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Studies

ANCIENT HISTORY

THE OFFICE OF THE *PROTOS* ARCHON IN BITHYNIA AND THRACE

Abstract: The paper examines the occurrence of the office of the *protos archon* and of the *synarchia* in Greek cities of the provinces of Pontus et Bithynia and of Thrace, particularly as it concerns its relevance for the relations and reciprocal influences of the two provinces.

Key words: office, eponymous office, Greek cities, Bithynia, Thrace.

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Numerous and close were the relations connecting during the Principate the shores of the Black sea and, beyond, the interior of Bithynia and Thrace¹; they were repeatedly examined over recent years². The present paper proposes the examination of an institutional aspect of these relations.

The office of the First Archon occurs in the cities of Bithynia³ under Roman rule, doubtlessly due to the *lex Pompeia*⁴. This provincial law, of which only a few provisions are known to us⁵, was concerned with public, not private law and settled the poleis' citizen rights, their political institutions and their relations to each other. However, a precise standardization of the magistracies in the cities of the province seems to be confined to the office of the archon⁶. This was a yearly elected body of several (three to five) archons under a president bearing the title of a *protos archon*. As the holder of an office of highest prestige, he was also the president of the council (who also elected him), represented his city towards the Roman authorities and was the privileged reference person of Roman officials⁷.

First archons occur also in areas which were never part of the Pompeian or later province of Pontus et Bithynia, such as Ankyra or Pessinous or various small cities in the province of Asia⁸. A conspicuous concentration is to be found, however, in the Greek cities of Thrace and the western and north-western Black Sea coast, i.e. in those areas, which under Roman rule

¹ For Thrace in the Roman period see: GEROV 1980; POULTER 1983; WOLFF/VELKOV 1990, 600-616; IVANOV 2008; HAYNES 2011; IVANOV 2012.

² See for this AVRAM 1998-2000; BOUNEGRU 2000; CURCĂ/ ZUGRAVU 2005; RUSCU/ CIONGRADI 2005; BOUNEGRU 2007; RUSCU 2008; ALEXANDRESCU-VIANU 2008-2009; DAN 2009; AVRAM 2013; AVRAM 2014, with further literature.

³ For the province of Pontus et Bithynia, especially its creation, see: MAGIE 1950, 368-378; MARSHALL 1968; MAREK 1993, 26-46; WESCH KLEIN 2001; FERNOUX 2004; BEKKER NIELSEN 2008; WESCH KLEIN 2008, 271-275; MADSEN 2009, 27-34; MAREK 2010, 364-369.

⁴ See for this especially AMELING 1984. See also MAGIE 1950, 369, 603-604; MITCHELL 1993, 88; MAREK 1993, 42-46; FERNOUX 2004, 129-132.

⁵ Plin. *ep.* 10, 79, 80, 108-109, 112-115; Cassius Dio 37, 20, 2.

⁶ MAREK 1993, 42. No uniformity concerning the subdivisions of the citizen body: KUNNERT 2012, 73.

⁷ See for this office AMELING 1984, 22-29; MAREK 1993, 42; FERNOUX 2004, 323-326.

⁸ AMELING 1984, 22-23 n. 26; MITCHELL 1993, 88-89; DMITRIEV 2005, 231-232.

entertained close relations to Bithynia. These cities fall into two groups: the old (Milesian and Megarian) *apoikiai* on the Black Sea and the new poleis founded by Trajan in the Thracian interior.

In the old Milesian *apoikiai*, the office of the archon is of non-Milesian origin; in Miletus herself, archons occur as proposers of decrees no earlier than the late 2nd century BC⁹. In the Black Sea area, the title of archon occurs as a rule no earlier than the Hellenistic period and refers usually either to the office-holders generally or to a body of magistrates¹⁰. At Istros¹¹, Tomis¹² and Apollonia¹³, the archons occur in the pre-Roman period as proposers of decrees; at Tyras, the only inscription mentioning them is very fragmented¹⁴. In the Megarian *apoikiai*, the term ἄρχοντες either refers also to the magistrates generally¹⁵, or else to a body of magistrates¹⁶.

In the Roman period (here starting with Augustus), on the Western Pontic coast and in the Greek cities of Thrace two new designations of office appear: πρῶτος ἄρχων and συναρχία. The concept of the *synarchia*, which originally designated a body of magistrates, gradually assumed in Asia Minor in the late Hellenistic period the meaning of such a body led by one of its members who was hierarchically superior. Simultaneously, there occur increasingly often names of offices preceded by *protos*, also in order to designate the leading post within a body. This hierarchization of offices, including within a given college, came to be predominant in the Roman period¹⁷. In Bithynia, such offices, unlike in other parts of Asia Minor, do not precede provincialization, they must have been created by the *lex Pompeia*¹⁸.

In the old Greek cities on the western Black sea shore, neither First Archons nor the *synarchia* occur. Only late, in the 3rd c. AD, such offices are named by our sources, and this only at Odessos and Dionysopolis¹⁹; here, the *synarchoi* acted as “false” eponyms²⁰, for at Odessos the priest of Theos

Megas Derzelas²¹ and at Dionysopolis the priest of Dionysos²² continued to hold the eponymous office also in the Roman period. The use of the formula ἄρξαντα τὴν πρώτην ἀρχὴν or similar at Tomis (ISM II 70, 96, 97) and Dionysopolis (IGB I², 16, 19) refers to the simple office of archon²³.

On the contrary, the sources attest at Nicopolis ad Istrum²⁴, Augusta Traiana²⁵, Serdica²⁶, Marcianopolis²⁷, Anchialos²⁸ and Philippopolis²⁹ the office of the First Archon as well as the *synarchia*; the simple office of archon, with the formula ἄρξαντα τὴν πρώτην ἀρχὴν, is also attested³⁰. At Pautalia, apart from the *synarchia*³¹, a simple archon is also named³². As such, these offices, except for Philippopolis, are attested in six of the eleven cities founded by Trajan in Thrace. The other five – Bizye, Nicopolis ad Nestum, Plotinopolis, Topeiros, Traianopolis – have seen little archaeological research and their epigraphical output is by far lower than in the six cities above; thus, a dearth of evidence does not equate the lack of these offices in these latter poleis.

The areas of competence of the First Archon in Thrace cannot be established. They occur mostly as *epimeletai* for various constructions and dedications, which probably means that they were expected to contribute financially, otherwise in honorific or funerary inscriptions. In the cities founded by Trajan they were probably the eponymous n. 1279) holds the opinion that at Anchialos and Odessos the term *synarchia* refers to the colleges of magistrates together.

²¹ SHERK 1992, 234-235.

²² SHERK 1991, 249.

²³ AMELING 1984, 21.

²⁴ Αὐρ(ήλιος) Δινεδινίδος ἀσ πρῶτος ἄρχων, IGB II 730, AD 218-222 or 222-235. ἐπὶ συναρχίας Ἰουλίου Ἰουλιανοῦ ἀρχιερατικοῦ κὲ πρώτου ἄρχοντος, IGB II 642, reign of Gordian. Valens *protarchon*, IGB II 657, 2nd 3rd c. AD. Ἀν ἀρχιερεὺς καὶ πρωτάρχων in IGB II 764, 2nd 3rd c. AD.; *synarchia* of Felix son of Mukapor, IGB II 680. A possible further piece of evidence comes from Dojrenci by Lovech (Melta), if the completion πρῶτος ἄρχων[ν ?] is correct (IGB V 5199, 2nd 3rd c. AD).

²⁵ *Synarchia* of the First Archon Flavius Valerianus, IGB V 5569 = SEG 37, 599, Commodus; *synarchia* of Septimius Aurelius Bassus, IGB III2, 1553 and 1554, AD 196-198; Flavius [Theopompos], *protarchon*, SEG 52, 693, Septimius Severus or Caracalla; *synarchia* of Aurelius Demetrius Apphou, IGB III2, 1556-1558, Septimius Severus or Caracalla; T. Flavius Apollodoros, *protos archon*, IGB III2, 1555, AD 210-222; Archias Archedemou, *protos archon*, IGB III2, 1560, Caracalla; Bei]thys, *protarches*, IGB III2, 1559, Caracalla; M. Aurelius Asiaticus, *protos archon*, *archiereus* of the Imperial cult, priest of Dea Roma, SEG 52, 694, after AD 212; Aurelius Ingenuus Celer, *protos archon*, IGB III2, 1562, AD 222-235; Aurelius Quintus son of Quintus, *protos archon*, IGB III2, 1565, reign of Gordian; Aurelius Kar...thos, *protos archon*, IGB III2, 1707, reign of Gordian.

²⁶ *Synarchia*, IGB IV 1907, AD 142; *synarchia* of the First Archon Flavius Pompeius Montanus, IGB IV 1926, cf. IGB V 5676, AD 161-163; Bassus Moca, priest, First Archon, *eirenarches*, *sitarches*, IGB IV 1953, cf. IGB V 5679, second half of the 2nd c. AD; *synarchia* of Iulius Philappos, IGB IV 1992, AD 222-235; First Archon, IGB IV 1914.

²⁷ *Synarchia* of P. Aelius Auluporis, IGB V 5334, AD 161.

²⁸ IGB I², 369 (AD 213-217, completed), 369 *bis* (AD 222-235).

