

# The Great Temple in Berenike: new findings of the Berenike Temple Project

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**Abstract:** A reinvestigation of the so-called Serapis temple of Berenike produced proof for the existence of undisturbed archaeology around and even inside the building. Until recently it was assumed that this temple was completely excavated during the several, poorly documented, excavations of the 19th century. A small test trench against the back wall of the temple uncovered the remains of a secondary stone wall and parts of a small statue. The excavation of the northwest room resulted in the find of architectural details never published by the early excavators.

**Keywords:** Berenike, Great Temple, Belzoni, Serapis, Horus/Sobek

The so-called Serapis Temple in the Red Sea Port of Berenike was the first building investigated on the site by the 19th century European and American explorers, who failed however to publish much from their endeavors. Recently, in 2011, the Berenike Project mounted the first substantial excavation since the 19th century, speeded up by a deplorable act of vandalism, which tore down part

of the northern side wall of the temple. Test trenches indicated the presence of undisturbed archaeological layers inside the sanctuary. The Project now aims at a thorough investigation of the temple complex to document its architecture and history, its links with the town and its inhabitants, and the influence the international character of the town exerted on its functioning.<sup>1</sup>

## EARLY RESEARCH

When Giovanni Belzoni discovered Berenike in 1818, he gave special attention to a stone temple in the center of the site,

the most visible remnants of the town (Belzoni 1821: 330). Pressed by a shortage of drinking water, he managed only a hasty

<sup>1</sup> The excavations of the temple are part of the Berenike Project, directed by Steven E. Sidebotham (University of Delaware) and Willeke Z. Wendrich (University of Leiden) and since 2008 by Steven E. Sidebotham and Iwona Zych (Polish Centre of Mediterranean Archaeology, University of Warsaw). For more on the excavation, see Sidebotham and Zych 2017.

excavation. Still, parts of reliefs on the walls and a fragment of a stela were found at the time. The first plan of the temple was also produced then.

Eight years later, John Gardner Wilkinson visited the site and made the first detailed plan of the town. The temple, about 23 m long, is seen on it. Wilkinson excavated room 1 and a small section of room 2. He probably also unearthed a small part of the large front hall, which he called a portico. His notes contain drawings of inscriptions with cartouches, on both sides of the entrance to room 1; he thought them to be of the emperor Marcus Aurelius (AD 161–180) (Wilkinson MS. XXXVIII, 92, Bodleian Library, Oxford; Meredith 1957: 61–62). In *Topography of Thebes* he described his finds in the temple: “In excavating these chambers (for I did not attempt the portico), I found a Greek dedication to Serapis, the head of a Roman emperor, either Trajan or Adrian, a small fountain, and some rude figures, probably *ex votos*” (Wilkinson 1835: note on pages 418–419).

In 1836, James Wellsted visited Berenike and excavated a small part of the temple. The plan he made at the time of discovery suggests that less than half of the building was visible above the ground at the time. Wellsted mirrored the southern part of the plan, creating a non-existent, symmetric temple with two staircases. Clearly, he must have been unaware of the plans made by Belzoni and Wilkinson.

Despite time constraints Wellsted managed to excavate a large part of the sanctuary (room 2), which appeared to have already been partly excavated, probably by Wilkinson. At the depth of about 1.50 m,

he first came across several figures on the walls which, upon further investigation, turned out to be “the figures of deities and the king ... arranged in groups along the walls”. He found two fragments of a stela with a Greek inscription, containing a dedicatory text of a Ptolemaic king. To access the room Wellsted dislodged several massive roofing stones (Wellsted 1836: 98).

Arriving in Berenike in 1846, Heinrich Barth was disappointed to find the town “barely more than a trash heap”, amidst which even the temple was not clearly visible. His observation that the temple, although covered with hieroglyphic texts and reliefs, had no inscription dated before the reign of Tiberius (Barth 1858: 16), is probably based on the reports of Wilkinson. After having measured the visible remains of the temple, he left for the nearby mountain site of Shenshef.

When Theodor von Heuglin arrived in Berenike in July 1857 by means of a small local freight ship hired at Quseir, he saw “a temple of large limestone blocks ... probably originating from stone quarries I discovered about 2 miles north west of the ruins...”<sup>2</sup> He found the temple inaccessible as it was buried in sand up to the roof slabs. The stone surface which could have been observed at that time had eroded so much that no inscriptions or reliefs were visible, except for an upturned roof block with stars carved in relief. Although most of the temple was covered by sand, traces of recent excavations were still visible (von Heuglin 1860: 333).

