

The temple of Heliopolis: excavations 2012–14

Heliopolis once stood at the centre of the ancient Egyptian sun-cult. Its architectural layout and landscape are the topic of debate, much of it based on decontextualized objects. Today, the temple area is threatened by modern garbage dumps and other usage. **Aiman Ashmawy** and **Dietrich Raue** report on the recent Egyptian-German excavations there.

The sun-cult was the core element of ancient Egyptian religion for more than three millennia, and Heliopolis stood at its centre: The place of the world's creation and a national reference point. In ancient Egypt, like in modern Egyptology, Heliopolis was considered to be the model for large temple complexes, such as Karnak and the Great Aten temple of Amarna.

The architectural layout and the landscape of Heliopolis are the topic of much debate. Most of the hypotheses about this centre of the sun-cult are based on decontextualized objects like obelisks in London, New York, Rome, and other places, as well as on the still standing obelisk of Sesostris I, in Matariya.

The temple area is threatened by modern garbage dumps, in the area called Misraa el-Segun, and by other usage including house construction, especially in the area of the shopping mall Suq el-Khamis. Several hectares of the temple area were lost during 2012 and 2013 and a large apartment house was built immediately southwest of the obelisk museum. In addition, dense vegetation covers lower levels thriving on the high groundwater.

The most impressive remains within the temple are a circular structure. It measures about 400 m in diameter and is 65 m wide in the eastern section of the main *temenos*. While Petrie considered this structure a 'fort bank' of the Hyksos Period, others argued in favour of a platform of a sanctuary called the 'High Sand of Heliopolis', based on a passage in the stela of Piankhi. This construction was most probably the centre of the sun-temple, as indicated by spectacular finds from the early 20th century, and by the position of the obelisk of Sesostris I. The



*Area of the central temple of Heliopolis (Misraa es-Segun) with the Matariya Museum and the obelisk of Sesostris I.
Photograph: Dietrich Raue.*

function of this structure is disputed, as is its date and its architectural context. Excavation work, combined with geomorphological and geophysical investigations (see the contribution of Morgan De Dapper and Tomasz Herbich in this volume), began within this structure west of the obelisk: Area 210, a section of 130 x 15 m, was opened for the investigation of this so-called 'High Sand of Heliopolis' in order to investigate its connection with the axis of the main temple. A large mud brick wall of more than 20 m width was uncovered in the northern part of Area 210. Beyond any doubt, this wall is identical with the structure that Petrie indicated in 1912 in this location. However, it remains an open question as to whether it is a part of the 'High Sand' or whether these are the lower courses of a straight, double-enclosure wall that ran east-west in this position.

A part of these brick courses can be dated to the later part of the Late Period. Other pottery finds date to the

Area 202, Suq el-Khamis in March 2012. Photograph: Dietrich Raue.



Ramesside Period and there is other evidence for building phases. There is also evidence for artisanal activity (e.g. a mould for faience amulets) in the main *temenos* of Heliopolis from layers in Site 210. More recent pottery finds and Ottoman pipe heads were found in surface material.

In 2012, the excavation work was mainly concerned with Area 200 within the north-western part of the main temple precinct, north of the Suq el-Khamis shopping mall. It continued earlier fieldwork of the Supreme Council of Antiquities (2001–2010, 2005 in cooperation with the German Archaeological Institute). Most squares bear evidence for the destruction levels of a temple of Ramesses II. A pedestal of a colossal statue and a large torso of a seated statue were discovered in 2006–2010 as well. The temple was embellished by the re-erection of at least four red granite statues of Sesostris I by Ramesses II. Their back pillar is uninscribed, but the faces and the style of the *nemes* headdress point clearly to the earlier Twelfth Dynasty. Heads of such statues were found in 2001–2006. A fragment of the same material indicates a life-size depiction of a king in the Sed-festival cloak. In addition, the god Thot is attested among the statuary of the Middle Kingdom. Other materials were used for the temple's statues: yellow-brown quartzite was used, for instance, for a large statue of a falcon.

The dedication of the sanctuary in Site 200 remains unknown. Close by, large blocks of a gate, made of silicified sandstone were discovered. One of them proved to belong to a cavetto cornice block, reinscribed by Ramesses II. The original inscription probably mentioned Ramesses I.

Area 200 furnishes plenty of evidence for the activity of Akhenaten in the precinct of the sun-god in Heliopolis. Decorated and undecorated limestone blocks, each originally measuring 52.5

x 25 x 22 cm, were found and provided information about the schema of decoration. A couple of fragments preserve finely executed representations of the royal family. Others indicate limestone columns built of talatat fragments with palm leaf capitals. These finds have provided a significant amount of fresh evidence concerning the building projects of the Amarna Period in Heliopolis. In addition, residual finds of the Second Intermediate Period added to earlier observation for the presence of the Hyksos Period near or even within the temple of Heliopolis.