²⁹ *Synarchia* of the First Archon doros Beithyos, IGB III1, 881, ca. AD 186; M. Aurelius Alexandros, thrakarch and First Archon, AD 218-222 (SHARANKOV 2007, 525 no. 7 = SEG 57, 625 = AE 2007, 1256 = BE 2009, 337); First Archon T. Flavius Philodemos, SEG 57, 626 and 627, Elagabal or Severus Alexander; T. Flavius Priscianus, thakarch *ek progonon*, *archiereus* and First Archon, SEG 55, 760 = AE 2005, 1377, and SEG 31, 677B = IGB V 5408, Severus Alexander; First Archon Aurelius Apollonides Apollodotou, IGB III1, 1515, Maximinus Thrax; Eustochios Celer son of Asklepiades, IGB III1, 1449.

³⁰ Nicopolis ad Istrum: IGB II 665, 2nd 3rd c. AD.

³¹ *Synarchia* of Iulius Iulianus, IGB IV 2072; *synarchia* of Tarsos son of Celsus, Diogenes son of Apollonios and Apollinarios son of Auloutrales, IGB IV 2074; *synarchia*, IGB IV 2214 = IGB V 5968.

³² SEG 46, 867, late 3rd c. AD.

⁹ I.Didyma 46, 47; NAWOTKA 1997, 114-115.

¹⁰ See for this in detail EHRHARDT 1983, 208-210; NAWOTKA 1997, 134-137, 154-157, 165-166, 179.

¹¹ ISM I 7, 9, 12 (3rd c. BC), 26 (2nd c. BC), 37 (late Hellenistic); magistrates generally: 20, 22 (ca. 200 BC), 67-68 (ca. 200 AD), 180 (2nd c. BC); cf. NAWOTKA 1999, 57. Apollonis daughter of Diogenes (ISM I 120) held in the 2nd c. BC an office described as ἄρξασα; this is more likely to be understood as „magistrate“ than as (EHRHARDT 1983, 516 and n. 1282) that as „magistratearchon“ (NAWOTKA 1997, 134-135 n. 132). None of the inscriptions of Istros offers – except for the proposing of decrees – details for the field of competence and the concrete activities of the archons; the inscription ISM I 65 (first half of the 3rd c. BC), which gives such details (l. 38: the archons are to set up the stele), probably does not belong to Istros, but to Olbia, see COJOCARU 2010; COJOCARU 2012.

¹² ISM II 2 (ca. 100 BC); 4 (late 2nd c. BC; completed); 5 (ca. 100 BC). The office continues to be attested into the Roman period: ISM II 58 (second half of the 2nd c. AD); 61 (reign of Antoninus Pius); 70 (reign of Marcus Aurelius); 96-97 (Severan period); 150 (2nd c. AD); 273 (early 3rd c. AD); however, the inscriptions of the Roman period do not include indications for the field of competence of the archon. Cf. NAWOTKA 1999, 62.

¹³ IGB I², 389 (mid-3rd c. BC), 392 (early 1st c. BC). Cf. NAWOTKA 1999, 67.

¹⁴ NICORESCU 1933, 566 no. 2.

¹⁵ At Kallatis: ISM III 3 (early Hellenistic), 75 (second half 3rd c. BC); cf. A. Avram, ISM III, p. 90.

¹⁶ At Mesambria, supposing that the completion τοὺς [ἄρχων]τας in IGB I², 315 (late 1st c. BC) is correct.

¹⁷ See for this DMITRIEV 2005, 61, 112-113, 237-238, with further literature.

¹⁸ AMELING 1984.

¹⁹ Odessos: IGB I², 47 (*synarchia*; AD 215); IGB I², 47**bis** (*synarchia*; AD 221); IGB I², 48 (*synarchia*; AD 238). Dionysopolis: IGB I², 14 (First Archon; after AD 212).

²⁰ For the “false” eponyms see PIPPIDI 1967, 82-85. Ehrhardt (1983, 209 and

magistrates, various documents are dated after them³³.

The same body of archons occurs in the Roman period also in the cities of the northern Black Sea shore. At Tyras³⁴, the *protos archon* presided over a body of three further archons; he also held the eponymous office³⁵. It is unknown who held this in the pre-Roman period; possibly here, as in other Milesian Black sea *apoikiai*, the priest of Apollon Ietros³⁶. At Olbia there is also attested in the Roman period a body of five archons, presided (with the formula οἱ περὶ τὸν ...) by the First Archon³⁷. The eponymous office was at this time held by the archon³⁸. There had been archons at Olbia since the Hellenistic period at the latest³⁹, a panel with various, but specific tasks⁴⁰; but in the pre-Roman period, the eponymous office was held by the priest of Apollo and/or the *aisymnetes* of the Molpoi⁴¹. At Chersonesos also there occurs in the Roman period a body of archons, led by a First Archon⁴², which does not hold the eponymous office; eponymous are here, in the 1st- 3rd c. AD as previously, still the *basileis*⁴³.

These areas, the Thracian interior as well as the western and northwestern Black Sea shore, held during the Principate especially close relations to Bithynia and the Bithynian influence is visible particularly in the cities founded by Trajan. In the old cities on the Black Sea, the presence of the *synarchia* and/or of the First Archons may be explained through such relations and influence only. As far

³³ SHERK 1992, 250-251. Anchialos and Marcianopolis are not included.

³⁴ IOSPE I², 2 (AD 181), 4 (AD 201).

³⁵ SHERK 1992, 253.

³⁶ See for this EHRHARDT 1983, 198 and n. 1170.

³⁷ HUPE 2006, no. 22 (late 1st- early 2nd c. AD); IOSPE I², 131 = HUPE 2006, no. 1; IOSPE I², 130 = HUPE 2006, no. 31 (second half of the 1st- first half of the 2nd c. AD); HUPE 2006, no. 16 (first half of the 2nd c. AD); IOSPE I², 132 (= HUPE 2006, no. 13, first half of the 2nd c. AD; ca. AD 145 or somewhat later); IO 88 = HUPE 2006, no. 30, mid-2nd c. AD; IO 86 = HUPE 2006, no. 34 (second half of the 2nd c. AD); IOSPE I², 134 = HUPE 2006, no. 32 (2nd c. AD); IOSPE I², 42, 43, 46, 47 (ca. AD 200); IO 52 (ca. AD 205); IOSPE I², 133 = HUPE 2006, no. 11 (third quarter of the 3rd c. AD). For the dates see IVANTCHIK/KRAPIVINA 2007; cf. also SEG 57, 722.

³⁸ E. g.: IO 42 (1st- early 2nd c. AD); IVANTCHIK/KRAPIVINA 2007, 111 = SEG 57, 725 (ca. AD 110); IOSPE I², 128, 129 (ca. AD 145); SEG 49, 1028B (ca. AD 150); IVANTCHIK/KRAPIVINA 2007, 115-116 = SEG 57, 726 (ca. AD 165); IO 47 (second half of the 2nd c. AD); 86 (ca. AD 200); 87 (completed); 88, 90 (late 1st- mid-2nd c. AD). See NAWOTKA 1999, 51-52; SHERK 1992, 236.

³⁹ EHRHARDT 1983, 209 and n. 1284-1287; NAWOTKA 1999, 47-48.

⁴⁰ Proposers of decrees: IOSPE I², 25 + 31; SEG 32, 794, ca. 325 BC (completed); IOSPE I², 26, 29 (completed), 31 (completed), 32, 3rd c. BC; IO 163, first half of the 2nd c. BC (completed); IO 45, 2nd c. AD (completed); purchase of wine for the city: IOSPE I², 32, l. 19-20, and the convocation of the People: IOSPE I², 32, l. 85-86, ca. 200 BC; responsible for the erection of decrees: IO 29, mid-3rd c. BC; IO 35, 2nd c. BC; IVANTCHIK/KRAPIVINA 2007, 101, second half of the 2nd c. BC, cf. SEG 57, 723.

⁴¹ See for this GRAF 1974; GRAF 1979; EHRHARDT 1983, 198-199; SHERK 1992, 235-236.

⁴² Five archons besides the First Archon: IOSPE I², 359 (AD 129/30); in SEG 56, 873 (ca. AD 75-175) the name of the office is completed. The inscription IOSPE I², 471, naming the First Archon (πρωταρχωντεύων) Gazourios son of Metrodoros, was tentatively dated by Watzinger (KIESERITZKY/WATZINGER 1909, no. 409) to the early 1st c. AD, which would turn it into the by far earliest evidence for First Archons on the western Black Sea shore and in Thrace. A broader date (1st- 3rd c. AD) is preferable.

⁴³ IOSPE I², 353, ca. 107 BC; IOSPE I², 354, 17-16 BC (completed); IOSPE I², 357, ca. AD 100; IOSPE I², 358, AD 129-130; NEPKh II 112, ca. AD 140 (completed); IOSPE I², 359-361, early 2nd c. AD (completed); IOSPE I², 365, 699, 2nd c. AD (completed); IOSPE I², 376, 384, 698, Roman period. Cf. SHERK 1991, 239-240. For the institutions of Chersonesos in the pre-Roman and Roman periods, see SAPRYKIN 1991; ZOLOTAREV 2003.

as the Greek cities in inland Thrace are concerned, there may be something more to it.

