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POLISH ARCHAEOLOGICAL RESEARCH IN PTOLEMAIS (LIBYA) IN 2010.
A PRELIMINARY REPORT
(FIGS. ON CD 1–23)

In the 2010 season, there were two research campaigns in Ptolemais: in May and in September/October.¹ The main aim of the Spring campaign was to finish the project of documentation of the Christian churches identified in Ptolemais.² There were conducted geophysical surveys,³ precise measurements and an architectural analysis in order to construct a 3D model of the Western Basilica,⁴ as well as studies of portable finds from the surveys conducted near the Central Basilica. No excavations were carried out then.

The Autumn campaign⁵ included excavations which constituted a continuation of the study of dwellings in insula E XXI, in the eastern part of the city, conducted since 2001 by the Institute of Archaeology of the University of Warsaw.⁶ Geophysical measurements were carried out as well as part of the project of preparing a geophysical map of the accessible areas of the city, which is an important element of Polish topographic studies in Ptolemais.⁷

Excavations

(Zofia Kowarska, Szymon Lenarczyk,
Jerzy Żelazowski)

The main aim of the Autumn excavation campaign, apart from a number of supplementary and maintenance works, was to examine the area of the insula south of the House of Leukaktios, in the eastern part of which a number of rooms situated around a large paved courtyard (R 68) and probably belonging to another dwelling complex, adjacent to the eastern street, were uncovered in previous years (Figs. 1, 2; CDFig. 1).

The area of excavations occupying a surface of about 1.5 ares (Trench H) was marked out in the area limited to the north-east by the late Wall W 157, situated alongside the eastern street of insula E XXI. On the south, Trench H was limited by Wall W 150, probably the border of this plot (Fig. 3).

¹ The text is based on the preliminary reports submitted to the Department of Archaeology in Tripoli and Benghazi following each season and presented on the website www.ptolemais.pl. The exact dates and names of team members can be found there.

² Cf. E. WIPSYCZKA, *The Basilicas at Ptolemais: A Historical Commentary on the Results of Archaeological Exploration*, "Światowit" VIII (XLIX)/A (2009–2010), 2011, 51–68.

³ Cf. K. MISIEWICZ, *Non-Invasive Survey of Christian Basilicas at Ptolemais – Geophysical Prospection*, "Światowit" VIII (XLIX)/A (2009–2010), 2011, 31–38; M. BOGACKI, W. MAŁKOWSKI, *Topographical Survey in the Area of Two Christian Buildings Outside the City Walls of Ptolemais (Cyrenaica, Libya)*, *ibidem*, 45–50.

⁴ Cf. J. KANISZEWSKI, *Non-Invasive Investigation of the Western Basilica at Ptolemais*, "Światowit" VIII (XLIX)/A (2009–2010), 2011, 41–44.

⁵ It is also worth mentioning that during this campaign the Polish Archaeological Mission to Ptolemais has organised workshops for Libyan colleagues from the Department of Antiquities in Benghazi for the first time. With kind permission of Director of the Department, Mr Mohamed Ateetallah Shelmani, 10 persons in total stayed in Tolmeita for the period of about three weeks. They participated in work on current documentation. Supervised by Polish archaeologists, they improved their archaeological and documentation skills. Cooperation with Libyan archaeologists would not have been possible without organizational, linguistic

and accommodation help of Mr Faraj Abdul Karim Omran Tahir, Director of the Tolmeita Museum.

⁶ Preliminary reports are published successively in "Światowit" (cf. T. MIKOCCI ET AL., *Światowit III (XLIV)/A* (2001), 2002, 101–120; V (XLVI)/A (2003), 2004, 107–118; VI (XLVII)/A (2004–2005), 2006, 93–107; J. ŻELAZOWSKI ET AL., VIII (XLIX)/A (2009–2010), 2011, 9–30); cf. also T. MIKOCCI ET AL., *Polish Archaeological Research in Ptolemais (Cyrenaica) in years 2001–2007*, "Libya Antiqua" n.s. V, 2010, 99–107 (selected bibliography on p. 107); T. MIKOCCI, *Le campagne di scavo della Missione Archeologica Polacca a Tolemaide (Ptolemais) condotte tra il 2004 e il 2005*, (in:) M. Luni (ed.), *Cirene e la Cirenaica nell'antichità*, Monografie di Archeologia Libica XXX, Roma 2010, 187–195; J. ŻELAZOWSKI, *Le indagini archeologiche polacche a Ptolemais*, (in:) E. Jastrzębowska, M. Niewójt (eds.), *Archeologia a Tolemaide. Giornate di studio in occasione del primo anniversario della morte di Tomasz Mikocki, 27-28 maggio 2008*, Roma 2009, 110–124; M. REKOWSKA-RUSZKOWSKA, J. KANISZEWSKI, *Na zachód od Aleksandrii..., czyli o polskich wykopaliskach w Ptolemais (2001–2009)*, (in:) J. Kościuk (ed.), *Non solum villae. Księga jubileuszowa ofiarowana Prof. Stanisławowi Medekszy*, Wrocław 2010, 265–282.

⁷ Cf. K. MISIEWICZ, W. MAŁKOWSKI, M. MUSZYŃSKA, *The Topography of Ptolemais. Results of Non-Destructive Survey Campaigns (2002–2005)*, (in:) M. Luni (ed.), *Cirene...* (cf. note 6), 197–203; *idem*, *The Topography of Ptolemais. Preliminary Results of Geophysical Surveys*, "Archeologia" (Warsaw) LIX (2008), 2010, 73–80.

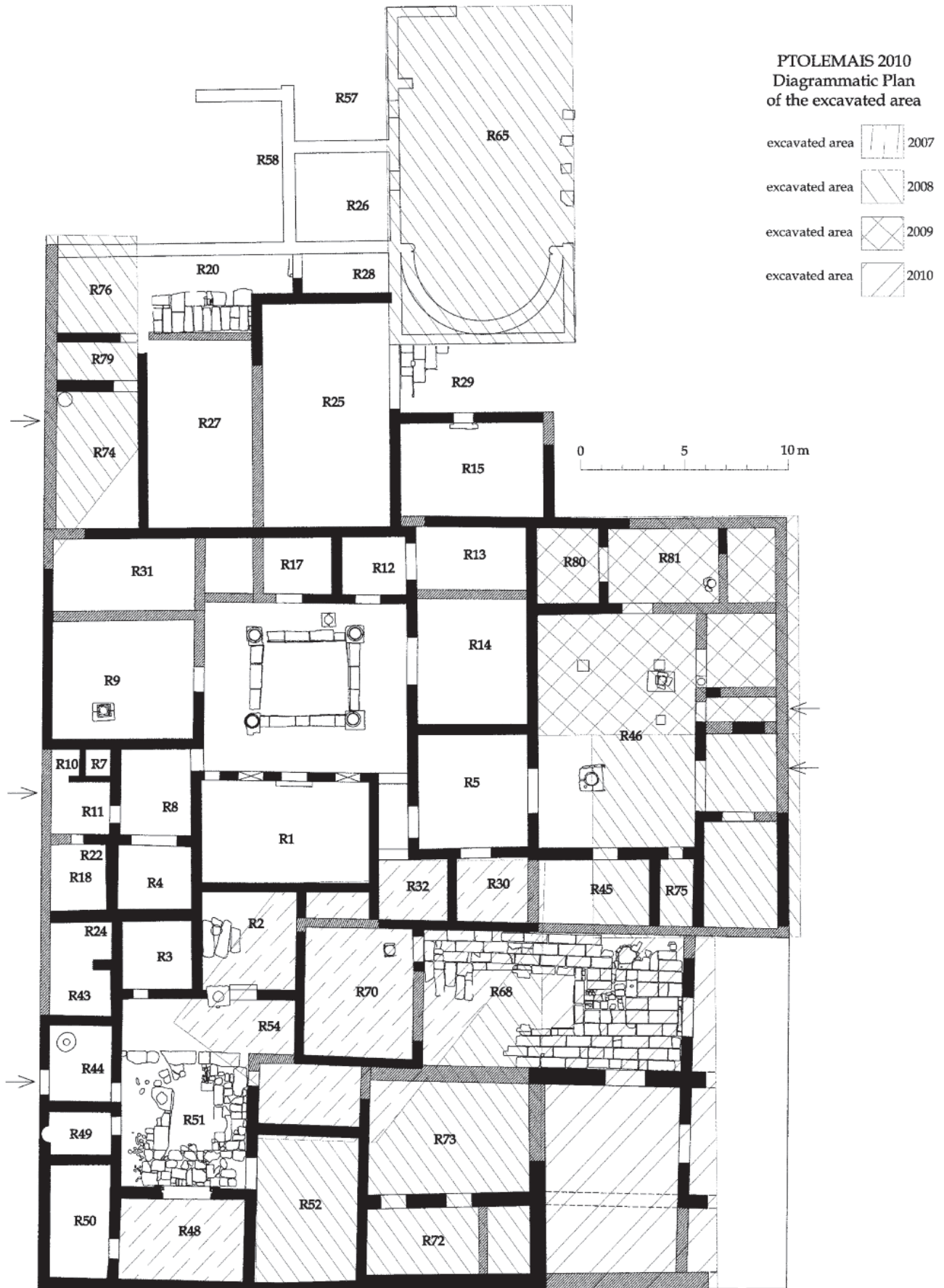


Fig. 1. Plan of the excavated area in 2007–2010 (by W. Małkowski, S. Lenarczyk, J. Żelazowski).

Ryc. 1. Obszar polskich badań w Ptolemais 2007–2010 z zaznaczonymi wykopami z poszczególnych lat.



Fig. 2. Measured plan of the excavated area (by W. Małkowski, S. Lenarczyk, J. Żelazowski).

Ryc. 2. Obszar polskich badań w Ptolemais – plan ogólny.

About 0.3 m below the surface level (humus layer: Unit 01/10), a continuation of Wall W 157 was found together with some kind of stone paving (Unit 04/10 = Unit 13/09, Unit 17/10 = Unit 40/08), covered by a layer of small stones, related to this wall (Fig. 4, CDFig. 2). It is worth to note a small fragment of inscribed marble found in the layer of stones (inv. No. s/015/10, Fig. 5:2). Apart from that, not many other items were found in Unit 17/10.

They included i.a.: a ball-shaped stone, probably a projectile (inv. No. s/017/10, Fig. 5:7), a fragment of a lamp (inv. No. 1/034/10, Fig. 8:12), two fragments of metal artefacts (inv. Nos. mt/ 068/10, mt/070/10), a dozen or so fragments of cooking pottery and a dozen or so small fragments of glass (e.g. inv. Nos. g/178/10, g/190/10, g/194/10), unfortunately in a poor state of preservation (Fig. 6:18,20,22).

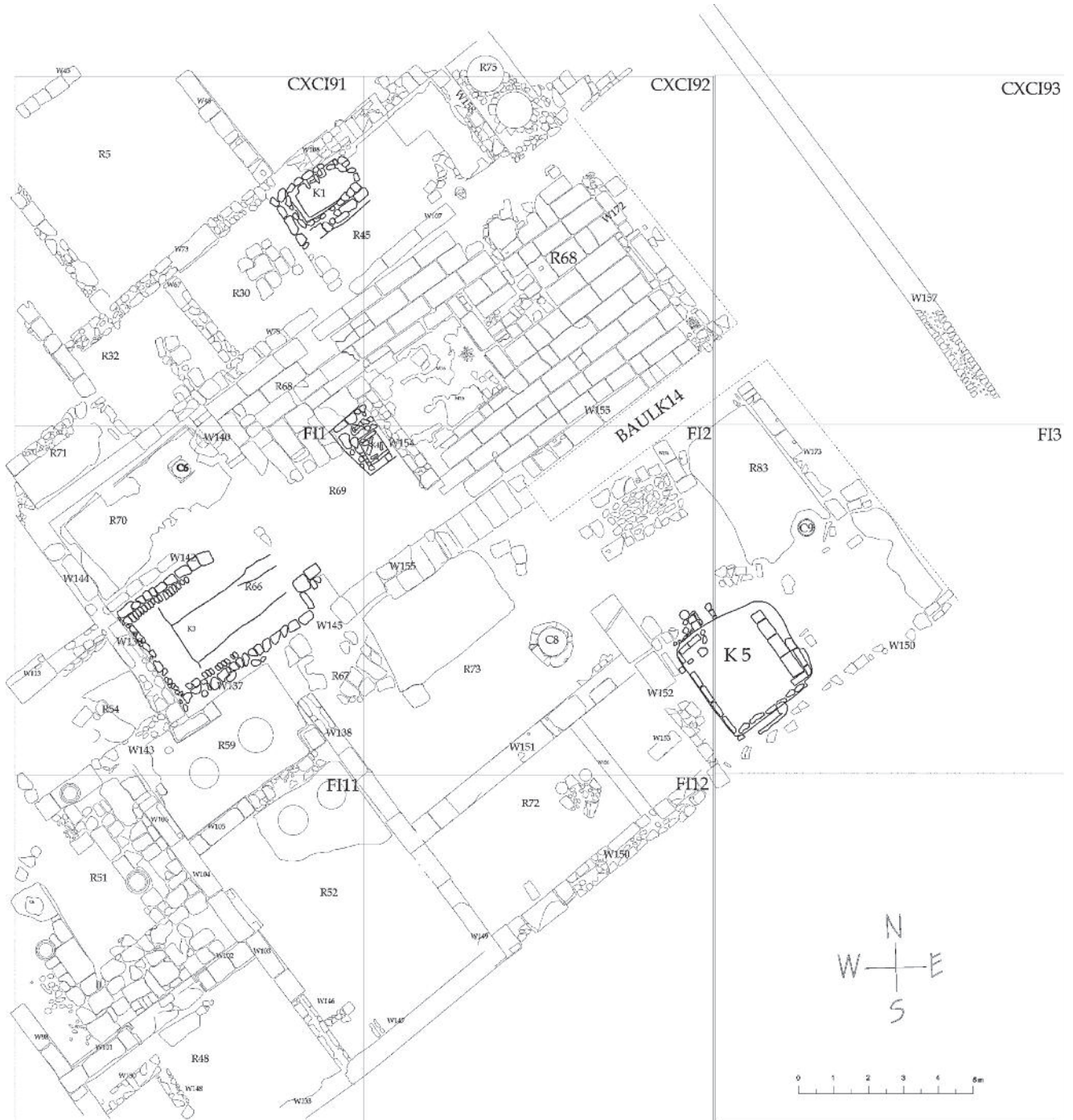


Fig. 3. Measured plan of the excavated area in 2010 (by W. Małkowski, S. Lenarczyk).