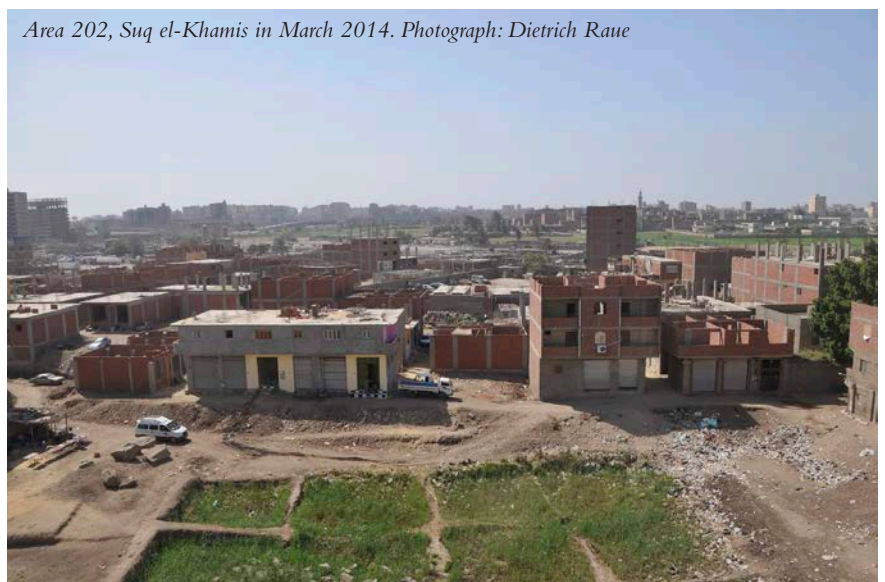
Illicit digging west of the shopping mall led to the discovery of an offering table in 2012. It belongs to the 'god's father of the house of Ra, clean of hands, Meryra', who might be the same person as a namesake attested on a stela from Abydos, now in the British Museum, dating to the earlier Nineteenth

Dynasty. Another object recovered in 2014 is a Ramesside doorjamb of a priest of the (Heliopolitan) estate of Amun. The fragment is one more piece of evidence for the presence of decorated, free-standing tomb-chapels in the Heliopolitan necropolis of the Ramesside Period.

Similarly, other objects from tombs of the New Kingdom were found in the temple precinct of Heliopolis. This leads one to assume that during mid-20th century construction work, areas in the necropolis of the New Kingdom in the quarter Ain Shams were cleaned and debris was dumped in the western temple area.

As a result of the geomorphological and geophysical survey (see the article by De Dapper and Herbich), subsequent excavations can be scheduled around the obelisk. Future activities will have to rely on such localization and have to be prepared for work below groundwater levels. In addition, a topographical survey by Luc Gabolde and Damien Laisney aims to determine precisely the potential astronomical orientation of the great temple of Atum at Heliopolis.

Area 202, Suq el-Khamis in March 2014. Photograph: Dietrich Raue



Sketch of the position of the large double enclosures of the temple of Heliopolis in Matariya and Arab el-Hisn:
 Black: as indicated by Petrie in 1912.
 Yellow: inner course, probably New Kingdom.
 Green: outer course, probably latter Late Period.

(Photograph: Google Earth, adapted by M. Beiersdorf.)



Area 200 from north, temple of Ramesses II.
 (Photograph by Dietrich Raue.)



Area 200: torso of a royal red granite statue.
 (Photograph by Dietrich Raue.)



Excavation finds: lintel of Ramesses II from Area 200 (top; photograph by Dietrich Raue). Offering table of the priest Meryra found in Area 202 (above; photograph by M. Wenzel). Fragment of pottery vessel with depiction of a gazelle, probably Second Intermediate Period (below; photograph by M.-K. Schröder).



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Geomorphological and geophysical survey

In view of the enormous dimensions of the Temple of Heliopolis (1,100 x 900 m) and the limited chance for excavations due to the high groundwater table, a geomorphological and geophysical survey was carried out by the joint Egyptian–German Archaeological Mission in Matariya, report **Morgan De Dapper** and **Tomasz Herbich**.

The combined investigations began within the circular structure that was known in the past as ‘fort bank of the Hyksos Period’ or as the ‘High Sand of Heliopolis’. By hand drillings, a stratigraphy of 4th and 3rd millennium BC was discovered 300 m west of the obelisk. The pottery of the earliest occupation 10 m deep shares characteristics of the Buto–Maadi culture. It is located on top of a late Pleistocene sandy gezira. Another set of drillings was made in Area 210. It provided evidence for the extension of the same gezira.

