Ioan Carol Opriș Alexandru Rațiu

CAPIDAVA II

Building C1 – Contributions to the history of *annona militaris* in the 6th century

Editura MEGA

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ROMAN FRONTIERS IN ROMANIA

FRONTIERELE ROMANE DIN ROMÂNIA

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With contributions by:
Andrei Gândilă, Tomasz Ważny, Peter I. Kuniholm, Charlotte L. Pearson, Adriana Rizzo and Choi Mak

MEGA PUBLISHING HOUSE
Cluj-Napoca
2017

MINISTERUL CULTURII ŞI IDENTITĂŢII NAŢIONALE

MUZEUL NAŢIONAL DE ISTORIE A ROMÂNIEI

O publicaţie susţinută de
COMISIA LIMES ROMANIA

COMISIA LIMES ROMANIA

DTP and cover:
Francisc Baja

Translation:
Alina Raţiu

Descrierea CIP a Bibliotecii Naţionale a României
OPRIŞ, IOAN CAROL
CAPIDAVA II Building C1 - Contributions to the history of annona militaris in the 6th century
/ Ioan Carol Opriş, Alexandru Raţiu ; with contributions by: Andrei Gândilă, Tomasz Ważny, Peter I. Kuniholm, ... - Cluj-Napoca : Mega, 2017
Conţine bibliografie
ISBN 978–606–543–912–2

I. Raţiu, Alexandru

94

editura MEGA

Editura Mega | www.edituramega.ro
e-mail: mega@edituramega.ro

CAPIDAVAE GENIOQVE LOCI FELICITER

CONTENTS

LIST OF FIGURES

ACKNOWLEDGMENTS

This volume was published within the framework of LIMES National Reserch Programe, supported by the Romanian Ministry of Culture and National Identity. Therefore we would like to thank our friends and colleagues Ovidiu Țentea and Felix Marcu for their support in publishing this work. Special thanks go to: Constantin Băjenaru (MINAC); Sebastian Corneanu (Lucian Blaga University in Sibiu); Mihai Duca (Bucharest); + Arch. Cătălin Georgescu (Bucharest); Iulia Iliescu (University of Bucharest); Marian Mocanu (ICEM, Tulcea); Andrei Opaiț (Toronto); Dorel Paraschiv (ICEM, Tulcea); Prof. Constantin C. Petolescu (Bucharest); Mihai Popescu (CNRS, Paris); Raluca Popescu (Muzeul Municipiului București, Bucharest); Tiberiu Potârniche (MINAC); Arch. Anișoara Sion (Bucharest); Gabriel Stoian (Bucharest); Valeriu Toma (Bucharest); Mihai Vasile (MNIR Bucharest); Dan Vasilescu (MINAC); Florica Zaharia (former Conservator in Charge of the Department of Textile Conservation, The Metropolitan Museum of Art). For the topographic measurements, we owe thanks to Mihai Florea (MNIR Bucharest); some of the drawings have been made by Jeni Efimov (ICEM, Tulcea), Cătălina Petolescu (Bucharest) and Ingrid Petcu (MINAC).

Prof. Florin Curta (University of Florida), Olga Karagiorgou (Research Centre for Byzantine and Post-Byzantine Art of the Academy of Athens – AA-KEBMT), Andrei Opaiț (Toronto), Prof. Dominique Pieri (Université Paris 1, Panthéon-Sorbonne), Efthymios Rizos (University of Oxford) offered key contributions in the last two decades tackling the history of the Balkans in the 6th c., Late Roman and Early Byzantine pottery or precisely *quaestura Iustiniana exercitus* and *horrea*. They have been all inspiring and surely of great help to our approach.

Andrei Gandilă (University of Alabama in Huntsville) provided us with the numismatic analysis; Adriana Rizzo (Asso c. Research Scientist, Dept. of Scientific Research, The Metropolitan Museum of Art) and Choi Mak (former Dept. of Scientific Research, The Metropolitan Museum of Art, now Barnard College, University of Columbia) took charge of the examination and drafting the analysis report for a sample that showed pine tar as main content of a Pontic amphora found inside our Building C1; last, but not least, Prof. Tomasz Ważny (Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona and Institute for the Study, Conservation and Restoration, Nicolaus Copernicus University, Toruń, Poland), with Prof. Peter I. Kuniholm and Charlotte L. Pearson (Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona) offered the dendrochronology analysis of the samples taken from the charred roof timbers. All of them are contributors to this volume and deserve our deepest gratitude.

It is appropriate to mention the names of our former students who took part at the excavations of Building C1 from 1993–1996 and 2006–2010: Radu Bălănescu, Dan Bogăție, Alessandro Flavio Dumitrașcu, Ingrid Enache, Iulian Ganciu, Luciana Ghindă, Ioana Iulia Manea, Flori Marin, Luciana Moisescu, Peter Osip, Alexandra Ion, Claudia Miler, Alexandru Robea etc.

Last, but not least, we are thankful to Alina Rațiu for the English translation of most parts of this volume.

This book became possible due to the institutional support from the National Museum of Romanian History in Bucharest (MNIR), from former Romanian Institute of Thracology (now Thracology Department within the Vasile Pârvan Institute of Archaeology of the Romanian Academy) and from the University of Bucharest (UB), either by financing the archaeological campaigns or by sustaining the summer fieldwork with students.

Ioan C. Opriș
Alexandru Rațiu

1.
INTRODUCTION[1]

The Roman fort at *Capidava* is located at an equal distance of eighteen Roman miles (27 km) between *Axiopolis* (today Hinog Hill, close to the modern city of Cernavoda) to the south and *Carsium* (Hârşova) to the north, according to *Itinerarium Antonini Augusti* (224.3) and *Tabula Peutingeriana* (corrupt *Calidava*, *Segmentum* VII). Other important ancient or Byzantine sources mention the fortification, as well: *Notitia Dignitatum* (*Or.*, 29, 13), the *Synekdemos* of Hierocles (637, 10), the *Ravennatis Anonymi Cosmographia* (IV, 5, 47), *Notitiae Episcopatuum Ecclesiae Constantinopolitanae* (531) and, finally, Constantine VII Porphyrogenitus in mid–10th c. (*De thematibus,* 47, 1, 58–60).

Fig. 1. Lower Danube provinces during the Dominate (4th–6th c.)

"The fortress at the bend of the river", that is how W. Tomaschek in *Die alten Thraker. Eine ethnologische Untersuchung* translated the toponym *Capidava*[2]. The large bend of the Danube between Boazgic (nowadays Dunărea village) and Topalu conceals a ford, where the width of the river drops off to one half, *i.e.* ca. 250 m. "The Stone Bridge", as this rock is known to local tradition, was guarded by the *Capidava* fort, which stood on a high limestone cliff 1 km away. On the other hand, the suffix *dava* itself indicates the existence of a previous Getic *Machtzentrum*, maybe one

[1] Excerpts of this text have been previously published in OPRIȘ, RAȚIU 2016a; OPRIȘ, RAȚIU 2016b; OPRIȘ, RAȚIU 2015.

[2] W. TOMASCHEK 1893–1894, II.2, 283: Καπι-δαύα, Καπι-δάβα.

and the same where the unfortunate king Dapyx found his death during the siege led by the Proconsul M. Licinius Crassus in 28 BC, according to Cassius Dio (Roman History, LI, 26, 1–6)[3].

Fig. 2. Aerial photograph (2015)

The fort was built in a general strategic effort to strengthen the Danubian border, during the *bellum Dacicum Traiani*. Hard to say if this happened before the war or during the *expeditiones I* and *II*, including the non-hostile period of 103–105. It has been traditionally assumed that *vexillationes* of the *XI Claudia* and *V Macedonica* were directly involved in this initial building activity[4]. However, one should not exclude the idea that bricks and tiles for the construction of the fort could have been brought from the two closest legion brickyards (*Durostorum* and *Troesmis*). Subsequently they were most likely made locally by the garrison troop itself, in its own *officina*, yet to be discovered.

In 2017, during new excavations of the Roman baths, situated 100 m south-east of the fortification, the argument of an early simultaneous constructive moment for both the fort and the thermal edifice was confirmed. Roof tiles used for the drainage channel, covered with slabs from the first phase of the building, bear the stamp of *Legio XI C(laudia) P(ia) F(idelis)*, typical for the first decade of the 2nd c.[5]

The first auxiliary unit attested at *Capidava*, permanently relocated during Trajan's Dacian War, was *cohors I Ubiorum*[6]; it was succeeded by a cohort of the same Germanic origin, *cohors*

[3] According to the hypothesis of PÂRVAN 1982, 88–89 = 54–55 (2nd ed./ 1st ed. 1926).

[4] OPRIȘ 2006 237–238.

[5] ZAHARIADE 1999.

[6] ISM V 24; OPRIȘ 1997b, 277–281, fig. 1 = AÉ, 1997, 1330; MATEI-POPESCU 2010, 235–236; bricks mentioning *cohors I Ubiorum* have been attested at *Capidava*, see OPRIȘ 2006, 237–239. *Cohors I Germanorum* could have produced construction material (bricks and tiles) as well, although no sure evidence is yet available, see COVACEF 2000.

I Germanorum civium Romanorum[7]. Both units are documented through funerary monuments from the necropolis at *Capidava*[8]. During the Dominate, *Capidava* is mentioned as garrison for cavalry units. A troop of *equites scutarii*, possibly the same with *vexillatio Capidavensium*, was (or were) attested by two votive altars[9]. In the first part of the 4th c. it was replaced, according to *Notitia Dignitatum* (Or. XXXIX, 13), by another cavalry unit, *Cuneus equitum Solensium*[10].

The garrison troops successively stationed next to the river ford, together with the Moesian fleet units, exerted control over a large territory from both inside the province as well as in *barbaricum*[12].

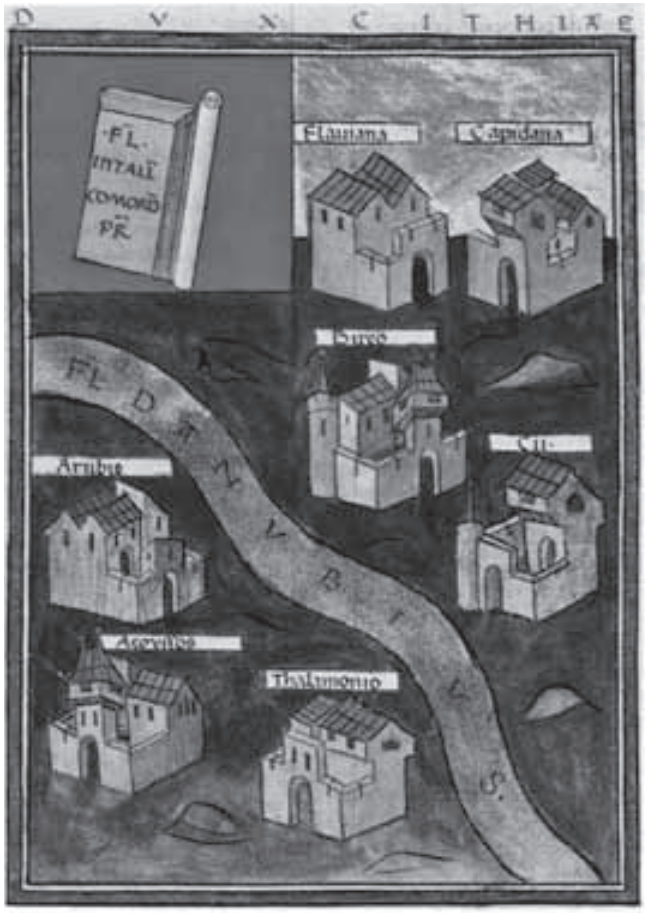

Fig. 3. *Notitia Dignitatum imperii romani* (Basel?, circa 1436): Paris, Bibliothèque Nationale de France. Manuscrits. Latin 9661 (fol. 101 verso)[11]

After fording the Danube at *Capidava*, the road to *Barbaricum* crossed a 10 km strip of land through the wetland of Balta Ialomiței, an island formed between the "Old Danube" and the branch named Borcea. The local tradition calls this road *Melciuș* (*Snail-road*, as *melc* is rom. for snail conk or shell), a reference to its structure containing fossiliferous crushed limestone and sand. At the other end of this 10 km road stood, until the 1st c. AD, the Getic *dava* at Bordușani.[13] A new crossing of the Danube and the roads system that linked the river courses through the Wallachian Plain, led to the Carpathians and the provincial territories of Transylvanian *Dacia*.

Due to the intensive archaeological research performed at *Capidava* since 1924 and in spite of its just 1.3–1.5ha, the initial Trajanic auxiliary fort (*castellum*) underwent three phases of reconstruction[14], but without altering the original plan and constructive dimensions, *i.e.* a rectangle oriented

[7] ISM V 16; AÉ, 1950, 76 = ISM V 36; OPRIȘ, POPESCU 1997; MATEI-POPESCU 2010, 213–215.

[8] ISM V 24, 36. A third inscription has been discovered in 1995 and published shortly after, see OPRIȘ, POPESCU 1997 and Cat. No. 177 in this book.

[9] IGLR 220–221; OPRIȘ 2004–2005, 183–185. On the *vexillationes equitum* in *Scythia*, see ZAHARIADE *et alii* 2006, 165–166.

[10] ZAHARIADE *et alii* 2006, 170–171.

[11] OMONT 1911, *non vidi*; illustration from the catalogue *L`Or des princes barbares. Du Caucase à la Gaule, V^e siècle après J.-C.* (eds. Michel Kazanski, Françoise Vallet, Patrick Perrin), Éditions de la Réunion des Musées Nationaux, Paris, 2000, 21: *DUX CYTHIAE* (sic!).

[12] FLORESCU, FLORESCU, DIACONU 1958, 12–24.

[13] See FLORESCU, FLORESCU, DIACONU 1958, 12–13; TROHANI 2005, pl. I; TROHANI 2006, 183. At Bordușani 13 dwellings have been archaeologically documented, but also 128 pits (out of which 5 were modern). The excavation covers 400 m^2 from a total surface of ca. 10.000 m^2. The *dava* dates from the middle of the 2nd c. BC to the middle of the 1st c. AD (9 different horizons). Hellenistic, Sarmatian, Celtic (?) and Roman materials have been recorded.

[14] FLORESCU, FLORESCU, DIACONU 1958, 66–72 and *in extenso* 25–72.

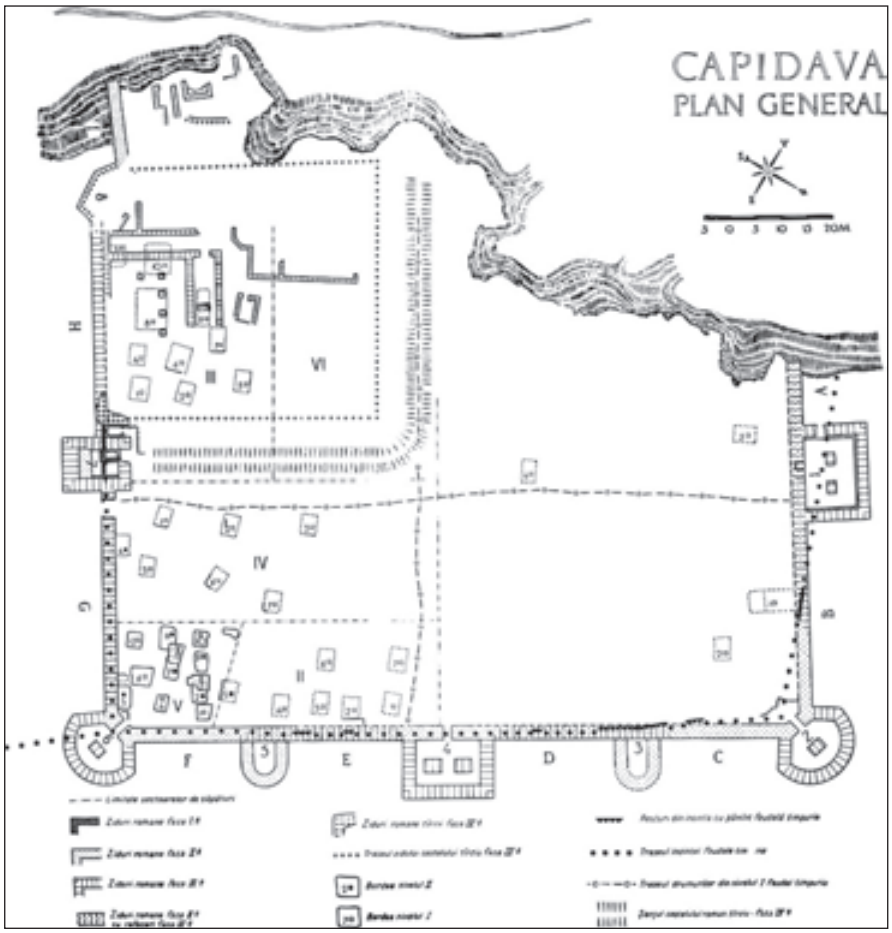

Fig. 4. General Plan (FLORESCU, FLORESCU, DIACONU 1958, Pl. I)

on a NW to SE axis measuring 105 m by 127 m[15] (Fig. 4). This plan has the closest known analogy upstream, at *Dimum* (nowadays Belene, close to the legionary *castra* from *Novae*)[16].

Its first reconstruction *a fundamentis* occurred after the Gothic attacks from 248–250 AD[17]. The event, commonly assigned to the reign of Emperors Aurelianus or Probus, was followed by two other major constructive interventions in mid–4th c. or even later[18], and again in the late 5th c. – beginning of the 6th c. AD, following severe barbarian attacks[19]. The first reconstruction is related to the Gothic turmoil that led to the disaster at Adrianople (9th of August 378) and the second has to do with the Hunnic raids, that took place during the next century. The horseshoe Towers No.3 and No.5, as well as the newly identified Tower No.9, on curtain G, belonged to the second phase. They disappeared in Phase III, when fan-shaped towers in the corners (No.2 and 6) and rectangular central towers (No.1 and 4) took their place, while the curtains were strengthened to a 2.60 m thickness. The Gate Tower No.7, given its strategic importance, was modified and reconstructed in both phases. Continuing the tower that received a thicker front wall in phase III, a newly designed curtain H with an intermediary course of 5 rows of horizontal bricks was added.

The last major Roman reconstruction of *Capidava* was a 6th c. one, but then again earlier than the Justinianic restoration program along the Danube *limes*. The boost in monetary circulation during the second phase of Anastasius` reign (512–518), but especially under Justin I, when the coin influx is second only to the capital city of *Tomis* confirmed this older hypothesis regarding the reconstruction of the fortress, originally suggested by the absence of the fortification from Procopius` list[20]. *Capidava* was mentioned among the 15 *poleis* (πόλεις) of the province in Hierocles`

[15] OPRIȘ 2003, 18–19, 22–25.
[16] IVANOV 1998, 554–556.
[17] FLORESCU, FLORESCU, DIACONU 1958, 67. A previous subphase Ib was supposedly linked to the Marcomannic Wars, when the Costoboci attacked *Moesia Inferior* (170 AD), producing damage at *Capidava*, as well: see VULPE 1968, 158–163; SUCEVEANU 1991, 33, n. 68, 74.
[18] A *terminus post quem* is 337 AD, see FLORESCU, FLORESCU, DIACONU 1958, 67–68; OPRIȘ 2003, 19.
[19] OPRIȘ 2003, 22.
[20] GÂNDILĂ 2006–2007, during the reign of Anastasius – Justin I: 99, n. 16; 107.

Synekdemos (637, 10) during the first half of the 6th c. Furthermore, a sixth-century bishopric is attested there (*Not.Ep.* 531). Phase IV is not at all visible from a defensive perspective (*i.e.* any changes in the plan of the city walls and towers), but precisely in the *intra muros* habitation contexts all over the fort.

Thus, as Andrei Gândilă already demonstrated, the coin circulation at *Capidava* intensified after Anastasius` second monetary reform (512–518) and during the entire reign of Justin I (518–528), reaching a level matched only in the capital city of *Tomis*[21]. Level N1 from Phase IV chronologically corresponds to the building program started by Anastasius, with a *floruit* under Justin I; this prosperity period continued under Justinian, the φιλοκτίστης[22]. A violent terminus of level N1 could be associated with the attacks of the Slavs and Cutrigurs in late 550s[23]. Level N2 is marked by repairs with earth and stone masonry with or without adobe superstructure; a new heavy burning layer marks the end of this phase, which lasted, according to previous opinions, until the raids of the Slavs in 576–578[24]. The discussion occasioned by the discovery of the coin hoard inside Building C1, that we can now correlate to several others contexts in the excavations from Eastern Sector of *Capidava,* allows an extension of N2 at least until 582, but more likely to 586 or even later[25]. The final level, noted N3, difficult to detect from the archaeological viewpoint, is related to the last Roman fort. Andrei Gândilă proposed a post 595 AD erection of the makeshift wall which enclosed the ephemerous fortified space and this can be logically accepted, at least for the current state of research[26]. The end was very near and the last Early Byzantine coin, a *follis* of Heraclius (612/613) might give us an idea about the final minute. *Capidava* lost, as all other fortresses along the Lower Danube frontier did, its military function after the *coup de grâce* attacks of the

Fig. 5. General Plan (2017)

[21] GÂNDILĂ 2006–2007, 99.
[22] IGLR 87; CURTA 2001, 152, n. 55.
[23] GÂNDILĂ 2006–2007, 107; for the general destructions at *Dinogetia*, *Histria/ Istros*, *Aegyssus*, *Sacidava*, *Tropaeum Traiani* and *Capidava* during the attack of the Cutrigurs in 559, see BARNEA 1991, 174, 180, 181, 186, 189, 206–207.
[24] OPRIȘ 2003, 23, 25, 33; GÂNDILĂ 2006–2007, 107.
[25] See *infra*, in this chapter, as well as the arguments in the separate contribution of Andrei Gândilă (Annex I).
[26] GÂNDILĂ 2006–2007, 106.

Slavs and Avars in 614–616[27]. Procopius` barrier against the barbarians (πρόβολον ἰσχυρότατον) halted its function for the next centuries[28], as the entire Empire was reinventing itself.

The late enclosure of the fortlet proves to be a late 6th – early 7th c. one (Phase IV, Level N3), even if previous dating proposed three very different moments. Grigore Florescu, who first identified it during the archaeological investigations in the southern quarter of the fortification, thought that the fortlet and the surrounding ditch dated back to the reign of Anastasius[29]. Taking into consideration known planimetric analogies with the fortification at *Abusina* (Eining), Sandor Soproni proposed an even earlier dating, by the end of the 4th c.[30]; although no analogies were available for the 10th c., Petre Diaconu argued that the wall-berm-ditch ensemble dated precisely in that time, because Middle Byzantine shards were found at the top of the berm[31]. However, one thing is sure, namely the fact that the late fortlet from *Capidava* is the latest of its kind. Having *Abusina* as closest analogy, it is likely that the rapid decrease in the number of the defenders determined the decrease in size of the fortification. They also chose to fortify the same corner of the previous fortification, a matter of topographical correctness and closeness to the main source of water or escape: The River Danube[32].

After two centuries of hiatus, the habitation resumed on top of the Roman debris, when a new settlement of *stratiotai* defending the frontier is attested for the 10th–11th c. Radu Florescu suggested an earlier dating for the beginning of this latest phase: the beginning of the 9th c. This late *Capidava* fortlet, comprising more than 100 sunken dwellings per occupational level, has been successively destroyed and rebuilt six times over, *i.e.* an interval of construction/ destruction of a generation[33]. The Middle Byzantine settlers utilized the previous enclosure, heightening the perimetral walls with stone-and-earth masonry, at the top of previous Roman ones and the subsequent rubble layer. This last fortification effort was doubled by a ditch that cut through the Towers (No.1, 2 and 4) and had, for sure, two phases. The second one meant an enlargement of the inhabited space, by extending the enclosure as well. This operation has been observed in Sector VIII *extra muros*, during recent excavations, on the SE plateau. According to Pamfil Polonic`s drawings from the beginning of the 20th c. a symmetrical extension functioned on the other side of the fort following a diagonal course from former Tower No.2 towards NW[34]. This may indicate a second phase of development of the Middle Byzantine enclosure, which had to shelter an increasing population. Around the middle of the 11th c. the fortification was definitively abandoned, under the heavy attacks of Pechenegs and Uzes[35]. During the 18th c. a Turkish border village Kale-köy ("Village of the fortress") still marked the vicinity of the ruins. In 1924, the first archaeological investigations conducted by Grigore Florescu brought *Capidava* back to life.

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[27] GÂNDILĂ 2006–2007, 107.

[28] CURTA 2001, 150.

[29] FLORESCU, FLORESCU, DIACONU 1958, 69–72; see also FLORESCU R. 1975, 366–372.

[30] SOPRONI 1986, 409–415, esp. 410; for *Abusina*, see also MACKENSEN 1994, 479–513.

[31] See FLORESCU R. 1975, 366 and n. 4.

[32] See OPRIȘ, RAȚIU 2015 (forthcoming).

[33] FLORESCU 2004. Regarding the stratigraphy and chronology of all sequences of Middle-Byzantine habitation, little has changed since the most important contribution to this topic, FLORESCU, COVACEF 1988–1989. The most recent contribution, with all previous bibliography, is CURSARU-HERLEA 2016, 31–32, 41–61.

[34] Archive of the Archaeological Institute of the Romanian Academy in Bucharest, Ms. 15, envelope 15, E, f. 189/11): Cet. rom. de la Calachioi (*CAPIDAVA*).

[35] The moment is unclear and still disputed, as no convincing argument is yet available. See CURSARU-HERLEA 2016, 13, 15–16, 32 (n. 29), 56, 57. The two hypothetical final moments are symmetrically 1046, 1064 respectively. The first year is associated to the Petcheneg attack of Tyrach and Kegen in Dobrudja, during the reign of Constantine IX, and has been proposed by MĂNUCU-ADAMEȘTEANU 2001, 122; the second, from the narrative of Skilitzes-Kedrenos in the 11th c., mentions the great migration of the Uzes. For the latter moment (1064/1065), see also MEŠKO 2013, 184, 186–187. The 1064 hypothesis belongs to FLORESCU, COVACEF 1988–1989, 244.

* * *

In the proximity of the main gate and Gate Tower No.7, a building was investigated during several archaeological campaigns (1993–1996; 2007–2011, 2014), referred to as Building C1. The building is one of medium size neighbouring the large basilica-plan edifice, with three naves and preceded by a portico – the *Horreum* (granary). Further to NW, aligned with the other short side of the latter and separated by a corridor, a new large size building on a lower terrace of the cliff and a 26 m long Late Roman *Principia*, with an apse on its south-eastern end, complete the list of what one might call the "Official district" of the 4th–6th c. *Capidava*. The latter building is under current intensive archaeological investigation[36] and a new exhaustive monograph is expected in the years to come.

Intensive archaeological investigations of the *Horreum* took place between 1985 and

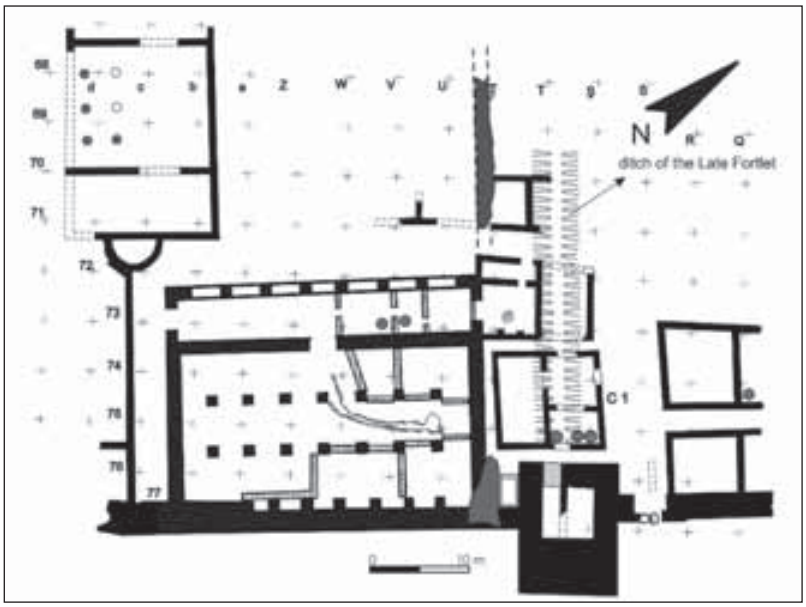

Fig. 6. Southern quarter (6th– early 7th c.)

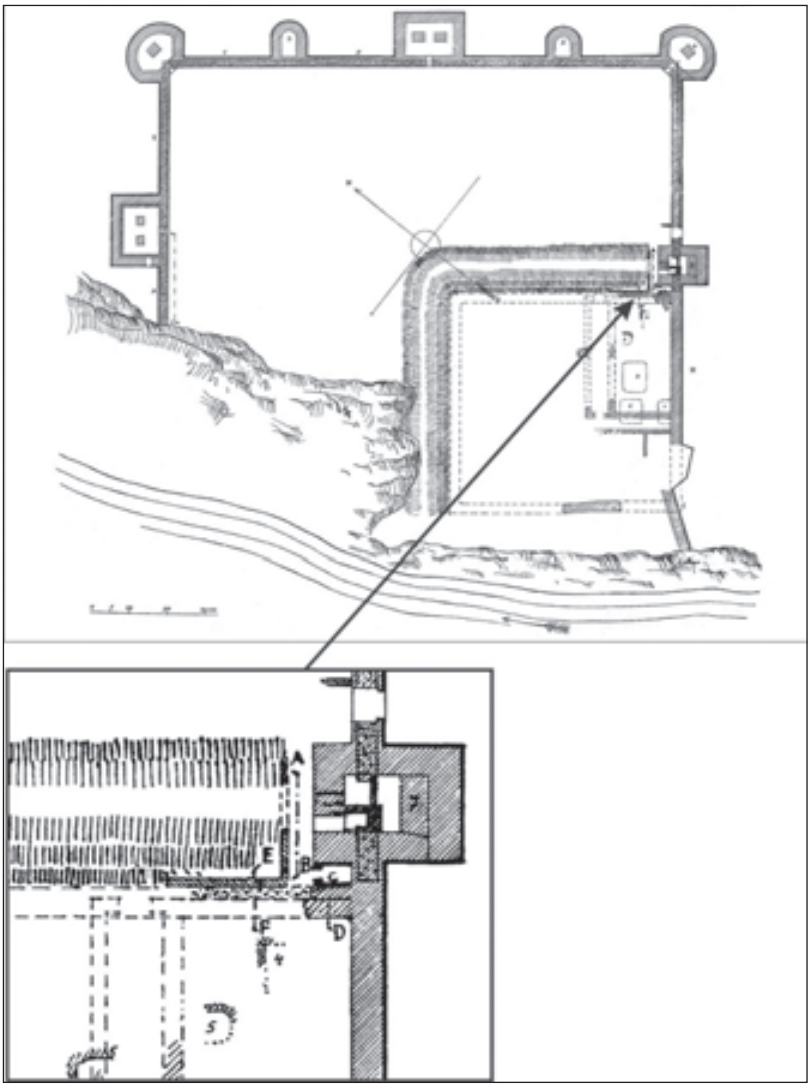

Fig. 7. First excavations of the *Horreum* and identification of Building C1 (FLORESCU 1945–1947, Pl. I)

[36] The official building has never been subject of a distinct publication, but was already mentioned in FLORESCU, FLORESCU, DIACONU 1958, pl. I-II; it appeared in the report on the Middle Byzantine dwellings excavated in 1957, see FLORESCU *et alii* 1959. Considerations on this edifice earlier to the beginning of the systematic research in 2013 belong to Prof. Radu Florescu, see FLORESCU 1975, esp. 368–370. For the last intensive investigations, see OPRIȘ, RAȚIU, DUCA 2014, 35–36, 273–275 = fig. 9–14; OPRIȘ, RAȚIU, DUCA 2015, 48–49, 343 = fig. 4–6; RAȚIU, OPRIȘ, DUCA 2017, 34–35.

1993. One third of the building has been previously excavated by Grigore Florescu in 1942–1943, but no detailed report on those two campaigns is available. On that occasion he levelled the southern quarter of the fort, in order to set up a narrow-gauge railway line. This was meant to serve a more efficient evacuation of the excavated rubble, but led to the "simplification" of the stratigraphic data accordingly. Several sunken dwellings (nine) have been identified inside the *Horreum* at that time[37].

The *Horreum* is a three-aisled building measuring 23 × 32 × 21.5 m (with the portico and 16.25 × 32 × 18.75 m the building alone). The perimetral walls are 1.50 m wide, while the wall of the portico is just 1.20 m. Two rows of seven pillars stood in its central part, and the north-western one was complete; from the south-eastern row just five of the 1.20 m square pillars could be archaeologically documented. Six slightly smaller pillars (1.20 × 1.05 m) have been added during a second constructive phase, when they were attached on the longer side to the curtain H. They have specific dimensions and intervals.

The portico superstructure stood on L-shaped pillars its corners and six square-shaped intermediary ones.

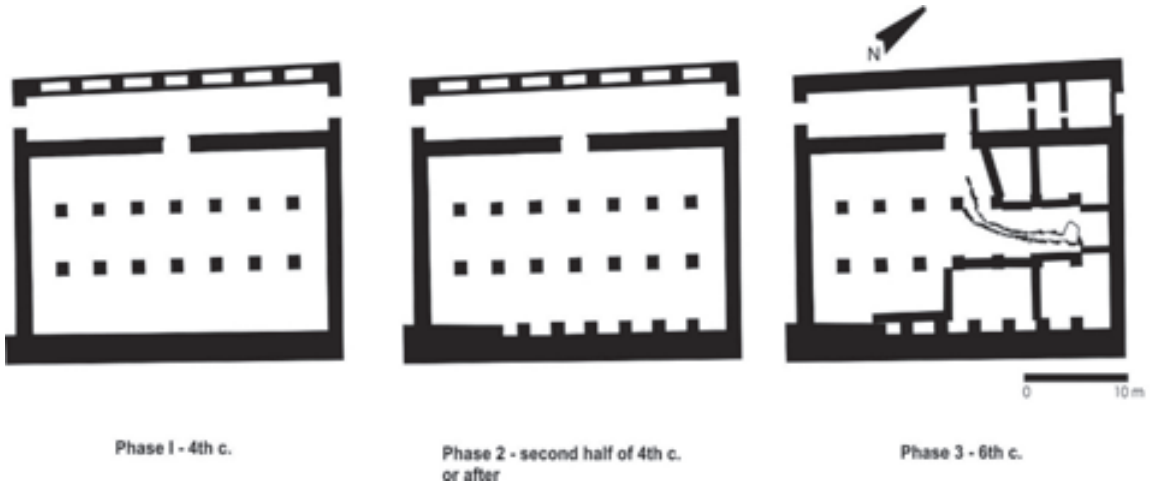

Fig. 8.The *Horreum* from *Capidava* (4th–6th c.)

Three different phases are known. To the first one belong the two interior rows of pillars and the portico design. In a second phase, most likely during the reconstruction of the curtain H, the third row of pillars was added. In the third and final phase compartments with stone and earth foundations and adobe superstructure were organized in the lateral inner space, while the central nave was transformed into an open space (court) with stone pavement with a channel for water draining. This has obviously brought a major change in the design of the roof (*impluvium*).

The first phase of construction dates back to the 4th c.; at that time the roof had two slopes and functioned as a *horreum*. Although without buttresses, a common feature in the design of *horrea*, the best analogy remains the building in *Montana*, with the main entrance on the long side[38]. The second phase dates to the second half of the 4th c. at the earliest, concomitant to the curtain H reconstruction. The roof kept its previous design, although some interventions were indispensable. Finally, the third phase is that of a central courtyard with double function: storage and habitation. Its end has a *terminus post quem, i.e.* Justin II bronze coins from 571/572 (and largely 565–578)[39].

[37] At FLORESCU 1945–1947, Pl. I six Middle Byzantine dwellings superpose the area of the former *Horreum* and of the portico; a total of 9 dwellings are mapped at FLORESCU, FLORESCU, DIACONU 1958, Pl. I; one more sunken dwelling has been identified later on, for which see OPRIȘ 2003, pl. VI (No. 347).

[38] DINTCHEV 1999, 165–174, esp. 168–169, fig. 2 D and n. 25.

[39] OPRIȘ 2003, 32–33, n. 40.

During the final phase, the portico kept its original ground-level, while, in the inner space of the building, the floor stood sensibly higher. Its function was that of storage, and three rooms organized in its eastern half offered a high concentration of pottery, especially amphorae, but also handmade jars and (two) *dolia*. The compartment walls were made of wattle and wooden structure with poles and adobe core.

One important observation at the end of the building was made during the excavation conducted by Prof. Radu Florescu, who mentioned a shear effect caused by a violent earthquake. The telluric movement led to the destruction of the earth and stone walls and the perfect horizontal cutting of the brick courses in the case of the perimetral walls of the *Horreum*. Thus, all the way through the wall, there was a brick course with four large bricks of ca. 0.35 × 0.40 m. The interior pillars suffered on that occasion as well, and several upper sections were found next to the corresponding pillars with the brick intermediary courses in a vertical position.[40]

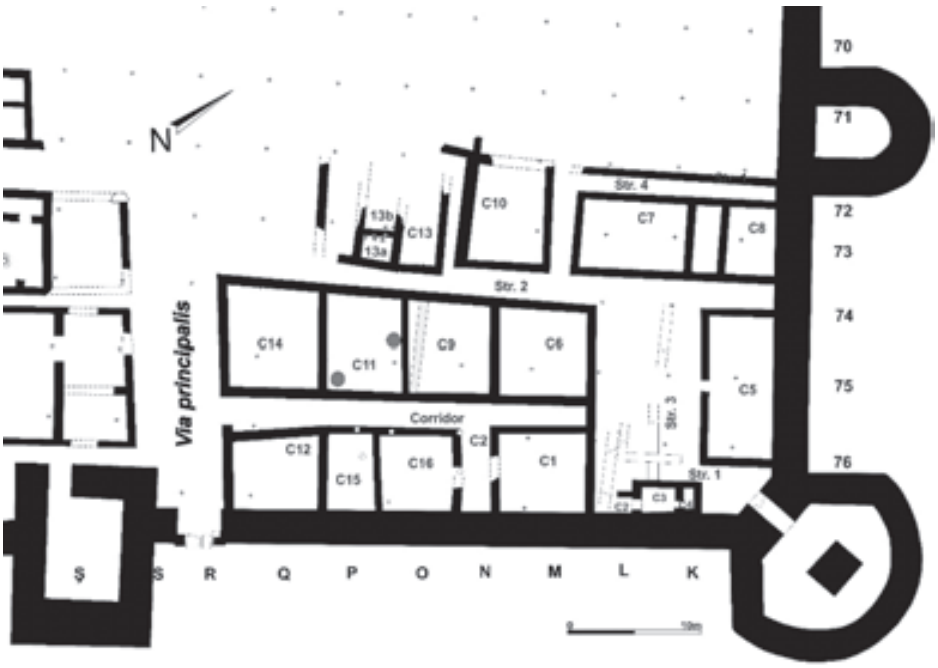

Fig. 9. Eastern Sector (Sectors II, IV, V – 2017)

The southern quarter of the Late Roman *Capidava* presents itself in a perfect opposition to the so called Eastern Sector (Sectors II, IV, V), next to *via principalis*. This is situated in the corner between curtains G and F of the fort. Previously, in the early Roman period, this area accommodated *contubernia*, but later, during the 4th–6th c., the constructions adapted to other specific needs and the space was occupied by mixed storage rooms and civil habitations. Two small-sized private baths have been discovered so far. One of them stood next to the curtain wall G, not far from the fan-shaped Tower No.6 and had two rooms; the second *hypocaustum* serving the same purpose was found in dwelling C13.

A different planimetric position occupies the last significant building from the 6th c. known so far, *i.e.* a church in the northern corner of the fortification, with its apse next to the fan-shaped Tower No.2. It is the only known church identified so far at *Capidava*, built in the first half of the 6th c. It was situated in the northern corner, the highest and, thus, the most visible point of the fortification. This single-nave basilica, with no archaeological sign of a narthex, superposed an earlier and even smaller church, possibly built at the end of the 4th c. The nave is 12.20 m long and 8.40 m wide (walls included). The total length is of 18.20 m. The edifice impresses by its building technique,

[40] FLORESCU 2000–2001, 453, 457, for the 6th c. earthquakes known from the ancient authors.

with facings made of almost regular long blocks of stone, where the elevation was still visible (the apse area); the perimetral walls are 1.00–1.10 m wide and at the contour of the apse they reach even 1.30 m. Such situation is rather peculiar. For example, the walls of the monumental Bishopric Basilica in *Histria* are just 0.70 m wide. A small apsed annex has been added to the northern wall that served a liturgical purpose. During the 1976 archaeological excavations a small sized *loculus* (Gr. *enkainion*) made of brick and pink mortar masonry with no box for relics inside was found in the very spot where the altar table stood. This practice was common in *Illyricum*, in neighbouring *Moesia Secunda*, and what is most interesting is that it has analogies in the 6th c. Palestine and Jordan. The latest coin is a *hemifollis* from Justin II (dated 570/571?), that offers the possibility to synchronize the destruction of the church with the attack that badly affected the southern and eastern part of the fortification during the next decade[41]. During Middle Byzantine period five sunken dwellings superposed the inner space of the ruined church. This means that the old building, at least partially still visible, had lost its religious meaning long ago to the *stratiotai* living in the new fortification. They must have had a church of their own, maybe at the centre of the fortification, as found at *Dinogetia*, but it has not yet been found.

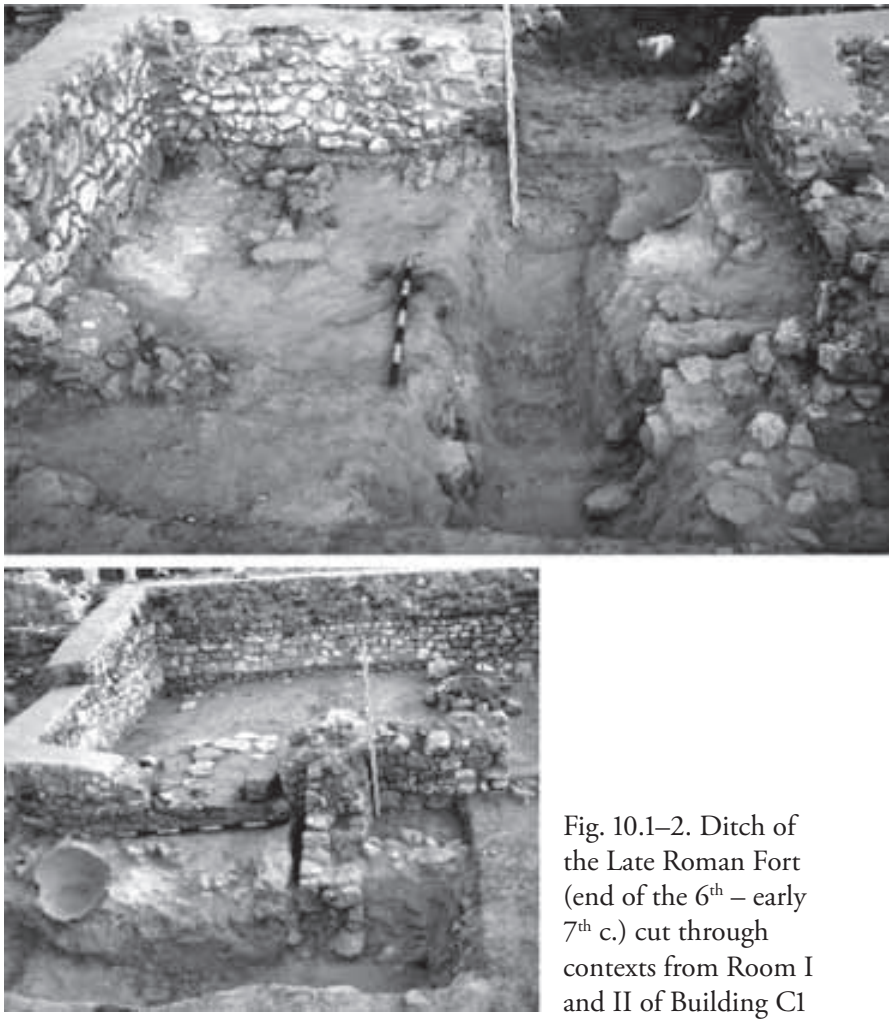

Fig. 10.1–2. Ditch of the Late Roman Fort (end of the 6th – early 7th c.) cut through contexts from Room I and II of Building C1

An interesting aspect is regarding the population living within the 1.3ha (or slightly bigger) fortification. Florin Curta already advanced surface calculations vs. military population for 6th c. Balkan and Danube frontier forts[42]. According to this estimation, *Capidava* must have garrisoned *intra muros* 850 men or even more. We believe this number is rather generous and unlikely, as for the same surface during the 2nd–3rd c. the fort could hardly provide enough room for a *cohors quingenaria*.

Returning to the topic of this book, although during early excavations Building C1 did not raise any extraordinary expectations, once the research was completed, along with several archaeological and topographical surveys, this edifice assumes a clear paradigmatic value. First of all, because, despite the modest dimensions of the edifice, it allows now a monographic publication through the large volume of architectural and planimetral aspects regarding the building itself[43] along with the extremely

[41] ACHIM, OPRIȘ 2010.

[42] CURTA 2001, 183, table 7.

[43] The architectural surveying and the successive plans throughout the archaeological research were provided by

Fig. 11. The province of *Scythia*, 4th–6th c. (after SUCEVEANU, BARNEA 1991, 291)

interesting archaeological contexts. Of no lesser significance are the artefacts found inside[44], among which we can distinguish a coin hoard consisting of 46.5 *folles*, published in the same year when its

Arch. Anișoara Sion, but we should mention Arch. Cătălin Georgescu (+) – MNIR, Bucharest, as well. Special thanks go to Dan Costea and Dan Ștefan for the aerial photographs in 2014–2015.

[44] The artefacts discovered during the excavations from 1993–1997 have been already published in OPRIȘ 2003 and earlier in: OPRIȘ 1997a, 207–218; OPRIȘ 1999–2000, 427–469. For the only epigraphic piece, see OPRIȘ, POPESCU 1997, 177–181. A preliminary study, the amphora assemblage from this building and a military piece of equipment (*umbo*) have been recently published: see OPRIȘ, RAȚIU 2016a; OPRIȘ, RAȚIU 2016b; RAȚIU, OPRIȘ, 2014.

last pieces were discovered (2009).[45] Above all, the amphorae and the tableware offered important information for the dating and functionality of this building. Other artefacts bring added value in this direction, as it will be shown subsequently.

Thirdly, because the building sheds light on the archaeological documentation of the last two occupational levels of the Roman fort (N2–3 from phase IV), a phase which covers a dating sequence starting from the 6th c. and through the beginning of the 7th c. AD[46]. As we shall see infra, this building hardly exceeds a surface of 100 m^2, including the thickness of the walls. One should also keep in mind the defence ditch crossing the building from one end to the other right through the middle, dug shortly after the violent destruction from the 580s in a last attempt to re-fortify the south corner of the fort (Fig. 10.1–2). That means we should subtract about 25 m^2 from the total surface, as this ditch practically cuts through all the previous contexts. The situation is more than fortunate: even after extracting this radically altered surface from the general archaeological investigation of roughly 100 m^2, we could still gather enough material and stratigraphic data to deliver a monographic study of a building of this complexity.

Last but not least, the archaeological research of this edifice reveals, through the analysis of all of the above, an integrating radiography of an urban settlement from the Danubian frontier of *Scythia*, bearing a two-folded significance, both civil and military, thus, defining the concept of *limitanei*. Until further archaeological excavations in other larger or more important fortifications of the northern Danubian *limes* will provide remarkable archaeological contexts, Building C1 bears witness to the *annona* system within the *quaestura Iustiniana exercitus.*[47]

[45] GÂNDILĂ 2009, 87–105.

[46] OPRIȘ 2003, 22–26. More recently, see a systematic approach at OPRIȘ, RAȚIU 2015 (forthcoming).

[47] CURTA 2001; CURTA 2016a; CURTA 2016b; CURTA 2016c; CURTA 2017; KARAGIORGOU 2001; RIZOS 2013; RIZOS 2015; TORBATOV 1997.

2.
BUILDING C1. THE EXCAVATION: ARCHITECTURE, STRATIGRAPHY AND FINDS

2.1. General information

The dimensions of Building C1 are approximately 10 by 11 m; precise outer measurements indicate 9.93 m on the side parallel with the *Horreum* (Z3) while the side parallel with Tower No.7 (Z2) measures 11.06 m (Fig. 13). Quadrangular in shape, the edifice seems aligned with the large building (*Horreum*) erected sometime during the 4th c. AD, with the Tower No.7, and with the axes of the main gate and the main street of the fort – *via principalis* – to which it is directly adjoined. Hence, the logical deduction that the moment of its construction was subsequent to the building of the largest edifice from *Capidava,* the *Horreum.* The latter, a large basilica-plan edifice, with three naves preceded by a portico – was called *Corps de Garde/ Guardhouse* by Prof. Radu Florescu and finally *Horreum* (granary)[48]. Along with its portico, it covers an area of 750 m^2. By comparison, Building C1 has a total area of only 109.5 m^2.

Furthermore, for practical reasons which nowadays elude us, the front half, next to *via principalis,* was yet again divided by the construction of another wall (Z5). Starting from the entrance, the chambers were conventionally named: Room I (22.55 m^2), Room II (14.60 m^2) and Room III (33.50 m^2) (Fig. 12; 13). The perimeter walls (Z1-Z4), along with the inner walls (Z5-Z6), as far as they could be archeologically documented, are were of good quality stone and mortar masonry, their width varying between 0.60 and 0.64 m. Due to the massive constructive intervention from the last two decades of the 6th c., the perimeter walls showed a dramatic change in elevation, *i.e.* from 0.5 m (Z1) raising up to 1.85 m (Z3). In this last part of the building, the walls appeared during the excavation immediately under the vegetation level. On the front side of the building, the walls (Z2, Z4 and Z5) are interrupted by the Late Roman *castellum's fossa*, going from a width of approx. 1.2–1.3 m at the level of the 6th c. floor to double the size at the upper part of the walls[49].

The main entrance of the building is situated in Room I, offering direct access towards the street, and the width of its doorstep, identified during the excavations from the 1990s, measures 1.9 m. Near the respective entrance, in the northern corner of the building there could be identified the remains of a stone pavement covering an area of ca. 1–1.50 m^2. It is difficult to determine whether the pavement was built only near the entrance, on a certain area of the precinct, or if it had covered the entire floor at some point; however, it is obvious that, aside from the pavement, the rest of the occupational levels have a unitary aspect, *i.e.* approx. 25–30 cm lower than the pavement in all three chambers.

Between Room I and Room II, there was a separating wall 4.8 m long (Z5), from which we could identify only the endings, its median part being destroyed by the *fossa*. In the lower part ofthe *fossa* the substructure of this inner wall (Z5) still remains untouched on its full length (for more than 0.5 m).

[48] For a more complete reading see OPRIȘ 2003, 26–33.

[49] OPRIȘ, RAȚIU, DUCA 2014, 35; 272, figs. 6–7; 273, fig. 8, for the latest comparable recording of the *fossa* in trench S 1/2004.

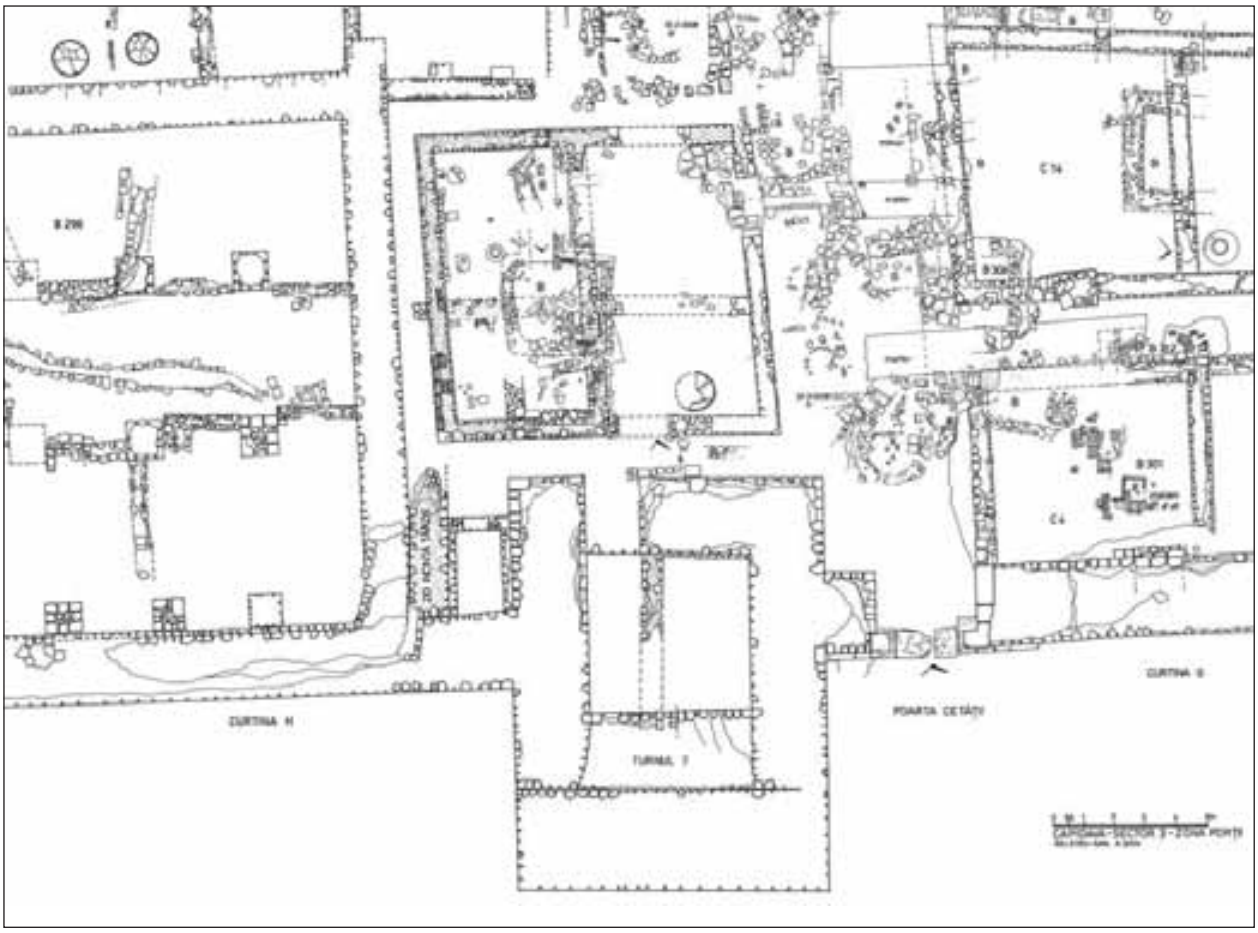

Fig. 12. Plan of Building C1 with *Horreum*, the Main Gate and the Gate Tower No.7 (6th c.) by Anișoara Sion (2009)

Interestingly enough in Room II there are three large half-sunken *dolia* situated on its south-eastern side, parallel to Z2 and to Gate Tower No.7. The positioning of the three storage vessels was very practical. They cover the entire side of the respective wall. In the same room another smaller vessel was found, with a similar function which by comparison with the larger *dolium*, was not embedded but rather mobile according to needs and used for short-term storage.

Our first assumption was that two independent access points functioned between Room I and II, on one hand, and the largest room of the edifice, Room III; in this way, each of the two initial chambers would have had direct, practical connections with the latter one. Later research regarding such a passage between Room II and III proved to be inconclusive, as Z6 wall did not reveal the expected information. This means that the circulation to both rooms was clearly assured only from Room I. The width of the doorstep between Room I and III, after careful reconsideration of the Z6 lower elevation proved to be larger (1.50 m instead of ca. 1.25 m).

As previously established, Room III is the largest chamber of the edifice, measuring an area of 33.5 m^2 from a total of 87.5 m^2, representing the entire inner area of the building. In this room another *dolium* was found, in the corner adjacent to Room II. Dismantled as some point, its existence can be deduced from the perfect circular negative print visible at floor level, from the earliest phase of the Context no. 5 (Fig. 13).

Preponderant inside the room, but also in contexts no. 4 and 5 (see *infra*) from Rooms I and II, throughout the length of the *fossa,* one can observe a relatively important quantity of scattered and brick-like adobe, which raises the question of the material used in the building of the internal walls. At least for the wall (Z6) measuring 8.6 m, which separates Room III from the other two

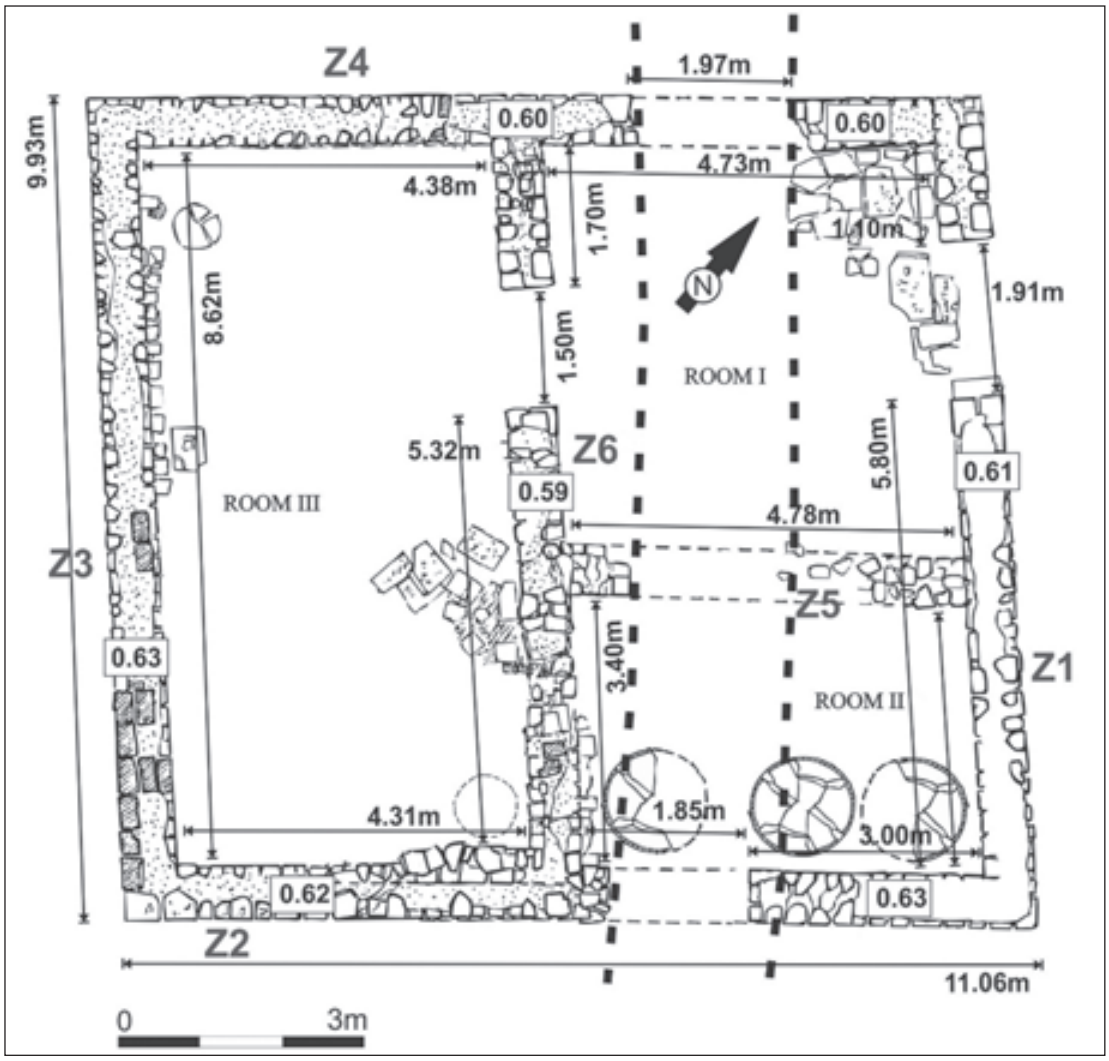

Fig. 13. Plan of Building C1

rooms, one could consider that above the four courses of stone preserved in elevation near the doorstep there could have been an adobe masonry.

2.2. Perimetral walls; the upper structure and the roof

The archaeological investigations between the years 2006–2010 and the sondages from 2011 and 2014 inside Room III of the edifice offered interesting observations regarding the building technique (Fig. 13). Thus, walls Z3 and its joining segments with Z2 and Z4 are actually the best preserved structural parts of the entire building. The preserved height of Z3 wall can reach up to 1.85 m[50]. On wall Z3 two horizontal courses of the elevation could be observed. The lower course of this wall with facings of *opus incertum* and rubble core measures 0.70 m; the second, upper one, is a little bit larger. One can infer the existence of a third course, which makes an acceptable height of 2.20–2.40 m from the surface of the floor to the ceiling, continued by the roof timbering.

Another important detail must be also taken into consideration. During the 1993–1996 excavations, as shown on the plans offered by Arch. Anișoara Sion, a long set of bricks was revealed in a bed of mortar at the top of the wall, in the southern section of Z 3; furthermore, the horizontal layer of bricks goes all the way through the wall (Fig. 14). Typical for military architecture of that

[50] OPRIȘ, RAȚIU 2016a, 194.

