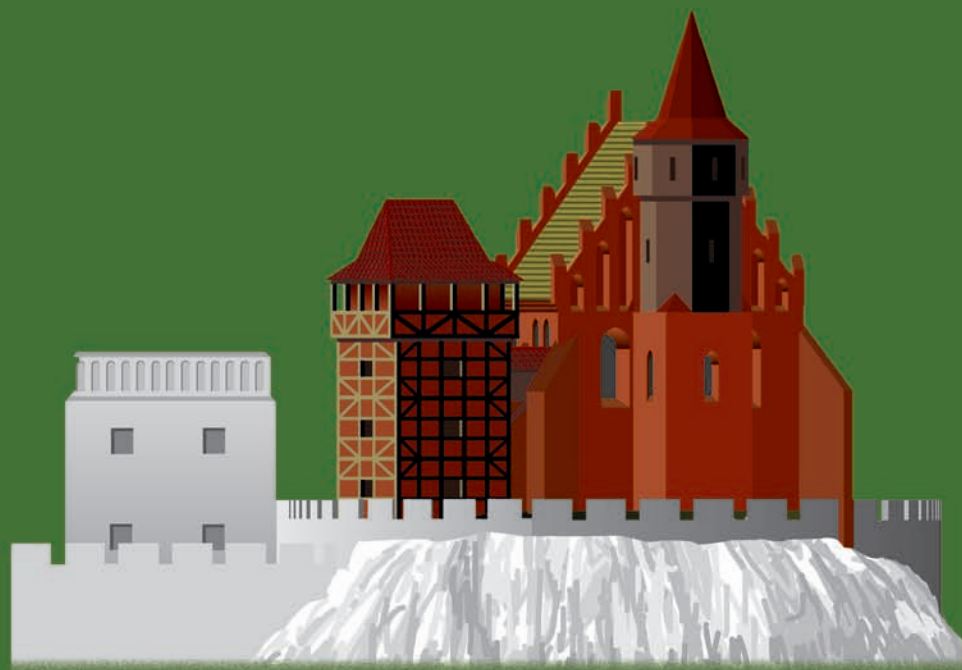


L'INSTITUT D'ARCHEOLOGIE
DE L'UNIVERSITE JAGIELLONNE
DE CRACOVIE

RECHERCHES ARCHEOLOGIQUES

NOUVELLE SERIE 2



KRAKÓW 2010

**L'INSTITUT D'ARCHEOLOGIE
DE L'UNIVERSITE JAGELLONNE DE CRACOVIE**

**RECHERCHES ARCHEOLOGIQUES
NOUVELLE SERIE 2**

KRAKÓW 2010

© Copyright by Institute of Archaeology of the Jagiellonian University, Kraków 2010

REDACTION

Marek Nowak

CONSEIL EN REDACTION

Jan Chochorowski, Krzysztof Ciałowicz, Piotr Kaczanowski, Janusz K. Kozłowski, Jacek Poleski,
Ewdoksia Papuci-Władyka, Joachim Śliwa, Paweł Valde-Nowak

COMITÉS DE LECTURE

Wojciech Blajer, Jan Chochorowski, Krzysztof Ciałowicz, Piotr Kaczanowski, Renata Madyda-
Legutko, Janusz Ostrowski, Ewdoksia Papuci-Władyka, Joachim Śliwa, Paweł Valde-Nowak

TRADUCTION

Piotr Godlewski, Romana Kielbasińska, Marta Kapera, Zbigniew Pisz et auteurs des articles

SECRETAIRE DE LA REDACTION

Marcin S. Przybyła

ILLUSTRATIONS

Urszula Bąk, Elżbieta Pohorska-Kleja, Urszula Socha et auteurs des articles

MAQUETTE DE COUVERTURE

Magdalena Dzięgielewska, Jacek Poleski

MISE EN PAGES

Magdalena Dzięgielewska

EN COUVERTURE

L'Eglise StMichel et le monastère paulinien à Cracovie dans le début du XVIIe siècle
(la reconstruction par J. Poleski)

ADRESSE DE LA REDACTION

Instytut Archeologii Uniwersytetu Jagiellońskiego, ul. Gołębia 11, PL 31-007 Kraków
<http://www.archeo.uj.edu.pl/RechACrac/>

ISSN 0137-3285

Cette publication est financée aux moyens destinés à l'activité statutaire de la Faculté d'Histoire de
l'Université Jagellonne

CONTENU

ÉTUDES

Joanna Dębowska-Ludwin: <i>The necropolis at Tell el-Farkha reconsidered</i>	5
Andrei P. Borodovsky: <i>Southern Siberia bone carving of Scythian time</i>	21
Sebastian Borowicz: <i>The Cypriot economic system in the Late Classical and Early Hellenistic Periods. An analysis based on the ceramic evidence</i>	33
Michał Kasiński: <i>Bemerkungen zu den Funde der Przeworsk-Kultur in Mitteldeutschland in der jüngeren vorrömischen Eisenzeit</i>	43
Renata Madyda-Legutko, Judyta Rodzińska-Nowak: <i>Die kulturelle Situation im oberen Sangebiet in der römischen Kaiserzeit im Lichte der neuesten Forschungen</i>	65
Anna Lasota: <i>Hand-made storage vessels from the Early Roman Period from south-western Lesser Poland</i>	79
Marzena J. Przybyła: <i>Bemerkungen zu einigen lokalen Formen der Schwertgürtelschließen vom sog. Balteus-Typ aus dem Barbaricum</i>	93

RAPPORTS

Paweł Valde-Nowak, Arkadiusz Tarasiński: <i>Results of archaeological rescue excavations at Mucharz (Beskidy Mts.)</i>	185
Krzysztof M. Ciałowicz: <i>Excavations at the Western Kom at Tell el-Farkha 2007–2008</i>	203
Mariusz A. Jucha: <i>Tell el-Murra. The Polish Archaeological Survey in Ash-Sharqiyyah Governorate (Egypt, the Nile Delta)</i>	229
Ján Beljak, Noémi Pažinová, Marek Krápic: <i>Ungewöhnlicher Befund aus Zvolen–Čierne zeme (Slowakei)</i>	239
Ewdoksia Papuci-Władyka, Evgenia F. Redina, Jarosław Bodzek, Wojciech Machowski: <i>Polish-Ukrainian Koshary Project, seasons 2007–2008</i>	257
Renata Madyda-Legutko, Ilona Smajek: <i>Eine Siedlung der römischen Kaiserzeit in Pakoszówka, Gde. Sanok, Woiw. podkarpackie, FSt. 1, im Lichte der von 2007 bis 2008 durchgeführten Ausgrabungen</i>	277
Jacek Poleski, Dariusz Niemiec, Mateusz Woźniak: <i>Medieval church and monastery of the Pauline Fathers “Na Skalce” in Kraków-Kazimierz in the light of archaeological investigations in 2007–2008</i>	291

VARIA

Jan Chochorowski: <i>Professor Marek Gedl. Gelehrter – akademischer Lehrer – Meister – Erzieher – Mensch</i>	319
--	-----

Ewdoksia Papuci-Władyka, Evgenia F. Redina, Jarosław Bodzek,
Wojciech Machowski

Polish-Ukrainian Koshary Project, seasons 2007–2008

Excavation season 2007

In 2007, a Polish-Ukrainian expedition from the Institute of Archaeology of the Jagiellonian University and the Archaeological Museum of the National Academy of Sciences of Ukraine in Odessa, operating within the framework of the Koshary Project (see below for complete bibliography), conducted the tenth season of excavations on the complex of sites in Koshary.