Tests with a fluxgate gradiometer did not show clear evidence of archaeological features; this is probably due to the highly magnetic silt layers of up to 3 m thickness. By contrast, electrical resistivity profiling was tested successfully in the main temple around the obelisk. Area 211 lies the closest to the obelisk of Sesostris I. Results of resistivity profiling coupled with drillings verified the interpretation of a higher-resistivity elongated structure as a limestone wall, which is surrounded and covered by limestone fragments originating from the wall. At a depth



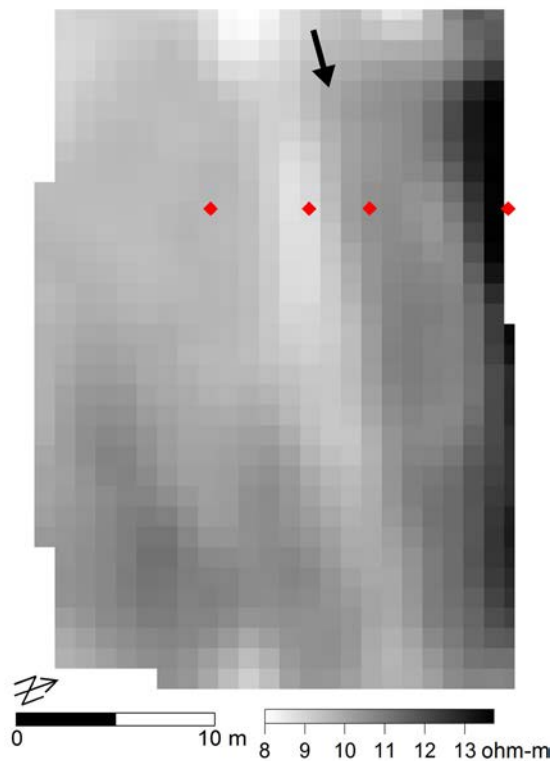
Temple of Heliopolis: Areas 5 (southern enclosure walls), 210, 211 and 220 (Misraa es-Segun) and the western part of the temenos (Suq el-Khamis) with the sites 200 and 202. (Photograph: Google Earth.)



Area 211 and obelisk of Sesostris I. (Photograph by Dietrich Raue.)

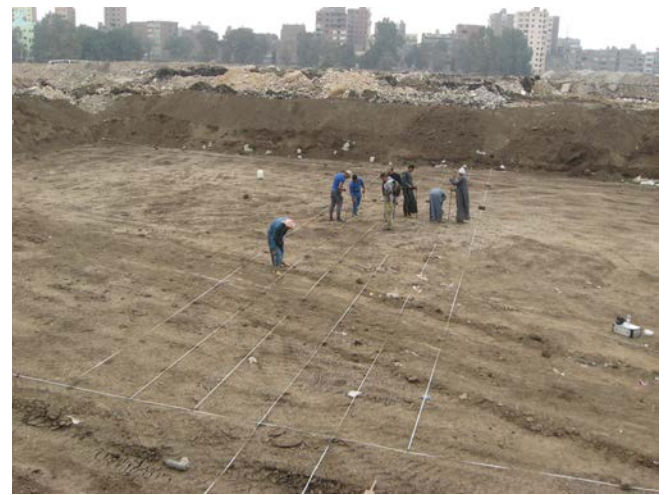
of 2.2 m, the drillings hit this hitherto unknown large limestone wall or wall foundation close to the temple axis.

In Area 220, where the geophysical prospection covered 60 x 60m, another hitherto unknown structure was detected at a depth of 3 – 4 m, as was suggested by both multi-level resistivity profiling and a concentration of stone debris in the drillings. Further to the west, anthropic construction layers were indicated by a sand foundation of New Kingdom date.



Area 211: resistivity profiling in spring 2014. (Photograph by Tomasz Herbich.)

Area 211: resistivity map. Anomaly interpreted as a wall marked with an arrow. Drillings marked by red squares.



The results of drillings, carried out in the southern enclosure of the *temenos* (Area 5), corroborates the hypothesis of construction of huge walls of up to 20 m width in the 1st millennium BC as a measure of flood protection. Indeed, the stratigraphy in the outer enclosure wall of the later Late Period showed a thick layer of very homogeneous, brownish-black Nile flood silt with very fine lamellation, pointing to a sequence of flood levels. This may be also relevant for the circular structure around the obelisk of the Middle Kingdom.

The combined approach of geomorphological and geophysical surveying proved for the first time the existence of a palaeo-landscape marked by at least one sandy elevation rising as an island at least 5.5 m above the floodplain when first settlement took place. In addition, it paved the way for the first localisation of a limestone wall in the vicinity of the obelisk. In this way, it will contribute greatly to debates over ancient Egypt's religious history. Topics such as the transformation of a mythical landscape into an architectural re-enactment of its mythic past can be addressed anew.



Area 5: drilling in the southern enclosure wall. (Photograph by P. Collet.)

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