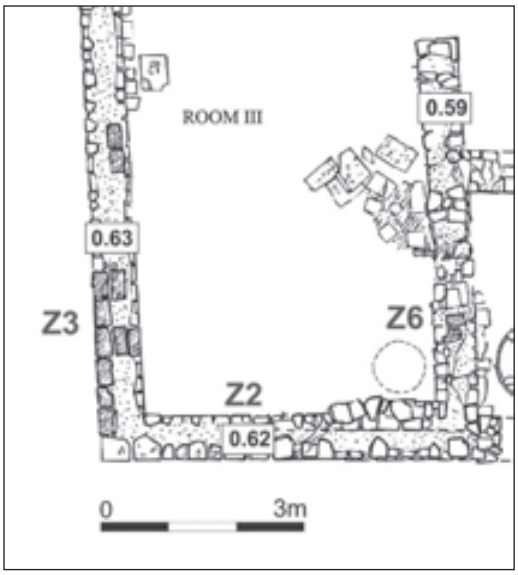

Fig. 14. Room III. Levelling course of bricks at top of Z3 wall (detail)

time, this constructive element with both facings and core coursed leads to the possibility of an *opus mixtum* levelling solution in the upper section of the wall. A supplementary argument is that the neighbouring short side of the *Horreum* has been preserved at a comparable height to Z3 wall. On both the short and long side of the great building the brick imprints in a thick mortar bed were still visible in the early 1990s, witnessing a similar construction technique, with levelling courses of large bricks going all the way through the core of the wall.

A few 2 mm thick window glass fragments have been found inside the building, but more accurate information about the natural light illumination was actually unavailable. However, one should infer the existence of windows, at least for the Z1 front side, that got more sun light than the others. Smaller windows could have existed on longer sides Z2 and Z4, respectively.

No indication of staircase holes in the perimetral walls or substructure has been found during archaeological excavations. The ceiling rested on joists supported by the main beams situated on pillars (although no trace of such structural element could be observed at floor level) or, more likely, on the perimetral walls[51]. As the upper part of the perimetral walls did not survive (*i.e.* no housing for the joists either, that could be circular or square in section), we will never know the exact way that the horizontal beams rested, directly on the walls themselves or, less probable, on wooden posts.

Taking into consideration the preserved terracotta elements, the roof of the building was covered with flat flanged tiles (*tegulae*) and their water-tight junction-covers (*imbrices*) followed the pitch of the roof. Between the joists and the tiles there must have been laths that supported the heavy roofing material.

Fig. 15. Room III. Limestone blocks from the facing of Gate Tower No. 7 (?) next to Z6 interior wall (detail)

One other unsolved aspect is whether Building C1 had a one or two-sided timber roofing. For both cases, the horizontal purlins (*cathenae*) go from one gable wall to another; these purlins hold the rafters and then the boarding (laths, *templa*) superposed by the tiles.

If a triangulated truss system (with tie-beam and two principal rafters) cannot be hypothetically excluded, in such case the gable walls could have been no others than Z2 and Z4. Yet we incline towards a lean-to, one side roof timbering draining water directly to the main street. Such a roof rested on perimetral walls and most certainly on the median wall Z6. The practical argument for such a pent roof is given by the insufficient space to neighboring buildings: the corridor between the *Horreum* and the Building C1 is just 0.78 m large (!); the distance between Z2 to the Gate Tower and its entrance is a bit wider (1.25 m). As to the distance between Z4 and the perimetral wall of building C2, the latter measures 1.00 m. On the other hand, one should keep in mind that a one

[51] ADAM 1999, 419–435, for the carpentry regarding ceilings and above all roof timbering.

slope roof stretching from Z3 to Z1 means ca. 10 m long rafters.

A pile of large blocks lay close to Z6, fallen inside Room 3 in a domino sequence (Fig. 15). Neither the dimensions (the largest ones measure 75 × 40 × 40/ 75 × 40 × 23 cm), nor the mortar stuck to their carefully chiselled surface have anything to do with Z6 and its building technique. We could count nine such limestone blocks. They lay 5 to 6 m away from the Gate Tower No.7 and we can advance a single plausible interpretation for their position on the floor of the room. They must have fallen from the structure of the tower in the course of the same violent attack that destroyed Building C1, crushing its roof due to their massive weight, but also the corresponding part of Z6. This hypothesis is in agreement with for the poor condition of the Z6 wall that could have allowed right in this section a passage between Rooms 2 and 3.

Fig. 16. Adobe bricks blocking the passage between Room I and III

One last problem is that of the adobe bricks blocking the passage between Rooms 1 and 3 that have fallen with the roof in a domino manner, as it could be clearly observed during the excavations in 2007 (Fig. 16). Their dimensions are ca 42.7 × 19 × 9 cm. The bricks were aligned to Z6. The main unsolved question is whether they belonged to the gable or to the Z6 upper structure.

2.3. Archaeological Contexts and Stratigraphy

The stratigraphy of the Building C1 is relatively simple and at the same time representative for *Capidava*. In the course of the archaeological research the recording of the vertical stratigraphy of the site, and implicitly of the finds and complexes, was made by defining several archaeological contexts (Fig. 17). Thus, we have established eight different contexts, as follows:

Context no. 1 – modern vegetation level, blackish-brown in colour, sandy textured, low degree of compaction, multiple traces of roots and animal interventions, accidental finds of archaeological material; has a width of approx. 0.10 m.

Context no. 2 – anthropic level, medium-grey coloured sediment, dusty texture, granular structure, low compaction degree, contains large quantities of ceramic material, animal bones, coal pigmentation, adobe fragments and has a width of approx. 0.20 – 0.40 m. This level corresponds, from the historical point of view, with the construction level of the Middle-Byzantine dwellings. The archaeological material recovered from this context is numerous and is composed of medieval pottery, along with a few Roman pottery fragments displaced from the layer below, animal bones, reused Roman construction material etc.

Context no. 3 – intermediary level, yellow-ash coloured sediment, without any anthropic elements, homogenous and highly permeable, has a width variable between 0.30 m and 0.70 m. This context is the result of the multiple depositions of layers in the interval between the 7th and 9th centuries AD. No dwelling structures were found in this level.

Context no. 4 – anthropic level, yellow coloured sediment, homogenous, dusty texture, low compaction degree, contains large quantities of ceramic construction material, burnt structural

wood, coal pigmentation, adobe fragments and approx. 0.40 m wide. The ceramic construction material (tiles and bricks) is compact, distributed evenly throughout the context and can be found in great quantities. The burnt structural wood is discovered in large fragments, and in certain areas the whole layer is darkened by the abundance of coal pigmentation. This context corresponds to the roof debris layer.

Context no. 5 – anthropic level, yellow-reddish coloured sediment, dusty texture, relatively heterogeneous, low compaction degree, contains large quantities of pottery, burnt wood, coal pigmentation, adobe fragments and has a width of approx. 0.30 – 0.60 m. This context represents the Romano-Byzantine occupational level from the 6th c. AD. This is an *incendium* level, documented by heavy burning evidence and secondary burning of the ceramic material. This context is the most prolific in terms of discoveries: ceramic material of various types and in a good state of preservation, rotary querns – typical discoveries in a civil building of this age, a hoard of 51 cooper-alloy coins (*folles* and *hemifolles)* etc. The archaeological material from this context as a whole (consisting mostly of pottery) is severely affected by a powerful burning.

Context no. 6 – raw clay layer, yellowish coloured and highly compacted. It represents the 6th c. floor of Building C1. In some parts the thin floor contains flat stones which constitute a sort of pavement, mainly near the entrances. The width of this layer varies between 0.05 and 0.10 m.

Context no. 7 – layer with a dark-grey coloured sediment, sandy texture, inhomogeneous, low compaction degree, contains small pottery fragments, animal bones, coal pigments; the layer is approx. 1.10 m wide. This context represents the infilling of the defence ditch of the 7th c. *castellum*.

Context no. 8 – layer with a light-grey coloured sediment, sandy texture, inhomogeneous, low compaction degree, contains massive quantities of stones of different sizes, predominantly small ones with a lot of mortar; the layer has a preserved width of approx. 0.80 m. The context represents (for the portion where the master-profile was made, near the southern gate) a modern intervention – subtraction for the main gate access ramp.

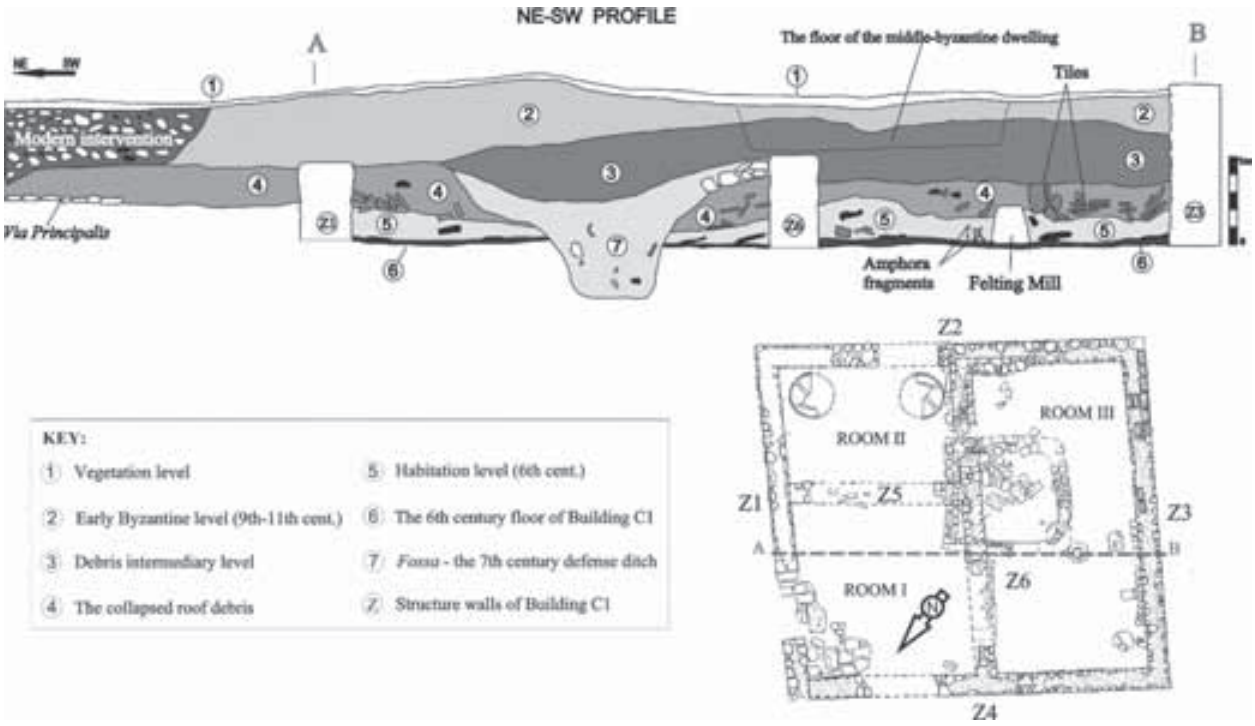

Fig. 17. North-East – South-West profile through Building C1 illustrating the archaeological contexts

2.4. Archaeological context of the finds

As already mentioned, the two archaeological contexts that contain almost exclusively the inventory displayed in the present study, are Contexts No. 4 and 5, among which the latter is the most prolific in terms of findings. Context No. 4 corresponds to the roof debris layer, therefore, it contains numerous *tegulae* and *imbrices* (Fig. 18.1–2). The collapsed roof, discovered *in situ*, constituted a preserving agent for Context no. 5, which made possible the discovery of many artefacts in good preservation state. In many ways, context no. 5, sheltered by the collapsed roof and the 7th c. berm, had the benefits and characteristics of an enclosed complex. This situation is entirely true for Room III, unaltered until the excavations from 2007, and only partially for the other two rooms where the 7th c. ditch cut through the contexts.

Fig. 18.1–2. Collapsed roof in Room III (details)

After removing the structural wood and tiles debris of the collapsed roof (context no. 4), the excavation reached the burning level between the roof and the floor (Fig. 18.2; 19). This level is characterized by an important quantity of carbonized wood[52], partially from the beams and rafters from the roof, but also from shelves and other interior furniture as we shall see onwards. In this context there have been discovered numerous amphorae, some of them displayed in a carbonized and collapsed shelf (clearly recorded in Room III), lamps and African Red Slip/ Phocean tableware, several dispersed coins, a hoard containing 51 copper coins, a felting mill and a few rotary querns, a set of loom weights etc. This situation is characteristic for the undisturbed Room III of the building. The other two rooms have been badly affected by the construction of the defence ditch of the Late Fortlet, thus only the segments parallel to Z6 and Z1 walls stood undisturbed.

Fig. 19. Charred roof beam in Room III

The pottery collected from this level is diverse and is comprised of several so-called *Danubian lamps*, some *dolia defossa* and *dolium* lids, a unique exceptional fragment of African Red Slip Ware from the *vasa escaria* category, relatively rare finds of vessels used for drinking and for oil, a unique

[52] In the excavation process samples of large fragments of charred wood beams have been collected. See the results in the Annex II, at the end of this book. Subsequent to the analysis and uploading in the comparative data base have generated the following result: the beams were made of oak that was brought from the northern Black Sea area and indicated a dating around 577–581/2 AD. The analyses were made by Dr. Tomasz Waszny, at that time senior researcher at Cornell Tree-Ring Laboratory (Cornell University – New York).

pot assigned to the kitchen ware category; however, what predominates in quantity and in typological variety are the transport amphorae and their corresponding stoppers (*opercula*). One of the most interesting discoveries is represented by a group of five amphorae found *in situ* on a charred wooden plank, adjacent to Z4 wall in Room III, three of them were fragmentary and other two, smaller in size were found whole (Fig. 20.1). The vessels were leaning against each other while the fire followed by the collapsing of the roof ultimately sealed the entire room. A similar situation appeared on the opposite wall of Room III, namely Z2 wall, where another two amphorae were found leaning against the inner wall (Fig. 20.2).

Fig. 20.1. Group of amphorae discovered in 2007 next to Z4 wall (from right to left Cat. No. 37, 66, 62, 63 and unnumbered LRA 2). Underneath the vessels one can observe a charred wooden board; 20.2. A group of amphorae discovered in 2008 next to Z2 wall. The group was covered in a thick layer of burned debris and ashes (from left to right Cat. No. 60, 61, 36, 46 and 51)

The floor of the building, recorded as context no. 6, consists of compact raw clay, with small areas of limestone pavement near the entrances. The slabs from the pavement show traces of wear on the upper side characteristic to pavement slabs. In the eastern corner of Room III a fragmentary *dolium* was discovered with its corresponding pit and a *dolium* lid with a central knob (Cat. No. 79). In addition, near the same wall (Z2) but in Room II, three arrayed *dolia* were found, perforating Context no. 6 (Fig. 13).

Context no. 5, which corresponds to the fire and the dismantling of the building, could be dated through the analysis of the archaeological material found inside Building C1. The ceramic material – "Danube" or Balkan type lamps, Romano-Byzantine amphorae, ARS Ware or Late

Roman C / Phocean Ware – provided only a wide dating range belonging to the 6th c. The discovery of the coin hoard and its context represented the decisive piece in the dating puzzle of Building C1. The hoard was recovered in two consecutive campaigns (2008 and 2009), in front of the doorstep between Rooms I and III[53]. The coins were discovered grouped together, many of them arranged into rows (Fig. 21). Some of the coins were placed on a charred wooden board. This particular aspect, along with the fact that all the coins were heavily burnt, led us to the conclusion that the whole hoard was deposited in a box or a type of cassette made of wood which was consumed by the fire but still contributed to the protection of the coins.

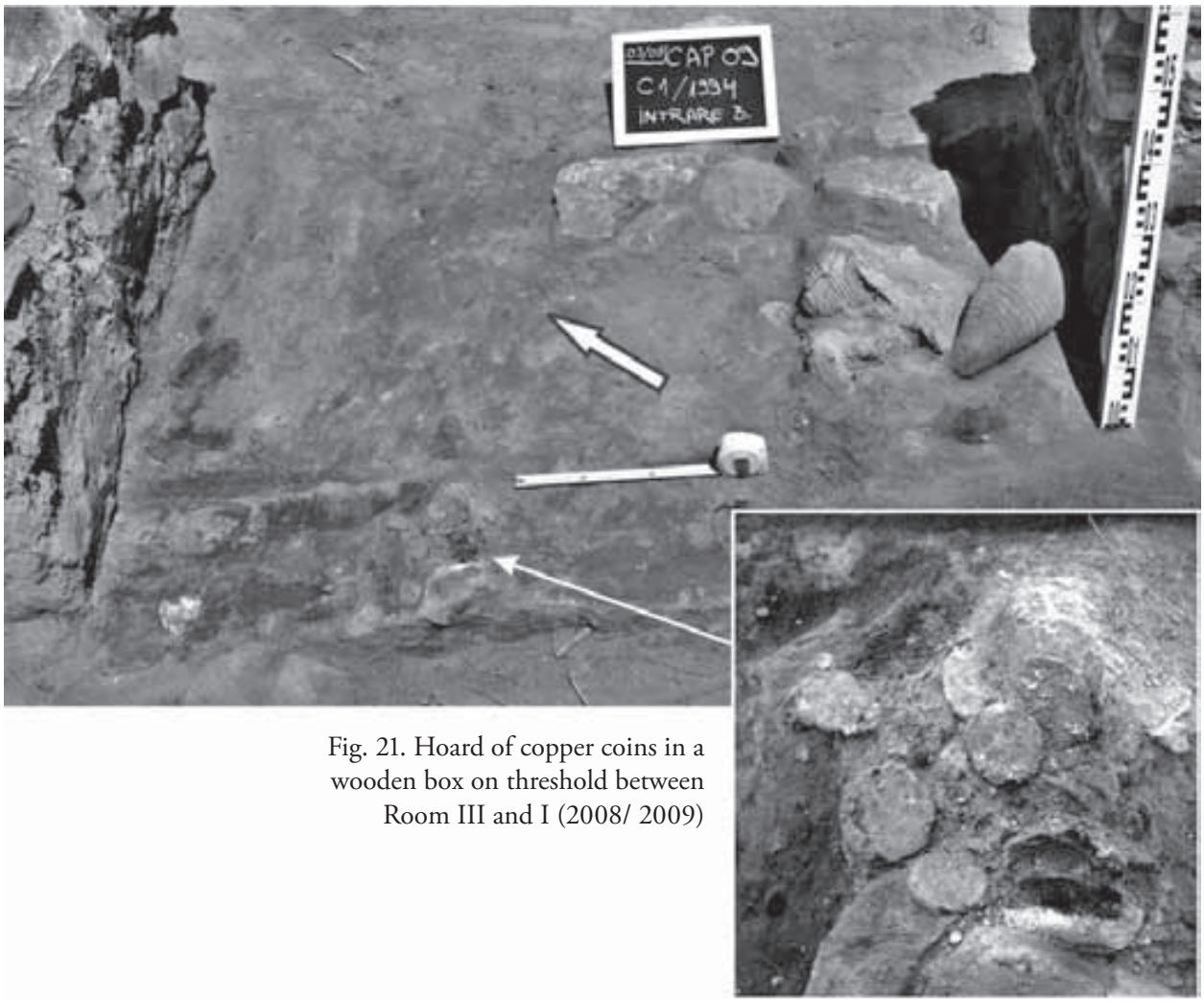

Fig. 21. Hoard of copper coins in a wooden box on threshold between Room III and I (2008/ 2009)

Also in Room III, near the above-mentioned coin hoard and next to Z3 wall, another uncommon discovery was made consisting of a piece of offensive military equipment, namely an iron shield boss[54]. The boss (*umbo*) is the only military artefact in this eminently civilian building, and it could have possibly belonged to a member of the local community of *limitanei*. Then again, we cannot exclude the commercial reasons for the presence of the shield boss inside Building C1.

Another metal artefact found in this building, with a more civilian functionality, is a 30 cm iron bill-hook (*sarpa*), used mainly in agriculture and forestry for cutting hedges and small branches[55] (Cat. No. 155).

[53] OPRIȘ, RAȚIU, STOIAN, MUNTEANU 2009, no. 13, 86–87; OPRIȘ, RAȚIU 2010, no. 11, 44–45.
[54] RAȚIU, OPRIȘ 2014.
[55] ADAM 1999, 164, fig. 197–199.

The array of metal ware, discovered in Building C1, ends with the recovery of two bronze fishing hooks, carefully forged, almost identical in size and shape (Cat. No. 156–157). The hooks are have a spiked tip, a square section shank with tapered eyes. The artefacts appear to have never been used and are in mint condition.

Of great significance in the archaeological inventory corpus, recovered from Building C1, are the transport and storage vessels – *i.e.* amphorae. The most common types are the ones manufactured in the Aegean and Eastern Mediterranean basins, along with the group known generically as "Provincial (West- or South-) Pontic Amphorae".

Carthage LR 1 Type was already attested in this building during the 1995 campaign, when three such amphorae were discovered in Room I[56]. Another two amphorae from this type were recovered during 2010 campaign, both from Room III. The two amphorae have been discovered in a compact group (depot) with other three vessels, one Carthage LR 2 Type amphora and two provincial amphorae Type Antonova V/ Kuzmanov XVI/ Opaiţ B Id (see *infra*). Both types are typical for the *annona* shipments of the army.

A typological novelty for Building C1 consists in the discovery of a nearly complete Carthage LR 3 Type amphora[57] in the middle of Room III, during the 2008 campaign. In the same context, there were recovered three Levantine amphorae from the Carthage LR 4 Type, a type which, in the province of *Scythia*, was discovered almost exclusively in urban contexts[58]. One of the Carthage LR 4 amphora, was found during the 1993 campaign[59], in a generally good state of preservation except for its upper side while another amphora belonging to the same type was uncovered during the 2010 campaign (in Room III) in a state which allowed its entire restoration (Cat. No. 47). The third LR 4 amphora could be identified after its 10 cm conical shaped base, broken *in situ* on the doorstep between Rooms I and III (Fig. 21).

Another series of amphorae found in Building C1 point to the same Levantine geographical area (Cat. No. 54–56), more precisely the Cretan Amphorae TRC 4/ Zeest 99/ Sazanov 11/ Opaiţ E IX Type[60], already thoroughly documented at *Capidava*. One of these amphorae, attributed initially to Zeest 99 Type[61] may in fact belong to a kindred Pontic type, either to Antonova V/ Kuzmanov XVI/ Opaiţ B Id Type or to Opaiţ B V Type[62]. The confusion is sustained by certain details regarding the morphological characteristics, the fine grooving on base and body, the size of the vessel but mostly by the colour and texture of the fabric. For the above reasons, this amphora (Cat. No. 57) is better to be left unassigned to any of the known west-Pontic types, leaving its classification to future research.

A particular amphora discovered in Room III (Cat. No. 59)[63] appears to belong to another type of provincial Pontic amphorae, namely the à pâte *claire*/ Kuzmanov XVII Type (?), or to a similar version with a shorter neck but with the same conical body. The 6th c. Pontic Antonova V/ Kuzmanov XVI/ Opaiţ B Id Type is the most popular Pontic type during the 6th c., well documented at *Capidava* and also in Building C1 (Cat. No. 60–65). Noteworthy is the Romanchuk/Sazanov/ Sedikova 1995, class 14/ Golofast 2003, fig. 9.5 Pontic type (Cat. No. 66); if the identification is correct, this is the oldest amphora of its kind.

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[56] OPRIŞ 2003, 58, no. cat. 55–57 (Carthage LR 1 Type), pl. VII.

[57] OPAIŢ 2004, 13–14, closest parallels in the province of *Scythia* are the early dated amphorae from Topraichioi at pl. VII/5–6. Lately this type is believed to have an Aegean origin, see discussion OPAIŢ 2004, 14. For the few examples from *Capidava*, see OPRIŞ 2003, 64–65, pl. VIII, XXII and also *infra*, in the Catalogue section.

[58] OPAIŢ 2004, 20–22.

[59] OPRIŞ 2003, 67, no.cat. 103, pl. VIII, XXII.

[60] OPRIŞ 2003, 70–71, type VIII, no. cat. 113, 117–119, pl. IX, XXIV.

[61] OPRIŞ 2003, no. cat. 118.

[62] OPAIŢ 2004, 29, pl. XVIII; TOPOLEANU 2000, 153–154, no. cat. 403–405, pl. LI.

[63] OPRIŞ 2003, 83–84, no. cat. 171–172, pl. XXVIII-XXIX.

A few large storage vessels (*dolia*) were found in Building C1, either directly or through the identification of the hole left in the ground (as was the case of a storage jar that stood in Room III next to the junction of walls Z2 and Z6). In addition to the four immobile vessels, a moveable *dolium* was found which must have been approx. 60 cm high (Cat. No. 76). Other two *dolium* lids were found in Building C1[64]. The general absence of kitchen ware – *vasa coquina(to)ria* is somewhat supplemented by the discovery of two lids (Cat. No. 80–81).

No items from the *vasa po(ta)toria* category had been found in Building C1 until the campaign from 2007[65], when three vessels of small dimensions for oil, a cup and two jugs with a single handle (*ansa)*, but also a pitcher were unearthed here (Cat. No. 89–95). Although *vasa escaria* is another scarcely represented category in terms of numbers, a particular African Red Slip Hayes 104 (Cat. No. 83) vessel with a remarkable stamped decoration has been found in Room II of Building C1.[66] Several other artefacts belonging to the African Red Slip Hayes 105 and respectively to Late Roman C Ware Form 3 were recovered here from Room I and II near *via principalis*[67].

Fig. 22. Felting mill from Room III

The list of ceramic discoveries from Building C1 ends with several ceramic lamps, out of which five[68] have been discovered during the 1995–1996 campaigns (Cat. No. 98, 100, 103–105); four locally produced so-called Danube artefacts were added during the recent excavations (Cat. No. 96–97, 99, 101–102). A fifth lamp of better quality found in 2008 bares traces of red slip on its surface along with some artistic details such as stylized petals delimiting its body from the rostrum (Cat. No. 102).

In a central position inside Room III a felting mill was discovered *in situ* (Fig. 17; 18.2; 22). The mill is made of limestone and has the shape of a flattened truncated cone, hollow with a flat bottom. In its upper side it has a ridge from which two opposite 11 cm wide niches run down vertically towards the bottom. Along with this artefact several rotary querns were recovered, whole and fragmentary, in the building (Pl. 34).

Fig. 23. Early-byzantine vertical loom (reconstruction by Ingrid Petcu)

[64] OPRIȘ 2003, 91–93, no.cat. 214, a small fragment of a *dolium* lid came out during the 1993 excavations (Cat. No. 80). The second is a more interesting and better preserved one, with a diameter of approx. 50 cm. It belonged to a large *dolium* lid resembling in shape and the central position of the massive handle to the ones near the *dolia defossa* at *Villa Regina* from Boscoreale (Cat. No. 79).

[65] Parallels and artefacts from this category from *Capidava* in OPRIȘ 2003, 122–137, pl. XIV, XLI-XLVIII.

[66] OPRIȘ 2003, 147–148, no.cat. 342, pl. LI.

[67] OPRIȘ 2003, 150, no.cat. 350–351 (ARS Ware Hayes 105), pl. LIV; no.cat. 359 (Late Roman C Ware 3), pl. LIV.

[68] OPRIȘ 2003, 173–174, no.cat. 430, 433–434, pl. LXIII, LXIV.

A last remarkable discovery is constituted by the set of 23 pieces of weights from a vertical-loom. The weights were all discovered in the same place, near Z6 wall and what could be considered the doorstep between Rooms II and III (Fig. 13). They were manufactured from reused polished Roman bricks, have a prolonged triangular shape with rounded corners, and in the upper part present an orifice for the warp. Their size is variable (L: 7.0–10.9; W: 5.9–8.1 cm) but their weight is somewhat similar. There is no information about the wooden structure of the loom; most probably it was burned during the fire along with other structural timber from the building.

2.5. The sondages in Room III (2011, 2014)[69]

During the 2011 campaign, we initiated a sondage in the southern corner of Room III of Building C1. In that location, even during the previous campaign (2010) the wall of a large building was revealed. The survey ditch had a surface of 12 m^2, namely a cassette of 3 m by 4 m. The wall seemed to represent the corner of a large building, with one side parallel to Z3 wall and another parallel to Z2. The latter intersects both Z3 and the north-eastern wall of the *Horreum* and runs parallel to the nearby precinct wall (Curtain H of the fort) forming an interval of approximately 4 m.

The wall is made of limestone masonry, with an evenly carved exterior and with 2 cm thick mortar, of very good quality (Fig. 25; 26.1–5). Until the present moment only three or four courses were uncovered from the wall, however, the foundation and its base have not yet been reached.

Based on the dimensions of the wall, which is currently 1.10–1.15 m thick, one can argue that we are dealing with an important building that, stratigraphically, is overlapped by both Building C1 and the large building of the *Horreum.* Given the fact that Building C1 was contemporary with the *Horreum* and with the nearby buildings, which was proved through stratigraphic, architectural and urban evidence, we can infer that the new discovered wall belongs to a previous constructional phase of *Capidava*, a phase almost unexplored until the present moment.

At least hypothetically, given the placement, the dimensions and the constructive technique of this new archaeological ensemble (with a close analogy in Sector 1 of the site, west of the 6th c. church, where a similar wall was found, parallel with the B curtain[70]), the wall seems to belong to a monumental phase. This monumental building may very well belong to the first major constructive phase of the Roman fort from *Capidava* (2nd–3rd c.), earlier to the *Horreum*. The archaeological material found in the context of this wall is made of small pottery fragments and a poorly preserved bronze coin from Elagabalus (218–222 A.D.), which, after preliminary research, do not constitute convincing chronological evidence.

The course of the wall was observed at the other end of Building C1, during a second sondage performed in 2014, which allowed further research of Room III (Fig. 25; 27.1–5). The excavation was concentrated on the north-western corner of Room III, on an area of 8 m^2 and reached a depth of approx. 0.80–1 m. From this phase we could distinguish the thick stone and mortar wall mentioned earlier on, which continues in parallel with Z3 wall of the building. Compared to Z3, the previous one displays a totally different structure and construction technique (mortar of a much better quality and larger dimensions, 1.1 m thick). As to the elevation of this large wall, 2 courses could be observed for a length of 1.5 m that stood parallel to Z3 at a distance of 0.75 m.

This sondage offered the possibility of observing in detail the constructive elements of Z3 and Z2. Thus, the former stood on a foundation made of stone and clay, built in two successive steps

[69] OPRIȘ, RAȚIU, STOIAN, MUNTEANU 2012, 29–30; OPRIȘ, RAȚIU, DUCA 2015, 48, 341–342 = fig. 1–3

[70] ACHIM, OPRIȘ, IONESCU, MUNTEANU 2011, 24–27, esp. 25 (the wall was conventionally called Z3, and was revealed when trying to find the foundation base in surface W to the church; the wall was 2.34 m away and parallel with curtain B). A newly identified wall with the same characteristics has been uncovered beneath the Late Roman *Principia.*

(thicker than the actual elevation 0.50, respectively 0.35 m). The inferior part is built at the same moment with the similar Z2 substructure. One conclusion regarding the 6th c. functioning of our building is noteworthy. Neither successive building phases, nor modifications or repairs have been revealed by the sondages.

A rather important fact is that in the corner between Z2 and Z6 the survey reached the base of the foundation, 1.10 m lower than the interior floor level in Room III of our building.

An interesting fact to point out is that the early wall was not used as base for the foundation when constructing the new Building C1. However, we believe that the large early wall was just used in the Late Roman period as a substructure for the clay-floor of the room. In support of this hypothesis we also mention the discovery of a mortar floor-screed near the respective wall that levels the debris of the early building which was connected to it. This 0.15-0.20 m thick *Bauschutt* goes parallel to Z2 towards Z6 for 1.10 m; it represents, in fact, the level where the excavation had to be stopped.

Fig. 24.1–2. Floor-screed in Room II (up left and right); floor screed in Room III (marked down left)

It has an equivalent to the other end of the Room, where a similar thick floor-screed was found in Rooms II and III, on both sides of Z6 wall (Fig. 24.1–2). The latter situation should be further detailed: the mortar layer stood much higher, under the 6th c. floor, and might be associated to a local constructive moment in relationship with the Gate Tower No.7 in its phases II or III[71]. Phase II was the reconstruction *a fundamentis* after the Gothic attacks from 248–250 AD[72]. Phase III implies two separate constructive interventions in mid–4th c. AD[73] and again in the second half of 5th c. – beginning of the 6th c. AD, following severe barbarian attacks[74].

[71] See OPRIȘ, RAȚIU 2015.
[72] FLORESCU, FLORESCU, DIACONU 1958, 67.
[73] A *terminus post quem* is 337 AD, see FLORESCU, FLORESCU, DIACONU 1958, 67–68; OPRIȘ 2003, 19.
[74] OPRIȘ 2003, 22.

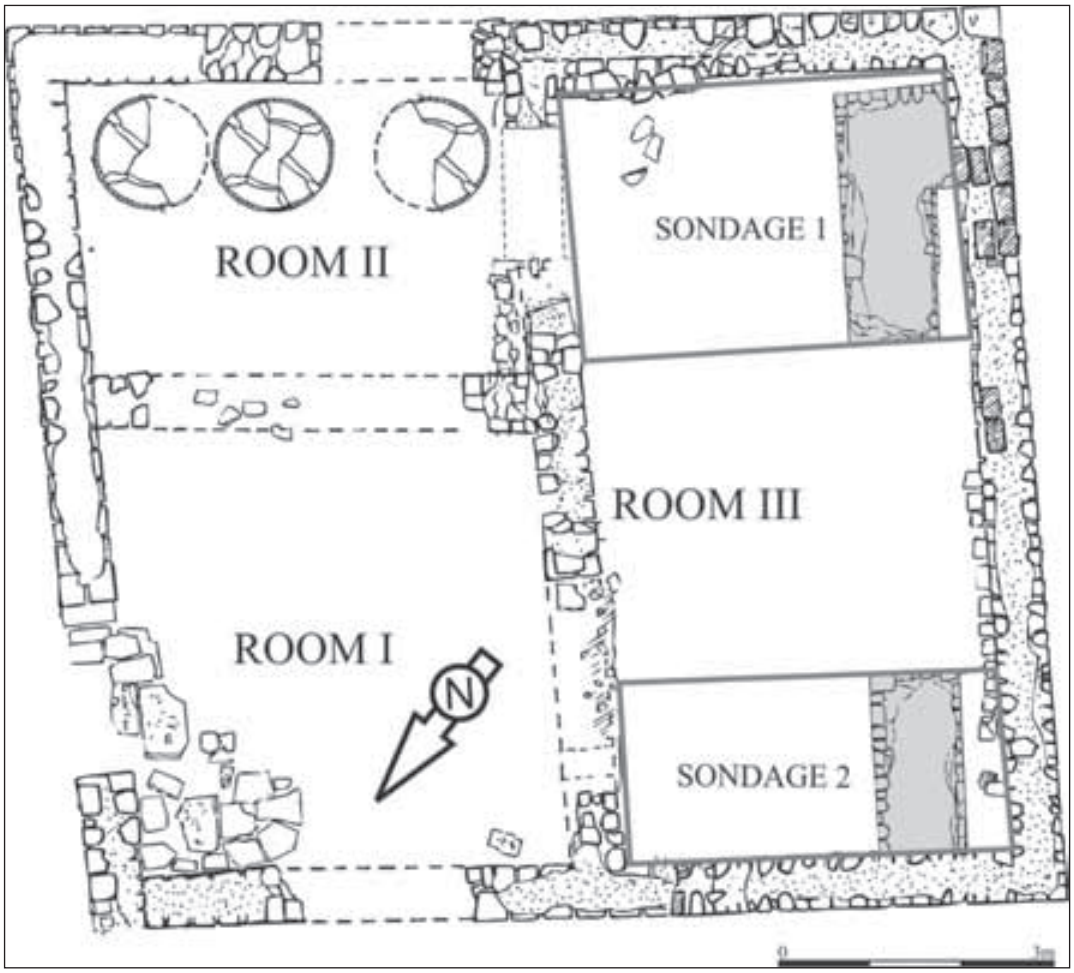


Fig. 25. Sondages in Room III (1/2011 and 2/2014)

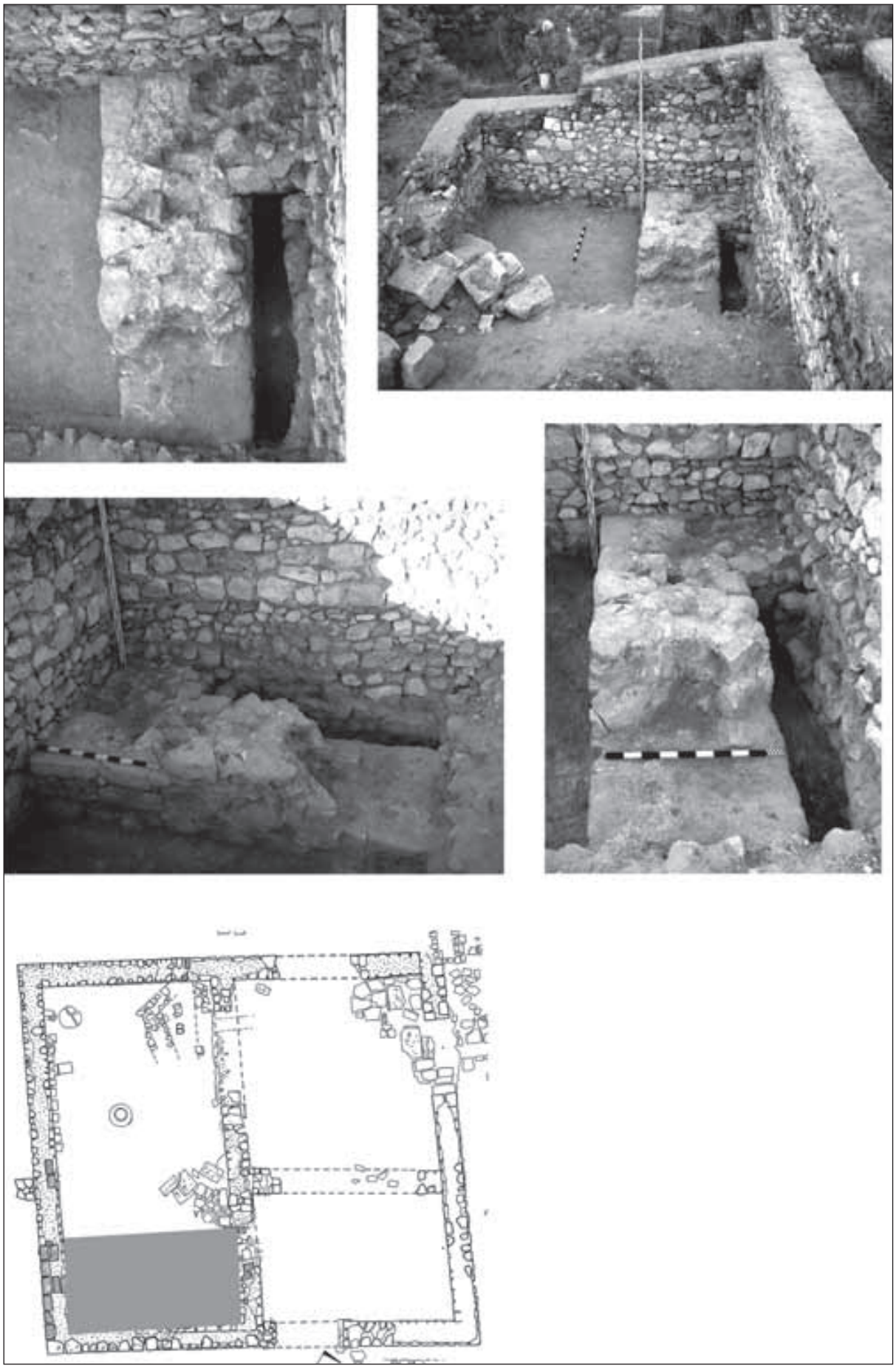


Fig. 26.1–5. Sondage 1 (2011)

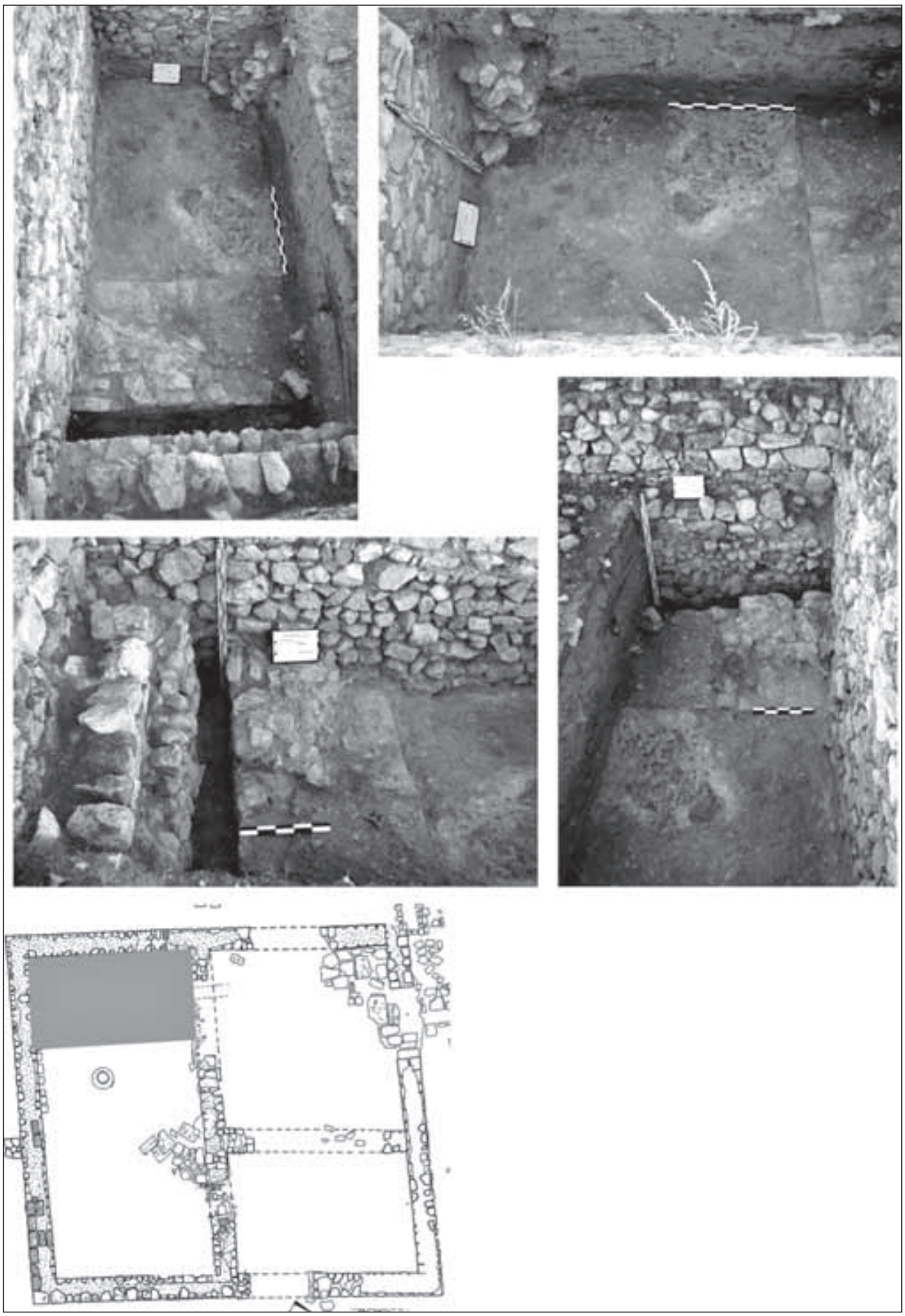


Fig. 27.1–5. Sondage 2 (2014)

3.
CHRONOLOGY ISSUES. COINS, POTTERY ASSEMBLAGE, DENDROCHRONOLOGY

It is difficult to determine the exact moment when the building was raised based only on the existing archaeological finds. Beneath the 6th c. floor, a few coins were found dating to the period of Constantine the Great[75] and other undeterminable 5th c. ones[76]. This situation could only represent a vague *terminus post quem*. The active function of the edifice carried on until the last decades of the 6th c. AD, when the edifice seems to have been destroyed during one of the Slavic raids which affected the whole Balkan Peninsula (AD 581–585 or even later)[77]. This interpretation is supported by the discovery of a bronze-coin hoard (see *infra*) on the doorsteps of Rooms I and III. The destruction of the building could have taken place in the early years of Mauricius Tiberius' reign (AD 582–602) after which followed the fast construction of the last fortification in the southern quarter of the fort (N III from the IVth phase[78]). The hoard remains the strongest argument, although it may not be the only proof involved in influencing the dating possibilities.

As evidence for this last and desperate constructive effort of the Roman garrison from *Capidava*, we could identify the *fossa* (defence ditch), in front of the precinct of the late *castellum*, perpendicular to the Curtain H of the fort; the defence wall of this precinct had a poor-quality masonry and was hastily built superposing the remnants of the *Horreum`s* short side next to the Gate Tower No.7; no facing of the wall could be observed so far, besides the mortar and rubble core, therefore, the wall was erected directly on the previous levelled walls, without any known substructure. As to the defence ditch, it was recorded not only on the whole inner length of the present edifice, but even beyond, disturbing architectural structures in the continuation of the large portico with three naves (towards the Main Gate). The *fossa* affected another imposing edifice of notable proportions, aligned to the main street further to the centre of the fort. Both *fossa* and the mentioned building could be observed in the sondage S1/2004; excavations of this last Roman defensive element cover, to the present date, a total length of approx. 35 m, within the Sectors III and VI of the archaeological site.[79]

The defence ditch, corresponding stratigraphically to Context no. 6, crosses Building C1 on the south-eastern to north-western axes, parallel to *via principalis*, and affects the two north-eastern chambers (Rooms I and II). During the excavation process, the ditch was well delimited and then emptied, which allowed us to observe its concave scarp and the scarce content of finds in the

[75] For the preliminary analysis of the numismatic material we give special thanks to our colleague A. Gândilă. See OPRIȘ, RAȚIU 2016a, 194; OPRIȘ, RAȚIU 2016b, 25.

[76] OPRIȘ, RAȚIU, STOIAN, MUNTEANU 2009, 86.

[77] GÂNDILĂ 2009, 87–105. For the discussion concerning the dating of the coins and the historical context of the collapse of the building and the raising of the late *castellum*, see 92–93.

[78] OPRIȘ 2003, 22–26; OPRIȘ, RAȚIU 2015.

[79] OPRIȘ, RAȚIU, DUCA 2014, 35, 272–273, fig. 6–9. For the distribution of the seven *intra muros* sectors at *Capidava,* see OPRIȘ, RAȚIU 2016a, Pl. 2.1.

filling, made of a few ceramic fragments, mostly amphorae specific to the 6th c. AD. Its construction sectioned a *dolium*, discovered *in situ*, a very suggestive finding attesting the way the ditch was dug, and illustrating the inclination of the slope (Fig. 10.1–2).

Regarding Building C1, the edifice was disturbed not only by the precinct wall of the late *castellum* (with its respective ditch, in a period when our building was already inactive), but even later, during the Middle-Byzantine period. At that point, a medieval sunken-dwelling (B 342/1994)[80] was built on top of the debris of Room III. The dwelling had one of the sides positioned towards the old *fossa*, already silted at that moment (Fig. 12; 17; 28). This side of the stone and clay dwelling[81] was consolidated through a stone pile, a context in which a large stone carved on one of the sides was discovered (0.93 m by 0.32 m). Another limestone fragment (Cat. No. 177) coming from a 2nd c. AD funerary inscription of the local *praefectus cohortis (I Germanorum?)* was also used as construction material to the same wall of the cited dwelling[82].

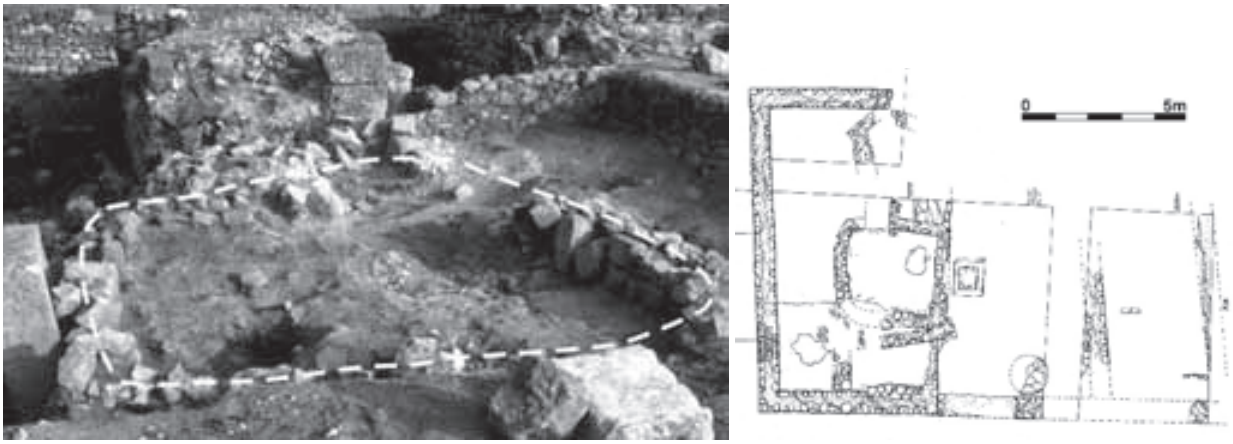


Fig. 28.1–2. Middle Byzantine Sunken dwelling (No. 342) superposing Room III and Z6 wall (1993). Drawing A. Sion

The main issue that remains to be solved is the date of the destruction of the Building C1. After analysing the hoard found on the threshold between Rooms I and III (see the analysis in a separate Annex, at the end of this volume) Andrei Gândilă proposed a dating subsequent to the latest two half-*folles* of Tiberius II, in use between 578 and 580 (or even to 582). This closed-find situation establishes the central argument for any further inquiry.

What can in fact the rest of the archaeological assemblage, found inside the building, bring in addition to the general dating question? Does the pottery, given the known contexts from other archaeological sites, confirm or not this interpretation? As demonstrated *infra*, the pottery can only bring nuances and indicate general tendencies. Nevertheless, there are some elements that should be pointed out.

For example, the amphora at Cat. No. 66, a special case, made in the North-Pontic territories (*Chersonesos*), indicates a dating sequence from the first quarter of the 7th c. AD. If our typological assumptions are correct, this amphora represents the earliest known vessel of its kind. The Cretan Amphorae TRC 4/ Zeest 99/ Sazanov 11/ Opaiţ E IX finds (Cat. No. 54–56) match the dating sequence of the North Pontic and Scythian analogies from *Halmyris*, *Histria*, *Argamum*, *(L)ibida*

[80] OPRIŞ 2003, 28, 248, pl. VI.

[81] Excavated in 1993, it had dimensions of 3.40 by 3.30 m and was built only 0.65 m deep versus the modern occupational level, above the debris of Room 3, in the stone layer of different dimensions mingled with mortar (rubble) found directly under the modern occupational level.

[82] OPRIŞ, POPESCU 1997, 177–181, see especially p. 177 for the discovery context of the above mentioned epigraphic finding.

or *Tomis*, *i.e.* the last quarter of the 6th c. The same thing can be said about the unique table amphora (Cat. No. 67), which has a good analogy in a post-Justinian deposit from *Pantikapaion*. The tableware follows rigorously the same logic: the African Red Slip Wares (Cat. No. 83–85) 104A (inside the Building C1, Context No. 5) and 105 (filling of the ditch, Context No. 7) can be dated either before or after 580. As we shall see further on, ARS Ware 104 A comes from contexts dated from the second quarter to the middle of the 6th c., but could have circulated until 580. As to the ARS Ware 105, the most typical vessel-form in the final period of the African workshops, this was already produced by the last two decades of the 6th c. The other artefacts in our catalogue have either a large dating range or cannot be of any help to this inquiry.

Thus, when can we actually place in time the invasion that put an end to Building C1, and also to other buildings from *Capidava*? The dendrochronology had its own contribution to the wider picture, as the tree-ring analysis of the wood samples (no. 3 and 5) taken from Room III in 2008 indicated 577 AD as earliest *terminus post quem*, with 581 AD as most probable cutting year of the trees used for timbering. One should remark that the samples taken from the Z6 close to its junction with Z4 wall ironically suggest a repairing or even a general replacement of the roof that lasted just a few years until the attack!

The same violent destruction included nearby curtain G where the dramatic situation has been recently documented due to preventive excavations prior to the restoration works in 2015. It has been well documented in Room C12, built against the curtain, where a shelf with many Pontic, LRA 1, 2, jugs and pitchers having pinched-out spouts (22 pieces or more), fell in the *incendium*[83]. One of the most interesting situations, resulted from the same Eastern Sector, is that from Building C9, during the 2008 excavations east of *via principalis*. A few coins of Maurice dated 586 found on this occasion might bring the expected evidence on the date of the disaster[84]. It is very likely that the largest and most important building at *Capidava*, the *Horreum* with its portico, standing next to Building C1, was also affected on that occasion[85].

Taken into account this new data, we could also consider these years as the ones when *Capidava*, *Tropaeum Traiani* or *Zaldapa* fell under the attacks reported by Theophylact Simocatta or John of Ephesus (*Miracles of St Demetrius*)[86]. On this occasion the Pontic cities or the ones in Northern Dobrudja escaped the destruction, but *Tropaeum Traiani* did not[87] and *Zaldapa*, *Durostorum* or *Marcianopolis* suffered significant damage as well.[88]

[83] POTÂRNICHE, LASCU 2016, esp. 147.

[84] COVACEF, POTÂRNICHE 2009b, 88. Tiberiu Potârniche indicated that the coins have been found under the collapsed roof, in closed context. In the same Room C9, while digging the upper layer (2000), another coin from Maurice, minted at Thessalonica in 588–589, has been reported in a heavy destruction layer. The two coins might indicate distinct epic moments, in which case one should accept that constructive activities rapidly resumed after the first attack. A bronze coin from Maurice is reported during the excavations in Sector I, under a Middle Byzantine floor of a dwelling: FLORESCU, CHELUȚĂ-GEORGESCU 1975, 85.

[85] OPRIȘ 2003, 33 and n. 33, where we indicated a post 578 dating, according to last known numismatic evidence.

[86] CURTA 2001, 117.

[87] BARNEA 1968, 433, n. 52–52. SÂMPETRU 1994, 19 mentioned a bronze coin minted in 580–581 by Tiberius II, from building D 3, south of *via principalis.*

[88] TORBATOV 1998, 64–65: one *solidus* and a *tremissis* minted post 583–584. See also ZAHARIADE *et alii* 2006, 35: the list includes also *Durostorum* and *Marcianopolis.*

4.
FUNCTIONAL ANALYSIS OF BUILDING C1. COMMERCIAL BUILDINGS IN *SCYTHIA* AND *MOESIA SECUNDA*

Several arguments lead to the interpretation of Building C1 as a construction having commercial function. Its commercial character is beyond any doubt, as it has been recently pointed out by Florin Curta, in his recent in depth analysis of the economy and exchange system of the 6th c. Balkans[89]. In fact, what he stressed in this particular case was the association of *annona* (*i.e.* the important amphora assemblage of LRA 1 and LRA 2 types, Cat. No. 36–44) with other African Red Slip wares, a shield boss, loom weights and the 51 copper coins in a wooden box.

After analysing the entire assemblage included in this catalogue, both typologically and topographically, one can bring further nuances to the functions that Building C1 played. The amphora assemblage includes, besides the notorious *annona* containers, some other amphorae used for transporting precious goods (wine, above all). It is the case of a LRA 3 amphora (Cat. No. 45), the three Cretan amphorae type TRC 4/ Zeest 99/ Sazanov 11/ Opaiț E IX (Cat. No. 54–56), but, most importantly, the LRA 4 amphorae (Cat. No. 46–53). Seven out of eight LRA 4 containers have been found in Room III, in two different groups. This high concentration of LRA 4 used for the transport of the famous *vinum Gazetum, Gazetina,* or *Gazeticum*, is undisputedly the most important deposit known so far at *Capidava*, when compared to the already published contexts from the *Horreum*[90].Thus, inside Building C1 the number of amphorae for luxury goods is 12, against a total of 37amphoral containers (Cat. No. 36–67, out of which 1 table amphora; 2 more amphorae could not be included in the catalogue)[91]. A third of the amphora assemblage is very special because it allows us to infer the function of a retail shop that, additionally to common merchandise, sold expensive goods. To such purpose, the location is excellent, as we shall see further on. The three *dolia* that stood against Z2 wall in Room II, the fine pitchers for oil (Cat. No. 89–91), as well as the fine tableware (at least the African Red Slip dishes, more expensive than the Phocean ones) also sustain the commercial idea.

Somewhat troubling is the 23 loom weights group, which surely belonged to a warp weighted loom, destroyed in the *incendium*. Such a situation is unparalleled, excepting for a well-known *extra muros* dwelling at Sadovec, where 26 such weights have been found[92]. It should normally

[89] CURTA 2016a; CURTA 2017, 449.

[90] OPRIȘ 2003, Pl. VIII. Just two LRA 4 amphorae have been found in one store-room of the former portico and 3 more scattered in other compartments inside the large building; the situation of the Cretan wine amphorae (TRC 4/ Zeest 99/ Sazanov 11/ Opaiț E IX and Riley LR 14/ Opaiț E VIII) is comparable (Pl. IX). East of *via principalis* the archaeological reports published at www.cimec.ro mention LRA 4 amphorae in several rooms in front of Building C1, but contain no evidence of any high numbers: C11 (2007); C9 (2008); C14 (2010); C16 (2011).

[91] A LRA 2 amphora and another Pontic Kuzmanov XVIII one.

[92] At least, to our knowledge; a second group of 12 weights made of unfired clay has been recently found at *Capidava* during the excavations of the *principia*: OPRIȘ, RAȚIU, DUCA 2015, 48–49.

point to a domestic use inside a dwelling, yet the function of our Building C1 is clear enough. Out of ordinary is the statue dowel (Cat. No. 176), unlike the bill-hook (Cat. No. 155), the two fishing hooks and the fishing net weights (Cat. No. 156–157; 158–165), that may have something to do with the Pontic amphora (Cat. No. 57) containing pine tar[93]. These household utensils constitute a common group with loom weights and spindle whorls (Cat. No. 148–154), as well as the felting mill and rotary querns (Cat. No. 122–123). Another difficult interpretation is related to the *umbo* found inside Room III. Was this solitary find actually fixed on a shield board or not? Was it a private belonging or just for sale?

Last, but not least important is the scale tray (Cat. No. 147) used, most likely, for weighing coin. All these objects belong to everyday life and respond to basic needs of the urban communities. East of *via principalis*, in 2007 a steelyard with counterweight in form of a bust of Roman Empress have been found in Room C11[94]. An even more interesting artefact is the *exagium solidi* in dark blue glass found in one of the storage rooms inside the former portico of the *Horreum*[95].

To conclude, Building C1 is a retail shop providing both expensive goods and *annona* products, storage area and *dolia defossa* included, in an intensely circulated area and in the proximity of the access point. One should also take into consideration the distinction between prime use and reuse of amphorae as packaging containers, and that makes the discussion far more complicated. The analogies for such an urban design, with buildings well placed for commercial use, at Main Street and close to the city gates could be traced at *Histria*, where a so called economic sector emerges in phase II B (dated 295–378) in the south-western corner of the Late Roman city[96]. Built after constructing two curtain walls and an imposing tower at the corner of the new fortification, its position was undoubtedly related with the proximity of the harbour, via a secondary gate[97]. This sector was investigated by Grigore Florescu in 1949–1952[98], and was comprised of small-sized constructions with commercial purpose, containing rooms where 3–7 *dolia* and amphora assemblages stood, and served as shops and storage facilities, bakeries, butcher shops, metallurgical workshops. The urban display and its economic function perpetuated in the 6th c. (phases IV A and IV B, circa 491–559, 559–602 respectively), always in relationship to the hypothetical southern harbour[99].

The inland Roman counterpart of the Mediterranean urban design by means of *insulae* is archaeologically attested at *Tropaeum Traiani*, next to the East Gate and to the *via principalis*. The north-south oriented Building A1, as well as A3 structure have their entrances facing the Main Street. The next building in line was a church, the so-called Simple Basilica[100]. The position is convenient for the purposes these buildings served. M. Sâmpetru infers an ambivalent workshop and commercial utility of the A3 edifice, very similar to the ensembles from the economic sector at *Histria*[101]. Immediately south of the Main Street at *Tropaeum Traiani* and in the same eastern end of the city, M. Sâmpetru excavated more than 2000 m^2 in what is commonly referred as Sector D. The D3 Building with peristyled courtyard from the 2nd *Insula* or D8 and

[93] See Annex III, at the end of the volume, containing the examination and analysis report for the organic content inside this amphora (The Metropolitan Museum of Art, Department of Scientific Research). Pine tar was used for the boat treatment, in order to protect and preserve the wooden parts. Inside Room III we have also found in 2008 a compact ball of colophony.

[94] COVACEF, POTÂRNICHE 2010b.

[95] OPRIȘ 2003, 33, n. 41.

[96] BARNEA 1968, 473; FLORESCU 1954.

[97] SUCEVEANU 2007, 95, Pl. LV. 22.

[98] FLORESCU 1954, Pl. XII, XIII.

[99] SUCEVEANU 2007, 100, Pl. LVIII. 22.

[100] SÂMPETRU 1994, 18–19, Fig. 3.

[101] SÂMPETRU 1994, 113.

D9 from the 3rd *Insula* further south served the double economic role previously mentioned[102]. Following this logic, the colonnaded *via praetoria* at *Iatrus*, 115 m long and 7.1 m large, linking the Eastern Gate to the *Principia*, must have sheltered shops in successive phases, until late 6th century.

