TELL EL-RETABA

SEASON 2007

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with contributions by
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The Tell el-Retaba Archaeological Project aims at exploring one of the major Dynastic-period sites in Wadi Toumilat in the Nile Delta. Sitting on a strategic crossroads of the main route from Egypt to Syro-Palestine, Tell el-Retaba must have played an important role in the region at least during New Kingdom times (Morris 2005: 504–508). Previous archaeological work on the site — excavations by E. Naville (1887), W.M.F. Petrie (Petrie, Duncan 1906: 28ff.) and H. Goedicke (unpublished, see http://users.stlcc.edu/mfuller/Retaba), as well as surveys by a German team (Neuffer et alii 1932: 44) and a Canadian one (Redmount 1989: 125ff.) — has provided ample evidence in support of this view. However, practically nothing is known of the earlier history of the site and apparently there had been a settlement there quite early on. The objective is thus to reconstruct the history of the settlement in Tell el-Retaba from the earliest times until its abandonment.

During the first season at the site the team aimed at evaluating the condition of the site and identifying major threats to its preservation, locating structures excavated by Petrie at the beginning of the 20th century, and verifying and supplementing his documentation, for example, by tracing the northern defense wall. Methods included mapping, fieldwalking and geophysical survey.

The first field season took place between 12 and 30 April 2007.[1]

1 Team members: Dr. Sławomir Rzepka, archaeologist, director of the mission; Dr. Jozef Hudec, archaeologist, deputy director; Dr. Anna Wodzińska, ceramologist; Prof. Vojtech Gajdoš, Dr. Kamil Rozimant, geophysicists. SCA inspector Mahmoud Galal Mokhtar Khattab provided invaluable help and advice.
The Mission would also like to thank SCA authorities in the persons of Tarek Harash, General Director of the Ismailiya Area, and Nasrallah Mohammed el-Killany, Director of the Ismailiya Area, for their generous interest and support.

SITE PRESERVATION AND MAJOR THREATS

Serious damages to the site occurred in relatively recent times. An asphalt road divided it into two parts: a smaller, western one and a larger, eastern one. A high-voltage power line and a water pipe, the latter built in the early 1980s, caused more damage and government plans for yet another branch of the water-supply system will further destroy important archaeological remains, like the temple area excavated by Petrie. The cut for the asphalt road already revealed relatively thick, well preserved walls rising to a height of 1.00–1.50 m, apparently from a large and important building. An appeal to Egypt's archaeological authorities has resulted in action taken by the Supreme Council of Antiquities to stop the building project and to preserve this important Pharaonic site in northern Egypt for further study and documentation.

MAPPING

A new contour map of the site was prepared with state-of-the-art surveying equipment, marking all traceable archaeological remains (defense walls, houses, stone blocks), as well as modern structures (the southeastern part of the map remains to be completed next year). Superimposition of Petrie's excavation plan (Petrie, Duncan 1906: Pl. XXXV) [*Fig. 1*] demonstrated the presence of some of the structures excavated by Petrie. The thick walls of the Ramesside fortress (Petrie's "wall 2" and "wall 3") in their southern [*Fig. 2*] and western sections are especially easy to discern, even the casemate structure of "wall 2" in places [*Fig. 3*]. Parts of the defense walls appear to have been re-cleared in relatively recent times, unknown by whom or when.

Of the structures documented by Petrie the earliest defense wall ("wall 1"), dated by Petrie to Hyksos times (but questioned, cf. Redmount 1989: 130), cannot be seen and neither can the "Great House" dated by Petrie to the Eighteenth Dynasty. Only scant remains of the Ramesside temple can be traced on the surface. On the other hand, a number of ancient structures not known to Petrie can now be observed, most importantly, the fairly well preserved (max. height approx. 1.50 m) buildings east of Petrie's "Great House", in the center of the fortress. Some of these seem to be granaries [*Fig. 5*]. The orientation of these remains is the same and they may all be part of one big structure, although not necessarily part of the "Great House" complex, which follows a different orientation. But since the latter is known solely from Petrie's publication and could not be verified on site, conclusions with regard to this aspect will have to be postponed. The granaries (and the accompanying structures) were excavated between 1983 and 2005, it is unclear by whom, but apparently already after the laying of the water pipeline (the excavation trench runs parallel to the water pipeline, directly to the east of it). Dating and functional attribution will depend on a further clearing of these structures and investigation of the adjacent areas. Moreover, traces of mud brick walls were noted also in the cut for the asphalt road, indicating that also the area between the temple and the western gate had been built over. In any case, it looks now as if Petrie was wrong in assuming that the area inside the defense walls was "largely left open" and