Ryc. 3. Fragment planu ukazujący obszar badań wykopaliskowych prowadzonych w 2010 roku.



Fig. 4. Stone paving (Unit 04/10) (Photo Polish Archaeological Mission to Ptolemais).
Ryc. 4. Kamienny bruk (jedn. strat. 04/10).

Wall W 157, preserved in 3–4 courses of small irregular stones bonded in clay mortar, the northern part of which was uncovered in September 2008,⁸ belongs to the latest, perhaps even post-antique phase of using this eastern part of the insula. In the central part of the paving (Unit 04/10=17/10) made of white stones resembling a rock (height 30.37–30.54 m a.s.l.), traces of presumable ruts were noticed.

After finishing documentary works, the trench was restricted to a smaller area limited to the east by the outer face of Wall W 159. Considering the area to be excavated, Trench H was divided into two parts by Baulk 14 (1 m wide), marked out along the southern face of Wall W 155. In this way, Trench H was divided by the baulk into Trench H 1, on the north-east, and Trench H 2 on the south-west (Fig. 3).

Trench H 1 (ares CXCI 92, CXCI 93, FI 2)

The aim of exploration of this area was to uncover the whole paved courtyard (R 68), partly investigated in

the 2007 Spring campaign (Figs. 9, 10). During the exploration of Trench H 1, a sequence of destruction layers were noticed (Figs. 11, 12):

- upper destruction layer (Units 10/10, 25/10, 29/10, 30/10, height from 30.25–30.19 m to 29.64–29.74 m a.s.l.) characterised by brown soil mixed with irregular stones and a small amount of coarse pottery and other artefacts
 - including an almost completely preserved lamp (inv. no. l/045/10, Fig. 8:11), probably manufactured locally (Unit 10/10), and two fragments of rims (inv. Nos. s/070/10, s/008/10, Fig. 5:5,6) of marble vessels (Unit 25/10);
- lower destruction layer (Unit 33/10, height 29.56–29.36 m a.s.l. and Unit 38/10, height 29.36–29.10 m a.s.l.) characterised by greyish brown soil with traces of mortar. Nineteen coins,⁹ fragments of a lamp (inv. No. l/109/10, Fig. 8:3), glass vessels, a fragment of an unidentified sculpture (inv. No. s/085/10, Fig. 5:4), several small fragments of marble facings (inv. Nos. s/083/10, s/087/10, s/091/10, Fig. 5:9,11,12), a fragment of an ornamented ivory artefact (inv. No. b/007/10, Fig. 6:36),

⁸ Cf. J. ŻELAZOWSKI ET AL., *Polish Archaeological Research in Ptolemais (Libya) in 2007–2009. Preliminary Report*, “Światowit” VIII (XLIX)/A (2009–2010), 2011, 15.

⁹ During the excavations season, 91 coins in total were found and

they were mainly bronze. The majority of coins was found with the use of metal detector. Only their conservation, expected in the next campaign, will permit an identification. The numismatic finds from the Polish excavations at Ptolemais are being studied by Piotr Jaworski.

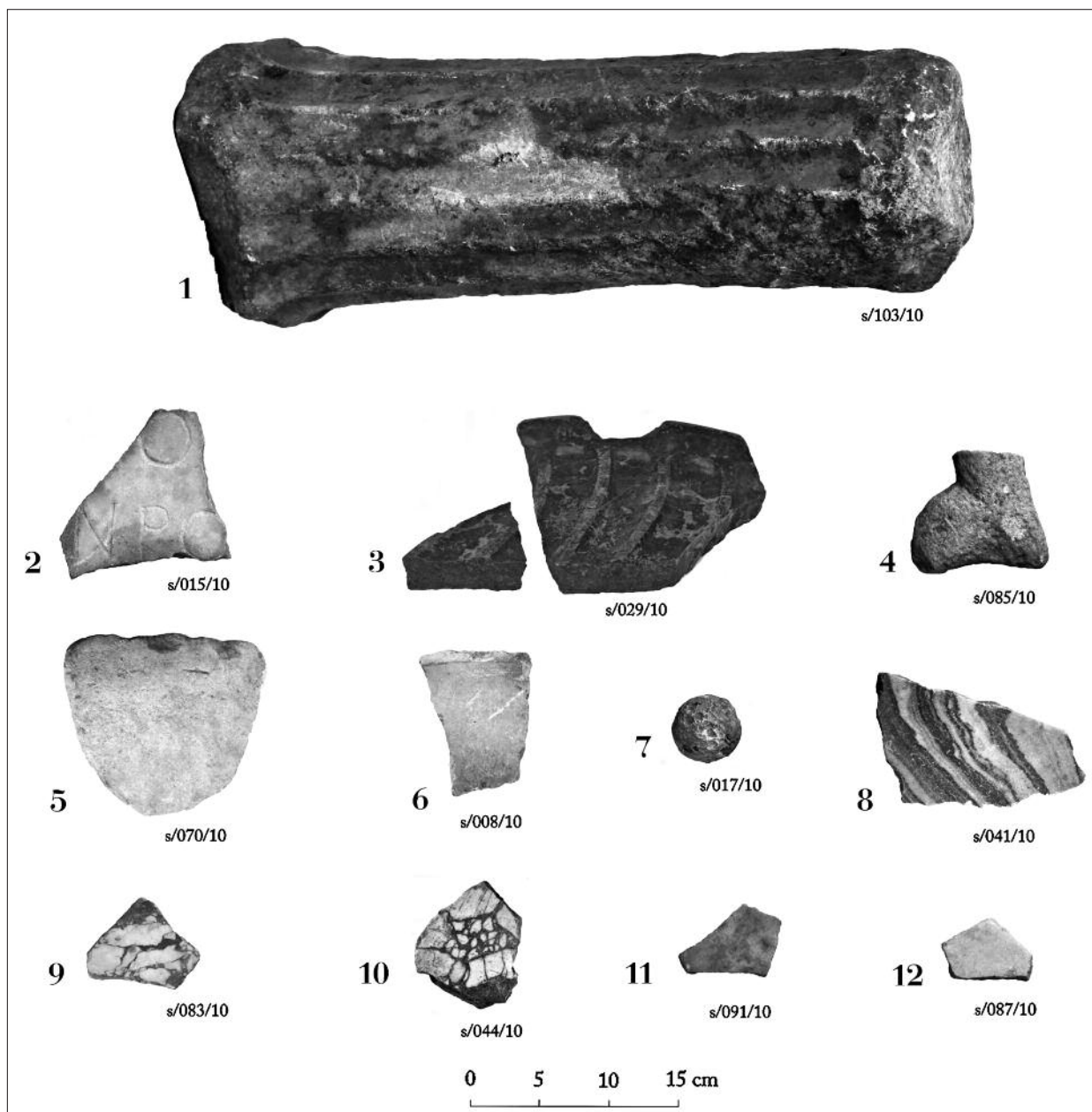


Fig. 5. Selected stone finds from the 2010 season of excavations (Photo J. Balcerzak, elaborated by Z. Kowarska).

Ryc. 5. Wybrane zabytki kamienne z sezonu badawczego 2010.

and a fragment of a bone pin (inv. No. b/009/10, **Fig. 6:33**) were found in this layer (Unit 38/10), several dozen centimetres above the stone floor;

- accumulation layer above the stone pavement (height 29.10–28.96 m a.s.l.) in Room R 69/68 (Unit 40/10 = Unit 20/08 above the mosaic, height 28.96 m a.s.l.) – a reddish brown solid layer of soil mixed with small pieces of pottery, stones and traces of mortar. The finds also included a few coins and many well preserved parts of glass vessels (inv. No. g/211/10, **Fig. 6:19**), a fragment of a bone artefact, perhaps a gaming piece (inv. No. b/010/10, **Fig. 6:35**), as well as a fragment of a bone pin (inv. No. b/011/10).

The exploration of the layers resulted in uncovering the pavement (29.03 m a.s.l.) made of regular stone slabs (0.50×1.10×0.40 m) (**CDFig. 3**). The pavement lies on a level above the level of the House of Leukaktios. This courtyard (R 69/68) is delimited by walls: W 155 (height 29.16–29.14 m a.s.l.) (**CDFig. 4, 5**) to the south, W 172 to the east (height 29.27–28.95 m a.s.l.), W 107 to the north and W 140 to the west. In the central part of the courtyard, there is a shallow pool (**Fig. 13**). This impluvium is decorated with a geometrical mosaic M 16 (black and white tesserae, height 28.96 m a.s.l.) (**CDFig. 6**). The shape of the bordering slabs makes it possible to assume the presence of columns supporting the roof at least on three sides. It is

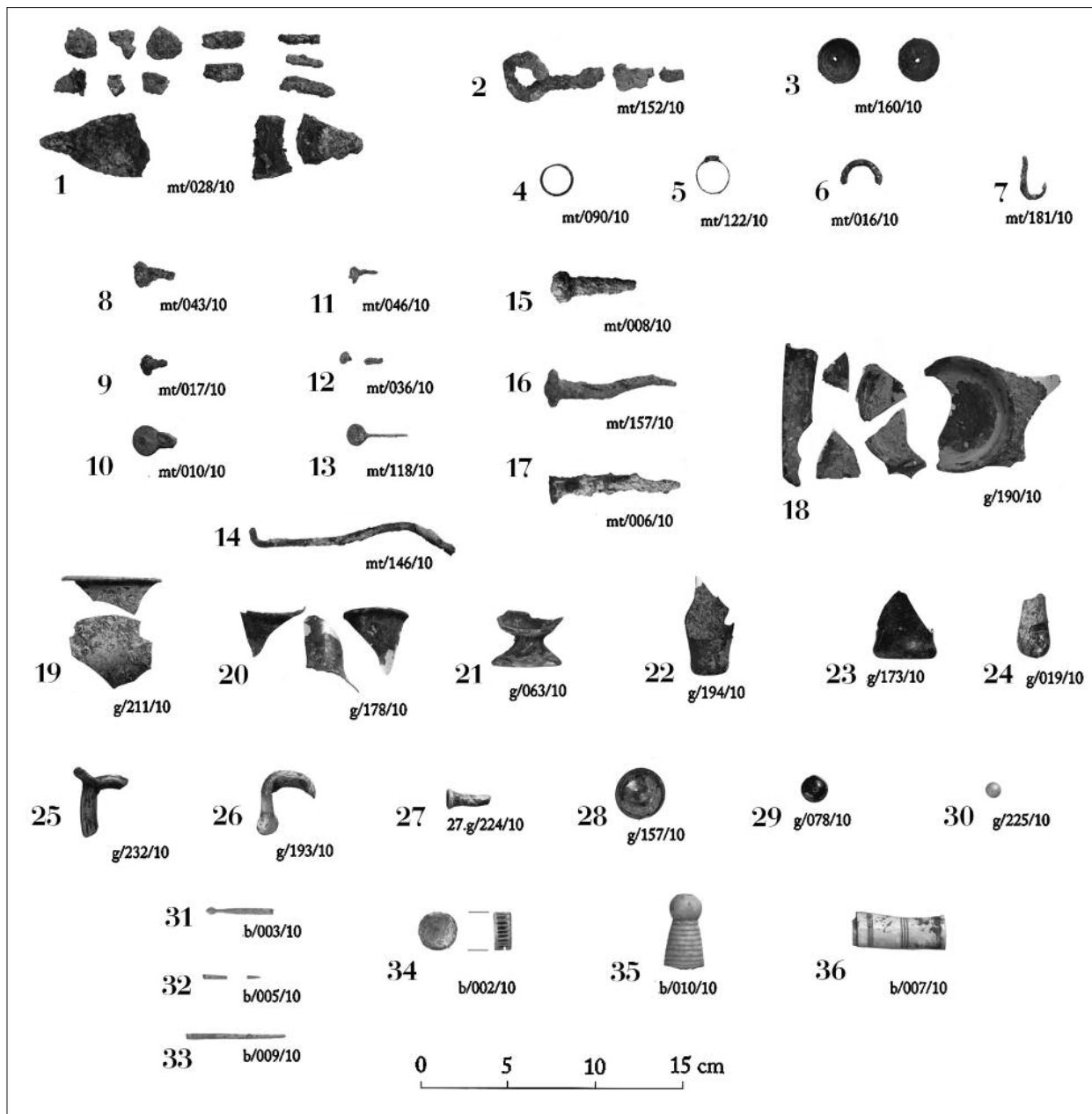


Fig. 6. Selected small finds from the 2010 season of excavations: 1–17 – fragments of metal finds; 18–30 – fragments of glass finds; 31–36 – fragments of bone items (Photo J. Balcerzak, elaborated by Z. Kowarska).