Finally, we would like to state a few facts about the transport of containers and the statistical analysis available at the current state of research for the province of *Scythia*. At *Capidava*, as already mentioned, after analysing the ceramic assemblage in the *Horreum*, African amphorae represent just 4%, while the Oriental ones reach 68% of all analysed material. From seven known types, LRA 1 and LRA 2 hold 31%, 23% respectively; the other types do not go over the limit of 3–4%. A second important group is that of Pontic amphorae, that reach 28% of all amphorae (best represented is Antonova V/ Kuzmanov XVI with an astonishing 66%, followed by Opaiț B V with 18% of Pontic types)[103].

At *Halmyris* (Murighiol), the amphorae represent as well the most numerous ceramic category of finds (42.64%), *i.e.* transport amphorae, table amphorae, *opercula*/stoppers. From a chronological perspective, 35.6% of the discovered material is dated between the 4th–6th c. (first quarter), it will almost double to a 61.4% for the archaeological layers dated between the reign of Justinian and the abandoning of the fort, in the early 7th c. The Oriental amphorae represent 71.6% in the 6th c. and 77.8% in the first decades of the 7th c.[104] The same overwhelming discrepancies are recorded for the Oriental tableware that reaches 89.76% of the finds while African Red Slip wares represent just 8.19%[105]. Regarding the West Pontic provincial amphorae, they constitute 26% in the 6th c. and 16% in the first decades of the 7th c. Two types, the Kuzmanov 1985 types XV and XVI accumulate 58.6% of all known Pontic amphorae.[106]

Another analysis is available for *(L)ibida*, when examining an earlier *extra muros* pottery collection (Sector west III, dated in the 4th–5th c.). Here the amphorae represent 49.06% of all the pottery finds and the Oriental ones no less than 64.69%. As expected, LRA 1 type represents 25.87% and LRA 2 type even more, namely 33.22%. The most `popular` Pontic type is Kuzmanov XV, with 24.12%.[107]

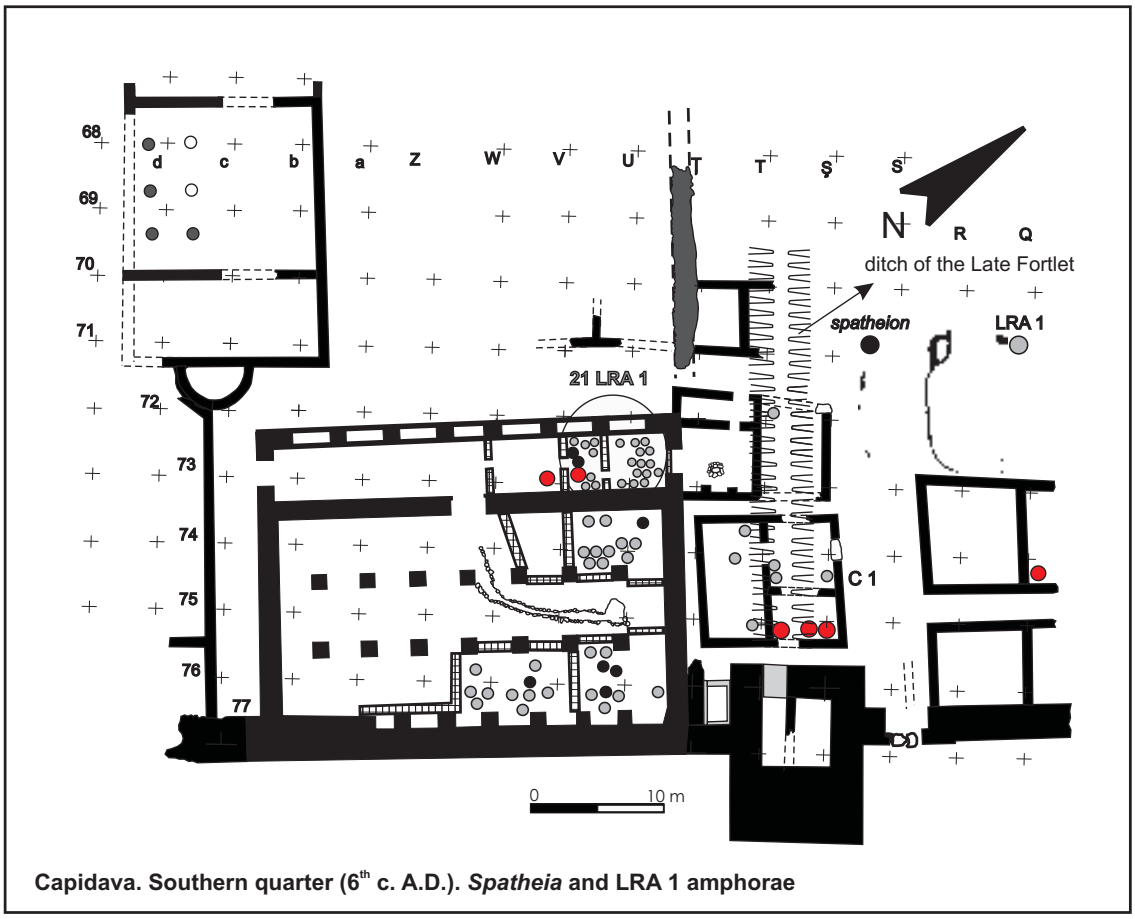
Some of the most interesting information comes from a yet unpublished material from *Tropaeum Traiani*.[108] Here the African amphorae are, for instance, absolutely missing from the ceramic assemblages. As expected, the Oriental types, namely LRA 1 and LRA 2, represent together 78% of all Oriental containers (30% for LRA 2 and 38% for LRA 1).[109] Other Oriental transport amphorae amount to the 10% left. The analysis of the tableware at *Tropaeum Traiani* confirms the preponderance of the Oriental types (62%), the most common ones being Form Hayes LRC 3 with 49%, while LRC 10 holds only 18% and LR C1 again 18%. LR C 3 alone reaches one third 31% of all tableware finds. Finally, West Pontic tableware represents 28%, while ARS wares are just 10% of *vasa escaria*.[110]

Summing up, we should mention the conclusions of Alexandru Bădescu, who made the Roman pottery analysis at *Histria*, and also gathered the most important database for the 6th c. pottery assembled for the province of *Scythia*.[111] According to Alexandru Bădescu, Oriental amphorae are

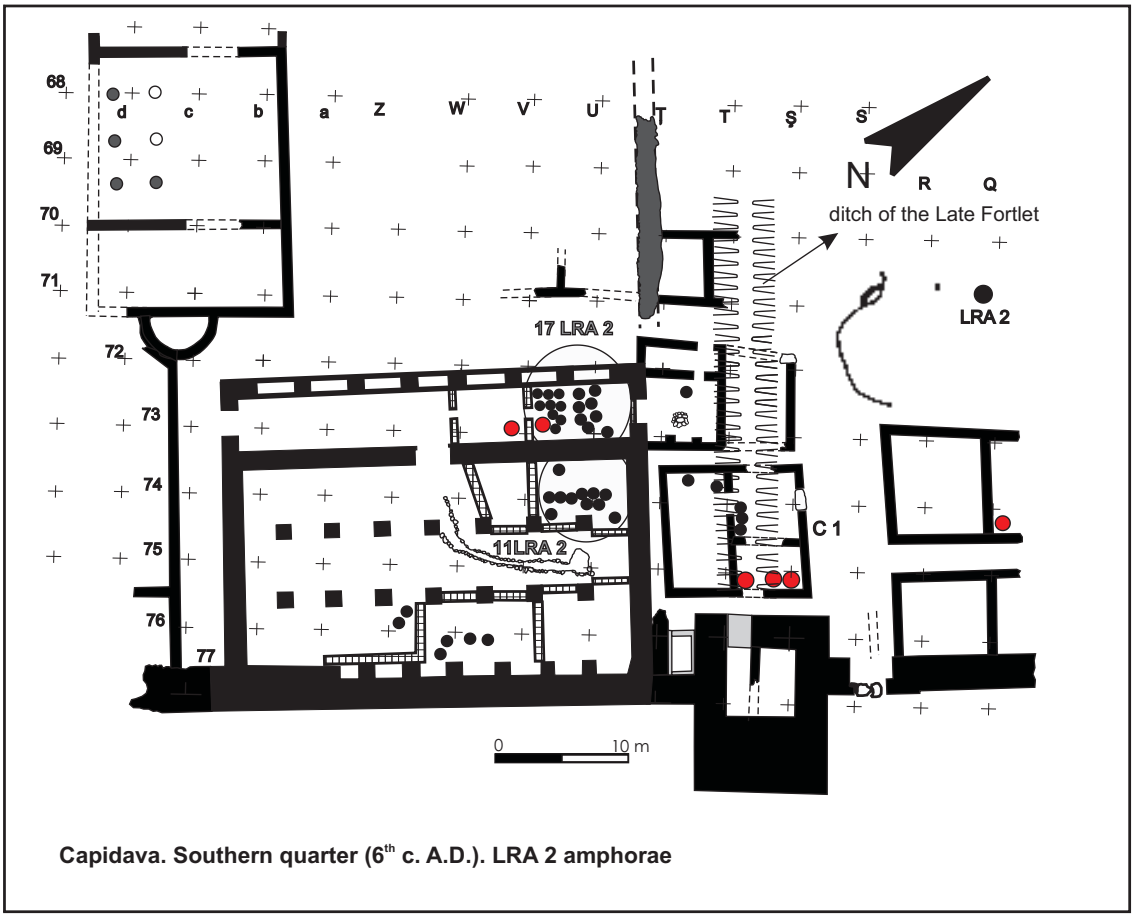
[102] SÂMPETRU 1994, 29, n. 13 (for D 3); 18–19, Fig. 3.
[103] OPRIȘ 2003, 177–178.
[104] TOPOLEANU 2000, 266–267.
[105] TOPOLEANU 2000, 263–264.
[106] TOPOLEANU 2000, 267.
[107] PARASCHIV 2010, 1002.
[108] PARASCHIV-GRIGORE 2014.
[109] PARASCHIV-GRIGORE 2014, 144.
[110] PARASCHIV-GRIGORE 2014, 145–146.
[111] BĂDESCU 2010, the PhD Thesis (unpublished). Personal communication of the updated results.

the most preponderant with 53.79% of all transport containers, being seconded by the Pontic ones (24.89%).[112] The high numbers for the Oriental amphorae and again the preponderance of the LRA 1 and LRA 2 *annona* types speak for themselves. As to the imported ceramic tableware, it is commonly accepted that fine bowls and dishes, as well as lamps or other commodities "piggybacked", in Curta`s words, on the transport of strategic goods.[113] The published *vasa escaria* finds demand updates and extensions of already established core zones of distribution north of the Balkans, along the Danube and within the Black Sea basin.[114] As for the main topic, state-run distribution vs. free-market commerce within the *quaestura Iustiniana exercitus*, it most definitely awaits a 2.0 version.

[112] If ignoring the ca. 1/10 of unidentified sherds in his database, the result could be even clearer: Oriental Amphorae – 59.32%; Pontic Amphorae – 27.45%; North African Amphorae – 10.95%; Local Amphorae 0.66%.
[113] CURTA 2016c, 59, 85, 103; OPAIȚ 2004, 111 speaks of "subsidized price" in the case of Phocean Wares, as they are arriving in *Scythia* with the *species annonariae* transported in LRA 1 and LRA 2 amphorae.
[114] BES 2015, 143, Fig. 105.

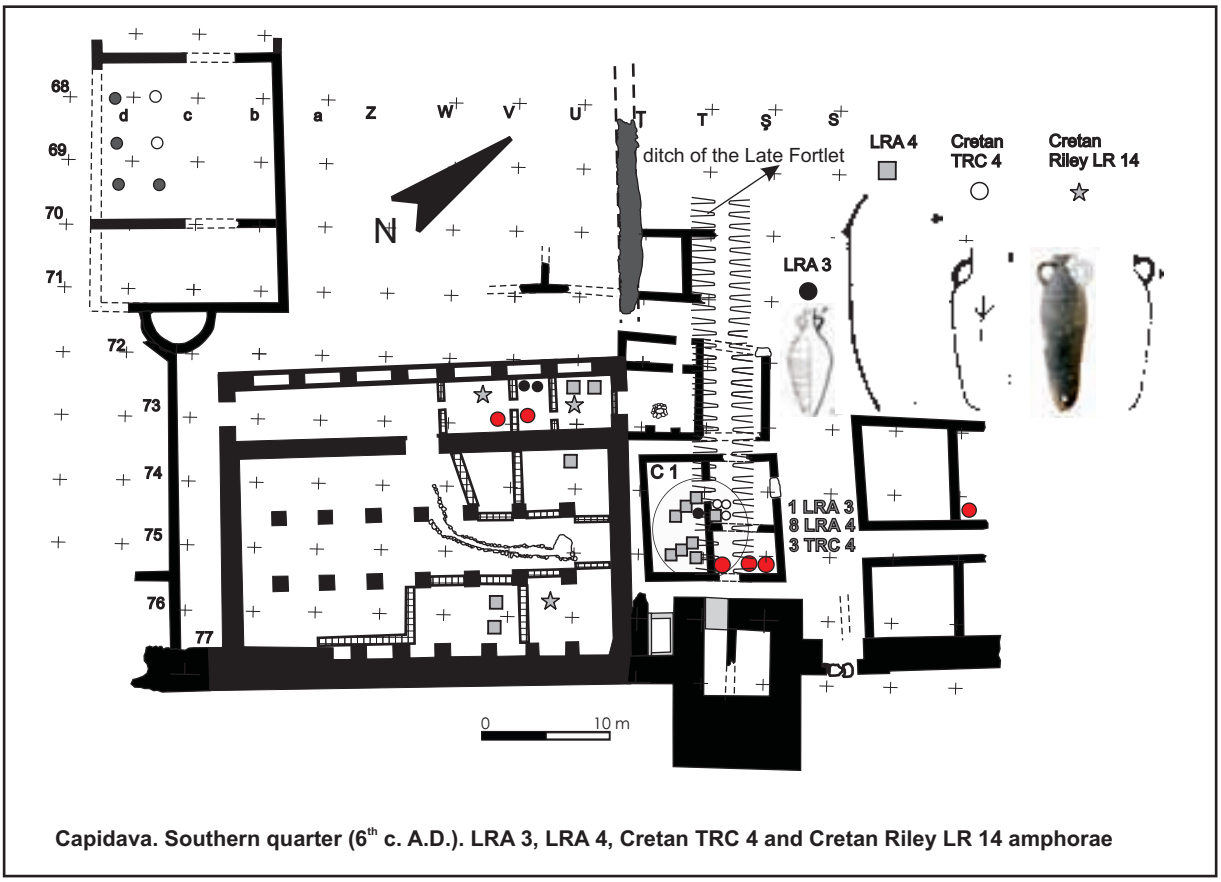


Capidava. Southern quarter (6th c. A.D.). *Spatheia* and LRA 1 amphorae

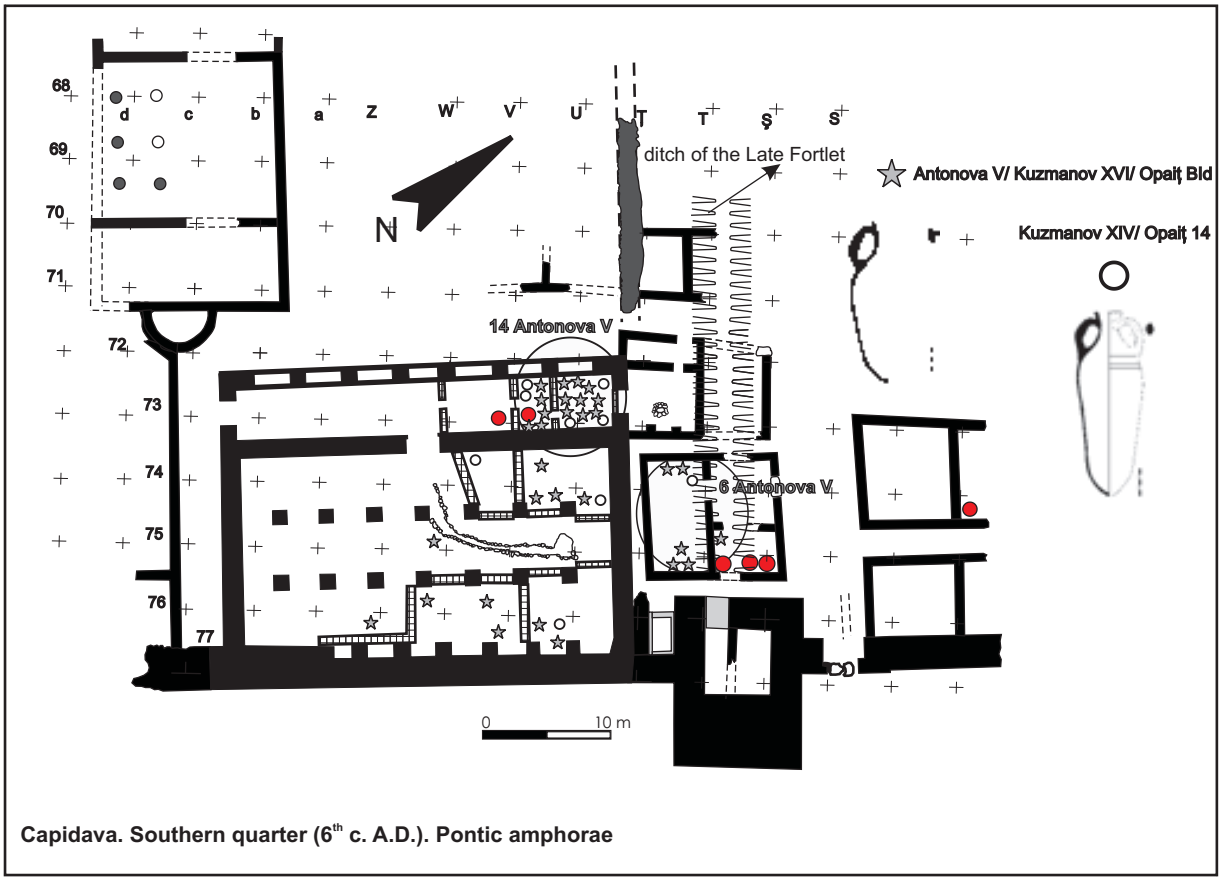


Capidava. Southern quarter (6th c. A.D.). LRA 2 amphorae

Fig. 29.1–2. Distribution of *spatheia*, LRA 1 and LRA 2 amphorae in the *Horreum,* portico and Building C1



Capidava. Southern quarter (6th c. A.D.). LRA 3, LRA 4, Cretan TRC 4 and Cretan Riley LR 14 amphorae



Capidava. Southern quarter (6th c. A.D.). Pontic amphorae

Fig. 30.1–2. Distribution of Oriental amphorae (LRA 3, LRA 4, Cretan TRC 4 and Riley LR 14) in the *Horreum,* portico and Building C1; distribution of Pontic amphorae Antonova V/ Kuzmanov XVI and Kuzmanov XIV in the *Horreum*, portico and Building C1

Fig. 31.1–2. Aerial photograph (2014) with *Principia, Horreum,* Building C1, Gate Tower No. 7 and Main Gate on the right-hand side; Building C1 and the main street (2010)

5.
THE ARCHAEOLOGICAL OBJECTS*

5.1. Structural remains

The archaeological finds comprised in this section of the catalogue are the metal remains of the structure of the building, mainly iron nails and shanks. These finds were used for the upper structure of the building, namely the roof beams and other wood structures. The conservation state of the finds is precarious at best; most of them are barely distinguishable in form and shape. The iron nails, although of different lengths are of the same type, they all have a square cross-section and a rounded head. The shanks are different in shape and size which is understandable due to their designated purpose.

Cat. No. 1
Iron nail;
Room III; Context No. 4;
L: 12.3 cm; T: 1.2 cm; W head: 2.7 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13001;

Cat. No. 2
Iron nail;
Room III; Context No. 4;
PL: 9.7 cm; T: 1 cm; W head: 3 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13002;

Cat. No. 3
Iron nail;
Room III; Context No. 4;
PL: 8.7 cm; T: 1 cm; W head: 2.7 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;

* Catalogue abbreviations: L – length; W – width; T – thickness; PL – preserved length; D – diameter; Dd – diameter; BD – base diameter; RD – rim diameter; MD – maximum diameter; H – height; PH – preserved height; WH – weight.

2008;
CAP 13003;

Cat. No. 4
Iron nail;
Room III; Context No. 4;
PL: 5.5 cm; T: 1 cm; W head: 3.3 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13004;

Cat. No. 5
Iron nail;
Room III; Context No. 4;
L: 12 cm; T: 1.3 cm; W head: 3.7 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13005;

Cat. No. 6
Iron nail;
Room III; Context No. 4;
L: 11.5 cm; T: 1.5 cm; W head: 4 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13006;

Cat. No. 7
Iron nail;
Room III; Context No. 4;
PL: 8 cm; T: 1 cm; W head: 3.7 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13007;

Cat. No. 8
Iron nail;
Room III; Context No. 4;
PL: 8.3 cm; T: 1.2 cm; W head: 4.5 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;

CAP 13008;

Cat. No. 9
Iron nail;
Room III; Context No. 4;
PL: 9.2 cm; T: 1.5 cm; W head: 4 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13009;

Cat. No. 10
Iron nail;
Room III; Context No. 4;
PL: 9.2 cm; T: 1.5 cm; W head: 5.2 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13010;

Cat. No. 11
Iron nail;
Room III; Context No. 4;
PL: 7.8 cm; T: 0.9 cm; W head: 3.3 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13011;

Cat. No. 12
Iron nail;
Room III; Context No. 4;
PL: 10.6 cm; T: 1 cm; W head: 3.8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13012;

Cat. No. 13
Iron nail;
Room III; Context No. 4;
PL: 9.3 cm; T: 1.8 cm; W head: 4 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13013;

Cat. No. 14
Iron nail;
Room III; Context No. 4;
L: 13.7 cm; T: 1.7 cm; W head: 3.7 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13014;

Cat. No. 15
Iron nail;
Room III; Context No. 4;
L: 10 cm; T: 1.5 cm; W head: 4.2 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13015;

Cat. No. 16
Iron nail;
Room III; Context No. 4;
L: 13.8 cm; T: 1.4 cm; W head: 4.1 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
2008;
CAP 13016;

Cat. No. 17
Iron nail;
Room I; Context No. 4;
L: 7.1 cm; T: 1.4 cm; W head: 4.1 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1994;
CAP 10443;

Cat. No. 18
Iron nail;
Room I; Context No. 4;
L: 7.3 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8980;

Cat. No. 19
Iron nail;
Room I; Context No. 4;
L: 11.8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8973;

Cat. No. 20
Iron nail;
Room I; Context No. 4;
L: 11.2 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8974;

Cat. No. 21
Iron nail;
Room I; Context No. 4;
L: 12.6 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8992;

Cat. No. 22
Iron nail;
Room I; Context No. 4;
L: 5.8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 9284;

Cat. No. 23
Iron nail;
Room I; Context No. 4;
L: 8.6 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1994;
CAP 9348;

Cat. No. 24
Iron nail;
Room I; Context No. 4;
L: 5.8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 9360;

Cat. No. 25
Iron nail;
Room I; Context No. 4;
L: 8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 10019;

Cat. No. 26
Iron nail;
Room I; Context No. 4;
L: 8.3 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 10032;

Cat. No. 27
Iron nail;
Room I; Context No. 4;
L: 4.6 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 10035;

Cat. No. 28
Iron nail;
Room I; Context No. 4;
L: 7.1 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 10038;

Cat. No. 29
Iron nail;
Room I; Context No. 4;
L: 7.1 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1994;
CAP 10436;

Cat. No. 30
Construction clamp;
Room I; Context No. 4;
L: 6.1 cm;
U shaped iron clamp with a square-section shank. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8989;

Cat. No. 31
Iron nail;
Room I; Context No. 4;
L: 4.8 cm;
Iron nail with a square-section shank and large pillow-like head. Object's conservation state is precarious; massive deposits of iron oxides;
Unpublished;
1995;
CAP 8987;

Cat. No. 32
Construction clamp;
Room I; Context No. 4;
L: 4.1 cm;
Small clamp, bent from a flat bar. Heavily corroded, malignant patina, broken hooks;
Unpublished;
1995;
CAP 9011;

Cat. No. 33
Construction clamp;
Room I; Context No. 4;
L: 5.5 cm;
Small clamp, bent from a flat bar. Heavily corroded, malignant patina;
Unpublished;
1995;
CAP 9974;

Cat. No. 34
Construction clamp;
Room I; Context No. 4;

L: 5.7 cm;
Clamp, bent from a flat bar, bilateral folded. Heavily corroded, malignant patina, one broken hook;
Unpublished;
1995;
CAP 9989;

Cat. No. 35
Construction clamp;
Room I; Context No. 4;
L: 3.9 cm;
Small camp, bent from a flat bar, bilateral folded. Heavily corroded, malignant patina;
Unpublished;
1995;
CAP 9010;

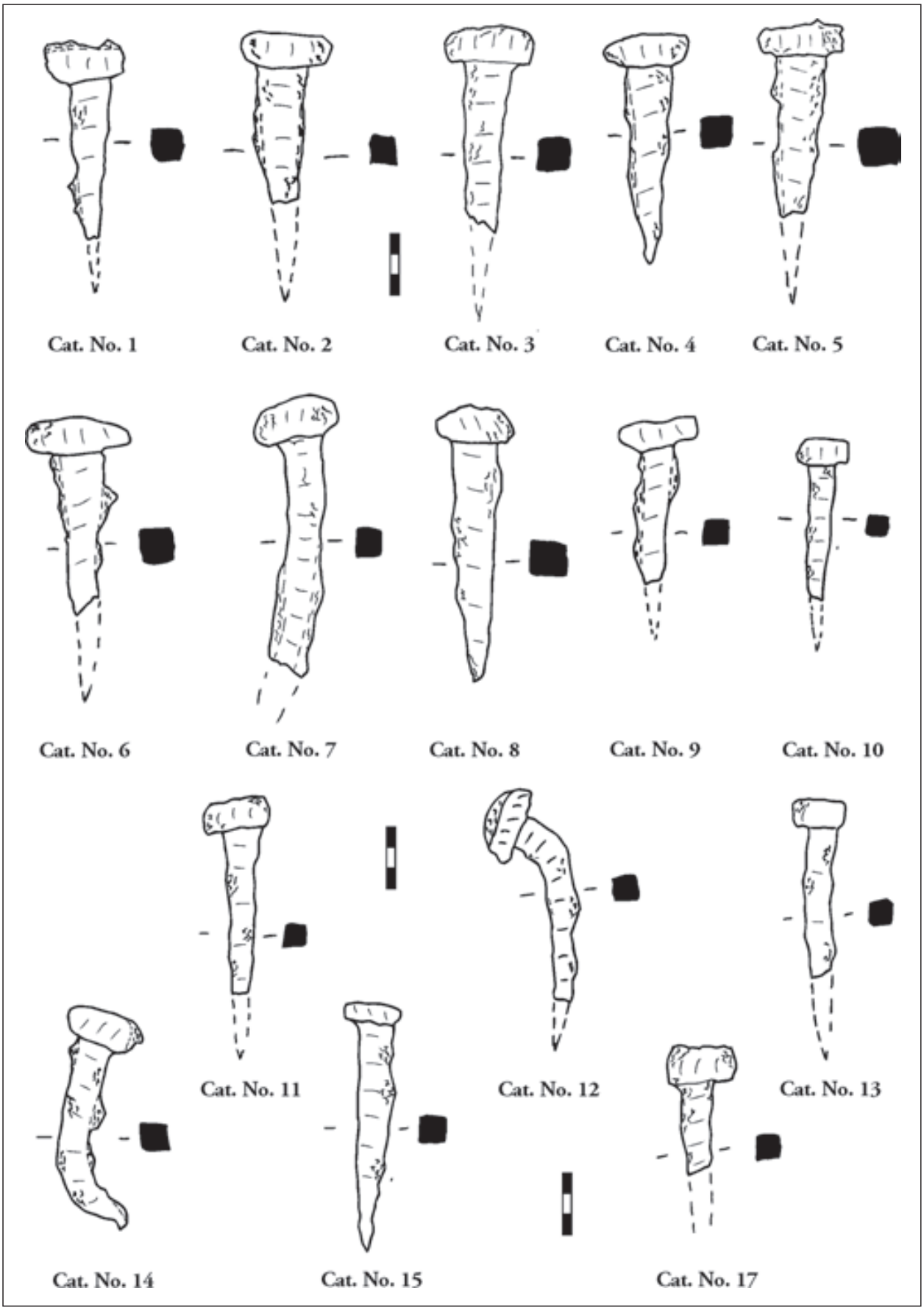


Plate 1

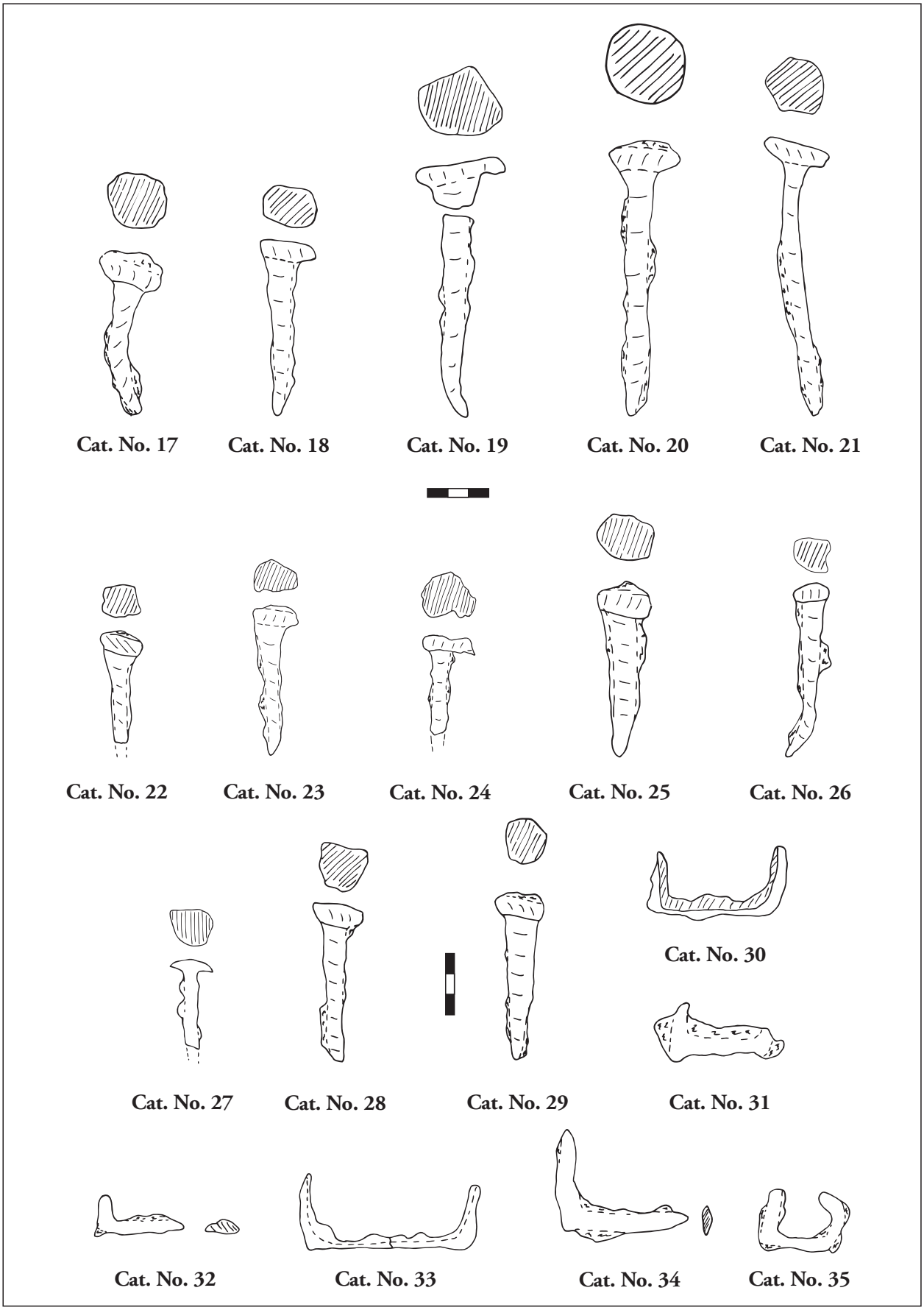


Plate 2

5.2. The pottery

The two archaeological contexts that contain almost exclusively the inventory displayed in the present study, are contexts no. 4 and 5, among which the latter is the most prolific in terms of findings[115]. Context no. 4 corresponds to the roof debris layer therefore it contains numerous *tegulae* and *imbrices*. The collapsed roof, discovered *in situ*, constituted a preserving agent for context no. 5, which made possible the discovery of many artefacts in good preservation state. In many ways, context no. 5, sheltered by the collapsed roof and the 7th c. berm, had the benefits and characteristics of an enclosed complex. This situation is entirely true for Room III, unaltered until the excavations from 2007, and only partially for the other two rooms where the 7th c. ditch cut through the contexts.

Following the removal of the structural wood and tiles debris of the collapsed roof (context no. 4), the burning level was reached, between the roof and the floor. This level is characterised by an important quantity of carbonized wood[116], partially from the beams and rafters of the roof, but also from shelves and other interior furniture as we shall see onwards. In this context, there have been discovered numerous amphorae, some of them displayed in a carbonized and collapsed shelf (clearly recorded in Room III), lamps, several 4th and 5th c. dispersed coins, a hoard containing 51 copper coins, a felting mill and a few rotary querns, a set of 23 loom weights indicating the corresponding vertical loom, etc.

The pottery collected from this level is diverse and is comprised of 31 amphorae for transport and a unique table amphora (11 types, Cat. No. 36–67) with amphora stoppers (Cat. No. 68–75), storage jars (*dolia*), lids (Cat. No. 76–81) and tableware/ fine ware or *vasa escaria* (Cat. No. 82–88); vessels for oil and for drinking – *vasa po(ta)toria* (Cat. No. 89–95), and finally a dozen lamps (Cat. No. 96–105). However, what predominates in quantity and as typological variety are the transport amphorae and their corresponding stoppers (*opercula*)[117].

5.2.1 Amphorae

Of great significance for the inventory corpus recovered from Building C1 are the transport and storage vessels – namely amphorae. The most common types are the ones manufactured in the Aegean and Eastern Mediterranean basins (LRA 1 and 2), along with the group generically known as "Provincial (West- or South-) Pontic Amphorae".

One of the most interesting discoveries is represented by a group of five amphorae found *in situ* on a charred plank, adjacent to Z4 wall in Room III, three of them fragmentary and other

[115] For the archaeological contexts and stratigraphy, see *in extenso* OPRIȘ, RAȚIU 2016a, 195–196, 206, Pl. 4.

[116] During the excavation process there were collected samples of large fragments of charred wood beams, which, after the analysis and uploading in the comparative data base, have generated the following result: the beams were made of oak that was brought from the northern Black Sea area. The analysis was made by Dr. Tomasz Wazny (Nicolaus Copernicus University, Faculty of Fine Arts / Conservation and Restoration of Works of Art), at that time, senior researcher at Cornell Tree-Ring Laboratory (Cornell University – New York). See Annex no. 2 in the present volume: Tomasz Ważny, Peter I. Kuniholm, and Charlotte L. Pearson, Dendrochronology of the early Byzantine fort at *Capidava* on the lower Danube River in Romania (Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona, United States; Institute for the Study, Conservation and Restoration, Nicolaus Copernicus University, Toruń, Poland).

[117] For an overview of the entire pottery, see OPRIȘ, RAȚIU 2016a, 198–200, pl. 9–14. Kitchen ware is missing or almost missing from this assemblage. This fact clearly speaks about the non-domestic function of this building. A single cooking pot with beige fabric (H. ca. 20 cm) was found in Room III, 2007, next to the doorstep between this room and Room I; in the same room stood in its NW part another Pontic Kuzmanov XVIII amphora. Both are just photographically documented; both were fragmentary and could not be included in the catalogue as a part of it was destroyed during the burning of the storage room (2015) where part of the Building C 1 material stood. In that incident the plastic crates and bags, labels as well were lost. Nevertheless the two artefacts were mapped and included to the plan marking the position of the pottery finds inside the three rooms.

two, smaller in size, were found whole (from right to left, Cat. No. 37, 66, 63, 62 and a LRA 2, the latter badly destroyed by the collapsed roof elements). The vessels were leaning against each other when the fire burst, followed by the collapse of the roof, ultimately sealing the entire room. They belong to LRA 1 and LRA 2 types, but also to Antonova V/Kuzmanov XVI/Opaiț B Id type, quite common at *Capidava*[118]. Cat. No. 66 represents a very special case, and, dispite missing its upper part, it might point to North Pontic territories (*Chersonesos*)[119]. A similar situation appeared on the opposite wall of Room III, namely Z2 wall, where other two Antonova V/ Kuzmanov XVI/ Opaiț B Id amphorae were found leaning against the inner wall. Next to the Pontic amphorae (Cat. No. 60–61), stood three Levantine ones of LRA 4 type and another LRA 1 Aegean one (Cat. No. 46, 49, 51, respectively 36). Not far from this assemblage was found another Antonova V/ Kuzmanov XVI/ Opaiț B Id container (Cat. No. 65). In the centre of Room III was discovered one more group of Levantine wares, *i.e.* 3 fragmentary LRA 4 amphorae (Cat. No. 48, 50, 52) and a remarkably preserved (though broken) LRA 3 amphora (Cat. No. 45). To the same group belongs the upper part (neck without handles) of a LRA 1 amphora (Cat. No. 40). Another Kuzmanov XVIII Pontic amphora with large mouth and conic base stood next to this group[120].

Another group of amphorae was unearthed in the context of the hoard mentioned earlier on the threshold between Room I and III, namely the base of a Carthage LRA 4 type amphora and a possible version of a Pontic Kuzmanov XIII/ *à pâte claire* type or even Kuzmanov XVII type (Cat. No. 53 and 59). The fact that they were arranged in compact groups can indicate a particular usage of space; they were usually situated near the walls or displayed on shelves along other ceramic vessels.

As to the positioning of the amphorae in the first two rooms of the building (*i.e.* Room I and II), one can observe the compact clustering in Room 1, more precisely in the corner between walls Z 6 and Z 5, of 10 amphorae: 2 of LRA 1 type, three more of LRA 2, 1 LRA 4, but also less common ones as Zeest 99/Sazanov 11/Opaiţ E IX (3 amphorae), and finally a Pontic type amphora, kindred either to Antonova V/Kuzmanov XVI/Opaiț B Id Type or to Opaiț B V Type (Cat. No. 38–39; 42–44; 47; 54–56 and finally, 57). Both rooms have their central space severely disturbed (along with the entire inventory) by the *fossa* of the late fortlet, the defensive ditch being dug throughout the building. A unique table amphora with *umbo* shaped base of Pontic origin stood in Room II (Cat. No. 67); its only known analogy is a close one and comes from a post-Justinian deposit in *Pantikapaion*.

The assemblage of *amphorae* in Building C1 is also remarkable for the unprecedented grouping of Levantine, Cretan and Western Asia Minor amphorae contexts analyzed so far at *Capidava*[121]: 8 LRA 4, 1 LRA 3, and finally 3 Cretan TRC 4/ Zeest 99/ Sazanov 22/ Opaiț E IX. This grouping is undoubtedly competing with the types utilised for transporting the *annonariae* goods, *i.e.* LRA 1 and 2, which together count just 11 amphorae in Rooms I and III. The commercial character of this building, situated along the main street and next to the fort gate, has been, for good reason, already inferred[122]. Besides the idea of a shop, one might further speculate the function of "a presentation and retail shop". It is precisely the grouping of the above-mentioned amphorae, carrying, most likely, precious wine that should be emphasised; such contents must have been expensive and, therefore, prohibitive. They express, according to the inspired idea of Catherine Abadie-Reynal,

[118] OPRIȘ 2003, 74–70, Pl. XXV-XXVII.

[119] ROMANCHUK, SAZANOV, SEDIKOVA 1995, class 14, 34–35, pl. 11.66. This closest analogy has been dated in the first quarter of the 7th c. AD. If the typology is correct, the amphora in *Capidava* represents the first known piece of its type. For the above mentioned literature regarding this amphora we give special thanks to Dr. Andrei Opaiț.

[120] This amphora is the one we lost in the fire affecting the transit depot at *Capidava* (2015); it was ca 34–35 cm long and, according to photographic archive, had a fairly large mouth (D. ca. 9–10 cm).

[121] OPRIȘ 2003, Pl. VII-X.

[122] CURTA 2016a, 21–22; CURTA 2017, 449.

embraced also by Florin Curta, "the free trade commerce"[123]. It is sure that they were transported with other strategic commodities in LRA 1 and LRA 2 amphorae within the *quaestura Iustiniana exercitus*[124]. This administrative entity created in 536 AD managed the food supply chain to the army of the northern frontier and to the Balkan fortresses. As for the Levantine, Cretan and Western Asia Minor amphorae assemblage that we discovered in Building C1, they addressed a different, wealthier, public who afforded most likely, expensive wines, quality olive oil, *garum* or ointments[125]. This mere fact can bring added value to the interpretation of Building C1 as storage facility with commercial destination.

One should also remark a pattern of opening and emptying the large LRA 4 amphorae through drilling holes in their bodies or shoulders, observed on Levantine amphorae (see *infra* the whole discussion). Such a strategy has been noticed on other LRA 5 amphorae, on conical Seleucia in Pieria ones also, from the MINAC collections (Muzeul de Istorie Națională și Arheologie Constanța). It has been tackled during the last decade or so on several occasions and might offer important suggestions on the nature of the transported merchandise.

The amphora stoppers belong to the most common type in the province of *Scythia*, as well as in the Mediterranean and Black Sea basins, from the 4th c. to the early decades of the 7th c. They all belong to the same kind, *i.e.* the removable lid stoppers and have (except for one, with convex body) small rims, concave body, protruding round or flattened handles. All *opercula* were fired in the typical LRA 2 fabric. At least two other stoppers cut from other broken amphorae bodies are known, but have not been included in the catalogue. Such stoppers cut from sherds and then embedded in plaster, utilizing broken vessels, bricks or even tiles in such a purpose, are easy to make and, thus, quite common.

5.2.1.1. Carthage LRA 1 Type[126] was attested in this building during the 1995 campaign when three such amphorae were discovered (Cat. No. 38, 39 and 41) in Room I[127]. Other three amphorae from this type were unearthed during the 2007–2010 campaigns in Room III (Cat. No. 36, 37 and 40). One of the vessels (Cat. No. 37) seems to belong to the subtype Carthage LRA I E[128]; close parallels for this type can be found in *Scythia* at *Halmyris*, in the levels dated in the second half of the 6th c. AD. With the exception of a fragmentary vessel (Cat. No. 40), one should observe that the amphorae of this type have been discovered in compact groups with other vessels of Carthage LRA 2 type or with provincial amphorae of Antonova V/ Kuzmanov XVI/ Opaiţ B Id Type in Rooms I and III. As a pattern, they are grouped next to the precinct walls (Z1 and Z 6 for Room I, Z 4 and Z 2 for Room III).

This type of vessel, quite popular across the Empire, represents, without question, the most common type of Oriental amphorae used in the province of *Scythia* during the 5th–7th c. A.D. The great variety of subtypes identified so far corresponds to an impressive production area, which comprises the Eastern Mediterranean basin, the Aegean Sea and, perhaps, the Pontic basin (*e.g. Sinope*[129]). The latest approaches to this topic indicate production sites in Cilicia, Northern Syria, Cyprus, Rhodos and the Marmaris region in the Datça Peninsula[130]. At *Capidava* this type of

[123] CURTA 2001, 187; CURTA 2017, 441.
[124] See KARAGIORGOU 2001; CURTA 2001, 185–189; CURTA 2016b.
[125] OPAIȚ 2004, 13–14, 20–24; PIERI 2005, 100–101, 111–114.
[126] RILEY 1976, 114.
[127] OPRIȘ 2003, 58, no. 55–57 (Carthage LR 1 Type), pl. VII.
[128] OPAIȚ 2004, 10, dated in the second half of the 6th c.
[129] OPAIȚ 2004, 8–10, with six different subtypes; PARASCHIV 2006, 89–92; OPRIȘ 2003, 53–59; TOPOLEANU 2000, 134–136; PIERI 2005, 69–85.
[130] PIERI 2005, 80, fig. 38; PIERI 2007, 613–614, with convincing arguments for the redeployement of LRA 1 production to Cyprus, but also for the African or Pontic imitations of this type (614–615).

vessel represents approx. 31% of the discoveries of Oriental amphorae in Romano-Byzantine contexts[131]. These oblong containers, known to Isidore of Seville under the name of *seriola*[132], were used according to ancient authors for transporting primarily wine (from Rhodos, Cilicia, *Laodicea* or Cyprus)[133], but also oil or grain and are extremely popular on many military sites in the Balkans and along the Danubian frontier.

Cat. No. 36
Amphora;
Carthage LRA 1;
Room III; Context No. 5;
H: 51 cm; MD: 28.5 cm;
Fine fabric, homogenous, with fine particles of sand; of brick-red colour with a reddish slip. A ribbed aspect, mainly in the mid-lower part of the vessel. The artefact is fragmentary; part of the lower part is missing; traces of secondary burning;
Opriș, Rațiu 2016a, 211, Pl. 10/1; Opriș, Rațiu 2016b, 28–29, Cat. No. 1, Fig. 8, 17/1;
2008;
CAP 13017;

Cat. No. 37
Amphora;
Carthage LRA 1 E;
Room III; Context No. 5;
H: 54 cm; MD: 32 cm;
Fine fabric, homogenous, with fine particles of sand; of brick-yellow (whitish) colour with a similar slip. A ribbed aspect, mainly in the mid-lower part of the vessel, except the median area. Good conservation state, the vessel is completely restored; traces of secondary burning;
Opriș, Rațiu 2016a, 211, Pl. 10/2; Opriș, Rațiu 2016b, 29, Fig. 5, 17/2;
2007;
CAP 13018;

Cat. No. 38
Amphora;
Carthage LR 1;
Room I; Context No. 5;
H: 51 cm; MD: 24 cm;
Fine fabric, homogenous, with fine particles of sand; of brick-brown colour with a similar slip. A ribbed aspect, from the shoulder to the lower part of the vessel. Red paint cursive inscription on the upper part of the shoulders. Fragmentary, some elements from the lower part of the vessel are missing; traces of secondary burning;
Opriș 2003, 58, Pl. XIX/56; Opriș, Rațiu 2016b, 29, Cat. No. 3;
1995;
CAP 6990;

Cat. No. 39
Amphora;
Carthage LR 1;
Room I; Context No. 5;

[131] OPRIȘ 2003, 177–178. For *Halmyris*, see a close situation, TOPOLEANU 2000, 125: 26.7%. LRA 1 finds represent 25.87% from all transport containers at *(L)ibida*, according to PARASCHIV 2010, 1002.
[132] PIERI 2005, 69, n. 12: in *Etymologiae rerum sive origines*, XX, VI, 6.
[133] PIERI 2005, 81–85.

H: 50 cm; MD: 25 cm;
Fine fabric, homogenous, with fine particles of sand; of light orange colour with a similar slip. A ribbed aspect, from the shoulder to the lower part of the vessel. Fragmentary, some elements from the shoulder of the vessel are missing; traces of secondary burning;
Opriș 2003, 58, no. 57;
1995;
CAP 5189;

Cat. No. 40
Amphora;
Carthage LR 1;
Room III; Context No. 5;
PH: 12 cm; RD: 9 cm; HD: 3 cm;
Fine fabric, homogenous, with fine particles of sand and mica; of light orange colour. Fragmentary, only the rim, neck and part of the handles and shoulders remain;
Opriș, Rațiu 2016b, Cat. No. 5, Fig. 17/5;
2008;
CAP 13076;

Cat. No. 41
Amphora;
Carthage LRA 1;
Room I; Context No. 5;
H: 41 cm; MD: 18 cm;
Fine fabric, homogenous, with fine particles of sand; of brick-red colour with a similar slip. A ribbed aspect, mainly in the mid-lower part of the vessel. Fragmentary, but completely restored; traces of secondary burning;
Opriș 2003, 58, no. 55; Opriș, Rațiu 2016b, 29, Cat. No. 6;
1995;
CAP 5226;

5.2.1.2. The large Carthage LRA 2 Type[134] amphorae were discovered in Building C1 during the archaeological campaigns from the 1990's[135]. Compared to several vessels already published, two new amphorae, destroyed by the collapsed roof, appeared in a cluster of amphorae next to the Z4 wall, in Room III, unfortunately too damaged to be restored and further included in this catalogue. With the same Aegean origin but with greater volume than the latter type, the amphorae from Carthage LRA 2 Type are almost as popular representing 23% of all Oriental amphorae discoveries at *Capidava*[136].

The analysis of the petrography indicates several possible sources for the clay such as the island of Chios, Kounoupi (in Argolid), the north-western part of Asia Minor, the Bodrum area, as well as *Cnidos* (Datça Peninsula)[137]. On the other hand, a Pontic production is to be taken seriously into consideration[138]. So far, the clearest production site remains the one in Kounoupi, on the

[134] RILEY 1976, 116.
[135] OPRIȘ 2003, 61, 64, cat. no. 69–70, 100 (Carthage LR 2 Type), pl. VIII, XXI-XXII. First two – found in Room I, near to the doorstep to Room III – had *dipinti* painted with red paint on the neck.
[136] OPRIȘ 2003, 177–178; OPAIȚ 2004, 11 notes a percentage of 19–29% for *Halmyris* (Murighiol), between the second half of the 5th c. and the beginning of the 7th c. PARASCHIV 2010, 1002 offers a percentage even higher for *(L)ibida*, in fact the highest LRA 2 presence in the entire province of *Scythia*, *i.e.* 33.22%.
[137] TOPOLEANU 2000, 132–134; OPRIȘ 2003, 59–64; OPAIȚ 2004, 10–12; PARASCHIV 2006, 92–95.
[138] PARASCHIV 2006, 95.

coast between Port Cheli and Hermioni[139]. Further Aegean production sites, in Chios and Samos, as well as workshops in Chalkidiki need thorough investigations[140]. This globular vessel decorated with parallel ridges on the shoulder was primarily designed for the transportation of olive oil, but a gradual disassociation in favour of wine and corn has been observed[141].

The Carthage LRA 2 amphorae published so far at *Capidava* are located mainly around and inside the *Horreum*[142], close to Building C1. As to the three amphorae in this catalogue, all of them bear inscriptions on the shoulder, either *sgraffito* (Cat. No. 42) or red paint inscriptions (Cat. No. 43–44). One should also add that all small handled amphora stoppers discovered inside the building C 1 present the typical LRA 2 fabric (see *infra*).

Cat. No. 42
Amphora;
Carthage LR 2 (variant);
Room I; Context No. 5;
H: 50 cm; MD: 25 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of yellow-white colour with a cream coloured slip. A compact series of parallel striations in the shoulder area of the vessel. *Sgraffito* inscription with capital letters on the upper part of the shoulders, above the striated area (M A). Fragmentary, some elements from the shoulder and the body of the vessel are missing; completely restored;
Opriș 2003, 64, no. 100; Opriș, Rațiu 2016a, 212, Pl. 10/3; Opriș, Rațiu 2016b, 29, Fig. 17/7;
1994;
CAP 5179;

Cat. No. 43
Amphora;
Carthage LR 2;
Room I; Context No. 5;
H: 63 cm; MD: 49 cm;
Fine fabric, homogenous, containing fine particles of sand, of light orange colour with a cream coloured slip. A compact series of parallel striations in the median area of the vessel; Christian *dipinti* (B? Y ☩ N E) painted with red paint just above the striated area, shoulders and neck. Fragmentary, but entirely restored; heavy traces of secondary burning, slightly deformed by fire;
Opriș 2003, 61, Pl. XXI/69, 69a, 69b; Opriș, Rațiu 2016a, 212, Pl. 10/4, 4a; Opriș, Rațiu 2016b, 29, Fig. 17/8;
1995;
CAP 6286;

Cat. No. 44
Amphora;
Carthage LR 2;
Room I; Context No. 5;
H: 62 cm; MD: 45 cm;
Fine fabric, homogenous, containing fine particles of sand, of light orange colour with a cream coloured slip. A compact series of parallel striations in the upper part of the body; red paint inscription (*dipinti*) on the upper part of the shoulders (E A N or E A Y). Fragmentary, some elements from the rim, handles and body of the vessel are missing; heavy traces of secondary burning, slightly deformed by fire;

[139] PIERI 2005, 90–91.
[140] PIERI 2005, 91.
[141] KARAGIORGOU 2001; CURTA 2016b. PIERI 2005, 93, n. 140 reminds that inside the Yassi Ada II wreck from the 120 LRA 2 amphorae 69 contained grape seeds and traces of pitch, which means that they contained wine.
[142] OPRIȘ 2003, pl. VIII.

Opriș 2003, 61, Pl. XXII/70, 70a; Opriș, Rațiu 2016a, 212, Pl. 10/5; Opriș, Rațiu 2016b, 29, Fig. 17/9;
1995;
CAP 6283;

5.2.1.3. A typological novelty for Building C1 consists in the discovery, during the 2008 campaign of a nearly intact Carthage LR 3 Type amphora[143] (Cat. No. 45) in the middle of Room III. It lacks about 4 cm from the base and the entire surface was strongly exfoliated during the fire in which the entire building was destroyed. At least two such amphorae produced in the Eastern Mediterranean (Western Asia Minor is indicated, *i.e.* Hermos Valley – *Aphrodisias* and the region between *Ephesus* and *Sardis*)[144] have been discovered at *Capidava* so far[145]. Given this production area, one should infer their association with LRA 2 amphorae produced in the Eastern Aegean space (Chios, Samos)[146]. These small capacity vessels must have transported precious wine as main content.

Cat. No. 45.
Amphora;
Carthage LR 3;
Room III; Context No. 5;
MD: 15.2 cm; RD: 4 cm; HD: 0.8 cm; PH: 36.6 cm;
Fine fabric, homogenous, with fine particles of sand; light brown colour. A ribbed aspect, from the upper shoulder to the lower part of the vessel. Fragmentary, some elements (about 4 cm from its original height) from the base of the vessel are missing; heavy traces of secondary burning and massive exfoliation.
Opriș, Rațiu 2016a, 212, Pl. 10/6; Opriș, Rațiu 2016b, 30, Fig. 18/10;
2008;
CAP 13019;

5.2.1.4. When compared to the insignificant presence of LRA 3 within the precinct of the building, one should stress, for instance, the concentration of Palestinian/Gaza amphorae of Carthage LR 4 Type[147] (Cat. No. 46–53). This type of vessels is known mainly in the area of the Mediterranean and Black Sea basins and was most likely produced in ancient Palestine and also in the Nile Delta and Middle Egypt[148]. It was probably used for transporting the famous Ghaza wine[149]. However, records of reutilising these amphorae for transporting various commodities, as corn, fish, olive and sesame oil[150] or even for storing iron spikes[151] as in the warehouses from *Tomis* are well known. In the province of *Scythia*, this type of amphorae was discovered almost exclusively in urban contexts[152].

Excepting Cat. No. 47 (Room I), all other upper and lower parts of such amphorae come from Room III. Cat. No. 47, well preserved only in its lower part, was found during the 1993

143 RILEY 1976, 117; OPAIȚ 2004, 13–14: closest parallels in the province of *Scythia* are the early dated amphorae from Topraichioi at pl. VII/5–6.
144 OPAIȚ 2004, 14.
145 OPRIȘ 2003, 64–65, cat. no. 101–102, pl. VIII, XXII; for a third fragment belonging to LRA 3 type, see also PARASCHIV 2004, 401 (= OPRIȘ 2003, 72, unassigned cat. no. 122).
146 PIERI 2005, 94–101.
147 RILEY 1976, 117.
148 OPRIȘ 2003, 65–68; PARASCHIV 2006, 99–101; PIERI 2005, 101–114.
149 PIERI 2005, 112: *vinum Gazetum, Gazetina, Gazeticum*.
150 PIERI 2005, 110, n. 329–331: at Qasrawet, in the northern part of the Sinai Peninsula, these amphorae contained salted fish, corn was also found in LRA 4 amphorae from Egypt, and again containers of this kind transported olive and sesame oil to Rome, at *Schola Praeconum*.
151 RĂDULESCU 1973, 194, 197, fig. 5.
152 OPAIȚ 2004, 20–22.

campaign[153], and another, entirely restored, was uncovered during the 2010 campaign in Room III (Cat. No. 46). From a third known LR 4 amphora was recovered, at the time of the excavation, only about 10 cm from the conical shaped base, broken *in situ* on the doorstep between Rooms III and I (Cat. No. 53). One should also notice two compact groups in the centre of Room III (Cat. nos. 48, 50, 52) and at the end of the same room between walls Z 3, Z 2 and Z 6 (Cat. Nos. 46, 49, 51). Cat. No. 52 might indicate a thicker and shorter subtype possibly presenting an angle at the transition between shoulder and body[154].

This is the highest concentration of LRA 4 amphorae at *Capidava* so far; until now five other such amphorae have been published from the interior of the *Horreum* and the storage rooms in the portico[155].

One should also notice a very interesting element at Cat. No. 47, namely a circular hole (0.8 cm diameter) on the body at 0.24 m from the base. Such holes have been explained by Dominic Pieri as "trous à fermentation"[156], which makes sense if the container transported wine. He noted several such holes in the body of the amphorae; a similar approach has been recorded in Africa, where four different strategies for opening these vessels by holing are known[157]: A. Small holes (1 to 2 cm in diameter), drilled or obtained by percussion, generally situated in the lower third of the body. The idea is that of helping the evacuation of a semisolid content by using air. M. Bonifay explains that the dimension of the holes corresponds more likely to a liquid content (wine or *garum*) than to a denser one (oil?). He also points out that these holes might indicate that the amphora was kept vertically precisely for getting perforated. Another observation was that these holes have been all made in areas of the surface already damaged (and repaired); B. Middle size holes (cca 10 cm in diameter) cut out at shoulder level, that might indicate a one turn evacuation of the content (semi solid or dense liquid as oil); C. Large size holes (15–20 cm), equally cut out at shoulder level. They also can be associated to a semi solid content, as salted fish products; D. Certain amphorae have been pierced and opened at the precise centre of the base/ foot. They must have been kept in a horizontal position during the evacuation of the content.

Cat. No. 46
Amphora;
Carthage LR 4;
Room III; Context No. 5;
H: 73 cm; MD: 20 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. A compact series of parallel striations incised on the base of the vessel. Fragmentary, some elements from the body of the vessel are missing, but they were replaced after restoration; heavy traces of secondary burning and massive exfoliation;
Opriș, Rațiu 2016a, 212, Pl. 10/7; Opriș, Rațiu 2016b, 30, Fig. 18/11;
2010;
CAP 13020;

[153] OPRIȘ 2003, 67, cat. no. 103, pl. VIII, XXII.
[154] See OPAIȚ 2004, 20–21 (Palestine Zemer 52–53), with best analogy in *Scythia* from *Tomis*, pl. 7.11.
[155] OPRIȘ 2003, 65–68, pl. VIII.
[156] PIERI 2005, 111.
[157] BONIFAY 2004, 467–470, Fig. 264; see also PEÑA 2007, 66–68, with additional information. The cutting of an aperture in the shoulder, wall body or by drilling of a hole through the tip of the spike could be well observed for the classes of Palestinian wine amphorae: LRA 4, but also LRA 5 and 6 provide common evidence in this respect. Methods 1 and 4 observed by Bonifay have been interpreted as applied to liquid content, wine or oil; in turn, methods 2 and 3 would suggest a semi-solid fish product.

Cat. No. 47
Amphora;
Carthage LR 4;
Room I; Context No. 5;
PH: 55.2 cm; EH: 70 cm; MD: 26 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. A compact series of parallel striations incised from the base of the vessel all through the upper part. Fragmentary, the entire upper body of the vessel, namely the shoulders, neck, rim or handles, is missing;
Opriș 2003, 67, no. 103, Pl. XXII/103; Opriș, Rațiu 2016a, 212, Pl. 10/8; Opriș, Rațiu 2016b, 30, Fig. 18/12;
1995;
CAP 5301;

Cat. No. 48
Amphora;
Carthage LR 4;
Room III; Context No. 5;
PH: 15.5 cm; MD: 25.5 cm; RD: 10 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; brick-orange colour with a similar slip. No visible decorations on the remaining fragment. Fragmentary, only the upper part of the vessel remains;
Opriș, Rațiu 2016b, 30, Fig. 18/13;
2008;
CAP 13021;

Cat. No. 49
Amphora;
Carthage LR 4;
Room III; Context No. 5;
PH: 18 cm; MD: 22.8 cm; RD: 11 cm; HD: 2.5 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. No visible decorations on the remaining fragment. Fragmentary, only the upper part of the vessel remains;
Opriș, Rațiu 2016b, 30, Fig. 18/14;
2008;
CAP 13022;

Cat. No. 50
Amphora;
Carthage LR 4;
Room III; Context No. 5;
PH: 17 cm; MD: 18.2 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. A compact series of parallel striations incised on the base of the vessel. Fragmentary, most of the upper part of the vessel is missing;
Opriș, Rațiu 2016b, 30, Fig. 18/15;
2008;
CAP 13023;

Cat. No. 51
Amphora;
Carthage LR 4;

Room III; Context No. 5;
PH: 13.4 cm; MD: 15.6 cm; BD: 2 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. A compact series of parallel striations incised on the base of the vessel.Fragmentary, the upper half of the vessel is missing;
Opriș, Rațiu 2016b, 30, Fig. 18/16;
2008;
CAP 13024;

Cat. No. 52
Amphora;
Carthage LRA 4;
Room III; Context No. 5;
PH: 34.2 cm; MD: 15.4 cm; BD: 2.7 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip. A compact series of parallel striations incised on the base of the vessel. Fragmentary, most of the upper part of the vessel is missing;
Opriș, Rațiu 2016b, 30, Fig. 18/17;
2008
CAP 13077;

Cat. No. 53
Carthage LRA 4;
Room III; Context No. 5;
PH: 38.8 cm; MD: 21.4 cm; BD: 2 cm
Fine fabric, homogenous, with fine particles of sand and quartzite; of brick-orange colour with a similar slip; a ribbed aspect, from the lower part of the vessel up to the preserved area of the vessel. Fragmentary, the upper half of the vessel is missing;
Opriș, Rațiu 2016b, 30–31, Fig. 18/18;
2008
CAP 13077

5.2.1.5. Levantine amphorae. Cretan Amphorae TRC 4/ Zeest 99/ Sazanov 11/ Opaiț E IX Type. A new series of amphorae, which appears to originate from the same Levantine geographical area, belongs to Zeest 99/ Sazanov 11/ Opaiț E IX Type[158] already thoroughly documented at *Capidava*, including in Building C1[159] (Cat. No. 54–56). As for the Zeest 99/ Sazanov 11/ Opaiț E IX Type, rather frequent in the Northern Black Sea archaeological contexts until the third quarter of the 8th c. (!), their content seems to have been Cretan wine and the production sites were situated in southern Crete, near Gortyn[160]. One should stress that our finds match the same dating sequence as the other *Scythia* analogies from *Halmyris*, *Istros*, *Argamum*, *Ibida* or *Tomis*, *i.e.* the last quarter of the 6th c.[161]. The same can be noticed when searching for the analogies in the Northern Black Sea territories[162].