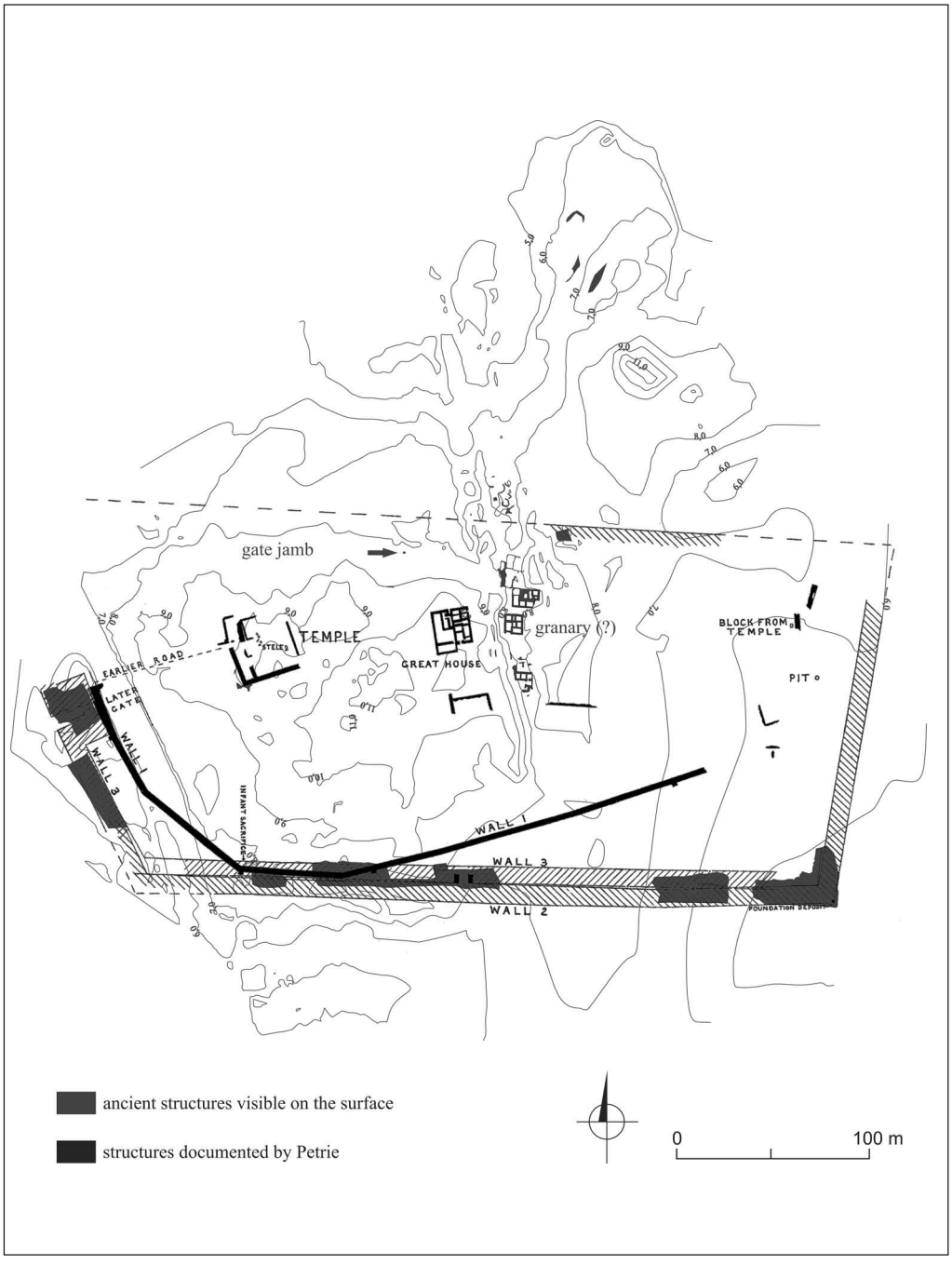

Fig. 1. Contour map of the site with superimposed plan of Petrie's excavations (After Petrie, Duncan 1906: Pl. XXXV; digital superimposition S. Rzepka)

Fig. 2. Southern defense wall of the Ramesside fortress: Petrie's "wall 2" (in front) and "wall 3" (in the background) (Photo S. Rzepka)

Fig. 3. Southern fragment of casemate "wall 2" (Photo S. Rzepka)

that the "place was rather a fortified camping ground, for the shelter of troops, than an ordinary town".