Ryc. 6. Wybrane zabytki drobne z sezonu badawczego 2010: 1–17 – fragmenty przedmiotów metalowych; 18–30 – fragmenty zabytków szklanych; 31–36 – fragmenty zabytków kościanych.

worth noting that, on the eastern side, the courtyard is prolonged in such a way that it is possible to assume an open air space in this part.

In the south-eastern corner of the impluvium, a small stone basin was found. The geometrical pattern of the mosaic proves that the basin belongs to an earlier phase. On the same side of impluvium, a canal inlet was noticed. The rest of the canal is covered by the stone pavement and it leads to the presumed cistern mouth located near Wall W 107. There are also some traces of a canal leading to the lower part of the insula. Together with the fact that Wall W

107 was demolished to the level of the pavement, it proves that the courtyard was associated with the large industrial area in the later phase.

Pottery kiln in R 68

In the north-western part of courtyard R 68, in the middle of a large impluvium (between two walls added secondarily, W 154 on the east and W 141 on the west), there is a small kiln (K 4), uncovered already in the course of the excavations in 2008 (CDFig. 7). Now it was explored (1.2 × 0.7 m; height 0.85 m [without the dome], from

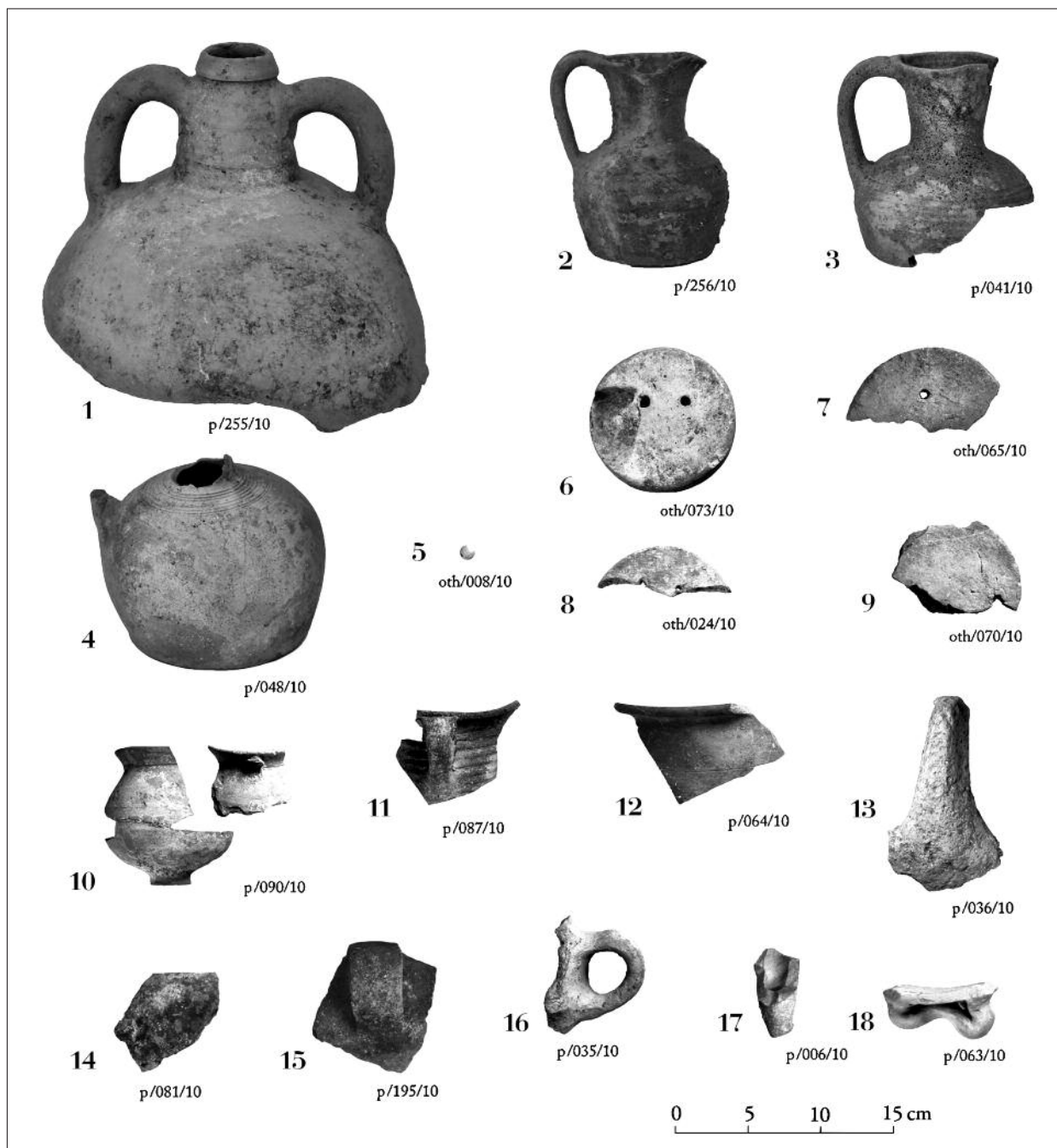


Fig. 7. Selected fragments of pottery vessels (1–4, 10–18) and other items made of clay (5–9) from the 2010 season of excavations (Photo J. Balcerzak, elaborated by Z. Kowarska).

Ryc. 7. Fragmenty wybranych naczyń ceramicznych (1–4, 10–18) oraz innych przedmiotów wykonanych z gliny (5–9) z sezonu badawczego 2010.

the top to the bedrock level). The construction of the upper chamber of the kiln was made of bricks (0.25×0.15×0.08 m). Also a stone base of the kiln (0.3 m in height) and a part of a damaged dome of the kiln made of semicircular bricks (0.25×0.15 m) connected with mortar were uncovered.

The kiln was a secondary structure, built in the impluvium of the courtyard, directly on the mosaic covering it, in the period when the courtyard lost its original

function and became a part of rooms related to craft activity in this part of the house. It is another example of adaptation of living quarters in this part of the insula in the period of the end of functioning of the houses, as can be assumed on the basis of other examples, after the earthquake in AD 365. However, the time of the construction of the kiln and other craft installations has not been defined precisely so far. Around the kiln area, there were found a great number of Late Roman coarse pottery (also some

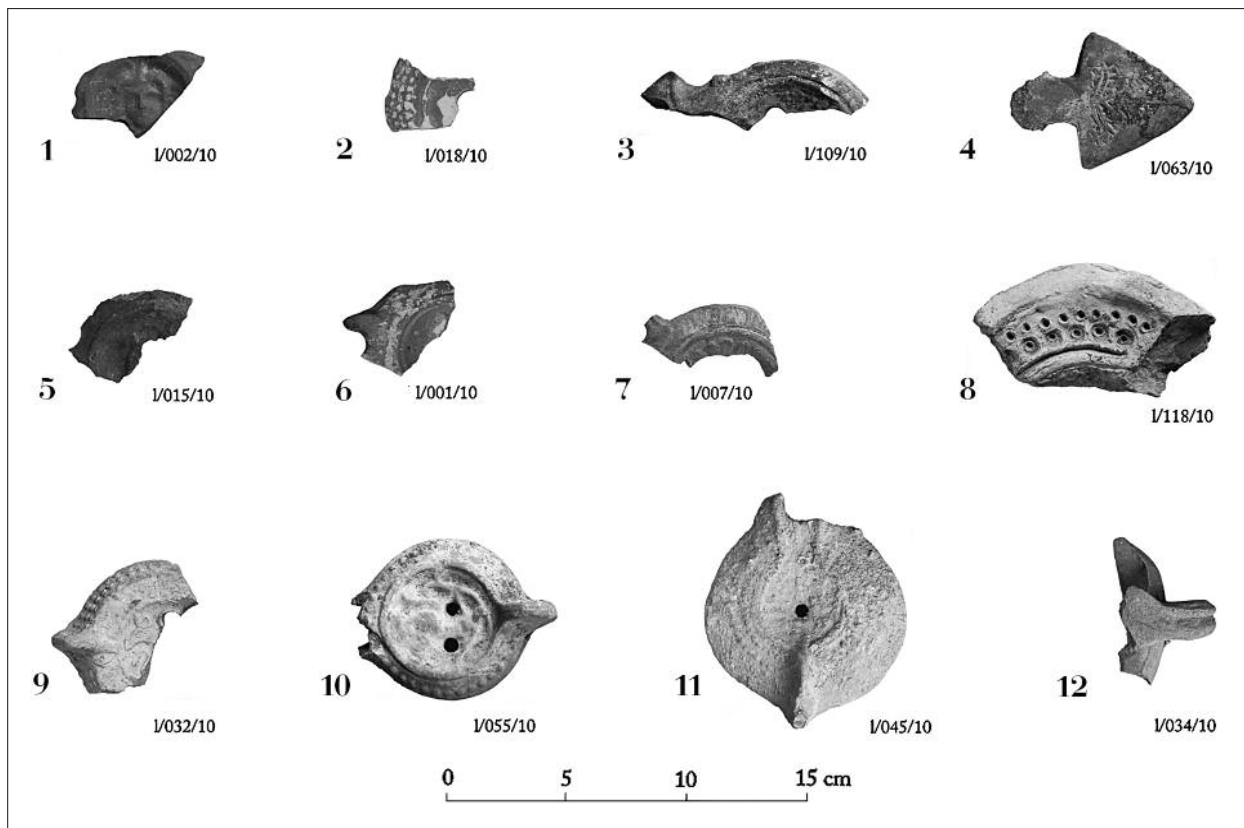


Fig. 8. Selected fragments of lamps (1–7, 9–12) and fragment of a lamp mould (8) (Photo J. Balcerzak, elaborated by Z. Kowarska).

Ryc. 8. Wybrane fragmenty lampek (1–7, 9–12) oraz fragment formy do produkcji lampek (8) z sezonu badawczego 2010.

fragments of Late Roman amphorae and Late Roman plain ware) and some mud bricks.¹⁰

It is worth emphasising that there is another kiln nearby (R 66), namely Kiln K 3 (CDEFig. 8), which is, by contrast, a large one. It occupies a considerable area of the room and it may have been used to fire bricks.¹¹ Both the direct proximity of both kilns and the characteristic analogous portable finds identified within both structures suggest that both features functioned at the same time.

Trench H 2 (ares CXCI 93, FI 2, FI 3)

The exploration of Trench H 2 was an extension of the works conducted in Spring 2008, in a house reused as

an industrial zone in the later period (Fig. 14). During the exploration of this area, a sequence of destruction layers were noticed (Figs. 15, 16):

- destruction layer beneath the aforementioned layer of paving (Unit 04/10) – Unit 19/10, 20/10, 21/10 = 10/10 on the opposite side of the baulk, height 29.10 m a.s.l.); a solid layer of dark brown soil mixed with small stones and fragments of mortar;
- upper destruction layer (Unit 25/10 = Unit 20/10 in Trench H 1, height from 30.25–30.19 m to 29.64–29.74 m a.s.l.) characterised by brown or reddish brown soil mixed with coarse pottery fragments;
- lower destruction layer, a stone debris (Units 32/10,

¹⁰ The only identified finds inside Kiln K 4 are fragments of coarse pottery, dated to the Mid/Late Roman Period. In the upper fill layer of the kiln and near the kiln, fragments of cooking and table pottery, as well as fragments of amphorae (D 902; D 296, D 365, D 348, D 874–D 879, D 501–506; D 516, D 517; D 1145, D 1146 D 1151) were identified. Inside the kiln, only a dozen or so non-diagnostic fragments of functional pottery were document-

ed, including a fragment of a jug (D 1151) – the typology according to J.A. RILEY, *Coarse Pottery*, (in:) J.A. Lloyd (ed.), *Excavations at Sidi Khrebish Benghazi (Berenice)*, vol. II, Supplement to Libya Antiqua V, Tripoli 1978, 91–467; cf. infra.

¹¹ Apart from Cyrenaica, analogous kilns are known e.g. from Sirmium in Pannonia, dated to the 4th c. AD, cf. M. JEREMIC, *Brick Kilns in Sirmium*, “Starinar” 50, 2001, 131–153



Fig. 9. General view of the courtyard R 68 (Photo Polish Archaeological Mission to Ptolemais).

Ryc. 9. Widok ogólny dziedzińca R 68.