The Greek settlement with an open-air altar (*zol'nik*) and vast necropolis, situated to the North of the town excavated by our team (Fig. 1), is situated near the modern village of Koshary, to which it owes the name Kosharskoye Gorodishche, that is, the borough of Koshary, on the western side of which the Tiligul Liman joins the Black Sea (the Kominternovskii Region, Odessa Province).

It belonged to the Olbian chora, extending along its western frontier, and developed from the late 5th–early 4th century until the mid-3rd century B.C.

The Polish part of the expedition, directed by E. Papuci-Władyka from the Department of Classical Archaeology of the Institute of Archaeology, Jagiellonian University, included archaeologists J. Bodzek and W. Machowski from the same Department. Other contributors were PhD candidates M. Kania and M. Woźniak, and 16 archaeology students from the Institute, completing their practical training (M. Bartoszek, M. Dziedzic, K. Głomb, G. Gregorczyk, D. Kaczmarek, M. Kościecha, M. Link-Lenczowski, A. Mierczak, Ł. Misk, P. Musiela, K. Nocoń, A. Sołtysik, K. Rosińska-Stochaj, J. Sudyka, J. Wojciechowska, K. Wojczul).

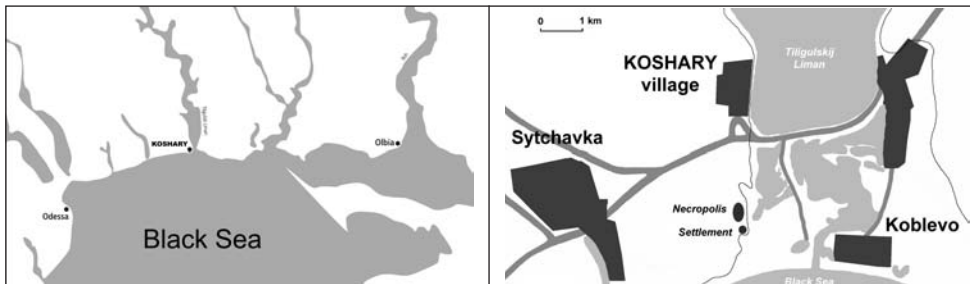


Fig. 1. Localization of the Koshary site at the northern shore of the Black Sea

The Ukrainian part of the expedition was directed by E. F. Redina from the Archaeological Museum in Odessa. Students of the State University in Odessa participated in the work as trainees, as did N. Meteevici, one of the staff of the Historical Museum in Kishyniev (Moldova).

During the 2007 excavation season, the archaeological work continued only on the trenches III, VII and VIII of the settlement (Fig. 2). The *zol'nik* and the necropolis were not excavated.

Trench III

The trench located on the northern outskirts of the settlement was intended to trace the northern and northwestern line of fortifications in this area (Papuci-Władyka *et. al.* 2006, 358–360; Papuci-Władyka *et. al.* 2009a, 488–490). The results are still not sufficient to form a complete view of the appearance of this part of the settlement and its functioning.

In the season 2007, domestic pits and two grain silos, left unexplored in the previous season, were excavated, requiring three of

the previously investigated squares to be cleared of backfill (total area of 75 m²). New squares were opened in the northwestern part of the trench (120 m²).

The five domestic pits that were explored were of a standard size, widening towards the bottom. Of the two grain silos that were investigated, the first (pit 148) was 2.2 m in diameter at the level where it was observed, and had an oval bottom measuring 2.80 by 3.80 m; its depth reached 2.60 m. The other silo (pit 146) was 2.40 m in diameter at the level where it was first observed and 2.80 m at the bottom, its depth being 3.50 m. It had been filled intentionally with stones, most of them well dressed and some bearing Greek letters.

It seems that a continuation of the already recognized defence wall was found in the northwestern part of the trench. It was severely damaged, but an analysis of the surviving arrangement of stones and the remains in spots where the stones had been removed permitted the dimensions of this wall to be reconstructed. Its width was from 1.20 to 2 m. Its length in the explored part



Fig. 2. Panorama of Koshary settlement: A – trench III, B – trench VII, C – trench VIII, D – open-air altar – *zol'nik*

of Trench III ran to 10.70 m. A rectangular structure adjoining the defence wall was recorded against its northern face. It may have been a tower, but the interpretation, to be confirmed, requires further excavation. Like the wall, this structure was also seen more as a negative left by removed stones than an actual standing feature.

Room 43 of House 5 lay in this part of the trench (Fig. 3), to the northwest of Room 41. It covered an area of 18.5 m² (4×4.50 m). The evidence on the floor included remains of what must have been wooden blocks, ash and slightly burnt clay plastering. Practically the entire length of the south wall (no. 128) of the room has survived, while the north wall is in fragments. The defence wall acted in part as the west wall, while the east one (no. 114), uncovered in 2006, was shared with Room 41.

The most interesting south wall 128 is composed of two parts, probably of

different chronology. It was interrupted in the middle by a kind of stone paving in the form of a “ramp” running up from the south, 2.55 m long and 1.50 m wide. On the west, inside the wall section to the south, a few well-dressed stone blocks and a slab, which could have once been part of the wall, were discovered. The slab (0.90 m high, 0.95 m wide and 0.25 m thick) may have originated in the Eneolithic period and was reused in the construction of the ancient wall.

Four domestic pits and a sunken hut were revealed under the floor of Room 43. The sunken hut, which was aligned according to the cardinal directions, followed a rectangular layout with rounded corners and was filled with yellow-gray soil. On the north it measured 3.80 m, on the west – 4 m; the depth from the level of first observation was 0.60 m. The said domestic pits lay close to the hut and one even cut into the outline of the structure.

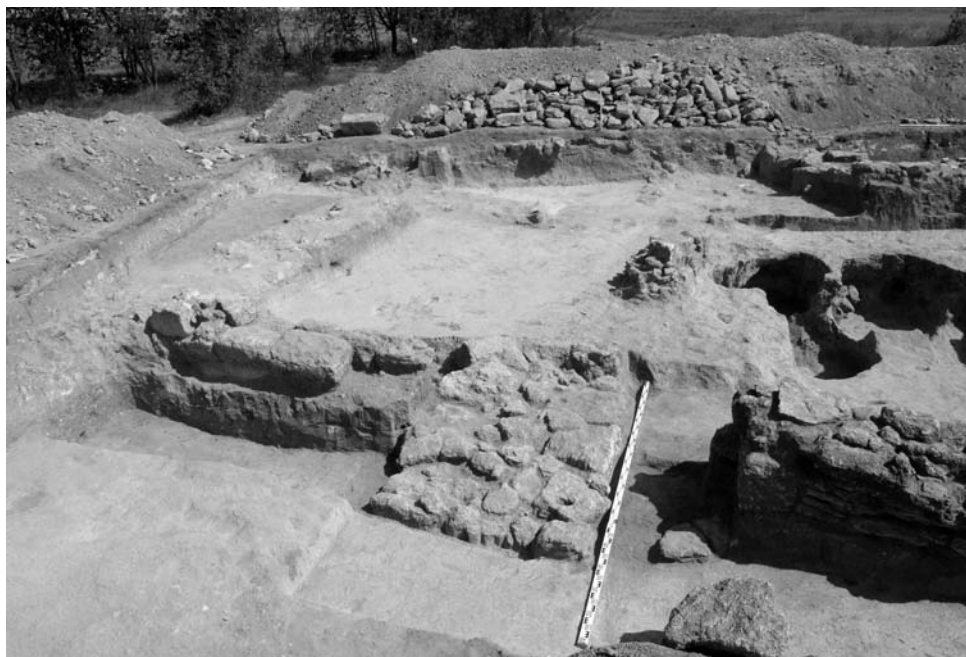


Fig. 3. Koshary, season 2007, trench III, room 43 of House 5 (part W)