The next to excavate the temple was Erastus Sparrow Purdy, a Union Army major who was also an experienced

<sup>2</sup> These quarries seem to have been lost to 20th century building activities.

surveyor. He was one of the 50 veterans of the American Civil War that the Egyptian ruler Ismail Pasha hired in 1870 as part of an attempt to modernize his army. Purdy was sent on several expeditions to the south of Egypt and Sudan. In 1870 and 1873, he surveyed the Berenike region. During his second stay there he also visited Berenike itself and with a group of Egyptian soldiers excavated parts of the temple (Purdy 1886, but without mention of the actual work in Berenike). Although it is claimed that Purdy excavated the temple in its entirety, precisely how much was unearthed during the 1873 expedition was not clear until the clearing in 2011 by the Berenike Temple Project, which has shed light on this issue. After Purdy's sudden death in 1881, his expedition notes were deemed to have been lost forever, although in 1922 Daressy

discovered a copy of the plan of the temple made by Purdy in the archives of the Institute d'Égypte (Daressy 1922: 170). The plan shows the north and south walls of the so-called forecourt and a huge fallen roof slab in the forecourt, as well as a crypt under room 8, with a narrow entrance in the "forecourt".

Russian egyptologist Vladimir Golénisheff visited Berenike and published in 1890 a version of the temple plan to which he also added a cross-section of the then still exposed corridor 6 (Golénisheff 1890: Pl. V). In 1994, Hans Barnard and Fred Aldsworth also drew a plan of the temple as part of the survey of Berenike (Aldsworth 1995). The plan presented here is based on those made by Purdy, Golénisheff and by Barnard and Aldsworth, updated to include the results of the 2011 test trenches.

## BERENIKE TEMPLE PROJECT RESEARCH IN 2011

The repeated clearing of parts of the temple in the 19th century led to rapid deterioration of the reliefs exposed to the air, a state noted by Wellsted already in 1836. One of the objectives of the current project was to assess the state of preservation or rather decay of the walls, especially the exposed parts of the monument during the previous 100 years. The project will also record the architecture accurately and any surviving stratigraphy, reliefs and inscriptions. In 2011, room 3 was cleared and a test trench, BE11-79, was dug against the outside of the back wall of the temple, the purpose being to locate an area with intact stratigraphy, undisturbed by the 19th century excavations [*Fig. 1* bottom].

