

# TELL EL-RETABA 2014–2015

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**Abstract:** The excavation at Tell el-Retaba in 2014 and 2015 comprised three seasons of fieldwork, carried out in sectors of the site already opened in previous years. The earliest archaeological remains date from the Second Intermediate Period and represent a Hyksos settlement and cemetery. Ruins of an early Eighteenth Dynasty settlement, fortresses from the Nineteenth and Twentieth Dynasties and from the Third Intermediate Period settlement continued to be excavated as well. Of note are some archaeological remains from the 17th–19th centuries, presented for the first time in the field-work report.

**Keywords:** Tell el-Retaba, Hyksos, New Kingdom, Third Intermediate Period, Ottoman, fortress

The results of the Polish–Slovak Archaeological Mission in Tell el-Retaba, working for a total of three seasons in 2014 and 2015, helped to put a broader perspective on the long history of the site (for reports on the earlier work, see Rzepka et al. 2009; 2011; 2014; 2015). Excavations were carried out in three areas where work has been ongoing in recent years, that is, areas 4, 7 and 9, all in the western part of

the site. Available data served to develop a local site phasing system [*Table 1*], which is followed in this brief report. For more detailed archaeological reporting, as well as presentations of the results of geological, pedological, geophysical, archaeobotanical, archaeozoological and engineering studies, readers are referred to Rzepka et al. 2015; Gręzak 2015; Malleson 2015.

## SECOND INTERMEDIATE PERIOD Areas 4 and 7: phase G

The settlement and cemetery from the Second Intermediate Period continued to be explored [*Figs 1, 2*]. The elevated position of the settlement on the embankment of

the ancient Nile tributary of Wadi Tumilat (see observations by Emil Fulajtár and Jerzy Trzciński in Rzepka et al. 2015) should explain why the oldest known occupational

strata in Tell el-Retaba are found at a higher level here compared to other parts of the mound. This ancient tributary might have preceded the canal running along the

western and southern sides of the site today. The embankment would have dried faster after inundation and was therefore the preferred area for settlement.

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## HYKSOS CEMETERY

Areas 4 and 7, phases G3–G1

Another four graves from the Second Intermediate Period were discovered in areas 4 and 7. Three of them were excavated in the 2014 season, the fourth, a damaged tomb of considerable dimensions, in 2015. New insights were provided into cemetery

size and local tomb typology, but the major question regarding the chronological relationship between the settlement and the cemetery remains unresolved, mainly because of a variety of later intrusions ranging from robbers' shafts to modern damage. Precise stratigraphy is often questionable in these cases, especially

*Table 1. Local site phasing system developed for Tell el-Retaba*

Phase	Dating	Main features
G3	Second Intermediate Period (SIP)	Settlement and cemetery
G2	Second Intermediate Period	Settlement and cemetery
G1	Second Intermediate Period	Transition(?) between the Second Intermediate Period settlement and a settlement of the early Eighteenth Dynasty
F4	Eighteenth Dynasty	Open(?) settlement of the early Eighteenth Dynasty (semi-permanent structures built of greenish mud brick)
F3	Eighteenth Dynasty	Open(?) settlement of "Black houses"
F2	Eighteenth Dynasty	Scattered post-"Black house" settlement layers dating to the reign of Thutmose III/Amenhotep II
F1	Eighteenth Dynasty	Hiatus(?) in the second half of the Eighteenth Dynasty
E5	Nineteenth Dynasty	Earliest defense wall (core of Petrie's "wall 1")
E4	Nineteenth Dynasty	Infant cemetery
E3	Nineteenth Dynasty	Fortress of Ramesses II (extensions of "wall 1"; barracks/workshops)
E2	Nineteenth Dynasty	Fortress
E1	Nineteenth–Twentieth Dynasty	Settlement and cemetery in the ruins of the fortress
D4	Twentieth Dynasty	Levelling of the ruins of a Nineteenth Dynasty fortress; fortress of Ramesses III (Petrie's "wall 2")
D3	Twentieth Dynasty	Fortress (Petrie's "wall 3")
D2	Twentieth Dynasty	Fortress
D1	Twentieth Dynasty–Third Intermediate Period (TIP)	Fortifications abandoned and ruined
C4	Third Intermediate Period	Settlement
C3	Third Intermediate Period	Settlement
C2	Third Intermediate Period	Settlement
C1	Third Intermediate Period	Settlement
B	Late Period	No architecture preserved; surface finds of pottery
A	modern	Among others, surface finds of Ottoman ovens and pipes

where there is no pottery in the graves to facilitate dating. Having said this, one should make it clear that the two were basically coexistent for a time, bearing out the Hyksos tradition of combining settlement and cemetery.

### Graves with insecure phasing (phase G)

Three of the graves discovered in 2014 and

2015 cannot be ascribed unequivocally to a particular phase. Tomb [1696] [Fig. 3 lower left; for the location, see Fig. 1] is a rather impressive structure with a rectangular mud-brick burial chamber covered by a barrel vault. Its location at the very edge of the site has resulted in recent heavy damage, but despite its deplorable condition, it has been informative. Firstly,

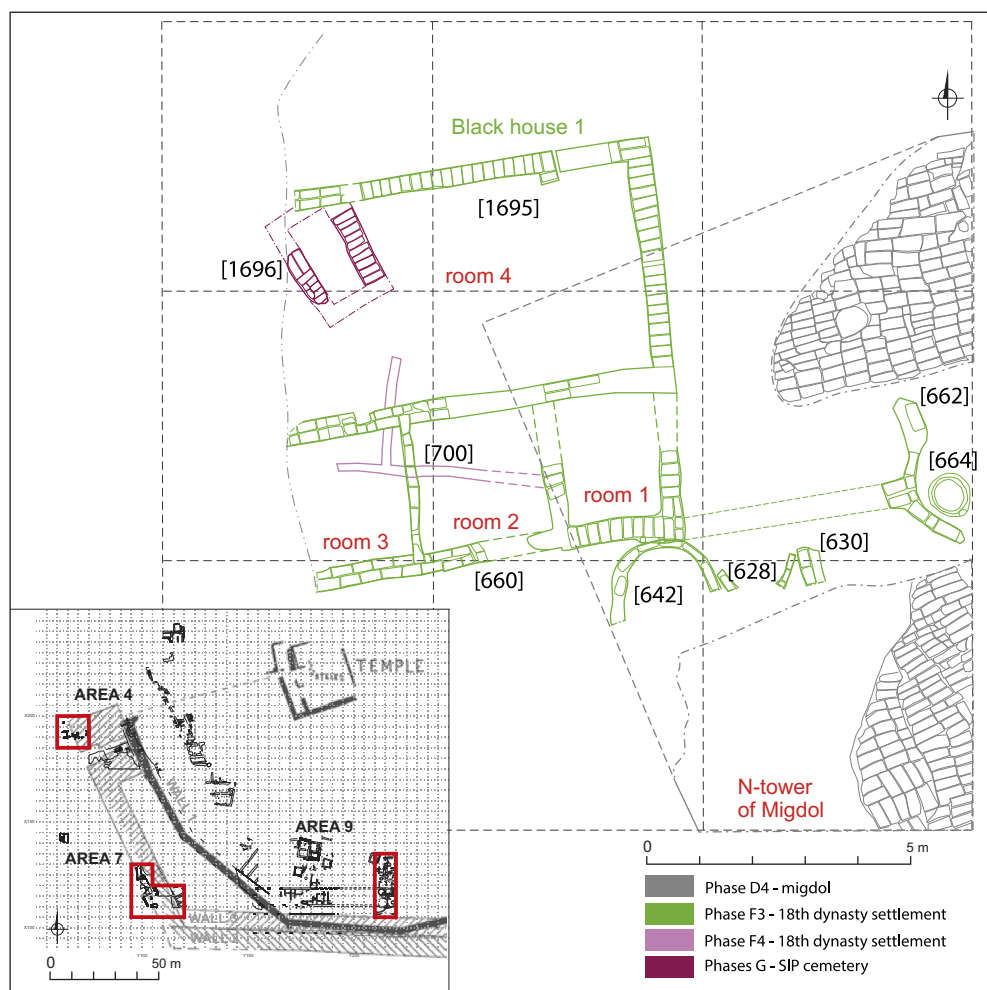


Fig. 1. Area 4; inset, general plan of the western part of the site with location of areas excavated in 2014 and 2015 (Drawing L. Hulková, E. Stopková; general plan Ľ. Jarmužek)



it has pushed the physical boundary of the cemetery considerably further to the north than previously assumed. Secondly, three individuals turned out to have been buried there, the last and best preserved of them being a child (Skeleton 1757/2, see *Table 2* for the anthropological analysis), seemingly too small for such a grand tomb. Of the other two adult individuals,

only fragments of disturbed bones were recovered (Skeletons 1757/1 and 3, see *Table 2*). Successive interments were made pushing the bones of the older burials aside or even removing them, but as the northern part of the structure, where these bones would have probably been placed, is destroyed, it is impossible to choose between these two scenarios.