Petrie also had not observed a large stone door-jamb fragment, apparently still *in situ* [***Fig. 4***], presumably belonging to the northern defense wall. Indeed, he had investigated this part summarily to say the least, excavating so little that he could not form any ideas about the possible location of the gates. The jamb seems to have been fortuitously swept clean of sand and it may be evidence for one of the main roads inside the fortress, leading N-S from this gate to the southern gate in "wall 3" [cf. ***Fig. 1***]. The orientation of this hypothetical road seems to be in accordance with the orientation of the "Great House".

Some indistinct remains of mud-brick walls can be seen outside the fortress as well. One set is close to the defense wall, another approximately 100 m to the north of it. The latter may belong to a necropolis excavated by Petrie (Petrie, Duncan 1906: 29).

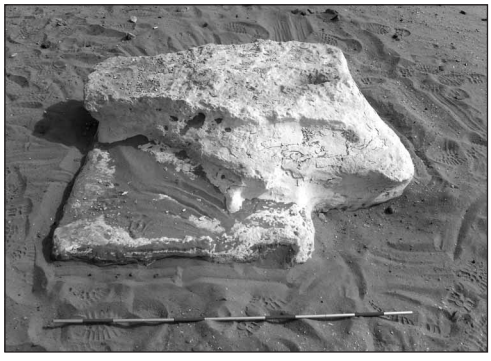

Fig. 4. Fragment of a large limestone door jamb (Photo S. Rzepka) ▶

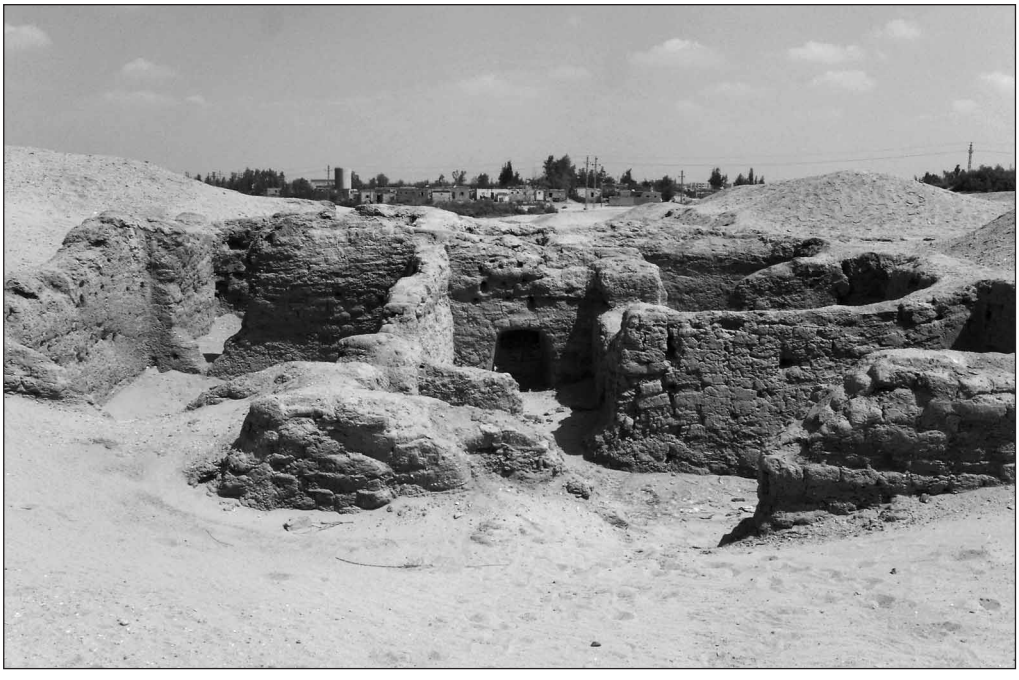

Fig. 5. Granary(?) in the center of the fortress, discovered between 1983 and 2005, during some obscure excavations (Photo S. Rzepka)

SMALL FINDS[2]

Fig. 6. Fragments of a Ptolemaic faience vessel (top), faience sistrum (?) (center) and terracotta depicting a rider on the back of a horse (Photo J. Hudec)

More than 600 diagnostic sherds (cf. report by A. Wodzińska in this volume) and 58 objects were found in the course of fieldwalking the site. Their position was mapped precisely.