- 34/10, 37/10, 39/10, height 29.56–29.10 m a.s.l.) characterised by dark greyish brown soil mixed with a huge amount of stones of different sizes;
- layer of soil mixed with ash (Unit 35/10, height 29.73–29.52 m a.s.l.) located within the lower destruction layer, next to Baulk 14, in the central part of Trench H 2 (this unit is also seen on the opposite side of Baulk

- 14, above the level of Wall W 155);
- accumulation layers (Units 42/10 and 49/10 above the paving in R 84, Unit 53/10 and 50/10 above the bedrock level in the area around the kiln, R 82 and R 85, Unit 46/10 above the floor level in the room R 83) – dark reddish, clayish soil mixed with small pieces of stones, mortar, charcoal, fragments of pottery and lumps of ash.



Fig. 10. View of the courtyard R 68 from NE (Photo Polish Archaeological Mission to Ptolemais).

Ryc. 10. Widok dziedzińca R 68 od NE.

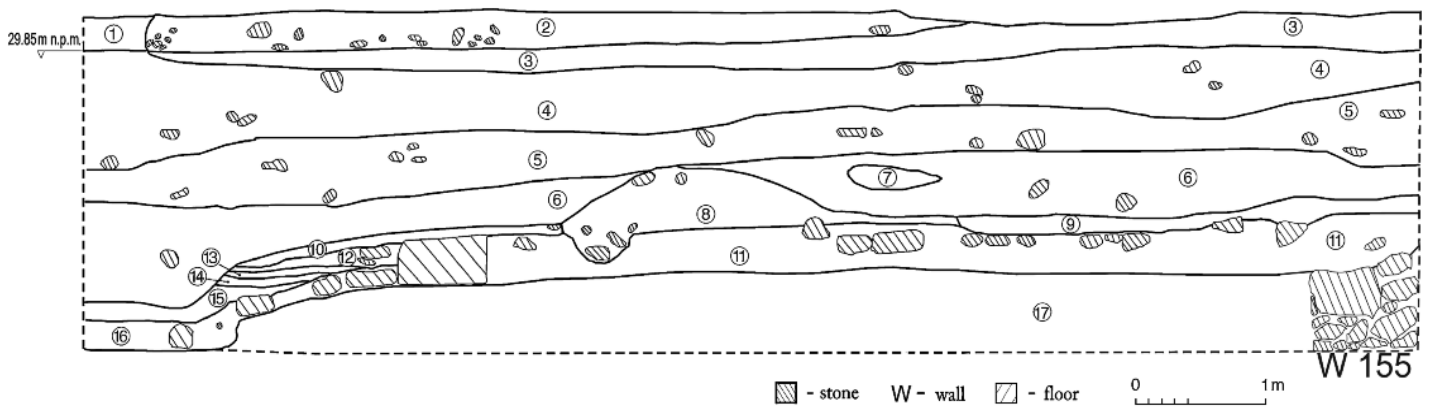


Fig. 11. Trench H 1 (CXCI 92), SW section, layers: 1. greyish brown lumpy soil; 2. light brownish grey, very compacted/hardened soil mixed with stone insertions (stone paving); 3. light grey, very compacted soil; 4. pale brown compacted soil mixed with stones; 5. dark yellowish brown loose soil mixed with small and medium-sized stones; 6. light brownish grey compacted soil; 7. brown compacted soil; 8. light brown soil mixed with a large amount of small stones and pottery fragments; 9. light grey loose soil mixed with small stones; 10. pale brown soil; 11. dark yellowish brown soil mixed with large stones; 12. light brownish grey compacted soil; 13. homogeneous light brownish grey loose soil; 14. brown lumpy soil; 15. grey compacted soil with lumps; 16. very compacted brown soil; 17. reddish brown compacted soil mixed with small-sized stones (Drawn by K. Szajkowska, K. Żebrowska, elaborated by S. Lenarczyk).

Ryc. 11. Wykop H1 (CXCI 92), profil SW, warstwy: 1. szarobrązowa, grudkowata ziemia; 2. jasnobrązowa, bardzo zbita ziemia, przemieszana z dużą ilością kamieni (kamienny bruk); 3. jasnoszara, bardzo zbita ziemia; 4. jasnobrązowa, zbita ziemia, przemieszana z kamieniami; 5. ciemnobrązowa, sypka ziemia, przemieszana z kamieniami małej i średniej wielkości; 6. jasna, brązowoszara, zbita ziemia; 7. brązowa, zbita ziemia; 8. jasnobrązowa ziemia, przemieszana z dużą ilością małych kamieni i fragmentów ceramiki; 9. jasnoszara, sypka ziemia, przemieszana z małymi kamieniami; 10. jasnobrązowa ziemia; 11. ciemnobrązowa ziemia przemieszana z dużymi kamieniami; 12. jasna, brązowoszara, zbita ziemia; 13. jasna, brązowoszara, sypka, jednolita ziemia; 14. brązowa, grudkowata ziemia; 15. szara, zbita ziemia z grudkami; 16. brązowa, bardzo zbita ziemia; 17. czerwonorązowa, zbita ziemia, przemieszana z małymi kamieniami.

On the eastern side, the excavations area was finally delimited by Wall W 173. Between Wall W 173 and the south-eastern section of Trench H 2, two new rooms were discovered. One of them, in the southern part, was delimited by partially preserved walls with small fragments of few layers of white plaster. A mosaic floor (CDFig. 9) was discovered in this room (height 29.34 m a.s.l.). In the second room, in the northern part, fragments of floor made of mortar were found.¹²

In the south-western corner of the trench, delimited by walls W 152 and W 150, already on the level of Unit 27/10 (height 30.10 m a.s.l.), there were traces of destroyed (crashed) fired bricks (also visible in the south-western section of the trench) (CDFig. 10). The exploration of this unit showed an outline of a rectangular kiln (height about 29.30 m a.s.l.) (CDFig. 11). Further works permitted to distinguish all of the kiln (K 5) walls made of rows

of bricks with clay mortar between. The construction was supported by two walls (W 150 and W 152) and, additionally, by many particular stones fixed from the outside.

Exploration inside the kiln revealed several destruction layers (Unit 36/10, 47/10, 54/10) of destroyed bricks mixed with clay mortar (CDFig. 12) and coarse pottery fragments and some fragments of lamps.¹³ Beneath, a level of clay, presumably connected with the kiln construction, was found. The cleaning of outer kiln walls showed two inlets located on both sides of the construction. Traces of ash were found next to the northern inlet. This inlet (width 0.3 m), made of single stones and bricks, and even of a stone fragment of a vertical column, led to the lower, preserved chamber of the kiln situated directly on the bed-rock (height 28.51 m a.s.l.). It was used for fuel (CDFig. 13).¹⁴

¹² Considering that only limited parts of these rooms were discovered, they remained temporarily without names and their exploration and complete documentation will be continued in the future.

¹³ One triangular handle of a lamp (inv. No. l/063/10, Fig. 8:4) is said to be decorated with an acanthus palmette.

¹⁴ Near the kiln inlet, within Unit 45/10, a marble leg or a small column (inv. No. s/103/10, Fig. 5:1) was found.

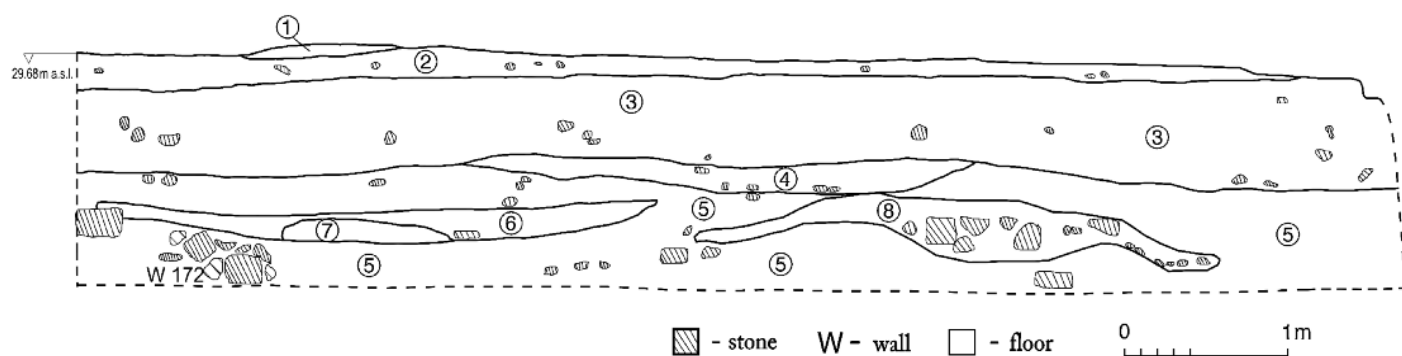


Fig. 12. Trench H 1 (CXCI 92, FI 2), NW section of Baulk 14, layers: 1. very compacted light brownish grey soil mixed with stone insertions (stone paving); 2. pale brown compacted soil with stone insertions; 3. dark yellowish brown, loose soil mixed with small and middle-sized stones; 4. light brown soil with lumps and small stones; 5. light brownish grey compacted soil; 6. light brownish grey, loose soil mixed with small stones; 7. homogeneous dark greyish brown soil; 8. greyish brown soil mixed with ash, pieces of charcoal and stones (Drawn by K. Szajkowska, K. Żebrowska, elaborated by S. Lenarczyk).

Ryc. 12. Wykop H 1 (CXCI 92, FI 2), profil NW świadka 14, warstwy: 1. jasnobrązowa, bardzo zbita ziemia, przemieszana z dużą ilością kamieni (kamienny bruk); 2. jasnobrązowa, zbita ziemia, przemieszana z kamieniami; 3. ciemna, żółto-brązowa, sypka ziemia, przemieszana z kamieniami małej i średniej wielkości; 4. jasnobrązowa, grudkowata ziemia, przemieszana z małymi kamieniami; 5. jasna, brązowo-szara, zbita ziemia; 6. jasna, brązowoszara, sypka ziemia, przemieszana z małymi kamieniami; 7. ciemna, szarobrązowa, jednolita ziemia; 8. szarobrązowa ziemia, przemieszana z popiołem, kawałkami węgla drzewnego i kamieniami.

On the south, Kiln K 5 is limited by Wall 150 – which was built several dozen centimetres from the wall limiting the house on the south. On the west, there is a stone wall that was added to the earlier W 152 and made of two large stone blocks. By contrast, on the east, the kiln was restricted by a wall made of clay bricks. At a height of 0.5 m above the kiln base, there was an additional inlet. It may have been used to control the temperature inside the kiln during the firing process.

The walls of the kiln formed a structure measuring about 3.2 × 3 m (Fig. 17). Only the lower chamber of the kiln has been well preserved, while the upper parts of the walls of the structure collapsed. Fragments of bricks were found not only inside the kiln, but also near it. Beside the eastern and western walls of the kiln, remains of a grate were discovered. Inside the kiln, on the western and eastern sides, characteristic narrowings for fixing the grate were preserved. Between them, there is a 0.8 m wide canal.¹⁵ Inside it, a considerable number of semicircular bricks

from the kiln dome as well a layer of soil mixed with a large amount of ash and single pottery fragments were found.¹⁶ The walls of the kiln were covered with mortar on the inside. Inside the canal, the bottom of the chamber is a floor made of hardened clay reinforced with single stones.¹⁷ The characteristic structure of the kiln suggests that it was used to fire bricks.¹⁸

The area around the kiln is characterised by different levels of occupation (Unit 53/10, height 28.90–28.66 m a.s.l.) situated directly above the rock. The irregular shape of the rock was completed by small stones to obtain the requested support for the levels of occupation (CD Fig. 14).

The kilns for firing bricks and other terracotta items (vessels, pipes etc.) were most often located near water intakes due to production reasons and the situation is analogous in this case as well. Near Kiln K 5, two cisterns were found, namely C 8 and C 9. The former (C 8) is located in Room R 73 (Fig. 3), which was directly

¹⁵ Cf. D.P.S. PEACOCK, F. BEJAOU, N. BEN LAZREG, *Roman Pottery Production in Central Tunisia*, “Journal of Roman Studies” 3, 1990, 59–84.

¹⁶ It is a frequent phenomenon. The kiln is cleared after the last firing, only the material found in direct proximity can be a useful dating element, cf. R.G. GOODCHILD, *Roman Sites on the Tarhuna Plateau of Tripolitania*, (in:) J. Reynolds (ed.), *Libyan Studies*.

Select Papers of the Late R.G. Goodchild, London 1976, 88.

¹⁷ An analogous kiln was found in nearby Tocra, cf. A.M. BUZAIAN, *Excavations in Tocra*, “Libyan Studies” 31, 2000, 59–102.

¹⁸ M. JEREMIĆ, *Brick Kilns...* (cf. note 11), 131–153. Generally on the production of bricks e.g. R. KURZMANN, *Roman Military Stamps, A Comparison of Methodology*, BAR International Series 1543, Oxford 2006, 7–21.



Fig. 13. Rectangular pool (impluvium) in the courtyard R 68 (Photo Polish Archaeological Mission to Ptolemais).
Ryc. 13. Impluvium na dziedzińcu R 68



Fig. 14. General view of Trench H 2 from SE (Photo Polish Archaeological Mission to Ptolemais)
Ryc. 14. Ogólny widok wykopu H 2 od SE.