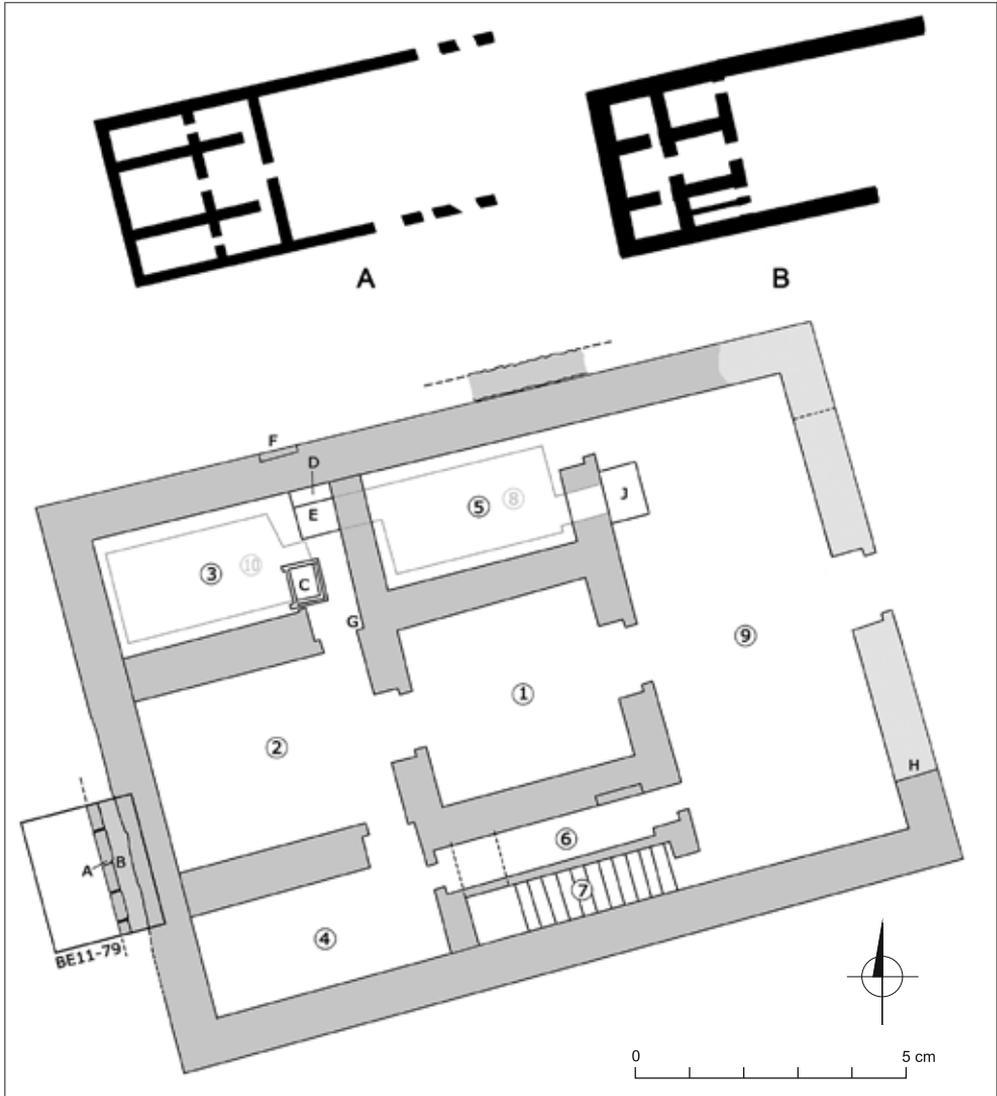
### ROOM 3

Room 3 is a narrow room in the north-western corner of the temple. It was cleared repeatedly and stood open for longer periods of time as indicated by the different lines of salt on the walls. Upon closer inspection, it turned out that the 19th century excavations were not thorough. Vandals digging for treasure prior to the 2009 season of the Berenike Project re-excavated the room, uncovering a trapdoor in the stone floor and clearing a crypt underneath [*C in Fig. 1* bottom]. In 2009, the Project protected the uncovered architecture and backfilled the room. In 2011, the floor and the trapdoor were uncovered again and documented [*Fig. 2*]. It should be noted that Purdy's drawing did not record the crypt (Daressy

1922: 172, Figs 3 and 4), which is additional evidence that he never fully excavated this room.

The trapdoor gave access to a crypt between the heavy foundation walls of

room 3. This crypt is not shown in Purdy's plan, although he noted another crypt, underneath room 5, accessed through a small entrance [J in *Fig. 1* bottom] in the 'courtyard' and through a narrow door in



*Fig. 1. Revised plan of the temple: new data combined with the Purdy/Golénisheff (1A) and Barnard/Aldsworth plans (1B) (PCMA–University of Delaware Berenike Project/plan M. Hense after Purdy/Golénisheff and Barnard/Aldsworth)*

the floor of room 3 [E in *Fig. 1* bottom]. The impression is that Purdy never fully excavated the crypt underneath room 5, because his plan recorded a solid west wall. The foundation walls observed in the crypt underneath room 3 were much wider than the walls they supported. Such a construction technique was typical of many temples built after the Twenty-fifth Dynasty (e.g., Arnold 1999: 172, Fig. 120). The north foundation wall appears to be built on top of an older structure, which can be seen as a row of stones in the floor of the crypt. The temple may have been constructed on a stone platform, in which case, the original ground level around the

temple could be placed well into Ptolemaic period levels reached in the excavation of nearby trench BE-10 in 1999 (Sidebotham and Wendrich 2007).

The trapdoor is carefully cut in the stone floor [*Fig. 2*]. Two recesses on the western edge of the opening probably accommodated metal hinges. It was cut far too close to the south wall, the foundation wall of which partly blocks the opening. Those planning the trapdoor obviously were unaware of the foundation walls being much wider than the temple walls, which would point to the secondary character of this feature (probably cut into the stone slabs of the floor years after the



*Fig. 2. Trapdoor in room 3*  
(PCMA–University of Delaware Berenike Project/photo M. Hense)

construction of the temple). The secondary character of the crypt is also confirmed by the absence of any indication of a stone floor in it and the rough stone surface of the foundation walls on either side.