[158] ZEEST 1960, 120, pl. XXXIX; OPAIȚ 1991, 150, no. 127–128; OPAIȚ 1996, 67, 287, Pl. 17.4–7.
[159] OPRIȘ 2003, 70–71, Type VIII, cat. no. 113, 117, 19, pl. IX, XXIV.
[160] OPAIȚ 2004, 24, pl. 15.4–7; PARASCHIV 2006, 102–103.
[161] OPAIȚ 2004, 24.
[162] SAZANOV 2014, TRC 4.3 Type, 402, Fig. 8 (especially 8.5). The amphora from Ilychevka has a similar concave base to our Cat. No. 54: the same at *Halmyris*, see TOPOLEANU 2000, 145, Cat. No. 370; SAZANOV 2007, TRC 4 Type, 807–808, Fig. 7.7 (570–580 AD).

Cat. No. 54
Amphora;
Zeest 99/ Sazanov 11/ Opaiţ E IX;
Room I; Context No. 5;
H: 42 cm; MD: 15 cm;
Fine fabric, homogenous, with fine particles of sand; yellow-orange colour with a cream coloured slip. A compact series of parallel striations in the shoulder area of the vessel. It has the letter Ψ written with red paint on the body. Some small elements from the body of the vessel are missing, but entirely restored;
Opriș 2003, 71, Pl. XXIV/113; Opriș, Rațiu 2016a, 213, Pl. 11/1; Opriș, Rațiu 2016b, 31, Fig. 19/19;
1995;
CAP 5169;

Cat. No. 55
Amphora;
Zeest 99/ Sazanov 11/ Opaiţ E IX;
Room I; Context No. 5;
H: 46.5 cm; MD: 18.5 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of light pink-orange colour with a whitish slip. A compact series of parallel striations in the shoulder area of the vessel. One of the handles is missing; heavy traces of secondary burning, deformed by fire;
Opriș 2003, 71, no. 117; Opriș, Rațiu 2016b, 31, Cat. No. 20, not illustrated;
1995;
CAP 5170;

Cat. No. 56
Amphora;
Zeest 99/ Sazanov 11/ Opaiţ E IX;
Room I; Context No. 5;
H: 40.6 cm; MD: 16 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; of light pink-orange colour with a whitish slip. A compact series of parallel striations in the shoulder area of the vessel and again in the lower part. Both handles are missing; heavy traces of secondary burning, deformed by fire;
Opriș 2003, 71, no. 119; Opriș, Rațiu 2016b, 31, Cat. No. 21, not illustrated;
1995;
CAP 5300;

5.2.1.6. Unassigned Amphora, Pontic origin. This amphora has been attributed in past publications to the Zeest 99/ Sazanov 11/ Opaiţ E IX type[163], but may in fact belong (due to its morphology) either to Antonova V/ Kuzmanov XVI/ Opaiț B Id or to Opaiț B V Type[164] or to a kindred new type. The confusion is sustained by certain details of the shape, the grooved decorum, the size of the vessel but mostly by the colour and aspect of the fabric. For these reasons this amphora containing in its lower third pine tar is better to be unassigned to any of the Pontic types, leaving other clarifications for future research. The examination and analysis report of a sample taken from this container have been performed at The Metropolitan Museum of Art / Department of Scientific Research by Adriana Rizzo and Choi Mak (see Annex 3).

Cat. No. 57
Amphora;

[163] OPRIȘ 2003, cat. no. 118.
[164] OPAIȚ 2004, 29, pl. XVIII; TOPOLEANU 2000, 153–154, cat. no. 403–405, pl. LI.

Unassigned type, related to Antonova V/ Kuzmanov XVI/ Opaiț B Id or to Opaiț B V type;
Room I; Context No. 5;
H: 36.5 cm; MD: 15 cm;
Fine fabric, homogenous, with fine particles of sand; yellow-white colour with a whitish coloured slip. A compact series of parallel striations in the shoulder area of the vessel. Fragmentary, some small elements from the body of the vessel are missing; heavy traces of secondary burning, shoulder deformed by fire;
Opriș 2003, 71, no. 118, Pl. XXIV/118; Opriș, Rațiu 2016a, 213, Pl. 11/2; Opriș, Rațiu 2016b, 31, Fig. 19/22;
1995;
CAP 5181;

5.2.1.7. Opaiț B V Amphora, Pontic origin. This type is considered to be derived from the Antonova V/ Kuzmanov XVI/ Opaiţ B I d one and is known in *Scythia* at *Troesmis*, *Istros*, *Halmyris*, *Sacidava*, but also at *Tomis*; it is recorded in the Western Balkans and up the Danube, to *Pannonia*[165]. The morphology practically presents the oblong variant of the cited type; the fabric has a red brick colour and contains much iron oxides. At *Capidava* is relatively frequent in the 6th c.[166], with capacities of 0.92 to 1.975 litres.

Building C 1 offered a single amphora of this Pontic type (Cat. No. 58). It has been found in an upright position against the Z 6 wall in Room III during the 2009 campaign. This Pontic type was dated in the second half of the 6th c. and the beginning of the 7th c. and could have been produced in several centres of *Scythia*, for short range transport purposes[167].

Cat. No. 58
Amphora;
Opaiţ B V;
Room III; Context No. 5;
MD: 17.5 cm; RD: 6.5 cm; HD: 2.3 cm; PH: 43.7 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; orange colour. A compact series of parallel striations in the shoulder area of the vessel. Fragmentary, but restored completely; heavy traces of secondary burning;
Opriș, Rațiu 2016a, 213, Pl. 11/3; Opriș, Rațiu 2016b, 31, Fig. 19/23;
2009;
CAP 13025;

5.2.1.8. Amphora of Pontic origin. Kuzmanov XIII/ *à pâte claire* or Kuzmanov XVII type? This amphora has been found in 2009 on the doorstep between Room III and I, badly damaged in the fire that destroyed the Building C1. What is certain about this amphora is the fine and homogenous orange fabric, containing fine particles of sand and mica, coated by a light beige/ whitish slip. The fabric reminds that of the hard, abundant in iron oxides one specific to Antonova V/ Kuzmanov XVI/ Opaiţ B I d amphorae. Besides that, the bi-truncated form of the container and the low capacity in terms of transported goods indicate a Pontic origin.

On the other hand, the long and thin neck of the Kuzmanov XIII/ *à pâte Claire* amphorae[168] is missing in this case, as our amphora has obviously a short one; the same distance can be observed

[165] OPAIŢ 1996, 72, pl. 20, 1; OPAIŢ 2004, 29; TOPOLEANU 2000, 153–154, no.cat. 403–406, pl. LI; BJELAJAC 1996, type XXIV, 80–81, fig. 28/155 (two different types merged); KUZMANOV 1985, 18, 20, pl. 9, variant 1 (A 90–93).
[166] OPRIŞ 2003, 79–81, no. 159–167.
[167] PARASCHIV 2006, 39–40.
[168] KUZMANOV 1985, 18, Pl. 7 (A 68 – A 69).

as regards to the dimensions, *i.e.* height: the Kuzmanov XIII amphorae measure 54 to 63 cm, while Cat. No. 59 just 32.2 cm. The dilemma is that of assigning it to the correct type. A second possibility, closer as both form and dimensions, might be the Kuzmanov XVII type. This type is known for the second half of the 6th c. between *Istros* and *Odessos*, where, given the large quantities of such amphorae, could have been the production site[169]. Nevertheless, the amphora found at *Capidava* has a rounded base, compared to the knobbed end of the cited analogies.

Cat. No. 59
Amphora;
Kuzmanov XIII/ *à pâte claire*? or Kuzmanov XVII?
Room III; Context No. 5;
MD: 13.5 cm; RD: 5.9 cm; HD: 1.7 cm; PH: 32.3 cm;
Fine fabric, homogenous, with fine particles of sand and mica; of orange colour and light beige/ whitish slip. A compact series of parallel striations in the shoulder area of the vessel. Fragmentary, both handles and part of the rim are missing, heavy traces of secondary burning, and spalling as a result of fire;
Opriș, Rațiu 2016a, 213, Pl. 11/7; Opriș, Rațiu 2016b, 31, Fig. 19/24;
2009;
CAP 13026;

5.2.1.9. Quite the opposite in terms of percentage and certainty is the situation of the 6th c. popular Pontic Antonova V/ Kuzmanov XVI/ Opaiț B Id Type[170], which is well documented at *Capidava*[171] and also in Building C1[172]. In fact, it is undoubtedly the most popular type of its kind, representing here approx. 66% of all Pontic amphorae. We agree with our colleague dr. Dorel Paraschiv, when proposing *Capidava*, or the surrounding area, as possible production sites[173], though further petrographic analysis might be highly important in this respect. When comparing the most popular Pontic amphora type at *Capidava* and *(L)ibida*, one will immediately notice that for the inland fort of the 6th c. the highest percentage is represente by the Pontic Kuzmanov XV type, with an incredible 24.12% of all transport containers[174]; at *Halmyris* the two types coexist and gather 17% of all transport amphorae circulating during the last decades of the 6th c. and the first ones of the 7th c.[175].

To the previously (1995) discovered amphora in Room II (Cat. No. 64), five new finds from the 2007–2009 excavations adjoin the already published collection from *Capidava*. All five have been discovered in the same Room III (Cat. No. 60–63, 65). Two of them (Cat. No. 62–63) have been found next to the Z 4 wall and the other two in vertical position, at the opposite end of the same room (next to Z 2, Cat. 60–61). The general dating in the second half of the 6th c. and the beginning of the 7th c. in *Scythia* perfectly matches the one in the particular context of Building C1.

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169 KUZMANOV 1985, 24, Pl. 13 (A 128 – A 133). See also PARASCHIV 2006, type 13 of Pontic amphorae, 38–39, 53–54, no. 76–79, Pl. 10.

170 KUZMANOV 1985, 22, type XVI, cat. no. A 114–127, Pl. 12/A 126, 13/A 127; OPAIȚ 1991, 141–142, nr. 71–76.

171 OPRIȘ 2003, Type X, 74–79, no. 127–158, pl. X, XXV-XXVII. The highest concentration of this type has been attested in the portico of the *Horreum*.

172 OPRIȘ 2003, no. 150, from Room III, not illustrated.

173 See also PARASCHIV 2014, 426, where he suggests that one should trace the production workshops of the Kuzmanov XVI and Opaiț B V containers in *Scythia*; for Kuzmanov XV amphorae the same author considers production sites in the same province and maybe in *Moesia Secunda* or in the Northern region along the Black Sea.

174 PARASCHIV 2010, 1002; see KUZMANOV 1985, 20–22, Pl. 10–11 (A 97 – A 113).

175 TOPOLEANU 2000, 228.

Cat. No. 60
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;
Room III; Context No. 5;
MD: 16.4 cm; HD: 1.6 cm; PH: 40 cm;
Coarse fabric, homogenous, with inclusions of organic material; of orange colour. Compact series of large parallel striations in the shoulder and bottom areas of the vessel. The amphora is preserved whole; traces of secondary burning;
Opriș, Rațiu 2016b, 31–32, (incorrectly categorised) Fig. 19/25;
2008;
CAP 13027;

Cat. No. 61
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;
Room III; Context No. 5;
MD: 15.5; HD: 1.7 cm; PH: 33.4 cm;
Coarse fabric, homogenous, with inclusions of organic material; of orange colour. A compact series of parallel striations, more visible in the shoulder and middle parts of the container. The amphora is preserved whole; heavy traces of secondary burning;
Opriș, Rațiu 2016a, 213, Pl. 11/4; Opriș, Rațiu 2016b, 31, Fig. 7, 19/25;
2008;
CAP 13028;

Cat. No. 62
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;
Room III; Context No. 5;
MD: 15.2 cm; PH: 30 cm;
Coarse fabric, homogenous, with inclusions of organic material; of orange colour. A compact series of parallel striations on the body, under the shoulder area of the vessel. The amphora is preserved whole; heavy traces of secondary burning;
Opriș, Rațiu 2016a, 213, Pl. 11/6; Opriș, Rațiu 2016b, 32, Fig. 19/27;
2007;
CAP 13029;

Cat. No. 63
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;
Room III; Context no. 5;
H: 35 cm; MD: 15,5 cm;
Coarse fabric, homogenous, with inclusions of sand and quartzite; orange colour. The decorum consists of a ribbed aspect on the body, under the shoulder of the vessel. The amphora is preserved whole; heavy traces of secondary burning;
Opriș, Rațiu 2016b, 32, Cat. No. 28;
2007;
CAP 13078;

Cat. No. 64
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;

Room II; Context No. 5;
H: 34 cm; MD: 15 cm;
Coarse fabric, homogenous, with inclusions of sand and quartzite; of orange colour. A compact series of wide parallel striations (ribbed aspect) in the shoulder area of the vessel. The amphora is preserved whole; traces of secondary burning;
Opriș 2003, 78, no. 150; Opriș, Rațiu 2016b, 32, Cat. No. 29;
1995;
CAP 5190;
Not illustrated;

Cat. No. 65.
Amphora;
Antonova V/ Kuzmanov XVI/ Opaiţ B I d;
Room III; Context No. 5;
H: 34 cm; MD: 16.2 cm;
Coarse fabric, homogenous, with inclusions of sand and quartzite; orange colour. The decorum consists of a dull ribbed aspect on the lower surface of the container. The amphora is preserved whole; few traces of secondary burning; carbonized compact organic residue;
Unpublished;
2008;
CAP 13078;

5.2.1.10. Romanchuk/Sazanov/Sedikova 1995, class 14/ Golofast 2003, fig. 9.5. Pontic type. A highly interesting, yet exotic amphora is the one from Cat. No. 66. Although it has been violently damaged on the occasion of the fire that put an end to the whole building, a delicate restoration work in 2017 made possible the advancement in assigning it; its large body and the groovy decoration of the bottom part and the shoulder area have excellent possible analogy at *Chersonesos*, where at least two such Pontic amphorae have been found and subsequently dated in the first quarter of the 7th c. AD. If the analogy is functional, this dating makes the *Capidava* amphora the earliest known discovery of its kind[176]. The best analogy in terms of form and decoration is that furnished by L.A. Golofast (complex no. 3, in the northern part of *Chersonesos*, excavated in 1985), an amphora with "corrugations of raising wave type"[177]. The main problem of this latter container remains that of the late dating of the whole complex, *i.e.* end of the 7th c.

Cat No. 66
Amphora;
Romanchuk/Sazanov/Sedikova 1995, class 14 (?)/ Golofast 2003, fig. 9.5;
Room III, 2007;
Hp: 50 cm; MD: 33.5 cm;
A squat body with rounded end, coarse fabric, homogeneous, with numerous inclusions of quartzite and mica; of light beige colour with a grey core. Decoration of horizontal grooves all around the lower part and on the shoulders of the vessel. Fragmentary, parts from the body, the neck with rim and one handle are missing; heavy traces of secondary burning;
Opriș, Rațiu 2016b, 32, Fig. 3;
2007;
CAP 13079;

[176] ROMANCHUK, SAZANOV, SEDIKOVA 1995, class 14, 34–35, pl. 11.66; SAZANOV 1997, 91–92, type 18 (Fig. 2.18); GOLOFAST 2003, complex 3, 101, 104, 106–107, Fig. 9.5.
[177] GOLOFAST 2003, 104, Fig. 9.5.

5.2.1.11. Table amphora. Pontic type. The only table amphora in Building C1 (Cat. No. 67) was discovered in 1995. It was found in Room II, next to *via principalis*. It was assigned to a second type of such table amphorae found at *Capidava*[178], with *umbo* shaped base; a local production for this type was also suggested[179]. In the meantime an excellent analogy became available from a post-Justinian deposit in *Pantikapaion*, *i.e.* a pear-shaped body amphora found during a rescue excavation in 2006[180]. This latter amphora has the same base moulded in its central part as the one in *Capidava*, with a ring foot around it.

Cat. No. 67
Amphora;
Table Amphora;
Room II; Context No. 5;
H: 47 cm; MD: 28.5 cm;
Fine fabric, homogenous, with fine particles of sand and quartzite; light orange colour with a whitish slip. A compact series of parallel striations in the shoulder area of the vessel. A 2.4 cm almost circular hole in the base. Fragmentary, a handle, part of the neck and rim are missing; heavy traces of secondary burning on one side;
Opriș 2003, 87, no. 184, Pl. XXX/184; Opriș, Rațiu 2016a, 213, Pl. 11/8; Opriș, Rațiu 2016b, 32, Fig. 19/31;
1995;
CAP 5201;

5.2.2. Amphora stoppers

We have included in our catalogue eight terracotta lids that were used for sealing the amphorae. They all belong to one of the commonest types in the province of *Scythia*, as well as in the Mediterranean and Black Sea basins, encountered from the 4th c. to the early decades of the 7th c. As it has been already observed, all these stoppers have small rims, a concave (except for Cat. No. 70, which is convex) body, protruding handles that were rounded or even flattened and were fired in the typical LRA 2 fabric. Due to their size, they were found in good condition.

Such small handled stoppers have been published with the pottery assemblages from *Halmyris*[181] and *Capidava*[182] and recently from *Histria*[183], as well.

Cat. No. 68–70 were identified in Room III in 2008; Cat. No. 71–75 come from the 1994–1995 campaigns and were all grouped in Room I, where three LR 2 amphorae were also found.

Cat. No. 68
Amphora stopper;
Operculum;
Room III; Context No. 5;
D: 5.8 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Opriș, Rațiu 2016a, 213, Pl. 11/10;
2008;

[178] OPRIȘ 2003, 85–88, especially 87.
[179] OPRIȘ 2003, 86. See other different provincial table amphorae at OPAIȚ 2004, 4–5.
[180] FEDOSEEV, DOMŻALSKI, OPAIȚ, KULIKOV 2010, 85, Fig. 30.
[181] TOPOLEANU 2000, 163, 347, no. 445–450, Pl. LV.
[182] OPRIȘ 2003, 88–91, no. 189–209.
[183] BĂDESCU, BIVOLARU 2015, 199–200, no. 68–72, Fig. 7.11–15.

CAP 13030;

Cat. No. 69
Amphora stopper;
Operculum;
Room III; Context No. 5;
D: 6.5 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Opriș, Rațiu 2016, 213a, Pl. 11/9;
2008;
CAP 13031;

Cat. No. 70
Amphora stopper;
Operculum;
Room III; Context No. 5;
D: 9 cm;
Fine fabric, light-yellow coloured. Has a circular shape, convex outward, with central protruding handle. The stopper is whole and well preserved;
Opriș, Rațiu 2016a, 213, Pl. 11/11;
2008;
CAP 13032;

Cat. No. 71
Amphora stopper;
Operculum;
Room I; Context No. 5;
H: 2 cm; D: 6.9 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Opriș 2003, 90, no. 195;
1995;
CAP 5193;

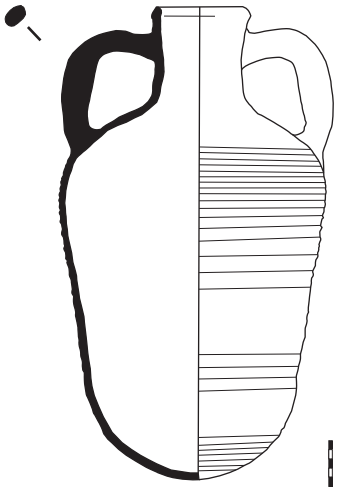
Cat. No. 72
Amphora stopper;
Operculum;
Room I; Context No. 5;
H: 2 cm; D: 6 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Opriș 2003, 90, no. 196;
1995;
CAP 5194;

Cat. No. 73
Amphora stopper;
Operculum;
Room I; Context No. 5;
H: 3.5 cm; D: 9 cm;

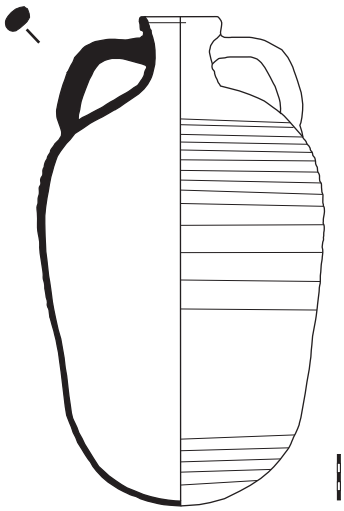
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Opriș 2003, 90, no. 197;
1994;
CAP 8940;

Cat. No. 74
Amphora stopper;
Operculum;
Room I; Context No. 5;
H: 3.5 cm; D: 9 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Unpublished;
1994;
CAP 13033;

Cat. No. 75
Amphora stopper;
Operculum;
Room I; Context No. 5;
H: 3.5 cm; D: 9 cm;
Fine fabric, light-yellow coloured. Has a circular shape, concave outward, with central protruding handle. The stopper is whole and well preserved;
Unpublished;
1994;
CAP 13034;



Cat. No. 36



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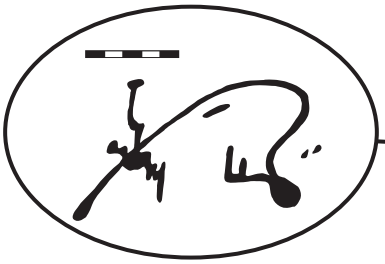

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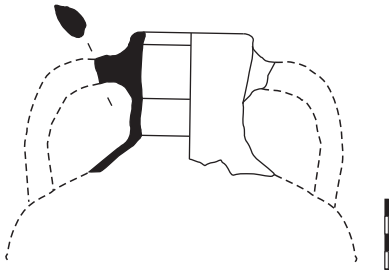
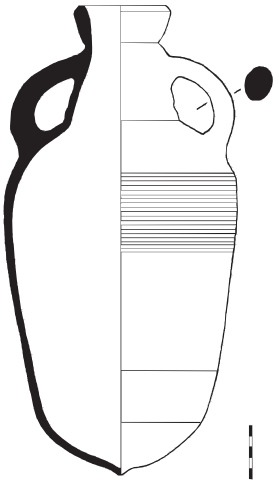
Cat. No. 39



Cat. No. 40

Plate 3



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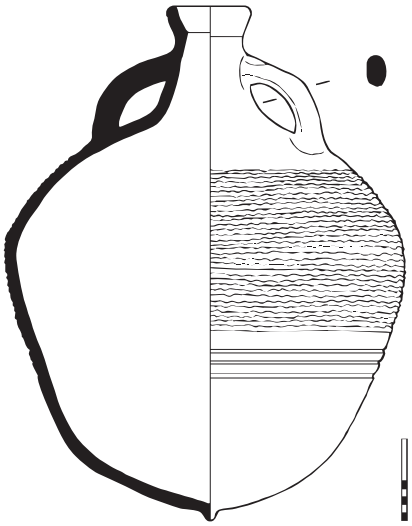

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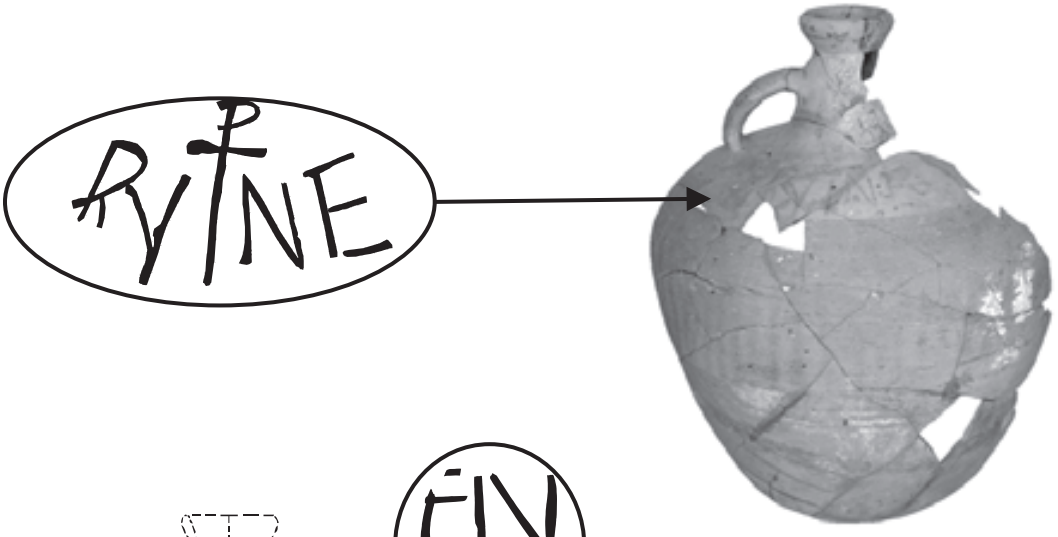

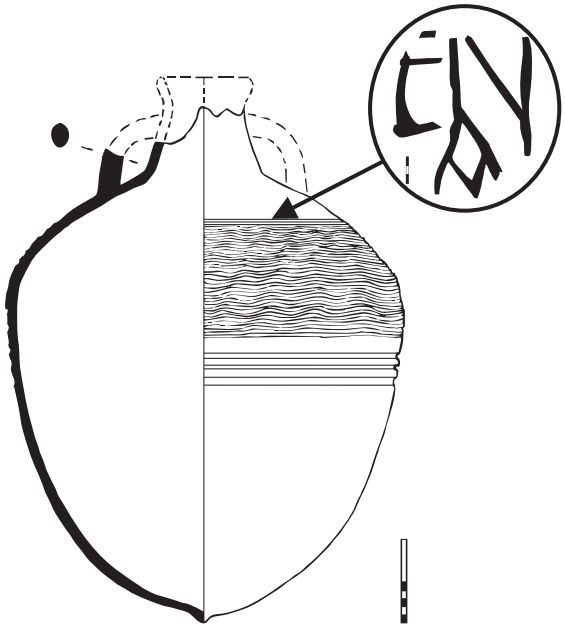

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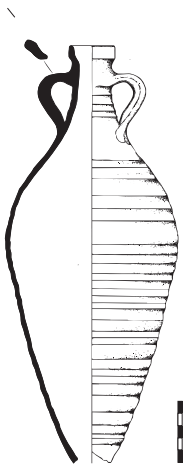

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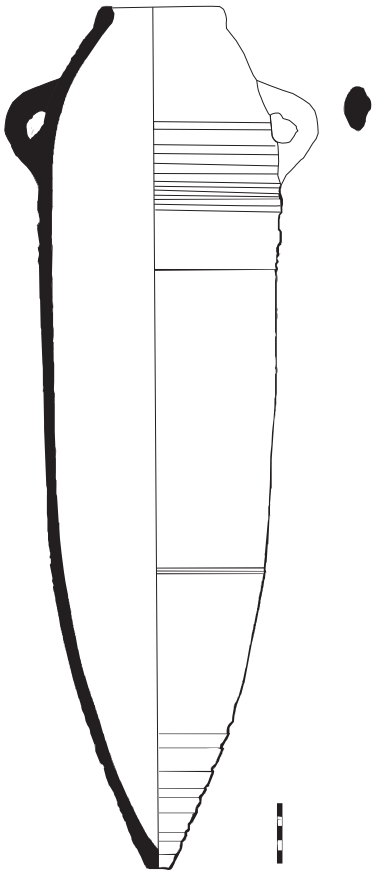
Plate 4



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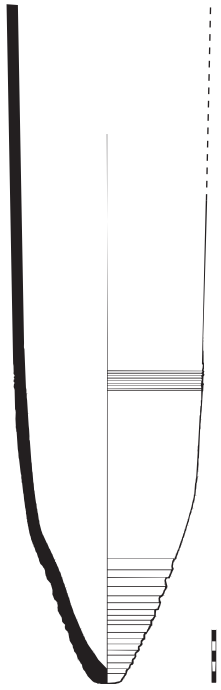
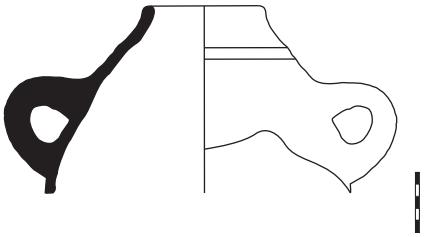
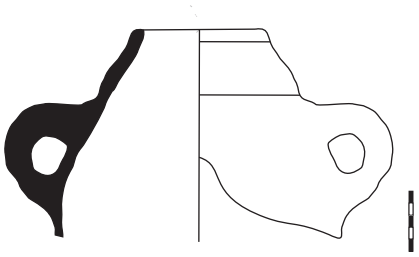


Cat. No. 47

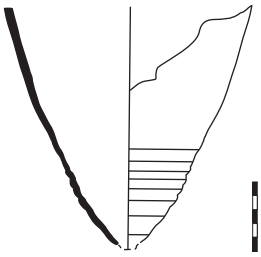
Plate 5



Cat. No. 48



Cat. No. 49



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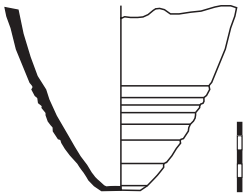

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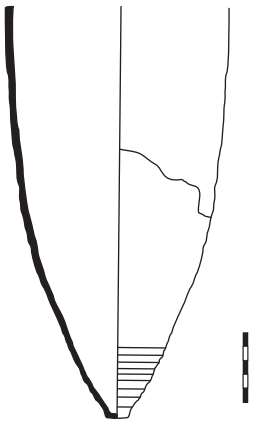

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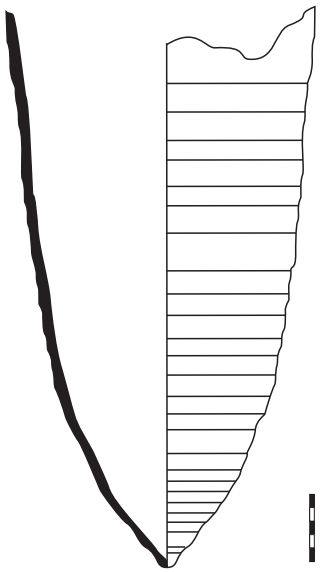
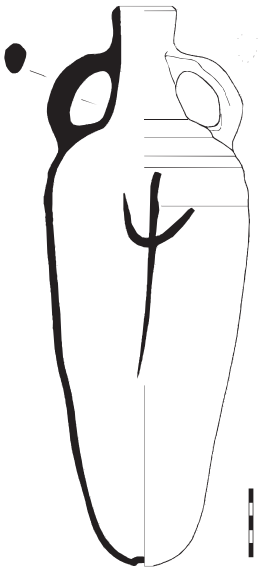


Cat. No. 53

Plate 6



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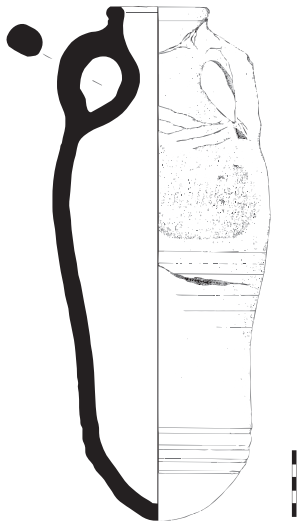

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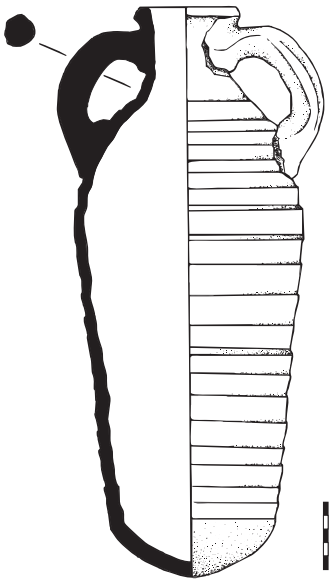

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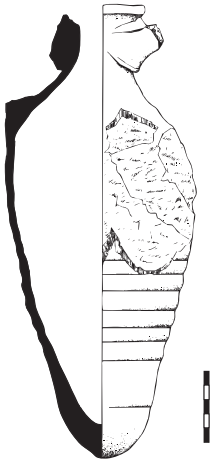
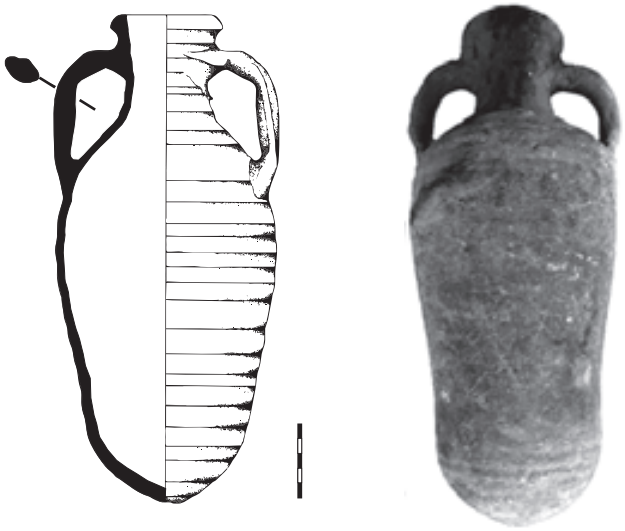


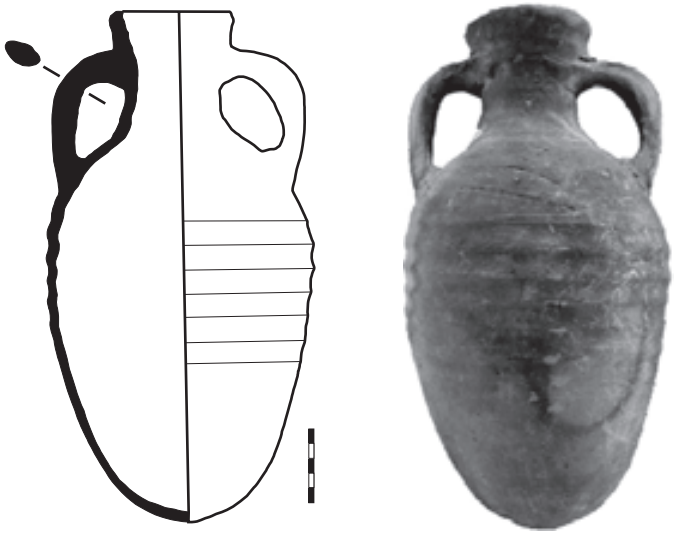
Cat. No. 59

Plate 7



Cat. No. 60

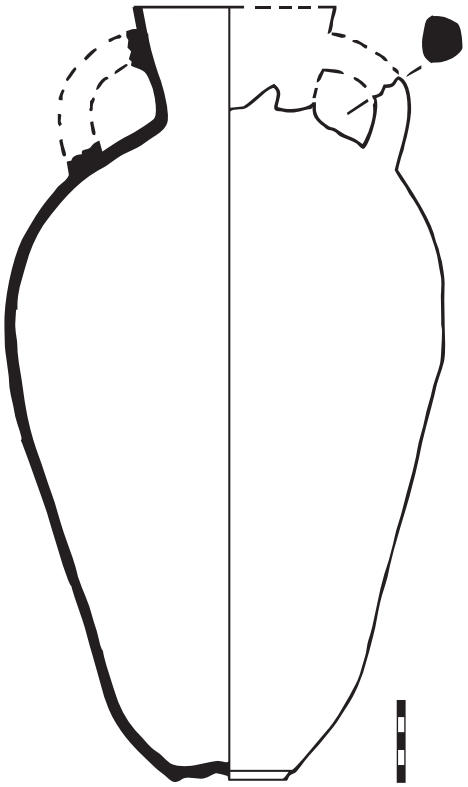
Cat. No. 61



Cat. No. 62

Plate 8

Cat. No. 63



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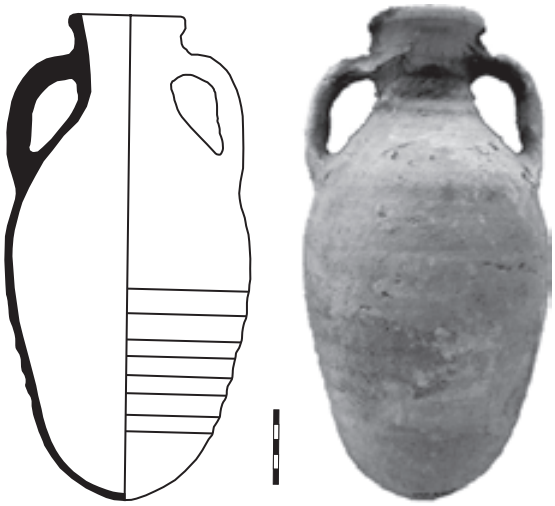
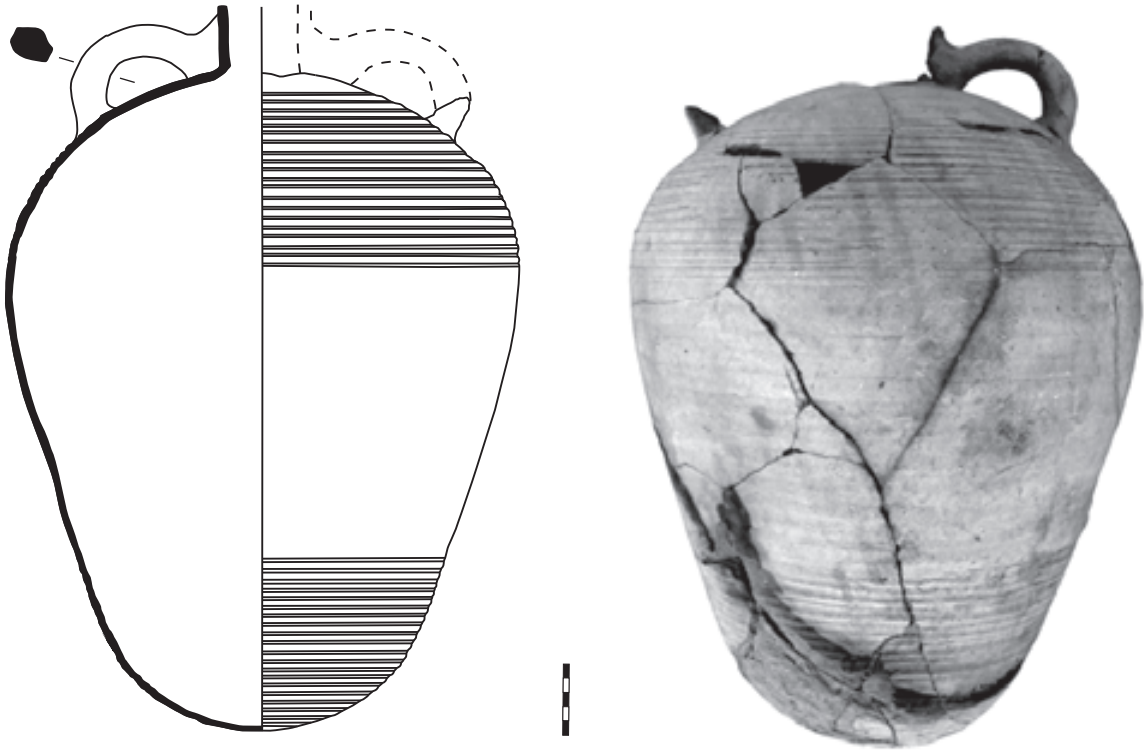


Cat. No. 65

Plate 9



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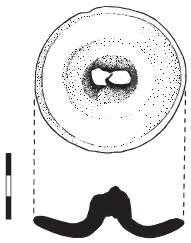

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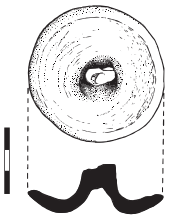

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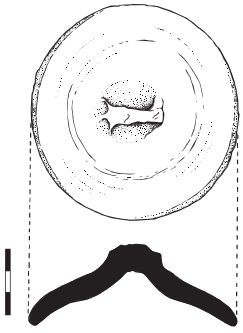

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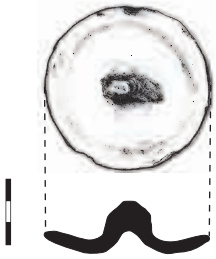

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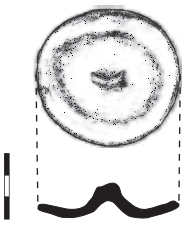
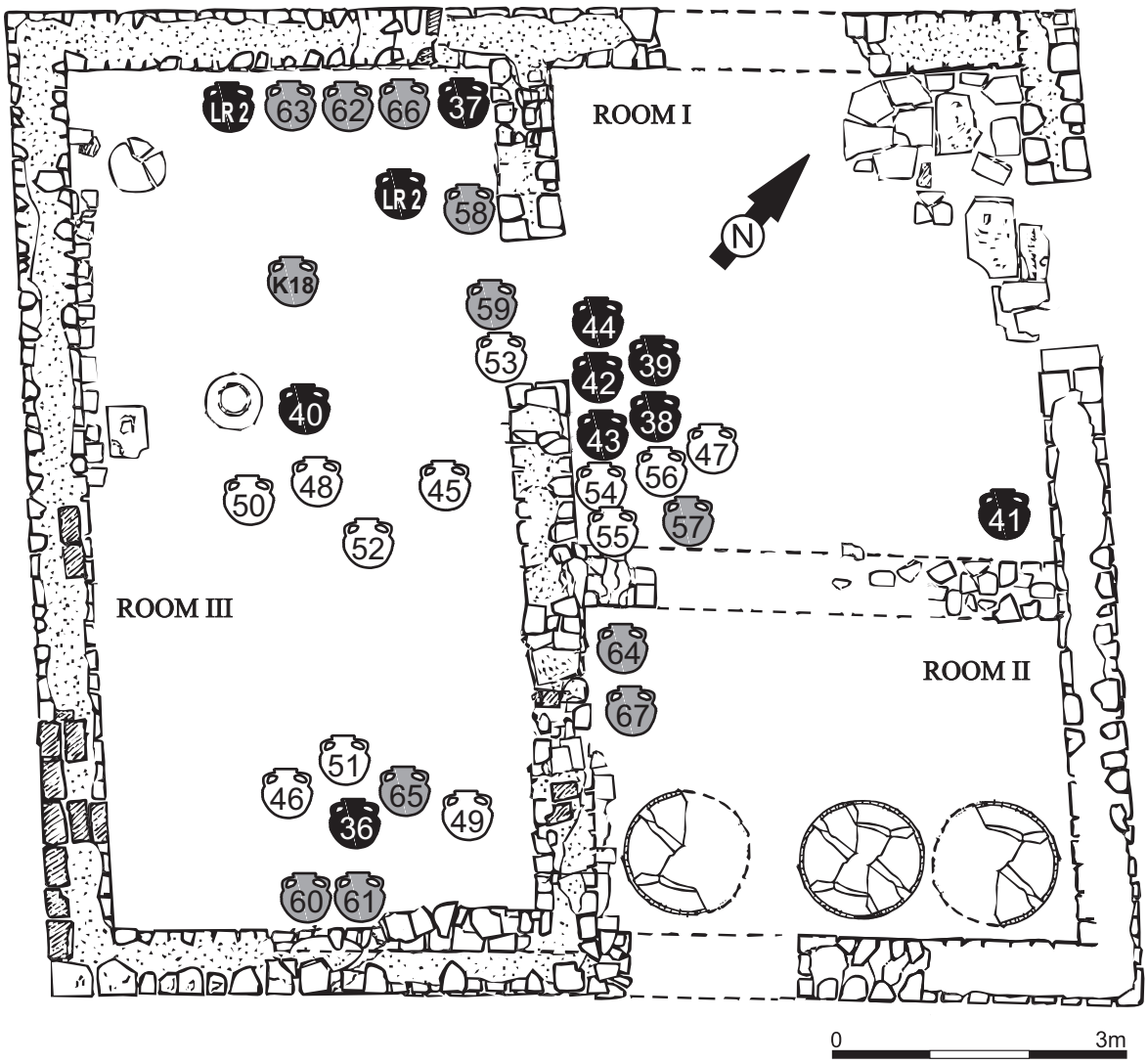


Cat. No. 75

Plate 10

Amphorae distribution within Building C1



KEY:

40 Annona goods amphorae LRA 1 and LRA 2 (Cat. No. 36-44)

45 LRA 3 amphora (Cat. No. 45)
LRA 4 amphorae (Cat. No. 46-53)
Levantine amphorae Cretan TRC 4/ Zeest 99/ Sazanov 11 (Cat. No. 54-56)

60 Pontic amphorae: unassigned type (Cat. No. 57);
type Opaiț B V (Cat. No. 58);
type Kuzmanov XIII or XVII ? (Cat. No. 59);
type Antonova V/Kuzmanov XVI (Cat. No. 60-65);
type Romanchuk/Sazanov/Sedikova 1995, class 14 (Cat. No. 66); table amphora (Cat. No. 67)

K18 Amphorae not included in catalogue
LR 2 (LRA 2; Kuzmanov XVIII)

Plate 11

5.2.3. Storage vessels

It is beyond doubt that the large *dolia* (Gr. *pithoi*) did not enjoy a real important scientific interest until now. Their production, by no means a mass one, involved skills, time and labour that, summed up, made them relatively expensive; yet they are generally not well studied[184]. Representing the most popular storage jars in the ancient world, they have an ovoid shape and thick walls, a massive wheel-turned or mould made rim and a basal knob made in the same technique. Due to their dimensions and weight, they had to be manufactured on site, built up from coils. This design fits the expectations for the storage of liquids, grain or any other goods in bulk.

Five *dolia* functioned in two different phases in our building. The fabric was brick-red and hard, with sand grains as main inclusions. First, one should notice a row of three storage jars (*dolia defossa*) inside Room II, against Z 2 wall of the edifice, out of which just Cat. No. 77 has been included in our presentation. This latter one stood in the corner of the room, between Z 2 and Z 6 and had its eastern half destroyed by the defence ditch in the last Roman phase of the fortress. Its preserved height measured no more than 40 cm or so, in fact the same or very similar to the other two next to it; their preserved diameters indicated no more than 120 cm. All three were embedded in the floor up to their lower third; this procedure required a substructure, according to the archaeological observations, a support frame consisting of small sized stones for stabilizing the vessel under the floor.

In Room III, specifically in the corner between Z 2 and Z 6, during the 2010 sondage excavation, the perfect circular negative print of a fourth *dolium* could be observed at floor level, from the earliest phase of the Context no. 5. (diameter 75 cm; height 27 cm).

Finally, one should remark a different storage jar, *i.e.* Cat. No. 76, a globular vessel with pointed or flat base that would have been no higher than 60 cm or so[185]. This *dolium* was decorated with grooves on its flat triangular rim and presented alternating grooves with wavy lines on its body, above the maximum diameter. It has been modelled with the potter's wheel and, also very important, given its reduced dimensions, belongs to the mobile kind of *dolia*. The technique is remarkable. Although with different dimensions and functionality, in terms of shape and decoration the vessel is similar to the clay cauldrons (*Kessel)* from *Iatrus*[186].

A very interesting piece is the Cat. No. 79, a disk shaped *operculum* for large storage vessels with a heavy and massive central handle. No analogies to this lid from our province or from the Balkan area have been yet published (to our knowledge), but a splendid analogy comes from the *cella vinaria* at the Villa Regina in Boscoreale (1st c. AD), where 18 *dolia defossa* (with a total storage capacity of 10.000 l) are covered with such large lids with central handles[187]. Cat. No. 80 and 81 correspond to storage containers[188] or cooking ones: the first one is mould-made and had a central protruding flattened handle; the second, Cat. No. 81, belongs to the common truncated cone-shaped type with central knob[189].

Cat. No. 76
Storage vessel;
Dolium;
Room II; Context No. 6;

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184 CURTIS 2016, 592 (see also the entire chapter, 588–593).
185 OPRIȘ 2003, 92–93, no. 213, pl. XXXII; OPAIȚ 2004, type II.
186 CONRAD 2007, 221–222, no.cat. 1205–1209, Abb. 14.
187 CURTIS 2016, 590–591, Fig. 36.3.
188 See a smaller sized analogy at CONRAD 2007, Kommentierter Katalog der gefäßkeramischen Funde*, *35, Taf. *9, 1053.
189 OPRIȘ 2003, 118, Pl. XXXVII/242; OPAIȚ 2004, 57.

H: 43.2 cm; MD: 57.3 cm; RD: 39 cm;
Common clay, homogeneous fabric, brick-red coloured, coarse sand used as a degreaser, has his own vernis. Homogeneous and oxidizing burning. Globular body with a flared rim, triangular in section. The decoration consists of parallel grooved lines incised on the upper body, followed by waved incisions on the shoulder of the vessel. Fragmentary, restored on the upper 2/3 or so;
Opriș 2003, 93, Pl. XXXII/213, 213a; Opriș, Rațiu 2016, 214, Pl. 12/1;
1996;
CAP 12843;

Cat. No. 77
Storage vessel;
Dolium;
Room II; Context No. 7;
PH: 43 cm;
Large storage vessel, found *in situ*, brick-red fabric; fragmentary, partially destroyed by the late defence ditch (cut on the bias). From the vessel remains only part of the lower side;
1995;
CAP 13034;

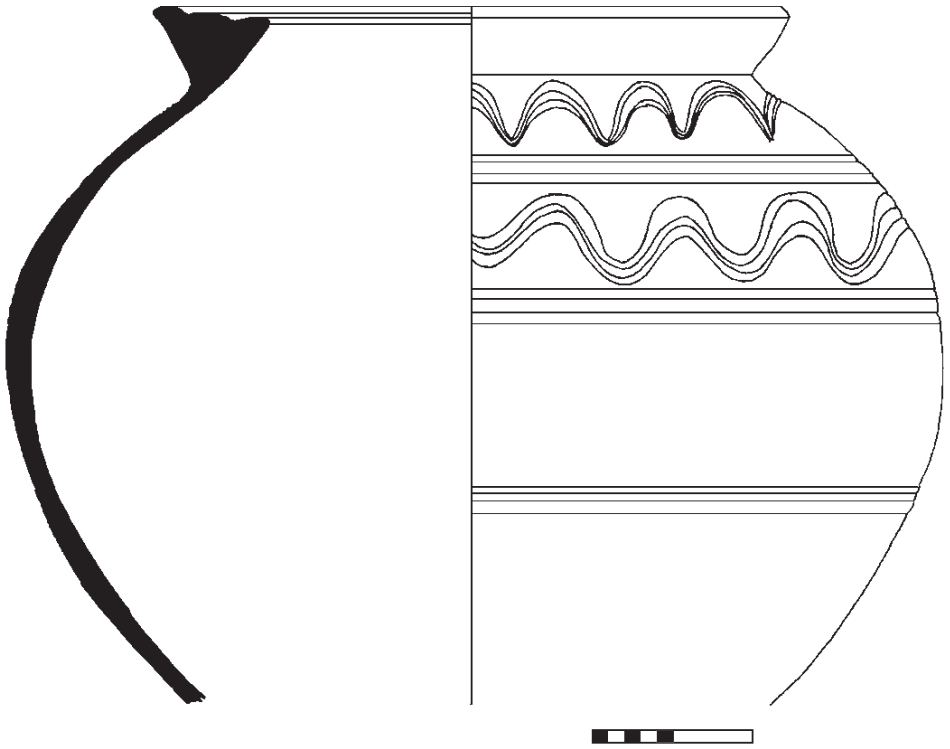
Cat. No. 78
Storage vessel;
Dolium lid;
Room II; Context No. 5;
H: 3.5 cm; D: 60 cm;
Common clay, homogeneous fabric, brick-coloured sand used as a degreaser, has his own vernis. Homogeneous and oxidizing burning. Only a small fragment remains. Disk-shaped, rounded edge. Double border, made with the wheel; the rim was decorated with radial bands completed the same technique, in which one can also observe four rows of small squares elements;
Opriș 2003, 93, Pl. XXXII/214;
1993;
CAP 6129;

Cat. No. 79
Storage vessel;
Dolium lid;
Room III; Context No. 5;
D: 50 cm; T: 2.5 cm; H: 5.4 cm;
Fragmentary *dolium* lid, with a big handle attached on top. The fabric is coarse, small stones and organic material in the mix, and the colour is brick-red. The lid is decorated with some incised curved lines, made with the fingers on the raw paste;
Unpublished;
2009;
CAP 13035;

Cat. No. 80
Storage vessel;
Dolium lid;
Room III; Context No. 5;
D: 18.8 cm; T: 1.9 cm;

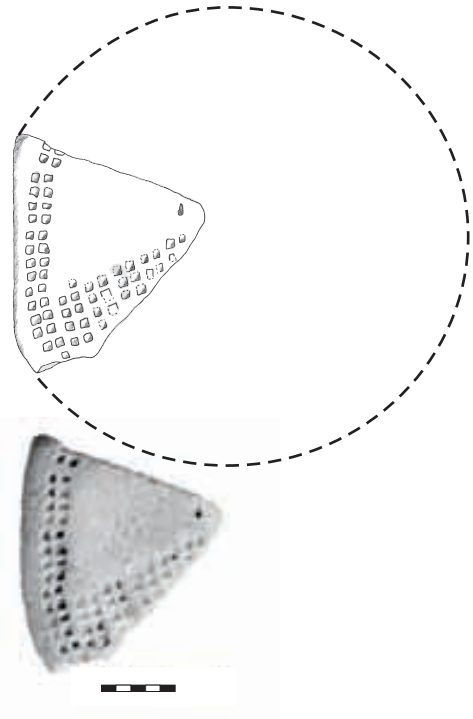
Common clay, homogeneous fabric, brick-colour; sand and organic matter used as a degreaser. Has a simple handle placed in the centre. Fragmentary, only about 60% of the object remains;
Opriș, Rațiu 2016, 214, Pl. 12/2;
2008;
CAP 13036;

Cat. No. 81
Pot lid;
Conical lid;
Room II; Context No. 5;
H: 3 cm; D: 13.5 cm;
Common clay, homogeneous fabric, brick-colour; sand used as a degreaser. Cone-shaped body, with a biconical handle (which is missing). Fragmentary, only about 50% of the object remains;
Opriș 2003, 118, Pl. XXXVII/242; Opriș, Rațiu 2016, 215, Pl. 13/1;
1995;
CAP 8951;

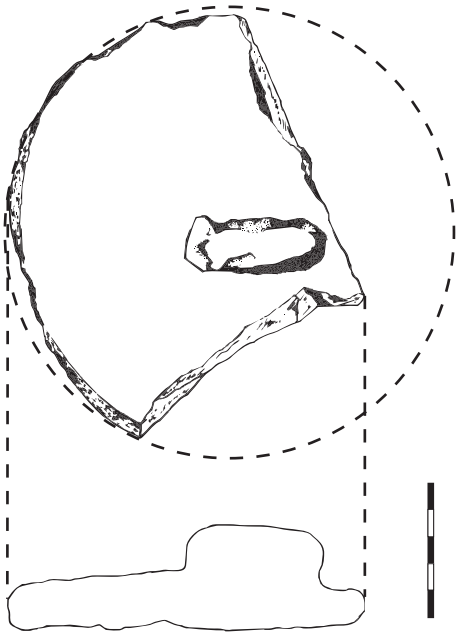


Cat. No. 76

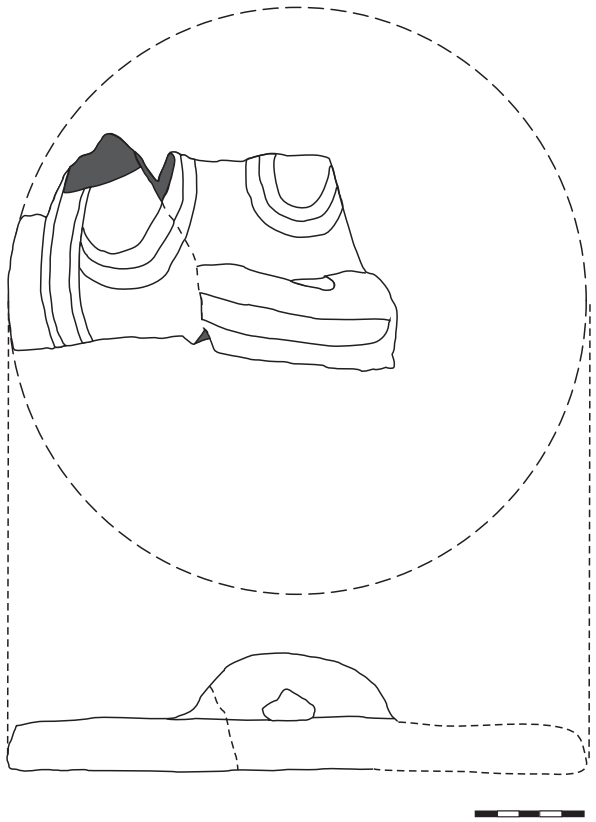
Plate 12



Cat. No. 78



Cat. No. 80



Cat. No. 79

Cat. No. 81

Plate 13

5.2.4. Tableware – vasa escaria. African Red Slip Ware (ARSW) and Phocaean Ware/ Late Roman C Ware (LRC)

We should mention from the very beginning the scarce amount of tableware sherds found during the 1993–1995 and 2007–2010 excavations of the Building C1. This fact is not surprising, given the role assigned to the edifice (storage area for corn, olive oil, wine and other goods on commercial purpose). Four fragmentary dishes and plates belong to the African Red Slip Ware category (ARSW) (Cat. No. 82–85), *i.e.* to Forms ARS 87, 104 A and 105. African Red Slip wares are already attested in our area in the second half of the 2nd c. with the earliest form Hayes 27, until the first half of the 7th c., with forms Hayes 105 and 109, respectively[190]. The latter has been observed during rescue excavations from the last decade in *Tomis* and Cumpăna[191], but also at *Histria*[192].

The first of fragmentary ware (Cat. No. 82) belongs to an ARS Ware 87B dish with shallow floor and knobbed elongated rim. Two other fragments belonging to this form (a base and a rim) have been found at *Capidava* in a 6th c. context, *i.e.* a housing building situated immediately to NW of Building C1[193]. According to John W. Hayes the form is dating from the early 6th c.[194]. Besides the few sherds from *Capidava* already published[195], in *Scythia* this form is already documented in the northern part of the province at Topraichioi, *Halmyris*, *(L)ibida*[196], *Salsovia*[197] and *Aegyssus*[198]. We should stress the fact that one of the ceramic fragments at *Halmyris* is related to layer 11, dating from the second half of the 6th c.[199]. To this form a so called *Glanztonfilm* burnished decoration is associated[200], a technique specific to the later ARS Ware Form 109 as well[201].

African Red Slip Ware 104, a very popular form around the province of *Scythia* in the 6th c., is also present in our building. The profile of the unique platter preserved in Room II has been restored from joining fragments, although one-third of the dish has been preserved (Cat. No. 83). The dish belongs to ARS Ware 104 A. It has a shallow sloping floor, slightly curved, tapering foot and vertical rim. Two grooves on inside mark the rim from the body. Another series of grooves on floor surround the stamped (Style E ii) decoration.

The stamped decoration renders in bust two male characters, frontal facing, with schematic facial features and curly hair, suggested by three lines of large globules. The two flank a double outlined Latin cross, decorated with diamonds and two concentric circles. The diamonds have also a double outline and have tiny concentric circles at centres and in interstices. As previously mentioned, this jewelled cross suggests the Holy Cross[202]. A splendid analogy for this kind of canonical image can be found on the top of a relics casket in Bulgaria (Jabălkovo, Haskovo county),

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190 MOCANU 2012, 322–323. At that time, the author had no information regarding the ARS Ware 109 finds.

191 Unpublished. Information from Dr. Constantin Băjenaru (MINAC – Muzeul de Istorie Națională și Arheologie Constanța). Both situations are occasioned by preventive excavations in the modern city of Constanța, as well as by the excavations performed in 2010 at Cumpăna (an Early Byzantine habitation, SW outskirts of Constanța), the latter on the occasion of the construction of A2 highway and A4 peripheric connection.

192 Unpublished. Information MA Iulia Iliescu, charged with the pottery analysis for the Acropolis Centre-South Sector at *Histria* (systematic excavations conducted by the University of Bucharest).