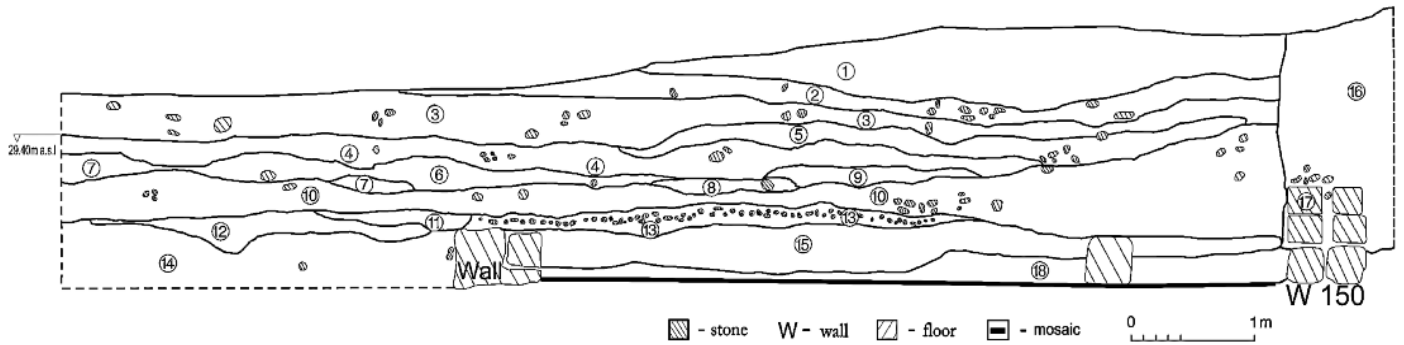


Fig. 15. Trench H 2 (CXCI 93, FI 3), SW section, layers: 1. greyish brown compacted soil; 2. light brown loose soil mixed with small stones; 3. greyish brown compacted soil mixed with a large amount of pottery fragments and with stones of various sizes; 4. loose brown soil; 5. greyish red soil mixed with a large amount of very small stones; 6. loose greyish brown soil mixed with ash; 7. greyish brown loose soil with a small amount of small stones; 8. loose brown soil mixed with a large amount of ash and pieces of charcoal; 9. light greyish brown compacted soil; 10. greyish brown compacted homogeneous soil mixed with a small amount of medium-sized stones; 11. brownish grey compacted soil; 12. dark brownish grey compacted soil; 13. reddish brown soil mixed with a very large amount of very small stones (gravel); 14. brown compacted soil; 15. dark brownish grey compacted soil; 16. loose reddish brown soil mixed with stones of various sizes (cut); 17. Wall W 150; 18. dark reddish brown compacted soil (a layer of accumulation above the paved floor-mosaic) (Drawing J. Balcerzak, A. Klimek, elaborated by S. Lenarczyk).

Ryc. 15. Wykop H 2 (CXCI 93, FI 3), profil SW, warstwy: 1. szarobrazowa, zbita ziemia; 2. jasnobrazowa, sypka ziemia, przemieszana z malymi kamieniami; 3. szarobrazowa, zbita ziemia, przemieszana z duza iloscia fragmentow ceramiki oraz kamieniami roznej wielkosci; 4. brazowa, sypka ziemia; 5. szaroczerwona ziemia, przemieszana z duza iloscia malych kamieni; 6. szarobrazowa, sypka ziemia, przemieszana z popiolem; 7. szarobrazowa, sypka ziemia, przemieszana z niewielka iloscia malych kamieni; 8. brazowa, sypka ziemia, przemieszana z duza iloscia popiolu i kawalkami węgla drzewnego; 9. jasna, szarobrazowa, zbita ziemia; 10. szarobrazowa, jednolita i zbita ziemia, przemieszana z niewielka iloscia kamieni sredniej wielkosci; 11. brazowoszara, zbita ziemia; 12. ciemna, brazowoszara, zbita ziemia; 13. czerwobrazowa ziemia, przemieszana z duza iloscia bardzo drobnych kamieni (zwiru); 14. brazowa, zbita ziemia; 15. ciemna, brazowoszara, zbita ziemia; 16. czerwobrazowa, sypka ziemia, przemieszana z kamieniami roznej wielkosci (wkop); 17. mur W 150; 18. ciemna, czerwobrazowa, zbita ziemia (akumulacja nad mozaika).

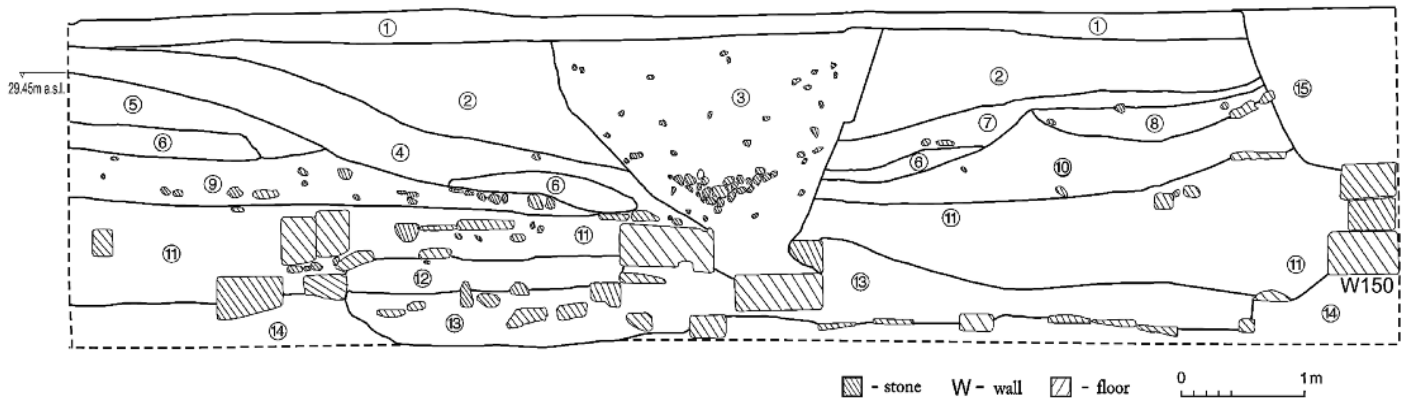


Fig. 16. Trench H 2 (FI 3), NW section, layers: 1. greyish brown compacted soil; 2. light greyish brown loose soil mixed with small stones; 3. light brownish grey loose soil mixed with a large amount of small stones and pottery fragments; 4. greyish red loose soil with a large amount of small stones; 5. grey compacted soil with a large amount of pottery fragments; 6. greyish red soil mixed with a large amount of very small stones (gravel); 7. light brownish grey compacted soil with a small amount of stones; 8. brown compacted clayey soil; 9. grey compacted soil with greyish red insertions and a large amount of large stones and large pottery fragments; 10. light brown loose soil mixed with a large amount of small stones; 11. greyish brown compacted homogeneous soil mixed with a small amount of medium-sized stones; 12. brown compacted homogeneous soil; 13. dark brownish red soil with small fragments of bricks; 14. dark brownish red compacted soil; 15. brownish grey compacted soil (Drawing A. Kaliszewska, K. Żebrowska, elaborated by S. Lenarczyk).

Ryc. 16. Wykop H 2 (FI 3), profil NW, warstwy: 1. szarobrazowa, zbita ziemia; 2. jasna, brazowoszara, sypka ziemia, przemieszana z kamieniami malej wielkosci; 3. jasna, brazowoszara, sypka ziemia, przemieszana z duza iloscia malych kamieni i fragmentow ceramiki; 4. szaroczerwona ziemia, przemieszana z duza iloscia malych kamieni; 5. szara, zbita ziemia, przemieszana z duza iloscia fragmentow ceramiki; 6. szaroczerwona ziemia, przemieszana z duza iloscia bardzo drobnych kamieni (zwiru); 7. jasna, brazowoszara, zbita ziemia, przemieszana z niewielka iloscia kamieni; 8. brazowa, gliniasta i zbita ziemia; 9. szara, zbita ziemia, przemieszana z ziemia szaroczerwoną oraz duza iloscia kamieni i fragmentow ceramiki duzych rozmiarow; 10. jasnobrazowa, sypka ziemia, przemieszana z duza iloscia malych kamieni; 11. szarobrazowa, zbita, jednolita ziemia, przemieszana z mala iloscia sredniej wielkosci kamieni; 12. brazowa, zbita, jednolita ziemia; 13. ciemna, brazowoczerwona ziemia, przemieszana z fragmentami zniszczonych cegieł; 14. ciemna, brazowoczerwona, zbita ziemia; 15. brazowoszara, zbita ziemia.



Fig. 17. Kiln K 5 (Unit 55/10) during exploration, view from SE (Photo Polish Archaeological Mission to Ptolemais).

Ryc. 17. Piec K 5 (jedn. strat. 55/10) w czasie eksploracji, widok od SE.

connected with the room where Kiln K 5 was built (CDFigs. 15, 16). By contrast, the latter cistern (C 9), having a capacity of several dozen cubic metres, has an inlet situated directly in the floor of Room R 83 (CDFig. 17). It is conspicuous that the floor made of hydraulic mortar (Unit 52/10) overlaps the round mouth with very good preserved elements of closing of Cistern C 9, thus providing a clue to the relative chronology of both features. A preliminary exploration of the cistern (Unit 48/10) brought a huge amount of pottery vessels, also a few complete forms (cf. *infra*).

In the north-west part of the trench, near the baulk, adjacent to Wall W 174, about 2.5 m from Kiln K 5, another stone structure was found (Fig. 18). It consists of several walls and a stone paving between them. In this area, many distinctive thin layers of ash and soil mixed with charcoal were noticed (Unit 42/10 and 49/10, height 29.46–29.06 m a.s.l.) (CDFig. 18). They are also well visible in the section of the baulk (Fig. 19). Remains of probably the same structure (about 1.8×3 m) were also found near the courtyard, above Wall W 155 and it was most probably related to craft activity carried out nearby. This room (a workshop?) is situated immediately next to the

southern border of the courtyard R 68 and it is delimited by three short walls. Three regular stone blocks have been preserved from the eastern wall (W 174), although it probably ran further, along the regular border of the mortar floor in Room R 83. The northern and southern walls are made of a greater number of stone blocks of different sizes bonded with mortar, coming from earlier structures and used secondarily, which is proved, e.g., by a fragment of a stone threshold (CDFigs. 19, 20).

The walls are founded on a paved floor preserved within the area of a few metres which is made of middle-sized stones fitting tight together. The floor was laid on a layer of tamped soil about 0.3 m above the rock. The continuation of the stone paving is visible under the floor of the adjacent Room R 83 (which may prove that both the paved floors were built chronologically at the same time or earlier in the case of the workshop). On the west, the workshop was not limited by any wall, and there was a 0.8 m wide entrance leading inside. The north-western part of the workshop was not uncovered because it is covered by a baulk that was left there (Baulk 14).

In the northern wall of the room, there was a small stone with a shallow hole carved in it, considerably worn out



Fig. 18. View of Trench H 2 and Baulk 14 from SE (Photo Polish Archaeological Mission to Ptolemais).

Ryc. 18. Widok wykopu H 2 i świadka 14 od SE.

on the inside, which probably served to fix a potter's wheel.¹⁹ The stone is located at a height of about 0.25 m, so it was easily possible to put a small wheel for producing pottery on it, although no elements of a potter's wheel have been found there so far.

On the opposite side of Wall W 174, a surface of hydraulic mortar was found (Unit 52/10, height 29.15–29.06 m a.s.l.), delimited on the east by Wall W 173 (CDFig. 21). It should be noted that this surface is rounded down on two sides. So, presumably, it is not a simple floor (Room R 83), but some kind of platform connected with surrounding workshops. Exploration demonstrated that not only the kiln construction was situated on the rock

but also its surroundings were organised in relation to the natural rock shape, beneath the original floors of the earlier phase of the house.

Cistern C 8 in Room R 73

During the 2010 campaign, it was impossible to examine Cistern C 9 in Room R 83 because it was discovered at the end of the excavations and only a preliminary analysis of its fill was conducted. Even so, it was possible to partly explore Cistern C 8, located in Room R 73, in the area studied in Spring 2008,²⁰ where a number of structures related to craft activity in the Late Antique Period in the ruins of an earlier house were found.

¹⁹ Analogous blocks with similar carved holes were found e.g. in the nearby city of Taucheira, cf. J.A. RILEY, *Excavations of a Kiln Site at Tocra, Libya in August 1974*, "Libya Antiqua" 13–14 (1976–1977), 1977, 265, pl. LXVII:b; J. L. COMBES, A. LOUIS,

Les Potiers de Djerba, Tunis 1967, 49, fig. 117.

²⁰ Cf. J. ŻELAZOWSKI ET AL., *Polish Archaeological Research...*(cf. note 8), 12–13.