The floor of room 3 was made of a series of large stone slabs, resting on the foundation walls [Fig. 3]. The rather rough surface of the large slabs indicates that they were once covered with thin, flat paving stones. The presence of a paving is further confirmed by a small ledge at the base of the walls. A grey-brown sand fill in the interstices between the floor slabs yielded a cowry shell of the same kind as excavated in other late Roman period sanctuaries, suggesting a date for the original fill of the room in the 4th century AD or later. The missing presumed flooring, probably made of a quality stone, may have been removed after the temple fell into disuse in the 4th century AD. Finds in the courtyard of

a nearby house in trench BE00-37, some meters east of the temple, seem to indicate that it was quarried for building material in the 5th century AD, possibly in the same action.

A connecting doorway opened between room 3 and the sanctuary (room 2) [see Fig. 1]. It was once closed with a wooden door, as attested by two recesses for a pivot block, the pivot probably made of bronze, remaining in the eastern corner of the lintel [Fig. 4; G in Fig. 1 bottom]. The pivot block would have been locked in place with an L-shaped something fitted there. It is likely that this construction consisted of two parts, the smaller part being used to secure the pivot block in its place.

At least in room 3, an examination of the inner walls revealed that they were not interconnected with the outer wall of the temple [Fig. 5 left]. The outer walls in the northwestern corner featured some

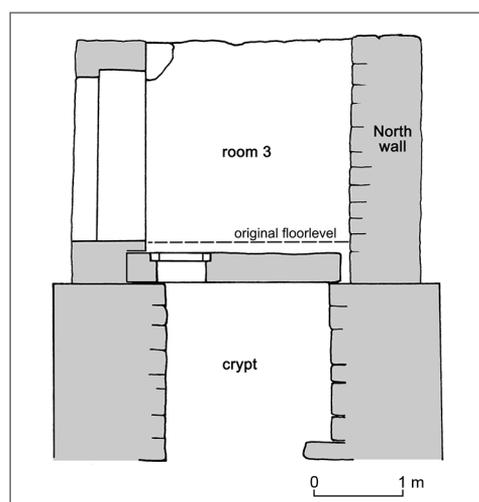


Fig. 3. E–W section through room 3 and the crypt below it (PCMA–University of Delaware Berenike Project/drawing M. Hense)

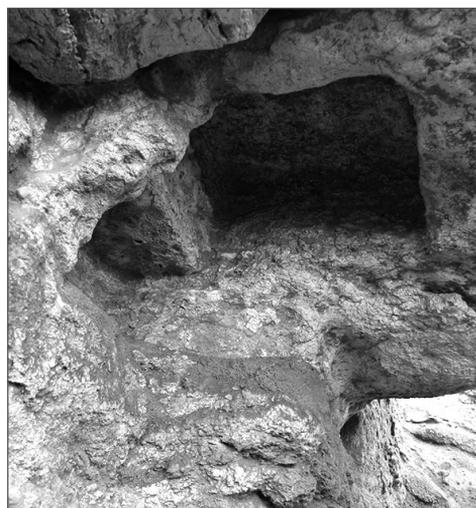


Fig. 4. Recesses for a pivot block in the connecting doorway to the sanctuary, seen from inside room 3 (PCMA–University of Delaware Berenike Project/photo M. Hense)

L-shaped corner blocks, which are not unusual in Ptolemaic–Roman Egyptian architecture [Fig. 5 right]. The procedure was to mount in place roughly cut blocks transported from the quarries and then cut back the inner surface, creating the unusual L-shaped form that is found in this corner. After building the outer wall of the temple, the rough and uneven surface was cut back to form a smoother surface, resulting in an outer wall that was 0.80–0.84 m thick. The south wall of room 3 is not connected to the outer wall but abuts the cut back wall surface. It means that these inner walls, with a thickness of 0.74 m, were built after the eastern face of the west outer wall and the southern face of the north outer wall of the temple had been finished.

