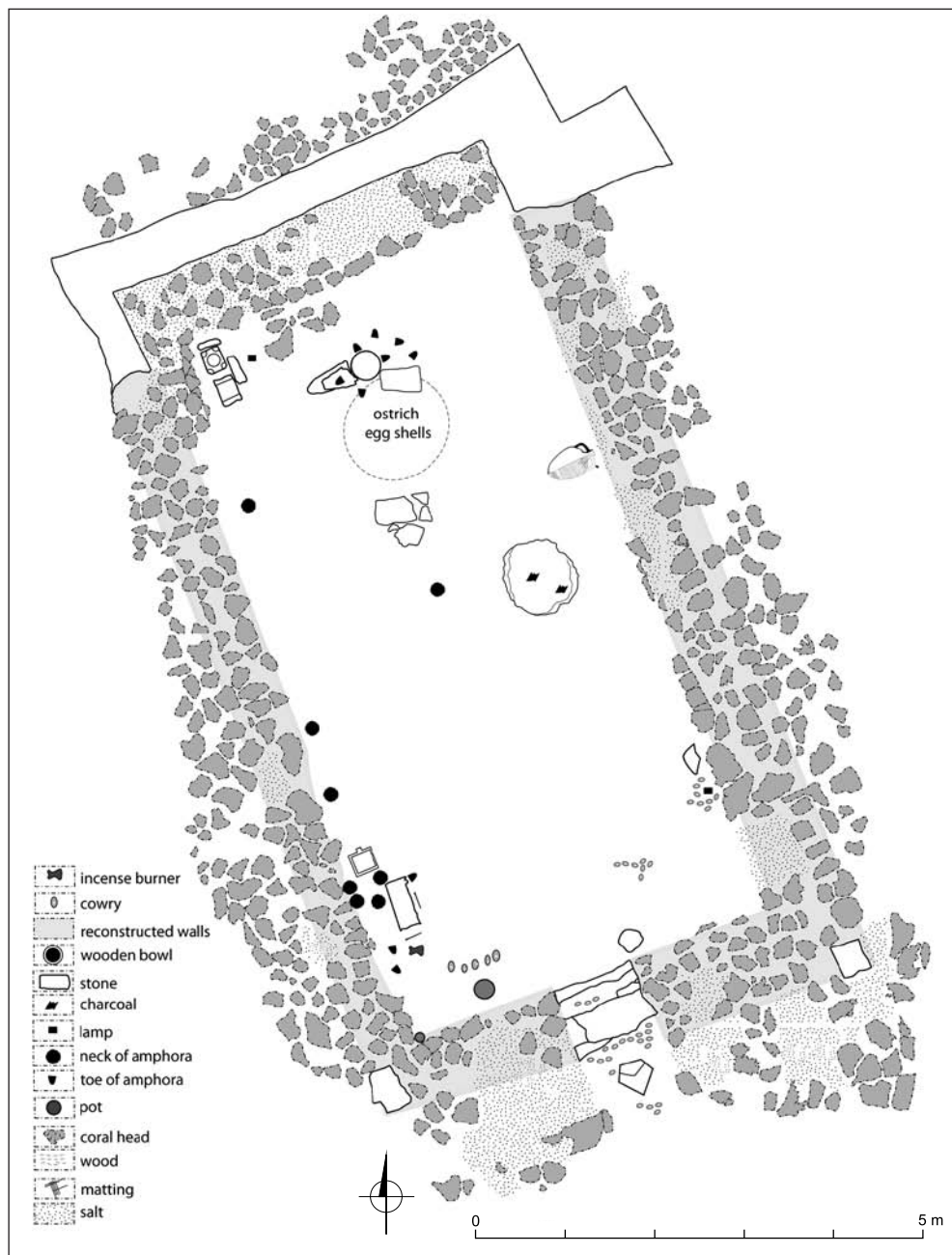


Fig. 8A. Plan of the harbor temple in the latest occupational phase (5th century)  
(Drawing J. Rądkowska; digitizing S. Maślak and U. Wicenciak)

these symbols possibly intended to ensure the safety of those departing or arriving by sea, only natural in a sea-fronting temple, cannot be excluded (for an interpretation of the motifs on ostrich eggshells, see Wilburn forthcoming). A similar but complete ostrich egg, decorated with isolated painted motifs around the circumference, was found in the other Berenike temple on the northwestern town fringes (trench BE98-23), dated also to the late 4th/early 5th century (Sidebotham 2000: 140; Sidebotham, Wendrich 2001–2002; Sidebotham 2007: 77–89; Sidebotham *et alii* 2008; Sidebotham 2011).