The archaeological material from Trench III included potsherds, mainly amphorae (some stamped), gray wheel-made pottery and handmade vessels, Athenian black-glazed wares (e.g. a fragment of a vessel floor with graffito *AEA* or *KEA* (Fig. 4)) and occasional objects of utility, such as a bone borer, bone netting needles, a bronze arrowhead, clay whorls, two coins, fragments of a pithos with the letters cut in the upper surface of the rim. Meriting attention is a unique and well-preserved handmade clay ladle (Fig. 5).

The northern boundaries of the settlement and the end of the defence wall discovered



Fig. 4. Koshary, season 2007, trench III, fragment of vessel floor with graffito



Fig. 5. Koshary, season 2007, trench III, hand-crafted clay ladle

in 2000 (Papuci-Władyka *et al.* 2005, 198–200; Papuci-Władyka *et al.* 2006, 358–359), which were the main objectives of the work, were not found during the 2007 season. Instead, town architecture was observed to extend to the north, and northeast. This architecture is well preserved, contributing to the current knowledge regarding the settlement in question.

Meriting particular interest are wall remains, which may be a continuation of the purported defence wall, but could not be interpreted conclusively without more excavations. The architecture uncovered in Trench III appears to represent two settlement phases, dating to the middle and third quarter of the 4th century BC and subsequently to the last quarter of the 4th and the first quarter of the 3rd century BC.

Trench VII (Fig. 6)

Trench VII lies more or less in the centre of the promontory (Papuci-Władyka *et al.* 2006, 361–362; Papuci-Władyka *et al.* 2009a, 490–491). It appears to contain remains of the structure believed to be a defence wall, separating the main part of the town situated in the northeast of the promontory from the structures lying outside the fortifications in the western section of the site.

In 2007, only the last three levels were recorded in the previously excavated square 7 (Papuci-Władyka *et al.* 2009, 147–148). In summary, excavations in Trench VII confirmed the presence, in this area, of the southern end of the western boundary between the fortified small town on the promontory and the settlement outside.

The course of the outer town wall was traced in squares 1, 2 and 4 of the trench (Papuci-Władyka *et al.* 2005, 204; Papuci-Władyka *et al.* 2006, 361–362; Papuci-Władyka *et al.* 2009, 147). A number of deep ditches, perhaps constituting a kind

of moat, ran in front of this wall: one or possibly two in squares 3, 5–6 and a single one in square 7 (Papuci-Władyka *et al.* 2007, 110 Pl. 112 fig. 4; Papuci-Władyka *et al.* 2009, 147; Papuci-Władyka *et al.* 2009a, 491). The considerable difference between the level of the bottom of the ditch and the base of the wall suggests the defensive character of the fort, further confirmed presumably by the huge feature (no. 1) explored in squares 2–3 of Trench VII (Papuci-Władyka *et al.* 2007, 110 Pl. 112 fig. 4, Pl. 113; Papuci-Władyka *et al.* 2009, 145–147; Papuci-Władyka *et al.* 2009a, 491). In this context, it could have hardly been a grain silo as hypothesized previously, because it would have lain outside the fortified enclosure, more specifically, between the outer wall and the ditches. Based on currently available data, this feature is presumed to be the foundation of a tower intended to protect the southwestern corner of the fort. It is possible that at an earlier stage in the existence of the Koshary settlement a grain silo or sunken hut existed in this spot, forcing the builders of the defence wall to fill it up with stone blocks in order to raise the tower foundation.

Trench VIII (Fig. 7)

Trench VIII is located south of Trench VII (Papuci-Władyka *et al.* 2006, 362; Papuci-Władyka *et al.* 2009a, 491–492). In the campaign of 2007, it was extended in the direction of Trench VII in order to examine the relations between features found in the two areas, particularly the alleged ditches, believed to remain in strict relation with the above-described defence wall.

Two new squares were traced: 13 and 14, both lying to the north and northwest of square 12, where the work begun in 2006 was continued. Work was also continued in square 10, where remains of a ditch running

NW-SE were encountered. This feature had already been traced in 2005 and 2006 in square 7 and partly in square 8 (Papuci-Władyka *et al.* 2009, 150–151; Papuci-Władyka *et al.* 2009a, 492).

In the central part of square 12, the remnants of the outer town wall aligned NW-SE were noted mostly as a ghost wall, the stone blocks having been robbed out. Adjoining the wall was a pit which appeared as a tumble of irregular stones. This part of the square was left for exploration in next seasons.

A fragment of the ghost wall corresponding to the outer town defences was discovered in the southwestern corner of the newly traced square 13 (Fig. 8). It was visible in the top layers as isolated tumbled blocks, sometimes destroyed beyond exploration. Below, only small fragments of broken shell limestone were left from the dismantling of this wall. Next to it was a section of a perpendicular wall (no. 5). It was aligned NE-SW and started from the outer town wall, disappearing into the northern end of the eastern baulk of the square. Two and three courses of blocks in the eastern and western faces of this wall, respectively, have been preserved (Fig. 9). The lowermost course on the east side merited special attention because of cross-shaped stonecutter's marks cut in the surface of two of the extreme blocks.

Two other stone features uncovered in square 13 merit attention (Fig. 10). Both lie in the western part of the square. The first was an almost rectangular (ca 2.50 by 1 m) "box-like" structure, with the long walls built of small irregular stones. Fragments of animal bones and shattered amphorae were discovered in between the structures (including amphorae from Chios, Fig. 11). The short walls were made of large-size irregular stone slabs set up on end. The other structure (mostly situated in square 14) has a diameter of ca 1 m and