There is a considerable disparity in the quality of the anhydrite and gypsum

ashlars of the walls, ranging from dense crystalline anhydrite to soft and easily weathered blocks. It is an indication of logistical problems and the costs involved in building a large stone temple on an isolated site like Berenike. Another remarkable imperfection can be observed in the masonry of room 3. The south and east walls consist of several layers of smaller blocks topped by layers of larger blocks. Layers with smaller stones were used also in the north and west walls, the outer temple walls, but these layers are slightly higher in the wall. This may be an indication of restoration or resuming building work during the revival of Berenike in the early Roman period. A very unusual niche was located in the outer wall at the eastern end of room 3. Its height above the original floor level of the temple indicates that this

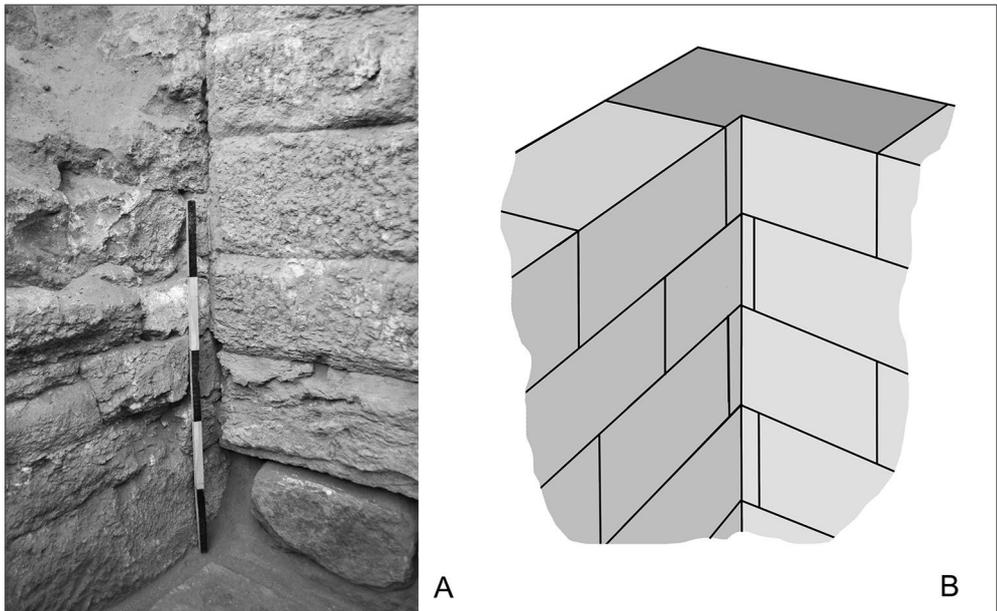


Fig. 5. The inner faces of walls in room 3: left, the northeastern corner; right, L-shaped blocks in the northwestern corner (PCMA–University of Delaware Berenike Project/photo S.E. Sidebotham; drawing M. Hense)

niche was probably secondary and may have even been carved in the stone after the 4th century.

Excavations documented a large block set on the floor of room 3 and leaning against its north wall [Fig. 6]. It is far too big to be a part of any of the walls. With a thickness of 0.45 m, it is most likely a fragment of a large roof slab. The top of this block bears on one side traces of a later stone and coral edifice, which constitutes the remains of a structure built on top of the temple during the late 4th through early 6th century. This evidence confirms

Wilkinson's observations from 1826 that a coral head wall had been built on top of one of the roof beams prior to its collapse. A similar situation can be found at other temple sites, where during the 19th century houses and other structures were reported on temple roofs. The underside of the stone slab with remnants of the aforementioned coral head wall seems to have once had a decorated surface, most likely the remains of a star pattern.

Decorated ceiling blocks were seen by Wilkinson in 1826, one in room 1 and another one in room 2. He produced