Around the column altar and amid the smashed ostrich eggshells were 20 amphora toes, intentionally broken and apparently used as incense burners to judge by the

burning inside some of them (again similarly to the finds from the other Berenike temple). A lamp bottom (perhaps used as an open lamp) with a pentagram symbol scratched on the underside was found in the same area. A pentagram symbol was also observed on one of the pieces of painted ostrich eggshell.

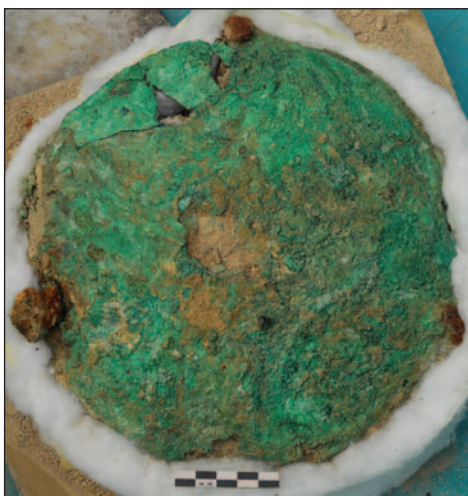
Most of the objects from this phase, however, were concentrated in the southernmost part of the temple nearer to the door, possibly suggesting that whatever cult activity took place in the shrine at that time used this area preferentially [Figs 6, 7]. A major scatter of finds surrounded a stone dedicatory altar (50 cm high, 20 cm wide, 18 cm thick) with an inscription in Greek, found lying about 0.50 m from the west wall [Figs 2B, 6, 7, 8B, 13]. The inscription



Fig. 8B. General view of the harbor temple looking northwest in the later phase (5th century), view from the northwest; scale 0.50 m (Photo S.E. Sidebotham)

on it, read provisionally by R.S. Bagnall, was a dedication to Isis, Tyche and perhaps Serapis, made by a dedicant whose name is lost, but who was a member of the Imperial household in the first regnal year of Trajan (AD 98). However, the altar was evidently reused as a table for offerings, laid on its side and angled toward the center of the building, the inscription half obscured by accumulating floor deposits and the moldings of the base and top evidently considered an added aesthetical value.

Four necks of amphorae and three toes, reused presumably for liquid libations and burnt offerings respectively, lay near the altar (see the plan in *Fig. 8A* for a distribution of the finds), mainly to its north, next to a temple pool carved from a single block of gypsum anhydrite (0.22 m by 0.24 m,



*Fig. 9. Underside of a bronze bowl with iron mountings of legs; scale 5 cm (Photo S.E. Sidebotham)*



*Fig. 10. Broken ostrich eggshells with motifs (magical?) painted in red; scale 5 cm (Photo J. Czuszkiewicz)*



Fig. 11. Two bronze rods, after cleaning (Photo S.E. Sidebotham)



Fig. 12. Lunate-shaped ornaments from a votive deposit (Photo S.E. Sidebotham)



Fig. 13. Selection of cult objects from the temple, including incense altars, reused inscribed altar, temple pool, cowry shells, bronze rods, painted ostrich eggshells, pot with lid containing a votive deposit of lunate ornaments (Photo S.E. Sidebotham)



0.10 m high), well preserved, presenting in characteristic temple-pool fashion a series of steps ascending each of the side walls inside the reservoir [Fig. 13]. Two bronze rods decorated with fine molding, 10 to 11 cm high [Fig. 11], found directly to the east and south of the altar, may have been vertical spikes of a lamp stand. To the south of the altar lay a terracotta incense burner, 14 cm high, and a set of five large cowry shells (*cypraea tigris*?) each deliberately pierced presumably for stringing. If so, a string of cowry shells could have been hung up over the altar [Fig. 13].

In the southeastern corner of the temple, opposite the described altar with accompanying objects, were two small blocks of gypsum anhydrite, each 0.30 m high and roughly rounded in shape (0.13–0.14 m in diameter), apparently *spolia* from some other building to judge by the poor condition of the stone. One was directly inside the entrance, the other stood against the eastern wall, setting off an area of about 2.25 m<sup>2</sup> in the corner [see Figs 6, 8A,B]. A complete frog lamp was found here, along with two groups of large cowry shells, one with eight shells and the other with seven shells; two other shells were found separately. Of these, all of the eight shells from the first group had intentional holes for threading. (Indeed, of the close to 80 shells found inside the temple in 4th and 5th century layers practically all had either pierced eyelets or the dorsal part cut off.)