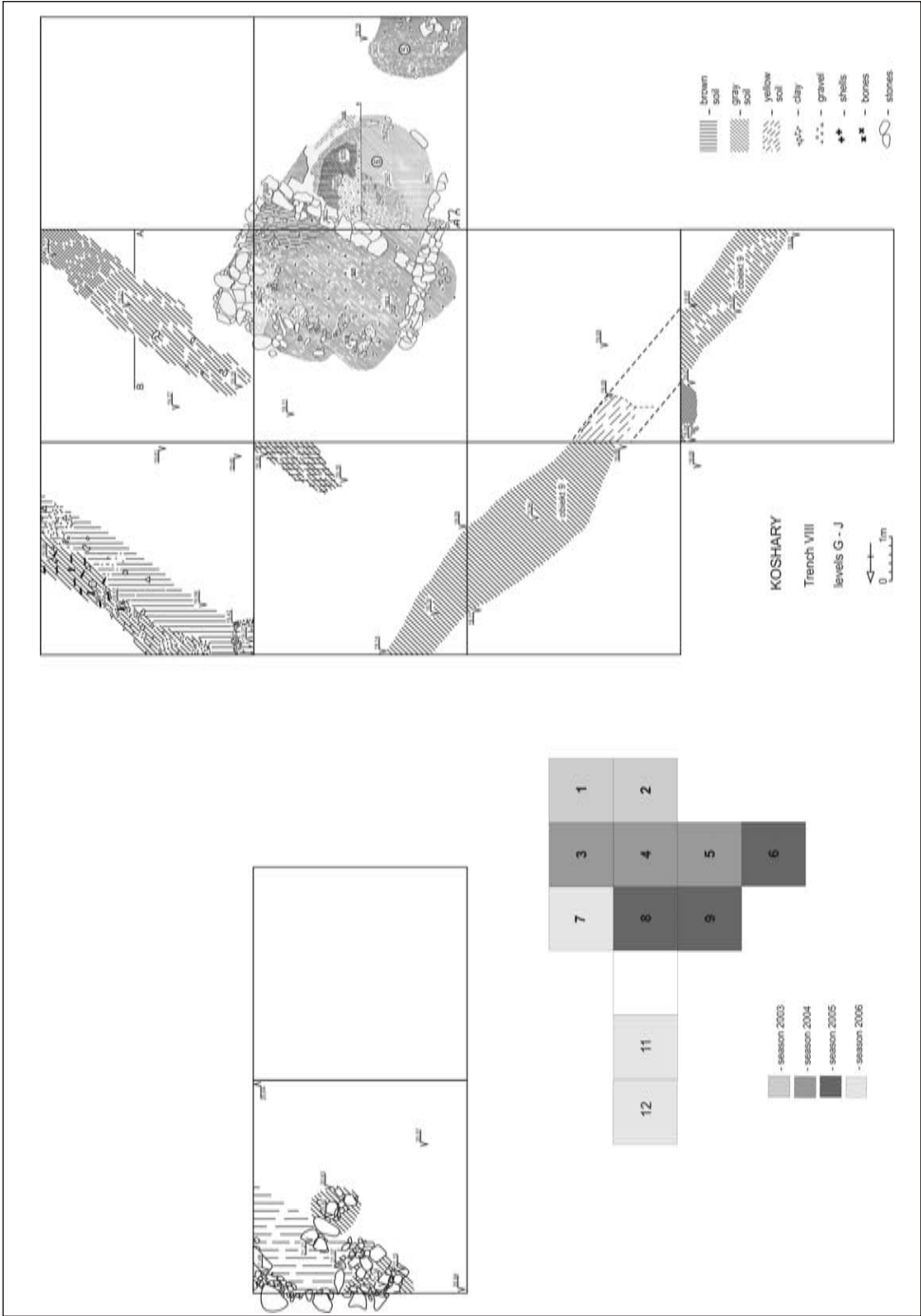


Fig. 7. Koshary, trench VIII, general plan of the excavation area



Fig. 8. Koshary, season 2007, trench VIII, square 13, level G



Fig. 9. Koshary, season 2007, trench VIII, square 13, wall no. 5

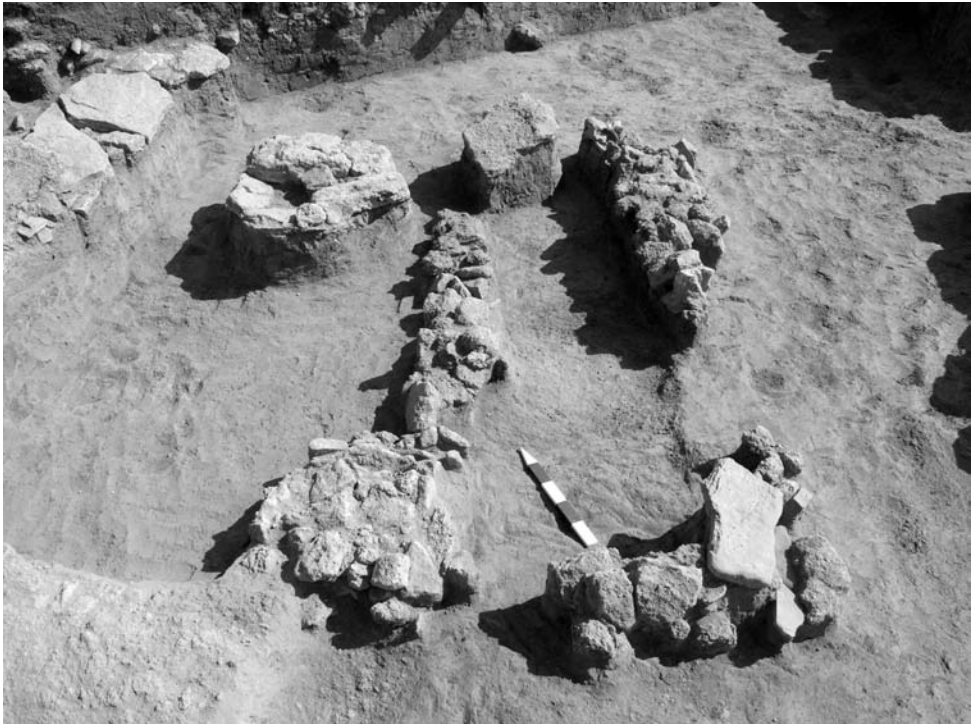


Fig. 10. Koshary, season 2007, trench VIII, squares 13–14, rectangular and round structures

was lined with a ring of flat stones leaving an open space in the centre. Most likely the structures should be connected with the first phase in the functioning of the town.

Four pits were discovered in square 13 at a depth of ca 1.20 m below ground surface. Only one pit (no. 9) in the southern part of the square was explored in that season. The material recovered from the fill was relatively abundant and included mainly pottery and animal bones, as well as a whorl and fragment of burned glass.

The adjoining square 14 (Fig. 12), also traced that year, contained remains of the outer town wall aligned NW-SE and running across the middle of the square. It was observed there as a tumble of small irregular pieces of shell limestone. Below this



Fig. 11. Koshary, season 2007, trench VIII, fragments of amphorae from Chios



Fig. 12. Koshary, season 2007, trench VIII, square 14, level F

level, all that remained was broken yellow shell limestone left from the dismantling. Additionally, a stone platform was recorded by the northern balk. This paving comprised thin slabs and blocks of shell limestone.

The exploration in Trench VIII in the season 2007 contributed significantly to the data concerning the southern boundaries of the settlement in Koshary. Foremost, the outer town wall, which ran NW-SE, was traced together with the deep ditch that once had fronted it. The wall itself had not been preserved, but its trace, left after the dismantling of presumably regular blocks cut from local shell limestone, was clearly visible in squares 12–14.

The small space between Trench VII and VIII suggests that the southwestern corner of the fortified wall was located there. Unfortunately, this spot was partly disturbed by the digging of trenches during World War II and it is possible that nothing of this

corner of the ancient walls remains to be seen.