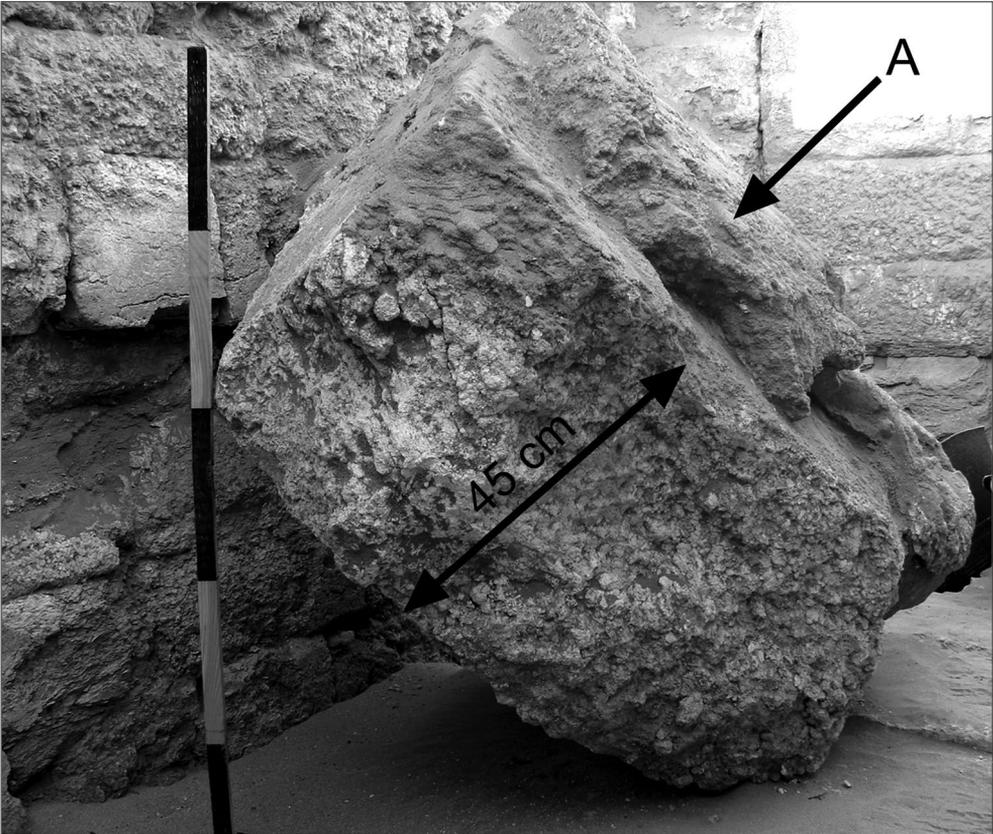


Fig. 6. Fragment of a roof block leaning against the wall in room 3  
(PCMA–University of Delaware Berenike Project/photo M. Hense)

a sketch of the second fragment, which shows the name and titles of a Roman emperor and a part of a vulture. This decoration is typical of the central axis of a temple ceiling (Wilkinson MS. XXXVIII, 93 and MS. V, 50, Bodleian Library, Oxford). Wellsted dislodged several roof blocks in room 2, uncovering some ceiling blocks with hieroglyphic inscriptions “in a beautiful state of preservation” (Wellsted 1838: 336–337). Heuglin saw another block with stars during his visit to Berenike in 1857. This fragment of the ceiling might be one of the blocks removed from its original location by Wellsted, some twenty years before (von Heuglin 1860: 333).

#### TRENCH BE11-79

Searching for undisturbed late period stratigraphy the Project opened trench BE11-79 against the back wall of the temple. Directly below the surface were the remains of a collapsed wall, comprising rubble from a wall face added to the back wall of the temple. The wall face consisted of stones only 24–26 cm thick, the remaining space between the original temple wall and the new stone wall, about 25 cm, being filled with coral blocks. The gypsum/anhydrite wall was probably an inner wall face of a later building, with a much higher floor level. However, all the houses excavated thus far in Berenike are predominantly built of fossil coral

heads with only a few gypsum/anhydrite ashlar used for thresholds, doorposts, cupboards, steps and reinforcement of wall corners. Only one structure in Berenike other than the Great Temple is built entirely of stone ashlar. It is the so-called Square Feature on a small island in the harbor, situated next to the late Harbor Temple, apparently contemporary with the Great Temple period, viz. Ptolemaic/early Roman. It is unlikely therefore that the thin stone wall at the back of the Great Temple was part of a later domestic structure. Considering the very limited use of stone in Berenike, and mainly in the Ptolemaic and early Roman period, this wall was probably a new temple wall face or part of an added sanctuary. The wall face of the original back wall of the temple is extremely irregular, and must have suffered extensive damage, probably during the phase of abandonment of the site in the late Ptolemaic period or after the mid 3rd century AD. Cutting back the wall face was apparently not considered, as it would have made the wall very fragile. All the effort of adding a new wall face may be justified by the presumed significance of this part of the temple, necessitating buttressing.