Relatively little is known of the circumstances of foundation of these cities⁴⁴; but there are obvious similarities with the city foundations of Pompey the Great in Pontus. In both cases, comprehensive city foundations were decided as a result of difficult and prolonged military operations; in both cases, an extensive area (the interior of Pontus in the one case, inland Thrace in the other), previously lacking Greek cities, was endowed with such, either by granting polis status to already extant settlements, or by establishing new ones *ex nihilo*. Pompeius organized through his *lex provinciae* the entire newly established province and unitized at least some institutional aspects of its new and older Greek cities. Whether Trajan did the same, is unknown; it is however likely that he drew upon the precedent created by his predecessor and introduced some of the innovations of Pompey in his Thracian city foundations.

But this was not an exact imitation of Pompeian offices and institutions. None of the other offices which occur in several Bithynian cities are clearly attested in Thracian or western Pontic cities. Neither the *timetes* nor the *grammateus* of the Council and of the People are present here. There is an *argyrotamias* at Nicopolis ad Istrum (IGB II 665) and at Augusta Traiana (IGB III2, 1707), but this is hardly an office corresponding to the (ἀργυρο)ταμίας τῶν σειτονικῶν/ἐλαιωνικῶν χρημάτων attested at Prusias ad Hypium, Kios, Nikomedeia, Nikaia and Prusa⁴⁵. There are no known details on the functioning of the Council in these cities. The (few known) *phylai* offer no parallels to those in Bithynian cities; conspicuous is in the cities founded by Trajan the lack of *phylai* names derived from Roman emperors and their kin, which appear often in Bithynian cities⁴⁶.

A further example for Bithynian models which were taken on only conditionally is the cult of Zeus Olympios. It occurs in only four cities in the Thracian area, where this cult epithet is generally lacking. The four cities are Anchialos⁴⁷, Marcianopolis⁴⁸, Nicopolis/Istrum and Serdica⁴⁹, all of them founded by Trajan; at Pautalia there are only references to the Olympian gods⁵⁰. At Nicopolis⁵¹, Zeus (Olympios) was worshipped together with Hera (Zygia) and Athena (Polias), a combination which corresponds to the Capitoline triad. Against this background it is conceivable that the setting up of the newly founded cities' pantheon was due not so much to their own initiative but to the Romans'. The Capitoline triad was hardly ever present in Asia Minor and the sole instance for a collocation of these three deities occurs in an inscription of Nikaia⁵², dedicated by one of the numerous

⁴⁴ See for this ROSTOVITZ 1957, 249-253; JONES 1971, 1-27; DANOV 1979; WOLFF/VELKOV 1990.

⁴⁵ AMELING 1984, 30.

⁴⁶ See for this KUNNERT 2012, 53-65, 73-92.

⁴⁷ Votive offerings for Zeus Olympios: IGB I², 372; IGB III2, 1839.

⁴⁸ Evidence for the cult of Zeus Olympios: IGB II 800; a relief of the eagle of Zeus: TONČEVA 1960, 72 no. 7. For Marcianopolis see GEROV 1980, 289-312.

⁴⁹ A priest of Zeus Olympios: IGB IV 1917; see also ROBERT 1949, 133-134.

⁵⁰ IGB IV 2066, 2072, 2073, 2214.

⁵¹ IGB II 664-668 (in the last one only Zeus and Hera) – all erected by magistrates or chairmen of associations; see for the cult of Zeus also IGB II 669, 670. At Karaš near the river Iskär, one man, Μαρτιάλης Βειθοῦς β', dedicated for Zeus Olympios (IGB II 498) and Hera Olympia (IGB II 499).

⁵² I. Nikaia 34.

Romans settled in this city, C. Hostilius Ascanius⁵³. Thus, the cult did not reach Thrace from or over Bithynia, but was probably established in connection with the creation of the Trajanic poleis and by the wish of the founder.

The occurrence of the *synarchia* and/or of the First Archon in the Greek cities in inland Thrace was, as well as the implementation of the Capitoline triad under Greek names, a result of the foundation of these cities on Roman initiative and with little recourse to local traditions and facts. Thus, the founder took a look around and took over some features of the constitutions of his new cities from those founded under comparable circumstances in the province Pontus et Bithynia. Moreover, the close relations of Bithynia to the western and northwestern Black Sea shore made sure that the office of First Archon and the *synarchia* were received in those cities also.

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SOME TACTICAL ELEMENTS FOR ARCHERS IN THE ROMAN ARMY

Abstract: This paper follows issues of tactical fight for a special category of troops of the Roman army, namely the archers. Archers troops usually have in its name the indicative *sagittarii*, *sagittaria*, *sagittariorum*. These troops are of two types: pedestrian and mounted.

Keywords: archers, bow, arrow, beaten zone, mounted archers

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The Roman Empire's military vision has in its centre the troops of legionary heavy infantry. In time, due to the challenges arising from the extent of the territory and therefore confronting new enemies who have various combat tactics, the Roman generals felt the need to adapt. Therefore they introduced specialized auxiliary troops. This paper follows issues of tactical fight for a special category of troops, namely the archers. Archers troops usually have in its name the indicative *sagittarii*, *sagittaria*, *sagittariorum*¹. These troops are of two types: pedestrian and mounted.

The archers were first mentioned in connection with *Scipio's* army from *Hispania*, and these were organized in small groups corresponding to the legionary *centuriae*². Incorporating them into the Roman army as regular units would be still a long process. The archers will not be used from the end of the Punic wars until Caesar's campaigns in *Gallia*. *Caesar* uses in these campaigns Cretan and Numidian archers³, and it mentions the presence of some solid units of Gauls archers in Vercingetorix's army⁴.

All the archers in the Roman army, be they on foot or mounted, used the "Mediterranean" shooting technique⁵, the oldest known technique⁶. The mechanics of launching an arrow is based on three actions: stretching the cord, keeping the cord stretched, taking aim and releasing the cord and the arrow⁷. The archer fixes the arrow in the cord, turns towards the target and raises the bow with the left hand stretched in front, holding it vertically, at the same time pulls the cord with the right hand until it reaches the chin, the right shoulder or the right ear⁸, he takes aim looking over or under the arrow, depending on the distance to the target. While stretched, the cord is held with a finger above the arrow and with another one or two under it⁹ (Fig1,

¹ ŢENŢEA 2007, 153; ŢENŢEA 2012, 102.

² FEUGÈRE 1993, 211.

³ CAESAR, *BG* 2.7; DAVIES 1977, 261; GILLIVER 2005, 16.

⁴ CAESAR, *BG* 7.31; 7.36; 7.80.

⁵ STEPHENSON 1999, 85.

⁶ MORSE 1885, 4.

⁷ MCALLISTER 1993, 13.

⁸ PROCOPIUS 1.1.15.

⁹ GOLDSWORTHY 1996, 185; COULSTON 1985, 278.

2,b). It is preferred that the archer not to stand too much with the bow stretched in order to reduce the fatigue and the shaking¹⁰. In the case of the Mediterranean technique, the arrow is held on the left side of the bow¹¹.

Another well known shooting technique is the "Mongolian" one, which states the support of the arrow between the thumb and the pointer finger¹². This technique utilizes a ring, usually made of bone, to protect the thumb from cord friction (Fig2, b). These type of rings have not been discovered before the Byzantine period, that is why it is supposed that this technique was not employed by the Roman army¹³. In this technique the arrow is held on the right side of the bow¹⁴. The Sasanian archers have never adopted the Mongolian shooting technique, which they considered to be barbarian. They stretched the cord with the middle and ring fingers, the pointer finger and possibly the thumb were used for supporting the arrow. The Saracen archers used protection for the tip of their fingers in order to avoid cord wounds. The finger protections were fixed with the aid of small chains, that after were tied around the wrist they formed a cross on the back of the palm and the two ends were tied around the middle finger¹⁵.

THE PEDESTRIAN ARCHERS

The archers have an important role in the beginning of the battle trying to demoralize and disorganize the enemy by causing great losses from afar¹⁶. Their purpose in the beginning of the battle is to create gaps in the enemy's attack line and, if possible, to eliminate as many components of the adversary's commands. Thus, in case of an attack by heavy infantry or heavy cavalry¹⁷ the losses were minimized for their own side and the enemy would become more vulnerable¹⁸.

During the fight, the archers are intended to support other troops by standing behind them and shooting their arrows above them¹⁹, in between the heavy infantry's intervals, or on the flanks²⁰. Thus, very often, the archers along with the *slingers* or the cavalry²¹ would offer support to the heavy infantry against the attacks of the enemy's cavalry²². *Titus*²³, and later on *Valerianus*, together with *Anullius*²⁴ (*Septimius Severus'* generals) have placed their archers and spearmen behind the legions in order for them to shoot the arrows and spears above their line. This is the solution *Arrian* propose to adopt against the Alans²⁵. Although this type of positioning was criticized by some military art theorists, because the archer had to shoot above the infantry's front rows, thus decreasing quite a lot the

range of the arrow and the acuity of the strike²⁶, it can not be negated the utility for their protection and for the fact that they could continue shooting even after the battle line was at close range. If the army was positioned on a slope the shooting range would increase²⁷.

Another example for the archer's positioning often described during the battles is on the heavy infantry's flanks²⁸, alongside to the slingers and other soldiers specialized in projectile launching. The modern authors have interpreted this positioning as being a tactic to protect in flanks²⁹. Because it's well known even from Antiquity the archers' vulnerability³⁰, this explanation is not plausible. This explanation is based on the "small firearms theory"³¹. This supports that no weapon can hit a target in the same place every time no matter its accuracy. This depends on various factors: variations of the projectiles' mass, variations of propulsion, disruptions in the air which increase or shorten the length of the soaring or the deviation. The projectiles shot by an army towards a target would describe a cone, that when it intersects with the ground creates the so called beaten zone (Fig3) with an elliptical form, with its long axis parallel on the line of the weapon to the target. The battle zone may vary according to the appearance of the terrain. In order for the projectile launching troops to have a greater efficiency they must be placed so the long axis of their battle zone to coincide with the target's long axis, this being possible by placing them on the flanks³².