193 OPRIȘ 2003, 145–146, no. 339–340, pl. L, LIV.

194 HAYES 1972, 135–136, fig. 24.

195 OPRIȘ 2003, 145–146, pl. 50/ 339, pl. 54/340.

196 MOCANU 2012, 330; MOCANU 2014a, 151, n. 13–17; TOPOLEANU 2000, 73–74, pl. 18/151–152 (*Halmyris*); MOCANU 2011a, 228, pl. 2/1–3 and MOCANU 2014a, 151, from *(L)ibida*.

197 TOPOLEANU, BOGDAN, HAYNES 2012, 116–117, Pl. I/1.

198 For the presence in *Aegyssus*, see: OPAIȚ 1996, form 87, 139, pl. 59.12; OPAIȚ 1985, 158, type XV, Abb. 4/9.

199 TOPOLEANU 2000, 74, no. 152, pl. 18/152.

200 HAYES 1972, 135–136, fig. 24; ATLANTE I, 93–94, pl. XLI, 5–7. See also OPRIȘ 1999, 277–279, fig. 1.1–2.

201 For ARS Ware Form 109, see HAYES 1972, 172 (c. 580–650 p.Chr.); ATLANTE I, 214, pl. CV, 10 (c. 610/20–680/700).

202 OPRIȘ 1997a, 210.

preserved at the National Archaeological Institute with Museum in Sofia[203]. In that latter case, the iconographic message is clear: Constantine the Great and his mother Helen flank the Holy Cross of the Saviour, a *crux gemmata* of Latin shape with flaring arms that end in pairs of circular flat serifs. A suggestive inscription accompanies the whole scene: Ὁμόνοια (Greek equivalent of the Latin *Concordia*).

African Red Slip Ware Form 104, excepting the already published fragments[204] or even fully restored platters from *Capidava*[205], has been recorded until now on many sites from *Scythia*: *(L)ibida*[206], *Tropaeum Traiani*[207], *Halmyris*[208], *Histria*[209]. It is by no means certain that the archaeological reality is well reflected in the cadence of excavation publications. Anyhow, the type enjoys a certain popularity and was quite constantly imported to *Scythia* from Northern Tunisia during the second half of the 6th c., in association with other forms (as African Red Slip Ware Form 99, for instance)[210].

The last two fragments belonging to North African *vasa escaria* are African Red Slip Ware Form 105 ones (Cat. No. 84–85) and have been previously published[211]. They both come from the filling of the ditch of the Late Roman fort, hastily built at the end of the 6th c. or in the early 7th c. (Room I). It is hard to say if they come from the same platter, but it is most unlikely. Two other such platters have been found east of the main street in *Capidava*[212]. This form is characterized by a heavy knobbed rim, a foot of medium height marked on the outside by a groove. It has a shallow sloping and undecorated floor.

The form has been so far reported in a certain number of sites within the province of *Scythia*: *(L)ibida*[213], *Tropaeum Traiani*[214]. One should remark a special context, *i.e.* the metropolitan basilica in *Histria*[215], as well. New sherds have been found during the recent excavations in the Milesian colony during the last years[216]. The form has been additionally reported in recent systematic excavations from *Ulmetum* and from preventive excavations in *Tomis*, respectively[217].

The Phocean Wares are even scantier than the African ones. This category is represented by one LRC 2 A dish found on the main street next to the doorsteps of our building (Cat. No. 86), but also by two LRC 3 fragments (a rim and a base, Cat. No. 87–88). Cat. No. 86 has a broad flat rim, flaring obliquely (LRC 2 A, according to Hayes) and can be dated in contexts from the

[203] OVČAROV, VAKLINOVA 1978, 58–59, no. 124, where an Isaurian analogy is also provided.
[204] OPRIȘ 2003, 147–149, no. 342–347, Pl. LI-LII, LIV; COVACEF 1999, 157–158.
[205] COVACEF, POTÂRNICHE 2009a, Fig. 1–3. The 39.3 cm MD platter has been found in the Eastern Sector, next to the curtain wall G and the main gate, in room C 11 (2007, inv.no. 45465). It bears a central stamped decoration of E(ii) type, Hayes 1972, 265–266, no. 234, fig. 51d: Saint wearing *dalmatica* with strips; hair rendered by a series of straight lines; right arm bent against chest; cross on staff in left hand; two double outlined Latin *cruces gemmatae* flank the Saint. Known analogies according to J.W. Hayes are coming from Örengeri (Cilicia, exhibited in the Hagia Sophia Museum in Istanbul), Athenian Agora and the Byzantine Palace in *Apollonia*, *Cyrenaica*.
[206] MOCANU 2011a, 228–229, Pl. 2/5; MOCANU 2014b, 287–288, 296.
[207] BOGDAN CĂTĂNICIU, BARNEA 1979, 189, fig. 167/2.2.
[208] TOPOLEANU 2000, 77–78, pl. 19/164–170.
[209] MUȘEȚEANU, BÂLTÂC 2007, 209, pl. LXXV/35 (where it was mistaken for an ARS Ware 99 C rim); BĂDESCU, CLIANTE 2015, 214–215, fig. 2.13;
[210] OPAIȚ 2004, 100.
[211] OPRIȘ 2003, 150, no. 350–351, Pl. LIV.
[212] COVACEF 1999, 154 (Inv. No. 39813, 40671), *non vidi*.
[213] MOCANU 2014a, 152, 163, fig. 3.
[214] IONESCU, GAMUREAC, DRĂGHICI 2013, 186, no. 5.
[215] MUȘEȚEANU, BÂLTÂC 2007, 209, no. 36, pl. 75/36. The following plate (no. 37), also assigned to ARS Ware Form 105, is more likely a ARS Ware Form 87 fragment (lip and body), relatively close to our Cat. No. 82.
[216] Unpublished. Personal communication MA Iulia Iliescu, found in the Acropolis Centre-South Sector at *Histria* (excavations University of Bucharest).
[217] Unpublished. Personal communication Dr. Constantin Băjenaru (MINAC).

beginning of the 5th c. and later[218]. The other two sherds, although discovered inside the building C 1 (Room I and III), could by no means contribute to its dating. Considering the characteristics of the rim and the thickness of the body, Cat. No. 87 looks very similar to Hayes LRC 3 F dishes[219], with vertical thickened rim incorporating a flange. Such wares are dated in contexts from the first half of the 6th c.[220]. On the other hand, given its MD, this thin dish is a rather large opened one and the problem resides in the early dating of the largest known variants (LRC 3B, D 32 cm or more)[221]. The last fragment (Cat. No. 88), a base of a LRC 3 dish/bowl is even harder to assign, based uniquely upon the floor decoration elements (*i.e.* lines of roulleting), but it convenient to remark that such situations are specific to early types[222].

The last question is on how should we actually interpret the sherds belonging to *vasa escaria* category that have been found in Building C1 from *Capidava*? The most valuable help for the general dating of the edifice is furnished by the African Red Slip wares, given their better conservation status and/or clear finding context.

In other published circumstances, the platter African Red Slip form 104A with stamped decoration can be dated with contexts from the second quarter to the middle of the 6th c., but could have circulated until 580[223]. African Red Slip Ware 105, the most typical vessel-form in the final period of the African workshops, had been already produced by the last two decades of the 6th c.[224] and with a *floruit* from the early to middle of the 7th c., as observed by J.W. Hayes[225].

The first platter was found in Context no. 5, along with almost every other find in this catalogue, sealed by the *incendium* under the roof elements of the building. As mentioned above, the other two fragments of African Red Slip 105 platters come from the filling of the ditch corresponding to the Late Roman fortlet (final phase of the 6th – early 7th c., Context no. 7). Both situations match the already known dating of their contexts. Context 5 is assured by the hoard on the threshold between Room 1 and 3 (last coin from 582 AD) that also suggests the *terminus ante quem* for the usage of this plate. Subsequently to the violent destruction of the building it has been dug the ditch of the Late Roman fortlet that altered the central part of Rooms I and II. The presence of ARS Ware 105 fragments in its filling is a remarkable situation. It is remarkable exactly for the persistence of Late African tableware coming with the *species annonariae* to *Scythia*n *limes* in the turmoiled and precarious last two decades of its existence.

Last but not least important, we should remark the important steps taken towards improving the knowledge of tableware forms and their circulation in our province during the last decade or so. After Andrei Opaiț published his monograph on the pottery of *Scythia* in 2004[226], new archaeological excavations from *Histria*[227], *(L)ibida*[228], *Tropaeum Traiani*[229], *Salsovia*[230] or *Capidava*[231] offering African

[218] HAYES 1972, 327–329 (LRC 2A, around 370, in Athenian Agora); HAYES 2008, 237–238 (best analogy No. 1237, from a context of ca. AD 400). See also ATLANTE I, 231–232, PL. CXI, 7–8.
[219] HAYES 1972, 338.
[220] HAYES 1972, 338; see also HAYES 2008, 241–242.
[221] HAYES 1972, 329, 337.
[222] HAYES 1972, 331 (LRC 3B type), fig. 67.
[223] HAYES 1972, 165–166; ATLANTE I, 94–95, pl. XLII. BONIFAY 2004, 181–183, fig. 97 distinguishes a A2 form matching very well our platter, which is dated from 525 to the middle of the 6th c.
[224] HAYES 2008, 81, 233. ATLANTE I, 96, Pl. XLIII, 3–7, XLIV, 1–2.
[225] HAYES 1972, 169. BONIFAY 2004, 183–185, fig. 98 extends the limit for the production of ARS Ware 105 C in the second half of the 6th c.
[226] OPAIȚ 2004, 72–80, pl. 52–60.
[227] MUȘEȚEANU, BÂLTÂC 2007; BĂJENARU 2014; BĂDESCU, CLIANTE 2015.
[228] MOCANU 2011a; MOCANU 2011b; MOCANU 2014a; MOCANU 2014b.
[229] GAMUREAC 2009; IONESCU, GAMUREAC, DRĂGHICI 2013.
[230] TOPOLEANU, BOGDAN, HAYNES 2012.
[231] COVACEF, POTÂRNICHE 2009a.

Red Slip Wares, LR C / Phoceean Wares or Pontic Wares have been published. The same state of publication can be recorded for other major sites in the area, *i.e. Iatrus*[232] or *Novae*. Given this rather positive situation of current the state of research and essential contributions for both Western and Eastern Mediterranean production sites, core distribution areas included[233], one should expect an upcoming mapping and inclusion of the Balkan and Danubian sites to the general picture[234]. A new approach on distribution patterns and its extent and mechanisms, linked to subtle historical realities should be the way. It was pointed out by Fl. Curta, whose recent combinatory analysis on lamps, amphorae and lead seals, their archaeological contexts within *annona* of the *quaestura Iustiniana exercitus* could bring light to economic phenomena between trade and state controlled distribution systems[235].

Cat. No. 82
Large dish/ bowl;
Hayes 87 B Form;
Room II; Context No. 5;
PH: 4.2 cm; RD: 37 cm; L: 5.2 cm;
Rim of an ARS Hayes 87B bowl. Orange-red fabric, fine, dense texture. A groove (with limescale deposits) marks off the lip from the body on the interior. Red slip on the exterior and interior; on exterior top of the rim a dark (grey-beige) slip;
Unpublished;
1994;
CAP 13079;

Cat. No. 83
Large dish/ bowl;
Hayes 104 A Form;
Room I; Context No. 5;
H: 5.5 cm; RD: 33 cm;
Large platter, in a fragmentary shape, profile fully restorable from joining fragments. Brick-red fabric, fine, dense texture. Red slip on the exterior and interior. Marks of secondary burning and limescale deposits. The decorum features the bust of two male characters, frontal facing, with schematic facial features and curly hair, suggested by three lines of large globules. The two flank a Latin *crux gemmata*, double outlined, decorated with diamonds and concentric circles;
Opriș 2003, 147–148, Pl. LI/342;
1994;
MNIR 297568;

Cat. No. 84
Large plate/ platter;
Hayes 105 Form;
Room I; Context No. 7;
L: 10.6 cm; BD: 18 cm; PD: 30.8 cm; PH: 3.6 cm;
Fragment from the base of a large platter pertaining to Hayes ARS Ware 105 form, discovered in the filling of the Early Byzantine defence ditch. Brick-red fabric, fine, dense texture. Red thin slip on the interior; worn surface;
Opriș 2003, 150, Pl. LIV/350;

[232] CONRAD 2007.
[233] BONIFAY 2004; HAYES 2008; BES 2015.
[234] See BES 2015, 142 (fig. 104); 182 (Appendix Ia): *Stobi* is the northernmost Balkan site taken into consideration. North of *Stobi* a *hic sunt leones* situation proves to be inaccurate, if keeping in mind the already mentioned sites from *Moesia Secunda* and *Scythia*.
[235] CURTA 2016c

1994;
CAP 12851;

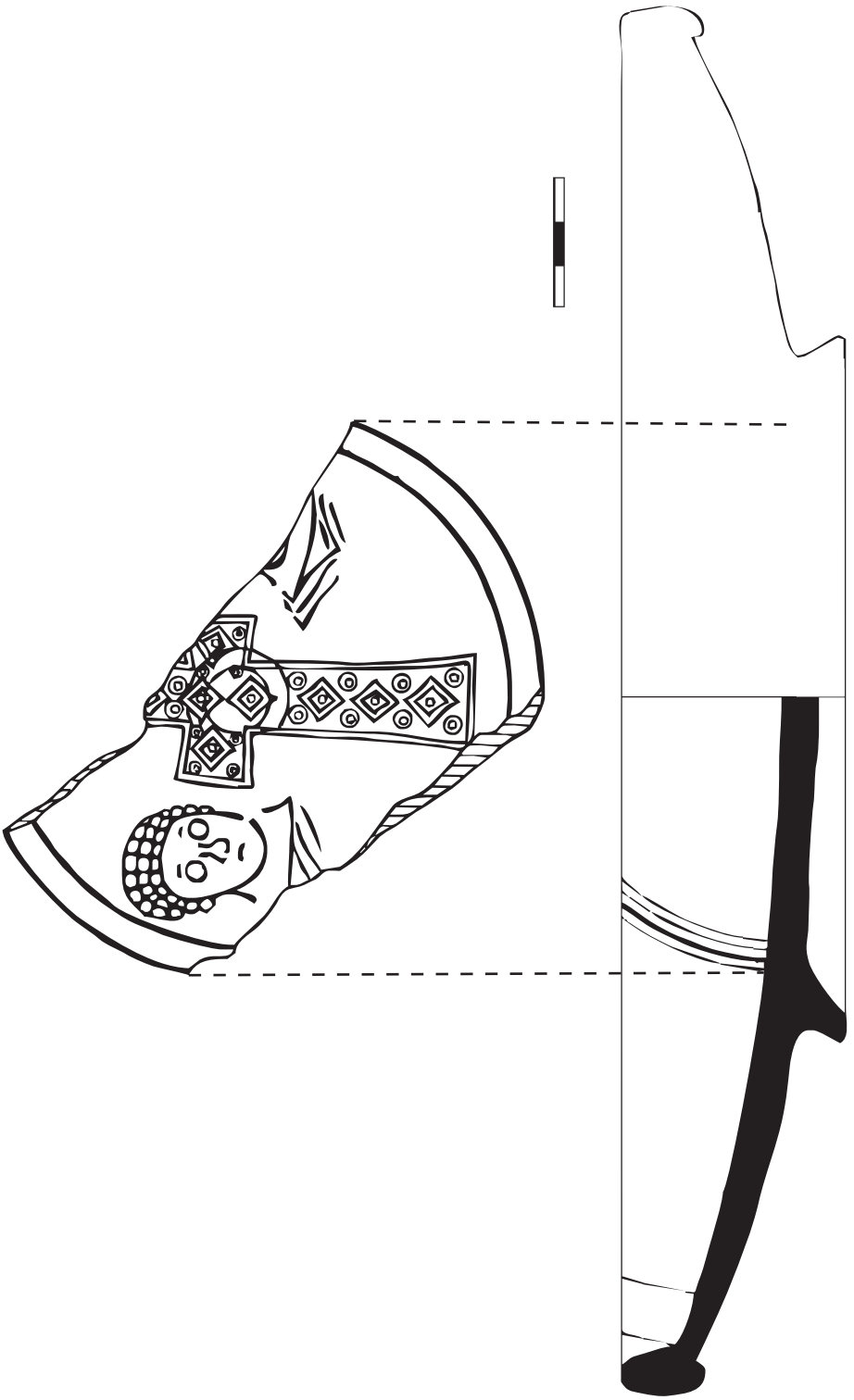
Cat. No. 85
Large plate/ platter;
Hayes 105 Form;
Room I; Context No. 7;
RD: 35 cm; L: 3.6 cm;
Fragment from the rim of a platter, form Hayes ARS Ware 105, discovered in the filling of the Early Byzantine defence ditch. The fabric is brick-red, with a red slip on rim and interior surface, and presents traces of secondary burning; rim flattened on top and underside, convex on outside.
Opriș 2003, 150, Pl. LIV/352;
1994;
CAP 12852;

Cat. No. 86
Dish;
Late Roman C Ware 2 A;
Main Street;
RD: 33–34 cm (?); PH: 4 cm;
Fragment from the broad flat rim, flaring obliquely of a curved dish, form Hayes LRC Ware 2 A, discovered in front of the entrance of the building, on *via principalis*. The fabric is yellow-orange with a light red/ orangey slip; exterior and interior part of the rim slightly darkened.
Opriș 2003, 150, Pl. LIV/354;
1994;
CAP 8681;

Cat. No. 87
Dish;
Room I, Context No. 5;
MD: 33.8; L: 6.5 cm; H: 3 cm;
Room II; Context No. 5;
Fragment from the rim of a large dish/bowl, form LRC 3 (type F?)[236]. Red brick fabric; slip in darkish red tint; outside of rim fired darker. Vertical rim incorporating a flange, concave on outer face, with rim rounded on top and flat underside. Decoration consisting in triple line of rouletting on the outer face of the rim (the first two on the upper part deeply incised and the inferior one notch-like).
Opriș 2003, 151, no. 359, Pl. LIV/359.
CAP 12855;

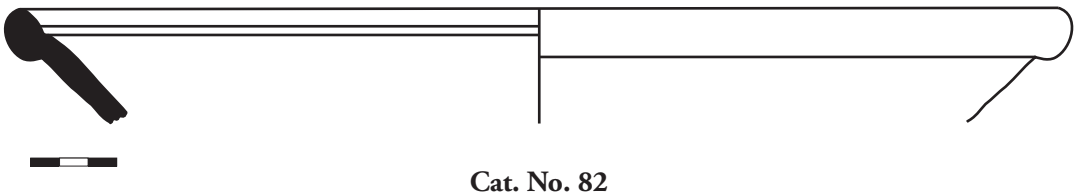
Cat. No. 88
Dish/bowl;
Late Roman C Ware 3;
Room III; Context No. 5;
BD: 16.2 cm. PH: 2 cm;
Fragment from the base of a dish/bowl, form Hayes LRC Ware 3 (type?). Red brick coloured fabric, slip with a darkish red tint, also presents traces of secondary burning. Two decorated zones on floor, *i.e.* a triple line of rouletting and an additional one displayed circular on the inner base of the ware;
Unpublished;
2010;
CAP 13037;

[236] HAYES 1972, 329–338, fig. 69.



Cat. No. 83

Plate 14



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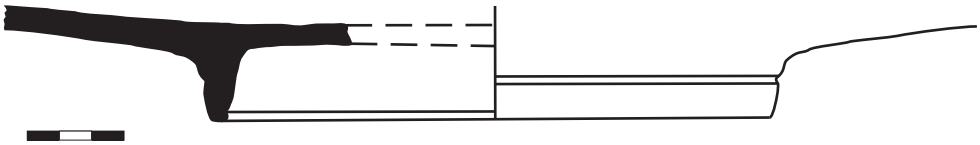

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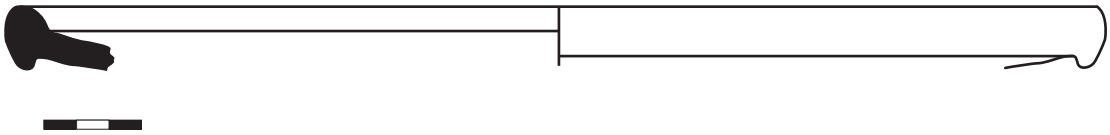

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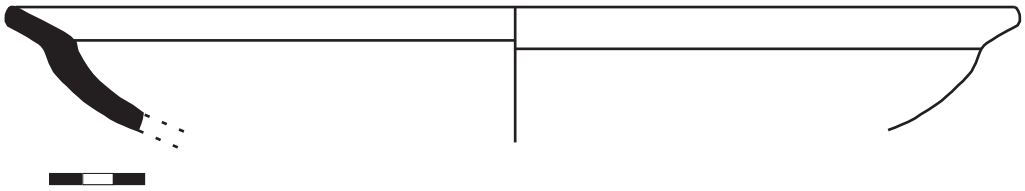

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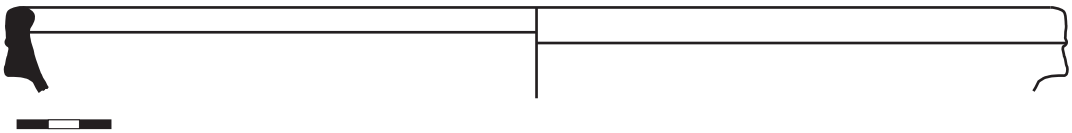

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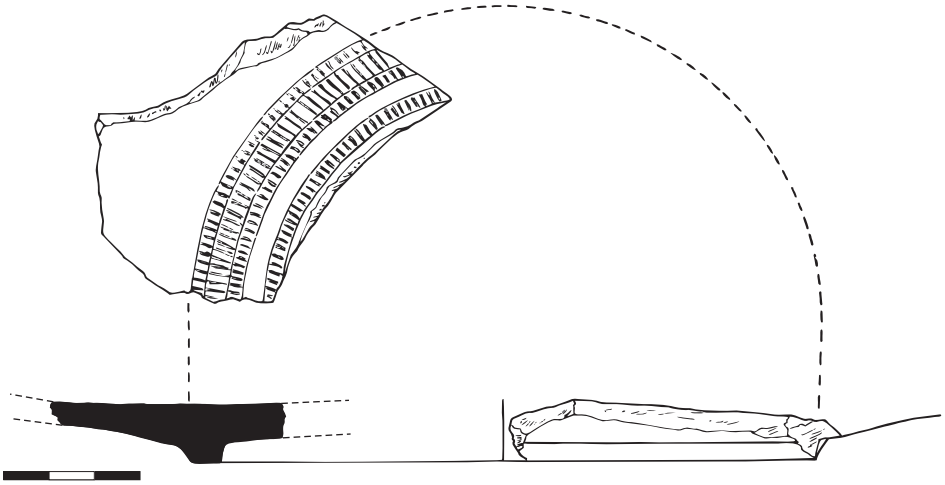


Cat. No. 88

Plate 15

5.2.5. Vasa po(ta)toria. Vessels for oil, beakers and pitchers

This category generically includes vessels used either for serving wine and water (pitchers, carafes, or jugs) or for drinking (mugs, cups, various bowls and beakers). A type of delicate jugs with bell-shaped rim and thin constricted neck, descendant of Hellenistic *lekythoi*, is indicated as serving for receiving and pouring olive oil[237]. Among such vessels for oil flasks found in Building C 1 (Cat. No. 89–91) one should notice a miniature jug with analogies at *Capidava*, but also from Athens and *Ostia*[238]. The other two correspond to Opaiț Type 3[239], a recurrent narrow-necked shape in the province of *Scythia*[240]. Noteworthy is Cat. No. 90, a jug with buff tint fabric that, after getting restored from pieces, presented a strikingly different colour (buff and grey) on body, given its partial exposure to the combustion of the upper wooden structure during the *incendium* of the building. All three vessels for oil have their maximum diameter towards the lower part. The first two present grooves on the exterior of the rim. These grooves appear on the neck of the miniature jug. The latter also had its body-surface decorated with three wavy lines.

Two bitruncated mugs with handles attached to the body and flat base (Cat. No. 92–93) can be assigned to the most common type in the province[241]. Cat. No. 93 is again a small-sized mug (7.3 cm high). Cat. No. 94 is a pitcher of medium dimensions (ca. 16 cm high) and wide mouth, a globular body with the maximum diameter in its lower part and a concave base[242]. Excepting for its upper part where one cannot find the typical pinched-out spout, it looks very similar to Opaiț type I pitchers[243]. To this latter type belongs Cat. No. 95, a 16.5 cm high flared mouth pitcher that has been burnt in the *incendium* of the building to a uniform grey aspect. Its base is concave and has the neck decorated with the distinctive large grooves.

Probably many of them are terracotta replicas of metal pitchers. The pinched-out spout can be on the opposite side of the handle, or on the side.

Cat. No. 89
Vessel for oil;
Room III; Context No. 5;
H: 14.2 cm; MD: 11 cm;
Fine fabric, homogenous, light-brick coloured, with fine sand inclusions. Homogeneous and oxidizing firing. Globular body with annular base, short neck, flared mouth, vertical rim and flat handle. The decoration consists of grooves on the rim. Secondary burning, part of the rim is missing;
Opriș, Rațiu 2016a, 215, Pl. 13/4;
2009;
CAP 13038;

Cat. No. 90
Vessel for oil;
Room III; Context No. 5;
PH: 16.8 cm; MD: 12.6 cm;
Common fabric, homogenous, light-brick coloured, with fine sand inclusions. Homogeneous and oxidizing burning. Globular body, short neck, flared mouth, vertical rim. Two flat handles. The decoration

[237] OPAIȚ 2004, 70.
[238] OPAIȚ 2004, 70–71.
[239] OPAIȚ 2004, 71.
[240] OPAIȚ 1996, 118–119, Pl. 48–49. At *Capidava* are also very common, see OPRIȘ 2003, 129–130, type VI, no. 275–285, Pl. XLII-XLIII (with measured capacities from 0.33–2.70 l).
[241] OPAIȚ 1996, 123–124, Pl. 51; OPAIȚ 2004, 66–67, type I.
[242] See description at OPAIȚ 2004, 59.
[243] OPAIȚ 2004, 59–60.

consists of grooves on the rim. Secondary burning, fragmentary, lower part of the body and base are missing;
Unpublished;
2008;
CAP 13040;

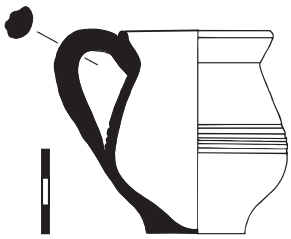
Cat. No. 91
Vessel for oil;
Room III; Context No. 5;
H: 12.3 cm; MD: 6.6 cm;
Fine fabric, homogenous, grey-brown coloured, with fine sand and mica inclusions. Homogeneous and reductive firing. Souple pear-shaped body, long neck, flared mouth, vertical rim. Flat handle and a straight base. The decoration consists of grooves on the upper body and three wavy lines on body. Heavy secondary burning, a part of the rim is missing;
Opriș, Rațiu 2016a, 215, Pl. 13/3;
2007;
CAP 13039;

Cat. No. 92
Mug;
Room III; Context No. 4;
H: 11 cm; RD: 9 cm; MD: 9.7 cm; BD: 5 cm;
Common fabric, homogenous, red-brick coloured, with fine sand inclusions. Homogeneous and oxidizing firing. Pear-shaped body, conical neck, wide flared rim. Flat handle, most of which is missing, and a plane base. The decoration consists of incisions on the body;
1995;
CAP 7683;

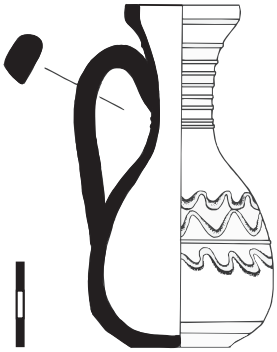
Cat. No. 93
Mug;
Room III; Context No. 5;
H: 7.3 cm. MD: 6.6 cm; RD: 5 cm; BD: 4 cm;
Fine fabric, homogenous, red-brick coloured, with fine sand inclusions. Good quality homogeneous and oxidizing firing. Bitruncated body, flared mouth, vertical rim. Flat handle and a flat base. The decoration consists of four lines incised on the body. Secondary burning, part of the rim is missing;
Opriș, Rațiu 2016, 215, Pl. 13/2;
2007;
CAP 13042;

Cat. No. 94
Pitcher;
Room III; Context No. 5;
H: 17 cm; RD: 15 cm; MD: 16.5 cm; BD: 5 cm;
Common fabric, homogenous, red-brick coloured, with fine sand inclusions. Homogeneous and oxidizing firing. Pear-shaped body, cylindrical neck, slightly flared mouth, straight rim. Flat handle and a plane base. The decoration consists of grooves on the neck (above shoulder). Presents traces of secondary burning;
Unpublished;
2008;
CAP 13041;

Cat. No. 95
Pitcher;
Room III; Context no. 5;
H. 16.5 cm; MD: 17 cm;
Common fabric, homogenous, red-brick coloured, with fine sand inclusions. Homogeneous and oxidizing firing. Pear-shaped body, cylindrical neck, slightly flared mouth, straight rim. Flat handle and a plane base. The decoration consists in incisions on the rim. Presents uniform traces of secondary burning/ overcooked to grey coloured aspect;
Unpublished;
2008;
CAP 13080;



Cat. No. 93



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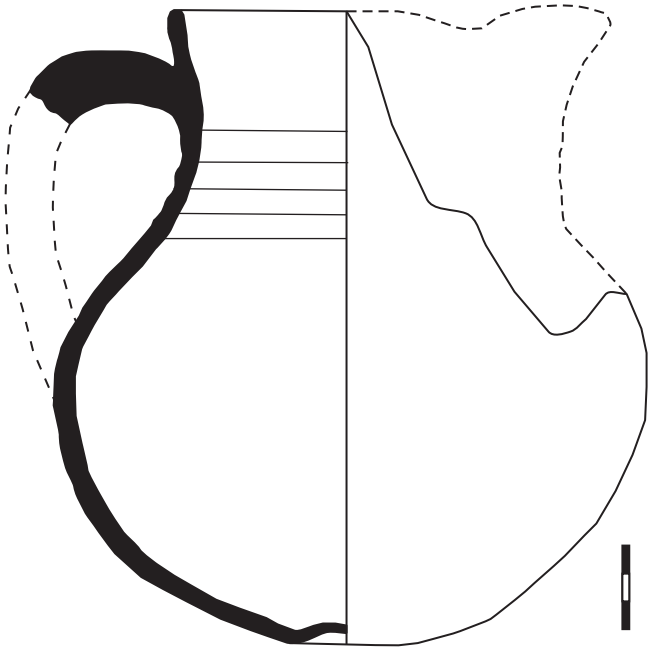

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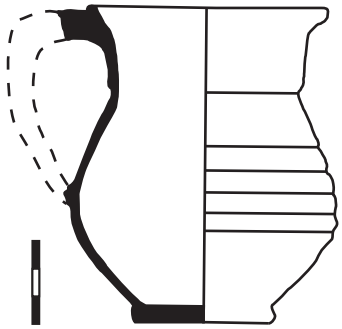
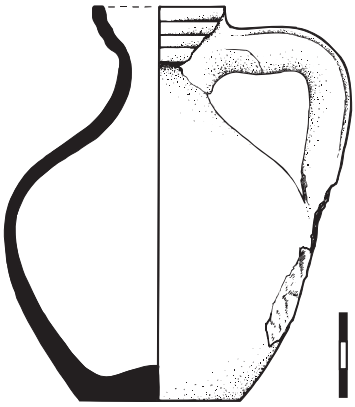
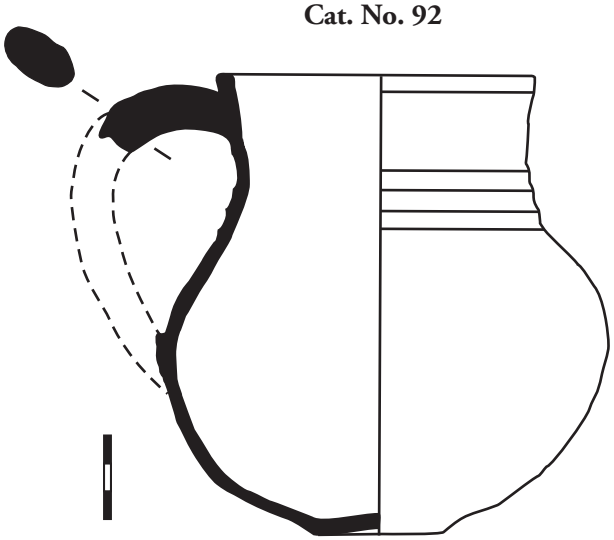


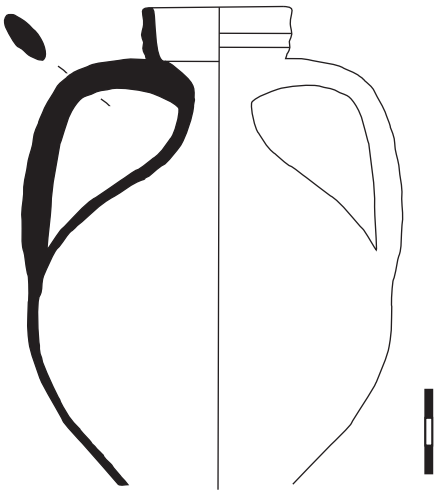
Cat. No. 92



Cat. No. 89



Cat. No. 94



Cat. No. 90

Plate 16

5.3. Ceramic lamps

Lamps are a very important and popular category of ceramic finds due to their dating characteristic. The study of these artefacts provides an important tool for dating discovered archaeological complexes and the identification of commercial routes, as well as new valuable information on religious and artistic life or the technical development stage of different production centres[244]. They appear as early as the 6th c. BC. in the Greek world and know a widespread commercialization during the Hellenistic period; later on the generalization of their production is due to the expansion of Roman civilization[245].

Composed of a small reservoir (*infundibulum*) for vegetable or mineral oil that serves as fuel, the lamps have a circular or oval disk (*discus*) on the top, usually decorated. The latter possesses a central orifice to fuel the lamp, while the annular bottom sometimes bears the stamp of the producers (*Firmalampen*). The reservoir is extended with a beak (*rostrum*), provided at the front with a burning orifice (*linamentum, ellychnium*), and on the opposite side with the full or annular handle (*ansa*).

For the later lamps (4th–6th c. AD), with the exception of Oriental *officinae*, besides the return of wheel modelling[246] in some cases, the differences between Western and Oriental import pieces diminish, due to the circulation of a smaller, standardized number of North African, Greek, Syrian or Danubian types[247]. In the case of *Scythia*, there are many moulds as represented by the discoveries from Kranevo, *Tomis*, *Ulmetum*, *Dinogetia*, *Tropaeum Traiani*, *Halmyris* etc.[248]

One should remark significant steps taken towards broadening the knowledge of the Roman lamps in *Scythia*[249].

The most widespread type of ceramic lamps found inside the C1 Building (Cat. No. 96–101), being also the most prevalent type known in the *Scythia* province for the 6th c. AD, is the type of lamp known from the literature as "cordiform", "Byzantine", "Justinian age" or "Danubian lamp"[250]. The distinctive features of the type, apart from the radial lines and the volutes embellishing the flange and the disk, are present on the handle, which may be phytomorphic, zoo-anthropomorphic or decorated with Christian features. Undoubtedly, parallels for these lamps can be found in all the important sites of *Scythia*: *Capidava*, *Histria*, *Durostorum* or in museum collections[251].

An interesting lamp in terms of dating is Cat. No. 102, which as shape reminds of the early types of lamps so widespread in the area we refer to, namely the type Loeschke VIII, from Asia Minor. Analogies for this derivative of the above-mentioned type were also found at *Tomis*[252],

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[244] WALTERS 1914; LOESCHCKE 1919; IVÁNYI 1935; MENZEL 1969; DENEAUVE 1969; GRANDJOUAN 1960; PERLZWEIG 1961; VITELLI 1982, 189; MACKENSEN 1993; KUZMANOV 1992.

[245] POPILIAN 1982, *s.v. "Opaițele"*, 548–549; BARNEA AL. 1996, *s.v. "lucerna"*, 329–332.

[246] BAUMANN 1995, 424–426.

[247] DIACONESCU 1995, 255–296; BARNEA I. 1968, 490–492; BARNEA AL. 1991, 232.

[248] BARNEA AL. 1991, 232, n. 364–367; TOPOLEANU 2000, 211–214.

[249] CURTA 2016c; TOPOLEANU 2012; TOPOLEANU, CROITORU 2015; BĂDESCU, BOTTEZ 2014; BOTTEZ, BIVOLARU 2016; POPESCU, RAȚIU 2016. These contributions, and some others not listed here, aim at publishing the excavated material (*Histria*), at systematic editing of the museum collections (in Brăila, Ploiești) or, as Fl. Curta did, at discussing the general economy of the Balkans, including 6th c. lamp circulation.

[250] See TOPOLEANU 2000, 182–189, especially 183 for the bibliography, for the lamps from the type Topoleanu VII/ ICONOMU 1986, Type LI. For other lamps of this type discovered at *Capidava* see also COVACEF, CORBU 1991, 287–296, fig. 1–2.

[251] SUCEVEANU 1982, 117, nr.10, pl. 16; MUȘEȚEANU 1992, 177–178, 210–211, no. 343–356, pl. 53–54; TOPOLEANU 2000, 182, no. 463–472, pl. 57–58; TOPOLEANU 2012, 199–200, no. 117.

[252] ICONOMU 1967,134, tip XXVII, no. 696, fig 158.

Novae[253] or Athens[254], dating back to the 5th c. AD. In the excavations at the Athenian Agora there were also found later variations to this type, dated in the 6th c. AD[255].

The following three pieces (Cat. No. 103–105) constitute individual types, each of them representing local imitations of consecrated types. In the case of Cat. No. 103, made of a caolinite clay specific to *Capidava*, its local production appears to be a safe assertion. Cat. No. 104 is in fact a close imitation of "the North-African pyriform body" lamps[256]. For the last artefact described in this chapter (Cat. No. 105) we do not know convincing analogies, but the fact that the lamps are made out of caolinite rich clay seems to indicate a local production.

Cat. No. 96
Ceramic Lamp;
Danubian Type;
Room III; Context No. 5;
L: 9.5 cm; W: 5.6 cm; BH: 2 cm; H: 4.5 cm;
Fine fabric, homogenous, light-orange coloured. The discus is flat, well outlined, decorated with radial lines. The base is annular decorated with a triangle starting from the base and ending at the handle. The handle is simple, oversized. The lamp has no marks of usage;
Opriș, Rațiu 2016, 216, Pl. 14/1;
2010;
CAP 13043;

Cat. No. 97
Ceramic Lamp;
Danubian Type;
Room III; Context No. 5;
PL: 10.8 cm; W: 5.8 cm;
Semi-fine fabric, homogenous, light-orange coloured. The discus is simple and the shoulder is decorated with radial lines. The base is annular. The handle is leaf shaped, and oversized. The nozzle is missing;
Opriș, Rațiu 2016, 216, Pl. 14/2;
2007;
CAP 13044;

Cat. No. 98
Ceramic Lamp;
Danubian Type;
Room I; Context No. 5;
L: 9.8 cm; W: 6.9 cm; BH: 3.4 cm; H: 4.5 cm;
Fine paste, homogenous, light-orange coloured. The discus is concave, well outlined, decorated with radial lines. The shoulder is also decorated with radial lines and with two small circles near the nozzle. The base is annular. The handle is simple, fragmentary;
Opriș, Rațiu 2016, 216, Pl. 14/3;
1996;
CAP 13045;

[253] ČIČIKOVA 1999, 105–106, fig. 1.
[254] PERLZWEIG 1961, no. 349, pl. 10.
[255] PERLZWEIG 1961, no. 2807, pl. 44.
[256] Local imitations of this type at TOPOLEANU 2000, 203–205, nr.cat. 525–530 (pl. LXV-LXVI), West-Pontic provincial lamps, type IX/ Iconomu, 1986 tip XLVI, XLVII. For *Capidava*, see COVACEF, CORBU 1991, 295, fig. 1/15.

Cat. No. 99
Ceramic Lamp;
Danubian Type;
Room III; Context No. 5;
L: 10.5 cm; W: 6.3 cm; BH: 2.5 cm; H: 4 cm;
Fine paste, homogenous, light-orange coloured. The discus is flat, well outlined, decorated with radial lines. The outline for the fuel orifice is lost, broken. The base is annular, decorated with a triangle from the base to the handle. The handle is simple, slightly outlined. The nozzle has strong marks of burning due to frequent usage;
Opriș, Rațiu 2016, 216, Pl. 14/4;
2008;
CAP 13046;

Cat. No. 100
Ceramic Lamp;
Danubian Type; Room I;
Context No. 5; L: 11.5 cm;
W: 7.75 cm; H: 8.75 cm;
Semi-fine paste, homogenous, light-orange coloured. The discus is flat, well outlined, decorated with radial lines. The base is annular. The handle is tall, decorated with an anthropomorphic figure;
Unpublished;
1995;
CAP 13047;

Cat. No. 101
Ceramic Lamp;
Danubian Type;
Room III; Context No. 5;
PL: 5 cm; PW: 3.2 cm;
Semi-fine paste, homogenous, light-orange coloured. Only a small piece from the discus and the shoulder is preserved. The discus is flat, well outlined, decorated with radial lines;
Unpublished;
2009;
CAP 13048;

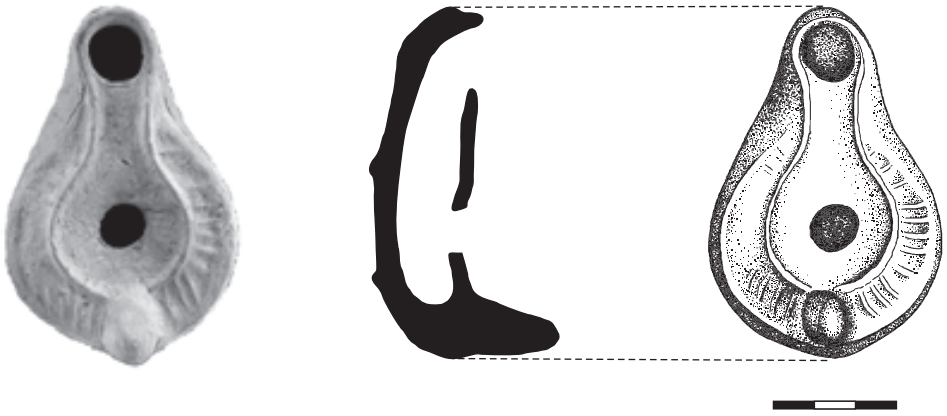
Cat. No. 102
Ceramic Lamp;
Asia Minor Type;
Room III; Context No. 5;
L: 8.9 cm; W: 6 cm; BH: 2.9 cm; H: 4.7 cm;
Fine paste, homogenous, light-orange coloured. Preserves traces of red slip. The discus and the shoulder are not decorated. The base is flat. The handle is simple, small sized and without perforations. The nozzle is decorated with a floral motif around the orifice. There are no traces of usage;
Opriș 2003, 173, Pl. LXIII/430; Opriș, Rațiu 2016, 216, Pl. 14/5;
2008;
CAP 13049;

Cat. No. 103
Ceramic Lamp;
Opriș V Type;
Room I; Context No. 5;

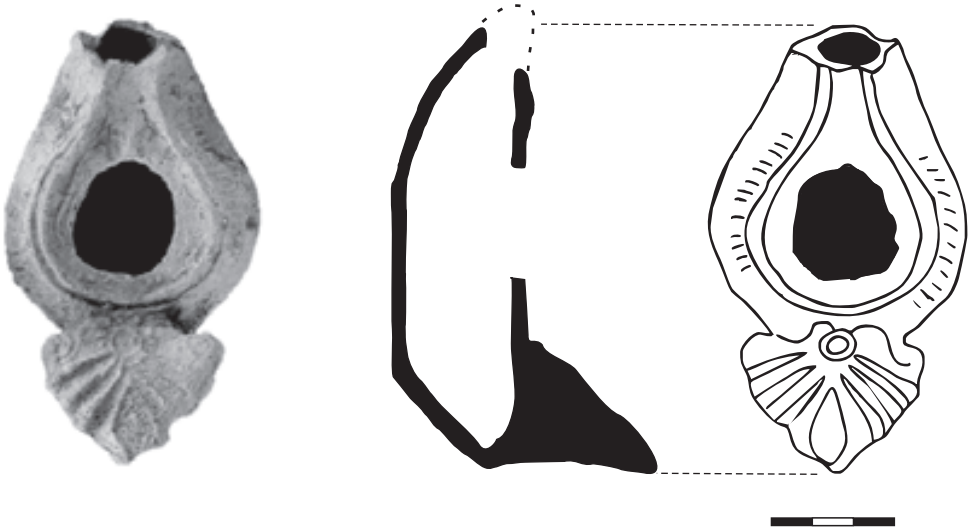
L: 8.7 cm; l: 6.4 cm; H: 4.5 cm;
Fine paste, white-gray colour, with sand used as a degreaser. Has its own slip. Missing a small piece of the base. Secondary burning. The body is circular, lenticular in section, continued with the beak. Slightly concave dis c. Fuel and burning orifices are circular and relatively small. The handle is lamellar and oval in section. The bottom is circular. The decoration is present on the shoulder, in form of radial lines in relief. The lamp has heavy traces of usage.
Opriș 2003, 173, Pl. LXIII/430; Opriș, Rațiu 2016, 216, Pl. 14/6;
1996;
CAP 7751;

Cat. No. 104
Ceramic Lamp;
Opriș VIII Type;
Room I; Context No. 5;
L: 10 cm; W: 5.5 cm; BH: 3 cm; H: 4.5 cm;
The paste is dark-reddish with its own slip. Secondary burning traces are present. Missing beak, restored. Pear-shaped body, flat. The small disk and the horizontal border were made at the same level. The circular, concave base is marked by a border. The handle is lamellar and oval in section. Two embossed lines unite the beak grip, marking the edge of the curb, respectively the dis c. Among these, can be observed the unique decoration of the piece, respectively a vegetable cord. It shows traces of usage;
Opriș 2003, 174, Pl. LXIII/433; Opriș, Rațiu 2016, 216, Pl. 14/7;
1995;
CAP 12834;

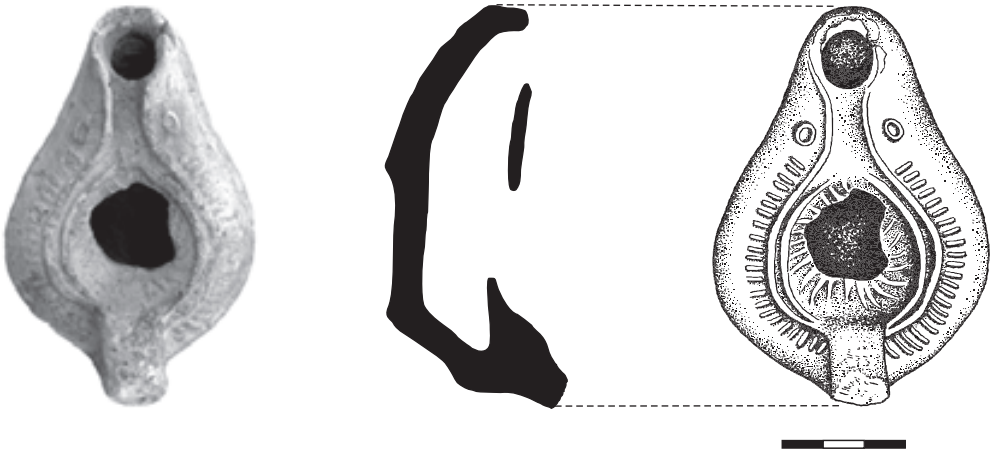
Cat. No. 105
Ceramic Lamp;
Opriș IX Type;
Room I; Context No. 5;
L: 9.6 cm; W: 6.8 cm; BH: 3.5 cm; H: 5.2 cm;
Caolinoid clay, homogeneous paste, white-yellowish, fine sand used as a degreaser, dark red slip, moulded. Circular, relatively tall, with thick walls and ample beak in the extension. Circular, slightly concave disc, round and wide fuelling hole, centrally placed. A strongly profiled rib marks the disk, forming a curved line on the beak. The shoulder is wide, straight, and flat. The handle is lamellar and oval in section. The flat bottom is marked by a circular border, in relief. The decor consists of incisions displaced in a register, on the border, and the feed hole is decorated with oblique lines, arranged radial. It shows traces of use;
Opriș 2003, 174, Pl. LXIV/434; Opriș, Rațiu 2016, 216, Pl. 14/8;
1995;
CAP 8930;



Cat. No. 96

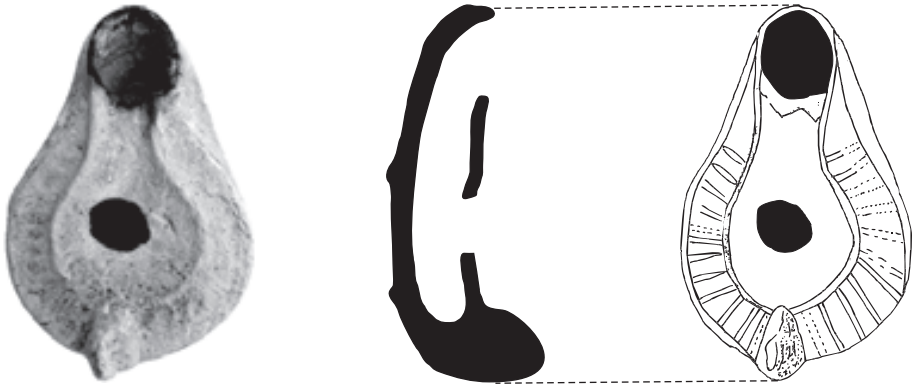


Cat. No. 97

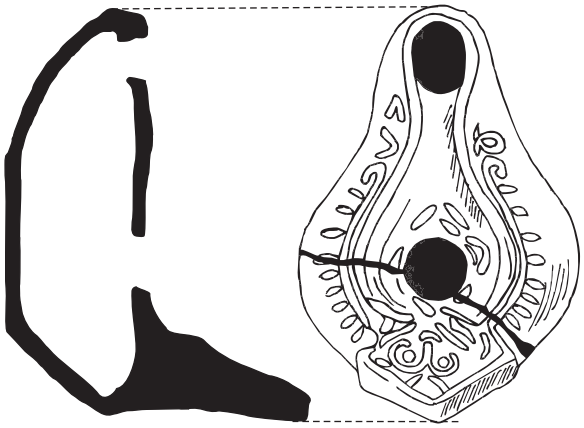


Cat. No. 98

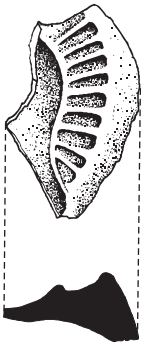
Plate 17



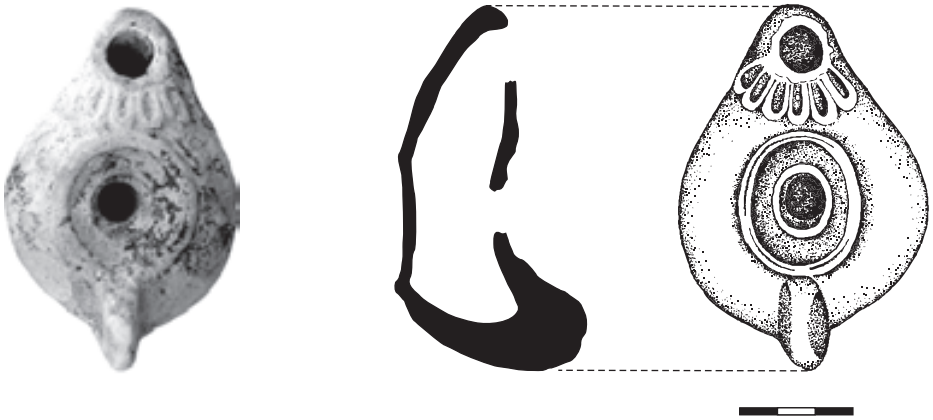
Cat. No. 99



Cat. No. 100

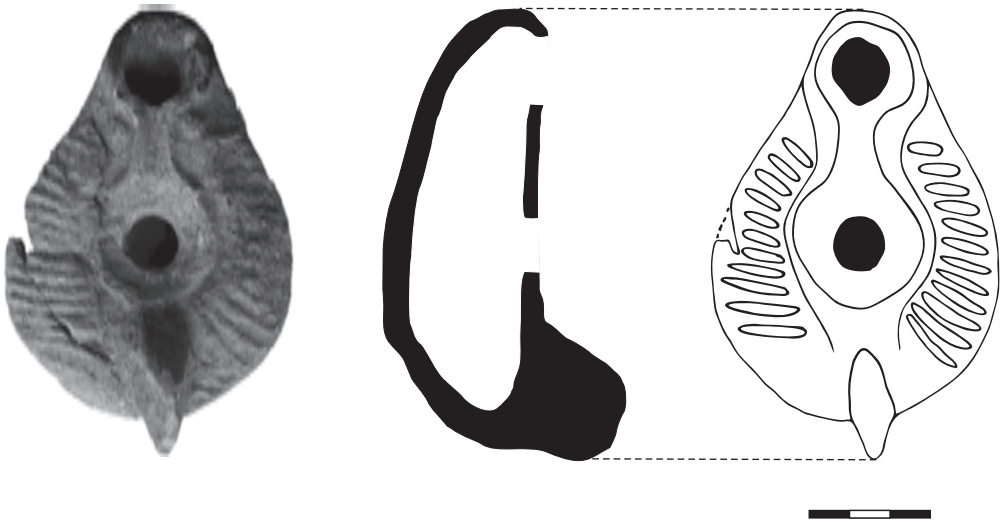


Cat. No. 101

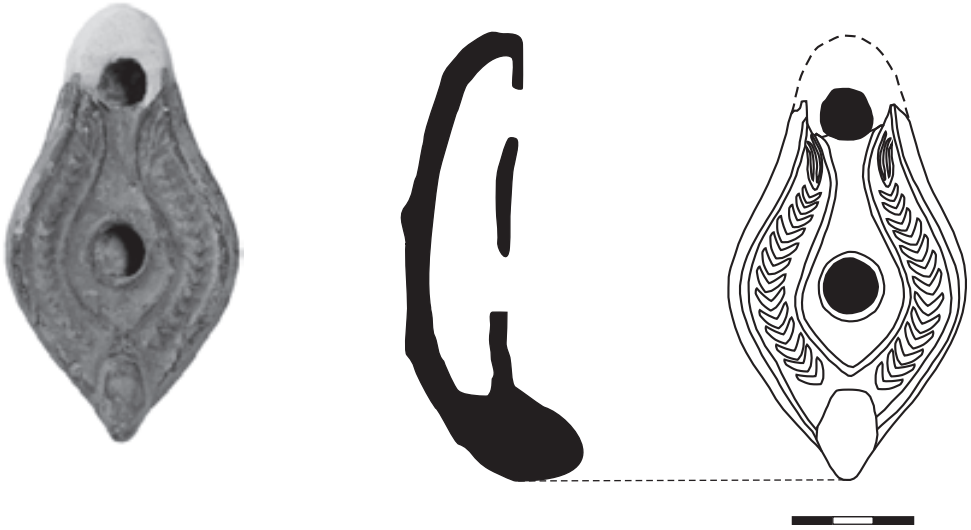


Cat. No. 102

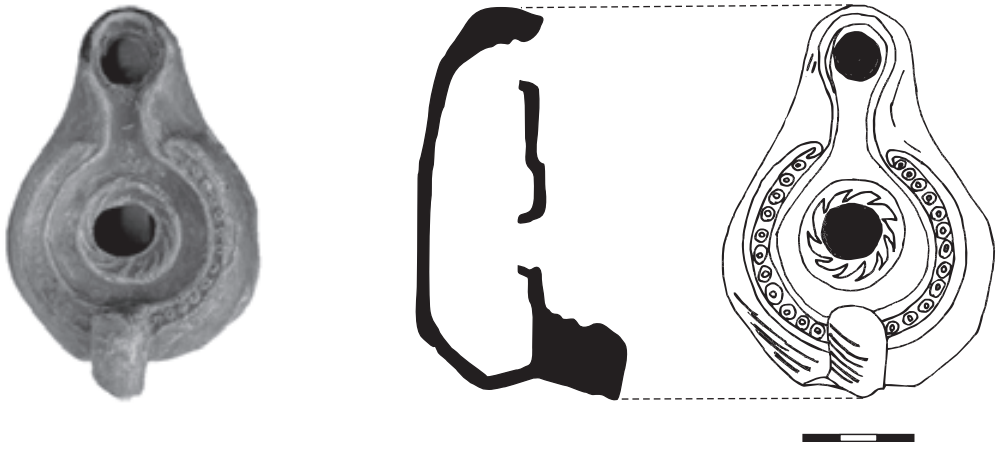
Plate 18



Cat. No. 103



Cat. No. 104



Cat. No. 105

Plate 19

5.4. Glass objects

Glass finds in building C1 from *Capidava* are represented mainly by small fragments, poorly preserved, from the base of different types of *unguentaria*, beakers and goblets. The material is within the common range of such discoveries in the cited place and time. The typology of the finds is somewhat hard to establish due to their poor preservation state.

The *unguentaria* are represented by two fragments (Cat. No. 106–108), two from the neck and rim and another one from the base of the vessels. The Late Roman and Early Byzantine *unguentaria* are heterogeneous and difficult to distinguish from those belonging to earlier periods. This kind of glass vessels were used for keeping perfume or scented oils, generally expensive merchandise. The two bases of *unguentaria*, as well as the two necks, have their analogies in the discoveries of glassware objects from sites like *Histria*[257]or *Iatrus*-Krivina[258].

The second type of glassware, discovered during the archaeological research at Building C1, are the beakers, out of which only two examples were preserved: Cat. No. 109–110. The first piece is a fragment from the concave base of a beaker and the second a fragment from the annular base beaker.

The next six objects (Cat. No. 111–116) are among the most common finds from the glassware category from sites dating from the 6th century from the Roman world[259]. Namely there are six fragmentary wine-goblets, with conical base and a short stem. The bodies of these vessels, although lost, must have been conical, cylindrical or bell-shaped recipients, with a finished rim. Typologically they belong to Type XII[260], as listed by M. Bucovală in his impressive monograph on Roman glassware. Analogies for these goblets were found in most sites dating from the Early-Byzantine age: *Histria*[261], *Tropaeum Traiani*[262], but also at *Saldum*[263] or even as far as *Iassos* (in Caria)[264].

Cat. No. 106
Unguentarium;
Room III; Context No. 6;
MD: 1.8 cm; L: 8 cm;
Fragment from the neck of an *unguentarium*. Exfoliated glass;
Unpublished;
2009;
CAP 13050;

Cat. No. 107
Unguentarium;
Room III; Context No. 6;
BD: 2.8 cm. PH: 0.8 cm;
Fragment form the base of an *unguentarium*. The base is concave. The glass is heavily exfoliated;
Unpublished;
2009;
CAP 13051;

[257] BĂJENARU, BÂLTÂC 2006, 220–221, 228, 243, fig. 6/ 59.
[258] GOMOLKA-FUCHS 2007, 299–301, Taf. 54–55, no. 1917, 2908.
[259] BĂJENARU, BÂLTÂC 2006, 220–221.
[260] BUCOVALĂ 1968, tip XII, 43–44, no. 37–40.
[261] BĂJENARU, BÂLTÂC 2006, 220–222, 239, fig. 2, no. 1–8.
[262] BOGDAN-CĂTĂNICIU, BARNEA 1979, 189, 207, fig. 165/10.11, 10.12.
[263] JEREMIĆ 2009, 150–151, cat. No. 440–443.
[264] CONTARDI 2009, 125–126, 130, fig. 5–9.