The wall rubble in the trench yielded a stone statuette of a crocodile with falcon head (Zych and Sidebotham 2011; Sidebotham and Zych 2017) [Fig. 7]. The upper part of the headdress of the statue,

<sup>3</sup> Parallels for the Horus/Sobek statuette: 1) Egyptian Museum, Cairo (floor 2, Hall 19), limestone, H. 9 cm, L. 36 cm, provenance: Mansurah, Daqahliya; 2) Metropolitan Museum of Art, New York, Ptolemaic; 3) Staatlichen Museum, Berlin, Late Period–Ptolemaic; 4) Walters Art Museum, Baltimore, steatite, 40–250 BC, L. 26.8 cm, crown missing; 5) University College London, Petrie Museum, Late Period, steatite, UC60054, L. 7.3 cm, W. 2.0 cm, crown missing; 6) University College London, Petrie Museum, Late Period, copper alloy, UC8149, L. 3.8 cm, overall H. 6.2 cm, winged crocodile with falcon head and crown; 7) British Museum, London, Late Period, 600 BC, lapis lazuli, 1993.0629.2/EA74189, L. 3.45 cm, W. 1.15 cm, H. 1.7 cm; 8) British Museum, London, Twenty-sixth Dynasty, blue-glazed, 1925.0511.66/BM 57914, L. 1.73 cm, W. 1.39 cm, H. 3.72 cm; 9) British Museum, London, Twenty-sixth Dynasty, red-brown glazed, 1925.0511.66/EA57914.

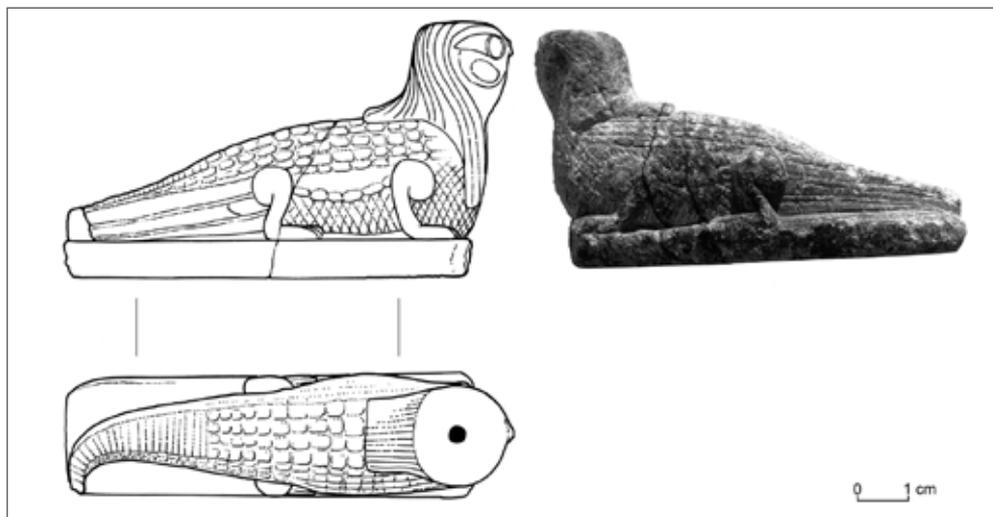


Fig. 7. *Horus/Sobek statuette found in BE11-79*  
(PCMA–University of Delaware Berenike Project/drawing M. Hense; photo B. Wójcik)