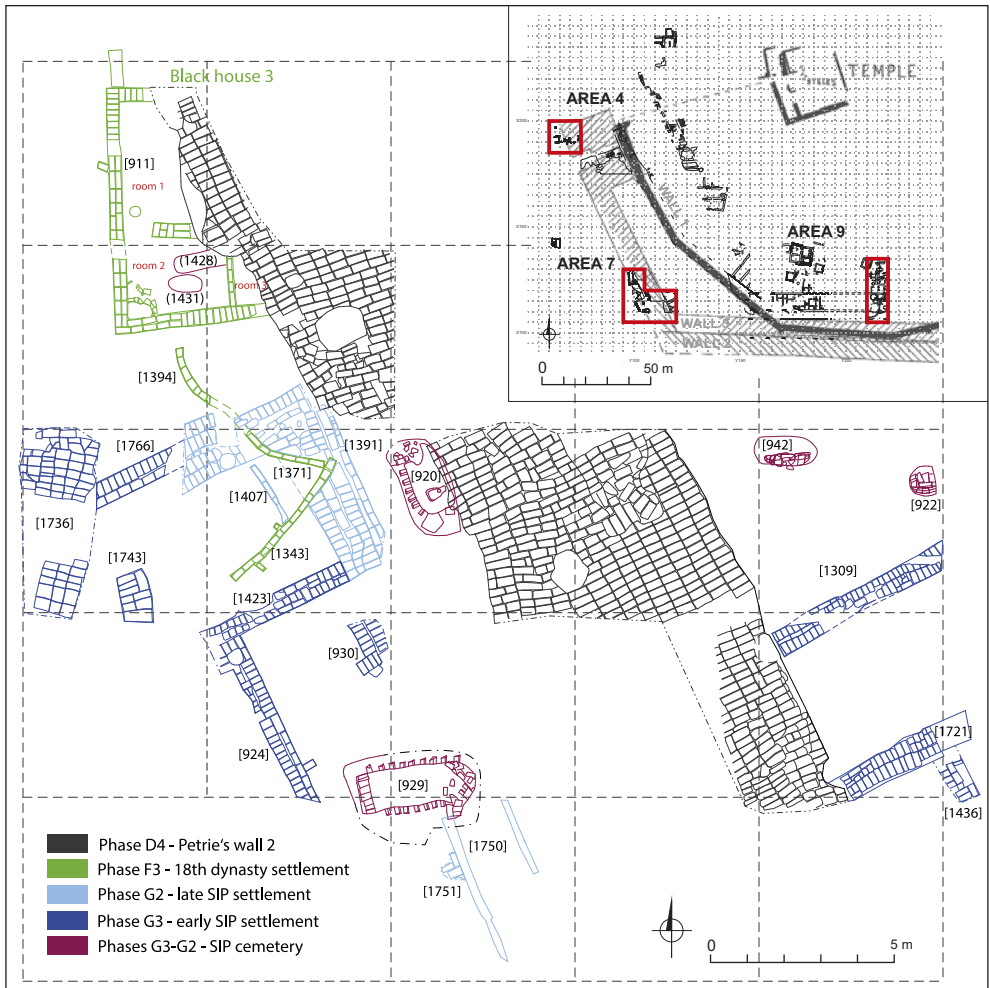


Fig. 2. Area 7; inset, general plan of the western part of the site with location of areas excavated in 2014 and 2015 (Drawing L. Hulková, E. Stopková; general plan E. Jarmužek)

The tomb has yet to be fully excavated, but it seems that at least part of the vault had been visible aboveground before being destroyed by later structures from the reign of Hatshepsut/Thutmosis III. Further excavation clearing the structure of the tomb and

the area outside it is expected to clarify the relations between the Second Intermediate Period settlement and the later remains on the tell.

Burial (1431) [Fig. 4; for the location, see Fig. 2] was made in a shallow pit dug into a reddish coarse-grained gravel

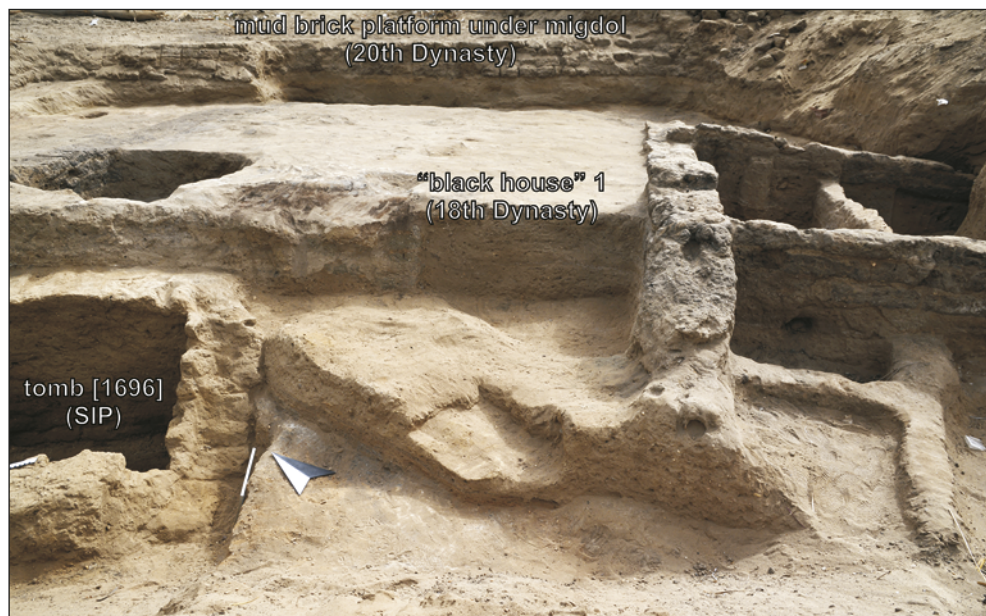


Fig. 3. Superposed remains from the Hyksos period and the Eighteenth and Twentieth Dynasty in area 4 (Photo R. Rábeková)



Fig. 4. Burial (1431) with child skeleton (1432) in area 7 (Photo V. Dubcová)



Fig. 5. Skeleton (1425) inside Hyksos tomb [942] in area 7 (Photo L. Hulková)

layer. The interment was of a small child (1432) without any grave gifts. Two mud bricks placed directly above the grave were intended presumably to cover the burial. The other grave (1428) could not be explored completely, because most of it lies underneath the Ramesside defense wall (Petrie's "wall 2"). This grave contained a skeleton (1446) of a supine adult female(?). No grave goods were found in the exposed part.

**Grave of a young man [942] (phase G2)**  
Tomb structure [942], raised in an oval pit <933>, was in fact a very simple wall of bricks leaning against the south wall of the pit, forming a kind of shelter over the burial, as in Type 2.2 at Tell el-Dab'a (Forstner-Müller 2008: 26). It was constructed after the body had been laid in the pit. This structure is very similar to another simple tomb, [922] from the same phase, found just a few meters to the

Table 2. *Human skeletal remains: anthropological assessment*

Skeleton No.	Tomb/ grave No.	Description	Sex and age
<b>Area 4: Hyksos cemetery</b>			
(1757/1)	[1696]	Postcranial fragments	Adult male
(1757/2)	[1696]	Fragments	3–5 years (infans I)
(1757/3)	[1696]	Fragments; sexed on bone morphology and adhesion/ fusing of the epiphysis on long bones	Juvenile boy(?) 15 years ± 36 months
<b>Area 7: Hyksos cemetery</b>			
(1432)	(1431)	Damaged skeleton, missing axial parts; very gracile, weak relief muscle insertions (RMI)	0–3 months (circumnatale)
(1446)	(1428)	Skeleton fragments: distal part of lower extremities, that is, two parts of <i>tibia sin.</i> , distal epiphysis of <i>fibula sin.</i> , <i>phalanx I. sin.</i> , diaphysis of <i>tibia dx.</i> , distal part of fibular epiphysis, damaged tarsal bones, two fragments of distal part of femoral epiphysis <i>dx.</i>	Adult
(1425)	[942]	Almost complete, slightly damaged skeleton; bone morphology and epiphysis adhesion on long bones indicate a youth about 168 cm tall (above median height)	Adult male 20–25 years
<b>Areas 4 and 9: Nineteenth Dynasty children's cemetery</b>			
(1341)	[1333]	Almost complete, very gracile skeleton with weak RMI; bone surface disrupted	0–3 months (circumnatale)
(1372)	(1372)	Distal part of lower limbs	3–4 years (infans I)
(1568)	(1568)	Almost complete, very gracile skeleton of a child with weak RMI	0–3 months (circumnatale)
(1590)	(1590)	Damaged skeleton	1 ± 4 months (infans I)

Note: Round brackets – number designating fills and deposits, e.g., (1250), square brackets – structures, e.g., [1624], and angle brackets – cuts, e.g., <1174>. For the Tell el-Amarna system followed in Tell el-Retaba, see Kemp and Stevens 2010: 9–10.

northeast (Rzepka et al. 2014: 43–44). The undisturbed skeleton (1425) of a juvenile individual was discovered inside tomb [942]. The body had been laid on the left side in fairly contracted position, the head to the west, facing north [*Fig. 5*; for the location, see *Fig. 2*]. There were no burial goods in the tomb or in the pit.

### HYKSOS SETTLEMENT STRUCTURES

#### Area 7: phases G3 and G2

Several mud-brick structure walls were uncovered in the same areas as the tombs in squares Y115–X115, Y115–X110, Y100–X115, Y95–X115 and Y100–X120 [see *Fig. 2*]. Based on the architectural changes, two phases of occupation, both dating to the Second Intermediate Period, were identified.

#### **Phase G3**

The earliest phase of the settlement seems to have been built on a natural sediment of fine reddish sandy gravel. A more detailed reconstruction of the building complexes is not possible yet owing to the limited size of the explored area; it is clear, however, that there was more than one building. Mud-brick walls [1309] and [1721] in squares Y115–X115 and Y115–X110 formed one structure. The ash layer filling the space between them contained small animal bones and pottery. Large quantities of pottery sherds were discovered on top of this layer, marking apparently an abandonment/reconstruction phase. Mud-brick walls [1423] and [1766] were found to extend another building discovered in squares Y100–X115 and Y100–X110 in 2012. The relatively few finds from the

Second Intermediate Period layers of phase G3 included some flint tools and a stone tool from the fireplace (1405).

#### **Phase G2**

Mud-brick walls of phase G2 are poorly preserved on the whole, consisting of no more than one or two layers as a rule. The older settlement structures appear to have been reinforced, at least in some places. New broader mud-brick walls [1437] and [1375] were constructed on top of walls [1309] and [1721] from the earlier phase, retaining the same orientation. The same situation was observed in parts of other buildings of phase G3, where a massive wall [1391], measuring 1.70 m by 5.30 m and 1.70 m by 2.50 m, was built on top of the corner of wall [1423] and another older wall.<sup>1</sup> It probably represents the outer corner of a large building [see *Fig. 2*]. Considering the additional courses of mud bricks on the eastern side of the wall, it cannot be excluded that wall [1391] was additionally reinforced or widened. Wall [930], excavated in 2012 (see Jozef Hudec in: Rzepka et al. 2014: 52–56, Figs 10, 27), may have also belonged to the said large building, but its full extent and connection to [1391] have yet to be established. Mud-brick structures covering the older wall [1766] were discovered also in square Y95–X115, further west of the walls of this building. It is not quite clear if the mud-brick structures [1736] and [1743] are wide walls, or more probably floors, because their relationship to the Second Intermediate Period building in this area is unclear.