An unusual example for utilizing the archers is when *Titus* used his archers during the siege of Jerusalem in street combats³³.

THE MOUNTED ARCHERS

As it is the case with pedestrian archers, even though the Roman generals have experimented on themselves the utility of the mounted archers, there is no proof of using this type of troops in the Roman army until the Civil wars between *Caesar* and *Pompeii*, when the latter receive from *Antiochus* of *Commagene* a contingent of archers on horse³⁴. They are mentioned, along side the pedestrian ones in *Germanicus'* army during the campaign against the *Chatti*³⁵, but the actual troops of mounted archers will be created only in the Flavian dynasty, when the Roman army's purpose was to remedy its inefficiency against the *Sarmatians* and the *Dacians*. Now, for the first time, we have regulated units of archers on horse recruited almost exclusively in the Eastern Empire³⁶. These troops have been used in wars and as garrison troops on the limes in *Pannonia*, *Dacia*, *Germania*³⁷, *Britannia*³⁸, the north of Africa and in Levant³⁹.

¹⁰ MCALLISTER 1993, 15.

¹¹ MORSE 1885, 4.

¹² MCALLISTER 1993, 14.

¹³ COULSTON 1985, 275-278.

¹⁴ MORSE 1885, 5.

¹⁵ FARROKH/MCBRIDE 2005, 14.

¹⁶ GILLIVER 2008, 130.

¹⁷ BRADBURY 1985, 28.

¹⁸ GOLDSWORTHY 1996, 234.

¹⁹ ARRIAN, *Alani* 18, 21, 26.

²⁰ CASSIUS DIO 75.7.2; COWAN 2011b, 284.

²¹ CAESAR, *BC* 3.88.6; 3.93.3.

²² GOLDSWORTHY 1996, 190.

²³ FLAVIUS JOSEPHUS, *BJ* 5.130-5.135.

²⁴ CASSIUS DIO 75.7.

²⁵ ARRIAN, *Alani* 18, 25-26.

²⁶ ONASANDER 17.

²⁷ GILLIVER 2008.

²⁸ ARRIAN, *Alani* 12-14; CAESAR, *BAfr*. 60, 81.

²⁹ COULSTON 1985, 292-294.

³⁰ CAESAR, *BG* 7.80.7, *BC* 3.93-3.94.

³¹ MCALLISTER 1993, 103.

³² MCALLISTER 1993, 102-106.

³³ FLAVIUS JOSEPHUS, *BJ* 5.8.1.

³⁴ CAESAR, *BC* 3.4.5.

³⁵ TACITUS, *Ann.* 2.16.

³⁶ EADIE 1967, 166; WHEELER 2007, 261.

³⁷ *Cohors I Flavia Damascenorum*.

³⁸ *Cohors Hamiorum sagittariorum*.

³⁹ MCALLISTER 1993, ii, 2, 95-101.

Flavius Josephus offers numerous details about the utilization of these archers, especially as protection for the army on the march⁴⁰, and *Tacitus* about their actions of attack and pursuit⁴¹. A very important source regarding this type of troops is *Arrian*, whose army included mounted archers. *Ammianus Marcellinus* considers them formidable thanks to their armor, but unfortunately speaks little and extremely rare about these riders in order for the information to be used⁴².

Sadly, *Vegetius* doesn't mention at all the archers on horse, but he does offer precious information regarding archers and the cavalry in general⁴³. There is enough information about the archers on horse in the VI-VII A.D. centuries which can be useful even for the Principate period. *Procopius*, in *Bellum Gothicum*, frequently describes the Roman army battle line in the 6th century A.D., which was mainly composed of mounted archers⁴⁴, and the Emperor *Mauricius' Strategikon* contains references regarding the training and utilization of both the archers on horse and on foot⁴⁵.

The majority of the archers on horse were raised from the Eastern Empire population, that were famous for their ability in archery and in riding⁴⁶, because utilizing with great precision a bow while on horse necessitated a skilled rider. The horses were trained in such a way that they didn't act negatively when the archer squeezed his knees in order to rise in the moment of launching the arrow⁴⁷. Also, when additions to this troops were needed, the recruitment was not done locally, as was the case concerning other troops, but in the area of origin of the troop⁴⁸.

During the march the mounted archers had a well established and important role in the avant-garde and on the flanks in order to protect the army from possible surprise attacks. On the battle field they were used mostly as support troops, and in the case of a chasing they were the most appropriate because of their mobility.

The introduction of the mounted archers diversifies the harassment possibilities especially if the adversary has a solid and ordinate infantry⁴⁹. If the army would attack, they were the ones to usually open hostilities, their purpose being to create confusion, to demoralize and disorganize the enemy by causing great losses from afar, in order to ensure the success of the main charge. The mounted archers are often used in pursuits, because of their mobility, the terror and disorder they bring to the enemy's retreating lines. Also, because their weapons allow fighting from afar, their integrity is not endangered⁵⁰. They were extremely efficient especially in chasing and dispersing the demoralized heavy cavalry who missed its charge and is running, because they were not forced to fight in block and were a lot lighter and

faster⁵¹. If the enemy doesn't have mounted archers in order to counter the attacks, it could suffer important losses⁵². The archers were extremely useful combined with the heavy cavalry because they were able to create breaches in the enemy's defense line, breaches that were exploited to the maximum by the heavy cavalry⁵³.

The usual tactic that they adopted was the following: the archer rode towards the enemy shooting straight ahead. When he reached the effective range of action he turned to the right and rode parallel with the enemy, firing as many arrows as possible in the enemy's direction. The archer was ready to turn right if the enemy tried to approach⁵⁴. Afterwards he would turn with its back and probably would shoot a few arrows during the retreat. Since in this case it was quite difficult to take aim, the purpose was to send a rain of arrows toward the zone occupied by the enemy in order for some of them to find their target. In these cases speed is more important than precision⁵⁵. It is approximated that during an attack of this kind, an archer would manage to shoot approximately 3 arrows in 1.5 seconds⁵⁶. One archer can empty a quiver of 30 arrows in 3 minutes⁵⁷, and in order to enhance the number of shot arrows the Sasanians invented a device called *panjagan*, which allowed the archer to send five arrows at a time⁵⁸.

Another tactic often encountered in the East archers on horse was the flight simulation while continuing to shoot arrows over the back of the horse. This technique named "partic" or "retreat" was probably used by archers to escape without wounds in case they would finish their arrows or to lure the enemy into a trap⁵⁹.

It is possible that the archers had also spears in order to reduce their vulnerability if they were in danger of being caught by the enemy. In order to escape their followers, from an attempt of circling them or a heavy cavalry charge, they had the advantage of mobility⁶⁰ given by their equipment's lightness and the horses' amazing speed and total submission⁶¹. If the arrows were depleted, the archers on horse can renew their stock quickly and easily thanks to their great speed⁶².

The mounted archers are faster than the pedestrian ones, but they can use this advantage only in the open field. They can get closer or further from the enemy at greater speed and envelop the enemy line⁶³. Also, if the need arises they can dismount and fight just like the pedestrian archers do. If they have to cross a river, they can do it much faster than the pedestrian ones, facilitating even the crossing for the latter ones⁶⁴.

The archers on horse use smaller bows than the

⁴⁰ FLAVIUS JOSEPHUS, *BJ* 2.500-2.501; 3.66-3.69; 5.47-5.49.

⁴¹ TACITUS, *Ann.* 2.17.

⁴² AMMIANUS MARCELLINUS 16.12.7.

⁴³ VEGETIUS, *passim*.

⁴⁴ MCALLISTER 1993, 5.

⁴⁵ MAURICIUS, 12; SCHEUERBRANDT 2004, 50.

⁴⁶ RUSCU 1996, 216.

⁴⁷ DIXON/SOUTHERN 1992, 119.

⁴⁸ CHEESMAN 1914, 82-84.

⁴⁹ ȚENȚEA 2012, 102.

⁵⁰ MCALLISTER 1993, 9.

⁵¹ RUSCU 1996, 216.

⁵² DIXON/SOUTHERN 1992, 143.

⁵³ PLUTARCH, *CRASSUS* 24-25; CASSIUS DIO 40.22-40.24; EADIE 1967, 164; LUTTWAK 1976, 43; COWAN 2011A, 35.

⁵⁴ GOLDSWORTHY 1996, 67.

⁵⁵ GOLDSWORTHY 1996, 188, 233.

⁵⁶ LATHAM, PATERSON 1970, 142; GOLDSWORTHY 1996, 232.

⁵⁷ HEATH 1980 *apud* MILLER/MCEWEN/BERGMAN 1986, 188.

⁵⁸ FARROKH/MCBRIDE 2005, 14.

⁵⁹ PLUTARCH, *Crassus* 24.5-24.6; PEDDIE 1996, 91; MONTAGU 2006, 67.

⁶⁰ THORNE 2007, 223.

⁶¹ COULSTON 1985, 293-4; DIXON/SOUTHERN 1992, 77.