The excavations also revealed the presence of a ditch fronting this outer wall, located within the area of square 10. This ditch lay at a distance of 10 m away from the face of the wall and may have served as a moat. Similarly, as in the case of the ditch and wall uncovered on the west side of the town (Trench VII), the difference in levels between the bottom of the trench and the base of the wall was considerable (some 3 m). Adding the hypothetical height of the wall, we get a difference of levels between the bottom of the ditch and the top of the wall running close to ca 6 m.

Both the wall and ditch ran in the southeasterly direction, toward the edge of the liman. Future explorations should determine the extent of destruction suffered by the eastern part of the settlement due to the collapse of the promontory edge in this area.

Geophysical research 2007–2008

As a result of investigations made up to 2007, it may now be assumed that the main part of the “town”, encompassing the architectural relics uncovered in Trenches III, IV (explored in 1998–2002) and VII (Chochorowski, Papuci-Władyka, Redina 1999, 59–61; Papuci-Władyka *et al.* 2005, 198–203; Papuci-Władyka *et al.* 2006, 358–361; Papuci-Władyka *et al.* 2007, 110–111; Papuci-Władyka *et al.* 2009, 142–147; Papuci-Władyka *et al.* 2009a, 488–491), was situated in the northeastern part of the promontory, on naturally elevated ground. It was walled off from the northwest, west and south by a defence wall with a system of ditches (“moat”?). This then would have been the fortified town, the space inside the walls packed with houses built of stone and dried brick. The evidence now favours the existence of an open settlement outside the fortified enclosure – a “suburb”, comprising scattered, isolated homesteads, such as Farm 1 discovered in Trench VI (Papuci-Władyka *et al.* 2005, 207–208; Papuci-Władyka *et al.* 2006, 362–363; Papuci-Władyka *et al.* 2007, 110; Papuci-Władyka *et al.* 2009, 145; Papuci-Władyka *et al.* 2009a, 490).

During all excavation seasons in Koshary a combined total of 1875 m² has been explored, making for about 20% of the settlement covering an area of ca 0.9 ha and 3.5% of the agricultural hinterland, the “suburb” covering an area of ca 1.2 ha. As for the necropolis, the 8000 m² of the excavated trenches probably does not cover more than 15–20% of the presumed area of the burial ground, which is estimated at 3–4ha.

In view of the disproportion between the area which has been excavated and the unexplored part of the site, geophysical research was commissioned both in the

“suburb” area west of the settlement and in the necropolis to the north.

The specificity of Black Sea sites, where stone was the principal building material, and previous research experience in the area prompted a more extensive use – as compared to other regions – of the electrical resistivity method. It was used in the first season in July 2007 during the research carried out by A. Buszek and T. Herbich. The results were verified in the next season in August 2008 by geomagnetic prospection by A. Buszek and D. Święch with students K. Głomb, K. Kawecka and W. Miścicki directed by W. Machowski. Preliminary results indicate that more structures such as the above mentioned Farm 1 had existed in the area outside the walls in the “suburb” and two anomalies in the necropolis should be particularly interesting to verify, because the absence of any traces on ground surface indicates that most likely the features were not disturbed in modern times (Buszek, Herbich, Święch 2011).

Even after ten seasons of excavations on the site (1998–2007), many general as well as detailed questions remain to be resolved, concerning, for instance, the actual extent of the fortified town and the spread of the *extra muros* architecture (“suburb”). The above-mentioned geophysical prospection provided data addressing these issues. The location of the settlement on a promontory above the liman, which was once connected with the sea, suggests the existence of some small harbour at the foot of the slope. The continued absence of epigraphic finds of any kind has not helped to determine whether the Koshary site can actually be identified with the ancient Odessos or not. It may be hoped that future excavations at Koshary will finally provide an answer to this as well as other research questions.

Ten years of our research in Koshary was summed up at an international conference

PONTIKA 2008: Recent Research on the Northern and Eastern Black Sea in Ancient Times, organized in Kraków on 21–26 April 2008 by the Department of Classical Archaeology of the Jagiellonian University in cooperation with the British-Georgian expedition to Pichvnari in ancient Colchis, also in its tenth year of operations (responsible

M. Vickers, Oxford University and E. Kakhidze, Batumi Archaeological Museum). The proceedings of the conference will be published in British Archaeological Reports International Series (Papuci-Władyka, Redina 2011 on conference and exhibition see: Bodzek 2008; Papuci-Władyka, Redina, Machowski 2008).

Polsko-ukraińskie badania w Koszarach – sezony 2007–2008

W sezonie 2007 polsko-ukraińska ekspedycja archeologiczna Instytutu Archeologii Uniwersytetu Jagiellońskiego oraz Muzeum Archeologicznego Narodowej Akademii Nauk Ukrainy w Odessie kontynuowała prace badawcze na kompleksie stanowisk w Koszarach odbywając dziesiątą już kampanię wykopaliskową. Ponadto w sezonie 2007 oraz dodatkowo, w sezonie 2008, wykonano badania geofizyczne części stanowiska.

Prace wykopaliskowe prowadzono jedynie na wykopach oznaczonych jako III, VII i VIII, usytuowanych w różnych częściach obszaru zajętego niegdyś przez osadę.

W sezonie 2007 prace na wykopie III polegały jedynie na dokończeniu eksploracji obiektów gospodarczych, głównie jam, które pozostały z sezonu 2006. Również na wykopie VII dokończono jedynie eksplorację odcinka 7. Pozwoliło to jednak wyjaśnić istotną cechę osady w Koszarach. W miejscu tym bez wątpienia znajdowała się zachodnia granica pomiędzy obwarowanym grodziskiem górującym nad okolicą a podegrodziem, którego fragmenty badano na wykopie VI (sezony 2003–2005).

Badania przeprowadzone w sezonie 2007 w obrębie wykopu VIII wniosły sporo nowych informacji do naszej wiedzy odnośnie południowych granic osady w Koszarach. Przede wszystkim uchwycono tu dwie konstrukcje, które występowały również w powyżej wspomnianym wykopie VII. Są to pozostałości zewnętrznego muru grodziska oraz znajdującego się przed nim głębokiego rowu.

Podobnie jak i w powyżej opisanym przypadku także i tutaj sam mur nie zachował się. Był jednak wyraźnie widoczny, w obrębie eksplorowanych odcinków, w postaci negatywu po wybranych kamiennych blokach, które go niegdyś tworzyły. W obrębie wykopu VIII zewnętrzny mur grodziska przebiegał na linii NW–SE. Niewielka przestrzeń między wykopem VII a VIII każe przypuszczać, że właśnie w tym miejscu znajdował się narożnik południowo-zachodni zewnętrznego muru osady. Niestety miejsce to zostało częściowo zniszczone w trakcie kopania okopów w czasie wojen.

Równoległe do zewnętrznego muru grodziska biegł rów. Położony był w odległości ok. 10 metrów od muru i być może pełnił funkcję fosy. Zarówno mur zewnętrzny grodziska jak i znajdujący się przed nim rów biegły w kierunku brzegu limanu. Kontynuacja badań w tym kierunku w przyszłości pozwoli być może wyjaśnić jak dalekiemu zniszczeniu uległa osada w Koszarach na skutek osunięcia się krawędzi limanu.