Finds from this phase included among others some bronze/copper alloy fragments, and a bronze/copper alloy

<sup>1</sup> Unexcavated; associated with occupational layers and features underneath wall [1391].



toggle pin S1862 [Fig. 6 top] (for similar pins, see Abd El-Maksoud 1998: 263, No. 476; Thomas 1981/I: 87 [golden example]; 1981/II: Pl. 40, No. 754). Noteworthy is also a kauroid S1853 [Fig. 6 bottom left], decorated with one *sa* and two *anra* signs oriented along the longer axis. In Tufnell's typology it belongs to group 3A3: Design class III, Egyptian signs and symbols (Tufnell 1984: Pl. VIIIb, 1404; Petrie 1934: Pl. V, No. 128). Of interest is the rim of a coarse-ware crucible (S1828), found with two corroded copper alloy prills still attached. The size of the fragment does not permit reconstruction of the whole object. It was found in square Y115–X110, in a stratigraphic unit

(1415) belonging to phase G2. A set of crucibles discovered in Tell el-Dab'a was dated to the Thirteenth Dynasty (Philip 2006: 199–204). The crucible fragment constitutes the first direct evidence of metallurgical activity at Tell el-Retaba in the Hyksos Period. Small fragments of copper alloy objects ("prills"), a frequent find at Retaba (the last season brought to light 10 fragments of "prills" and/or scrap metal), can also be explained by the presence of a metallurgical workshop, engaged in the processing of copper ore (see Ogden 2000: 149–161) and possibly also recycling of scrap metal, somewhere on the site.

[LH, JH, AŠ]



Fig. 6. Finds from phase G2 (Second Intermediate Period): top, toggle pin; bottom left, kauroid; finds from the Eighteenth Dynasty period: bottom right, scarab; center, rivet or check rowel(?) (Photos R. Rábková)

## EIGHTEENTH DYNASTY SETTLEMENT

## Areas 4 and 7: phase F

Remains of a settlement from the early Eighteenth Dynasty were discovered in areas 4 and 7 [see *Figs 1, 2, 3*]. The excavated parts of the settlement consisted of several large houses with associated compounds for storage and production of goods and/or products for everyday use. Traces of an enclosure around this settlement have yet to be discovered. Scattered remains of settlement structures pre- and post-dating these houses were also observed. At least three phases of the Eighteenth Dynasty settlement could be discerned in the archaeological record.

## EARLY POST-SIP SETTLEMENT

Area 4: phase F4

Remains of this phase were identified mainly in area 4 [see *Fig. 1*]. In 2011, wall [700], built of greenish mud bricks of poor quality, was noted under the remains of “Black house” 1. A small part of the room to the north of wall [700] was excavated in 2015, with ashy layers (1694), (1699) and (1758) representing probably the main occupation horizon of this older building. They contained a great deal of animal bones and shells. The rich pottery assemblage dated this building to the time of Hatshepsut and Thutmose III. Remains of similar yellowish mud bricks were found in layers on the outer western side of “Black house” 3, underneath the occupational level of the house.

## “BLACK HOUSES”

Areas 4 and 7: phase F3**“Black house” 1 and surroundings**

In 2015, “Black house” 1 (called so because of its characteristic, very dark bricks) was

fully excavated [see *Figs 1, 3*]. Part of an artificial mud-brick platform, built for the *migdol* structure during the reign of Ramesses III, was uncovered in squares Y65–X190 and Y70–X195. The platform consisted of regular mud bricks (21 x 12 x 41 cm), laid in one part on edge and in another flat. Removing the brickwork of the platform (within the squares) revealed its construction: a fine layer, 3–5 cm thick, of plaster on a bed of sand retaining the imprints of mud bricks. Underneath this layer, a massive mud-brick collapse (1691) covered a large part of “Black house” 1, spreading to the northeast, with the outer wall clearly continuing approximately 5.50 m further to the east. The same situation was encountered already in 2011. Most of the layers filling room 4 were not removed, as work was continued in rooms 2 and 3 and in the parts of room 4 that had been opened in 2011.

**“Black house” 3 and surroundings**

The stratigraphy of the southwestern part of “Black house” 3 in squares Y95–X120 [see *Fig. 2*], already explored in part in 2012, was further clarified in a comprehensive excavation of the inner rooms and the outer western side of the building. A complete early New Kingdom ceramic bowl was found in room 2. There was an oven in the southwestern corner of this chamber. A large quantity of collapsed mud bricks from the destruction level of the house made up layer (948), which filled the room. A flint tool (S1799), a whetstone(?), and a scarab (S1798) were found in this layer. The scarab [*Fig. 6* bottom right] is made of Egyptian faience (frit) and bears

a hieroglyphic inscription: *Nb-nfr-Hrw.j/ Neb-nefer-Hory*. It belongs to design class 3A4, “Horus hawk with *nTr* and other signs”, which occurs commonly in the so-called Palestinian series and is probably of Canaanite origin (Tufnell 1984: Pl. IX, 3A4; amended by Ben-Tor 1997: 175–179; 2007: 17, 76–77, 126–127).

The main occupational horizon of “Black house” 3 was documented underneath layer (948), with a floor made predominantly of clay, on which there were some mud bricks and abundant pottery. This layer yielded a piece of pumice (S1822), a grinder (S1854) and a bronze/copper alloy piece (S1829). Pottery was also plentiful in another, more sandy layer (1408) that filled the room. The same layer in room 1 (here designated as 1700) was removed. A large storage vessel was found to be sunk into this layer, by the west wall [911], but partly underneath the foundations of the building.

A curved wall of mud brick [1343], half a brick thick, ran through square Y100–X115. It stood two to three courses high. It was found underneath a large fireplace (1349/1360) from a later phase. The wall was connected with the smaller (probably sinusoidal) wall [1371] [see *Fig. 2*]. Most of the layers associated with these structures were composed of sand, gravel and ash, with only some recognizable floor remains along the walls. These layers were probably related to external structures that

are attributable to a domestic–industrial environment.

## FURTHER DEVELOPMENT OF THE SETTLEMENT

### Phase F2

Remains of this phase are rather scattered. The most dominant feature was a large fireplace (1349/1360), whereas most of the walls were preserved as fragmentary bricks. Of note is a small bronze or copper rod (S1765) [*Fig. 6* center], 0.6 cm in diameter and 5.42 cm in length. In the middle of the rod there is a disc measuring 1.9 cm in diameter. Both ends of the rod feature shallow depressions. Such rivets, usually found with two discs (two-headed rivets), seem to have been parts of wooden containers. Alternatively, the metal object may be interpreted as part of a bronze or copper check rowel (Crouwel 2013: 74, *Fig. 2*). The check rowels found in the tomb of Tutankhamun had wooden rods about 65 cm long, with a central, copper-spiked disc (Reeves 2007: 146; [http://www.griffith.ox.ac.uk/gri/tut-scans/TAA\\_i\\_3\\_8\\_13.jpg](http://www.griffith.ox.ac.uk/gri/tut-scans/TAA_i_3_8_13.jpg)). The offsets on both ends of the rod and the disc in the middle might indicate that S1765 was attached to wooden rods. However, check rowels seem to have been used only in the late Eighteenth to Twentieth Dynasties (Littauer and Crouwel 1985: 73).

[VD, JH]

## NINETEENTH DYNASTY Phases E4–E1

A fragment of the inner structure of the Nineteenth Dynasty fortress was revealed in area 9. So far little is known about the spatial organization of the earliest

fortifications (Petrie’s “wall 1”). In 2010, fragments of barracks/workshops were uncovered in the western part of area 9. Similar buildings were also found in area



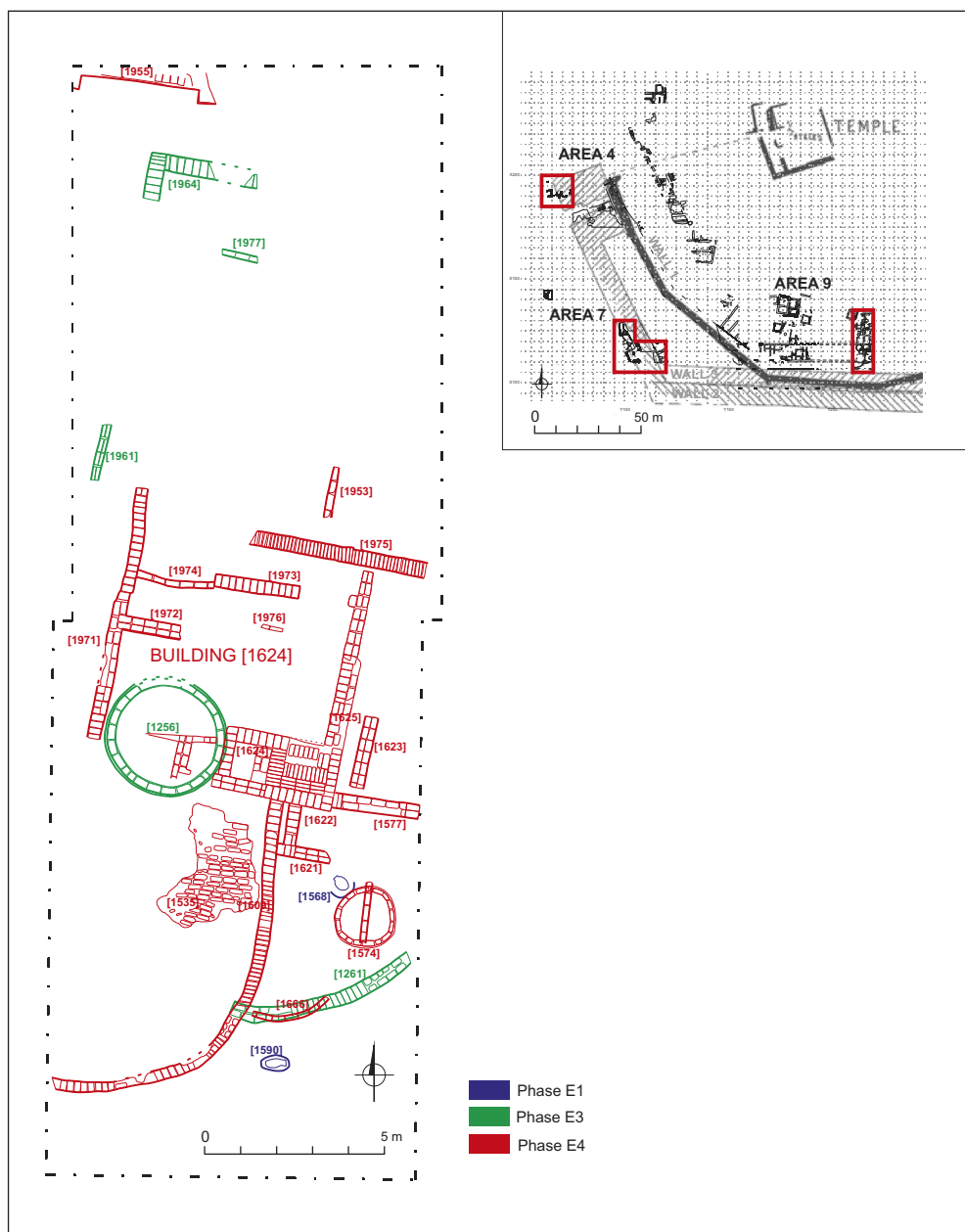


Fig. 7. Structures from the Nineteenth Dynasty fortress in area 9 (phases E1–E4); inset, general plan of the western part of the site with location of areas excavated in 2014 and 2015  
(Drawing and general plan Ł. Jarmużek)

3, in the northwestern part of the fortress (see Rzepka et al. 2011: 145–152). In 2014, Nineteenth Dynasty levels were reached in the eastern part of area 9, revealing several phases of occupation. The uncovered area included courtyards with round silos within curving enclosure walls. In a later phase, this area was used as a children's cemetery, as well as a dump. In area 4, two infant burials belonging to an early phase of the Nineteenth Dynasty were discovered. They belonged to the infant cemetery discovered in 2009.