All but two of the stone objects, which constituted the majority of the finds, were collected in the western and central part of the fortress. Extensive ancient settlement and construction activity in this part of the tell has been suggested also by the results of the geophysical survey. Stone finds were absent from the eastern part of the walled area.

Limestone is the predominant material among the stone objects. Quartzite is also quite common, while red granite, quartz, greywacke and calcite are less frequent. All the material except limestone is not of local origin (Rushdi 1962: 345–359). Limestone is quite common both in continental Egypt and on the Sinai, and there are quartzite quarries in Gebel el-Ahmar (Lucas, Harris 1962: 418–419) not too far from Tell el-Retaba. A thorough petrographic analysis will determine special kinds of ortho-quartzite and metaquartzite (Klemm and Klemm 1993: 283–284.) as well as other specific features important for recognizing the exact origins of these materials.

Four basic categories of the stone finds were distinguished: vessel fragments (all but one made of limestone); weights (all of limestone); pounding stones (made of various kinds of hard stone); and fragments of hard stone with traces of processing.

Other artifacts included objects made of Egyptian faience, copper, clay and shell. Two small fragmentary faience vessels merit attention. One is merely a rim and could have belonged to any kind of vessel. The other has a wreath pattern on the rim [***Fig. 6***, top].

2 Section by Jozef Hudec and and Sławomir Rzepka

This type of small goblet is well known from Egypt and abroad (Nenna, Seif El-Din 2000: Pls 6, 40; Redissi 1994; Adriani 1932–1933: 31, Fig. 6, Pl. XV,3) and can be dated to the Ptolemaic period. Part of a Hathor *sistrum* was also discovered, but the identification is still disputable due to the fragmentariness of the object [***Fig. 6***, center]. A small amulet in the form of the god Pataikos deserves mention. Four small necklace beads were also found during the survey. Objects made of copper are poorly preserved and their shape difficult to identify. Traces of copper slag on two of them may be proof of copper smelting activities in the area. One of the two objects of clay is a round-cut sherd, numerous examples of which come from all periods and sites across Egypt; they are usually interpreted as gaming pieces. The other is a remarkable fragment of a terracotta depicting a rider on the back of a horse [***Fig 6***, bottom]; it was found in the eastern part of the site. Four small cowry shells were also collected.

GEOPHYSICAL SURVEY[3]

Based on reported earlier research (http://users.stlcc.edu/mfuller/Retaba) the ground at the site is reported as consisting of intercalated subhorizontal layers of sand and ash of various thickness. The mud-brick walls in various states of degradation stand in these deposits, mainly from 1.00 to 2.50 m below ground level, some even 7 m under. The ground water level is approximately 7 m deep with a suspected 10-cm thick capillary border over it, leaving most of the anthropogenic remains in an unsaturated zone.

Considering the physical properties of the site and its archaeological situation, three geophysical methods were considered: dipole electromagnetic profiling (DEMP), magnetic imaging and electrical resistivity tomography (ERT). After some testing DEMP was selected because of its operating speed in large areas and sufficient conductivity contrast. ERT imaging provided supplementary date on the vertical division of investigated structures.

A rectangular 50 x 50 m square grid oriented to the north was set down for the survey. Survey lines were 2 m apart and the spacing of the dipoles was also 2 m. These intervals drew from the action radius of the instrument (approx. 6 m) and the presumed size of potential archaeological features (approx. 4 m and more), although not completely because of a variety of obstacles. Field data were downloaded to the computer and after processing presented in the form of an isoline map with changes in conductivity indicative of the presence of archaeological features [***Fig. 7***]. More conductive (less resistive) objects are represented in dark grey and black. Their conductivity is due mainly to increased clay content (mud bricks and similar material). On the other hand, less conductive (more resistive) materials are shown in white and light grey. For example, remains of stone walls are highly resistive.

The second method used was ERT. Profiles were located on subsurface features detected on the site map following evaluation of DEMP data. The electrode span was 1 m and 2 m. A total of three survey line profiles was completed. The data were processed and converted into tentative physical models.