⁶² PLUTARCH, *Crassus* 25.

⁶³ MCALLISTER 1993, 38.

⁶⁴ CAESAR, *BG* 7.56.

pedestrian ones do⁶⁵, because they are easier to handle when the archer has to change the direction of shooting over the horse's neck. If they were to use bigger arrows and bows, the quiver might descent to much and impend the horse in its movement⁶⁶. Also with a bow like this they can shoot straight ahead, over the horse's head, without the horse and its archer being hindered⁶⁷.

The horses used by the archers needed special training in order not to respond negatively when the archer squeezed the knees and raised while shooting⁶⁸.

A moving horse represents a very instable "shooting platform", such as the accuracy of hitting a target while running was quite reduced. That is why its purpose in that moment was not to hit a certain target, but to send as many arrows towards the enemy as possible, in order for a part of them to find a target. As we can see in these cases precision comes second to firing speed⁶⁹. Still, this irregular movement was favorable to the archers because they became themselves elusive targets⁷⁰.

A single archer was enough, no matter if he was on horse or on foot, in order to create disorder and to terrorize the enemy; he has a certain immunity given by the range of action, and when feeling threatened he can retreat to shelter⁷¹. An archer can deliver deadly blows from great distances to individual targets or by shooting in the enemy as a whole. He can shoot several arrows per minute until his quiver is empty, when he has to return for a refill of the arrows or tries to reuse the ones fallen in his area⁷².

The archers were the most efficient harassment troops used by the Roman army, proof being the large number of this type of troops in the Empire. Their usage alongside slingers, creates panic amongst the adversaries because usually they see to late the projectile that hits them and are unable to defend themselves. Unfortunately the archers are very vulnerable to attacks because of their lack of armor⁷³ in order to move efficiently, and the fact that using a shield while shooting a bow is impossible⁷⁴. That is why in order to be truly efficient, they have to be accompanied by spearmen and heavy infantry troops to provide protection⁷⁵, or to be positioned in difficult accessible places⁷⁶.

Another weakness of these troops is the fact that archers are impossible to use in rain or snow, because the bow's cord, made out of skin or tendons, loses its elasticity on account of humidity⁷⁷.

⁶⁵ SPEIDEL 1994, 105; COULSTON 1985, 245-246; DIXON/SOUTHERN 1992, 53.

⁶⁶ COULSTON 1985, 246; MCALLISTER 1993, 27, 41.

⁶⁷ BRADBURY 1985, 12.

⁶⁸ DIXON/SOUTHERN 1992, 119.

⁶⁹ GOLDSWORTHY 1996, 67.

⁷⁰ GOLDSWORTHY 1996, 232.

⁷¹ MCALLISTER 1993, 38.

⁷² MCALLISTER 1993, 38.

⁷³ VEGETIUS 1.20; 2.15 notes that between those for who the armor was not specific, it has been imposed because they could not wear shields.

⁷⁴ MCALLISTER 1993, 37-38.

⁷⁵ TACITUS, *Ann.* 2.17; GOLDSWORTHY 1996, 190.

⁷⁶ ARIAN, *Alani* 12-21; TACITUS, *Ann.* 1.16.

⁷⁷ FRONTINUS 4.8.30. For details on bow and arrow see URECHE 2013.

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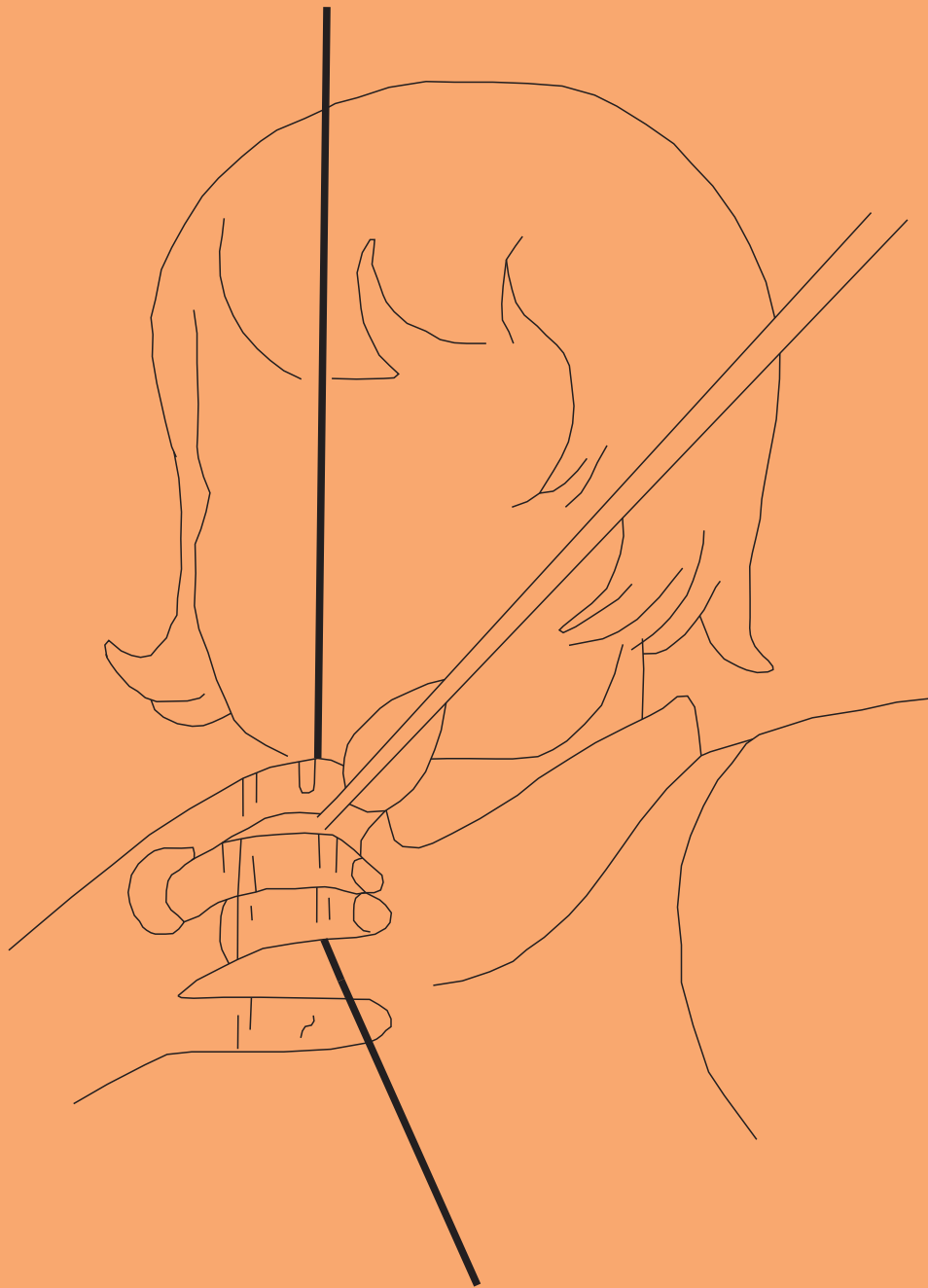
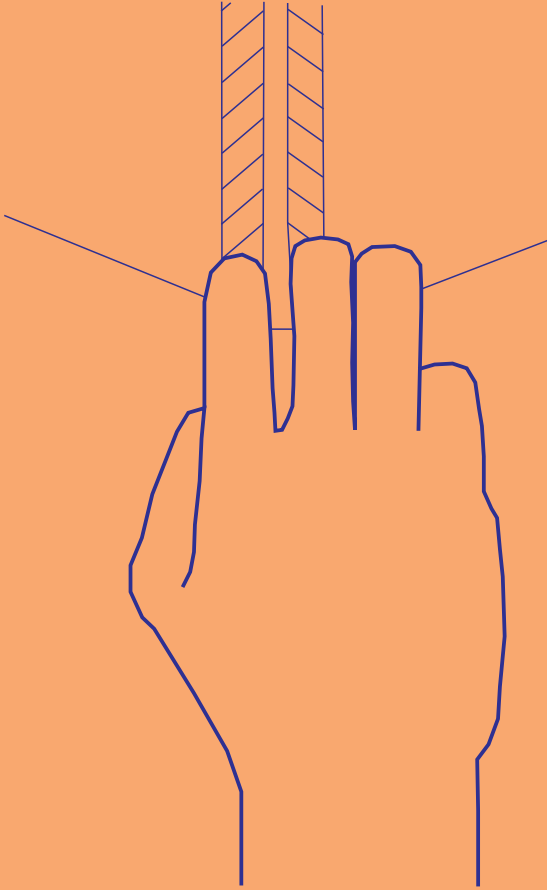
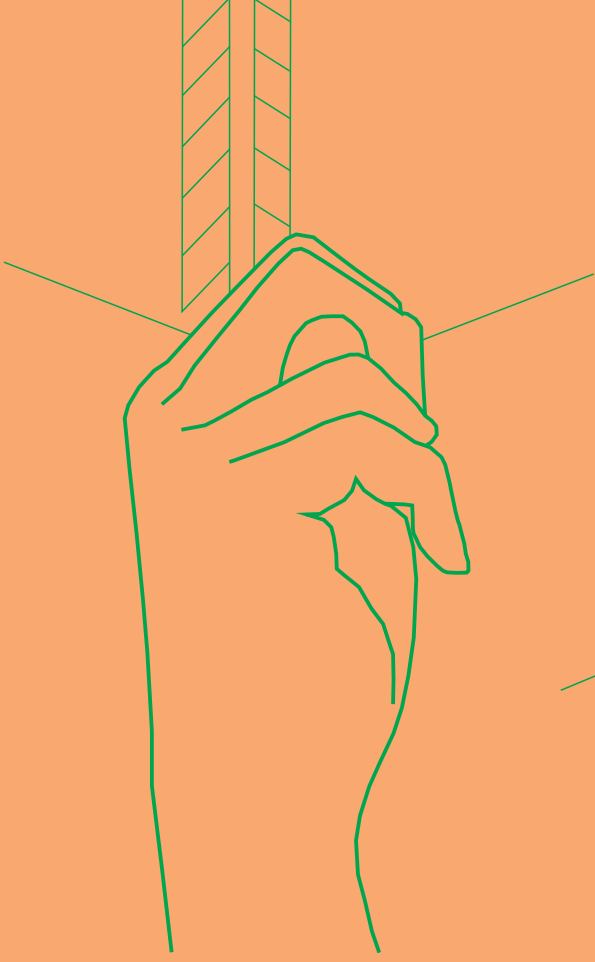


Fig. 1: Mediteranean Draw (redrown after Baier, Bowers, Fowkes, Schoch 1976, 37).