### FORTRESS

#### Area 9: phase E4

#### **Building [1624]**

Structures belonging to phase E4 were cleared sufficiently to be documented. Most of them belonged to the rectangular

building [1624], at least 7.50 m by 7.00 m in size. The original layout is still obscure. It seems that walls [1624], [1625] and [1971] were the outer walls, while [1972] and [1973] were inner partition walls. It is still difficult to determine the actual number of rooms in the building [Figs 7, 8]. The structure appears to have undergone some changes and reconstruction over time: some walls, [1974] and [1975], were built in a different manner and with different types of bricks. Most probably there were two doorways in wall [1973], one about 1.40 m wide, the other about 2.10 m (later blocked by wall [1974]). A massive structure of unknown function in the southeastern corner of the building was interpreted as either a staircase or a mastaba.

To the south of building [1624] there was a courtyard, set off by a curved wall



*Fig. 8. Building [1624] and silo [1256] built on top of earlier ruins in area 9 (Photo S. Rzepka)*

<sup>2</sup> For similar walls curving around courtyards on other sites, see Borchardt and Ricke 1980: Plans 6, 21, 29, 103.

[1609].<sup>2</sup> The collapsed wall [1535] in the courtyard was originally part of wall [1624]; the original height of this wall is reconstructed as 3.70 m. Thick layers of ashes (1652) and (1586), containing abundant pottery and animal bones, were found to the east of the courtyard. The area outside the courtyard appears to have served as a dump. The small silo [1574] was later built in this area.

Unique in the assemblage of small finds discovered in this dump was a small Mycenaean terracotta figurine (S1967) [Fig. 9 right], found in the stratigraphic unit (1536). It was made of a yellow fabric and decorated with painted reddish-brown motifs. It is a female figure with distinctly modeled breasts, obviously the *psi* type, that is, a woman with raised arms (French 1971: 128ff., Pl. 19a,b), although whether it was a “high-waisted *psi* type” cannot be said because of the damage. It seems to be the first Mycenaean figurine of the type ever discovered in Egypt (Pilali-

-Papastériou 1998: 49–50). Such figurines are well known from the Greek mainland and islands (for the typology, development and meaning of such figurines, see Tzonou-Herbst 2010), but they also occur outside the region, in Asia Minor, Syro-Palestine and the central Mediterranean (Italy, Sicily, Sardinia) (Pilali-Papastériou 1998).

Other small finds from this rich deposit included a stone gaming piece (or a small weight?) made of basalt (S1966) [see Fig. 9 center bottom] and another gaming piece made of terracotta (S1978). A partly preserved penannular earring of calcite (S1995) [see Fig. 9 top left] is another noteworthy find from the fill of silo [1574].

#### Buttressed wall [1955]

Wall [1955] was found about 10 m to the north of building [1624], in the northwestern corner of the trench [see Fig. 7]. Most of the wall is outside the excavated area. The unearthed part was

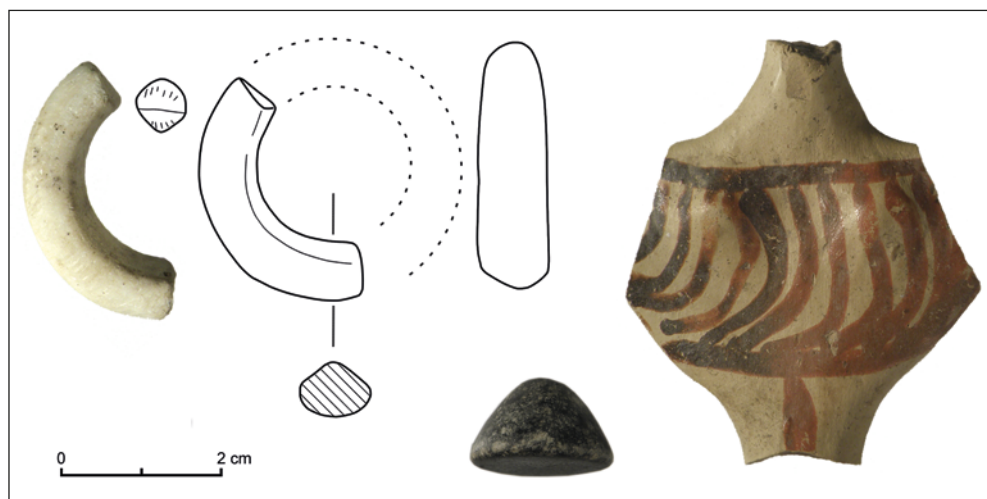


Fig. 9. Finds from the fortress: from left, penannular earring S1995; game stone S1966; fragmentary Mycenaean figurine of the *psi* type S1967 (Drawing B. Adamski; photo S. Rzepka)

4.00 m long and at least 0.60 m thick. The excavated fragment continues further to the west, beyond the excavation, while to the east there is a very deep modern cut. Buttresses reinforced the wall from the south; the two that have been preserved project about 0.20 m from the face of the wall, the distance between them being about 3.30 m. The excavated fragment is too small to draw any conclusions about the character of the structure to which it belonged, but it was certainly a structure of some significance: wall [1955] is the only structure excavated so far that was built during the Nineteenth Dynasty and was still in use during the Twentieth Dynasty. All the other Nineteenth Dynasty structures excavated before, including the massive defense “wall 1”, were leveled at the beginning of the Twentieth Dynasty (see below) and a new, larger fortress was built on top of their remains.

[ŁJ, SRz]

Nineteenth Dynasty. This burial ground comprised a group of six graves from the reign of Ramesses II, recorded during the excavation in 2009; the interments were made in amphorae as well as without any containers (Górka and Rzepka 2011). An irregularly shaped burial pit contained a Ramesside amphora surrounded by several mud bricks (tomb [1333]) [Fig. 10 left]. The skeleton interred in the vessel was that of a small child, resting on the right side with contracted legs [see Table 2 for the anthropological analysis]. The child burial (1372) probably belonged to the same cemetery. Judging from the position of the bones, the body might have been laid supine in extended position with its head to the north. The bones were deposited on a brown layer and wrapped, possibly in a reed mat, covering the body or placed underneath it. No pottery was associated with the burial.

[MO, AŠ]

### CHILDREN'S CEMETERY

#### Area 4: phase E4

Excavations in this part of the fortress provided further evidence for the existence of a children's cemetery from the early

### FORTRESS

#### Area 9: phase E3

The large building [1624] from the earlier phase was demolished, leaving only the southern end of the courtyard wall [1609].

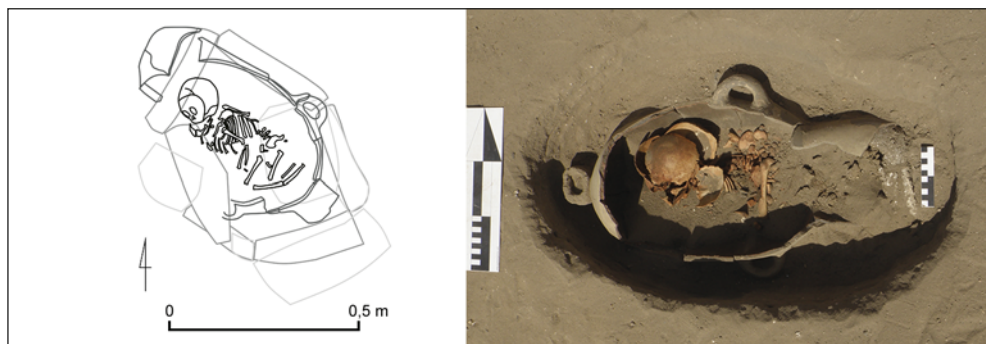


Fig. 10. Nineteenth Dynasty child burials: left, tomb [1333], area 4, phase E4; right, grave (1590), area 9, phase E1 (Drawing L. Hulková; photo S. Rzepka)



A new wall, [1261], which was also slightly curved and running to the east, enlarged the area of the courtyard [Figs 7, 11]. Inside the courtyard was one structure: a large round silo, [1256], built on the ruins of building [1624] [Figs 8, 11].

### CHILDREN'S CEMETERY AND DUMP

#### Area 9: phase E1

In phase E1, the excavated area served as an infant cemetery. Two burials, both of children interred in jars, have been found [see Fig. 7] and traces of other burials were recorded in the western part of the trench.

#### **Infant burial (1568)**

Burial (1568) was found in square Y215–X110. The burial pit was rounded in shape and its diameter was about 0.70 m.

It was at least 0.25 m deep. Inside the pit there was a jar lying on its side, the mouth toward the northwest. Inside the jar there was a skeleton of a child. There were no artifacts either in the jar or the burial pit.

#### **Infant burial (1590)**

Grave (1590) was found just southwest of the first burial. The burial pit was ovoid in shape, 0.76 m long, 0.43 m wide and at least 0.30 m deep [see Fig. 10 right]. Inside was a large pottery jar containing a child's skeleton. There was no burial equipment inside the amphora, but the fill of the pit yielded an ovoid lump of mud (S1998), which turned out to be empty inside. An object of some kind, made of an organic material, must have been wrapped in a layer of mud. This object has disintegrated, leaving only a mud shell.