Cat. No. 108
Unguentarium;
Room III; Context No. 6;
BD: 2.4 cm; PH: 2.5 cm;
Fragment from the neck and rim of an *unguentarium*. The neck is cylindrical, and the rim is flared;
Unpublished;
2009;
CAP 13053;

Cat. No. 109
Beaker;
Room III; Context No. 6;
BD: 5 cm; PH: 2 cm;
Fragment form the base of a beaker. The base is concave. The glass is heavily exfoliated;
Unpublished;
2009;
CAP 13052;

Cat. No. 110
Beaker;
Room III; Context No. 6;
BD: 4 cm; PH: 1.3 cm;
Fragment from a beaker, represented by the base and part from the lower body. It has an annular base;
Unpublished;
2009;
CAP 13060;

Cat. No. 111
Goblet;
Room III; Context No. 6;
BD: 4.6 cm; PH: 3.2 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13054;

Cat. No. 112
Goblet;
Room III; Context No. 6;
BD: 3.7 cm; PH: 2 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13055;

Cat. No. 113
Goblet;
Room III; Context No. 6;

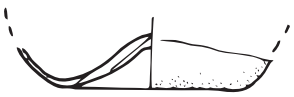
BD: 4.8 cm; PH: 2.6 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13056;

Cat. No. 114
Goblet;
Room III; Context No. 6;
BD: 4.8 cm; PH: 2.4 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13057;

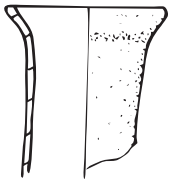
Cat. No. 115
Goblet; Room III; Context No. 6;
BD: 4.8 cm; PH: 2.9 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13058;

Cat. No. 116
Goblet;
Room III; Context No. 6;
BD: 3.6 cm; PH: 2 cm;
Goblet fragment, represented by the stem and the foot. The stem is short and the foot is circular with a concave base;
Unpublished;
2009;
CAP 13059;

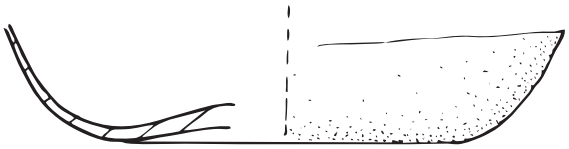
Cat. No. 106



Cat. No. 107

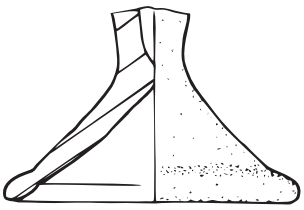


Cat. No. 108

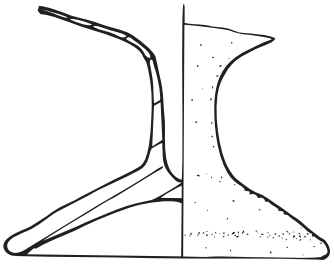


Cat. No. 109

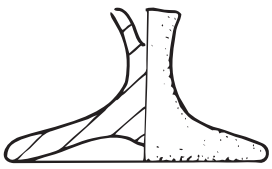
Cat. No. 110



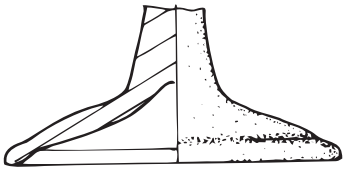
Cat. No. 111



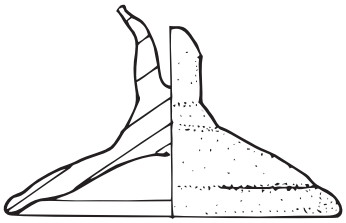
Cat. No. 112



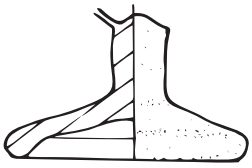
Cat. No. 113



Cat. No. 114



Cat. No. 115



Cat. No. 116

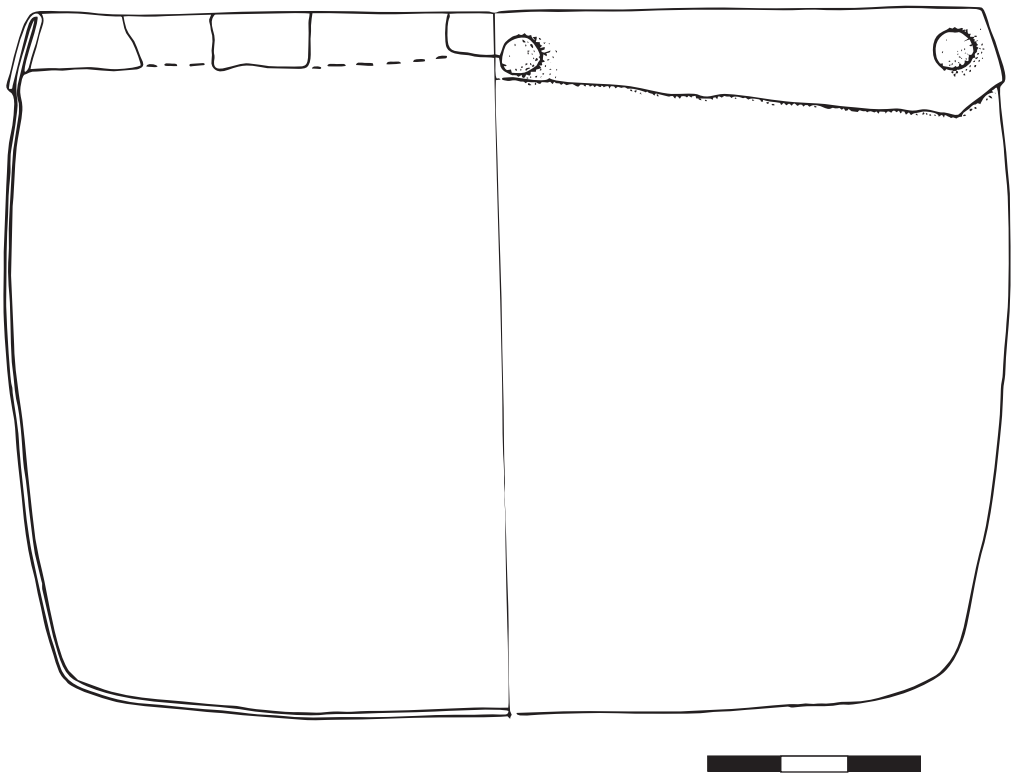
Plate 20

5.5. Bronze vessel

This category is represented by a singular find, namely a medium size copper-alloy *situla*. The object is poorly preserved, but its main features can still be observed. It has a straight rim, reinforced by a thin band of copper riveted in position. The body of the vessel is straight, undecorated and the base is slightly convex. The material out of which the vessel is made is thin and has a very poor preservation state. Analogies for this vessel are to be found in the exceptional Byzantine shops context from *Sardis*. Four such cauldrons have been found outside the Shops and only one bowl inside E 5 (a bowl with residue indicating melting of gold or electrum)[265].

Cat. No. 117
Situla;
Room I; Context No. 5;
PH: 10 cm; BD: 11.4 cm;
Bronze pot, severely damaged found in an advanced state of degradation. The base of the pot is concave, and the rim is short, straight, turned and riveted;
Unpublished;
1994;
CAP 8965;

[265] CRAWFORD 1990, 51–52, fig. 202, bowl outside E 3; bowl with residue indicating melting of gold or electrum, 56–57, fig. 231 (E 5); two cauldrons related to the same context, 57, fig. 223, 225 (outside E 5). The last cauldron comes from the mosaic pavement outside E 15, 90, Figs. 507 and 510.



Cat. No. 117

Plate 21

5.6. Militaria and other fittings

5.6.1. Iron Shield-Boss

The shield-boss (Cat. No. 118) was discovered under the tiles and burnt beams debris from the collapsed roof of the C1/1994 building. The object suffered severe burning visible through its poor preservation state. Although the boss was discovered intact, after air contact its state has begun to decline and ultimately it fissured. At present, after undergoing a long process of restoration, its state of preservation is stabilized. The boss was discovered directly on the 6th c. floor, along with several significant artefacts.

The archaeological context of the boss is the same with the last occupational level of the C1/1994 building, the end of the 6th c. A.D. The dating of the context was done through the analysis of the markers from the artefacts discovered. The archaeological context along with the findings underwent heavy burning.

The *umbo* was forged from strong iron plate varying between 0.45 cm and 0.60 cm in thickness, and has a conical bowl surrounded by a flange. The flange, or the rim, is circular, 2.3 cm wide, and has four symmetrical fixing-holes of 0.4 cm in width, of which none survived due to the intensive process of restoration. The boss is otherwise complete, and measures 17.5 cm in diameter, with a bowl of 12.7 cm. The latter rises 6.7 cm above the plane of the flange and has a bi-conical shape with a flattened top. The flange is slightly concave, with an inclination angle of approximately 5°.

The shield-boss from *Capidava* belonged, taking into account the parallels only, to a concave-oval shield used by all appearances by an infantryman. The shield didn't have a reinforcement bar, and the grip was probably made of wood. The boss was fixed on the shield by four rivets, as shown by the four symmetrical holes in the flange of the boss. The organic materials of the shield are now lost due to the burning as well as the weather conditions. The visual analyses of the burnt wood found near the boss were inconclusive; they were either remains form the shield or remains of furniture, roof or other internal wood structure of the building.

Oval and round shields were predominant in the end of the 2nd century and thereafter[266], when there was no longer possible to distinguish the different military units mainly by the shape of their shields. The shields were covered with leather or even linen and, instead of a metal rim they had a strip of hive around the perimeter of the board. The round bosses still retained their domed shape and were made mainly of thin bronze (coper-alloy). Additionally, characteristic of the 2nd and 3rd centuries, were the richly ornamented examples depicting *au repoussé* animal and human figures, which most probably belonged to parade shields[267]. Although the oval and round shields remained in use well into the 5th c., the oval shield bosses were replaced at the end of the 3rd c. by conical shaped bronze and iron bosses[268].

The shield-boss from *Capidava* belongs to a common type found in Late Roman antiquity along the eastern provinces. Based on the archaeological context where it was found, the shield-boss dates, most probably, from the end of the 6th c. AD. The most common cited typology for the Late Roman shields is the one based on the discoveries at *Dura Europos*[269]. Although the *Dura* findings date from the 3rd c., the oval type shield has been used continuously from the 1st c. to the 7th c. and beyond[270].

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[266] TRAVIS, TRAVIS 2014, 126.

[267] For several examples and discussion see BISHOP, COULSTON 2006, 91–94, 179–182, fig. 49, 116, pl. 7/b; SOUTHERN, DIXON 1996, 100, fig. 20.

[268] STEPHENSON 2011, 41–42

[269] At *Dura Europos* were found 24 shields, bosses and plank boards, making it the most important discovery of this type (JAMES 2010, 159–187)

[270] SOUTHERN, DIXON 1996, 103

In the province of *Scythia* similar *umbones* were discovered at *Aegyssus* (Tulcea)[271], *Beroe* (Piatra Frecăței)[272] and at *Ulmetum* (Pantelimonul de Sus)[273], which can be dated in the Late Roman–Early Byzantine period. From the fortifications on the left bank of the Danube there are three examples, one at *Sucidava*[274] and other two at Hinova[275], all dated in the 4th c. AD. Another set of examples are three of the bosses found at *Iatrus* – Krivina[276], all made of iron and dated in 4th c. contexts.

The only way to date this shield-boss, without finding actual organic remains of the board, is to record thoroughly the archaeological sequence in which it was found. Thus, the context of the find dates this type of artefact and not the other way around.

5.6.2. Ballista projectile

Due to its size we can not specify the propulsion mode of this projectile, whether it was thrown by hand or propelled with a ballista (possibly a *manuballista*). At *Capidava*, another 12 pieces[277] have been discovered, with similar size (their diameter varies between 5 cm and 6.5 cm and weights between 100 g and 350 g). This batch is more heterogeneous than other categories of projectiles discovered at *Capidava*, especially with regard to the material: 6 pieces are silex cores, 2 pieces (including the one found in Building C1) are made of ceramic, brick / tile grinding, two more pieces are made of sandstone, and another two are made of limestone. With a few exceptions, the projectiles have strong traces of use, some of which are even half broken due to impact.

Stone or ceramic projectiles could be used, depending on their size, as ammunition for war machines, for slings, but also for throwing by hand[278]. The fact that this piece is finished shows a calibration required for a mechanical device, possibly involving its use as ammunition for torsion powered machines[279].

Analogies for the projectile from *Capidava* were also found at Breţcu[280], Inlăceni[281], *Dinogetia*[282] (only from ceramics, published as sling shot), *Porolissum*[283], *Arutela*[284], *Viminacium*[285] and *Dura Europos*[286].

Cat. No. 118
Shield Boss;
Conical Type;
Room III; Context No. 5;
MD: 17.5 cm. D: 12.7 cm. H: 6.7 cm;
The shield-boss is forged from strong iron plate and has a conical bowl surrounded by a flange. The flange,

[271] The *umbo* from *Aegyssus* is unpublished and was only illustrated in a collection catalogue (see SIMION 1995). The analogy is only partial; the *Aegyssus umbo* has a slightly different shape.
[272] VÂLCEANU, BARNEA 1975, 212, fig. 2/2.
[273] PÂRVAN 1915, 283, fig. 16, pl. VI, fig. 3, no. 8.
[274] GHERGHE, AMON 2012, 7–12.
[275] DAVIDESCU 1989, 7, fig. 19/g.
[276] GOMOLKA-FUCHS 2007, 272–274, Taf. 13–14, no. 1635, 1636, 1638.
[277] RAȚIU, STOIAN 2014, 319–335.
[278] BAATZ 1966, 294–207.
[279] JAMES 2010, 214.
[280] GUDEA 1980, 320, pl. 51/1–5.
[281] GUDEA 1979, 189–190, 269, pl. XXXV.
[282] ȘTEFAN *et alii* 1967, 344, 347, fig. 185.
[283] GUDEA 1989, 798, pl. CCCXIII.
[284] VLĂDESCU 1983, 188.
[285] BOGDANOVIĆ 2013, 404–407, nr. 1–6, 22, 108, 119, 125, 126.
[286] JAMES 2010, 230.

or the rim, is circular and has four symmetrical fixing-holes of 0.4 cm in width, of which none survived due to the intensive process of restoration. The boss is otherwise complete. The bowl rises above the plane of the flange and has a bi-conical shape with a flattened top. The flange is slightly concave, with an inclination angle of approximately 5 degrees;
Rațiu, Opriș 2015;
2007;
CAP 13061;

Cat. No. 119
Ballista projectile;
Ceramic;
Room I; Context No. 5;
D: 4.5 cm, WH: 350 g;
Ceramic projectile, egg-shaped, made by abrasion from a reused Roman *tegula*. The projectile appears to be used at least once;
Rațiu, Stoian 2014, 324–325, fig. 6/18;
1997;
CAP 8952;

5.6.3. Personal items

This category of finds is poorly represented; only two clothing items were found in the course of the excavation at Building C1, first a small belt-buckle and, second, a fragment from a hair/clothing bone pin.

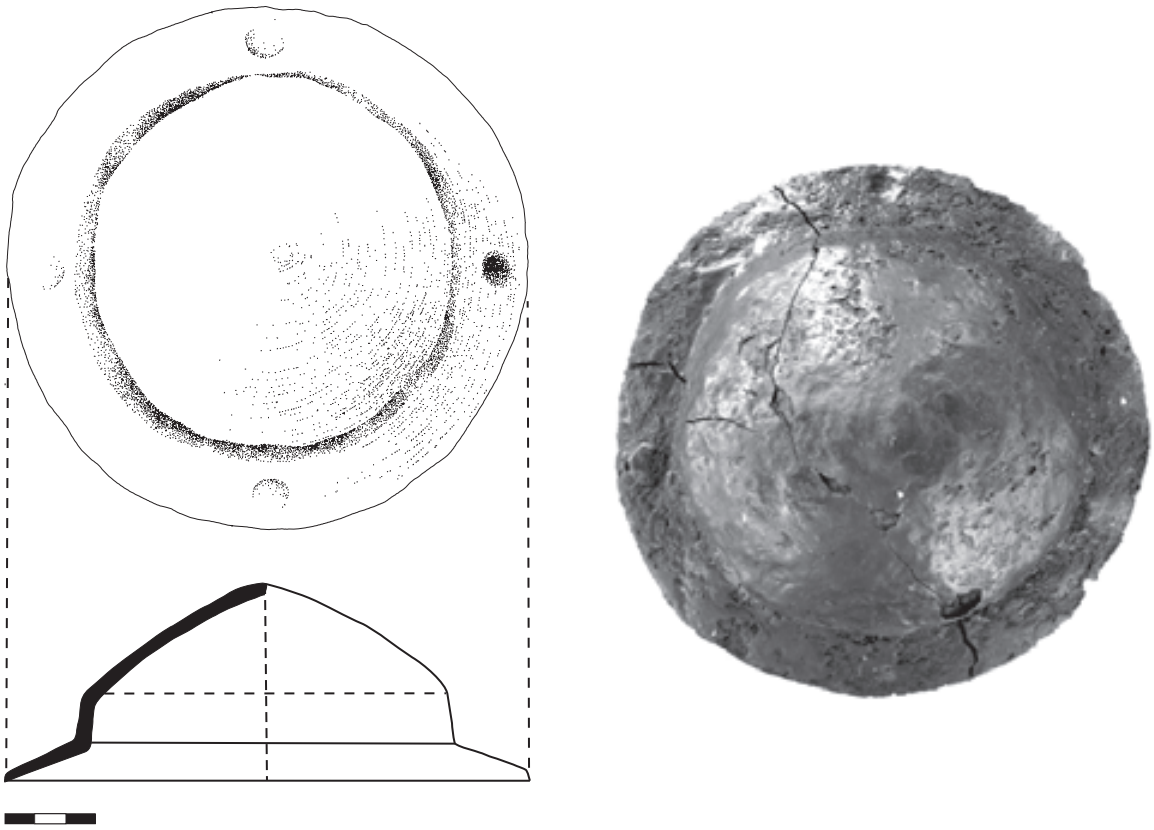
The buckle is a simple oval bronze buckle, with one cusp, and was worn by both military personnel and civilians. From its size it is clear that it was not a belt buckle but more of a strap-buckle, from an apparel with one or more straps. Parallels for this item may be found at *Tropaeum Traiani*[287], Topraichioi[288] but also at *Iatrus*-Krivina[289] and in many other sites from this period.

The hair pin is an even wider spread type of find, and was probably used by civilians, possibly women. These types of pins were also thought to be used as clothing pins, instead of a brooch (*fibula*) to clasp the cloak onto the shoulders. Usually the clothes pins are somewhat shorter than the hair pins. Unfortunately, from our pin only the upper part is preserved, therefore the way it was employed is still up for debate. A similar piece, even broken in the same place, was published among the more recent discoveries from *Iatrus*-Krivina[290].

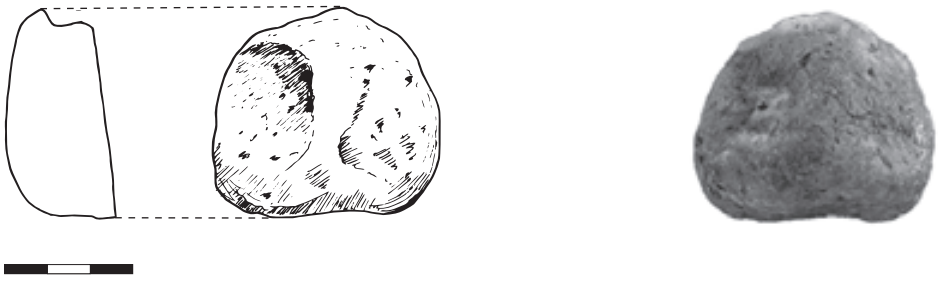
Cat. No. 120
Bronze simple buckle;
Room I; Context No. 5;
L: 2 cm; W: 2 cm;
Simple copper alloy belt buckle, oval shape with only one cusp. The buckle was strapped to a 1.5 cm wide belt;
Unpublished;
1995;
CAP 9018;

[287] BOGDAN-CĂTĂNICIU, BARNEA 1979, 191, 220, fig. 171/10.4, 10.5.
[288] OPAIȚ *et alii* 1991, 331, 274, pl. 56/ 3, 4.
[289] GOMOLKA-FUCHS 2007, 282–283, Taf. 7 / 1518.
[290] GOMOLKA-FUCHS 2007, 296–297, Taf. 10/1590.

Cat. No. 121
Bone pin;
Hair pin;
Room III; Context No. 5;
L: 4 cm; W: 0.8 cm;
Fragmentary hair/clothing pin, made out of bone. The fragment represents the upper part of the pin. It has a club shaped upper part followed by a riveted area;
Unpublished;
2009;
CAP 13062;



Cat. No. 118



Cat. No. 119

Cat. No. 120

Cat. No. 121

Plate 22

5.7. Household utensils

5.7.1. Felting Mill and Querns

In a central position inside Room III a felting mill was discovered *in situ*. The mill (Cat. No. 123) is made of limestone and has the shape of a flattened truncated cone, hollow with a flat bottom. In its upper side it has a ridge from which two opposite 11 cm wide niches run down vertically towards the bottom. Along with this artefact several rotary querns were recovered, whole and fragmentary (see Pl. 34), in the building. Both the mill and the querns are among the most common discoveries in Roman and Late Roman sites in the Balkan and Danubian lands[291]. Querns as the ones published from *Iatrus* – Krivina[292] have been practically found all over the province, but they are barely mentioned in most of archaeological reports.

5.7.2. Vertical Loom Weights

Another remarkable discovery is constituted by the set of 23 pieces of weights from a vertical-loom (Cat. No. 124–146). The weights were all discovered in the same place, near Z6 wall in Room II. They were manufactured from reused polished Roman roof tiles, they have a prolonged triangular shape with rounded corners, and in their upper part present an orifice for the warp. Their size is variable (L: 7.0–10.9 cm; W: 5.9–8.1 cm) but their weight is somewhat similar. There is no information about the wooden structure of the warp-weighted loom; most probably it was burnt during the fire along with other structural timber from the building. Nevertheless, some modern reconstructions helped us to understand how these weights were employed. Analogies for this set were discovered at *Iatrus* – Krivina[293], but maybe the most important one is that of a similar grouping at Sadovec (Golemanovo Kale), in north-western Bulgaria. During a 1979 sondage C excavation 26 loom weights oxidizing fired have been found inside an *extra muros* dwelling[294].

5.7.3. Scale tray

The tray is a small cooper alloy disk, concave and with three equilateral incisions, that was used as a tray for a small scale. Such scales or balances are very different from the steelyards with counterweights. They are of much smaller dimensions, and functioned with a balance beam consisting of a thin cylindrical horizontal arm with suspension rings at each end and also have a vertical pointer. As to the trays, they usually have three suspension holes around the edge and are made of a sheet of copper alloy with concave form. They can be used with weights of different forms (barrel-shaped, circular or square), and are made out of lead, or copper-alloy metal[295].

Judging by the dimensions of the tray one can assume that the goods that were scaled were in small amounts but valuable enough to be scaled in the first place, thus, probably coin. Analogies for scales and trays are known along the frontier up the Danube at *Saldum*, *Diana* and Hajdučka Vodenica[296]. In *Dardania*, not far from the cities of *Iustiniana Prima, Naissus* and *Ulpiana*, such a

[291] CURTA 2001, chapter *The Balkans and the Danube limes during the sixth and seventh centuries,* 120 sqq. See also BARNEA 1991, 235: *Tropaeum Traiani, Ulmetum, Histria, Tomis, Callatis, Dinogetia* and *Argamum* are the sites where querns have been found.

[292] GOMOLKA-FUCHS 1982, 202–204, Taf. 73/685, 692, 702.

[293] GOMOLKA-FUCHS 1982, 202–204, Taf. 72/671. One other where loom weights have been found is Svetinja, in the Djerdap area (close to *Viminacium*), see CURTA 2001, 162 (houses 1 and 3).

[294] TODOROVA 1992, 366–368, Abb. 2.1–16; 3.1–16.

[295] For terminology, thorough descriptions and excellent analogies, see PAPANIKOLA-BAKIRTZI 2002, 78, nos 27–29.

[296] JEREMIĆ 2009, 190, cat. No. 628, fig. 89. ŠPEHAR 2010, 79–81, pl. X, nos 235–237 (scales); 238 (tray); 239–249 (weights) (235 and 237 from *Diana*; 236 from Hajdučka Vodenica; 238 from Ljubičevac – Glamija or the

scale has been discovered at Gornji Streoc; four other trays come from Čečan[297]. Closer to *Capidava*, scales and corresponding trays are also known from *Iatrus*[298] and *Abritus*[299]. In the outposts north of the Danube, scales using such trays are known at *Drobeta* and *Sucidava*[300]. To summarize, the mapping resulting from the above-mentioned sites it is only a matter of *Forschungsstand*: for sure, such objects belong to everyday life and respond to basic needs of every urban community of that time.

Cat. No. 122
Rotary quern;
Limestone slab;
Room III; Context No. 4;
MD: 42 cm; W: 9 cm;
Rotary quern, made of limestone, shaped by carving. The piece is fragmentary, and represents the lower part of the quern;
Unpublished;
2009;
CAP 13063;

Cat. No. 123
Felting Mill;
Vertical feeding;
Room III; Context No. 5;
H: 50 cm; BD: 54 cm; RD: 40 cm; D: 25 cm;
Limestone felting mill, made by carving. The pies have a frustoconical shape, with a wider base. On the interior there is a shaft with two niches placed symmetrically. The conservation state is precarious;
Opriș, Rațiu 2016, 217, Pl. 15/4;
2008;
CAP 13064;

Cat. No. 124
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 10 cm; W: 7 cm; WH: 200 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5155;

Cat. No. 125
Loom weight;

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mouth of Slatinska Reka); weights come from Hajdučka Vodenica (239–241), and quite many have been discovered at Akve (242–249).

297 IVANIŠEVIĆ, ŠPEHAR 2005, 141.

298 GOMOLKA-FUCHS 2007, 29* and Taf. 5, No. 2159–2161. No. 2159 is a bronze horizontal arm of a scale and the other two (No. 216–2161) are bronze weights, made of lead, respectively bronze.

299 DZANEV 2004, 207–208, fig. 1.1–2 for the scale and the 4.5 diameter tray. Special thanks to Dr. Dan Vasilescu (MINAC), who signaled the scale with tray.

300 BONDOC 2009, 275, 313, Pl. XXXI, fig. 133 (*Drobeta*); Pl. LXIX, fig. 319 (*Sucidava*). TUDOR 1978, 447, fig. 146 (*Sucidava*).

Oval shaped;
Room II; Context No. 5;
L: 8.2 cm; W: 8.1 cm; WH: 187 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5154;

Cat. No. 126
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.2 cm; W: 6.4 cm; WH: 122 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5147;

Cat. No. 127
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.9 cm; W: 6.9 cm; WH:131 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5146;

Cat. No. 128
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.2 cm; W: 6.3 cm; WH: 130 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5145;

Cat. No. 129
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 10.4 cm; W: 7 cm; WH: 205 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;

CAP 5153;

Cat. No. 130
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 9.2 cm; W: 6.5 cm; WH: 121 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5152;

Cat. No. 131
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 9.5 cm; W: 7 cm; WH: 160 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5151;

Cat. No. 132
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 10.9 cm; W: 7.3 cm; WH: 207 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5157;

Cat. No. 133
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.6 cm; W: 6.9 cm; WH: 163 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5156;

Cat. No. 134
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.5 cm; W: 6.5 cm; WH: 123 g;

Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5161;

Cat. No. 135
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 9.6 cm; W: 6.4 cm; WH: 178 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5160;

Cat. No. 136
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 9.2 cm; W: 6.6 cm; WH: 156 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5159;

Cat. No. 137
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 10.2 cm; W: 7.4 cm; WH: 192 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners.;
Unpublished;
1995;
CAP 5158;

Cat. No. 138
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 7.4 cm; W: 6.9 cm; WH: 119 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5165;

Cat. No. 139
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.3 cm; W: 6.2 cm; WH: 106 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners; monogrammatic cross scratched on one face of the weight;
Unpublished;
1995;
CAP 5164;

Cat. No. 140
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 6.8 cm; W: 6.6 cm; WH: 88 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5163;

Cat. No. 141
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 10.4 cm; W: 6 cm; WH: 201 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5162;

Cat. No. 142
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 7.4 cm; W: 6.8 cm; WH: 111 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5167;

Cat. No. 143
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 7 cm; W: 6.3 cm; WH: 120 g;

Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5166;

Cat. No. 144
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 7.4 cm; W: 5.9 cm; WH: 110 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 5148;

Cat. No. 145
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 7.8 cm; W: 6.1 cm; WH: 55 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
1995;
CAP 6133;
Unillustrated

Cat. No. 146
Loom weight;
Oval shaped;
Room II; Context No. 5;
L: 8.3 cm; W: 6.6 cm; WH: 131 g;
Loom weight made of a reused Roman tile; carving/perforated through bilateral rotation; whole; secondary burning; oval-triangular in shape, with rounded corners;
Unpublished;
2009;
CAP 13065;

Cat. No. 147
Scale plate/platter;
Bronze disk;
Room III; Context No. 5;
D: 5 cm; T: 0.1 cm;
Bronze disk used as a scale tray. It has three equally spaced holes on placed on the edge of the disk and a concave shape;
Unpublished;
2008;
CAP 13066;

Cat. No. 148
Ceramic spindle whorl;
Room II; Context No. 4;
D: 5 cm; T: 0.1 cm;
Pottery spindle whorl, biconical, perforated. Fragmentary, only halve of the object remains; Unpublished;
1994;
CAP 5213;

Cat. No. 149
Ceramic spindle whorl;
Room II; Context No. 4;
MD: 2.8 cm; T: 1.7 cm;
Pottery spindle whorl, biconical in shape, perforated;
Common paste, homogenous, light-orange in colour. Whole piece;
Unpublished;
1994;
CAP 5196;

Cat. No. 150
Ceramic spindle whorl;
Room II; Context No. 4;
D: 2.5 cm;
Pottery spindle whorl, biconical in shape, perforated. Common paste, homogenous, brown coloured; Whole piece;
Unpublished;
1994;
CAP 8953;

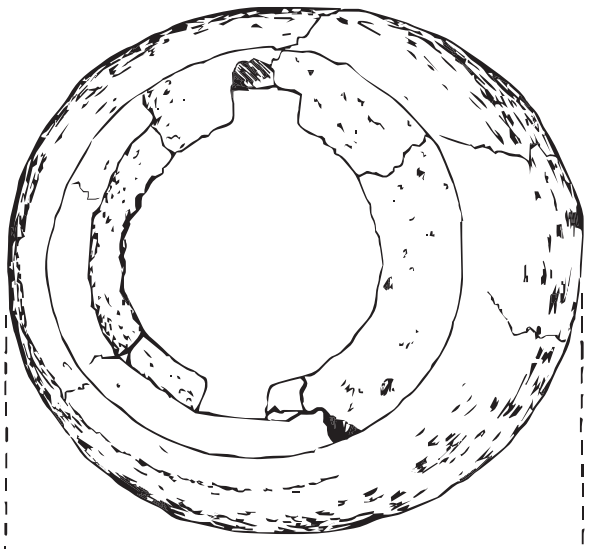
Cat. No. 151
Ceramic spindle whorl;
Room II; Context No. 4;
D: 2.8 cm;
Pottery spindle whorl, biconical in shape, perforated. Common paste, homogenous, brown coloured; Whole piece;
Unpublished;
1994;
CAP 8954;

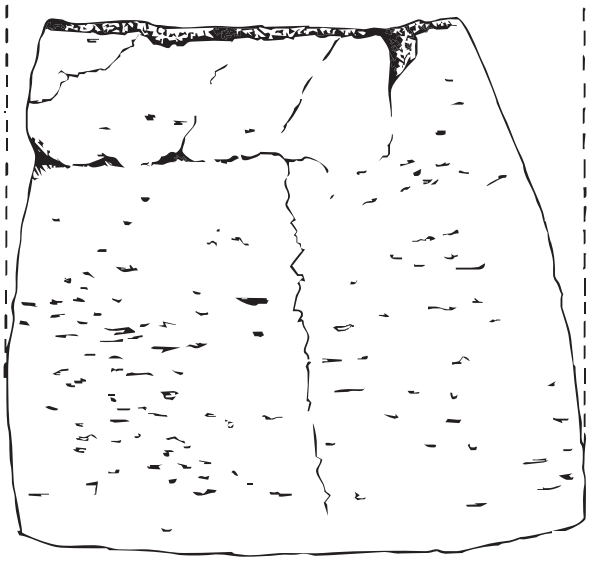
Cat. No. 152
Ceramic spindle whorl;
Room II; Context No. 4;
D: 2.4 cm;
Pottery spindle whorl, biconical in shape, perforated. Common paste, homogenous, brown coloured. Whole piece;
Unpublished;
1994;
CAP 8955;

Cat. No. 153
Ceramic spindle whorl;
Room II; Context No. 4;

D: 4.4 cm;
Pottery spindle whorl, biconical in shape, perforated. Common paste, homogenous, brown coloured;
Whole piece;
Unpublished;
1994;
CAP 8956;

Cat. No. 154
Ceramic spindle whorl;
Room II; Context No. 4;
D: 3.5 cm;
Pottery spindle whorl, discoid in shape, perforated. Common paste, homogenous, light-orange in colour;
Whole piece;
Unpublished;
1994;
CAP 8957;





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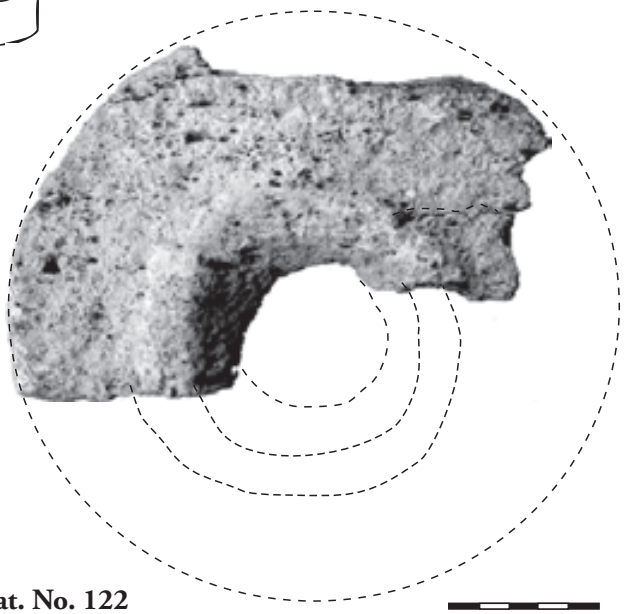
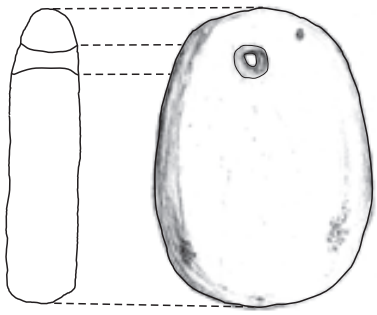


Cat. No. 122

Plate 23



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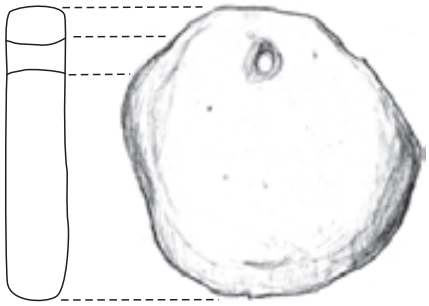

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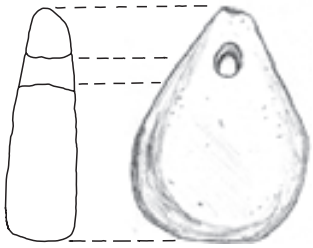

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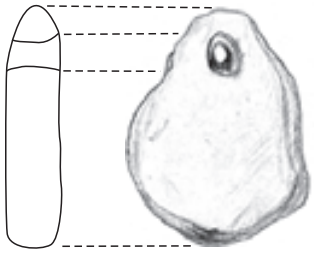

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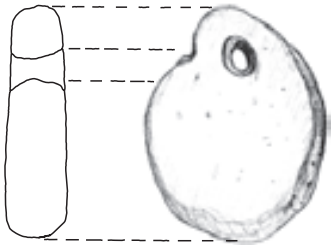

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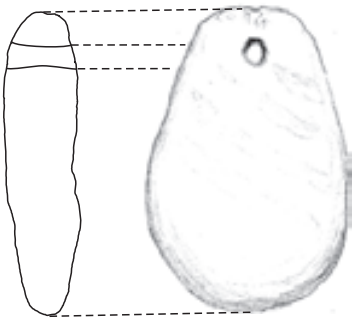

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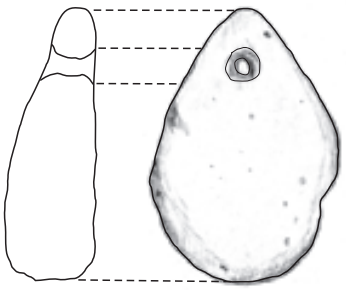

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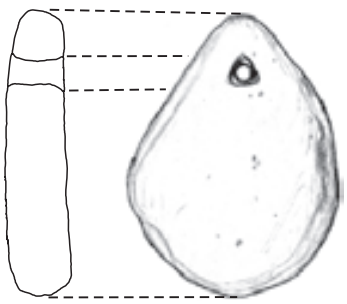

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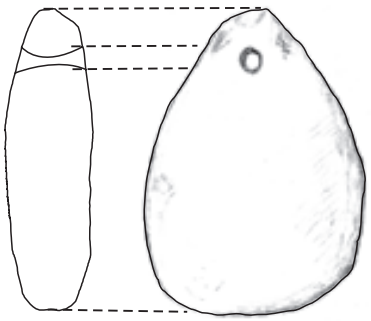

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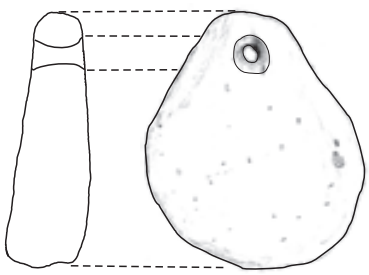

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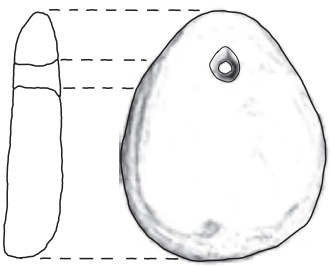

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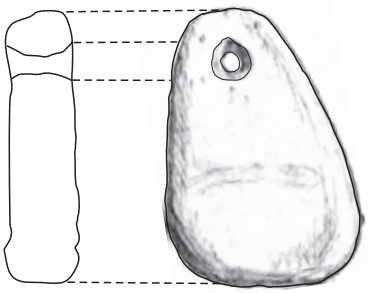
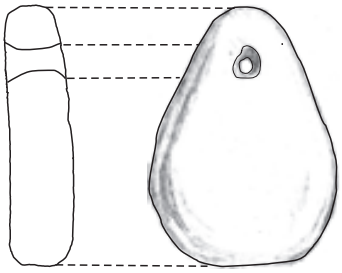


Cat. No. 135

Plate 24



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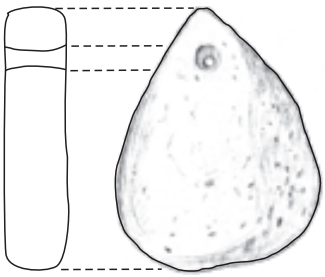

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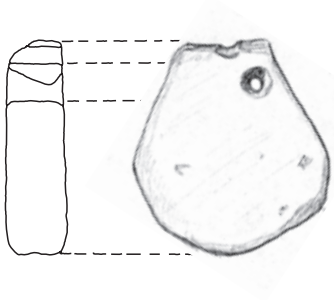

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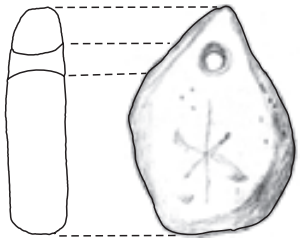
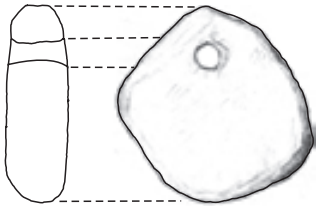


Cat. No. 139



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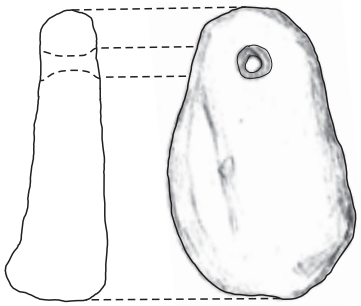

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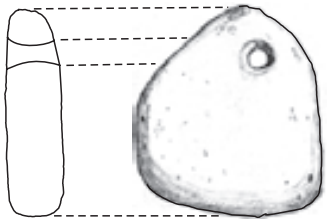

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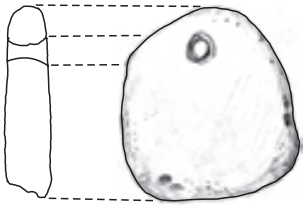
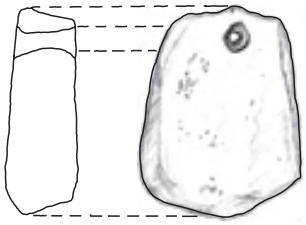
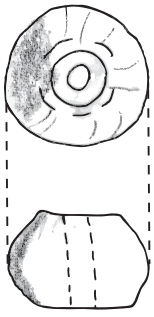


Cat. No. 143



Cat. No. 144



Cat. No. 149

Cat. No. 148

Plate 25

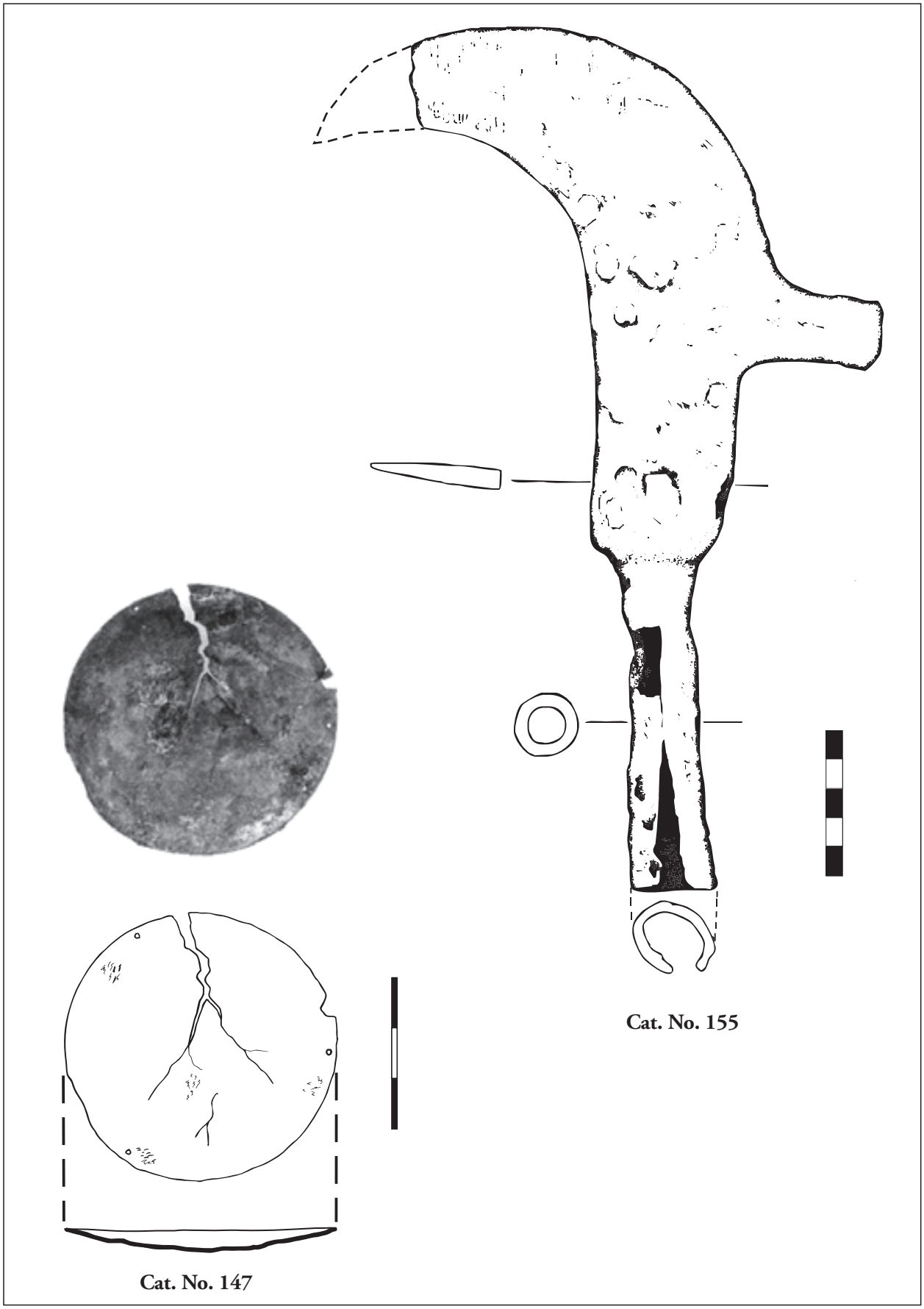


Plate 26

5.8. Tools and implements

5.8.1. Bill Hook (Sarpa)

Another metal artefact found in this building, with a more civilian functionality, is an iron 30 cm bill-hook (*sarpa*), used mainly in agriculture and forestry for cutting hedges and small branches[301] (Cat. No. 155). The forestry tool is constructed as a prolonged sickle with a small axe on the back; it has a flanged socket for the handle. Parallels for this type of tool were found in earlier layers at *Tropaeum Traiani*[302], but also at *Iatrus*-Krivina[303] and Hajdučka Vodenica[304] from Early Byzantine contexts; such domestic tools are also known in Britannia, Gallia or Germania[305], for both Early and Late Roman periods. Such billhooks can be found in association to commercial contexts as E 11 at *Sardis*, as well[306].

5.8.2. Fishing Hooks

The array of metal ware, discovered in Building C1, ends with the recovery of two bronze fishing hooks (Cat. Nos. 156–157), carefully forged, almost identical in size and shape. The hooks are made by forging, have a spiked tip, a square section shank with tapered eyes. The artefacts appear to have never been used and are in mint condition.

The hooks were made from cooper by re-melting other bronze objects; a method in which the blacksmith extracted all the tin from the bronze and added lead. Cooper is softer than bronze just because it lacks tin and with the added lead has a much lower melting point, making the resulted metal more malleable. First the bars were forged and then they were twisted and hammered into shape. Judging by the wor kmanship and the chemical structure[307] the two fishing hooks were made in a local workshop, but by an experienced blacksmith. Fishing hooks are known on the upper course of Danube at *Iatrus*[308], but also from *Saldum* (Gradac) and Rtkovo – Glamija I, in the Iron Gates area[309]. On the northern bank of the Danube are also known in the Late Roman settlement at Moldova Veche[310]. This distribution is as might have been expected; nevertheless, in spite of the real interest the archaeology of fishing and fishing gear of the Classical Antiquity recently enjoys[311], small number of such artefactsin the Lower Danube`s region area gets published.

5.8.3. Fishing net weights

Other items used in the fishing enterprise are the fishing nets. These were used in combination with several weights, in order to stand still while submersed. These weights were carved from limestone boulders, perforated and attached to the lower ends of the nets. At the upper end of these nets were used floating devices, in order to keep the net into position. The perforation is made

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301 ADAM 1999, 164, fig. 197–199.

302 BOGDAN-CĂTĂNICIU, BARNEA 1979, 189, 206, fig. 155/10.14, 10.15.

303 GOMOLKA-FUCHS 1982, 183, no. 372–373, Taf. 59 / 372–373.

304 ŠPEHAR 2010, 99, no. 412, pl. XXIII.

305 Many parallels with finds from the named provinces are illustrated on a web site dedicated to bill hooks (http://billhooks.co.uk/history/roman-billhooks/). Alas, the objects from the site are not found in archaeological excavations.

306 CRAWFORD 1990, 73–74, 77, Fig. 363 (billhooks from E 11).

307 Cat. No. 156: Cu 95.9%, Pb 1.7%, Sn 0.9%, Fe 1.1%; Cat. No. 157: Cu 97.3%, Pb 1.1%, Sn 0.5%, Fe 0.6%.

308 GOMOLKA-FUCHS 1982, 127, Taf. 59, 131.

309 JEREMIĆ 2009, 179, no. 557–558 (see also n. 447, for literature for 1st–4th c. fishing hooks at *Singidunum*); ŠPEHAR 2010, 115, no. 561 (Rtkovo – Glamija I). The latter mentions, 114–115, various fishing tools from Rtkovo-Glamija I, Hajdučka Vodenica, Dijana, Ljubičevac/ Ušće Slatinska Reka.

310 BONDOC 2009, 45–47, 255, pl. XI, fig. 44.

311 BEKKER-NIELSEN, BERNAL CASASOLA 2010.

by abrasion with a hard metal point. The rest of the anchor has an irregular shape, although they were chosen to be of the same size and weight between themselves. Of what we discovered so far at *Capidava* there were two types of anchors: the perforated and the cylindrical ones. From the first type 7 anchors have been discovered; to the second type, the quasi-cylindrical reel-like anchors, already known on several occasions at *Capidava*, just one piece has been found in Building C 1. They all come from the front Rooms I and II, next to the main entrance.

5.8.4. Whetstones

Among the discoveries inside the building C1 there is a set of nine whetstones used to sharpen weapons and blade tools. The pieces are similar to each other, all of which have traces of use, all of which are made of greenish granite slabs. The whetstones of this type are common to all Roman and Roman-Byzantine sites, even though sometimes they do not see the light of the printing. Analogies discovered on the Danube limes were found, for example, at *Iatrus*[312], or further away at *Saldum*[313].

Cat. No. 155
Bill Hook – *Sarpa*;
Room III; Context No. 5;
L: 29 cm; L blade: 17.6. W blade: 6.6 cm;
Iron bill-hook, crafted by casting and hammering. The blade is curved, with the cutting edge on the inside. On the back of the blade there is a small cutting edge, a miniature hatchet. The socket is long and circular in section. The preservation state is precarious, after dehydration the object is fragmentary;
Opriș, Rațiu 2016, 217, Pl. 15/3;
2008;
CAP 13069;

Cat. No. 156
Fishing hook;
Room III; Context No. 4;
L: 5.7 cm. T: 0.37 cm;
Bronze fishing hook made by casting and hammering. The tip is spiked continued by a square-section shank. The grip is flat. The artefact presents itself in mint condition;
Opriș, Rațiu 2016, 217, Pl. 15/1;
2006;
CAP 13070;

Cat. No. 157
Fishing hook;
Room III; Context No. 4;
L: 5.8 cm. T: 0.42 cm;
Bronze fishing hook made by casting and hammering. The tip is spiked continued by a square-section shank. The grip is flat. The artefact presents itself in mint condition;
Opriș, Rațiu 2016, 217, Pl. 15/2;
2006;
CAP 13071;

[312] GOMOLKA-FUCHS 2007, Taf. 44/2360, 2331.
[313] JEREMIĆ 2009, 168–169, no. 502–506.

Cat. No. 158
Fishing net weight;
Perforated limestone;
Room I; Context No. 5;
L: 5.3 cm; W: 4 cm;
Fishing net weight, made from a grey sandstone. The object is fragmentary, but the perforation is still visible;
Unpublished;
1994;
CAP 6134;

Cat. No. 159
Fishing net weight;
Limestone;
Room I; Context No. 5;
L: 21.4 cm; D: 11.2 cm; W: 10.5 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has the shape of a reel, with a median rivet for tying the net. It has strong traces of usage;
Unpublished;
1995;
CAP 5417;

Cat. No. 160
Fishing net weight;
Perforated limestone;
Room I; Context No. 5;
L: 16.5 cm; W: 11.4 cm; T: 7 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with a median perforation for tying the net. It has strong traces of usage;
Unpublished;
1994;
CAP 5034;

Cat. No. 161
Fishing net weight;
Perforated limestone;
Room I; Context No. 5;
L: 21 cm; W: 16.5 cm; T: 2.8 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with an excentrical perforation for tying the net. It has strong traces of usage;
Unpublished;
1994;
CAP 5040;

Cat. No. 162
Fishing net weight;
Perforated limestone;
Room II; Context No. 5;
L: 20.6 cm; W: 22 cm; T: 8.7 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with a median perforation for tying the net. It has strong traces of usage;

Unpublished;
1995;
CAP 5401;

Cat. No. 163
Fishing net weight;
Perforated limestone;
Room II; Context No. 5;
L: 18.7 cm; W: 17.2 cm; T: 12 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with a median perforation for tying the net. It has strong traces of usage;
Unpublished;
1995;
CAP 5402;

Cat. No. 164
Fishing net weight;
Perforated limestone;
Room II; Context No. 5;
L: 21.7 cm; W: 21.4 cm; T: 8.2 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with a median perforation for tying the net. It has strong traces of usage;
Unpublished;
1996;
CAP 5404;

Cat. No. 165
Fishing net weight;
Perforated limestone;
Room I; Context No. 5;
L: 14.3 cm; W: 10.8 cm; T: 7 cm;
Fishing-net weight, made by abrasion from a limestone rock. The weight has a trapezoidal shape, with a median perforation for tying the net. It has strong traces of usage;
Unpublished;
1994;
CAP 5415;

Cat. No. 166
Whetstone – sandstone;
Room I; Context No. 5;
L: 11.5 cm; WH: 4.3 cm; T: 1.7 cm;
Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 5293;

Cat. No. 167
Whetstone – sandstone;
Room I; Context No. 5;
L: 20.3 cm; W: 6.3 cm; T: 4.1 cm;

Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11517;

Cat. No. 168
Whetstone – sandstone;
Room I; Context No. 5;
L: 12.9 cm; W: 4.3 cm; T: 4.2 cm;
Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11518;

Cat. No. 169
Whetstone – sandstone;
Room I; Context No. 5;
L: 180 cm; W: 40 cm; T: 33.6 cm;
Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11519;

Cat. No. 170
Whetstone – sandstone;
Room I; Context No. 5;
L: 20.7 cm; W: 4.5 cm; T: 4 cm;
Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11520;

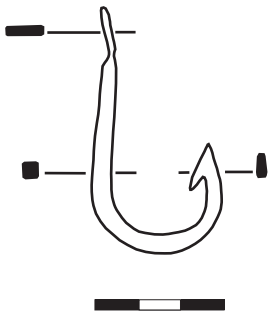
Cat. No. 171
Whetstone – sandstone;
Room I; Context No. 5;
L: 8.2 cm; W: 3.5 cm; T: 3.4 cm;
Parallelepipedal whetstone, whitish grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11521;

Cat. No. 172
Whetstone – sandstone;
Room I; Context No. 5;
L: 19.8 cm; W: 5.6 cm; T: 2.3 cm;

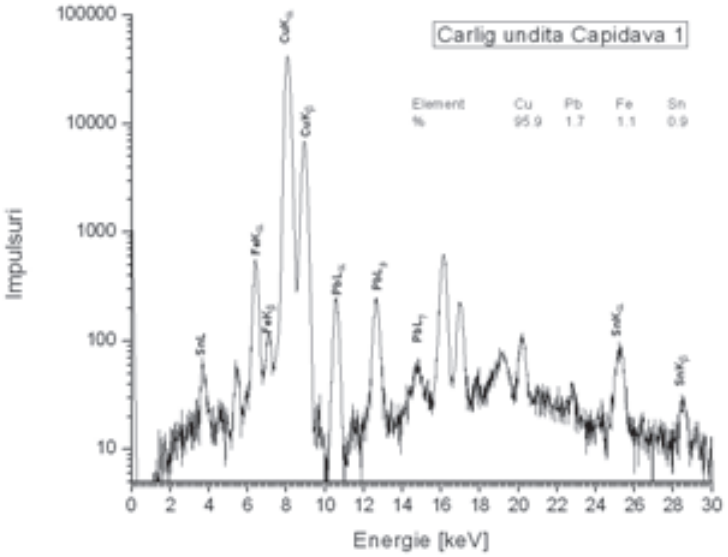
Parallelepipedal whetstone, greenish – grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11522;

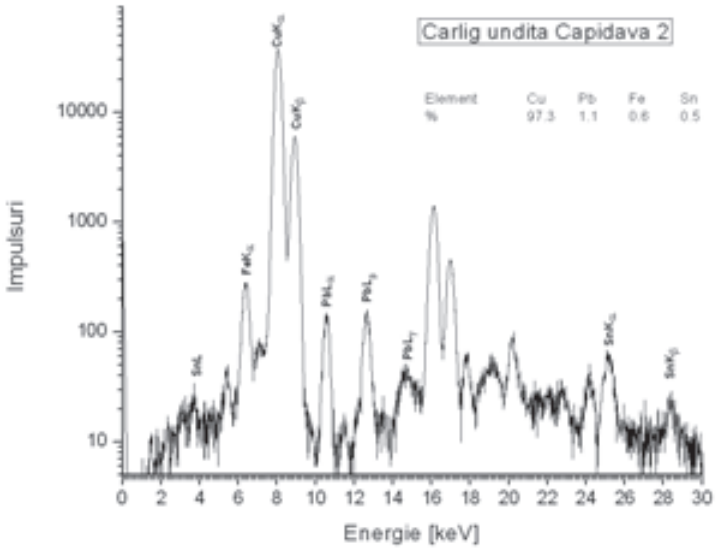
Cat. No. 173
Whetstone – sandstone;
Room I; Context No. 5;
L: 23 cm; W: 6 cm; T: 2.5 cm;
Parallelepipedal whetstone, greenish – grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11523;

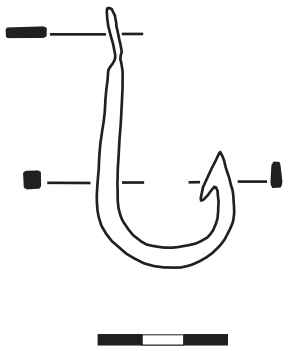
Cat. No. 174
Whetstone – sandstone;
Room I; Context No. 5;
L: 22.5 cm; W: 7.1 cm; T: 3.1 cm;
Parallelepipedal whetstone, greenish – grey slab; traces of cleavage, grinding wear. Made from a rectangular boulder; dished face, straight-broken endings; polished fronts from usage;
Unpublished;
1994;
CAP 11524/11525;



Cat. No. 156







Cat. No. 157

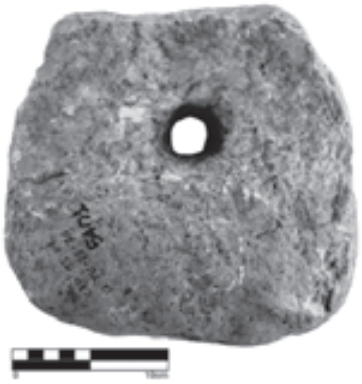
Plate 27

Cat. No. 158

Cat. No. 159

Cat. No. 160

Cat. No. 161



Cat. No. 162

Cat. No. 163

Cat. No. 164

Cat. No. 165

Plate 28

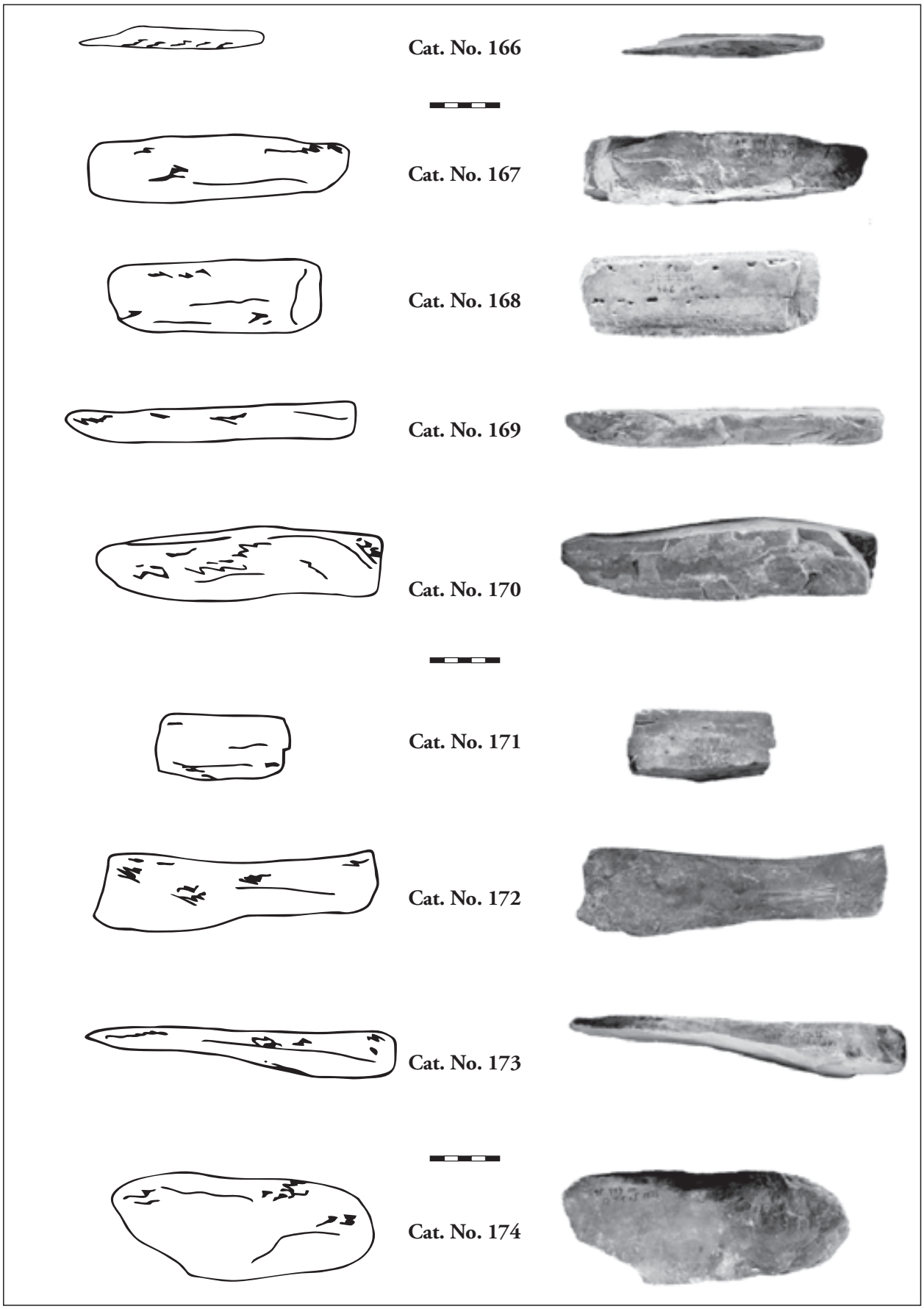


Plate 29

5.9. *Miscellanea*

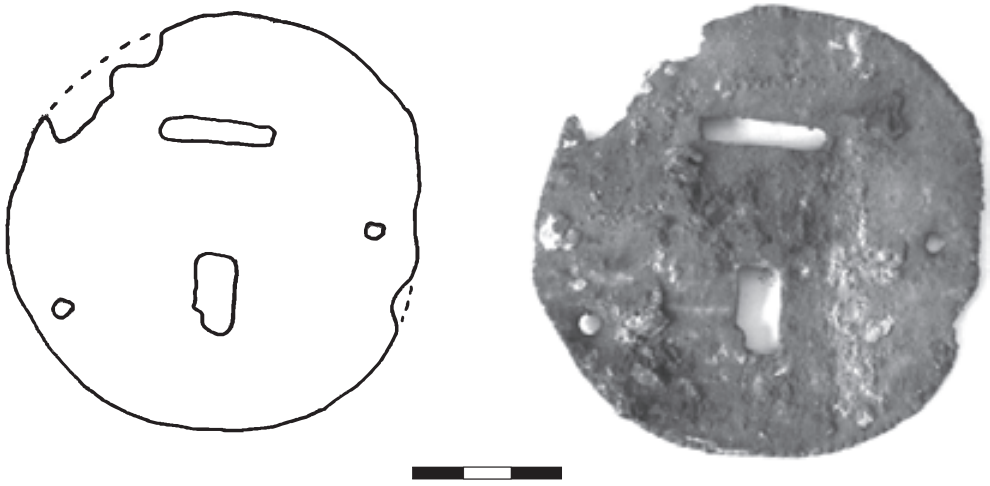
In this category we have included two artefacts which are difficult to categorize properly. The first one is a fragment from a door lock, namely the front copper plaque, which stands on the surface of the door. The mechanism is lost in the debris, but the copper plaque was preserved. The plaque was found in Room I near the entrance door, thus, we incline to believe that it pertained to this door, which was destroyed during the *incendium*. It is a common enough find and many sites along the Danube *limes* have in their inventory such finds (even unpublished), including *Capidava*[314].