3 Section contributed by Vojtech Gajdoš and Kamil Rozimant.

As a result of the geophysical imaging, it became possible to trace the northern defense wall, which had been excavated by Petrie only in a very small section and which is not visible on the surface today. Two possible gates were observed. The body of these fortifications can be seen also on the ERT sections.

The imaging of the fortification shows two distinctly different parts. The structures in the western part demonstrate chiefly increased resistivity. These two isometric (quasi-symmetrical) features are oriented probably SW–NE and NW–SE. Near the surface, the section along ERT survey line M3 shows an approximately 1.50 m thick layer of slightly clayey sand, under which (on the spot of the DEMP anomaly) there is probably stone material at a depth from 3 to 8 m. The nature and shape of these features suggest remains of architecture with a more extensive stone component.

The structures in the eastern part have a lowered resistivity (but not so much as the defense wall). They are oriented N–S and

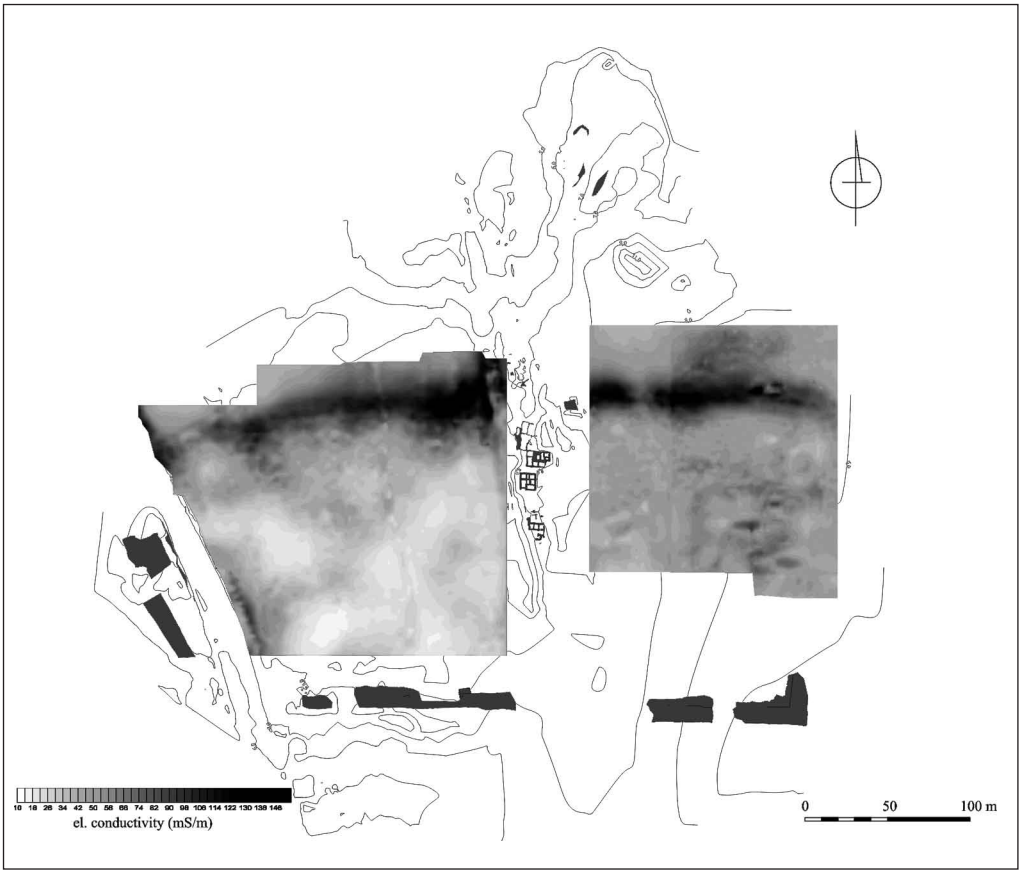

Fig. 7. Electrical conductivity map superimposed on a contour map of the site. Clearly visible northern defense wall of the Ramesside fortress (Processing K. Rozimant, S. Rzepka)

E–W. Local anomalies of lowered resistivity on the ERT section along survey line M2 mark the location of clayey material which is 2 m thick. Below it, at a depth from 3 to 6 m, there are features of greater resistivity, approximately 3 m thick, interpreted as being of stone. These could be the foundations of mud-brick structures, for example.

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