Hoarded away in a ceramic pot hidden in the southwestern corner of the building was a set of silver ornaments. The jar had a lid made of a broken base from another jar of similar size. Lunate-shaped ornaments of thin silver sheet metal decorated in repoussé technique [Fig. 12] were stuffed

into the vessel. Each piece had a hole pierced in the middle of the section at the top of the curve, some still with small copper alloy nails or tacks stuck in them. The presence of some charred wood adhering to the nails suggests that the ornaments had once been fixed to a wooden backing of some kind (a number of bronze lunulae have been found in Yemen, inscribed with early Sabaic letters, see e.g., DhM 354–361, 363–365, 368–370, online resource CSAI 2013).

Last but not least, a substantial collection of cowry shells (altogether 31) with deliberately pierced holes or cut upper parts (10 shells) lay next to the entrance



Fig. 14. View of the entrance from the south, together with a set of cowry shells and gypsum anhydrite slab with carving; scale 0.20 m (Photo S.E. Sidebotham)

to the building [Fig. 14]. It is likely that the shells had hung in the entrance to the temple as a *votum* or perhaps for apotropaic purposes. A large slab of gypsum anhydrite (0.30 m square) with a big V-shaped mark carved into it, pointing south, lay in front of the entrance [Fig. 14]. Its dressing and damage to it suggest that it had been salvaged from some larger structure.

LATEST SUBPHASE  
(LATE 5TH CENTURY)

In the latest subphase the interior of the shrine seems to have been completely devoid of any moveable cult objects and

there were no explicit signs of cultic activity. A large piece of concreted stone, measuring about 0.96 m in diameter, was installed in the middle of the temple, off to the east from the long axis with column altar and entrance [see Figs 6, 8A,B]. The general impression is that it served as a base, perhaps a kind of shallow bowl of large size. Burned wooden sticks of 5 cm length, found in this feature, might suggest its use as a kind of fireplace. In any case, the installation dates to a time when the temple was already partly, perhaps even totally abandoned. A smashed amphora was found next to it, by the eastern wall.

Table 1. *The interior arrangement and furnishings juxtaposed with assumed cultic activity for the identified phases of the harbor temple*

Phase/subphase	Interior arrangement	Temple furnishings	Cultic activity
4th–5th century (uncovered but not explored in 2010)	Interior divided into three parts	Areas along the walls, matting, column altar, two small altars for incense burning, egg-shaped basalt stone, pit with coral head, wooden bowls (5)	Ritual feasts(?), burning offerings
Transition	Yellow sand surface covering features from the earlier phase	Same as above, plus frog lamps and bronze <i>patera/phiale</i>	
5th century	Some repairs and stabilization of the column altar and two small incense altars Pit with coral filled to the top New functional arrangement of space inside the building: three concentrations of cult objects: around column altar, around reused inscribed altar, and in area next to the entrance	Ostrich eggshell with red <i>dipinti</i> , large cowry shells (53), silver lunula votive(?) hoard, bronze hinges, two incense altars, incense burner, amphora toes and necks reused for offerings, column altar	Votive offerings (cowry shells), ritual feasts(?)
Late 5th century	No changes	Fire bowl, amphora	Some burned offerings? (fire bowl)

## CONCLUSIONS

Analyses of the magnetic map coupled with the results of excavations by the Berenike Project within the southwestern bay of Berenike suggested the presence of an insular or at least peninsular temenos located near the harbor entrance. The recorded structures, *viz.*, the temple (trench BE10-61) and an earlier square building (trench BE10-70), possibly part of a larger complex, would have been visible both from the sea and from the town and there is much to say that the complex stood on an island, even if the surrounding water was never more than a meter deep. By the 4th–5th century the southwestern harbor of Berenike was no longer used as such and indeed, there does not seem to be any special activity going on in this area after the 2nd/3rd century AD. Yet, in the 4th century, for whatever reason, the temenos was reactivated and a temple was constructed, using cut coral heads as the building material and incorporating into it whatever earlier architecture was still standing.

Whereas the remains of the earlier phase, uncovered only partly in the course of the 2010 season, cannot yet be fully interpreted, the 5th century phase, which was completely cleared, showed an evident change of interior arrangement and forms of cultic activity. This change appears to have occurred sometime between the 4th and the 5th centuries. Practically all traces of earlier ritual worship were removed or covered, and *spolia* (like the inscribed altar from the late 1st century AD) were installed to create new foci for religious veneration. The earlier division of the interior into three ‘aisles’, or at least into a central part with a passage leading around it, was aban-

doned in favor of a single open space with ‘stations’ in the form of altars set up around the perimeter.