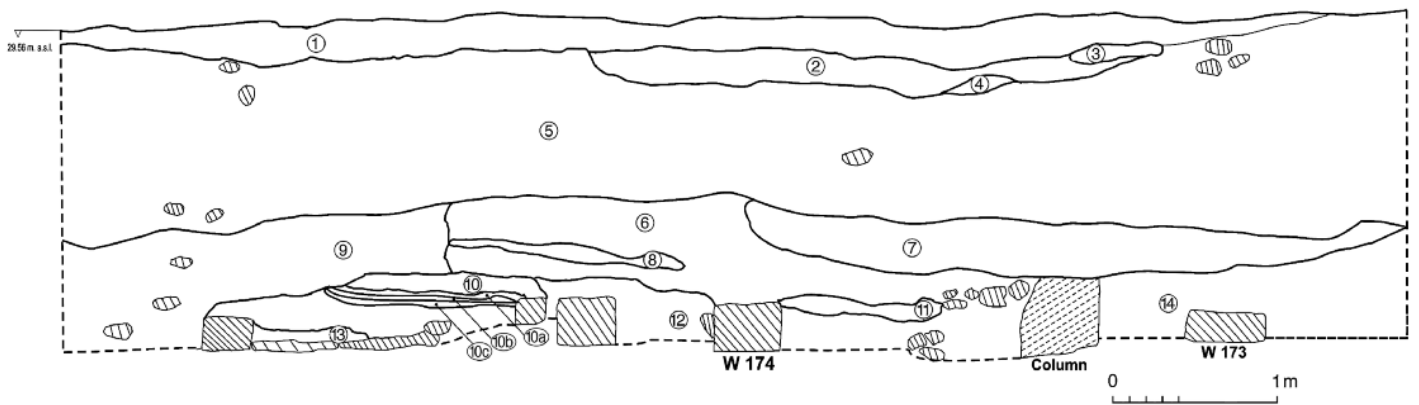


Fig. 19. Trench H 2 (CXCI 93, FI 2), SE section of Balk 14, layers: 1. pale brown compacted soil with stone insertions; 2. compacted brown soil; 3. brown soil mixed with ash; 4. soil mixed with ash and charcoal fragments; 5. brown loose soil; 6. pale brown clayey soil with insertions of lenses of light grey ash; 7. brown soil mixed with stones; 8. soil mixed with ash and small charcoal fragments; 9. light brown compacted soil; 10. reddish clay mixed with layers of ash; 10a. soil mixed with ash; 10b. soil mixed with ash and small pieces of charcoal; 10c. soil mixed with ash; 11. soil mixed with small pieces of charcoal; 12. reddish brown clay; 13. soil mixed with small charcoal pieces; 14. brown compacted soil (Drawing M. Bajtler, A. Kaliszewska, elaborated by S. Lenarczyk).

Ryc. 19. Wykop H 2 (CXCI 93, FI 2), profil SE świadka 14, warstwy: 1. jasnobrązowa, bardzo zbita ziemia, przemieszana z dużą ilością kamieni; 2. brązowa, zbita ziemia; 3. brązowa ziemia, przemieszana z popiołem; 4. ziemia przemieszana z popiołem i kawałkami węgla drzewnego; 5. brązowa, sypka ziemia; 6. jasnobrązowa, gliniasta ziemia z soczewkami jasnoszarego popiołu; 7. brązowa ziemia przemieszana z kamieniami; 8. ziemia przemieszana z popiołem i niewielkimi kawałkami węgla drzewnego; 9. jasnobrązowa zbita ziemia; 10. czerwona glina przemieszana z warstwami popiołu; 10a. ziemia przemieszana z popiołem; 10b. ziemia przemieszana z popiołem i kawałkami węgla drzewnego; 10c. ziemia przemieszana z popiołem; 11. ziemia przemieszana z niewielkimi kawałkami węgla drzewnego; 12. czerwobrązowa glina; 13. ziemia przemieszana z niewielkimi kawałkami węgla drzewnego; 14. brązowa, zbita ziemia.

Cistern C 8 (CD Figs. 15, 16) is situated in the south-eastern corner of R 73 (diameter inside 0.90 m). The mouth of the octagonal form was constructed with irregular stone blocks, some irregular stones and a layer of mortar. It should be emphasised that the form of the inlet is definitely different than in the other cisterns, which may have resulted from its late construction. The cistern is funnel-shaped, and has a diameter of about 0.92 m in the upper part, and its exploration was finished at a depth of about 1.5 m. The material documented inside the cistern indicates that it was used in the Late Roman Period, probably from the end of the 4th c. to the 6th c. AD.²¹

The cistern was filled with soil, small stones, Mid- and Late Roman pottery, animal bones, a layer of unfired

clay with some fragments of unfired vessels and fragments of bricks. A damaged fragment of an architrave with dentils and a small, broken fragment of a column base were also found in the cistern. The following layers of the fill were identified: Unit 02/10 = Unit 20/08 – destruction layer, greyish brown soil; Unit 05/10 – destruction layer, reddish brown soil with a layer of stones mixed with charcoal, lintel; Unit 08/10 – light brown soil mixed with unburnt clay;²² Unit 24/10 – a layer of unfired clay mixed with unfired fragments of vessels, albeit very small ones.²³

Wall W 21

The construction of the walls of the houses in insula E XXI was variegated. Although generally they were made of stone blocks, the upper parts of the walls were

²¹ Cf. *infra*. A coin from the cistern found in 2008 (cn/044/08) dated the archaeological assemblage to the end of the 4th and early 5th c. AD – J. ŻELAZOWSKI ET AL., *Polish Archaeological Research...* (cf. note 8), 13.

²² Within Unit 08/10, a fragment of a lamp with a depiction of a small animal (a dog?) on a disc (inv. No. I/032/10) and a frag-

ment of a lamp mould (inv. No. I/118/10) were documented (Fig. 8:8,9).

²³ In the layer Unit 24/10, an almost completely preserved lamp (inv. No. I/055/10) with a depiction of a woman (?) was found (Fig. 8:10).



Fig. 20. Wall W 21 before exploration, view from Room R 17 (Photo Polish Archaeological Mission to Ptolemais).

Ryc. 20. Mur W 21 przed eksploracją, widok z pomieszczenia R 17.

often built of dried bricks, most of which were not preserved but whose shapes were impressed in the layers of plaster that were put on them. In the wall as well, stone blocks were often located only in several rows in the lower part, they were sometimes placed higher in the form of pillars, which clearly had a load-bearing function as a support for joists.²⁴ By contrast, the space above the stone wall socle and between the pillars was filled with compacted soil with a large amount of clay. The wall built in this manner was

called *paries formaceus* by Pliny the Elder²⁵ and it was a fairly common technique in the housing industry in the Roman times, known in Africa as well.²⁶ It is worth emphasising that its employment did not result from the unavailability of worked stone, but it was dictated by the wall insulation reasons. Even so, considering the fact that stone blocks were repeatedly and carefully used secondarily in houses in Ptolemais and in Cyrenaica in general, “economising” on stone while building walls was not without significance.²⁷

²⁴ Cf. J.-P. ADAM, *L'arte di costruire presso i Romani. Materiali e tecniche*, Milano 1984, 131–132; C.F. GIULIANI, *L'edilizia nell'antichità*, Roma 1990, 106–110.

²⁵ Plin. HN, 35, 169: *Non in Africa Hispaniaque e terra parietes, quos appellant formaceos, quoniam in forma circumdati duabus utriusque tabulis inferciuntur verius quam struuntur, aavis durant, incorrupti imbribus, ventis, ignibus, omnique caemento firmiores? (...) Illini quidem crates parietum luto et lateribus crudis extrui quis ignorat?* (ed. S. Ferri, Milano 2000, 263–264).

²⁶ Cf. S. AURIGEMMA, *Tripolitania*, vol. I, 2: *Le pitture d'età romana*, Roma 1962, 30–32; J.A. LLOYD (ed.), *Excavations at Sidi Krebsh, Benghazi (Berenice)*, vol. 1, Supplements to Libya Antiqua V, Tripoli 1977, 85–87.

²⁷ Cf. M. REKOWSKA-RUSZKOWSKA, *Architectural Decoration of the House of Leukaktios: Preliminary Remarks*, (in:) J. Żelazowski (ed.), *Ptolemais in Cyrenaica. Studies in Memory of Tomasz Mikocki*, forthcoming.

In order to learn more about this type of wall construction, the fill of Wall W 21 was explored during the 2010 campaign, especially as it eroded gradually due to cyclical rains (Fig. 18). The wall (3.64 m of length) is located between two small rooms R 12 and R 17 in the northern part of the House of Leukaktios (are BC 90). Both faces of Wall W 21 were covered with paintings, preserved in small fragments and the scheme was to alternate panels and interpanels of different colours in the central register of the wall decoration.²⁸

Wall W 21 is set on the stone socle (height c. 0.3 m) and above the shuttering was filled in with mixed soil, clay and other small-sized materials (CDFigs. 22, 23). The filling consisted of brownish soil mixed with clay, charcoal and cinder, small stones, pottery and others. Its content was sieved and grouped into various categories: pottery, animal bones, metals, glass, paintings and others (tesserae, a bead).

The most numerous group is pottery, characterised by small fragments. After a preliminary analysis, it is possible to distinguish fragments of terra sigillata, coarse ware (dated to the Early and Mid-Roman Period), amphorae and lamps.²⁹

Animal bones are represented by a large amount of very small pieces. We can note remains of sheep, goat, cattle, pig, horse and birds. A fragment of a bone pin (inv. No. b/003/10, Fig. 6:31) was documented as well. Metal finds included six nails (inv. Nos. mt/003/10, mt/017/10, mt/030/10, mt/036/10, mt/043/10, mt/046/10, Fig. 6:8,9, 11,12), two small bronze coins (inv. Nos. cn/003/10, cn/013/10), one bead (inv. No. oth/008/10, Fig. 7:5), a half of an unidentified metal ring (inv. No. mt/016/10, Fig. 6:6) and one metal find, flat in the central part and bent at one end (found in several fragments, inv. No. mt/028/10, Fig. 6:1). A couple of fragments of non-diagnostic glass vessels were found. Obviously, after a more detailed study, all these finds may provide additional clues to the chronology of the wall, but above all, they indicate that the soil used as the fill was not particularly refined.

Pottery from excavations

(Zofia Kowarska, Szymon Lenarczyk)

Fine wares

Fine pottery finds included fragments of Late Hellenistic, Roman and Early Byzantine date. Hellenistic pottery was represented by fragments of imported black glazed pottery and local wares. A small amount of terra sigillata, red slip wares (mainly African Red Slip Ware) and related pottery fragments, from different production centres, was also found.³⁰

Coarse pottery³¹

Excavations in the Autumn 2010 season brought a huge amount of coarse pottery finds (Figs. 7, 21, 22). The upper destruction layers contained a large quantity of different categories of pottery fragments dated to different archaeological periods. Almost all the artefacts have been preserved only fragmentarily, most of them are not so-called diagnostic fragments, mainly of amphorae, jugs or cooking pots. The majority of pottery fragments from Polish excavations could be identified by comparing with analogous finds from the excavations at Sidi Khrebish (Berenice, modern-day Benghazi).³² Analogies from sites in Cyrenaica (except Berenice, also Taucheira)³³ are also a basis of dating the coarse ware from Ptolemais, because the identification of forms on the basis of the archaeological context is rarely possible due to considerable mixing of material in the destruction layers.

Main categories of fine and coarse pottery are present and they belong to periods from Hellenistic and Early Roman, through Mid- and Late Roman, up to Byzantine, however, most finds are vessel forms dated to the Mid-/Late Roman Period, which reflects the period of usage of the examined rooms. The coarse pottery finds were divided into basic functional categories. In general, most of coarse pottery forms fit into types recognised at Sidi Khrebish:

- **cooking wares** (Hellenistic shallow cooking pots with a wide variety of shapes, cf. D 416–421, Early Roman

²⁸ Cf. J. ŻELAZOWSKI, *The Painted Decoration of the House of the Atrium*, (in:) J. ŻELAZOWSKI ET AL., *Polish Archaeological Research...* (cf. note 8), 22.

²⁹ Including a fragment with a depiction of a human face on a disc (inv. No. l/002/10) and other small fragments of lamps (inv. Nos. l/001/10, l/007/10, l/011/10, l/015/10, l/017/10, l/018/10, Fig. 8:1,2,5–7).

³⁰ The fine ware pottery material from the Polish excavations at Ptolemais are being studied by Krzysztof Domżański.

³¹ On the coarse pottery from Ptolemais see also: Z. KOWARSKA, S. LENARCZYK, *Preliminary Remarks on Coarse Pottery from Polish Excavations in Ptolemais*, (in:) J. Żelazowski (ed.), *Ptolemais...* (cf. note 27).

³² The terms referring to the chronology of coarse wares as well as references to specific forms follow the ones developed for Sidi Khrebish owing to the similarity of shapes occurring at both sites, cf. J.A. RILEY, *Coarse Pottery...* (cf. note 10), 91–467.

³³ Cf. J.A. RILEY, *Coarse Pottery...*; idem, *Excavations of a Kiln...* (cf. note 19), 235–259.