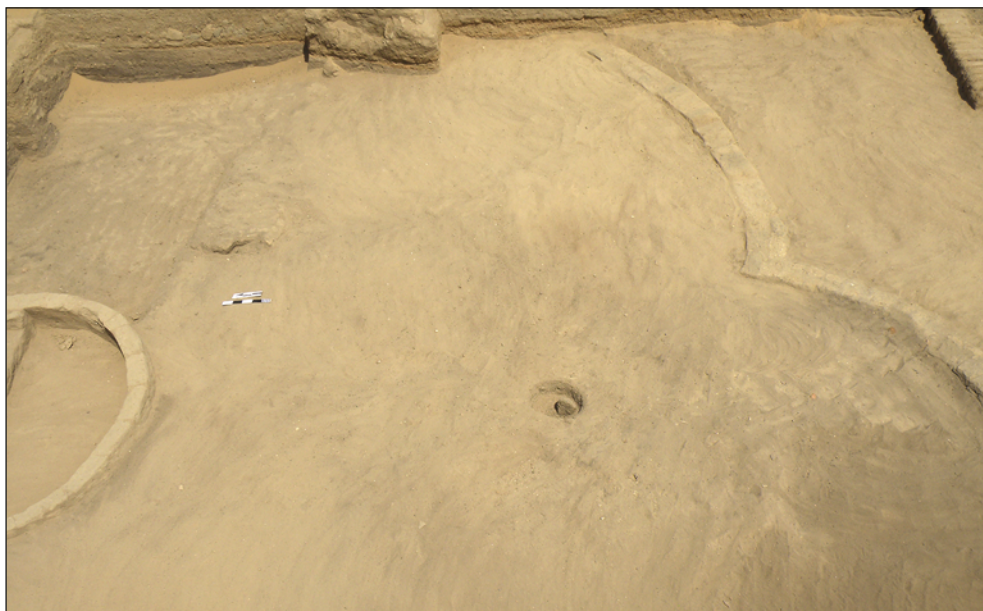


Fig. 11. Structures from the Nineteenth Dynasty fortress in area 9 (phase E3): silo [1256] and enclosure wall [1261] (Photo S. Rzepka)

**Dump**

A rubbish dump formed in the area of the cemetery, either while it was still functioning or once it had ceased to be used. The entire southern part of the trench was covered with a thick layer (1259) of ash mixed with sand. The thickness of the layer varied from 0.20 m to 0.50 m. Large quantities of pottery sherds, animal bones and shells were found in this deposit. Small finds were also relatively numerous, among them there were fragments of querns, stone and faience vessels, flint tools, a grinder, weight and scraper. There were also some personal adornments made of faience: rings, plaques and beads.

[LJ, SRz, AŠ]

**RAMESSIDE STELA**

An out-of-context fragment of a stela (S1851) was found off the asphalt road crossing the site, among modern rubbish. Its decoration preserved a portion of the

sun crown with an uraeus such as that worn by the god Re-Harakhty, his name in hieroglyphs, and part of a Ramesside cartouche [Fig. 12]; the signs *wsr*, *stp* and *n* are partly preserved.

[JH]



Fig. 12. Fragment of Ramesside stela S1851 (Photo R. Rábeková)

**TWENTIETH DYNASTY****FORTRESS ORIGINS****Area 9: phase D4**

At the beginning of phase D4, the southern part of the excavated area was covered with a 0.20 m thick sand layer (1250). This may suggest that the excavated area was abandoned for some time at the end of the Nineteenth Dynasty and/or the beginning of the Twentieth Dynasty. The layer did not contain any objects and was probably windblown in origin. Afterwards, the area was covered by a layer of gravel (1248), which was about 0.30 m thick. Unlike layer (1250), this deposit contained a substantial amount of animal bones and some pottery. It seems to have been

a leveling layer for the builders of the new fortifications. No stratigraphic relationship has clearly confirmed this, but it seems that the ground leveling should be linked with the construction of Petrie's "wall 2", a massive wall, approximately 9 m thick, which is dated to the times of Ramesses III thanks to a foundation deposit discovered by W.M.F. Petrie (Petrie and Duncan 1906: Pl. XXXIV).

**FORTRESS OF RAMESSES III****Area 9: phase D3****Building [834/838]**

Fragments of a large building, [834/838], first discovered in 2011 (Rzepka et al.

2014: 75–88), continued to be excavated in search of the eastern and western limits of this long structure extending parallel to the massive defense wall [983] (Petrie’s “wall 3”). The section uncovered in 2014 [Fig. 13] allows for a more advanced reconstruction of the building [Fig. 15]. The total length of the building was at least 67.80 m. It contained at least 13 uniform units (flats), each comprising six rooms: three narrow ones and three larger ones.

Unit XII was very poorly preserved [see Fig. 14]. Most of it was destroyed by cuts and structures dating from the Third Intermediate Period. Unit XIII was generally better preserved than unit XII. However, two rooms, XIII.3 and XIII.4, were completely destroyed by later structures. The main entrance to the unit was placed in the north wall of room XIII.1. The only trace of the doorway is a limestone

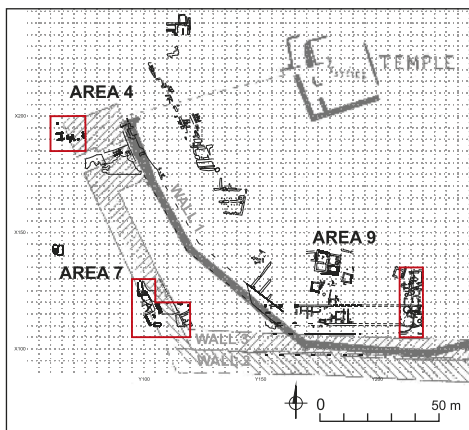


Fig. 13. (above and opposite page). Structures of the Twentieth Dynasty fortress in area 9, phases D1–D3; inset, general plan of the western part of the site with location of areas excavated in 2014 and 2015 (Drawing and general plan Ł. Jarmużek)



Fig. 14. Structures of the Twentieth Dynasty fortress in area 9, phases D1–D3: top view of building [834/838], unit XII; view from the east (Photo S. Rzepka)



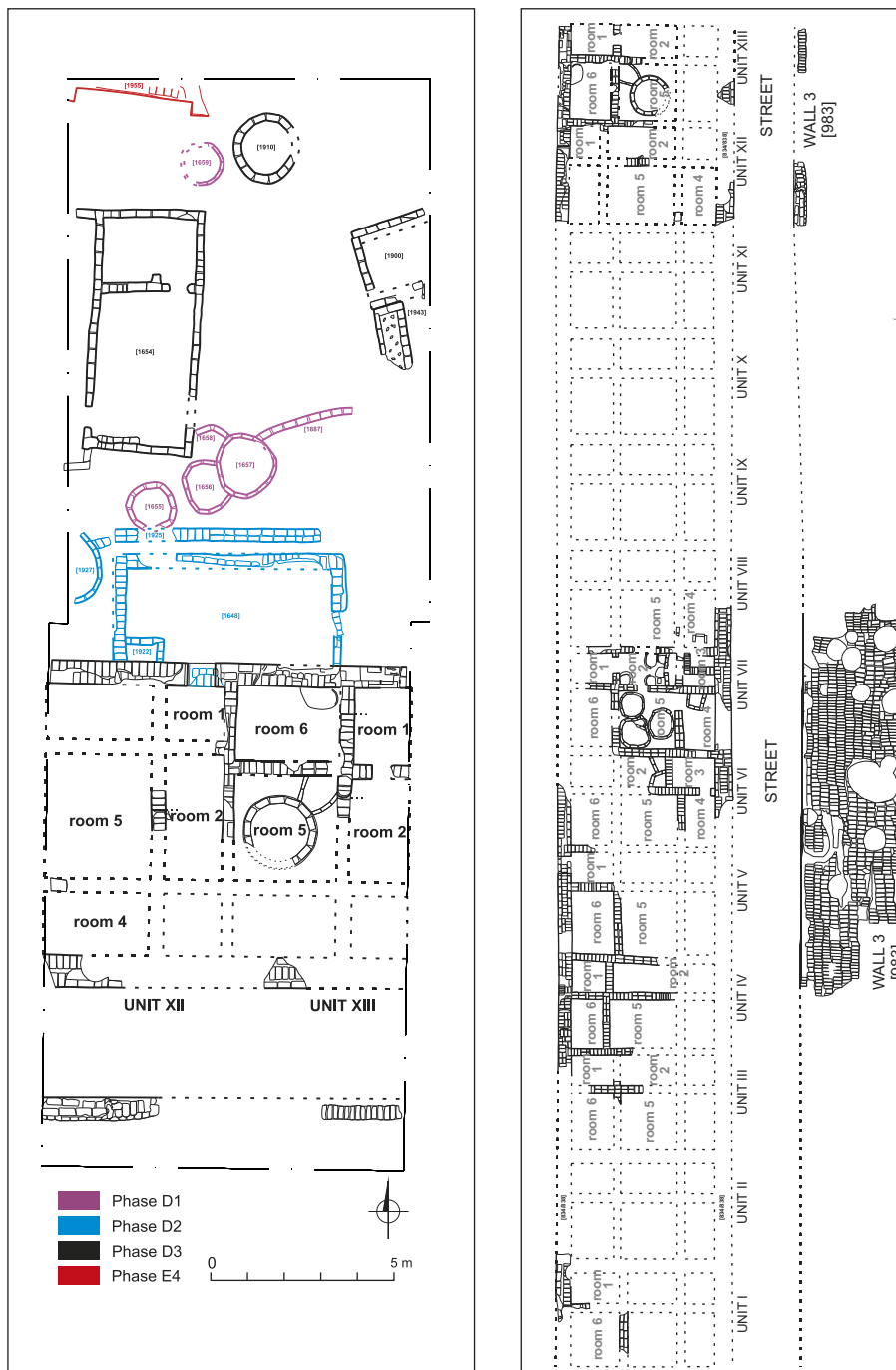
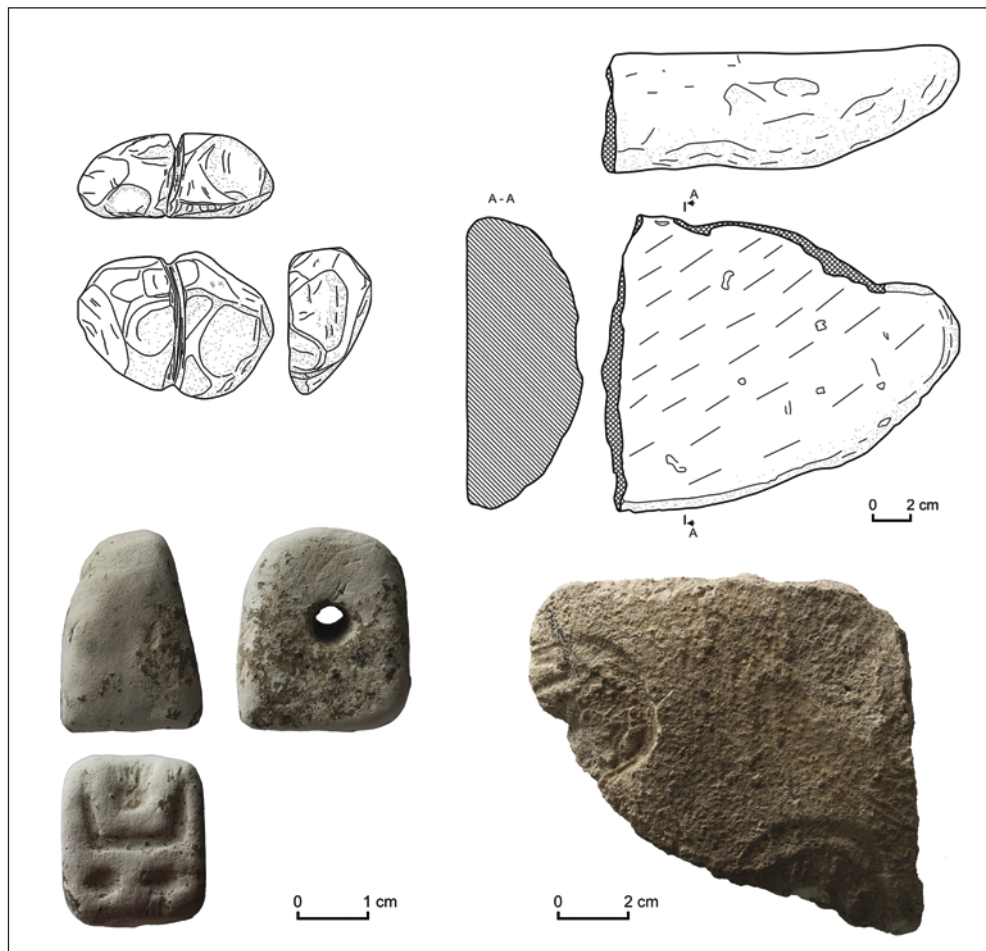