In the earlier phase ritual activities included burnt offerings made in wooden bowls set up around the column altar and the basalt feature. There were also offerings of ovicaprid meat in small bowls left (or consumed?) in the aisles around the central area where most of the cult installations seem to have been concentrated. After the transition, ritual activities appear to have been limited to liquid libations made in temple pools and amphora necks and burnt offerings in amphora toes, as well as incense burning on the altars and in incense burners. Lamps were also lit and placed before the altars. Strings of large cowry shells figured prominently near the entrance and in the southern part of the building. In the northern end of the cella, vividly painted ostrich eggs played a central role, as well as a bronze tripod bowl etched with a delicate scrolling-vine pattern.

It remains to be determined whether the two altars in the northern part of the structure, apparently adopted from the earlier cultic phase of the shrine, continued in use for the veneration of the same deities as before. In any case, there is precious little evidence to identify the god or gods being worshipped in this temple, which was by the 5th century definitely out-of-the-way, on the outskirts of a shrinking town located on the mound around the so-called Great (Serapis) Temple at least a quarter of a kilometer away to the east. Certain elements, like the anchor-shaped design on one of the ostrich eggshell fragments and the cowry shells,

usually attributed to Isis as patroness of sailors, could point to a maritime cult of some kind, which would fit well with the location, as well as with the tentative dedication of the early Roman temenos, assuming the reused altar with the dedication to Isis was salvaged from the nearby ruins and is indicative of the deity to which the original sanctuary on the harbor 'island' had been dedicated. It is also likely that different cults were celebrated under one roof in this sanctuary (for an overview of religious cults currently known from Berenike, see Sidebotham forthcoming).

Joanna Rądkowska  
radkowska@gmail.com

Prof. Steven E. Sidebotham  
Department of History, University of Delaware  
230 John Munroe Hall, Newark, DE 19716, USA  
ses@udel.edu

Iwona Zych  
Polish Centre of Mediterranean Archaeology, University of Warsaw  
00-497 Warsaw, Poland, ul. Nowy Świat 4  
i.zych@uw.edu.pl

In any case, this evidently 4th–5th century pagan temple contributes to our understanding of society in late Roman Berenike. The temple was built and repaired at the same time that a church, the furthest southeast facility in Roman–Byzantine Egypt of the time, was prospering at the eastern end of Berenike, showing that the pagan community of the town or of the seafaring visitors to the town must have still been powerful enough to ensure the continued existence of its sanctuaries obviously through the end of the occupation of Berenike.

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# CONTENTS

---

## CONTENTS

ACKNOWLEDGMENTS .....	10
OBITUARIES	
<i>Michał Neska</i> .....	11
<i>Piotr Parandowski</i> .....	13
<i>Adam Stefanowicz</i> .....	15
<i>Zygmunt Wysocki</i> .....	17
ABBREVIATIONS AND STANDARD REFERENCES .....	19

## PAM REPORTS

PCMA FIELD MISSIONS AND PROJECTS IN 2010 (WITH MAP) .....	23
---	----

### EGYPT

#### ALEXANDRIA

EXCAVATIONS AND PRESERVATION WORK ON KOM EL-DIKKA. PRELIMINARY REPORT 2009/2010 <i>Grzegorz Majcherek</i> .....	33
---	----

#### MAREA

ELEVENTH SEASON OF EXCAVATIONS AT MAREA (2010) <i>Krzysztof Babraj</i> , <i>Hanna Szymańska</i> , <i>Anna Drzymuchowska</i> , <i>Nina Willburger</i> ...	55
APPENDIX: THE HARBOR JETTIES OF MAREA <i>Krzysztof Babraj</i> .....	67

#### TELL EL-RETABA

TELL EL-RETABA, SEASON 2010 <i>Stawomir Rzepka</i> , <i>Jozef Hudec</i> , <i>Łukasz Jarmużek</i> .....	79
APPENDIX: TELL EL-RETABA 2010. PRELIMINARY REPORT ON ARCHAEOBOTANICAL INVESTIGATIONS <i>Claire Malleon</i> .....	90
TELL EL-RETABA, SEASON 2010: POTTERY REPORT <i>Anna Wodzińska</i> .....	96