- globular cooking pots cf. D 492 (**Fig. 21:17**), Mid-Roman carinated cooking pots, cf. D 501–508 (**Fig. 21:9,13,16**) and Mid-Roman corrugated cooking pots, cf. D 515–522 (**Figs. 7:10,12, 21:10–12,14,15**), Late Roman cooking pots made of very coarse fabric, cf. D 538–542³⁴ (**Figs. 7:14–16, 21:18,19,21–24**), D 546–549, D 581, D 584); and presumably some fragments of Pompeian Red Slip Cooking Ware (pans, lids);
- **plain wares/table wares** (most of them recognised as rims of bowls or dishes, Hellenistic plain wares, cf. D 593, D 611–614, D 602–605, D 645, Early Roman plain wares, cf. D 814, D 829 and D 845, Mid-Roman plain wares, cf. D 875–877, D 879, D 890, D 893–D 895, D 951 (**Fig. 22:17**)³⁵ and bucket-like vessels (or situlae), cf. D 900–902 (**Figs. 7:18, 22:9**);
 - **jugs** (Hellenistic jugs, cf. D 1094, D 1102, D 1103, D 1116, Mid-Roman jugs (**Fig. 22:6–8**), e.g., a jug with a trefoil mouth, cf. D 1145–1146 and D 1150, D 1151) and Late Roman jugs with flat bases (**Figs. 7:2–4, 21: 1–4**);
 - **amphorae** – there were found a huge number of amphora body sherds and many examples of rims, bases and handles dated to different periods (Hellenistic amphorae, cf. D 47–52, D 86; Early Roman amphorae, cf. D 113, D 118, D 114, D 125, D 137, D 143, D 178, D 196; Mid-Roman amphorae, cf. D 222, D 223, D 243, D 266, D 301 and Late Roman amphorae, cf. D 349, D 354, D 374, D 384, **Fig. 7:1**);

- **lids** – they are usually small fragments, most of them have not been preserved completely cf. D 761, D 762, D 763, D 787, D 797, D 798;
- **mortaria** of Early Roman type – two fragments of rims, cf. D 671–679, and rim fragments recognised as presumably North Syrian mortaria with a distinctive fabric;³⁶
- **dolia** – several fragments of unstamped rims cf. D 749–751³⁷ and some fragments of bases (**Fig. 22:10–12**);
- **Late Roman unguentaria**³⁸ – two fragments (one unstamped base and one body fragment, cf. D 1030, D 1034–35, **Figs. 7:17, 21:26**);
- **pot stands** (similar to D 959, **Fig. 22:17–18**);
- **brazier lugs** (**Fig. 7:13, 22:20**);³⁹
- **other clay-made forms**, including tiles (tegula and imbrex type);⁴⁰ and loom weights (five discoidal weights, cf. D 739, **Figs. 7:5–9, 22:13–16**).

Despite a considerable number of fragments of pottery dated to the Hellenistic and Early Roman Periods, the most frequent and best preserved fragments belong to the broadly defined Mid-Roman Period and, albeit to a lesser extent, the Late Roman Period.

The best defined and identified group of Mid-Roman vessels consists of characteristic globular pots with various types of rims, particular types of jugs and fragments of large bowls and bucket-like vessels. An additional feature of cooking vessels and jugs typical of this period is ribbing on outer walls of many of the types.

³⁴ Cf. A.M. BUZAIAN, *Excavations at Tocra (1985–1992)*, “Libyan Studies” 31, 2000, 91, fig. 36:17; J.A. RILEY, *Islamic Wares from Ajdabiyah*, “Libyan Studies” 13, 1982, 95–97, fig. 6:41,45; J. DORE, *The Coarse Pottery*, (in:) M. Fulford, M. Hall (eds.), *Excavations at Sabratha 1948–1951, Vol II. The Finds, Part I, The Amphorae, Coarse Pottery and Building Materials*, Tripoli 1989, figs. 61:299.3717, 64:299.2337.

³⁵ Very characteristic are forms resembling D 951 (a rim whose top surface is covered with impressions forming a wavy line), J.A. RILEY, *Excavations of a Kiln...* (cf. note 19), 249–250, Type C1, fig. 6:26,29,30.

³⁶ Early Roman imported mortaria, cf. J.A. RILEY, *Coarse Pottery...* (cf. note 10), figs. 112, 113, types: D 667, D 669, D 679, D 681; on ‘North Syrian Mortaria’: J.W. HAYES, *North Syrian Mortaria*, “Hesperia” 36, 1967, 337–347; A.G. YANAGAKI, *North Syrian Mortaria and Other Late Roman Period Personal and Utility Objects Bearing Inscriptions of Good Luck*, “BYZANTINA SYMMEIKTA” 19, 2009, 247–287; J. DORE, *The Coarse Pottery...* (cf. note 34), 198–199, fig. 54:228,230,232.

³⁷ Few fragments of vessels identified as dolia have been found at

the site so far, which makes it difficult to create a precise typology of them.

³⁸ Forms which functioning is dated to c. AD 525–650, cf. J.W. HAYES, *A New Type of Early Christian Ampulla*, “The Annual of the British School at Athens” 66, 1971, 243–255; on the Late Roman unguentaria from Ptolemais: Z. KOWARSKA, *Late Roman Unguentaria from the Polish Excavations at Ptolemais*, (in:) J. Żelazowski (ed.), *Ptolemais...* (cf. note 27).

³⁹ Cf. J.A. RILEY, *Coarse Pottery...* (cf. note 10), fig. 113:D 692, D 696; S. MASSA, *Il vasellame d'uso commune a Cirene tra l'età ellenistica e la fine dell'età romana*, (in:) M. Luni (ed.), *Cirene “Atene d’Africa”*, Monografie di Archeologia Libica XXVIII, Roma 2006, figs. 1, 2; J. DORE, *The Coarse Pottery...* (cf. note 34), 136, fig. 38. About Hellenistic braziers see also: M. SAHIN, *Hellenistic Braziers in the British Museum: Trade Contacts between Ancient Mediterranean Cities*, “Anatolian Studies” 51, 2001, 91–132; M.R. LEONARD, *Braziers in the Bodrum Museum*, “American Journal of Archaeology” 77, 1973, 19–25.

⁴⁰ A total number of 26 roof tile fragments have been found. Among them, 8 are imbrex fragments, the other 18 are tegulae fragments. No complete examples have been found.

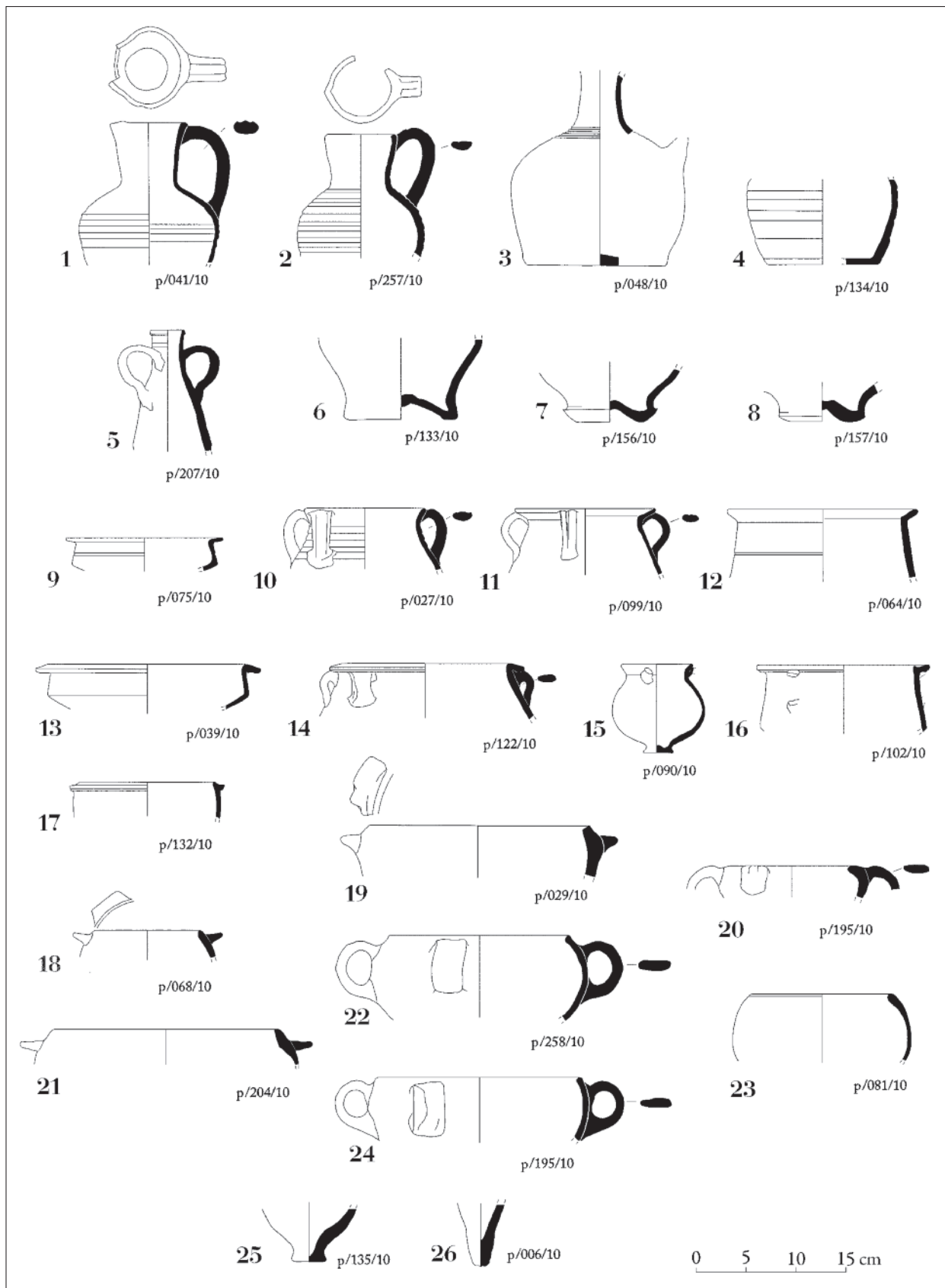


Fig. 21. Selected fragments of pottery vessels from the 2010 season of excavations (Drawing A. Kaliszewska, A. Klimek, Z. Kowarska, K. Szajkowska, elaborated by Z. Kowarska).

Ryc. 21. Fragmenty wybranych naczyń ceramicznych z sezonu badawczego 2010.

It is interesting that almost identical vessel types occur at the same time at other sites in Cyrenaica, which is probably connected with some change in the manufacture process in the discussed period.⁴¹ It is almost certain that the shape of vessels manufactured in Cyrenaica was influenced significantly by those produced in the Aegean Sea basin, which is proved by the very similar vessel forms.⁴²

What turned out to be most interesting for the study of the pottery documented during the excavation research conducted in 2010 and particularly for the identification of the forms of Late Roman vessels was the fills of two cisterns: C 8 and C 9.

The fill of Cistern C 8

During the exploration of Cistern C 8, in Room R 73, a thick layer of unfired clay was found (Unit 24/10). There were also some fragments of unfired pottery vessels – handles and fragments of amphorae/jugs or cooking ware bodies. About twenty small fragments of unfired vessels and one unfired base of an amphora were also found near the kiln area (Trench H, FI 2, Units 36/10 and 45/10). This clay, or already “fabric,” is very similar to the unfired clay deposits and unfired pottery fragments which were found in Storage Vats V1 and V2 in the previous season of excavations (in 2009).⁴³

In the layer of unfired clay (Unit 24/10), a dozen or so fragments of pottery were found, i.a. a bottom together with the lower part of the body of a jug dated to the Late Roman Period (inv. No. p/048/10, **Figs. 7:4, 21:3,4**) and the lower part of a Late Roman jug/flagon of a shape similar to the form D 1196–D 1198 from Berenice. Despite the lack of an exact analogy to this jug, it can be assumed that it belongs to the type of Late Roman flagons with flat bottoms (inv. No. p/044/10).⁴⁴

In the layers above (Units 02/10, 05/10, 08/10), several dozen fragments of coarse ware pottery were found, most of them non-diagnostic, as well as a dozen or so small fragments of fine pottery, including terra sigillata.

In the layer Unit 05/10, there was found a large fragment of a small jug (the rim together with the neck, the handle and a large part of the body, inv. No. p/041/10), similar in terms of shape and size to the Late Roman Jug No. D 1195 from Berenice (**Figs. 7:3, 21:1**).

In spite of the fact that fragments of pottery dated to the Late Roman Period prevailed in the cistern, which indicates the final moment of its usage, the ceramic material included fragments of Early Roman and Hellenistic pottery. Their small sizes and considerable chronological diversification prove that they found their way there rather accidentally. In the layer Unit 05/10, a small fragment of

⁴¹ Cf. J.A. RILEY, *Industrial Standardisation in Cyrenaica during the Second and Third Centuries A.D.: The Evidence from Locally Manufactured Pottery*, “Libyan Studies” 11 (1979–1980), 1980, 73–78.

⁴² J.A. RILEY, *Coarse Pottery...* (cf. note 10); idem, *Excavations of a Kiln...* (cf. note 19); J.W. HAYES, *The Villa Dionysos Excavation, Knossos: The pottery*, “The Annual of the British School at Athens” 78, 1983, 97–169; figs. 5–8, 10–11, 14–16; similar and similarly dated (2nd–3rd c. AD) vessel shapes appear at the Athenian Agora as well, H.S. ROBINSON, *The Athenian Agora. Results of Excavations Conducted by the American School of Classical Studies at Athens*, vol. V: *Pottery of the Roman Period, Chronology*, Princeton 1959, pls. 7, 11, 13, 14, 24, and are a part of the cargo of ships, cf. so-called Eastern Coarse Ware, M. JURIŠIĆ, *Ancient Shipwrecks of the Adriatic. Maritime Transport during the First and Second Centuries AD*, BAR Int. Ser. 828, Oxford 2000, 34–38, figs. 21–24, 30–32, 36. Cooking vessels similar to those found in Ptolemais also appear in Sparta, but they are dated to the beginning of the 5th c. AD, cf. C. PICKERSGILL, P. ROBERTS, *New Light on Roman Sparta: Roman Pottery from the Sparta Theatre and Stoa*, “The Annual of the British School at Athens” 98, 2003, 549–597, figs. 16, 17. The Aegean origin of the patterns for certain forms of vessels produced in Cyrenaica is proved by the current knowledge of the trade exchange in this area, cf. J.A. RILEY, *Coarse Pottery...*, 404–418; M.G. FULFORD,

To East and West: the Mediterranean Trade of Cyrenaica and Tripolitania in Antiquity, “Libyan Studies” 20, 1989, 169–191.