Dodatkowym efektem prac na wykopie VIII w sezonie 2007 jest całkowite wyjaśnienie charakteru zabudowy badanej tu w poprzednich sezonach. Nie ma już wątpliwości, iż była to zabudowa poza obrębem grodziska, i że pełniła podporządkowane mu funkcje gospodarcze.

Koshary Project Bibliography 1998–2009:

- Bodzek J.**, 2001 *Nad Bohem i Nilem, Prace wykopaliskowe w obiektywie*, Alma Mater, 29, p. 35.
- 2006 (ed.) *Skarby znad Morza Czarnego/Treasures from the Black Sea Coast. Złoto, rzeźba ceramika z Muzeum Archeologicznego w Odessie/Gold, sculpture, pottery from the Archaeological Museum in Odessa. Katalog wystawy w Muzeum Narodowym w Krakowie/Catalogue of the Exhibition at the National Museum in Cracow*, Kraków, 31 (S.B. Okhotnikov), 126 no. 15 (E.F. Redina), 181 no. 37 (S.A. Bulatovich), 294 no. 14 (E.F. Redina; I.B. Klieiman).
- 2007 *Moneta Tyras znaleziona w Koszarach*, Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi. Seria Numizmatyczna i Konserwatorska, 13 (2004–2007), pp. 41–48.
- 2008a *Koshary (Ukraine) – Coins finds in 2004–2005*, (in:) E. Papuci-Władyka (ed.), PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies, Proceedings of the International Conference, Krakow, 18th March, 2006, Studies in Ancient Art and Civilization, 11, pp. 13–23.
- 2008b *Ol’viiskii “ass” naidennnyi v Kosharakh*, (in:) VIII Chtenia pamiati professora P.O. Karyshkovskogo, 12–14 marta 2008, Odessa, pp. 53–58.
- 2008c *Pontika 2008*, Alma Mater, 104–105, pp. 118–120.
- 2011 *Koshary (Ukraine) – International Relations in Light of Numismatic Evidence*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, BAR International Series, Oxford, pp. 7–13.
- (forthcoming) *Remarks on Monetary Circulation in the Chora of Olbia Pontica – the Case of Koshary*, (in:) N. Holmes (ed.), XIV International Numismatic Congress. 31.08.–04.10. 2009, Glasgow. Proceedings.
- Buszek A., Herbich T., Świąch D.**, 2011 *Geophysical research at Koshary (Ukraine, Odessa province)*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, BAR International Series, Oxford, pp. 27–36.
- Chochorowski J.**, 2008 *Social aspects of sacred spatial organization of Koshary necropolis*, (in:) E. Papuci-Władyka (ed.), PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies, Proceedings of the International Conference, Krakow, 18th March, 2006, Studies in Ancient Art and Civilization, 11, pp. 25–45.
- Chochorowski J., Papuci-Władyka E.**, 1999 *Odkrywanie antycznej przeszłości Ukrainy*, Alma Mater, 11, pp. 10–12.
- Chochorowski J., Papuci-Władyka E., Redina E.F.**, 1999 *Polish-Ukrainian Archaeological Research of Ancient Settlement and Necropolis in Koshary, Odessa district*. Preliminary Report, Studies in Ancient Art and Civilization, 9, pp. 55–63.

- 2000 *Polsko-ukraińskie badania wykopaliskowe zespołu stanowisk z okresu antycznego w miejscowości Košary koło Odessy*, Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego, 21, Rzeszów, pp. 185–202.
- 2001 *Polsko-ukraińskie badania wykopaliskowe zespołu stanowisk z okresu antycznego w miejscowości Košary koło Odessy*, (in:) J. Lech, J. Partyka (eds.), *Z archeologii Ukrainy i Jury Ojcowskiej*, Ojców, pp. 495–514.
- 2004 *Polnische-ukrainische Ausgrabungen an dem antiken Fundstellenkomplex von Košary bei Odessa*, Recherches archéologiques de 1993–1998, Kraków, pp. 243–265.

Chochorowski J., Papuci-Władyka E., Redina E.F., Kokorzhitskaya T.N., Nosova L.V., Bodzek J., Machowski W., 2001 *The Polish-Ukrainian Excavations at Koshary, Odessa District: 1998–2001*, (in:) *Ol'viiia ta antichnyi svit*, Materiały naukovykh chytan', prysviachenykh 75-richchiu utvorennia istoryko-arkheologichnogo zopovidnyka "Ol'viiia" NAN Ukrainy, Kyiv, pp. 148–150.

Dziwisz E., 2006 *Zloto, groby i uczeni*, Kraków, 6 (20), pp. 74–75.

Głąb H., Szostek K., 2011 *Research into overall biological condition of a group of individuals buried in a necropolis dating from 4th–3rd century BC in Koshary (Ukraine)*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), *PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times*, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, BAR International Series, Oxford, pp. 139–144.

Kaczanowski K., Kosydarski A., Niedźwiecka E., 2008 *Results of 1998–2004 anthropological studies at an ancient burial site at Koshary (the Ukraine)*, (in:) E. Papuci-Władyka (ed.), *PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies*, Proceedings of the International Conference, Krakow, 18th March, 2006, (Studies in Ancient Art and Civilization, 11, pp. 53–61.

Kania M., 2008a *Życie codzienne mieszkańców starożytnej osady w Koszarach*, Alma Mater, 99, pp. 176–179.

2008b *Daily Life in Ancient Koshary: Some Comments (Part 1)*, (in:) E. Papuci-Władyka (ed.), *PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies*, Proceedings of the International Conference, Krakow, 18th March, 2006, (ed.), (Studies in Ancient Art and Civilization, 11, pp. 63–73.

2011 *Daily Life in Ancient Koshary: Some Comments. Part 2*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), *PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times*, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, BAR International Series, Oxford, pp. 179–182.

Kowal A., 2001 *Grecka "ceramika szara" ze stanowiska Koszary (Ukraina, obwód Odessa)*, (in:) E. Papuci-Władyka, J. Śliwa (ed.), *Studia Archaeologica. Liber Amicorum Janussio A. Ostrowski ab amicis et discipulis oblatus*, Kraków, pp. 197–211.