## CONTENTS

---

### TELL EL-MURRA

- TELL EL-MURRA (NORTHEASTERN NILE DELTA SURVEY). SEASON 2010  
*Mariusz A. Jucha, Katarzyna Błaszczyk, Artur Buszek, Grzegorz Pryc* ..... 105

### TELL EL-GHABA

- GEOPHYSICAL SURVEY AT TELL EL-GHABA, 2010  
*Tomasz Herbich* ..... 121

### DEIR EL-BAHARI

- TEMPLE OF HATSHEPSUT AT DEIR EL-BAHARI. SEASONS 2008/2009 AND 2009/2010  
*Zbigniew E. Szafranski* ..... 131
- NEW STONE SCULPTURES OF HATSHEPSUT FROM DEIR EL-BAHARI  
*Aliaksei Shukanau* ..... 152

### VALLEY OF THE KINGS

- POLISH EPIGRAPHICAL MISSION IN THE TOMB OF RAMESSES VI (KV 9)  
IN THE VALLEY OF THE KINGS IN 2010  
*Adam Łukaszewicz* ..... 161
- APPENDIX: THREE-DIMENSIONAL SPATIAL INFORMATION SYSTEM FOR THE GRAFFITI  
INSIDE THE TOMB OF RAMESSES VI (KV 9) IN THE VALLEY OF THE KINGS  
*Wiesław Małkowski, Miron Bogacki* ..... 165

### SHEIKH ABD EL-GURNA

- THE HERMITAGE IN SHEIKH ABD EL-GURNA (WEST THEBES): EXCAVATIONS,  
STUDIES AND CONSERVATION IN 2009 AND 2010/2011  
*Tomasz Górecki* ..... 171
- PRELIMINARY REMARKS ON THE ARCHITECTURE OF THEBAN TOMB 1152  
AT SHEIKH ABD EL-GURNA  
*Patryk Chudzik* ..... 193
- THE GURNA MANUSCRIPTS (HERMITAGE IN MMA 1152),  
CONSERVATION REPORT, 2010  
*Anna Thommée* ..... 199

### BERENIKE

- THE LATE ROMAN HARBOR TEMPLE OF BERENIKE. RESULTS OF THE 2010 SEASON  
OF EXCAVATIONS  
*Joanna Rądkowska, Steven E. Sidebotham, Iwona Zych* ..... 209

### SUDAN

#### DONGOLA

- ARCHAEOZOOLOGICAL RESEARCH ON ANIMAL REMAINS FROM EXCAVATIONS IN  
DONGOLA (SUDAN) IN 2010  
*Marta Osypińska* ..... 229



## CONTENTS

---

THE MOSQUE BUILDING IN OLD DONGOLA. CONSERVATION AND REVITALIZATION PROJECT <i>Artur Obluski, Włodzimierz Godlewski, Wojciech Kołataj, Stanisław Medeksza, Cristobal Calaforra-Rzepka</i> .....	248
<b>BANGANARTI</b>	
BANGANARTI AND SELIB. SEASON 2010 <i>Bogdan Zurawski, Tomasz Stępnik, Mariusz Drzewiecki, Tadeusz Badowski, Aneta Cedro, Katarzyna Molga, Katarzyna Solarska, Tomasz Włodarski</i> .....	273
APPENDIX: ARCHAEOLOGICAL RESEARCH REPORT FROM SELIB 2 (2010 SEASON) <i>Roksana Hajduga</i> .....	287
THE ENCLOSURE WALLS OF BANGANARTI AND SELIB AFTER THE 2010 SEASON <i>Mariusz Drzewiecki</i> .....	295
<b>FOURTH CATARACT</b>	
HAGAR EL-BEIDA 1. EXCAVATIONS OF THE “ROYAL” TUMULUS (NO. 10) IN 2010 <i>Marek Chłodnicki, Tomasz Stępnik</i> .....	309
<b>LEBANON</b>	
<b>JIYEH</b>	
PRELIMINARY REPORT ON THE 2010 EXCAVATION SEASON AT JIYEH (PORPHYREON) <i>Tomasz Waliszewski, Mariusz Gwiazda</i> .....	321
FISHING GEAR FROM JIYEH (PORPHYREON). PRELIMINARY REPORT <i>Agnieszka Szulc-Kajak</i> .....	334
<b>SYRIA</b>	
<b>PALMYRA</b>	
REMARKS ON WATER SUPPLY IN PALMYRA. RESULTS OF A SURVEY IN 2010 <i>Karol Juchniewicz, Marta Żuchowska</i> .....	341
<b>TELL ARBID</b>	
PRELIMINARY RESULTS OF THE FIFTEENTH FIELD SEASON OF JOINT POLISH–SYRIAN EXPLORATIONS ON TELL ARBID (2010) <i>Piotr Bieliński</i> .....	351
NINEVITE 5 KITCHEN FROM TELL ARBID (SECTOR W) <i>Andrzej Reiche, Anna Smogorzewska</i> .....	371
SET OF SECOND MILLENNIUM BC UNBAKED CLAY OBJECTS FROM TELL ARBID <i>Agnieszka Szymczak</i> .....	387
DECORATIVE MOTIFS ON EARLY INCISED/EXCISED NINEVITE 5 POTTERY FROM TELL ARBID <i>Cezary Baka, Jacek Hamburg</i> .....	421