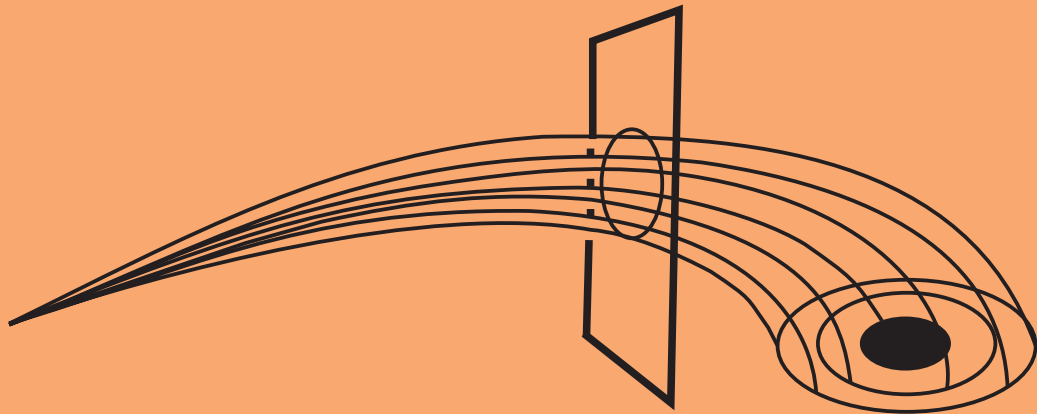


A - Tehnica Mediteraneană

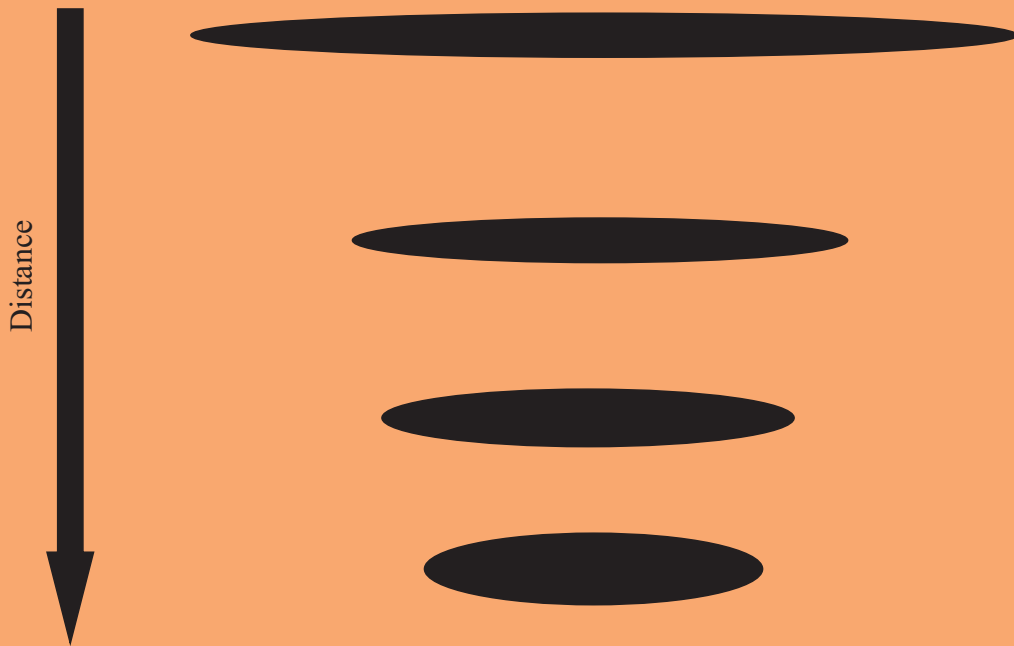


B - Tehnica Mongolă

Fig. 2: Draw techniques (redrawn after Morse 1985, Fig. 8-12)



A



B

Fig. 3: A - Cone of Fire (redrawn after McAllister 1993, 122, Fig. 25)

B - Beaten zone (redrawn after McAllister 1993, 123, Fig. 26)

INTERTEXTUALITY IN THE DEATH OF A PILOT: THE Κυβερνήτης ἄριστος IN LUCIAN'S *VERAE HISTORIAE*

Abstract: In Lucian's *Verae Historiae*, Lucian ensures the success of his voyage by providing the very best supplies and equipment for his men. As part of his preparation he hires on the best pilot that money could buy, this pilot is only heard from at one other point in the narrative, at his death in the belly of the sea monster. This paper examines the intertextual context of the pilot's death and how Lucian uses it to further the juxtaposition of himself with that greatest of liars, Odysseus.

Keywords: Greek; literature; intertextuality; Lucian of Samosata

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Before beginning his journey into the unknown in the *Verae Historiae*, Lucian makes sure that his ship is well outfitted and that his men have enough provisions. Along with the materials needed for the voyage, he hired on a gifted pilot: καὶ κυβερνήτην τὸν ἄριστον μισθῷ παρέλαβον [And I secured the best pilot, persuading him with a great deal of money].¹ After the pilot is singled out in the prologue, the other members of the crew are introduced in a group as fifty like-minded young men: πενήκοντα δὲ τῶν ἡλικιωτῶν προσεποιησάμην τὴν αὐτὴν ἔμοι γνώμην ἔχοντας [I gathered a group of fifty young men, who had the same opinion as I],² the reader expects to hear more about this best of pilots. Were his skills worth the price? The reader's expectations are dashed, however, and we hear nothing about him until this very expensive pilot is killed in action, along with one other,³ while the crew battles against the fishy inhabitants of the sea monster.⁴

Despite the expectation that this loss would be mourned, or at least acknowledged, the pilot is merely replaced by Skyntharos, the old man the crew encounters in the belly of the sea monster,⁵ and they continue on their voyage. Shortly after, the crew crosses the Sea of Milk and reaches the Underworld,⁶ visiting both the Isle of the Blessed⁷ and the Isle of the Damned.⁸ Here, of all places, where the crew encounters the souls of so many others, we would expect a scene in which Lucian meets the pilot again, or at least mentions seeing him, there is, however, no trace of this pilot on either of these islands. The lack of emotion in the death of the pilot, and the ease by which he was replaced may be accounted for by the nature of the voyage itself: Ὀρμηθεὶς γὰρ ποτε ἀπὸ Ἡρακλείων στηλῶν καὶ ἄφεις εἰς τὸν ἑσπέριον

1 Lucian *Verae Historiae* I. 5.

2 Lucian *Verae Historiae* I. 5.

3 Although there seems to be some confusion about whether there is another mariner killed or not.

4 Lucian *Verae Historiae* I. 37.

5 Cf. GEORGIADOU/LAMOUR 1998.

6 Lucian *Verae Historiae* II. 3-35.

7 Lucian *Verae Historiae* II. 5-29.

8 Lucian *Verae Historiae* II. 30-32.

ὠκεανὸν [We set forth once from the Pillars of Herakles and sailed into the western ocean].⁹ All the experience this pilot had, which made him the “best” pilot, was of little use in this voyage, as it begins where his knowledge ends, beyond the Mediterranean Sea.

In taking up the concept of intertextuality and the “implied reader”¹⁰ and using it in the interpretation of Lucian’s *Verae Historiae*, the idea of the audience is of paramount importance. Already in the prologue, Lucian tells his audience, all knowing “implied readers” who exist in Lucian’s “imagination,”¹¹ that that he alludes to many other authors in his work: ἀλλ’ ὅτι καὶ τῶν ἱστορουμένων ἕκαστον οὐκ ἀκωμωδῆτως πρὸς τινὰς ἡνικταὶ τῶν παλαιῶν ποιητῶν τε καὶ συγγραφέων καὶ φιλοσόφων...καὶ ὀνομαστὶ ἄν ἔγραφον, εἰ μὴ καὶ αὐτῷ σοὶ ἐκ τῆς ἀναγνώσεως φαίνεσθαι ἔμελλον [Each thing I wrote contains some tacit illusion, not without humor, to ancient poets and historians and philosophers... and I would have mentioned them by name, if they themselves would not be known to you from the reading].¹² The “implied reader” as the “ideal recipient” of this text is able to understand all of the intertextual allusions Lucian uses;¹³ this makes him a foil to the actual reader, who may not understand all of these allusions.¹⁴ The construction¹⁵ of an all knowing “implied reader” allows the actual reader a certain freedom in interacting with the text, contributing his own interpretation of the various allusions.¹⁶ The interaction of Lucian’s intertextuality and the interpretation of the readers creates a multi-layered narrative in which every scene can and should be interpreted as holding allusion to a wide variety of other texts. The death scene of the pilot is no different, parallels with other sections of the text allowing the reader to find an intertextual connection, at least on one level, with the death scene of Elpenor in the *Odyssey*.