⁴³ Cf. Z. KOWARSKA, S. LENARCZYK, *Storage Vats from the Excavated Houses*, (in:) J. ŻELAZOWSKI ET AL., *Polish Archaeological Research...* (cf. note 8), 17–18.

⁴⁴ What is characteristic of the fills of both cisterns (C 8 and C 9) is the forms similar to Late Roman jugs (nos. D 1195–1202) known from Berenice, as well as from many other Late Antique deposits in the eastern part of the Mediterranean Basin. Similar jugs occur, e.g., in Taucheira, cf. A.M. BUZAIAN, *Excavations at Tocra (1985–1992)*, 89, fig. 34:11–13; Athens (in deposits dated to from the 5th c. to the early 7th c.), cf. H.S. ROBINSON, *The Athenian Agora...*, pl. 35: Groups N, M 362–366, and pl. 31: M321,322; in Corinth, cf. C.K. WILLIAMS II, J. MACINTOSH, J.E. FISHER, *Excavations at Corinth, 1973*, “Hesperia” 43, 1974, 1–76, pl.2:7,C-34-1592,C-34-1593,C-34-1591; in Paphos, J.W. HAYES, *Hellenistic and Roman Pottery Deposits from the ‘Saranda Kolones’ Castle Site at Paphos*, “The Annual of the British School at Athens” 98, 2003, 447–516, figs. 26:284 (?), 30:321, and G.F. BASS, F. H. VAN DOORNINCK, JR. (eds.), *Yassi Ada I. A Seventh-Century Byzantine Shipwreck*, Texas 1982, figs. 8, 9. According to Riley, a similar form occurs also in Apollonia, but it is unknown in Carthage. It often occurs in Berenice in deposits dated to from the beginning till the mid-6th c. AD, cf. J.A. RILEY, *Coarse Pottery...* (cf. note 10), 395, figs. 142, 143.

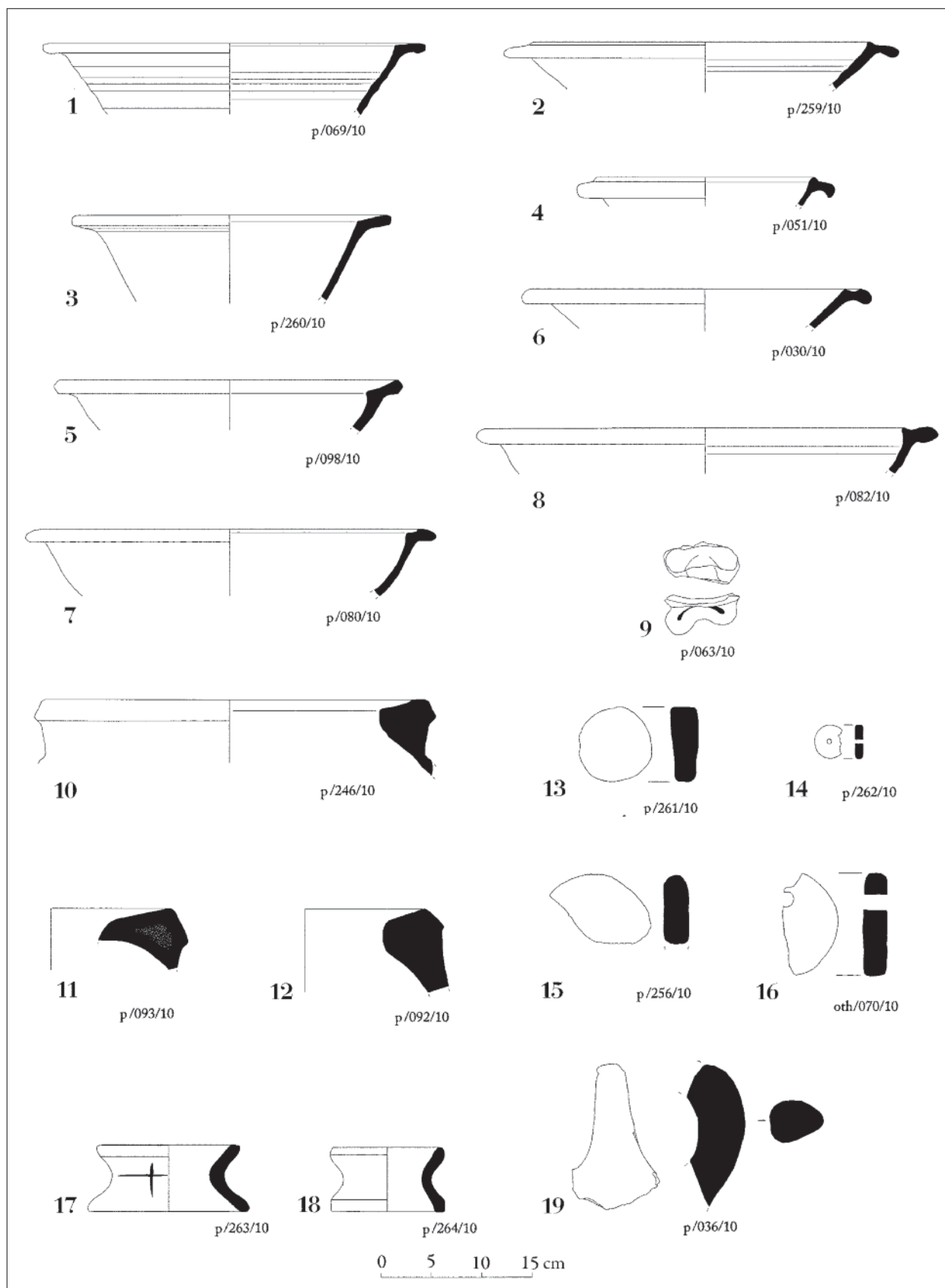


Fig. 22. Selected fragments of pottery vessels and other items made of clay from the 2010 season of excavations (Drawing A. Kaliszewska, A. Klimek, Z. Kowarska, K. Szajkowska, elaborated by Z. Kowarska).

Ryc. 22. Fragmenty wybranych naczyń ceramicznych oraz innych przedmiotów wykonanych z gliny z sezonu badawczego 2010.

the body of a Late Roman unguentarium (inv. No. p/005/10) was found, and in the layer Unit 08/10 – a coin (inv. No. cn/029/10).

The fill of Cistern C 9

The pottery found in the fill of Cistern C 9 (Unit 48/10) is relatively consistent chronologically, and several complete or almost complete vessel forms are analogous to the almost identical forms from Berenice-Benghazi.

Among them, there are i.a. fragments of amphorae: D 221 (Mid-Roman), D 384 (Late Roman) and two almost completely preserved table amphorae/flagons of different proportions, slightly similar to nos. D 1156–1158, D 1162 or D 1217.

There are also fragments of jugs, including: two complete small jugs of probably Late Roman date; with a flat base and a ribbon-shaped handle, (cf. the above-mentioned inv. no. p/041/10, **Fig. 7:2–4**),⁴⁵ a jug similar to D 1150, D 1151 (dated to the 2nd–3rd c.), a bottom with the body of a jug (cf. D 1212), as well as a trefoil jug/oinochoe, of medium size (cf. D 1145). What stands out among fragments of cooking vessels, is the fragments of pots similar to the Late Roman cooking pot D 547–550.

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⁴⁵ Cf. note 44.

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POLSKIE BADANIA ARCHEOLOGICZNE W PTOLEMAIS (LIBIA) 2010. RAPORT WSTĘPNY

W sezonie 2010 odbyły się w Ptolemais dwie kampanie. Wiosenna miała na celu dokończenie projektu dokumentacji wczesnochrześcijańskich bazylik, czemu towarzyszyły badania geofizyczne. Kampania jesienna była poświęcona kontynuacji wykopalisk w insuli E XXI. Prowadzono też dalsze badania geofizyczne uzupełniające mapę miasta antycznego, będącą, obok wykopalisk, istotnym elementem programu badawczego Polskiej Misji Archeologicznej Instytutu Archeologii UW w Ptolemais.

Prace wykopaliskowe miały na celu zbadanie południowo-wschodniego narożnika zabudowy ograniczonej od południa murem zewnętrznym W 150, a od wschodu – ulicą i łączącym wzdłuż niej murem W 157. Początkowo badano cały obszar, odsłaniając kolejny fragment W 157 i rodzaj kamiennej nawierzchni należącej do najpóźniejszych faz użytkowania tego rejonu insuli. Następnie ograniczono rozmiar wykopu do jego części zachodniej (ok. 1,5 ara), gdzie odsłonięto pozostały fragment dziedzińca R 68, znanego z wcześniejszych badań, wraz z łączącymi przy nim kilkoma pomieszczeniami.

Zidentyfikowano trzy poziomy zniszczeń powyżej płytowania dziedzińca, z niewielką ilością ceramiki, monet, fragmentów naczyń szklanych i wyrobów kościanych. Kamienne brzegi wyłożonego mozaiką geometryczną impluvium sugerują obecność kolumn podtrzymujących dach dziedzińca. W południowo-wschodnim narożniku tego płytkiego basenu odkryto mniejszy zbiornik kamienny, należący do wcześniejszej fazy, z którego woda odprowadzana była do cysterny niewielkim kanałem znajdującym się pod płytowaniem dziedzińca. W obrębie impluvium odkryto już wcześniej niewielki piec ceramiczny (K 4), który został zbudowany w okresie, kiedy dom przestał już funkcjonować, a jego ruiny były wykorzystywane do działalności rzemieślniczej, zapewne już w V w. n.e. W pobliżu (pomieszczenie R 66) znajduje się także inny, duży piec (K 3), wykorzystywany prawdopodobnie do wypału cegieł.

Na południe od dziedzińca pozostawiono świadek 14 i badano pomieszczenia leżące dalej na południe. Zarejestrowano tu podobną sekwencję stratygraficzną oraz dowody użytkowania opuszczonego domu w celach gospodarczych w postaci kolejnego, dużego pieca – K 5. W jego pobliżu odkryto kamienną konstrukcję, zapewne pozosta-

łości warsztatu ceramicznego. Jej mury, między którymi znajdował się kamienny bruk, zostały posadowione bezpośrednio na wcześniejszej posadzce, a na jej obszarze odkryto wiele poziomów popiołu i węgle drzewne. W pobliżu natrafiono na kamień z otworem, który mógł być podstawą koła garncarskiego. Pomiędzy murami W 173 i W 174 odsłonięto platformę z zaprawy hydraulicznej, dochodzącą do cysterny C 9 i zapewne związaną z działalnością warsztatu.

Zbadano wypełniska cysterny C 8 i częściowo – C 9. W C 8 znaleziono grubą warstwę czystej gliny i fragmenty niewypalonych naczyń, podobnie jak w 2009 r. w zbiornikach V 1 i V 2. Większość znalezisk pochodzi z okresu późnorzymskiego. Z kolei w C 9 odkryto szereg kompletnych lub prawie kompletnych naczyń środkowo- i późnorzymskich (m. in. oinochoe, dzbanki, amfore, naczynia kuchenne), znajdujących bliskie analogie w Berenice (Benghazi).

W trakcie jesiennej kampanii przebadano także wypełnisko muru W 21, znajdującego się w północnej części Domu Leukaktiosa. Konstrukcja ścian domów w insuli E XXI jest dosyć zróżnicowana. Często tylko cokół wykonany był z kamienia, natomiast wyższe partie wznoszone były z ubitej ziemi i cegły suszonej, ulegającej niestety szybkiej erozji na skutek silnych opadów deszczu. Pierwotnie mur W 21 pokryty był malowanym tynkiem – zachowały się tylko jego nieliczne fragmenty w dolnej części. Po przesianiu ziemno-glinianego wypełniska muru okazało się, że oprócz ziemi i gliny znajdują się w nim węgle drzewne, kamyki, drobne fragmenty ceramiki, kości zwierzęce, tessery, paciorek, fragmenty przedmiotów metalowych i in. Ceramikę datować można na okres wczesno- i środkoworzymski. Natomiast kości należały do ptaków, bydła, świń i koni. W konsekwencji należy przyjąć, iż ziemia wypełniająca górne partie ścian Domu Leukaktiosa, pozyskiwana zapewne w obrębie stanowiska, nie była oczyszczana, a znajdowane w niej zabytki są przypadkowe.

Mimo że wydarzenia w Libii uniemożliwiły kontynuację prac, to jednak należy wyrazić nadzieję, iż uda się przebadać pozostawiony w 2010 r. fragment południowo-wschodniego narożnika zabudowy w tej części insuli E XXI i tym samym zakończyć badania domu rozplanowanego wokół dziedzińca R 68.