Fig. 15. Building [834/838] in its original, partly reconstructed layout (phase D3)  
(Drawing L. Jarmužek)

threshold block built into the wall. Remains of a round hieroglyphic sign (solar disc?), executed in very deep sunk relief, show that a decorated block, probably originating from one of the ruined buildings of the Nineteenth Dynasty fortress dismantled at the beginning of the Twentieth Dynasty,

was reused for the threshold. Room XIII.5 was used as a storeroom. Most of the space inside this room was taken up by a round silo [1235] [see *Fig. 13*]. Room XIII.6 had a floor (1172) of white color<sup>3</sup> (while in other rooms the floor layers were grayish-brown). This layer contained some



*Fig. 16. Finds: top left, net weight S1608, and top right, quern S1586, both from building [834/838]; bottom left, seal S2405 from building [1654]; bottom right, jar stopper with seal impressions S2521 from building [1900] (Drawing B. Adamski; photos P. Witkowski)*

<sup>3</sup> Similar floor layers were found in the stables discovered in Tell el-Retaba in 2010, where they were interpreted as evidence of animal dung, see Rzepka et al. 2011; Jarmużek 2013.

animal bones, potsherds, and a relatively large number of objects: querns (among them S1586 [Fig. 16 top right], grinders, a large limestone mortar and a net weight (S1608) [Fig. 16 top left]. A fireplace in the southwestern part of the floor took on the form of a shallow, round depression filled with black ashes (1206). In the northeastern corner of the room there was a kind of bin [1181].

#### Area to the north of building [834/838]

Several contemporary structures, much smaller and less well built, lay to the north of building [834/838] [see Fig. 13]. Building [1654] measured 6.80 m by 3.00 m, while its walls were only 0.20 m thick. The main entrance was in the southwestern corner. The building consisted of two rooms. In room 1 fragments of large pottery vessels were found on the floor (1891),

along with a large number of grinders and several querns, which were found also on the floor of the second room. It was entered from the first room through a door in the divider wall. Some kind of food processing had taken place here. A small seal of limestone (S2405) [Fig. 16 bottom left] was discovered, adhering to the eastern outer wall of this building. It bears a short hieroglyphic inscription, which can be read as *Nht-r<sup>c</sup>*, most probably the name of the owner.

Silo [1910] was found next to the northeastern corner of the building. Its walls were partly destroyed by later structures and only one layer of bricks was preserved.

Structure [1900] was found about 4.50 m to the east of building [1654] [Fig. 17, see plan in Fig. 13]. The walls were mostly destroyed by later cuts. Its size and



Fig. 17. Building [1900] in area 9: platform with ramp (phase D3), view from the west (Photo S. Rzepka)

full layout could not be determined because its eastern part was beyond the excavated area. The unearthed section was rectangular in plan, measuring at least 2.20 m by 2.00 m. It was a kind of platform, accessed from the south via the ramp [1943]. The ramp consisted of two parallel walls, filled with brick debris between them. In this debris, fragments of some jar stoppers with seals were found (S2521) [Fig. 16 bottom right]. The tops of two cartouches, surmounted by feathers and solar discs with cobras, were preserved, but not the royal names.

One should note a much older buttressed wall [1955], built during the Nineteenth Dynasty [see above and Fig. 13], still standing further to the north.

#### Area 9: phase D2

#### **Building [834/838]**

Significant changes took place in the spatial arrangement of building [834/838] in this phase. The same process was also observed in the western part of the building, uncovered in 2011 and 2012 (Rzepka et al. 2014: 82–84). Some of the rooms and units were merged by removing walls or making new doorways. Similar changes were noted in eastern part of the building, even though it was in a relatively worse condition. The main entrance to unit XII was blocked [see Fig. 13]. It means that the unit must have been merged with unit XI or XIII by the introduction of a new doorway. Another change took place in



Fig. 18. Silos and/or bins north of building [834/838] in area 9; building [1654] on the right, building [1648] at the top, silos [1655], [1656], [1657], [1658] between them, phases D1–D3; view from the north (Photo S. Rzepka)



rooms XII.2 and XII.5. A wall dividing these rooms was removed. It was covered by floor (1200), which extends from the western end of room XII.5 to the east wall of room XII.2. Changes took place in unit XIII as well. Rooms XIII.2 and XIII.5 were probably merged. Floor (1184) covered the surface of both rooms and the remains of the wall that had originally separated them.

#### **Area to the north of building [834/838]**

A new, single-room building [1648] was attached to the north wall of building [834/838] [*Fig. 18*; see *Fig. 13*]. It blocks the entrance to unit XII in the building [834/838] but, as mentioned above, this entrance was sealed anyway during this phase. The building was about 6.40 m long and 3.10 m wide. Wall [1925] paralleled the north wall, forming a kind of mastaba. An entrance 0.70 m wide in the east wall of the building led inside. The inside of the building was heavily damaged by modern cuts, mainly in the eastern part. Remains

of a round fireplace (1653) were found in the northwestern corner of the room and rectangular bin [1922] constructed of mud bricks stood in the southwestern corner. A fragment of a round silo [1927] was excavated to the west of this building.

#### **Area 9: phase D1**

Several silos and/or bins were constructed during this phase: [1655], [1656], [1657], [1658], [1659]. They all have thin walls and are preserved to a height of only one or two bricks. The range of their internal diameters is from 1.00 m to 1.44 m [see *Figs 13, 18*]. These silos/bins were constructed when building [1648] was already in ruin. However, older structures [834/838] and [1654] were still standing; therefore, the new construction must have been used by the new occupants. A similar arrangement was observed in the western part of building [834/838]: some poorly built annexes and silos were added to the main building in a later phase of its use (Rzepka et al. 2014: 84–85).

[ŁJ, SRz]

## THIRD INTERMEDIATE PERIOD

Another fragment of the multi-phased Third Intermediate Period settlement was revealed in area 9. Remains of several houses with rectangular rooms (similar to those found in 2012 in the western part of area 9, see Rzepka et al. 2014: 86–93) were found alongside more peculiar and relatively large round structures, probably used as storage facilities.

### SETTLEMENT

#### **Area 9: phase C4**

Building [1646] is very poorly preserved; only two of its walls were found, with just one course of bricks preserved; its original

layout and function remain obscure. It was probably no longer in existence when building [1607] was constructed just to its north [*Fig. 19* left].