THE PILOT’S DEATH

In the belly of the sea monster, the crew decides that they would be safer if they clear out the strange and savage creatures that inhabit it.¹⁷ During the ensuing war, Lucian gives us a casualty list following their first battle: ἀπέθανον δὲ τῶν μὲν πολεμίων ἑβδομήκοντα καὶ ἑκατόν, ἡμῶν δὲ εἴς [καὶ] ὁ κυβερνήτης [Of their troops, one hundred and fifty died, of ours one, [and] the pilot].¹⁸ Like much else in the *Verae Historiae*, however, this death is not as straightforward as it seems.

9 Lucian *Verae Historiae* I. 5.

10 A concept first coined in BOOTH 1983. EAGLETON 1983, 84. ISER 1974.

11 SCHMID 2009. ISER 1974 and 1978.

12 Lucian *Verae Historiae* I. 2.

13 “Lecteur idéal” PRINCE 1973, 180.

14 And Lucian quickly follows up this praise with several examples of the allusions he is not going to mention.

15 SCHMID 2010, 51-52.

16 BAXTIN 2002, 427-428.

17 Lucian *Verae Historiae* I. 35.

18 Lucian *Verae Historiae* I. 37. The [καὶ], which is not seen in the Heinemann edition of 1931 is a bit of an issue. If it is to be ignored, then the pilot is the only one of Lucian’s men to die in this battle, if it is to be incorporated in the text, then there is another casualty along with the pilot. This does not, however, pose a problem to the interpretation of the text laid out below, as this mariner remains unnamed and faceless, while the pilot remains the focus of the scene. It is possible that Lucian would add in this other casualty as another irritation that makes the interpretation of the text that much more difficult.

While describing his preparations for the voyage, Lucian tells us that he not only hires on this pilot but: ἔτι δὲ καὶ ὄπλων πολὺ τι πλῆθος παρεσκευασάμην [What’s more, I prepared a great store of weapons],¹⁹ the men are, then, well equipped for a war, unlike the inhabitants of the whale, whose martial readiness Lucian is sure to inquire about before committing to a war with them: «Ὅπλα δὲ τίνα ἐστὶν αὐτοῖς;» «Οὐδέν» ἔφη, «πλὴν τὰ ὅστα τῶν ἰχθύων.» [What type of weapons do they have? “None,” he said, “save the bones of fish].²⁰ While never specifying, it can be assumed that Lucian, as a man of means, and his men had some military experience, even before their participation in the war between the inhabitants of the sun and the moon (V.H. I. 13-18). In addition to their technological superiority, then, the Greeks also enjoy a tactical advantage over the various fish form races inhabiting the sea monster.

Taking advantage of this, Lucian, together with Skyntaros and the other mariners, develop a plan by which they will defeat their enemy. There is some discouraging news, however, for the Greeks, the fish people number «Πλείους...τῶν χιλίων» [More than...one thousand].²¹ This problem is quickly overcome by the mariners thanks to their tactical superiority. Rather than meeting all of these creatures head on, Lucian and his men divide and conquer, defeating the *Psetopodes* and the *Pangouridai* first:

ὁ δὲ ὑπεροπτικῶς ἀποκρινάμενος ἀπεδίωξε τοὺς ἀγγέλους. πρῶτοι οὖν οἱ Ψηττόποδες καὶ οἱ Παγουρίδαι χαλεπαίνοντες τῷ Σκινθάρωτοτο γὰρ ἐκαλείτομετὰ πολλοῦ θορύβου ἐπήεσαν. ἡμεῖς δὲ τὴν ἔφοδον ὑποπτεῦντες ἐξοπλισάμενοι ἀνεμένομεν, λόχον τινὰ προτάξαντες ἀνδρῶν πέντε καὶ εἴκοσι. προεῖρητο δὲ τοῖς ἐν τῇ ἐνέδρῳ, ἐπειδὴν ἴδωσι παρεληλυθότας τοὺς πολεμίους, ἐπανίστασθαι καὶ οὕτως ἐποίησαν. ἐπαναστάντες γὰρ κατόπιν ἔκοπτον αὐτούς, καὶ ἡμεῖς δὲ αὐτοὶ πέντε καὶ εἴκοσι τὸν ἀριθμὸν ὄντες καὶ γὰρ ὁ Σκίνθαρος καὶ ὁ παῖς αὐτοῦ συνεστρατεύοντοῦ πηντιάζομεν, καὶ συμμίζαντες θυμῷ καὶ ῥώμῃ διεκινδυνεύομεν

[He, however, sent away the messengers, answering them disdainfully. First the *Psetopodes* and the *Pangouridai*, angry with Skintharos (this was his name) attacked with a great ruckus. We, having anticipated their attack, awaited them fully armed, we organized an ambush of twenty five men. Those in the ambush were instructed beforehand to rise up and fall upon the enemy when they saw them passing by; and this they did. Falling on them from behind they struck them, and we, being twenty five in number since Skyntarus and his son fought with us, met them, engaging them zealously and hazarded all on our might].²²

Only after these first peoples are defeated do the mariners turn their sights on the remaining creatures, meeting them head on and defeating them as well:

τῇ ὕστεραία δὲ καὶ οἱ ἄλλοι αἰσθόμενοι παρήσαν, τὸ μὲν δεξιὸν κέρασ ἔχοντες οἱ Ταριχᾶνεσίγηιτο δὲ αὐτῶν Πήλαμοστό δὲ εὐώνυμον οἱ Θυννοκέφαλοι, τὸ μέσον δὲ οἱ Καρκινόχειρες· οἱ γὰρ Τριτανομένδητες τὴν ἡσυχίαν

19 Lucian *Verae Historiae* I. 5.

20 Lucian *Verae Historiae* I. 36.

21 Lucian *Verae Historiae* I. 36.

22 Lucian *Verae Historiae* I. 36-37.

ἦγον οὐδετέροις συμμαχεῖν προαιρούμενοι. ἡμεῖς δὲ προαπαντήσαντες αὐτοῖς παρὰ τὸ Ποσειδώνιον συνεμίξαμεν πολλῇ βοῇ χρώμενοι, ἀντήχει δὲ τὸ κῆτος ὡσπερ τὰ σπήλαια. τρεψάμενοι δὲ αὐτούς, ἄτε γυμνήτας ὄντας, καὶ καταδιώξαντες ἐς τὴν ὕλην τὸ λοιπὸν ἐπεκρατοῦμεν τῆς γῆς. καὶ μετ' οὐ πολὺ κήρυκας ἀποστείλαντες νεκρούς τε ἀνηροῦντο καὶ περὶ φιλίας διελέγοντο· ἡμῖν δὲ οὐκ ἐδόκει σπένδεσθαι, ἀλλὰ τῇ ὑστεραίᾳ χωρήσαντες ἐπ' αὐτούς πάντας ἄρδην ἐξεκόψαμεν πλὴν τῶν Τριτωνομενδήτων.

[On the next day the others, hearing of what happened, attacked. The *Tarichanes* held the right flank under their commander *Pelamos*, while the *Thunnokephaloi* held the left, the center was held by the *Karkinocheires*. The *Tritonomendetes* were keeping peace, choosing to fight with neither side. We came upon them at the temple to Poseidon and we engaged with much shouting, the hollow echoed us like a cave. Turning them, since they were fighting nude, and pursuing them to the forest, we ruled over the rest of the land. Not long after, messengers were sent to ask for a truce to see to the dead and to propose friendship; we, however, did not think it right to make an alliance, but on the following day, attacking them again, we destroyed them entirely, all except the *Tritonomendetes*.]²³

That one of their number, well, perhaps two, Lucian may have said that the pilot dies “and one other,” the focus of the report and of the parody seems to be on the pilot, however, as his cause of death is given while the other is mentioned only in passing, dies in this war is not an unreasonable possibility, while they are poorly armed, these sea creatures do outnumber the mariners. It is only when we read how the pilot is killed: τρίγλης πλευρᾷ διαπαρεῖς τὸ μετάφρενον [The backbone (or lung) of the mullet pierced through his back.],²⁴ that the reader is taken aback. This is the type of weapon that *Skyntharos* told Lucian the fish people were using, but it would be difficult to kill an unarmed man with this kind of a weapon, much less a fully armed and armored soldier. By having the pilot killed in this way, Lucian removes his death from the realm of the battlefield and creates an almost farcical or comic scene of a man who dies in an almost impossible, easily avoidable way.