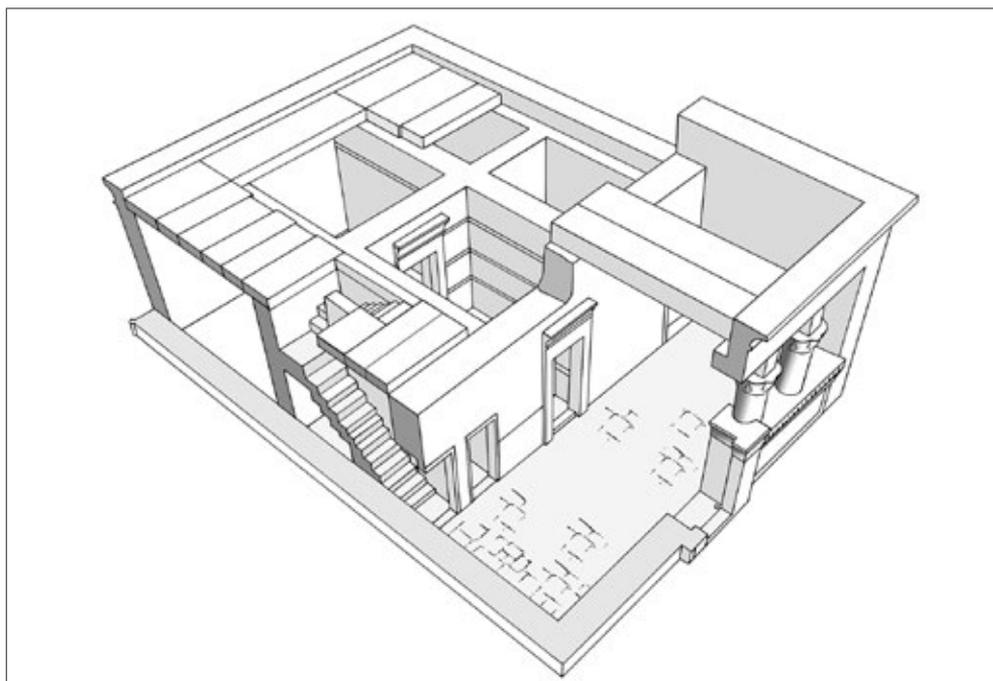


Fig. 8. *Reconstruction of the temple*  
(PCMA–University of Delaware Berenike Project/drawing and interpretation M. Hense)

probably made of metal or a different type of stone, is missing. About a dozen parallels of this type of statuette are known in collections worldwide. All date to the late Period–Ptolemaic era, with one exception dating to the Eighteenth Dynasty. However, the find context of these figurines is unclear.<sup>3</sup>

### COURTYARD

Purdy's plan shows an enormous stone slab, probably a roof stone, blocking the entrance to the staircase (7). Meredith doubted this "as a single slab over 12 ft. [about 4 m] long and 3–4 ft. [about 1–1.30 m] wide is hardly possible" (Meredith 1957: 59). The 'courtyard' is, in fact, less than 0.25 m wider than room 2, which was definitely roofed. Invariably described as a courtyard, room 9 was probably, a small roofed hall as no temple of this type is known to have

a courtyard so narrow and surrounded by a stone wall. The width of the hall, merely 3.75 m, is small enough to be bridged by a single slab of sandstone, although a row of two or four columns supporting the roof is also feasible. The top of the south wall can be traced on the surface of the site up to the southeastern corner, but the east wall seems to end abruptly at only 1.70 m from that corner (H). This suggests a half open front, making the hall a *pronaos* [Fig. 8].

Based on Belzoni's and Wilkinson's observations, it seems that a courtyard existed in front of the stone temple. Belzoni noted the east–west length of the temple to be 2.37 times the width (Belzoni 1821: 335), which corresponds with the depiction of the temple in the plan Wilkinson made (Wilkinson MS. XLV D.11, Bodleian Library, Oxford).



Fig. 9. Magnetic map of the Great Temple and its immediate vicinity showing anomalies representing the architecture in front of the temple (PCMA–University of Delaware Berenike Project/processing T. Herbich)

Based on these numbers, the temple they observed was over 55% longer, in its east–west orientation, compared to the excavated stone temple. According to Belzoni’s observation, the temple is 26 m long [Fig. 1:A], while the Wilkinson plan shows walls extending to the east for at least 24 m [Fig. 1:B]. The stone building is, in fact, 14.90 m long, which leaves a space in front of the temple at least 11 m by 11 m in size. Barth, in 1846, did not see the extension (Barth 1858: 16), nor did

Wellsted or any of the later visitors. This can be explained by assuming the existence of a courtyard consisting of coral walls. The top of any remains of connecting walls must have collapsed between 1826 and 1836 (the year of Wellsted’s visit), the remains being subsequently covered by sand. Any remains of the courtyard found at some distance from the stone temple must have been dismissed as its possible parts based on the fragility of the coral blocks of which they were built.

## CONCLUSION

The long walls Belzoni and Wilkinson saw stretching far beyond the facade of the building are probably courtyard walls, seemingly confirmed by an analysis of anomalies recorded by a magnetic survey of the site showing most of the temple area in some detail. Walls of a series of at least two courtyards are visible directly east of the temple. The easternmost courtyard is wider, and may have been added some time after the first one had been constructed. The courtyards gave access to the main east–west street of Berenike, probably through a monumental gate of gypsum or

anhydrite blocks, built in a temenos wall of coral blocks. Remains of what seems to be this gate structure are visible on the magnetic map as well [Fig. 9]. Not visible on this map, as late buildings cover the area around the temple and its courtyards, are the workshops and storage rooms that must have been present in the temple complex. Although during the 19th century there were several excavations in the Great Temple of Berenike, recent research has proven that the temple and its immediate surroundings can still yield a considerable amount of archaeological information.

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