- 2005 *The Greek Grey Ware fish-plates from the Black Sea region*, *Etudes et Travaux*, 20, Warszawa, pp. 87–93.
- 2008 *Grey ware from Koshary site*, (in:) E. Papuci-Władyka (ed.), *PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies*, Proceedings of the International Conference, Krakow, 18th March, 2006, *Studies in Ancient Art and Civilization*, 11, pp. 75–94.
- Łaczek G.**, 2006 *W poszukiwaniu szczęścia, bogactwa i nieśmiertelności... Kościane amulety ze stanowiska Koszary na Ukrainie*, *Alma Mater*, 82, pp. 60–62.
- 2008a *W co grano w starożytności...?*, *Alma Mater*, 99, pp. 180–182.
- 2008b *Bone amulets from the tomb no. 211 in Koshary, Ukraine* (in:) E. Papuci-Władyka (ed.), *PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies*, Proceedings of the International Conference, Krakow, 18th March, 2006, *Studies in Ancient Art and Civilization*, 11, pp. 111–121.
- Machowski W.**, 2011 *Children's Burials in the Koshary Necropolis – Some Remarks*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), *PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times*, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, *BAR International Series*, Oxford, pp. 241–245.
- Mateevici N., Redina E.**, 2004 *Prezenta importului amforistic grecesc la complexul arheologic Koșary, reg. Odesa, Ucraina (campaniile anilor 2002–2003)*, *Cercetări arheologice în republica Moldova (2002–2003)*, 1, Chișinău, pp. 105–113.
- 2011 *Amphorae from Dug-out No. 6 of the Koshary Ancient Settlement. (Tiligul Liman, Odessa Province, Ukraine)*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), *PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times*, International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008, *BAR International Series*, Oxford, pp. 247–252.
- Nosova L.V.**, 2002 *O kul'ovykh zol'nikakh antichnykh poseleniï Severo-Zapadnogo Prichernomor'ia (v sviazi s raskopkami Kosharskogo arkeologicheskogo kompleksa)*, (in:) *Bosporskii fenomen. Pogrebal'nye pamiatniki i sviatlishcha*, 2, Sankt-Peterburg, pp. 62–68.
- 2003 *O kul'ovykh zol'nikakh antichnykh poseleniï Severo-Zapadnogo Prichernomor'ia (v sviazi s raskopkami Kosharskogo arkeologicheskogo kompleksa)*, (in:) *Drevnee Prichernomor'e. V chteniia pamiati professora P.O. Karyshkovskogo 12–14 marta 2001*. Odessa, pp. 123–130.
- 2004 *Frakiïskie ãlementy v kul'ture Severo-Zapadnogo Prichernomor'ia antichnoï ãpokhi (v sviazi s raskopkami na «temenose» Kosharskogo gorodishcha)*, (in:) *Davnaiia istoriia Karpato-Dunaï'skogo arealu ta sumizhhikh regioniv. Karpatika, Uzhgorod*, pp. 100–119.
- Papuci-Władyka E.**, 2002 *Kultura grecka nad Morzem Czarnym*, *Alma Mater*, 41, pp. 10–16.
- 2003 *Pięć lat w Koszarach*, *Alma Mater*, 50, pp. 30–33.
- 2004 *Polish-Ukrainian Archaeological Project KOSHARY, NEWS letter, Autum/Winter*, UJ Kraków, pp. 26–27.
- (forthcoming) *Pouring vessels from Paphos (Cyprus) and Koshary (Odessa province, Ukraine)*, (in:) *IV Congress of Cypriot Studies, Nicosia 29.04–03.05.2008*, Nicosia.

Papuci-Władyka E., Bodzek J., 2005 *Odessa-Toruń-Kraków, Wystawa wykopalisk polsko-ukraińskich w Muzeum Archeologicznym w Odessie*, Alma Mater, 66–67, pp. 75–76.
2008 *Hellenowie i barbarzyńcy – w poszukiwaniu starożytnego Odessos*, Alma Mater, 99, pp. 166–170.

Papuci-Władyka E., Bodzek J., Machowski W., 2008 *10 lat w Koszarach*, Alma Mater, 99, pp. 170–175.

Papuci-Władyka E., Chochorowski J., Redina E.F., 2002 *Koszary – grecka osada nad Morzem Czarnym*, *Archeologia Żywa*, 2(21), pp. 13–17.

2003 *Zespół stanowisk antycznych (osiedle i nekropola) w Koszarach koło Odessy po trzech latach badań, streszczenie referatu wygłoszonego na posiedzeniu naukowym Komisji Archeologicznej O/PAN w Krakowie 27 lutego 2001 r.*, *Sprawozdania z Posiedzeń Komisji Naukowych PAN*, 45/1 (styczeń–czerwiec 2001), pp. 1–4.

Papuci-Władyka E., Chochorowski J., Redina E. F., with contribution by: Bodzek J., Machowski W., Nosova L.V., Kokorzhitskaya T. N., 2004 *Koszary – grecka osada nad Morzem Czarnym w świetle pięcioletnich badań polsko-ukraińskiej ekspedycji (1998–2002)*, (in:) PORTO-LANA. *Studia Mediterranea*, 1, pp. 47–64.

Papuci-Władyka E., Kania M., 2006 *Nadczarnomorska konferencja*, Alma Mater, 81, pp. 59–60.

Papuci-Władyka E., Kokorzhitskaia T. N., 2004 *Greek Amphorae from the Polish-Ukrainian Excavations at Koshary, Odessa District (Fourth and Third Centuries BC) – a First Presentation*, (in:) J. Eiring, J. Lund (eds.), *Transport Amphorae and Trade in the Eastern Mediterranean*, (Acts of the International Colloquium at the Danish Institute at Athens, September 26–29, 2002), *Monographs of the Danish Institute at Athens*, 5, Athens, pp. 313–324.

Papuci-Władyka E., Machowski W., 2008 *Między Olbią a Odessą. Badania archeologiczne greckiej osady w Koszarach nad Morzem Czarnym (1998–2008)*, Alma Mater, 104–105, pp. 121–123.

Papuci-Władyka E., Machowski W., Kania M., 2009 *Black Sea links: exhibition and conference in Cracow*, *Recherches Archéologiques NS* 1, pp. 659–664.

Papuci-Władyka E., Redina E. F., 2002 *Antichnyi mogilnik u s. Koshary*, (in:) *Bosporskiy fenomen. Pogrebal'nye pamiatniki i sviatlishcha*, vol. 2, Sankt-Peterburg, pp. 56–62.

2008 *Koshary – poselenie khory Olvii*, *NOVENSIA* 18–19, Ośrodek Badań nad Antykiem Europy Południowo-Wschodniej, *Studia i materiały pod redakcją naukową Piotra Dyczka i Tomasza Scholla*, Warszawa, pp. 291–305.

2011 *Ten years of the Koshary Project*, (in:) E. Papuci-Władyka, M. Vickers, J. Bodzek, D. Braund (eds.), *PONTIKA 2008. Recent Research on the Northern and Eastern Black Sea in Ancient Times*, *International Colloquium at the Institute of Archaeology Jagiellonian University Kraków, 21st–26th April 2008*, *BAR International Series*, Oxford, pp. 283–297.

Papuci-Władyka E., Redina E. F., Bodzek J., Machowski W., 2007 *The Polish-Ukrainian Excavation at Koshary (Odessa province) – season 2004*, *Światowit*, 6 (47), fasc. A, pp. 109–113.