Building [1607] was found in the northwestern corner of the excavation trench. Only its southeastern part was uncovered, the western part being still outside the explored area. The east wall of the building was at least 4.20 m long and 0.36 m thick. In the southeastern corner of the building there was a massive structure [1647], measuring at least 1.00 m by 1.50 m and more than 0.68 m in height: a mastaba or remains of stairs. The area to

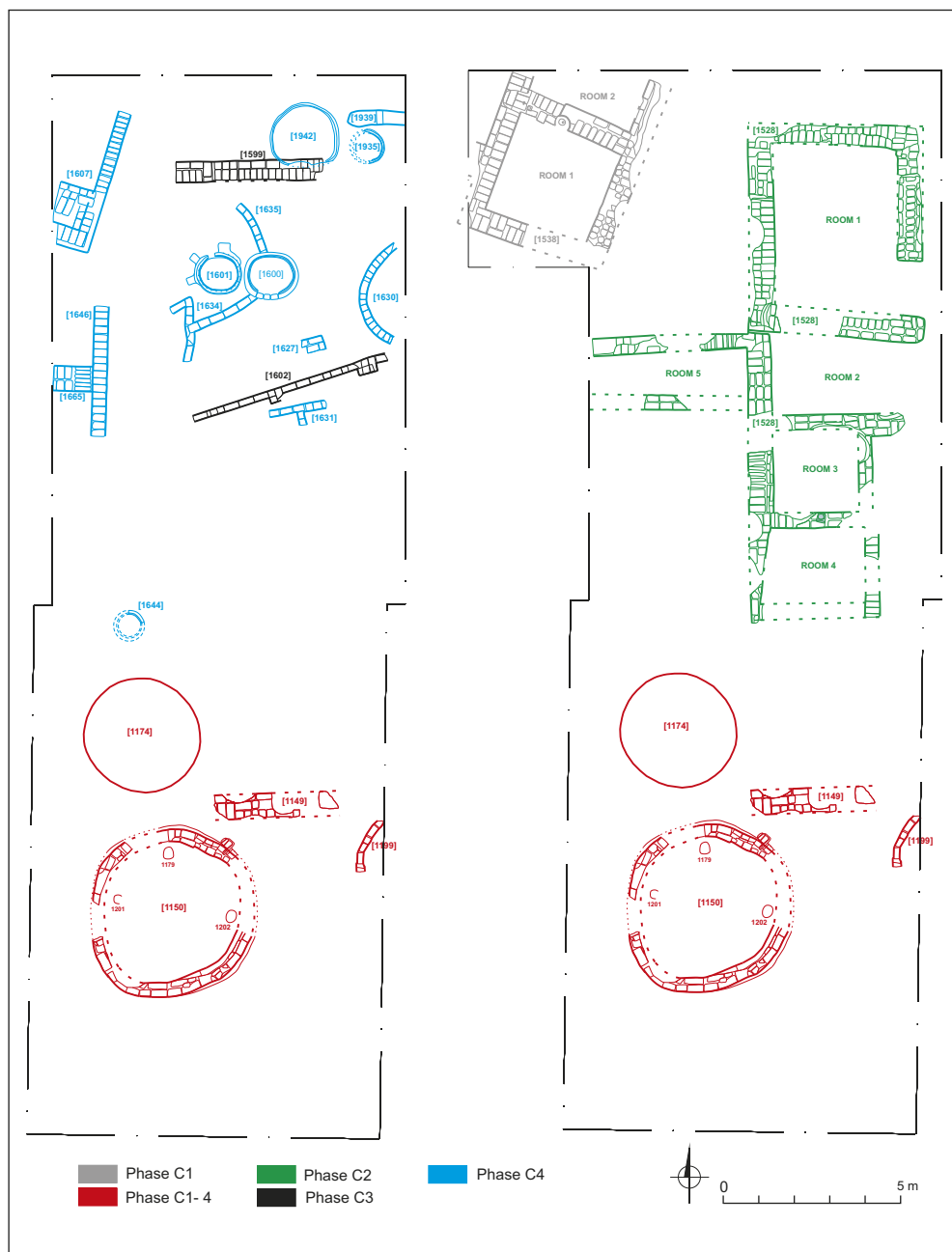


Fig. 19. Structures from the Third Intermediate Period settlement in area 9: left, phases C4 and C3; right, phases C2 and C1 (Drawing Ł. Jarmużek)

the south and east of building [1607] was probably an open courtyard. A bronze needle (S2040) [see *Fig. 22* left] was found here (another one was found inside the building).

A round oven, [1601], about 1.10 m in diameter was found about 3 m to the east of building [1607] [*Fig. 20*, for the location, see *Fig. 19* left]. It had ceramic walls about 2 cm thick, covered with a layer of mud about 6–8 cm thick. The whole structure was reinforced with short mud-brick walls. The area around the oven was probably partly enclosed by thin, curved walls [1634] and [1635]. Both walls may have belonged originally to the same structure, which was later destroyed by another oven (see below). A vast layer of black ashes (1632) was discovered to the east and south of walls [1634] and [1635]. It contained numerous pottery sherds, animal bones and shells. Another oven [1600], similar in size and construction, was built nearby when oven [1601] fell out of use. The area around the oven was covered with a thick layer of black ashes

(1566). As in the case of the previous oven, the layer was very widespread, covering the entire northeastern part of the excavation trench and containing large quantities of animal bones, pottery sherds and shells.

Another similar oven [1935] was found in the northeastern corner of the excavated area, southwards of wall [1939], which was very poorly preserved and only partly excavated. West of it was a large circular bin [1942], about 1.75 m in diameter. Its wall (7 cm thick, preserved up to a height of 15 cm), as well as its base, were made of unfired clay. The bin was linked with the oven most probably, functioning perhaps as the container in which the dough was prepared.

Remains of some other structures were found nearby. Structure [1630] may have been a large, round silo (2.66 m in diameter), but it may well have been a kind of curving shelter wall, as was the case of walls [1634+1635] encircling oven [1601].

To sum up: remains from phase C4 suggest that the area was occupied by a house and a large open courtyard located to the east of it. Three ovens, large amounts of ashes, small finds connected with food processing, and several small, thin-walled structures prove that this part of the courtyard served the purpose of baking bread.



*Fig. 20. Ovens [1601] and [1600], phase C4 (Photo S. Rzepka)*

#### Area 9: phase C3

Building [1599] was constructed directly above the thick layer of ash originating from the ovens (see above) [see *Fig. 19* left]. Only one wall is preserved, the rest having been heavily damaged by later cuts. It seems that the area to the north of the wall was part of a room located inside the building, while the area to the



south was a courtyard. Another poorly preserved structure from this phase is wall [1602], which is preserved over a stretch of 5.50 m to the south of building [1599]. The wall was only about 0.20 m thick, but was reinforced with buttresses, of which two are preserved. The area to the south of wall [1602] (which was apparently an enclosure wall) seems to have been an open space; it was covered by layer (1603), an extensive deposit encompassing almost the entire surface of the excavation trench and disturbed by numerous cuts.

[ŁJ]

#### Area 9: phase C2

The relatively well-preserved building [1528] was found in the northeastern corner of the excavation trench [see *Fig. 19* right]. The building originally consisted of one room; it cannot be excluded, however, that there was another room, further to the east, outside the excavation trench. The entrance to the building was in the southeastern corner and was unusually wide (1.55 m). At some point, the building was expanded significantly. At least three more rooms were added on its southern side (rooms 2, 3, 4). To the east of rooms 3 and 4 there were probably other rooms,



*Fig. 21. Building [1538] in area 9, view from the north  
(Photo S. Rzepka)*

which have been completely destroyed. The area to the west of wall [1539] was also very poorly preserved. Fragments of two walls, [1579] and [1611], suggest the presence of yet another room (room 5) in that area (although it is uncertain whether it still belonged to building [1528]).

[ŁJ, SRz]

#### Area 9: phase C1

Building [1538] was found in the northwestern corner of the excavation trench, just below the present surface of the tell [Figs 19 right, 21]. In order to examine a larger part of the building, the excavation trench was enlarged at this level. The unearthed fragment of the building was probably its southeastern corner. Walls were in poor condition (only two courses of bricks), but the floors were still preserved. A fill of ashes, animal bones and pottery sherds lay superimposed on floor (1549) in room 1. The number of

small finds in this layer was relatively high, with five loom weights (among them S1944 [Fig. 22 right]), beads, a needle, a pendant and a fragment of a stone vessel. Room 2 was only partly explored, as its northern part lay outside the excavated area. Ash, pottery sherds and one faience ring were found on the surface of floor (1556). A fragment of wall, connected with the west wall of room 1, indicates that the building had more rooms.

[ŁJ]

#### Area 9: phases C1–C4

Three structures, dated to the Third Intermediate Period, were found in the southern part of the trench [Fig. 19]. The absence of direct stratigraphic relationships makes it impossible to assign them to a specific phase. Structure [1149] was a fragment of a wall badly destroyed by later cuts. As preserved, it was 3.50 m long and 0.70 m wide. The other two structures were constructed in a large cut, at least 0.50 m deep, made during the Third Intermediate Period. Building [1150] was round in plan [Fig. 23]. Its internal diameter was 3.85 m and its walls, about 0.40 m thick, were built in a very irregular fashion. The poor state of wall preservation did not allow the entrance to be located. Three round cuts, which served as stands for large storage vessels (1997, 1201, 1202), ran along the building wall. Building [1199], similar to building [1150], stood about 3 m to the northeast. It was only partly excavated, as most of it is located outside the excavated area. A circular cut <1174> probably connected with buildings [1150] and [1199] was made about one meter to the north of building [1150], directly inside silo [1256] built in the Nineteenth Dynasty (phase E3, see above) [Fig. 24].

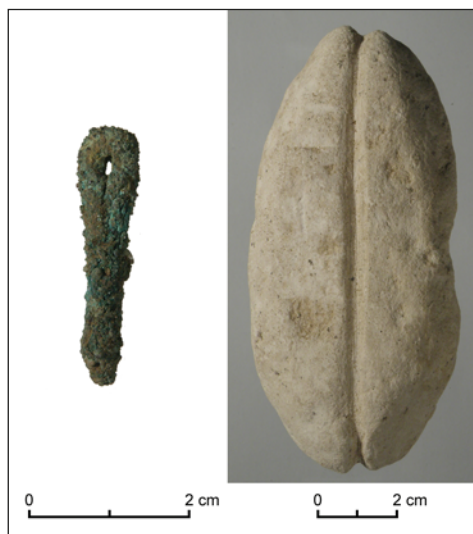


Fig. 22. Needle S2040 (left) and loom weight S1944 (Photos S. Rzepka)



*Fig. 23. Building [1150] in area 9  
(Photo S. Rzepka)*



*Fig. 24. Third Intermediate Period deposits inside reused Nineteenth Dynasty silo [1256]  
(Photo S. Rzepka)*



The inhabitants of the Third Intermediate Period settlement apparently dug a pit in the ground, maybe with the aim to prepare a place for a structure of the same type as [1150], which had a floor sunk deep into the ground level. They might have come across the walls of an old but very well built silo and decided to adapt it to their own purposes. They must have discovered the silo by chance, as surely no walls of this structure were visible on the surface at that time, these having been leveled at the beginning of the Twentieth Dynasty and then covered by building [834/838]. The silo was emptied of debris and all the original deposits in order to obtain a structure similar to [1150]: a round building sunk deep into the ground. This effect was achieved without building new

walls. The fill of <1174> contained a large amount of ash, pottery sherds, several completely preserved pottery vessels (mostly typical Third Intermediate Period bowls), and one grinder.