The second artefact is a statue dowel, namely a carved marble peg surrounded by a lead bandage. The marble piece is also pierced by five smaller pegs of iron. The object represents the lower part of a small marble statue, or bust, namely the peg that is used to fix the statue into the socket of the statue base. The socket was half filled with melted lead then the statue was fixed with the peg inside the socket. The melted led would hardened making the statue immovable from its base. The iron pegs were there to add an extra reinforcement to this ensemble. We have not found any actual parallels for this object, but the multitude of Roman statues which have similar pegs and the fact that it is made of marble cast in lead are enough to draw the correct conclusions. Nevertheless, its presence in this building is troublesome, but can be eventually accepted in a commercial context.

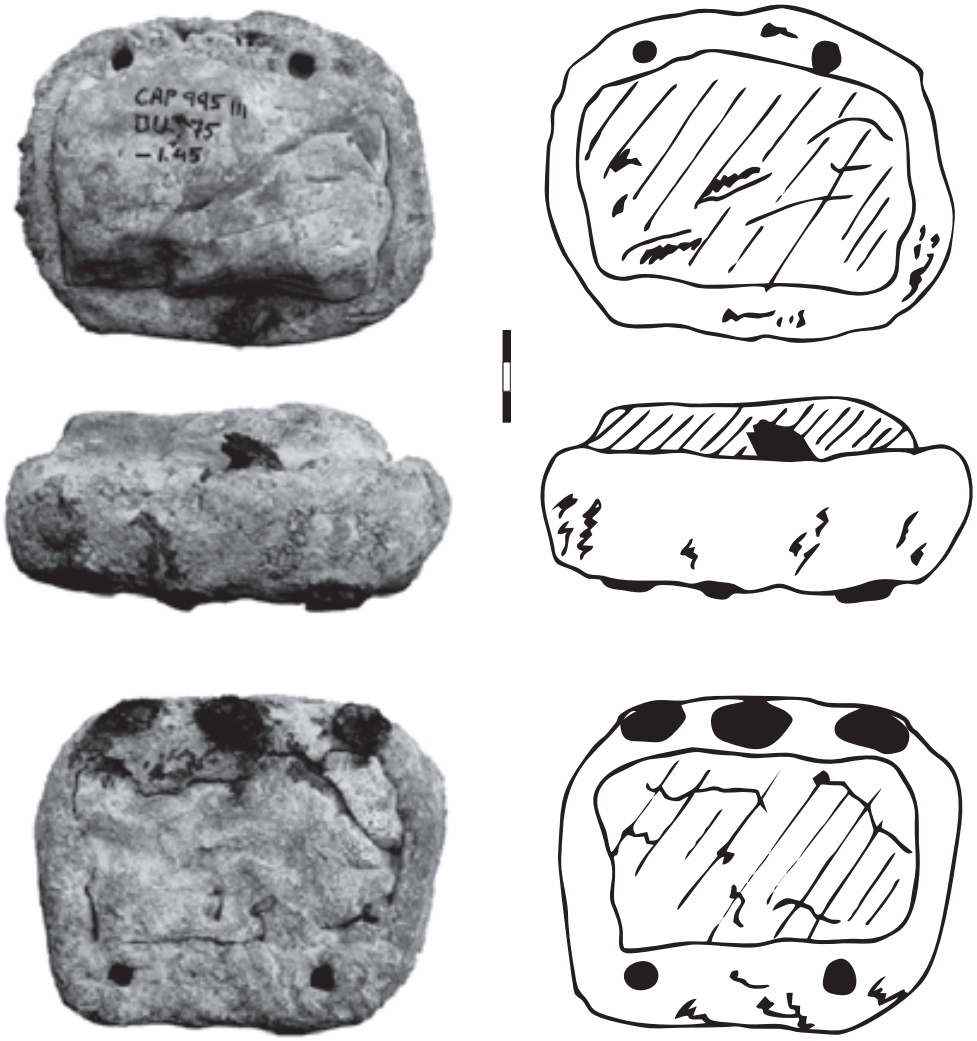
Cat. No. 175
Door lock;
Copper perforated plaque;
Room I; Context No. 5;
D: 9 cm; T: 0.1 cm; WH: 51 g;
Copper plaque used as the front piece of a door lock. The plaque is perforated for key hole and other smaller perforations, for attachment to the door board;
Unpublished;
1994;
CAP 13081;

Cat. No. 176
Monument fragment;
Statue dowel;
Room II; Context No. 5;
L: 158 cm; W: 126 cm; H: 67 cm;
Statue dowel, early roman (2nd–3rd c.) reused in the early byzantine period. The object is a marble peg surrounded by a lead bandage and pierced by five smaller pegs of iron;
Unpublished;
1995;
CAP 6130;

[314] COVACEF, DOBRINESCU 1999, 273–283; GOMOLKA-FUCHS 2007, 296 (Schlösser, Schlüssel, Riegel), Taf. 27.



Cat. No. 175



Cat. No. 176

Plate 30

5.10. Epigraphic finds

…*Celsus* – prefect of the cohort from *Capidava*[315]. The only surviving epigraphic monument from inside the precinct of the Building C1 was found during the 1995 campaign; it is, more precisely, a fragment from a gravestone made of good quality limestone, of a white-yellow colour with pink highlights. It dates from the first half of the 2nd c. AD.

The object was discovered in Square labeled Ş 75[316], at a depth of 0.65 m starting from the local reference level (the level where the excavation started in this area). The limestone fragmentary inscription stood inside the only row of stone masonry belonging to the elevation of a sunken dwelling wall. The Middle Byzantine dwelling, referred to as B 342/1993, had the dimensions of 3.3 × 3.4 m and was oriented north-west − south-east[317]. It was set up inside former Room III of the Building C1, in a compact rubble layer of stone and mortar resulted from the previous collapse of the Roman-Byzantine edifice. The wall of the dwelling, where the epigraphic monument was inserted, stood on the edge of the ditch (*fossa*) defending the Late Roman fort. This wall was parallel to the former defensive structure, partially silted by that time. The existence of the ditch gave reason to a large size stone (approx. 0.93 m long and 0.32 m thick, carved on the front face), with the role of consolidating and supporting the wall on that side.

The funerary monument seemed to have served three successive, yet very different functions. Initially, the limestone block served as epitaph in the necropolis of the fort; at an unknown date during the time of the Dominate it shared the same faith as many other inscriptions found at *Capidava* – in a moment of hasty repairs following the attack of barbarians, the monument was broken and incorporated into a mortar wall with the written side inwards. The clear proof for this specific re-purposing are the traces of mortar still visible in the crevices of the lettering from the last two rows of the inscription. Finally, its last utilization dates from the Middle-Byzantine phase of the site (9th–11th c.) when it was included in the stone and clay perimetral wall of B 342 /1993 sunken dwelling.

Only the top right side of the inscription survives in about 40 percent of its initial size. Thus, the limestone block has the approximate dimensions: 0.32 m tall; 0.33 m thick and 0.38 m wide. Starting from these measurements, the width of the written surface of the inscription could be relatively easily established at approx. 0.5 m, and approx. 0.85-0.90 m for the entire monument (including the decorated raised register). However, the height of the monument could not be determined, the authors of its initial publishing could not exclude the possibility that the outer register of the inscription could have been doubled by a second upper one, containing a funerary scene. The incised text is enclosed within a raised border where one can distinguish the motif of the wine vein and of the grapes, beautifully carved by the stone mason. These motifs were possibly uniting in a *kantharos* shaped vessel on the lower side of the funerary slab.

From technical perspective, the monument was carved by knocking off large portions of stone and not through splintering as is usually done for hard stone blocks with fine particles granularity. The only preserved lateral side (to the right of the frame) keeps information on the careful way the stone cutter proceeded; the front face was smoothed off with a claw chisel in order to give the

[315] The monument was published very shortly after its discovery, see OPRIŞ, POPESCU 1997, 177–181 = PETOLESCU 1998, 753.

[316] The alphanumeric structure of the general plan of the citadel was established soon after 2000, under the coordination of Prof. Radu Florescu, following the results of new topographic measurements, the overlapping and the correction of the existing plans. These procedures led to the alphabetic shifting of the rows of the initial general alphanumeric grid by two letters (two squares of 5 × 5 m). Thus, compared to the plans that were available at the time of the initial publication (see OPRIŞ, POPESCU 1997, 177), the finding place has shifted from Ţ-U 75 to T-Ş 75. The same same realignment principle was applied to all other finds presented in this book.

[317] OPRIŞ 2003, pl. VI.

monument and the inscribed panel an orderly aspect. The reverse of the inscription shows traces of punch made rustication from the very beginning, showing that the piece was mortised into a larger structure. While preparing the stone (*ordinatio*), the stonemason chiselled a series of horizontal lines still visible to mark the top and bottom of each row of lettering.

The letters are of equal height of ca. 0.05 m (the depth of the letters goes between 0.002-0.003 m) and were executed with great care; the words are correctly separated through triangular incisions (*interpunctio*). The object is part of a serial production and does not have particular artistic qualities shown also by the fact that the letters crowded towards the end of the row. They do not have the same wideness and are not perfectly straight (see the N letters from *annis*). The calligraphic details from the surviving fragment are the following: on the first line we can distinguish only the lower half of the letter 'M' from the abbreviation *D(is) M(anibus)*, marks the beginning of the inscription. On the second row we can notice the ligature T+A, in the third row, the letter O can be found inside the letter C and here we can also identify an R, on the fifth row there can be observed the last three letters (NIS) followed by a second letter (IM, VM, AN or IN), which the authors of the original publication from 1997 were attributing to a superlative form like [...] INNIS(*imo*).

After completing the cutting of the letters, the monument was dyed in red mineral paint (lead *minium*), whose traces can be still noticed in the crevices of the lettering, on the smoothed off front face containing the inscription, as well as on decorative elements belonging to the border (on the vine and the grape). Due to its fragmentary state, the monument can only broadly be categorized according to the latest typology of the funerary monuments from *Moesia Inferior* elaborated by Sven Conrad, in one of the I-IV types of funerary steles[318].

The reading proposed in the original publication was the following:

[D(is)] M(anibus)
[.... Ce]LSO STA
[tiellis p]RAEF(ecto) COH(ortis)
[I German(orum) v]IXIT ANN(is)
[...]INNIS(imo?)

Translation: To the Manes. (To Him)… Celsus from Aquae Statiellae, prefect of the cohort [I Germ(anorum)?], who lived ….. years ……. INNIS ……

The inscription provides information about a third prefect of the military unit stationed at *Capidava*. Until this recent discovery only two commanders of the *cohors I Germanorum* were attested at *Capidava*: L. Atilius[319] and C. Munatius Venustus[320] on inscriptions found when unveiling the perimeter walls of the towers.

We do not know the full name of the third commander or the age of his death. The missing piece of the inscription might show up in future excavations, or perhaps a reference on a votive monument or in a military diploma could offer the necessary elements for the correct recording of his name. However, all that we can assume at this point is that the owner of the funerary monument died young, before having been promoted from the command of a *cohors quingenaria*,

[318] CONRAD 2004, types I-IV, Taf. 11 (Typ I – Profilgerahmte Stelen mit Dreieckgiebel; Typ II –Profilgerahmte Stelen mit Rundgiebel); Taf. 12 (Typ III – Profilgerahmte Stelen mit Kopffeld; IV – Stelen mit profilgerahmtem Inschriftfeld).
[319] Capidava I 17, 94–95 = ISM V 16 (votive altar).
[320] Capidava I 24, 101–104 = ISM V 36 (funerary inscription).

corresponding to junior rank of the three *militiae equestres*. Another certain fact is that this unknown commander must have had the *cognomen* [Mu]lsus or more likely [Ce]lsus[321].

The tombstones frequently specify the town of origin where soldiers died away from home. This is also the case of our inscription. The last three letters from the second line allowed us to identify the place of origin of the prefect of the cohort (from *Capidava*): *Stabiae* had disappeared during the eruption of the Vesuvius in 79 AD, which is why the only remaining option would be *Aquae Statiellae*[322], a city, that during Trajan's rule, was under the patronage of a successful and possibly related character – [...]us Cam(ilia tribu) Celsus[323]. Coming from the same Ligurian city, was a previously known veteran, Lucius Ennius Ferrox, a *speculator* from the Praetorian troops, retired during Vespasian's reign[324]. The diploma of this praetorian discharged on December 2, 76, was found at Constanța, on the sea shore in December 1867, and later taken to the Kunsthistorisches Museum in Vienna.

After the initial publication, an alternative reading was proposed by Sven Conrad[325]: *[D.] M. / [--- Ce]lso sta/[tori p]raef(ecti) coh(ortis) / [I German(orum) v]ixit ann/[is --- mi]l(itavit) annis / [---].* Florian Matei-Popescu was also inclined to accept this reading, which, if proven correct, would constitute the first attestation of a *stator praefecti cohortis quingenariae*[326].

Since no analogies have appeared in the two decades after the original publication we are compelled to accept the initial reading[327.] What Alfred von Domaszewski was stating, more than a century ago, in his monumental work *Die Rangordnung des römischen Heeres*[328] remains valid to this day, despite the considerable literature accumulated in the meantime on the topic[329]. From the beginning, Sven Conrad's analogy with the inscription from *Cius* does not answer the central question, *i.e.* the possibility of discovering for the first time a *stator praefecti cohortis quingenariae*, the respective funerary epigraph being attributed to G. Valerius Herculanus, a former *stator praefecti alae II Aravacorum*[330]. This interpretation is in line with what we already know from von Domaszewski[331]. There would still be a question about the *statores* attributed by B. Dobson to the *tribunus cohortis XX Palmyrenorum* from *Dura Europos*[332], where the military structure is rather a *cohors equitata milliaria*. Another inscription substantiates this interpretation; it was carved on a sarcophagus found at *Intercisa, Pannonia Inferior*, recording *Marcus Aurelius Desan*, *domo Hemesa*,

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321 See the entire demonstration at OPRIȘ, POPESCU 1997, 179, n. 5. The authors suggested a reconstruction of the name based on with *tria nomina*, because of the limited space on the register. On the same occasion, they excluded the existence of a *stator* of the cohort prefect, a degree too small to be the beneficiary of an "état-major".

322 OPRIȘ, POPESCU 1997, 180, n. 6. For localization see http://pelagios.org/maps/greco-roman/.

323 CIL V 7153. See OPRIȘ, POPESCU 1997, 180, n. 7, where there can be found the information about his career [...]us Camilia Celsus. He was a patron in his city of origin, *Alba Pompeia*, but also at *Aquae Statiellae*, *praefectus coh. Breucorum*, in *bellum Dacicum Traiani* and *adlectus* during the same Emperor in the Senate. Both cities are situated in the area near the Ligurian coastline, above the port city of Genoa. PETOLESCU 2014, 294 identifies him with Lucius Publilius Celsus (*PIR*², P 1049), an important general of Trajan, *consul suffectus* in 102 and *consul ordinarius* in 113.

324 ISM II 8.

325 CONRAD 2004, no. 254, 194.

326 MATEI-POPESCU 2010, 214–215.

327 In favour of our reading from 1997, see PETOLESCU 2014, 293–294. We would like to thank also Dr. Mihai Popescu (CNRS, UMR 8210 ANHIMA – Anthropologie et Histoire des Mondes Antiques, Paris) for the recent discussions on this subject and for supplying us concludent epigraphical information for reanalysing the inscription.

328 DOMASZEWSKI 1908, 53–59, where he analyses the *cohortes* and *alae*, listing the *principales* and the composition of the *officium praefecti*.

329 MATEI-POPESCU 2010, 214, n. 1870.

330 CONRAD 2004, 186–187, 230 (*Cius*) = ISM V 117.

331 DOMASZEWSKI 1908, 55–56.

332 B. Dobson, in DOMASZEWSKI 1967, XVII (AE 1931, 116).

vet. ex s(ta)tore tribuni cohortis I (milliariae) Hemesenorum[333]. What has indeed changed since the 1997 publication of the inscription from *Capidava* is the moment when the *cohors I Germanorum* is attested as a troop of *Moesia Inferior*. Thus, the discovery of a new military diploma[334], dates this moment closer to 121 AD (May-December), rather than 139–142 AD, as previously suggested[335].

Finally, the last open question remains the military unit to which the defunct belonged: *cohors I Ubiorum*[336], or *cohors I Germanorum*[337]. The initial interpretation describes him as the commander of the *cohors I Germanorum*. However, a more recent theory suggested that the defunct had died in battle during the Trajan`s Dacian War, and the comrades from *cohors I Ubiorum* had him buried at *Capidava*, the unit`s last location before its transfer to Transylvania[338].

This interpretation remained quite plausible until we found another fragment in *Capidava*`s archaeological depot; it belongs to the lower right side of a funerary inscription, which we consider to be the last section of the one presented earlier on (frgm. 2). This could be confirmed thanks to the photographic films in the archive of the late Prof. Radu Florescu[339]. In the film one can distinguish this fragment together with a third one which perfectly matches the lower left side (frgm. 3)[340]. The latter could not be found in the depot and therefore makes the photographic evidence all the more precious.

What follows is a reading of the entire piece along with further explanations regarding this matching pieces belonging to the same epitaph. From the correspondent positioning of the three fragments we have reconstructed the following text:

1 [D] M
[--- CE?]LSO STA-
[TIELLIS P]RAEF COH
[I GERMAN V]IXIT ANN
5 [--- MI]L ANNIS
[---]
[---]
[FR]ATRI PI[EN]TISSI-
[M]O POSVERVNT
10 [A]VE VALE

1 [D(IS)] M(ANIBUS)
[--- CE?]LSO STA-
[TIELLIS P]RAEF(ECTO) COH(ORTIS)
[I GERMAN(ORUM) V]IXIT ANN(IS)
5 [--- MI]L(ITAVIT) ANNIS
[---]
[---]
[FR]ATRI PI[EN]TISSI-
[M]O POSVERVNT
10 [A]VE VALE

Consequently, the new text reads: [D(is)] M(anibus) / [--- Ce?]lso Sta/[tiellis p]raef(ecto) coh(ortis) / [I German(orum) v]ixit ann(is) / [--- mi]l(itavit) annis / [--- et] / [---] / [fr]atri pi[en] tissi/[m]o posuerunt. / [A]ve vale.

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333 CIL III 3334 = 10316 = RIU 5 1184. To this inscription refers (…. *may also be considered*) also MATEI-POPESCU 2010, 214, n. 1879. Besides the fact that this unit is a *milliaria* cohort, not even the reading proposed in RIU 5 remains beyond dispute: CIL III 10316 reads *cornicularius*, instead of *stator*, *Marcus Aurel(ius) Deisan domo Hemes[a] ve[t(eranus)] [e]xs [c]or(nicularo) trib(uni) coh(ortis milliariae) H[e]m(esenorum) ……..*

334 MATEI-POPESCU 2010, 214, n. 1870; WEISS 2008, 296–300, n° 10.

335 OPRIȘ, POPESCU 1997, 181.

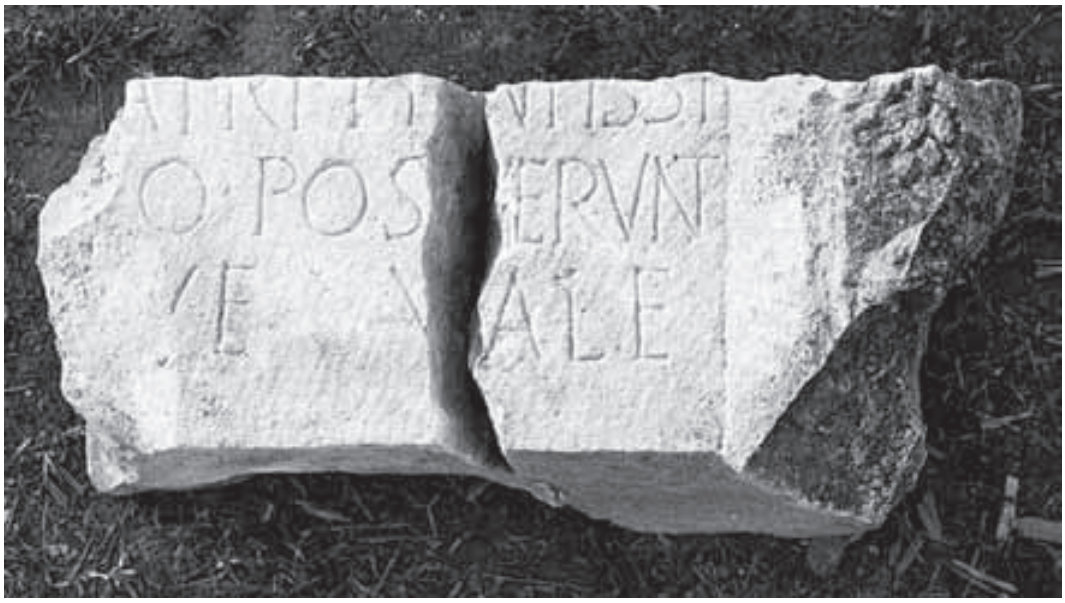
336 MATEI-POPESCU 2010, 235–236; ISM IV 2 (the Oltina diploma, dated August 14th, 99).

337 MATEI-POPESCU 2010, 213–215

338 PETOLESCU 2014, 294. This reading modifies even the initial dating of the monument, bringing it to the first part of the 2nd c. AD.

339 Former Head of archaeological excavation at *Capidava* (1965–2003).

340 We do not have accurate information on the circumstances in which Fragments 2 and 3 were found. However, they seem to have been discovered during the intensive archaeological research in the 1970s, when large surface excavations in the Northern Sector I of the site revealed the upper levels of Middle Byzantine sunken dwellings.



Frgm. 2 and 3.

Frgm. 3.

The second fragment is 32 cm long × 29 cm wide with a thickness of 28–32 cm, similar to the first fragment (measurements of the inscribed front surface and respectively of the border); the central inscribed panel is preserved on a width of 12.5–14.5 cm. From the preliminary analysis of the fragments, we can notice the obvious similarity of the rock (in aspect and quality) belonging to the two preserved fragments. The traces from the back of the second fragment are due to the same treatment done with the punch in order to have them incorporated in an ensemble, a detail observed from the initial publication of the first fragment (1997). The depth of the oblique frame, its angle versus the inscribed panel, and finally, the decorative elements preserved – the grape on a vein, indicate the same manufacturing site and moreover the elements of the same funerary monument. To these observations, we can add as further arguments, *i.e.* the similar thickness of the second fragment and faint traces of painting on the panel and in the crevices of the lettering with the same red mineral paint as the one found on the first fragment.

The paleographic elements, starting from the dimension of the letters and the details of their craftsmanship, indicate further similarities. The way in which the stone mason carved the *interpunctio* (by triangular incisions – épine de rose) can be noticed on several instances on the fragment from the upper right, having a perfect equivalent in the photograph of the fragment from the lower side.

The size of the letters is similar, with a slight enlargement towards the end, where the stonemason considered he had enough space. Thus, the lower side of the letters preserved from the first row of the word *[pie]ntissi(mo)* measures 3 cm, the one from the second row has 5 cm, and, finally, the ones from the final row have 5.4–5.5 cm.

The writing is identical for the letter O in the first and third fragment, the letter E has on all three fragments a lower bar shorter than the others, the letters A and S are also similar, all of them together reinforcing the argumentation of a single funerary monument. In addition, the final ligaturing from the second and third rows (T+A) and from the row next to last (N+T), but also the reduction in letter size for abbreviating *coh(ortis)* as well as the space between the letters towards the end of the line were all done by the same hand.

Another observation is that unlike many other known cases where the lettering of the text may start large only to get smaller as the lines progress, this inscription ends with a bigger sized salute phrase.

Regarding the writing manner of our inscription, the ligaturing C+O from *coh(ortis)* has an analogy at *Capidava*, in the funerary inscription dedicated by C. Munatius Venustus, *praefectus cohortis I Germanorum,* to his wife, Fabricia Saturnina[341]; without taking into account *tegulae* dating also from the 2nd c.[342], a similar ligature is found at *Sucidava*, on an altar dedicated to the tribune of the cohort *I Cilicum milliaria equitata sagittariorum*[343].

Furthermore, specific aspects such as the end phrase or decorative details need to be pointed out.

If the three fragments belong to the same inscription, then we need to remark the last phrase: *Ave*, *vale*[344]. We cannot find a perfect equivalent anywhere in the neighbouring area, but it can be found, with different versions, at *Histria* and in *vicus Quintionis*, where several funerary inscriptions dating from the 2nd–3rd c. AD finish with the salute *Ave viator et vale*, *have/ave viator*[345]; other three inscriptions of a later dating can be found at *Tomis* or in the area near the citadel[346]. We will note here the similar phrasing, and as important, the fact that the departed whose monuments

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341 ISM V 36.

342 OPRIȘ 1997b, 278, fig. 1 (*Coh. Ubiorum*); ISM IV 202 b (*Sacidava – Coh. I Cilicum*). COVACEF 2000 mentions a new *tegula* from *Capidava* and susceptible to be the first stamped proof of *Cohors I Germanorum*. The assumption should be further sustained by better preserved analogies, so far unknown: on the cited fragment one can read just *Coh(ortis)* and the numeral (which is likely to be I/ first), if this is not the already *Coh(ortis) Ubiorum* known stamp.

343 ISM IV 172.

344 The funerary salutation appears on several epigraphs from *Capidava*, in several variants: *avete* (ISM V 31 = Capidava I 2, 2nd c.); *va[le] via(t)or* (ISM V 33 = Capidava I 39, 3rd c.); *[a]v[e] viator* (ISM V 37 = Capidava I 32, 3rd c.); *ave vale viator* (ISM V 42 = Capidava I 31, 3rd c.); *resta aviator lege titolo* (ISM V 43 = Capidava I 42, 3rd–4th c.); *[ave?] vale viatur* (ISM V 52 = Capidava I 43, 3rd–4th c.?).

345 ISM I 273, 278, 297, 301, 338 (*Ave viator et vale*); ISM I 307 (*Ave viator*); ISM I 339 (*Have viator*); ISM I 279 (*Avetes supe[ri]*). The general dating is for the 2nd –3rd c., especially ISM I 273, 278 and 279 propose an even earlier dating for the 2nd c.

346 ISM II 351 (187) (*Ave, val(e), viat(or),* 3rd c. (Cumpăna); ISM II 367 (203) = IGLR 17 (*Ave, vale, viat(or)*, 3rd – beginning of the 4th c.). A third Christian epitaph comes from *Tomis*, and dated in the 4th c., see CONRAD 2004, 177 = IGLR 21 = CIL III 7584 = CIL III 13742: *Ave, vale, viator* (4th c.). Finally, there would be added a marble stele placed for a senior official from *Tomis*, with a bilingual inscription and the greeting: *Vale viator*: IGLR 5 (end of the 3rd – beginning of the 4th c.).

were erected during the 2nd c. are people belonging to the army[347]. Other inscriptions ending with related salute formulas can be found throughout the 2nd and the 4th c., at *Halmyris*[348] and *Sucidava*[349] on the Danube, but also at *Tropaeum Traiani*[350] or even closer to *Capidava*, at *Ulmetum*[351] and Casimcea[352]. Analogous inscriptions from *Moesia Inferior* are also recorded in Bulgaria[353].

Another element worth noticing is the way the inscribed panel was delimitated with a simple frame, cut transversally from the raised border[354]. These elements can indicate, beside the standard types used in the area, a possible workshop dating from the 2nd c. (at *Tomis*?), which could have also executed this gravestone from *Capidava*. Regarding the customers who ordered the inscription for our *praefectus* who died in harness, they must have been his brothers, also serving. Their names appeared in lines 6–7 in the nominative case and were at least two. They had enough wealth to afford paying the amount of money needed for erecting a funerary monument of a fair standard, as the stone itself, the lettering and the relief carved decorative details surely indicate.

Cat. No. 177
Fragment of a 2nd c. inscription;
Limestone;
Room III; Context No. 2
W. 38 cm; H. 32 cm; T. 33 cm;
OPRIȘ, POPESCU 1997, 177–181 = PETOLESCU 1998, 753;
1995;
CAP 8616/ 1996

[347] ISM I 273: *sesquiplicarius* from *Ala II Aravacorum*; ISM I 278: *strator consularis legionis XI Claudiae*; ISM I 297: *veteranus, ex decurione alae II Aravacorum*.
[348] ZAHARIADE, ALEXANDRESCU 2011, 28 = IGLR 168: *valete lectores*… (4th c.).
[349] IGLR 189: *valete voi viatores* (4th c.).
[350] ISM IV 57: *avete viatores* (2nd c.).
[351] ISM V 80: *ave viator et vale* (3rd c.); IGLR 207: *have viator* (end of the 3rd c.); 208: *valeates vos qui…* (3rd–4th c.).
[352] ISM V 131: *(h?)ave viator* (2nd–3rd c.).
[353] ILB 155: *valete viatores* (Dolna Bešovica); 302: *viatoris (*sic*) havetis*; 308: *vale viator* (*Novae* – Švištov); 395: *valete viatiores* (Tenča/Obedinenie); 422: *Have* (Pavlikeni).
[354] ISM I 273, 280, 282, 283, 297, 299, 307. At *Capidava* there are several funerary inscriptions with a frame designed with oblique borders, among which several from the 2nd c.: ISM V 29 = Capidava I 26 (end of 2nd c.); ISM V 31 = Capidava I 2 (2nd c.); ISM V 37 = Capidava I 32 (3rd c.); ISM V 38 = Capidava I 4 (2nd c. – first half of the 3rd c.?); ISM V 39 = Capidava I 40 (3rd c.); ISM V 41 = Capidava I 29 (end of the 2nd c. – first half of the 3rd c.).

Cat. No. 177

Plate 31

1

2

3

Plate 32

5.11. The pottery from the medieval context (9th–11th c. AD)

Medieval pottery found during the archaeological excavations from Building C1 are mostly discovered in the context of the B 342/ 1993 dwelling built in the upper layer of Roman debris corresponding to Room 3 of the Early Byzantine edifice. The number of ceramic shards is relatively large, but the variety of forms is rather small. That is why we have decided to present only a few examples of ceramic pots discovered.

The main medieval ceramic form discovered in the archaeological research of Building C1 is the jar-pot. These vessels are characterized by an elongated globular form with prominent shoulders, short neck and flared mouth. The base is straight, sometimes bearing the mark of the potter that produced it. This ceramic form may appear in different sizes, can be decorated in different ways, but the shape of the pot as a whole does not change radically from one piece to the other. Among the discoveries in Building C1 were two main types of jar-pots: middle-size (Cat. no. 181–182) and miniature ones (Cat. no. 180, 183–184).

Such discoveries are common at *Capidava* and have been extensively dealt with in the site's monograph of 1958[355], when the pottery discovered in the excavations of the Middle Byzantine settlement at *Capidava* were first published.

Average jar pots were kept only fragmentary, and we decided to illustrate only three of the examples, each with its decorative particularities.

Miniature jars are usually found whole, especially because of their compact size. In Building C1 two such vessels were discovered and one of them has stamped on its base the manufacturers mark, a stamp already attested at *Capidava*[356]. Analogies of these vessels have been also found in the settlements from Păcuiul lui Soare[357], *Dinogetia*–Garvăn[358], Preslav[359]or Nufăru[360], but also at *Capidava*[361], during the extensive excavations of the 1950s.

Cat. No. 180
Miniature jar-pot;
Medieval dwelling;
Context No. 2;
PH: 4 cm; RD: 9.4 cm;
Small fragment from the rim and body of a medium size jar-pot, early medieval period. The fragment still retains part of the decoration, precisely a set of grooved lines incised on the shoulder of the vessel. The fabric is coarse, containing organic fragments, like straw, and inorganic material;
Unpublished;
2007;
CAP 13072;

Cat. No. 181
Medium size jar-pot;
Medieval dwelling;
Context No. 2; PH: 5 cm;
RD: 13.2 cm;
Small fragment from the rim and body of a medium size jar-pot, early medieval period. The fragment still

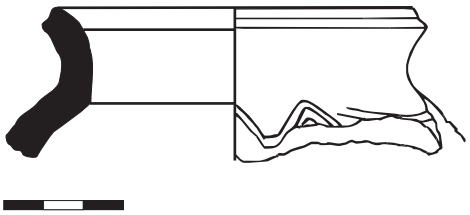
[355] FLORESCU 1958. Most recent exhaustive approach on that topic is CURSARU-HERLEA 2016.
[356] DIACONU 1958, 220 and illustration: 218, pl. XXXI, 3; 219, fig. 114, 18.
[357] HARHOIU 1972, 73–74, fig. 23/12.
[358] COMȘA 1967, 160, fig. 97/10.
[359] VASILEV 2004, 284, fig. 2/1.
[360] VASILE 2014, 252–253, Pl.128–129.
[361] FLORESCU 1958, 196, fig. 100; 199, fig. 107/5.

retains part of the decoration, precisely a set of straight lines incised on the shoulder of the vessel. The fabric is coarse, containing organic fragments, like straw, and inorganic material;
Unpublished;
2007;
CAP 13073;

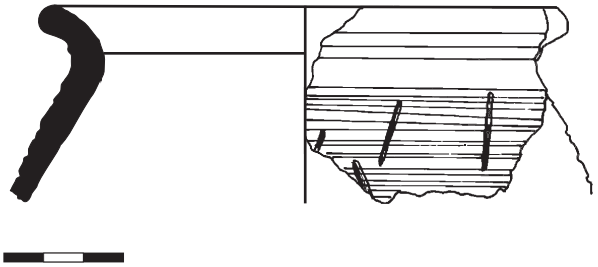
Cat. No. 182
Medium size jar-pot;
Medieval dwelling;
Context No. 2; PH: 5.5 cm;
RD: 16.1 cm;
Small fragment from the rim and body of a medium size jar-pot, early medieval period. The fragment still retains part of the decoration, precisely a set of grooved lines incised on the shoulder of the vessel. The fabric is coarse, containing organic fragments, like straw, and inorganic material;
Unpublished;
2007;
CAP 13074;

Cat. No. 183
Miniature jar-pot;
Medieval dwelling;
Context No. 2;
H: 9.2 cm; RD: 7.1 cm; MD: 9.6 cm; BD: 6.7 cm;
Small size jar-pot, early medieval period. The vessel is decorated with a set of straight lines incised on the shoulder of the vessel. The fabric is coarse, light-grey in colour, contains organic fragments, like straw, and inorganic material;
Unpublished;
1994;
CAP 8967;

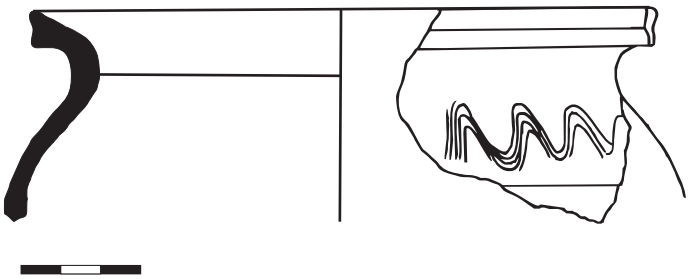
Cat. No. 184
Miniature jar-pot;
Medieval dwelling;
Context No. 2;
H: 9.2 cm; RD: 6.8 cm; BD: 7.4 cm; MD: 9.8 cm;
Small size jar-pot, early medieval period. The vessel is decorated with a set of straight lines incised on the shoulder of the vessel. The fabric is coarse, light yellow in colour, contains organic fragments, like straw, and inorganic material. On the base of the pot is stamped the potters mark;
Unpublished;
2007;



Cat. No. 180



Cat. No. 181



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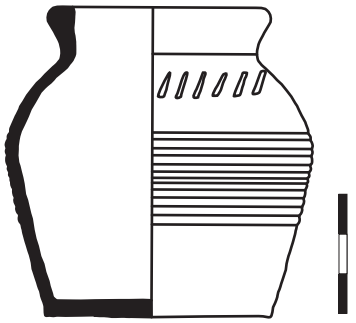
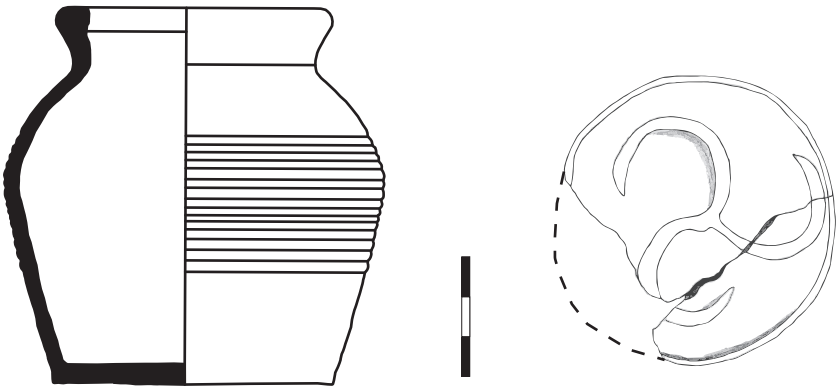


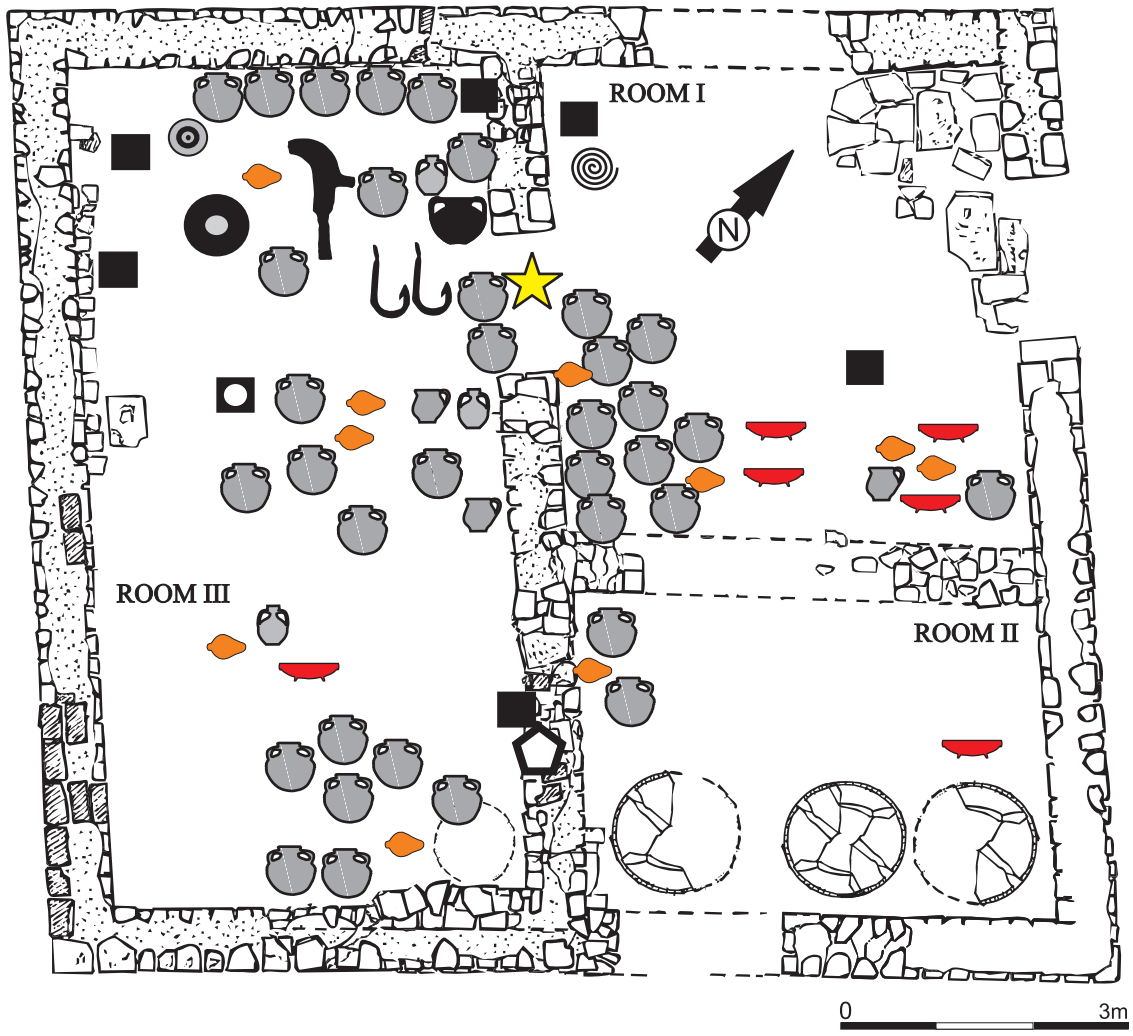
Cat. No. 183



Cat. No. 184

Plate 33

Building C1: Distribution of Finds



KEY:

AMPHORAE	HOARD
ROTARY QUERNS	FELTING MILL
TABLEWARE	VESSELS FOR OIL
SHIELD BOSS	CERAMIC LAMPS
FISHING HOOKS/ BILLHOOK	BRONZE VESSEL
COOKING POT	SCALE TRAY
LOOM WEIGHTS	VESSELS FOR DRINKING

Plate 34

ANNEX I.
A HOARD OF SIXTH-CENTURY COPPERS AND THE END OF ROMAN *CAPIDAVA*

Andrei Gândilă*

During the 2008 and 2009 campaigns a hoard of 51 copper coins was found inside Building C1 in a sixth-century context (Context no. 5).[1] The archaeological assemblage was rich in artefacts including amphorae and terracotta lamps, some of them intact, mixed with debris and burnt remains from the collapsed building. The hoard itself was found near the South-Western entrance, on the doorstep between Rooms I and III leading to a floor covered by fragments of amphorae darkened by a strong fire. Some of the coins were found overlapped like rows of cards, a clear indication of their original position. The coins were originally stacked in a wooden box or placed on a shelf judging by the pieces of charcoal found with the hoard; however, a closed container is more likely since the coins did not scatter on the floor when the structure collapsed. The coins themselves showed traces of severe burning and some were fused together as a result of the high temperature which consumed the building. Although the hoard is by far the most significant numismatic find, the evidence collected from Building C1 also includes several single finds which add precious data to our understanding of the local monetary economy. A fourth-century Late Roman AE3 was found in close proximity to the early Byzantine hoard. Other fourth-to-fifth-century coins affected by the same fire were scattered on the floor in different parts of the room, which raises once again the issue of the prolonged circulation of Late Roman coinage deep into the sixth century.[2] An additional early *follis* of Justinian (527–537) found in the same context strengthens this hypothesis.

The structure of the hoard reflects the nature of the monetary economy on the Lower Danube frontier as well as wider hoarding patterns in the Balkans.[3] A typical characteristic of the hoard is the high frequency of large denominations, particularly heavy *folles* of Justinian (538–550). These unusually large *folles* remained in circulation until the end of the sixth century, despite the gradual reduction of the official weight standard. In fact, by 580 when Building C1 was destroyed by fire the copper *follis* had dwarfed significantly, being up to 50% lighter than Justinian's heaviest issues. How common was the prolonged circulation of Justinianic *folles*? The available evidence advises against sweeping generalizations.[4] What is true for the northern frontier of the Balkans can hardly be extrapolated to other regions of the early Byzantine world. We are best informed about hoards from Syria-Palestine, most of which are a few times larger than the average Balkan hoard. Despite

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1 GÂNDILĂ 2009, 87–105.

2 CURTA, GÂNDILĂ 2012, 59–62.

3 GÂNDILĂ 2008, 305–334, esp. 309–310.

4 GÂNDILĂ 2012, 363–402, esp. 368–374 for hoarding.

this, the dated coinage of Justinian is seriously underrepresented in Near Eastern hoards suggesting different patterns of coin circulation (fig. 1). Even those hoards which do include post-reform Justinianic issues, such as Khirbet Dubel, Tell Bissé, *Baalbek*, Khirbet Deir Dassawi, Qazrin, as well as several Syrian hoards whose finding place remains unknown, boast a conspicuous gap for the years 538–542, which corresponds to Justinian's heavy coinage.[5] To be sure, differences in chronology may be brought into discussion as the hoarding frenzy in the Balkans reached its peak during the last quarter of the sixth century, while Near Eastern hoards are generally of a later date. That still does not help explain why a large accumulation like the Rafah hoard (327 coins), concealed shortly after 574, has no post-reform coins of Justinian (538–565) while including no less than 51 coins from Anastasius (498–518).[6] By comparison, the hoard from *Capidava*, lost after 580, has a total of 51 coins out of which 15 are post-reform issues and 7 actually belong to the heavy coinage of 538–542.

Returning to the Balkans, the hoard from *Capidava* can be placed in a wider context of hoards clustered in the provinces adjoining the Danube frontier (fig. 2). This includes the hoards from Sadovec, Veliko Orašje, Veliko Gradište, Boljetin, Slatinska Reka, Tekija, *Axiopolis*, *Halmyris*, Koprivec, Varna and *Abritus*, concealed and lost towards the end of Justin II's reign or during the short reign of Tiberius II.[7] All hoards display the same characteristic: the high frequency of post-reform Justinianic issues. The fact that such coins were still available for hoarding at a time when the weight standard had been drastically reduced betrays the difficulties encountered by the state in withdrawing irregular coinage, which was typically done through the collection of taxes. Hoard evidence points to a more efficient implementation of monetary policies in the provinces of the Eastern Mediterranean, wealthier and strongly urbanized compared to the impoverished and heavily militarized Northern Balkans. Moreover, the creation of the *quaestura exercitus* in 536 reveals the weakness of a fragile economy breaking under the weight of Justinian's ambitious program of reconstruction and fortification in the Balkans.[8] Serious disruptions in the collection of taxes, documented in contemporary sources, delayed the withdrawal of Justinian's coinage.[9] Indeed, those unusually large coins remained a major component of the local economy until the last decade of the sixth century when the Byzantine government was faced with a new crisis. The rapid withdrawal of Justinian's coinage from the Balkans in the 590s must have been prompted by an acute shortage of metal needed for striking fresh coins on the smaller weight standard. Faced with an increasing financial pressure, Maurice was even forced to reform military salaries and pay them partly in kind, his avarice earning him the derogatory nickname "Markianista" in Constantinople.[10] The fact that many late *folles* of Maurice are actually restrikes over Justinianic coins whose edges had been trimmed down to size clearly reflects such emergency efforts.[11] All this seems to suggest that irregular taxation patterns were probably combined with a lack of interest in regulating the circulating mass in the frontier region of the Balkans in the middle decades of the sixth century, which allowed Justinian's coinage to remain in use for much longer than elsewhere.

The hoard from *Capidava* offers precious insights into the Empire's deep crisis during the second half of the sixth century. The tragic and unexpected circumstances of its loss indicates that we are not dealing with a savings account of coin carefully selected for hoarding from a more

[5] POTTIER 1983; TODD 1987, 178–179; MANSFIELD 1995, 355; ARIEL 1996, 70, table 1; BATES, KOVACS 1996, 166; NOESKE 2000; NAISMITH 2004, 297.

[6] SPAER 1978, 66–70.

[7] MORRISSON *et alii* 2006, n. 241, 265, 264, 259, 248, 249, 65, 47 and 59; RADOSLAVOVA, DZANEV 2003, 136.

[8] TORBATOV 1997, 78–87.

[9] POPESCU 2005, 379.

[10] YANNOPOULOS 1987, 129; GRAEBNER 1982, 181–188.

[11] GÂNDILĂ 2012, 370–371.

diverse circulation pool. It is more likely a snapshot into the monetary economy of *Capidava* around 580, as rudimentary as it was. The presence of heavyweight coins of Justinian, conspicuously absent among finds from Constantinople, for instance, confirms that they were used locally in the Danube region.[12] This may explain why the *follis* from Carthage minted in 539/540 – a *rara avis* in the Northern Balkans – was still in use at *Capidava* four decades later.[13] On the other hand, some degree of selection should not be completely ruled out. While the chronological structure of the hoard nicely dovetails with the evidence of single finds from *Capidava*, the age balance of the hoard being typically skewed toward the decades closer to 580 (fig. 3), the owner clearly favoured higher denominations, *folles* in particular (fig. 4).[14] Typically, we would have expected a larger number of half-*folles* of Thessalonica, well represented among the single finds from *Capidava* and from other fortresses of the Lower Danube (fig. 5).[15]

In any case, the total sum of 46.5 *folles* in the hoard was far from constituting a fortune, even in the desolating landscape of the Northern Balkans. Unfortunately, we are poorly informed about prices and wages in the early Byzantine world, most of the information being anecdotal. In addition, the examples are drawn from markets far from the Danube, usually in Egypt or Syria-Palestine. A. H. M. Jones estimated the average military income at 1.5 *solidi*/year, which would translate into c. 70 *folles*/month according to the exchange rate between the *solidus* and the *follis* (c. 580).[16] Around the time when the hoard from *Capidava* was lost in the fire, a stone cutter in Egypt was making c. 480 *folles* a month and 10 litres of olive oil sold in the same province for c. 190 *folles*.[17] While such price levels may not have applied to the Danube region, they offer clear indication of the fact that 46.5 *folles* was a modest sum by any standards.

What explains the peculiar nature of coin circulation in the Balkans? Both literary and archaeological sources indicate that the Balkan provinces were not considered a top priority as long as Constantinople was not in danger. Justinian and his immediate successors were more concerned with expansion and consolidation in the West and the protection of the Eastern provinces against Sasanian Persia. In the northern Balkans and the Black Sea region, diplomacy and the customary *divide et impera* remained the main Byzantine strategy for maintaining stability.[18] Maurice's own planning is a case in point. Despite the devastating raids of the Avars and the loss of Sirmium (582), the emperor waited for the resolution of the Persian campaign before taking any action in the Balkans. Furthermore, his successor Phocas (602–610), hailed emperor by the Balkan army, preferred to accept a significant raise of the annual tribute paid to the Avars in order to devote his full attention to the Eastern crisis. Although the result of a single event, the destruction of Building C1 at *Capidava* was an indirect consequence of long-term imperial neglect of the Northern Balkans in favour of other theatres.

With attention drawn elsewhere it is not surprising that insecurity slowly mounted in the frontier region of the Lower Danube. The historical significance of hoarding in the late sixth-century Balkans has received ample treatment in scholarship.[19] Although buildings could be consumed by fires unrelated to barbarian invasions, a significant concentration of hoards in the same region cannot be coincidental. With respect to a spike in hoarding at the end of the 570s Costel Chiriac has suggested a connection with the Avar expedition against the Slavic tribes settled in the region

[12] HENDY 1986, 278–313; HENDY 2007, 175–276.
[13] GÂNDILĂ 2016, 136–143.
[14] All single finds up to 2006 can be found in GÂNDILĂ 2006–2007, 113–118. Since then several more coins have been published for which see CUSTUREA 2008, 536–537, no. 11–19; CUSTUREA 2012, 620–621, no. 6–18.
[15] GÂNDILĂ 2008, 323, table 5.
[16] JONES 1964, 447; MIBEC, 10–11.
[17] MORRISSON, CHEYNET 2002, 837; 864.
[18] PATOURA 1997, 78–86.
[19] POPOVIĆ 1978, 614–622; CURTA 1996, 65–224, esp. 103–108; IVANIŠEVIĆ 2006, 75–93, esp. 80–81.

of Eastern Walachia and Southern Moldavia.[20] However, his suggestion that the Avars damaged the Danube frontier in *Scythia* fails to acknowledge a crucial point: the Romans themselves hired the Avars for this job and their passage along the right bank of the Danube before crossing to the lands held by the Slavs would have been closely monitored by the Roman commanders from *Illyricum* and *quaestura exercitus*.[21] In addition, the Avar campaign against the Slavs of Dauritas was a resounding success. What, then, would constitute a plausible explanation for the destruction of Building C1 at *Capidava*, a devastation of much larger proportions since the inhabitants soon took the drastic decision of abandoning the main walls and reducing the fortified area to a quarter of its original size?

The latest coins in the hoard are two half-*folles* of Tiberius II. Both seem to belong to the heavier standard in use between 578 and 580, although the date may be pushed up to 582 given the criteria for dating this coinage.[22] Two other single finds at *Capidava* may date from the same early years: a 30-nummia issue and a half-*follis*.[23] Furthermore, there are no coin finds recorded at *Capidava* for the years 580/2–586. One might argue that the break in coin circulation can indicate that the hoard itself was lost after 586, but it is more likely that the gap is a direct result of the events which led to the loss of the hoard in the collapsed building.[24] If the destruction cannot be attributed to the Avars who crossed the Danube against the Slavs in 579, the explanation may be found in the account of John of Ephesus who tells us in his usual dramatic tone that the Slavs "pillaged and burned everything all the way to the Long Walls."[25] The beginning of this devastating series of incursions was dated to 581 and its consequences have been long debated by historians and archaeologists.[26] Furthermore, generalized insecurity in the region led to extensive hoarding, well documented in the North-Eastern Balkans through the finds from *Axiopolis*, Varna (Galata), *Abritus* and Koprivec.[27]

Slavic invaders could have sometimes crossed the river by using the ford guarded by *Capidava*. Additional evidence gathered from other fortified settlements in *Scythia* can shed more light on the chronology and general direction of the attacks. The reconstruction remains tentative because of the rapid succession of invasions during the decade between c. 576–586. To be sure, some important fortresses were not affected at all by the early wave of attacks. South of *Capidava*, in *Moesia Secunda*, coin circulation continued uninterrupted at *Durostorum*, while at the northern end of Dobrudja, *Dinogetia* remained untouched.[28] Excavations at *(L)ibida*, one of the most important early Byzantine settlements in the centre of *Scythia*, have yielded several coins of Tiberius II and coin circulation continued without any break until the reign of Maurice.[29] To the north, *Noviodunum* displays a similar pattern.[30] At *Beroe*, on the other hand, archaeologists have uncovered evidence of destruction dated after 575/6, while at *Troesmis* a similar event was coin-dated post–571/3.[31] In

[20] CHIRIAC 1993, 191–203.
[21] MADGEARU 1996, 40.
[22] MIBEC, 40.
[23] GÂNDILĂ 2006–2007, 118.
[24] The Avar offensive of 586 provides an alternative scenario for the destruction of Building C1, if we are looking to place the hoard in connection with another major historical event known from contemporary accounts. However, the absence of any issues of Maurice makes this later date unlikely, given that the overwhelming majority of hoards concealed in the Balkans in the second half of this decade include issues of Maurice from the early years of his reign. See CURTA, GÂNDILĂ 2012, 104–105.
[25] John of Ephesus, *Historia Ecclesiastica*, VI, 25.
[26] MADGEARU 1997, 19.
[27] MORRISSON *et alii* 2006, n. 47, 59; RADOSLAVOVA, DZANEV 2003, 136.
[28] MITREA 1974, 61.
[29] IACOB 2009, 74.
[30] POENARU-BORDEA *et alii* 1995, 155.
[31] BAUMANN 1980, 172; VÂLCEANU, BARNEA 1975, 210–215.

addition, two hoards from *Halmyris* have a closing date of 574/5 and 576/7, respectively and have been connected with previous Slavic attacks from 577/8.[32] At *Argamum*, G. Poenaru Bordea and Mihaela Iacob have associated the absence of coins from 580–582 with the high levels of insecurity in the province, but the arrival of fresh coin picked up again in 582.[33] It would seem that the Slavic invasions initiated at the beginning of the 580s targeted the Danube frontier and followed a general direction across Thracia towards Constantinople. Further evidence from *Carsium*, *Axiopolis* and Adamclisi could strengthen this hypothesis.

In addition to such wider implications, the hoard helps us refine the chronology of the early Byzantine phase at *Capidava* (Phase IV). Indeed, sub-phase N2 does not end in 576–578 as I have previously suggested, but most likely a few years later when the same Slavic invaders launched a four-year loot and plunder spree in Thracia.[34] The rich archaeological context of Building C1, whose chronology is conveniently calibrated by this coin hoard, affords a better understanding of the last Roman decades at *Capidava*. For the time being corroborating the evidence from Building C1 with destruction documented in other areas of the fortress can only be tentative. Successive devastation by fire has been identified by Zaharia Covacef in Sector V (section K76), coin-dated after 541/2 and 568/9, respectively.[35] A similar destruction was documented in Sector III (section T72) and dated with two coins fused during the destructive fire. After cleaning they turned out to be *folles* from 542/3 and 543/4, respectively.[36] The correlation between the early destruction in Sectors III and V seemed inescapable, but a secure dating to the reign of Justinian is precluded by the fact that such coins remained in circulation until the end of the century.[37] Their date stamp constitutes only a *terminus post quem*. We may in fact be dealing with a single major event which led to the destruction of a larger area of the fortress sometime between 580 and 584, especially since further excavation under the late sixth-century layer where the hoard was found did not yield any evidence of previous destruction in Building C1 that could be dated to the 540s and aligned with the contexts mentioned above.

Although several pieces are still missing from the chronological puzzle of early Byzantine *Capidava*, there is enough evidence to support the idea that devastation and uncertainty during the second half of the sixth century left the settlement depopulated and impoverished with its ties to the Byzantine world growing increasingly thin. It is likely that the decision to build a reduced defensive perimeter in the wake of the fire that destroyed Building C1 was a final attempt to hold on to the fortress. A *follis* of Maurice from 594/5 found north of Building C1 under the makeshift wall built to secure the new perimeter suggests that portions of the new fortification had to be repaired, perhaps as a result of renewed Avaro-Slavic attacks.[38] Unfortunately, only certain sections of this poorly made wall survive which limits our ability to identify distinct construction phases. In any case, the last early Byzantine coin documented at *Capidava* is a *follis* of Heraclius from 612/3.[39] Nothing clear is known about *Capidava* after this date and the former Roman fortress descended into a long "Dark Age" which lasted until the Middle Byzantine restoration of the Lower Danube frontier.

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[32] POENARU-BORDEA 2003, 185.

[33] IACOB, POENARU-BORDEA 2000, 785. Coins did not necessarily arrive in a region immediately after they were issued; as long as they remained legal tender, coins could have been lost decades after their stamp date.

[34] GÂNDILĂ 2006–2007, 105.

[35] COVACEF 1988–1989, 191.

[36] OPRIȘ 2003, 25.

[37] GÂNDILĂ 2006–2007, 102–103.

[38] GÂNDILĂ 2006–2007, 106, where I raised the possibility that the perimeter was built only after 595.

[39] GÂNDILĂ 2006–2007, 112, no. 19.