## CONTENTS

---

ANIMAL BONE REMAINS FROM TELL ARBID (SEASON 2009) — ARCHAEOZOOLOGICAL ANALYSIS <i>Joanna Piątkowska-Matecka, Anna Smogorzewska</i> .....	439
TELL ARBID. ADAM MICKIEWICZ UNIVERSITY EXCAVATIONS IN SECTOR P (SPRING SEASON OF 2010) <i>Rafał Koliński</i> .....	451

## KUWAIT

### AS-SABBIYA

ARCHAEOLOGICAL SURVEY IN THE EASTERN AS-SABBIYA (NORTH COAST OF KUWAIT BAY), SEASONS 2009–2010 <i>Eukasz Rutkowski</i> .....	479
TUMULI GRAVES AND DESERT WELLS IN THE AS-SABBIYA. PRELIMINARY EXCAVATION REPORT ON THE SPRING SEASON IN 2010 <i>Eukasz Rutkowski</i> .....	493
TUMULUS GRAVE SMQ 49 (AS-SABBIYA, KUWAIT). PRELIMINARY REPORT ON THE INVESTIGATIONS IN 2009–2010 <i>Maciej Makowski</i> .....	518
TUMULUS GRAVE SMQ 30 IN AS-SABBIYA – MUGHEIRA (NORTHERN KUWAIT). A REPORT ON THE 2007–2008 INVESTIGATIONS <i>Andrzej Reiche</i> .....	528

## IRAN

### KHONE-YE DIV

KHONE-YE DIV. PRELIMINARY REPORT ON THE SECOND AND THIRD SEASONS OF IRANO–POLISH EXCAVATIONS (2009 AND 2010) <i>Barbara Kaim, Mohammad Bakhtiari, Hassan Hashemi</i> .....	543
--	-----

## PAM STUDIES

POTTERY FROM BAHRA 1 (KUWAIT). NEW EVIDENCE FOR THE PRESENCE OF UBAID CULTURE IN THE GULF <i>Anna Smogorzewska</i> .....	555
GROUND AND PECKED STONE INDUSTRY OF BAHRA 1, AN UBAID-RELATED SETTLEMENT IN NORTHERN KUWAIT <i>Marcin Białowarczuk</i> .....	569
SHELL OBJECTS FROM TELL RAD SHAQRAH (SYRIA) <i>Dariusz Szeląg</i> .....	587

## CONTENTS

---

ANTHROPOMORPHIC FIGURINES OF THE SECOND MILLENNIUM BC FROM TELL ARBID, PRELIMINARY REPORT <i>Maciej Makowski</i> .....	617
EXECRATION AGAIN? REMARKS ON AN OLD KINGDOM RITUAL <i>Teodozja I. Rzeuska</i> .....	627
THE SOLAR ALTAR IN THE HATSHEPSUT TEMPLE AT DEIR EL-BAHARI <i>Teresa Dziedzic</i> .....	635
ROMAN CLAY LANTERN FROM BIJAN ISLAND (IRAQ) <i>Maria Krogulska, Iwona Zych</i> ... ..	651
ARCHBISHOP GEORGIOS OF DONGOLA. SOCIO-POLITICAL CHANGE IN THE KINGDOM OF MAKURIA IN THE SECOND HALF OF THE 11TH CENTURY <i>Włodzimierz Godlewski</i> .....	663
MEDIEVAL TRANSCULTURAL MEDIUM: BEADS AND PENDANTS FROM MAKURIAN AND POST-MAKURIAN DONGOLA IN NUBIA <i>Joanna Then-Obluska</i> .....	679
INDEX OF SITES .....	721
GUIDELINES FOR AUTHORS .....	722
PCMA PUBLICATIONS .....	723