The circular shape of the structures described above could suggest that they were grain silos,<sup>4</sup> but the finds inside [1150] and in <1174> clearly defy such an interpretation. Three large storage vessels were dug into the floor in [1150] and large quantities of pottery vessels were found in <1174>. Storage still seems to be the most probable function, although grain was probably not the content; these structures were probably cellars for storing products requiring cool conditions.

[SRz, ŁJ]

## OTTOMAN PERIOD

### Area 9: phase A

The site was heavily pitted with round or ovoid, or irregular cuts [Fig. 26] that were filled for the most part with windblown sand, but in two cases ovens had been installed in such cuts. Oven [1219] was found inside cut <1126> in square Y215–X110, inserted into the ground and cutting through archaeological layers. A part of the cut was closed off with a fragmentary wall from the northern side. Currently, the wall is approximately 0.16 m thick or less and its height does not exceed 0.21 m. Originally, the front of the structure was closed with a semicircular mud-brick wall and a thick layer of baked clay formed a dome furnished with an inlet hole over the oven. The upper part of the structure was completely

destroyed. The oven measured about 0.42 m in diameter and was preserved to a height of about 0.58 m. The lower layer of fill (1218), presumably associated with this



Fig. 25. Pipe (S1607+S1627)  
(Photo S. Rzepka)

<sup>4</sup> See Arnold 1997: 135–136. According to Arnold, round grain silos had floors slightly sunk below ground level. None of the silos excavated so far in Tell el-Retaba have betrayed such a feature.

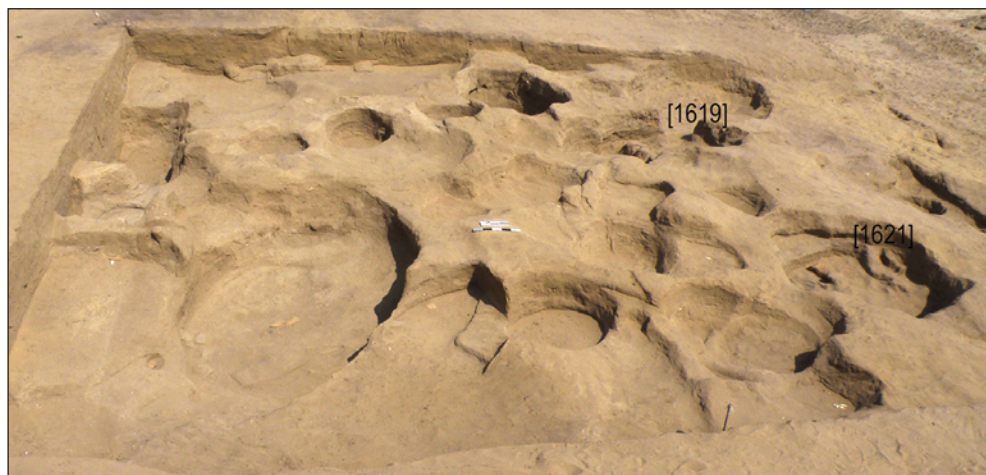


Fig. 26. Modern cuts in area 9; marked Ottoman ovens [1219] and [1221]  
(Photo S. Rzepka)



Fig. 27. Ottoman oven [1221] in area 9, view from the west  
(Photo S. Rzepka)

oven, consisted of loose, grayish-brown ash mixed with fine sand and mud-brick debris. The upper layer of fill (1125) consisted of fine windblown sand with traces of animal dung and fragments of pottery.

The second oven, [1221], of similar size and structure, was installed in cut <1142> insquare Y210–X105 [Figs 26, 27]. A smoking pipe (S1607+1627) [Fig. 25] was found in the fill, attesting with other finds from the area to the Ottoman

dating of these installations (French 2001; Pradines 2004).

Absence of remains of domestic architecture suggests that the area was abandoned in Ottoman times. Ovens and archaeological material may suggest that *sebbakhin* pits functioned as temporary shelters for people reclaiming mud bricks from ancient structures, pasturing animals or just moving between villages.

[PS]

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## REFERENCES

- Abd El-Maksoud, M. (1998). *Tell Heboua, 1981–1991: enquête archéologique sur la Deuxième Période Intermédiaire et le Nouvel Empire à l'extrémité orientale du Delta*. Paris: Ministère des Affaires Étrangères; Éditions Recherche sur les Civilisations
- Arnold, D. (1997). *Lexikon der ägyptischen Baukunst* (2nd ed.). Düsseldorf: Artemis
- Ben-Tor, D. (1997). The relations between Egypt and Palestine in the Middle Kingdom as reflected by contemporary Canaanite scarabs. *Israel Exploration Journal*, 47(3/4), 162–189

- Ben-Tor, D. (2007). *Scarabs, chronology, and interconnections: Egypt and Palestine in the Second Intermediate Period* [=OBO 27]. Fribourg–Göttingen: Academic Press; Vandenhoeck & Ruprecht
- Borchardt, L. and Ricke, H. (1980). *Die Wohnhäuser in Tell el-Amarna* [=Ausgrabungen der Deutschen Orient-Gesellschaft in Tell el-Amarna 5; WVDOG 91]. Berlin: Gebr. Mann
- Crouwel, J. (2013). Studying the six chariots from the tomb of Tutankhamun – An update. In A.J. Veldmeijer and S. Ikram (eds), *Chasing chariots: Proceedings of the First International Chariot Conference (Cairo 2012)* (pp. 73–93). Leiden: Sidestone Press
- Forstner-Müller, I. (2008). *Tell el-Dab'a XVI. Die Gräber des Areals A/II von Tell el-Dab'a*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften
- French, E. (1971). The development of Mycenaean terracotta figurines. *Annual of the British School at Athens*, 66, 101–187
- French, P.G. (2001). Smoking pipes of the Islamic period from the Madrasa Tatar al-Hiğaziya. In P. Speiser, *Die Geschichte der Erhaltung arabischer Baudenkmäler in Ägypten: die Restaurierung der Madrasa Tatar al-Hiğāzīya und des Sabil Kuttāb 'Abd ar-Rahmān Kathūdā im Rahmen des Darb-al-Qirmiz-Projektes in Kairo* [=ADAIK Islamische Reihe 8] (pp. 213–230). Heidelberg: Heidelberg Orientverlag
- Górka, K. and Rzepka, S. (2011). Infant burials or infant sacrifices? New discoveries from Tell el-Retaba. *MDAIK*, 67, 93–100
- Gręzak, A. (2015). Ramesside and Third Intermediate Period bone remains from Tell el-Retaba. *Ägypten und Levante*, 25, 167–174
- Jarmużek, Ł. (2013). A stable of the Third Intermediate Period at Tell el-Retaba. *JEA*, 99, 281–289
- Littauer, M.A. and Crouwel, J.H. (1985). *Chariots and related equipment from the tomb of Tut'ankhamun* [=Tut'ankhamun's Tomb Series 8]. Oxford: Griffith Institute
- Kemp, B. and Stevens, A. (2010). *Busy lives at Amarna: excavations in the Main City I. The excavations, architecture and environmental remains* [=EES Excavation Memoir 90], London: Egypt Exploration Society
- Malleson, C. (2015). Archaeobotanical investigations at Tell el-Retaba. Ramesside fortresses and 3rd Intermediate Period town (Area 9), Polish–Slovak (PCMA) Mission seasons 2010–14. *Ägypten und Levante*, 25, 175–199
- Ogden, J. (2000). Metals. In P.T. Nicholson and I. Shaw (eds), *Ancient Egyptian materials and technology* (pp. 148–176). Cambridge: Cambridge University Press
- Petrie, W.M.F. (1934). *Ancient Gaza: Tell el-Ajjul IV* [=British School of Archaeology Publications 56]. London: British School of Archaeology in Egypt
- Petrie, W.M.F. and Duncan, J.G. (1906). *Hyksos and Israelite cities* [=British School of Archaeology Publications 12]. London: School of Archaeology
- Philip, G. (2006). *Tell el-Dab'a XV. Metalwork and metalworking evidence of the Late Middle Kingdom and the Second Intermediate Period* [=Denkschriften der Gesamtakademie 36]. Vienna: Verlag der Österreichischen Akademie der Wissenschaften
- Pilali-Papastériou, A. (1998). Idéologie et commerce: le cas des figurines mycéniennes. *BCH*, 122(1), 27–52



- Pradines, S. (2004). Note préliminaire sur un atelier de pipes ottomanes à l'est du Caire. *CCE*, 7, 281–291
- Reeves, N. (2007). *The complete Tutankhamun: The king, the tomb, the royal treasure*. London: Thames and Hudson
- Rzepka, S., Hudec, J., Jarmużek, Ł., Dubcová, V., Hulková, L., Odler, M., Wodzińska, A., Trzciński, J., Šefčáková, A., Sójka, P., Fulajtár, E., Černý, M., and Tirpák, J. (2015). From Hyksos settlers to Ottoman pipe smokers. Tell el-Retaba 2014. *Ägypten und Levante*, 25, 97–166
- Rzepka, S., Hudec, J., Wodzińska, A., Jarmużek, Ł., Hulková, L., Dubcová, V., Piorun, M., and Šefčáková, A. (2014). Tell el-Retaba from the Second Intermediate Period till the Late Period. Results of the Polish–Slovak Archaeological Mission, seasons 2011–2012. *Ägypten und Levante*, 24, 39–120
- Rzepka, S., Wodzińska, A., Hudec, J., and Herbich, T. (2009). Tell el-Retaba 2007–2008. *Ägypten und Levante*, 19, 241–280
- Rzepka, S., Wodzińska, A., Malleson, C., Hudec, J., Jarmużek, Ł., Misiewicz, K., Małkowski, W., and Bogacki, M. (2011). New Kingdom and the Third Intermediate Period in Tell el-Retaba. Results of the Polish–Slovak Archaeological Mission, seasons 2009–2010. *Ägypten und Levante*, 21, 139–184
- Thomas, A.P. (1981). *Gurob: A New Kingdom town* I–II. Warminster: Aris & Phillips
- Tufnell, O. (1984). *Studies on scarab seals* II. *Scarab seals and their contribution to history in the early second millennium B.C.* Warminster: Aris & Phillips
- Tzonou-Herbst, I. (2010). Figurines. In E.H. Cline (ed.), *The Oxford handbook of the Bronze Age Aegean (ca. 3000–1000 BC)* (pp. 210–222). Oxford: Oxford University Press