Catalogue

1. Anastasius I
AE ↙ 9,54 g, 30 × 27 mm
½ follis, Constantinople MIBE 33, a. 512–517
2. Justinian I
AE ↙ 14,16 g, 30 × 26 mm
Follis, Constantinople, off. Δ MIBE 84, a. 527–537
3. Justin I/ Justinian I
AE ↑ 9,45 g, 27 × 23 mm
½ follis, Constantinople, off. Δ MIBE 19/ MIBE 90, a. 522–537
4. Justinian I
AE ↓ 22,41 g, 42 mm
Follis, Nicomedia, off. A MIBE 114, a. 538–539
5. Justinian I
AE ↓ 19,93 g, 40 × 38 mm
Follis, Constantinople, off. B MIBE 95a, a. 539–540
6. Justinian I
AE ↙ 21,65 g, 41 mm
Follis, Constantinople, off. E MIBE 95a, a. 539–540
7. Justinian I
AE ↓ 23,51 g, 42 × 40 mm
Follis, Nicomedia, off. A MIBE 114, a. 539–540
8. Justinian I
AE ↓ 22,29 g, 40 mm
Follis, Carthage, off. SO MIBE 194, a. 539–540
9. Justinian I
AE ↓ 20,68 g, 38 × 36 mm
Follis, Constantinople, off. A MIBE 95a, a. 541–542
10. Justinian I
AE ↓ 20,88 g, 43 × 38 mm
Follis, Constantinople, off. Γ MIBE 95a, a. 541–542
11. Justinian I
AE ↙ 18,61 g, 35 × 33 mm
Follis, Constantinople, off. A MIBE 95a, a. 544–545
12. Justinian I
AE ↙ 16,97 g, 37 × 34 mm
Follis, Constantinople, off. Γ MIBE 95a, a. 542–543
13. Justinian I
AE ↑ 20,48 g, 35 mm
Follis, Constantinople, off. Δ MIBE 95a, a. 543–544
14. Justinian I
AE ↓ 19,43 g, 35 × 32 mm
Follis, Constantinople, off. Δ MIBE 95a, a. 545–546
15. Justinian I
AE → 19,51 g, 35 mm
Follis, Antioch, off. B MIBE 145a, a. 547–548
16. Justinian I
AE → 18,68 g, 34 mm
Follis, Cyzicus, off. B MIBE 120a, a. 549–550
17. Justinian I
AE → 17,75 g, 35 mm
Follis, Antioch, off. A MIBE 146, a. 552–553
18. Justinian I
AE ↑ 8,55 g, 29 × 28 mm
½ follis, Antioch MIBE 154a, a. 555–556
19. Justin II
AE ↓ 6.63 g, 22 × 18 mm
½ follis, Thessalonica MIBEC 68, a. 567–568
20. Justin II
AE ↓ 12,36 g, 28 × 25 mm
Follis, Constantinople, off. A MIBEC 43a, a. 568–569
21. Justin II
AE ↑ 5,13 g, 23 × 19 mm
½ follis, Thessalonica MIBEC 68b, a. 568–569
22. Justin II
AE ↙ 11,91 g, 29 mm
Follis, Constantinople, off. A MIBEC 43a, a. 569–570
23. Justin II
AE ↓ 12.548 g, 30 × 28 mm
Follis, Constantinople, off. Γ MIBEC 43b, a. 569–570
24. Justin II
AE ↑ 12,30 g, 30 × 28 mm
Follis, Constantinople, off. E MIBEC 43a, a. 569–570
25. Justin II
AE ↓ 14,62 g, 30 × 29 mm
Follis, Nicomedia, off. A MIBEC 46a, a. 569–570
26. Justin II
AE ↓ 12,86 g, 29 mm
Follis, Nicomedia, off. B MIBEC 46a, a. 569–570
27. Justin II
AE ↓ 13,17 g, 30 mm
Follis, Nicomedia, off. B MIBEC 46a, a. 569–570
28. Justin II
AE ↓ 1,91 g, 29 mm

Follis, Constantinople, off. B MIBEC 43a, a. 570–571
29. Justin II
AE ↓ 14,82 g, 29 mm
Follis, Constantinople, off. E MIBEC 43c, a. 570–571
30. Justin II
AE ↓ 14,23 g, 28 mm
Follis, Nicomedia, off. B MIBEC 46a, a. 570–571
31. Justin II
AE ↓ 6,77 g, 22 mm
½ follis, Constantinople, off. Γ MIBEC 44d, a. 571–572
32. Justin II
AE ↓ 13,21 g, 26 mm
Follis, Nicomedia, off. A MIBEC 46a, a. 571–572
33. Justin II
AE ↓ 14,49 g, 28 mm
Follis, Nicomedia, off. B MIBEC 46b, a. 571–572
34. Justin II
AE ↑ 13,07 g, 27 mm
Follis, Constantinople, off. A MIBEC 43a, a. 572–573
35. Justin II
AE ↓ 14,45 g, 31 × 30 mm
Follis, Constantinople, off. A? MIBEC 43, a. 572–573
36. Justin II
AE ↑ 14,27 g, 28 mm
Follis, Constantinople, off. Γ MIBEC 43a, a. 572–573
37. Justin II
AE ↓ 13,13 g, 29 mm
Follis, Constantinople, off. Δ MIBEC 43a, a. 572–573
38. Justin II
AE ↑ 14,60 g, 27 mm
Follis, Constantinople, off. Δ MIBEC 43a, a. 572–573
39. Justin II
AE ↓ 14,15 g, 29 mm
Follis, Constantinople, off. Γ MIBEC 43a, a. 573–574
40. Justin II
AE ↑ 13,14 g, 30 mm
Follis, Constantinople, off. Δ MIBEC 43a, a. 573–574
41. Justin II
AE ↓ 15,21 g, 30 mm
Follis, Nicomedia, off. A MIBEC 46a, a. 573–574
42. Justin II
AE ↓ 13,03 g, 27 mm
Follis, Nicomedia, off. B MIBEC 46a, a. 573–574
43. Justin II
AE ↑ 13,75 g, 27 mm
Follis, Constantinople, off. Δ MIBEC 43a, a. 574–575
44. Justin II
AE ↓ 11,26 g, 27 mm
Follis, Nicomedia, off. A MIBEC 46a, a. 574–575
45. Justin II
AE ↑ 11,58 g
Follis, Cyzicus?, off.? MIBEC, a. 574–575 – Warped
46. Justin II
AE ↓ 6,27 g, 18 mm
½ follis, Thessalonica MIBEC 70a, a. 574–575
47. Justin II
AE ↙ 13,33 g, 30 mm
Follis, Constantinople, off. Δ MIBEC 43a, a. 575–576
48. Justin II
AE ↑ 13,92 g, 28 mm
Follis, Constantinople, off. Γ MIBEC 43a, a. 576–577
49. Justin II
AE ↑ 13,16 g, 29 mm
Follis, Cyzicus, off. A MIBEC 50b, a. 576–577
50. Tiberius II
AE ↓ 5.09 g, 26 mm
½ follis, Constantinople, off. A MIBEC 30, a. 579–582
51. Tiberius II
AE ↑ 1,83 g
½ follis, Nicomedia? MIBEC 38, a. 579–582
Broken, excoriated.

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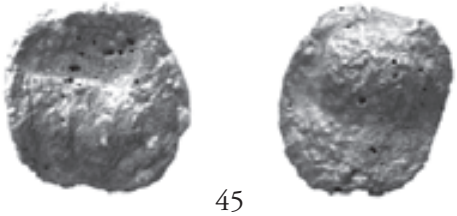

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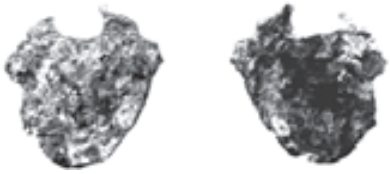

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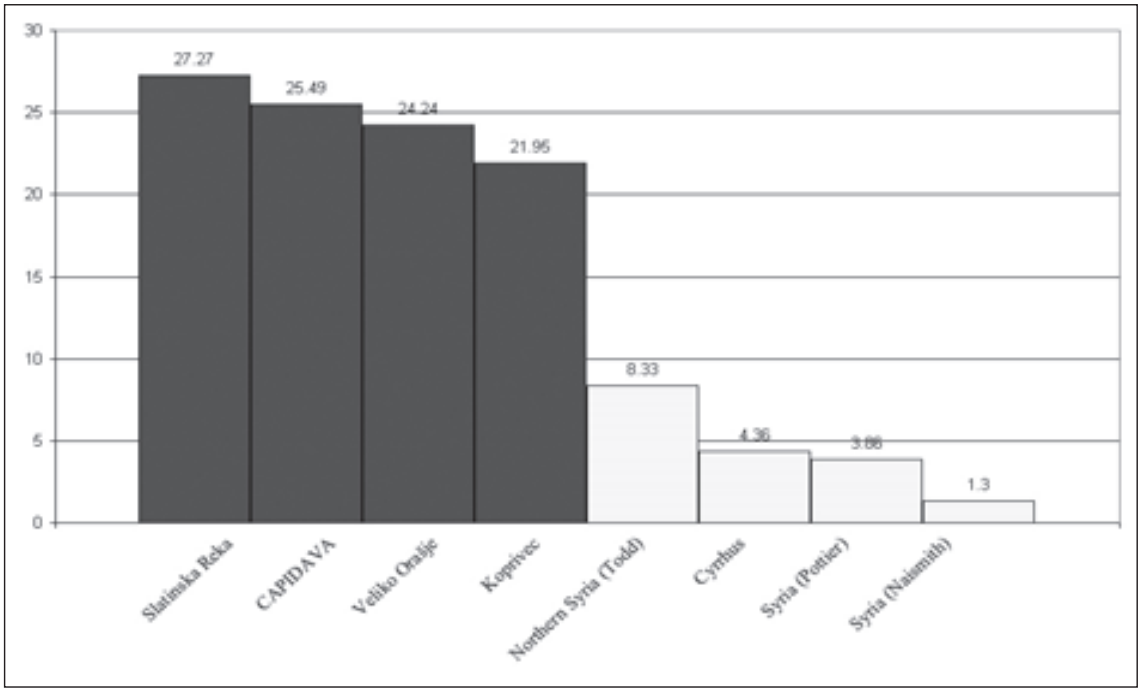

Fig. 1. The proportion of post reform coinage (538–550) in hoards from the Balkans and Syria.

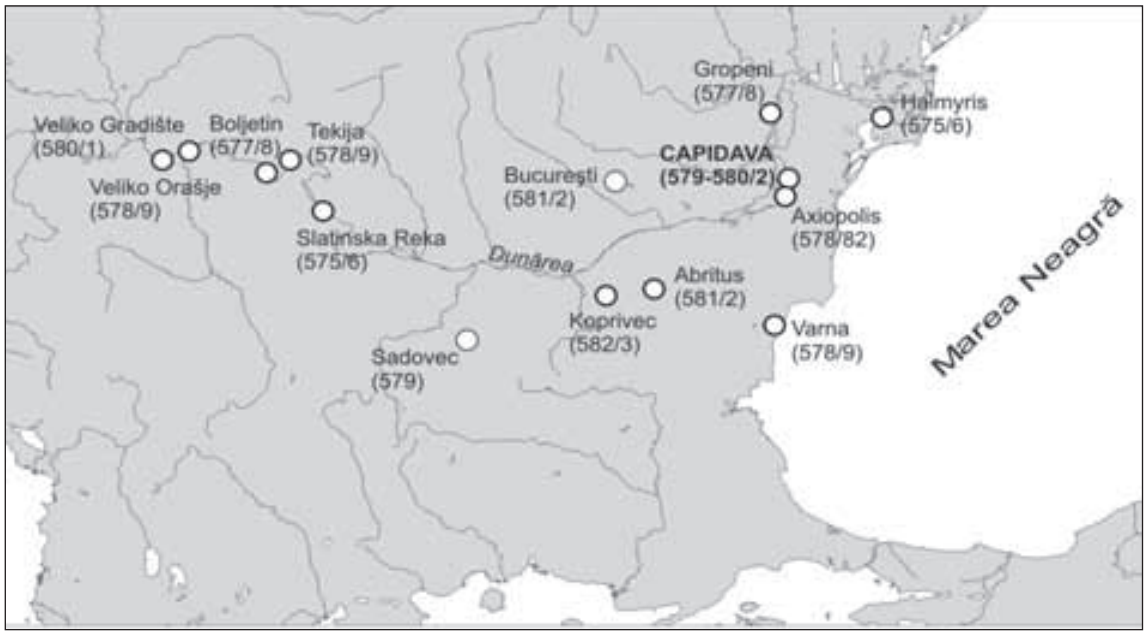

Fig. 2. Contemporary hoards from the Danubian provinces

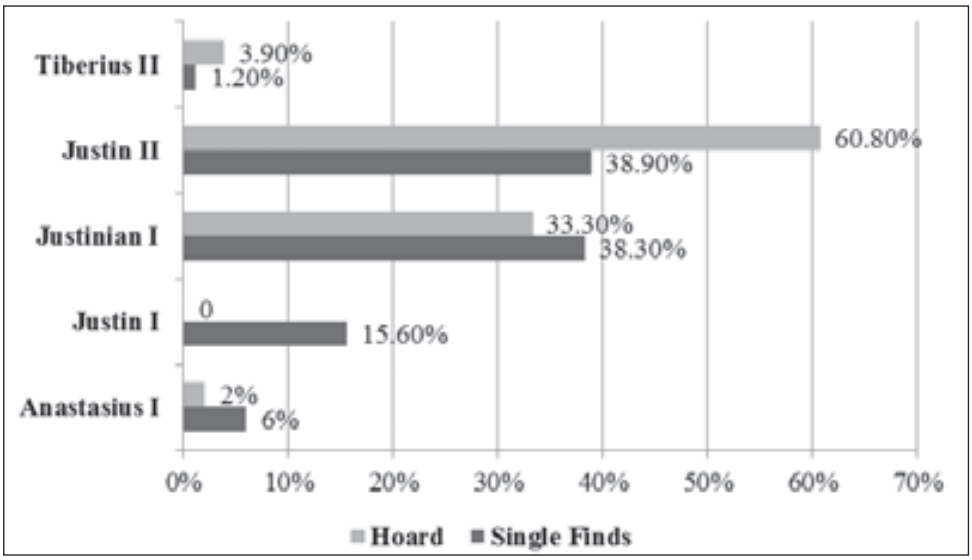

Fig 3. Age structure of coin finds at *Capidava* (Anastasius I through Tiberius II).

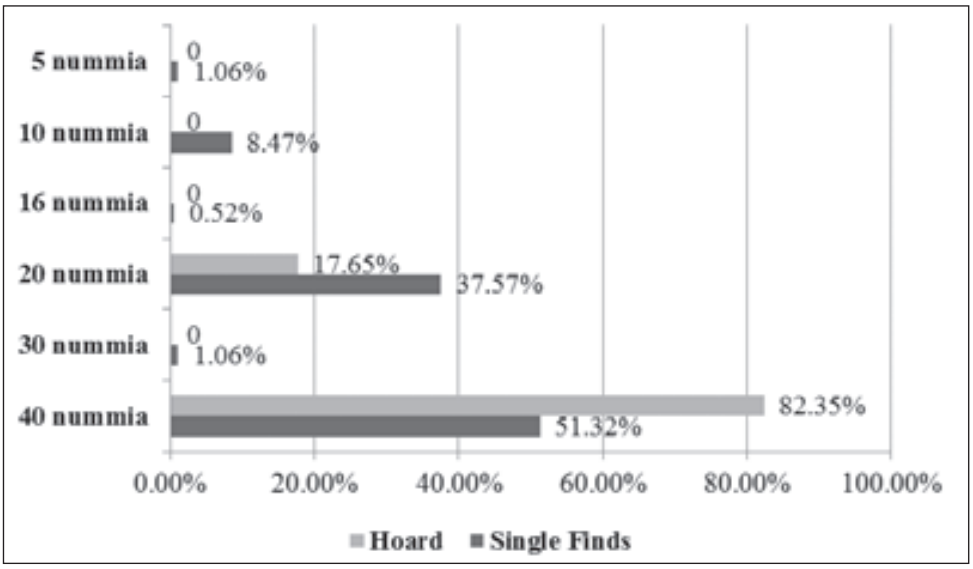

Fig. 4. Denominations (*Capidava*).

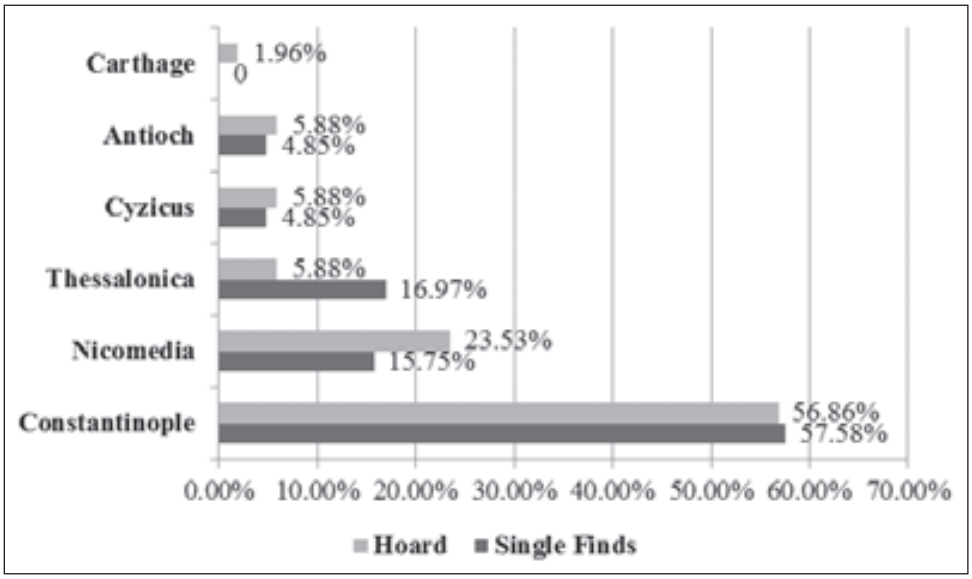

Fig. 5. Mints (*Capidava*).

ANNEX II.
DENDROCHRONOLOGY OF THE EARLY BYZANTINE FORT AT *CAPIDAVA*

***Tomasz Ważny*[*,**], *Peter I. Kuniholm*[*], *and Charlotte L. Pearson*[*]**

Capidava, strategically located on the right bank of the Lower Danube, just where the river turns north and east, reaching the Black Sea about 280 km further downstream, was first occupied prior to the Roman conquest[1]. In the early 2nd c. AD it became an important military and civil Roman centre, after an auxiliary fort was built in order to defend the ford of the Danube[2]. The ruins from which we collected eight sets of charcoal samples are believed by the excavators to date to a building phase (phase IV) at the end of the 5th c. – early 7th c. AD[3]. The general chronology of the site goes from the early 2nd to the 11th c., when the Pechenegs destroyed the fortress for the last time (ca. 1046)[4].

All the samples were taken from an early Byzantine building constructed next to the main gate of the fort. This quadrangular building (labeled C 1) 10 by 11 m, located in the southeastern sector of the fort, was excavated in 1993–2014. A detailed description of the archaeological context, stratigraphy, and finds was published by I. C. Opriş and Al. Raţiu[5]. The building remained in use until the last decades of the 6th c. AD. The bronze coin-hoard found on the doorsteps of Rooms I and III and especially two coins from Emperor Tiberius II Constantine provide more precise dates – these coins were issued between December 578 and December 580, "although their dating could be extended to 582.[6] It should, however, be noted that the building was built after leveling the dismantled walls of an older imposing structure, so hypothetically some older materials may have been reused in construction.

Samples for dendrochronological examination were taken from the profile along wall Z 6 inside Room III of the building (Fig. 1). They represent the burnt structural timbers of a collapsed roof. A few beams were preserved in larger fragments, and, despite the high temperature of the burning and the lapse of nearly 1500 years, we also recovered one complete joist composed of two beams joined firmly by an iron nail (Fig. 2)[7]. We also collected select loose pieces of charcoal from rooms I and III which showed potential for dendrochronology in order to provide ourselves with better reference material for the development of tree-ring chronologies for early Byzantine *Capidava*. All

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** Institute for the Study, Conservation and Restoration, Nicolaus Copernicus University, Toruń, Poland.
1 FLORESCU, FLORESCU, DIACONU 1958, 12, 14, 16.
2 OPRIŞ 2003, 17–26; OPRIŞ 2006.
3 OPRIŞ 2003, 23–24; OPRIŞ, RAŢIU 2016a.
4 See the *Introduction* chapter *supra*, 18 and n. 35 (1046 *vs*. 1064).
5 OPRIŞ, RAŢIU 2016a.
6 OPRIŞ, RAŢIU 2016a; GÂNDILĂ in Annex I of this volume.
7 See KUNIHOLM, STRIKER 1977, Abb. 31 and Taf. 1–4 for similar woodwork – albeit more sophisticated – from Hg. Eirene in Constantinople.

the samples collected were from whole sections of slow-grown oak (*Quercus* sp.) ca. 80–120 years old at the time of felling. Since these fragments of structural timbers were no longer in place, there is not much we can say about the original shape of the elements, the woodworking techniques, or their precise architectural placement.

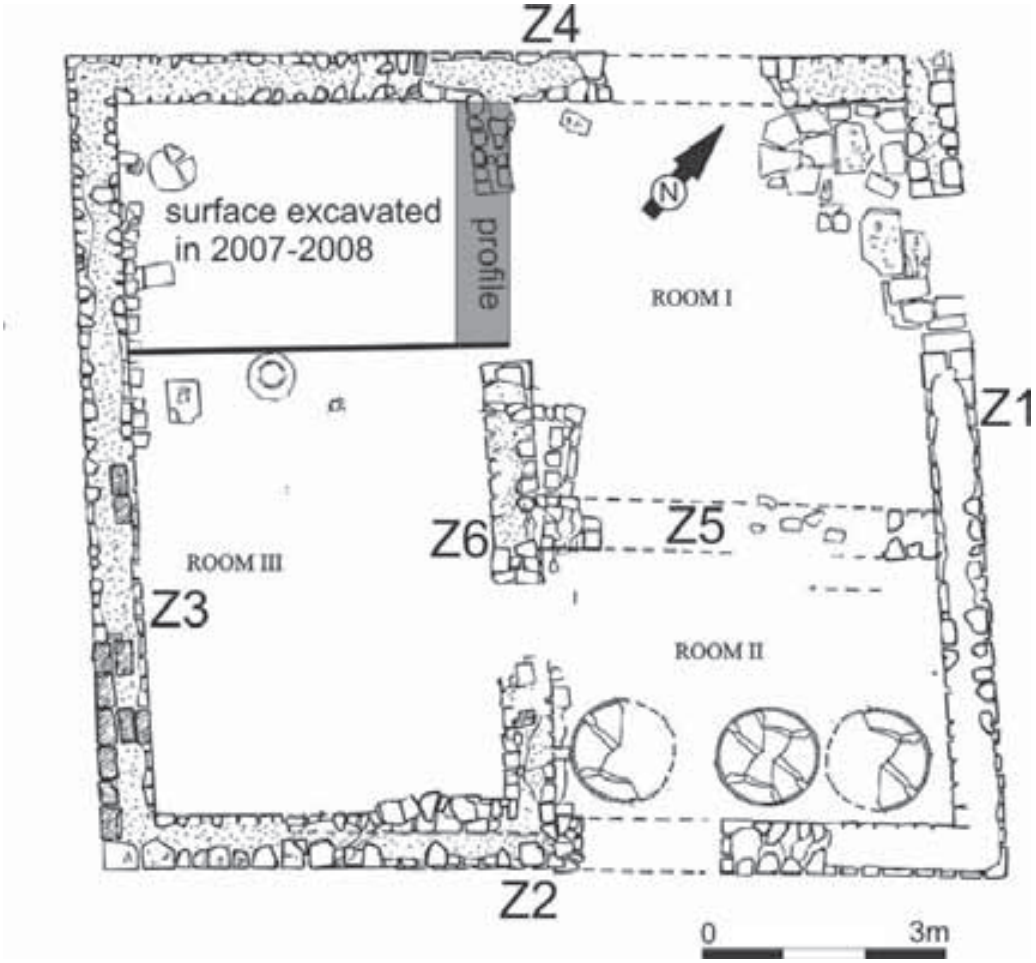

Fig. 1. Plan of building C1 with location of samples (orange/light brown strip).

Dendrochronology (or tree-ring dating) provides precise dates for wooden elements and constructions and has become one of the most important analytical methods applied to the study of historical objects for dating, provenance, and studies of forest management and wood technology. Dendrochronology is based on wood biology and therefore is completely independent from other historical proxies. Dating accuracy depends on the preservation of the youngest rings – those from the outer part of the tree. Annual precision can be achieved only when the youngest (outermost) ring – the last ring created by the tree before it was cut down – is present. The *Capidava* material was in the form of fragmented charcoal pieces, as noted above, which required our piecing together the various sections to enable us to combine these short tree-ring series into something that approximated the original intact beam. Statistical characteristics of the reconstructed tree-ring series are presented in Table 1. Sample 2/2009 was discarded because of insufficient tree-rings (fewer than 30). Despite the burning process and the fragile nature of the resulting samples, the wood-anatomical structure was very well preserved and ring boundaries were clearly visible (Fig. 3). Unfortunately, however, the *Capidava* samples did not have the outermost part of the tree preserved and we can only estimate the number of missing rings before the actual felling date for the sample.

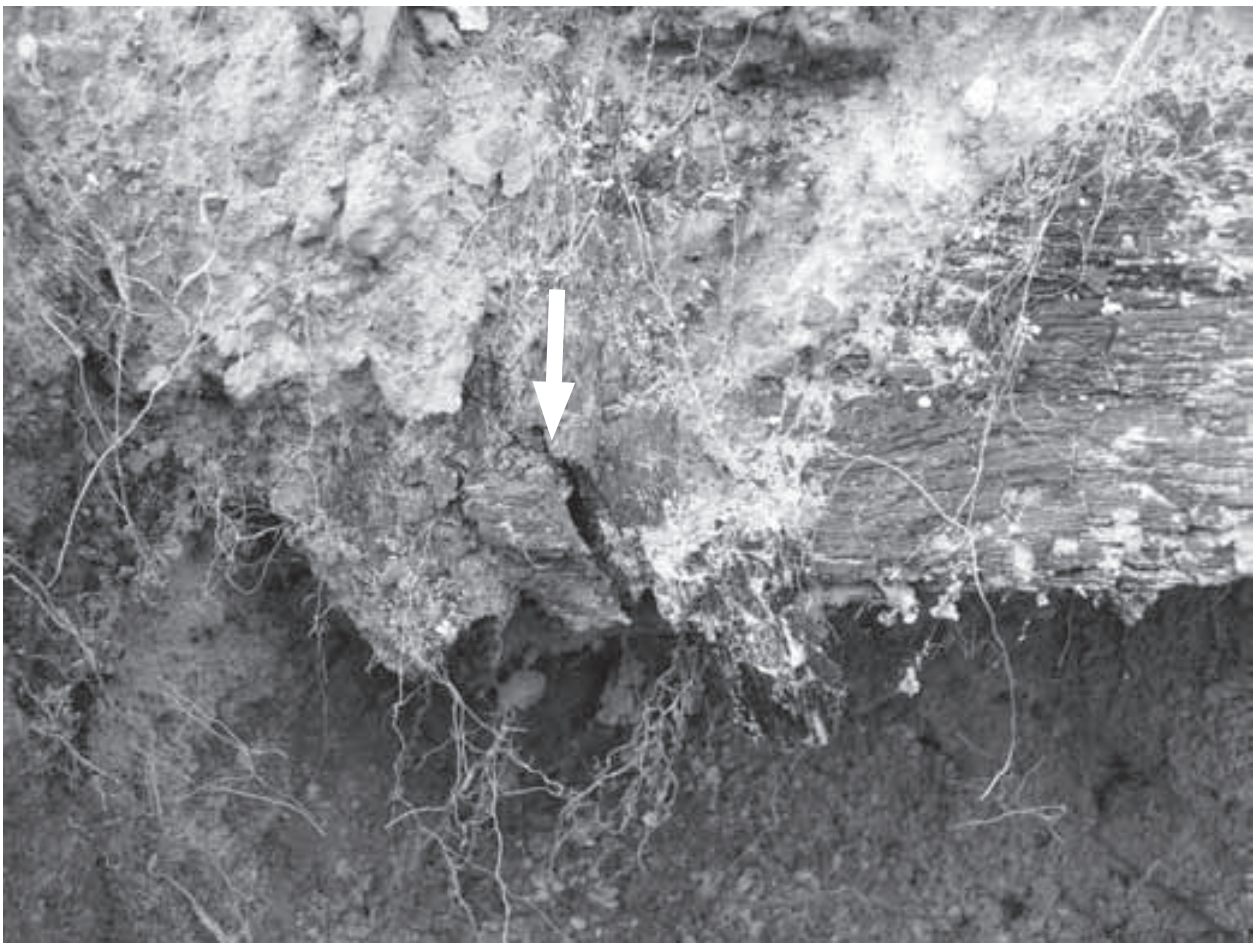

Fig. 2. Beams 2/2008 and 3/2008 joined perpendicularly by an iron nail (see arrow).

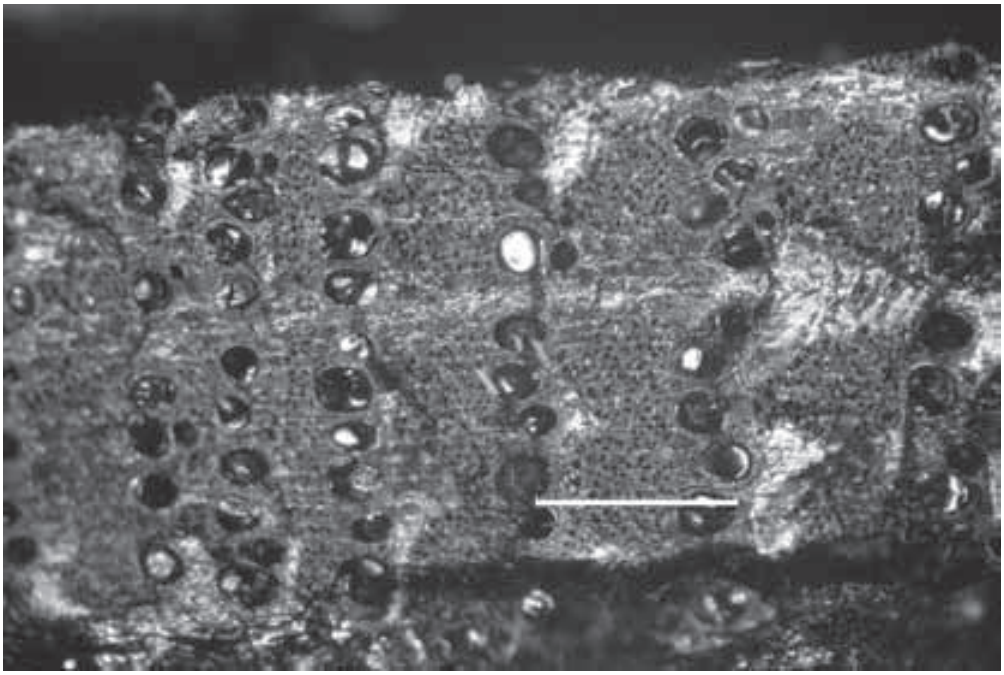

Fig. 3. Cross-section of sample 2/2008. White bar shows 1 mm. The large circles are the spring or earlywood vessels for each year.

Table. 1. Characteristics of samples and tree-ring series. "Min" "Mean" and "Max" mean minimum, mean, and maximum tree-ring width. "STDV" means standard deviation. "MS" is the mean sensitivity of each tree-ring series.

Sample No	Length [years]	Min [mm]	Mean [mm]	Max [mm]	STDV	MS [%]
1/2008	50	0.58	1.48	3.11	65.7	24
2/2008	101	0.31	0.75	1.60	27.4	21
3/2008	108	0.29	0.78	2.22	37.3	22
4/2008	77	0.24	0.63	1.13	18.9	24
5/2008	46	0.35	0.68	1.11	19.4	23
6/2008	74	0.33	0.82	2.28	41.8	28
1/2009	37	0.33	0.58	0.87	14.0	25

First, the measured ring-series from individual samples were cross-dated with others from the same structure using visual comparison of the tree-ring graphs and selected statistical parameters such as the Student's "*t*-value"[8], coefficient of agreement "GL"[9] and cross-dating index "CDI"[10] to indicate possible relative placements (Table 2). The series with the highest visual agreements were selected for the chronology.

TABLE 2. Results of Student's *t*-values displaying correlation between relatively dated tree-ring series. The calculation in this table was based on Hollstein's[11] algorithm.

Sample number	2/2008	3/2008	4/2008	5/2008	6/2008	1/2009
2/2008	-	7.6	7.4	5.0	5.4	5.0
3/2008	7.6	-	7.0	9.5	2.6	4.9
4/2008	7.4	7.0	-	*	3.3	4.2
5/2008	5.0	9.5	*	-	3.0	*
6/2008	5.4	2.6	3.3	3.0	-	3.8
1/2009	5.0	4.9	4.2	*	3.8	-

Next, we put together a 109-year-long sequence based on five selected pieces numbered from 2/2008 to 6/2008. This sequence, representing the total available sum for this construction, was compared with all existing oak chronologies for the 1st millennium AD: the Czech oak chronology[12], unpublished German chronologies developed by Becker for subfossil oaks from the German section of the Danube, the Rhine, and the Main; floating oak chronologies from Bosnia and Croatia[13] and the recently developed Marmaray chronology based on timbers from the Byzantine harbor of Yenikapı excavated during construction of the station for the new metro system in Istanbul[14]. In other words, we were looking for dendrochronological standards to the North, West, and South in the hope that long-distance correlation could be found, because the nearest absolutely-dated oak chronologies to *Capidava* were from distant regions of c. 400–1000 km from the site. This was especially challenging as most of the cited tree-ring sequences represent different climatic zones. However, we finally succeeded in crossdating the *Capidava* oaks with the Yenikapı harbor chronology with unexpectedly high statistical parameters: T_H-value 6.6, trend coefficient GL 74% and

[8] BAILLIE, PILCHER 1973.
[9] ECKSTEIN, BAUCH 1969.
[10] RINN 2011.
[11] HOLLSTEIN 1980.
[12] KOLÁŘ, KYNCL, RYBNÍČK 2012.
[13] PEARSON, WAŻNY, KUNIHOLM, BOTIĆ, DURMAN, SEUFER 2014.
[14] PEARSON, GRIGGS, KUNIHOLM, BREWER, WAŻNY, CANADY 2012; KUNIHOLM, PEARSON, WAŻNY, GRIGGS 2015. *Capidava* is site #67 in this chronology. Note that three years have been added to the end-date for *Capidava* due to the addition of several more dated samples from the site.

Cross Dating Index CDI=51. The 109-year long *Capidava* tree-ring chronology spans the years AD 458–566. Dating results of individual samples are presented in Table 3.

TABLE 3. Dating results of samples from *Capidava*, building C1. The number in brackets in column "Data length" means an existing but unmeasurable outer ring was present; "A" in the "Bark" column means that the bark or waney-edge were not present.

AZ Sample number	Excavator number	Data length	Sap-wood	Bark	Dating of tree-ring series	Final dating result
RCP0001	1/2008	50	0	A	undated	
RCP0002	2/2008	101	0	A	AD 463–563	$578^{+X}/_{-6}$
RCP0003	3/2008	108 (+1)	0	A	AD 458–565	$581^{+X}/_{-6}$
RCP0004	4/2008	77	0	A	AD 472–548	$563^{+X}/_{-6}$
RCP0005	5/2008	46	0	A	AD 521–566	$581^{+X}/_{-6}$
RCP0006	6/2008	74	0	A	AD 490–563	$578^{+X}/_{-6}$
RCP0007	1/2009	37	0	A	AD 506–542	$557^{+X}/_{-6}$

Linking these dating results to an exact felling date was not possible because the outer parts of the beams were heavily deteriorated with all the outermost sapwood rings absent. As a result, the number of years missing after the outermost dated rings for the samples shown in Table 3 is unknown. However, we think that the compact hardwood survived almost completely whereas the softer sapwood was lost. This idea is supported by the close distribution of the end dates for each series (Fig. 4) and visual inspection of the timbers.

The youngest ring dates to AD 576 (samples 3/2008 and 5/2008). If we assume that the heartwood is largely intact and only the sapwood is missing we can then offer an informed estimate of the years missing in order to close in on a precise felling date. This estimate is based on data from studies involving a larger sample of trees of the same species where sapwood and cutting dates were clearly preserved. In this case dating results published, e.g. Botár and his team[15] for Transylvania, the study of Romanian oaks by Nechita[16] and the results of our research in the region[17], can be used to indicate that sapwood for oaks in the region can range from a minimum of 9 sapwood rings to a median of 15 sapwood rings. Adding this estimate to the end date for the sequences derived from samples 3/2008 and 5/2008 brings us to the date AD 577 as the earliest possible 'date after which' (*terminus post quem*) the sample was cut, with AD 581 the most probable cutting year for the trees. Usually the cutting year is equal with utilization year in this region and time period, unless trees were felled in the winter, in which case construction in the following year (AD 582) is likely. This date fits in very well with the evidence from the coins noted in the Annex I at the end of this volume[18].

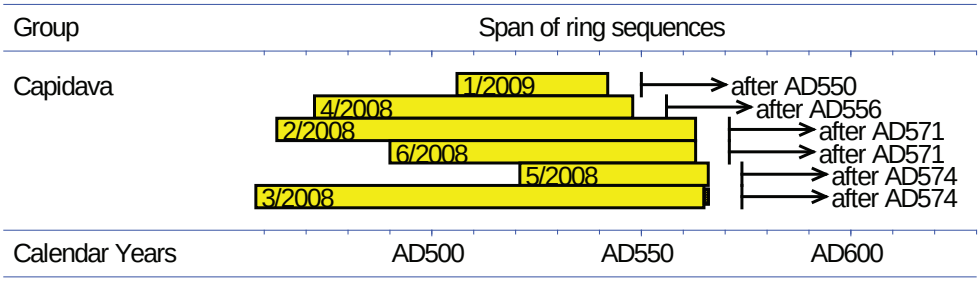

Fig. 4. Time span of the dated tree-ring series representing samples with interpretation of results.

[15] BOTÁR, GRYNAEUS, TÓTH 2015.
[16] NECHITA 2013.
[17] WAŻNY, LORENTZEN, KÖSE, AKKEMIK, BOLTRYK, GÜNER, KYNCL, KYNCL, NECHITA, SAGAYDAK, VASILIEVA 2014.
[18] See also GÂNDILĂ 2009.

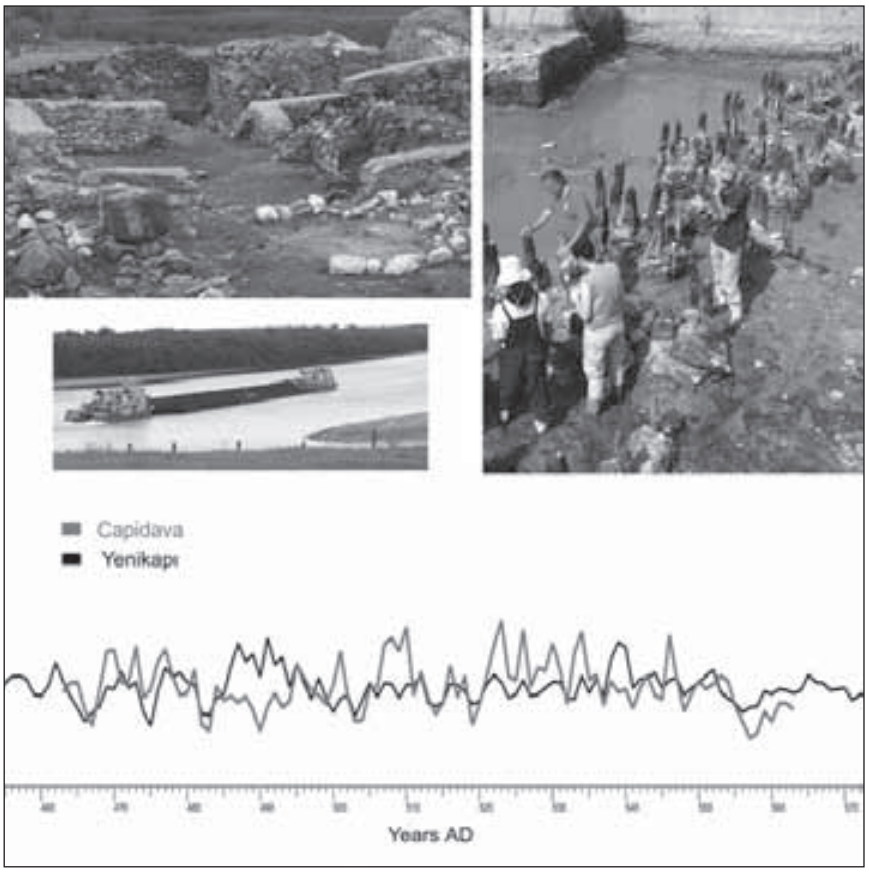

Fig. 5. *Capidava* (photograph top left), and general view of the Danube from the site (bottom left) and an early Byzantine dock at Yenikapı in Istanbul (photograph right). The graph at the bottom shows the quality of the fit between tree-ring series representing both objects.

The location of the *Capidava* fortress on the bank of the second-longest European river immediately raises the question of trade and the origin of various materials used in the construction of the site. Sadly, it is not yet possible to answer this question fully for the building timbers because of a lack of reference chronologies going back to the 1st millennium AD for the surrounding regions. The source of timbers used in *Capidava* could be from anywhere along the Danube or its various tributaries and we should not exclude local resources, for example the Danube Delta. The high statistical parameters of comparison between the *Capidava* and Yenikapı chronologies are, however, excellent evidence for timber exports from the NW coast of the Black Sea and probably the reach of trade along the Danube River to destinations as far away as Constantinople. The rapid expansion of the Constantinopolitan trade networks and general infrastructure in the first millennium AD[19] required large-scale construction, not least in the Yenikapı harbor where our research shows multiple phases of dock construction and harbor expansion over this period. Local timber resources were unable to meet the growing demand for building material, necessitating long-distance transportation across the sea as in the later Ottoman period, and following some 4000 years of established timber trade in the wider Mediterranean region[20]. In Istanbul's Yenikapı harbor we have already identified wood from the southern coast of the Black Sea, from the Aegean (northern Greece) and from inland Asiatic regions[21]. This link, showing common source materials with the Danube region at the northern edge of the Eastern Empire (Fig. 5), may indicate a

[19] MANGO 2004; MAGDALINO 2000; MÜLLER-WIENER 1994.
[20] KUNIHOLM, GRIGGS, NEWTON 2007.
[21] KUNIHOLM, GRIGGS, NEWTON 2007; PEARSON, WAŻNY, KUNIHOLM, BOTIĆ, DURMAN, SEUFER 2014; KUNIHOLM, PEARSON, WAŻNY, GRIGGS 2015.

common Black Sea source for the timbers at both sites or perhaps import of resources from the Danube region. This remains to be confirmed dendrochronologically and through examination of further archaeological and written data for regional trade during this period. There is an increasing amount of information available on the Black Sea timber trade in antiquity, however. For example, Hannestad[22] reviews written evidence for such trade including detailed descriptions by the Greek writer Theophrastus (c. 371 – c. 287 BC) which note the accessibility of excellent shipbuilding timbers from the southern Black Sea coast ports of *Sinope* and *Amisos*.

Conclusion

Dendrochronological examination of charcoal pieces from building C1 from the Early Byzantine phase of construction at *Capidava* suggests a construction date "around AD 582". This is in good agreement with the coin dates (between December 578 and December 580, and hypothetically up to 582) reported by Gândilă[23] and other coin evidence or archaeological contexts linked to the 580s raids. The hoard found on the threshold between Rooms I and III offers the terminus *post quem* for the violent destruction of the building, shortly after this last securely dated milestone. Reoccupation of the area and the hastily building of a fortlet in the southern corner of the previous fortification in the 590s or at the beginning of the 7th c. is therefore subsequent. A corresponding ditch (*fossa*) was dug in this phase and crosses right through the middle of the previous building[24].

[22] HANNESTAD 2007.
[23] GÂNDILĂ 2009; OPRIȘ, RAȚIU 2016a.
[24] OPRIȘ, RAȚIU 2015; GÂNDILĂ 2007.

ANNEX III.
EXAMINATION AND ANALYSIS REPORT

Adriana Rizzo, Choi Mak*

Date: 03/28/2016
Purpose of examination: *Identify the black organic material found in the Amphora*

Sampling and methodology

A sample of black pitch-like substance from a Late Roman/ Early Byzantine Amphora (second half of the 6th c. AD) excavated at *Capidava* – a Roman fort along the Danube river, was provided by Dr. Ioan Opriș. Samples were analyzed by Fourier transform infrared micro-spectroscopy (micro-FTIR) and gas chromatography-mass spectrometry (GC/MS) techniques. In particular, GC/MS techniques used were: thermal-desorption – GC/MS (TD-GC/MS) between 100°C and 300°C, followed by pyrolysis (TD-Py-GCMS) at 550°C; single shot pyrolysis-GC/MS (Py-GC/MS) at 550°C; thermal assisted hydrolysis and methylation (THM-GC/MS) 550°C after methylation of the sample with (tetramethyl) ammonium hydroxide (25% in methanol). With TD-GC/MS the volatile and semi-volatile fractions of the sample which are released up to 300°C can be evaluated separately from the heavier fraction, thus simplifying data evaluation. Moreover, TD-GC/MS followed by py-GC/MS of the remaining heavier fraction allows to discriminate components generated by the original pyrolysis of the sample, from those created during the analytical conditions.

Summary

The black-pitch like material is a tar from wood of the *Pinaceae* family.

Results

The results of the micro-FTIR analysis and GC/MS analysis of the samples are reported in the following table and graphs. Data evaluation was performed using the spectral library IRUG 2007 edition, Gettens and in-house libraries. GC/MS data evaluation was performed using AMDIS, comparing spectra with the NIST mass spectral database, and relevant literature.

Table 1. *Summary of analytical results*

Sample	Micro-FTIR	TD-GC/MS	TD-Py-GC/MS	THM-GC/MS
Black material	Wood tar	Components of *Pinaceae* tar	Components of P*inaceae* tar	Components of *Pinaceae* tar

* The Metropolitan Museum of Art, Department of Scientific Research.

Table 2. *List of main components detected by the different GC-MS methods*

Peak	Retenti-on time (min)	m/z	Identification	TD-GCMS	TD-Py-GC/MS	THM-GC/MS
1’	5.91	93 121 79 136	Camphene	----	x	----
2’	7.01	119 134 91	m-Cymene	----	x	----
3’	8.06	109 124 81	*o*-Guaiacol	----	x	----
1	9.42	95 110 139 154	Borneol	x	x	x
4’	9.62	138 123 95	5-Methylguaiacol	----	x	----
2	10.69	137 152 122	4-Ethylguaiacol	x		----
5’	10.73	152 123 91	3,5-Dimethoxytoluene	----	x	----
6’	10.85	137 152 122	4-Ethylguaiacol	x	x	----
7’	11.36	150 135 107	4-Vinylguaiacol	----	x	----
3	11.99	137 166 122	4-Propylguaiacol	x		----
8’	12.59	151 180 107 77	Dihydromethyleugenol	----	----	x
4	13.80	105 161 91 204	Alpha-muurolene	x	----	----
5	14.09	159 160 144 202	Calamenene?	x	----	----
6	14.17	93 105 161 204	Terpene	x	----	----
9’	14.87	196 165 181 137	Veratric acid methylester	----	----	x
7	14.92	170 155 153	1,6,7-Trimethylnapthalene	x	----	x
10’	15.25	151 210 152 121	1,2 Dimethoxy–4-(3-methoxypropyl) benzene	----	----	x
8	15.90	183 198 168	Cadalene	x	----	----
11’	16.30	151 224 164 152	Hydrocinnamic acid, 3,4-dimethoxy- methylester	----	----	x
9	18.38	192 191 189	Methylphenanthrene	x	----	----
10	19.12	241 159 185 256	18-norabieta–8,1,13-triene / isomer	xxx	x	xx
11	19.49	241 159 185 256	18-norabieta–8,1,13-triene / isomer	xxx	x	xx
12	19.78	206 191 205 189	1,7 dimethyl phenantrene?	xx	x	x
13	20.22	223 238 181 195	Probable tetrahydroretene	xx	x	xx
14	20.51	237 252 195	Unidentified	x	x	x
15	20.74	220 205 189	2,3,5 trimethyl phenanthrene	x	x	x
16	20.91	238 195 257 286	Unidentified	xx	----	x
12’	21.12	241 257 301 316	Diterpenoid acid methylester	----	----	xx
17	21.32	219 234 204 203	Retene	xxxx	x	xxx
13’	21.34	241 301 257 316	Methylpimara–8,15-dien–18-oate	----	----	xx
14’	21.45	121 180 257 301 316	Pimaric acid methylester	----	----	xxx
15’	21.6	121 301 316 257	Sandaracopimaric acid methylester	----	----	xx
16’	21.75	241 256 301 316	Diterpenoid acid methylester	----	----	x
17’	21.89	232 225 202 231	Unidentified	----	x	----
18’	22.00	241 257 256 316	Diterpenoid acid methylester	----	----	xxx
18	22.11	233 248 218 203	8-isopropyl–1,3-dimethylphenanthrene or isomer (methylretene)	xx	x	----
19	22.34	239 299 314	Dehydroabietic acid methylester	xxxxxx	x	xxxxx
20	22.50	247 262 263	dimethylretene	x	----	trace
21	22.65	233 248 218	8-isopropyl–1,3-dimethylphenanthrene or isomer (methylretene)	x	x	x
19’	22.74	256 316 241 213	Abietic acid methylester	----	----	xxx
22	22.88	287 105 302 241	Unidentified	x	x	----

Peak	Retenti-on time (min)	m/z	Identification	TD-GCMS	TD-Py-GC/MS	THM-GC/MS
20’	23.08	237 253 312	6-dehydrodehydroabetic acid methylester	----	----	xx
21’	23.17	342 267 227 283	Tetrahydroabietic acid, 7-methoxy-, methylester	----	----	xx
23	23.33	285 239 197 300	Dehydroabietic acid	xxxxx	xx	----
22’	23.42	269 344 227 329	Methyl 12- methoxyabieta–8, 11, 13, -trien–20-oate?	----	----	x
24	23.62	302 105 136 259	Abietic acid	xxx	----	----
23’	23.86	237 283 298	Unidentified		x	----
25	24.22	253 328 187	7-oxodehydroabietic acid methylester	x	----	x
26	25.20	253 314 211	Unidentified	xx	x	----

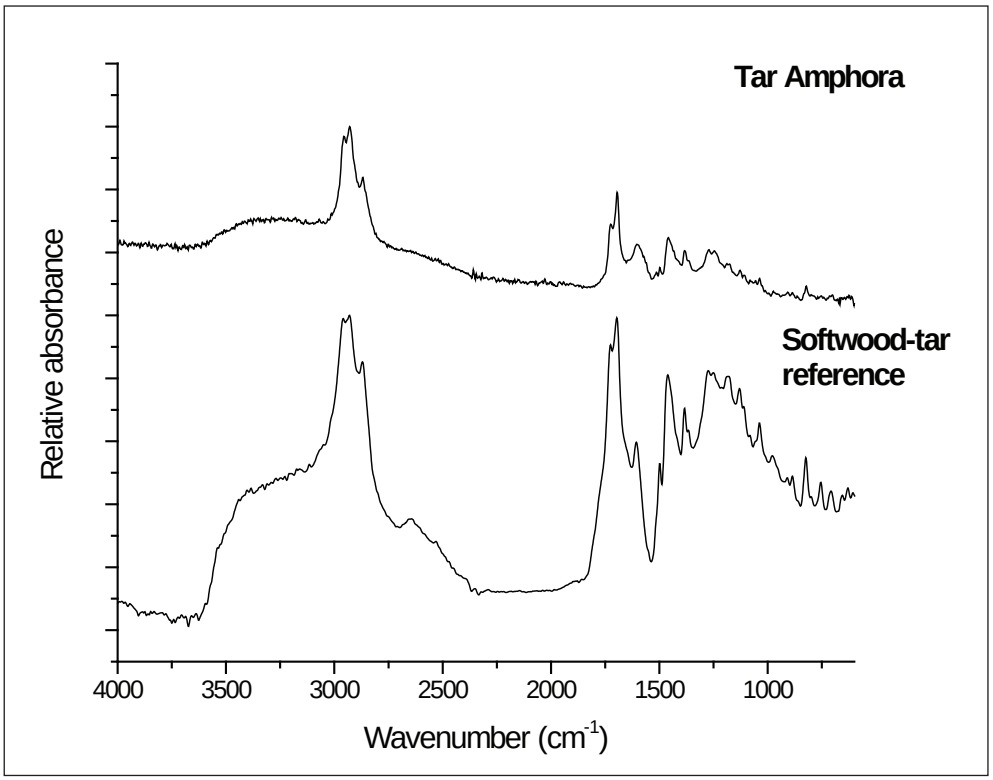

Fig. 1. FTIR spectrum of the black material in the amphora compared to a reference sample of softwood tar, dried pix liquida (INR 00121, IRUG edition 2007).

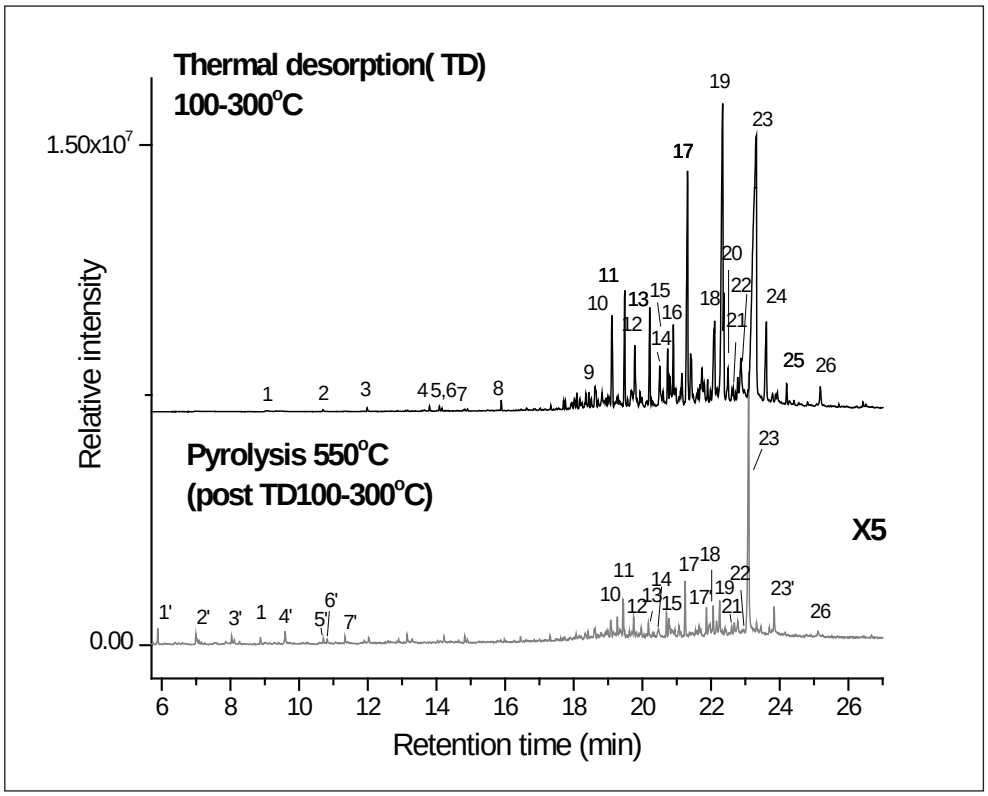

Fig. 2. Chromatogram obtained from thermal desorption-GC/MS (top) and pyrolysis-GC/MS following thermal desorption of the black material. The peak numbers correspond to components listed in ***Table 2***.

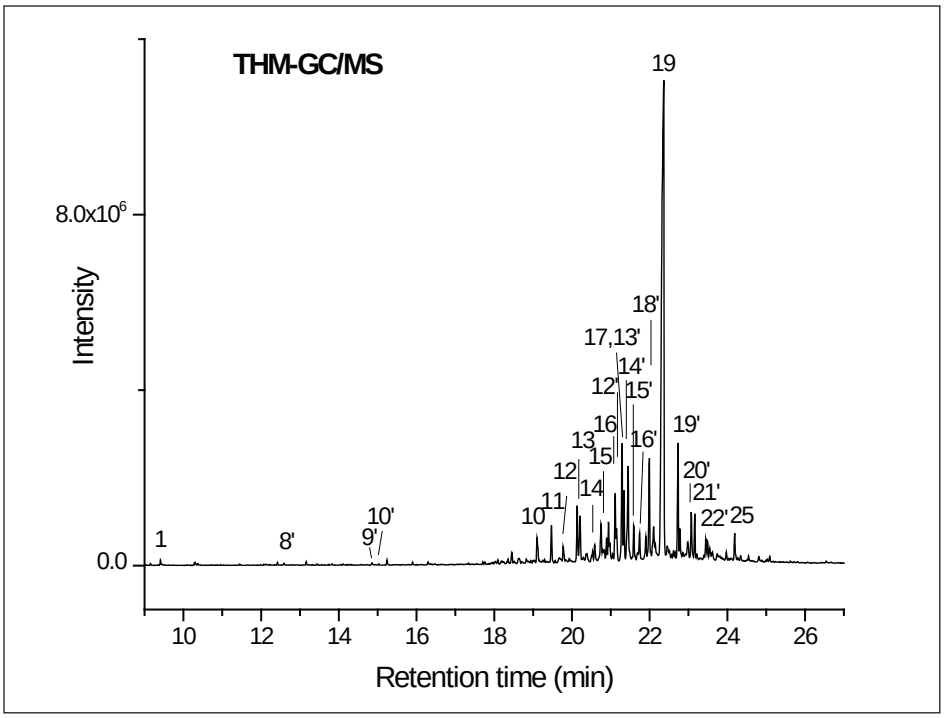

Fig. 3. Chromatogram obtained from the black material after methylation with TMAH (THM-GC/MS). The peak numbers correspond to components listed in ***Table 2***.

Discussion

FTIR indicated that the black pitch-like material is a type of wood tar.

All GC/MS techniques used confirm that the material is a heated conifer wood from the *Pinaceae* family.

The data reported in Table 2 lists the components detected in the chromatograms for TD-GC/MS followed by Py-GC/MS, as well as for THM-GC/MS. Py-GC/MS results are not reported, since the other abovementioned techniques more clearly illustrate the identification of the material.

By all techniques it was possible to identify abietic acid (24), and/ or its derivatives (19, 20, 21', 23, 25) as an indication of *Pinaceae* species for the resinous wood used in the preparation of the tar[1]. The high amounts of dehydroabietic acid (DHA) methylester (19) in the TD-GC/MS analysis confirms the nature of this type of tar, since this component derives from the distillation of a conifer resin, such as pine. Indicative of the conifer tar-production process are also high amounts of norabietane (10, 11), retene (17), and its methyl-derivatives (13, 18, 20, 21)[2].

Similar pitch compositions were reported in waterproofing/ caulking materials on ships recovered at the ancient harbour of San Rossore in Pisa, Italy[3], and in Roman amphoras from Monte Poro, in Calabria, Italy[4].

Other chemical components detected by TD-GC/MS include guaiacol derivatives and other phenolic compounds of wood, as well as terpenes consistent with resinous wood from *Pinaceae*.

[1] HJULSTRÖM, ISAKSSON, HENNIUS 2006.
[2] CONNAN, NISSENBAUM 2003.
[3] COLOMBINI, GIACHI, MODUGNO, PALLECHI, RIBECHINI 2003.
[4] IZZO, ZENDRI, BERNARDI, BALLIANA, SGOBBI 2013.

Experimental

Microscopic samples were crushed in a diamond anvil cell (Spectra-Tech) and analyzed by Fourier transform infrared micro-spectroscopy (micro-FTIR). A Hyperion 3000 Microscope interfaced to a Tensor 27 spectrometer (Bruker Optics), equipped with a 15x FTIR objective and a MCT detector (mercury cadmium telluride), liquid nitrogen cooled, were used. The FTIR spectra were acquired as a sum of 64 scans in the range 4000 to 600 cm^{-1} and 4 cm^{-1} resolution.

Samples on the order of 100μg were accurately weighed on an Ultramicrobalance UMX2 (Mettler Toledo) in the pyrolysis cup (Eco-cup, Frontier lab). The sample cups were placed in the Auto-shot sampler AS–1020E for thermal desorption and pyrolysis in the the vertical micro-furnace of the double–shot 2020iD pyrolyzer (all Frontier lab). For THM-GC/MS analysis 3 μL of TMAH solution 25% in methanol were added to the sample prior to pyrolysis. Thermal desorption was performed at a rate of 20°C/ min between 100 and 300°C, followed by pyrolysis at 550°C. Single-shot pyrolysis was performed at 550°C. The micro-furnace is interfaced to the gas chromatograph Agilent 6890 coupled with the Agilent 5973Network Mass Selective Detector. The analyses were carried out in split mode 30/1. A J&W DB–5MS capillary column (30 m × 0.25 mm × 0.25 μm) was used. The inlet was kept at 320°C and the MS transfer line at 320°C. Helium was used as the carrier gas, constant flow 1.5 ml/min. The GC oven temperature program was: 40°C for 1 min ramped to 320 at 10°C /min, followed by 15 min isothermal period. Acquisition was performed in SCAN mode (m/z 35–600). Temperatures at MS source was 230°C and at quadrupole 150°C. A solvent delay of 2 min was used for THM-GC/MS analysis.

ABBREVIATIONS OF PERIODICALS AND SERIES

ActaMP – Acta Musei Porolissensis, Muzeul Judeţean de Istorie şi Artă, Zalău.

AE – L`Année Épigraphique. Revue des publications épigraphiques relatives à l`antiquité romaine, Paris, 1888–.

Archaeometry – Archaeometry Research Laboratory for Archaeology and the History of Art, Oxford University, in association with the Gesellschaft für Naturwissenschaftliche Archäologie Archäometrie and Society for Archaeological Sciences by Wiley-Blackwell.

Archeologia – Archeologia. Rocznik Instytutu Historii Kultury Materialnej Polskiej Akademii Nauk.

ArhMold – Arheologia Moldovei, Institutul de Arheologie, Iași.

Atiqot – Atiqot – Journal of the Israel Department of Antiquities, Jerusalem.

ATLANTE I – Enciclopedia dell'Arte Antica Classica e Orientale. *Atlante delle forme ceramiche I. Ceramica fine romana nel bacino Mediterraneo (Medio e tardo Impero)*, Istituto della Enciclopedia Italiana, Roma, 1981.

Balkan Studies – Annual of the Institute for Balkan Studies, Thessaloniki.

BAR – British Archaeological Reports, Oxford.

BAR Int. Ser. – British Archaeological Reports, International Series, Oxford.

BerRGK – Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Institutes, Frankfurt am Main.

Byzantina – Byzantina. Annual Review of the "Byzantine Research Centre", Centre for Byzantine Research of the Aristotle University of Thessaloniki.

Byzantinoslavica – Byzantinoslavica – Revue internationale des Etudes Byzantines, Slavic Institute of the Czech Academy of Sciences, Prague.

Capidava I – Florescu, Gr., Cap. III. *Monumente epigrafice și sculpturale,* Florescu, Gr., Florescu, R., Diaconu, P., *Capidava*. Monografie arheologică. I, Bucureşti, 1958, 73–133.

CCA – Cronica cercetărilor arheologice din România, București.

Chiron – Chiron. Mitteilungen der Kommission für Alte Geschichte und Epigraphik des Deutschen Archäologischen Instituts, München.

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