- 2009 *Koshary Project, 2005-2007. Fifth Preliminary Report on Polish-Ukrainian Excavations*, *Archeologia*, 58 (2007), pp. 141–156.
- 2009a *The Koshary Project (Ukraine, Odessa province), seasons 2004–2006*, *Recherches Archéologiques NS*, 1, pp. 487–507.
- Papuci-Władyka E., Redina E. F., Bodzek J., Machowski W., with contributions by Kokorzhitskaia T. N., Kania M., Kowal A., Leśniak-Bochnak A., Woźniak M.**, 2005 *Koshary: Greek settlement on the Northern Black Sea coast. Polish-Ukrainian excavations in the 2001–2003 seasons*, *Etudes et Travaux*, 20, pp. 194–234.
- Papuci-Władyka E., Redina E. F., Chochorowski J., Bodzek J., Machowski W.**, 2006 *Greek settlement on the northern Black Sea coast. Polish-Ukrainian excavations in Koshary (Odessa province): Third preliminary report – Seasons 2000-2003*, *Recherches Archéologiques de 1999–2003*, Kraków, pp. 354–374.
- Papuci-Władyka E., Redina E. F., Machowski W.**, 2008 *Między Olbią a Odessą/Between Olbia and Odessa. Badania archeologiczne greckiej osady w Koszarach nad Morzem Czarnym (1998–2008)/Archaeological Research of the Greek Settlement at Koshary on the Black Sea (1998–2008)*, *Katalog wystawy fotografii/Catalog of the Photography Exhibition*, *Collegium Maius UJ*, 21.04.2008–31.05.2008, Kraków.
- Papuci-Władyka E., Redina E. F., in collaboration with Stelmach S.**, (forthcoming) *The Black glaze pottery from the Polish-Ukrainian excavations at Koshary (Black Sea coast, Odessa district). First presentation*, (in:) *Ζ Επισημοτική Συνάντηση για την ελληνιστική κεραμική*, Αιγίο 2005, (7th Scientific Meeting on Hellenistic Pottery, Aigio 2005), Athens.
- Redina E. F.**, 2007 *Greek Settlements on the shores of the Bay of Odessa and Adjacent Estuaries*, (in:) D.V. Grammenos, E.K. Petropoulos (eds.), *Ancient Greek Colonies in the Black Sea 2*, vol. 1, *BAR International Series 1675(I)*, pp. 507–536.
- Redina E. F., Chochorowski J.**, 2001 *Koshary*, (in:) T.L. Samoylova (ed.), *Ancient Greek Sites on the Northwest Coast of the Black Sea*, Kiev, pp. 139–154.
- Redina E. F., Chochorowski J., Papuci-Władyka E., Nosova L., Bodzek J.**, 1999 *Raskopki drevne-grecheskogo poselenia i mogil'nika u sela Koshary odesskoï oblasti*, *Ochraha i issledovaniia pamiatnikov arkeologii w odesskoï oblasti*, Odessa, pp. 19–24.
- Redina E., Mateevici N.**, 2007 *Importul amforistic sinopeean la cetatea antică Koșary, regiunea Odesa, Ucraina*, (in:) *Tyragetia, Arheologie Istorie Antică*, Serie nouă, 1(16), no. 1, Moldova, pp. 299–305.
- Redina E. F., Papuci-Władyka E.**, 2003 *Issledovane arkeologicheskogo kompleksa antichnogo vremeni u s. Koshary*, (in:) *Archaeological Researches in Ukraine/Arkeologicheskies issledovaniia na Ukraine 2001–2002*, *Zbirka naukovykh prac*, 5, Kiiv, pp. 240–242.

Redina E. F., Papuci-Władyka E., Bodzek J., 2007 *Sakral'noe prostranstvo Kosharskogo sviatlishcha*, (in:) Bospor Kimmerijskii i varvarkiï mir v period antichnosti i srednevekov'ia. Sviatlishcha i sakral'nye ob'ekty. Kerch', pp. 361–365.

Redina E. F., Papuci-Władyka E., Bodzek J., Machowski W., 2008 *Koshary - Arkheologicheskii kompleks antichnogo vremeni u sela Koshary - itogi issledovaniia*, (in:) E. Papuci-Władyka (ed.), PONTIKA 2006. Recent Research in Northern Black Sea Coast Greek Colonies, Proceedings of the International Conference, Krakow, 18th March, 2006, Studies in Ancient Art and Civilization, 11, pp. 143–158.

Redina E. F., Papuci-Władyka E., Stelmach S., 2008 *Chernolakovye zastol'nye chashi Kosharskogo nekropolia*, (in:) Drevnee Prichernomor'e. VIII Chtenia pamiatii prof. P.O. Karyshkovskogo, Odessa, 12–14 marta 2008 g., Odessa, pp. 311–319.

Woźniak M., 2008 *Między Dniestrem a Dnieprem – kilka słów o limanach północno-zachodnich wybrzeży Morza Czarnego*, Alma Mater, 99, pp. 182–185.

Unpublished reports and other works

Kowal A., 2000 *Ceramika szara w świecie greckim. Praca w oparciu o materiał ceramiczny ze stanowiska Koszary* (Grey ware in Greek World. Based on ceramic material from Koshary site, unpublished M.A. diss., Jagiellonian University) Kraków.

2007 *Ceramika szara w koloniach greckich nad Morzem Czarnym w okresie klasycznym i hellenistycznym* (Grey ware in Greek colonies on Black Sea shore in Classical and Hellenistic Times, unpublished Ph.D. diss., Jagiellonian University) Kraków.

Redina E., Chochorowski J., Nosova L., Papuci-Władyka E., Bodzek J., 1999 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii za 1998 god.* (unpublished excavation report), Odessa-Kraków.

Redina E., Chochorowski J., Papuci-Władyka E., Nosova L., Kokorzhitskaia T., Bodzek J., Machowski W., 2000 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii za 1999 god.* (unpublished excavation report), Odessa-Kraków.

Redina E., Chochorowski J., Papuci-Władyka E., Nosova L., Kokorzhitskaia T., Gipskii P., Bodzek J., Machowski W., 2001 *Otchet o rabote Kosharskoï ekspeditsii v 2000 godu.* (unpublished excavation report), Odessa-Kraków.

Redina E., Papuci-Władyka E., Nosova L., Bodzek J., Machowski W., 2002 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii za 2001 god.* (unpublished excavation report), Odessa-Kraków.

Redina E., Papuci-Władyka E., Machowski W., 2003 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii na antichnom poselenii i mogil'nike u s. Koshary za 2002 g.* (unpublished excavation report), Odessa-Kraków.

- Redina E. F., Papuci-Władyka E., Bodzek J., Machowski W.,** 2004 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii na antichnom poselenii i mogil'nike u s. Koshary za 2003 g.* (unpublished excavation report), Odessa-Kraków.
- 2005 *Otchet o rabote Kosharskoï arkheologicheskoi ekspeditsii na antichnom poselenii i mogil'nike u s. Koshary za 2004 g.* (unpublished excavation report), Odessa-Kraków.
- 2006 *Otchet o rabote ukrainsko-polskoï ekspeditsii na arkheologicheskom komplekse Koshary v 2005 godu* (unpublished excavation report), Odessa-Kraków.
- 2007 *Otchet o rabote ukrainsko-polskoï arkheologicheskoi ekspeditsii na antichnom poselenii i mogil'nike Koshary v 2006 godu,* (unpublished excavation report), Kraków-Odessa.
- 2008 *Otchet o rabote ukrainsko-polskoï ekspeditsii na arkheologicheskom komplekse Koshary v 2007 godu* (unpublished excavation report), Odessa-Kraków.

Stelmach S.

- 2006 *Czarnopokostowana ceramika attycka ze stanowiska Koszary (obwód Odessa). Studium naczyń służących do picia* (Black-glazed Attic pottery from the Koshary site. A study of drinking vessels, unpublished M.A. diss., Jagiellonian University), Kraków.