OTHER DEATH SCENES

The death of a member of a ship's crew may not have been an unusual occurrence, the loss of an experienced pilot, however, especially one who is described as Lucian as “the best,” would certainly have posed a problem to the success of the mission. Surprisingly, very few of Lucian's men actually do die in the course of the voyage, the pilot is also the first member of the crew to actually die, along with another, unnamed member of their crew, possibly, the two men who succumbed to the attractions of the Vine Women do not die, they are lost to their comrades, but live on as vines and are about to bear fruit themselves.²⁵ Even when shipwrecked on the other side of the world,²⁶ there are no casualties reported

among the crew. The only other men to actually be killed in the *Verae Historiae* fall on the island of the Cowheads, shortly before the shipwreck.²⁷ Since there are so few instances in the narrative in which a mariner is killed, the two scenes in which this happens are immediately linked in the mind of the reader

On the Island of the Cowheads the reader is presented with a dichotomy. Already the name of the island leads the reader to two points of reference, the myth of Theseus and the Minotaur, which is underscored in the description of the inhabitants of this island, who Lucian says: ἐνέμοντο δὲ αὐτὴν ἄνθρωποι ἄγριοι, Βουκέφαλοι, κέρατα ἔχοντες, οἷον παρ' ἡμῖν τὸν Μινώταυρον ἀναπλάττουσιν [The savage men called the Cowheads hold sway (here), these men have horns, as the Minotaur is depicted among us.],²⁸ as well as the horse of Alexander the Great. This is further underscored by the fact that the mariners have met both Theseus and Alexander the Great on the voyage, while they were in the Underworld.²⁹ The expectations which these points of reference bring up in the reader are, to a certain extent, met in the action that takes place on the island. Like the Minotaur, the cow-headed inhabitants of the island are aggressive and cannibalistic, the mariners fall upon the Cowheaders while they are “cutting up the flesh” of the men they had captured in their initial attack, which seems an ironic reversal of humans butchering cattle for food. The military activity one would expect from the name *Boukephalos* and the relationship this implies with Alexander the Great is also found in this scene, as Lucian and his men do not let the capture and death of their comrades go unavenged, but arm themselves and avenge them: οἱ δὲ λοιποὶ πρὸς τὴν θάλατταν καταφεύγομεν. εἶτα μέντοι πάντες ὀπλισάμενοι οὐ γὰρ ἐδόκει ἡμῖν ἀτιμωρήτους περιδεῖν τοὺς φίλους ἐμπίπτομεν τοῖς Βουκεφαλοῖς τὰ κρέα τῶν ἀνηρημένων διαιρουμένοις· φοβήσαντες δὲ πάντας διώκομεν, καὶ κτείνομεν γε ὅσον πεντήκοντα καὶ ζώντας αὐτῶν δύο λαμβάνομεν. [We, who remained, fled to the sea. Later we armed ourselves, for we did not think it right to leave our friends unavenged, and fell upon the Cowheads cutting up the flesh of the men they had captured. We put them all to flight and pursued them and we killed around fifty of them and took two of them alive.].³⁰

Here the allusions to what seem to be the overt inspiration for this scene end. Rather, much of the scene seems to be inspired by a scene from the *Odyssey*, the island of *Thrinacia*.³¹ *Odysseus* is warned not to eat the cattle on the island, since they belong to the god *Helios*, who would be displeased by such sacrilege, which would bring down disaster on them. *Odysseus* did attempt to heed this warning:

ὡς ἐφάμην, τοῖσιν δ' ἐπεπεῖθετο θυμὸς ἀγῆνωρ. μῆνα δὲ πάντ' ἄλληκτος ἤη Νότος, οὐδέ τις ἄλλος γίγνεται· ἐπειτ' ἀνέμων εἰ μὴ Εὐρὸς τε Νότος τε.

οἱ δ' ἦος μὲν σῖτον ἔχον καὶ οἶνον ἐρυθρόν, τόφρα βοῶν ἀπέχοντο λιλαιόμενοι βιότοιο. ἀλλ' ὅτε δὴ νηὸς ἐξέφθιτο ἦια πάντα, καὶ δὴ ἄγρην ἐφέπεσκον ἀλγτεύοντες ἀνάγκη, ἰχθῦς ὄρνιθᾶς τε, φίλας ὅτι χεῖρας ἴκοιτο,

23 Lucian *Verae Historiae* I. 38-39.

24 Lucian *Verae Historiae* I. 37.

25 Lucian *Verae Historiae* I. 8.

26 Lucian *Verae Historiae* II. 47.

27 Lucian *Verae Historiae* II. 47.

28 Lucian *Verae Historiae* II. 44.

29 Lucian *Verae Historiae* II. 8-9.

30 Lucian *Verae Historiae* II. 44.

31 Homer *Odyssey*. C.f. also REDMOND 2013, 79-80.

γναμπτοῖς ἀγκίστροισιν, ἔτειρε δὲ γαστέρα λιμός: δὴ τότε ἔγων ἀνά νῆσον ἀπέστιχον, ὄφρα θεοῖσιν εὐξαίμην, εἴ τίς μοι ὁδὸν φήνει νέεσθαι.³²

[“So I spoke, and their proud hearts consented. [325] Then for a full month the South Wind blew unceasingly, nor did any other wind arise except the East and the South. “Now so long as my men had grain and red wine they kept their hands from the kine, for they were eager to save their lives.¹ But when all the stores had been consumed from out the ship, [330] and now they must needs roam about in search of game, fishes, and fowl, and whatever might come to their hands—fishing with bent hooks, for hunger pinched their bellies—then I went apart up the island that I might pray to the gods in the hope that one of them might show me a way to go.”]³³

The dire straits the mariners are in leads them to disregard the warnings, choosing a possibly angry god over definite death by starvation. While Odysseus slept, his men: αὐτίκα δ’ Ἡελίοιο βοῶν ἐλάσαντες ἀρίστας ἐγγύθεν, οὐ γὰρ τῆλε νεὸς κυανοπρόροιο βοσκέσκονθ’ ἑλικες καλαὶ βόες εὐρυμέτωποι: τὰς δὲ περιστήσαν τε καὶ εὐχετόωντο θεοῖσιν, φύλλα δρεψάμενοι τέρενα δρυὸς ὑψικόμοιο: οὐ γὰρ ἔχον κρῖ λευκὸν εὐσσέλμου ἐπὶ νηός. αὐτὰρ ἐπεὶ ῥ’ εὐξάντο καὶ ἔσφαξαν καὶ ἔδειραν, μηρούς τ’ ἐξέταμον κατὰ τε κνίσση ἐκάλυψαν δίπτυχα ποιήσαντες, ἐπ’ αὐτῶν δ’ ὠμοθέτησαν. οὐδ’ εἶχον μέθυ λειψαί ἐπ’ αἰθομένοις ἱεροῖσιν, ἀλλ’ ὕδατι σπένδοντες ἐπόπτων ἔγκατα πάντα.³⁴

[“Straightway they drove off the best of the kine of Helios from near at hand, for not far from the dark-prowed ship were grazing the fair, sleek kine, broad of brow. Around these, then, they stood and made prayer to the gods, plucking the tender leaves from off a high-crested oak; for they had no white barley on board the well-benched ship. Now when they had prayed and had cut the throats of the kine and flayed them, they cut out the thigh-pieces and covered them with a double layer of fat and laid raw flesh upon them. They had no wine to pour over the blazing sacrifice, but they made libations with water, and roasted all the entrails over the fire.”]³⁵

On the island of the Cowheads Lucian too is confronted by a dismal prospect: καὶ σιτία ληψόμενοι, εἴ ποθεν δυνηθείμεν· οὐκέτι γὰρ εἶχομεν [“and we would take on food, if we were able, for we had none.”]³⁶ Like the crew in the *Odyssey* Lucian’s men face the dire prospect of starvation, and they too come across cattle. Although not entirely bovine, these Cowheads, unlike other strange creatures encountered on the voyage so far, do not speak Greek, they look like cows. By having the Cowheads not be able to speak Greek, they are relegated to a more animal like

state than other monsters.³⁷

These cattle, however, do not need the protection of a deity, and the presence of a deity is not to be found, like in the rest of the *Verae Historiae*, as they are capable of defending themselves. These cattle do not wait patiently to be slaughtered, but, in a preemptive strike, attack Lucian and his men, carrying off the three men they proceed to butcher. The threat posed by these Cowheads parallels the threat posed to Odysseus’ men, in this case the threat of destruction is coming from the cattle themselves rather than through the cattle. The threat also parallels that faced in the belly of the sea monster, a group of aggressive part human part animal creatures are ready to exterminate the intrepid band of explorers, the threat is even more poignant here, as the fish-creatures in the whale would have been content with continued tribute, and it was the cessation of this tribute that prompted the battle. Like the battle in the sea monster, the mariners are well served by their superior weapons and tactics, and are victorious: φοβήσαντες δὲ πάντας διώκομεν, καὶ κτείνομεν γε ὅσον πεντήκοντα καὶ ζῶντας αὐτῶν δύο λαμβάνομεν [we put them to all to flight, killed about fifty of them and took two alive].³⁸ The expectation of the reader, built up by the similar setting of the *Odyssey* and the *Verae Historiae* is shattered. There is to be no disaster here, unlike Odysseus, Lucian is able to keep his men from consuming the cattle, is able to save his men from certain doom. In this way Lucian sets himself up as a superior to Odysseus as a captain and a leader of men.

THE CONTEXT OF THE ODYSSEY

In every scene in Lucian’s *Verae Historiae*, the author layers the parody, allowing the reader to come to a variety of conclusions about what other works are being alluded to. This is one of the most interesting and frustrating aspects of dealing with Lucian.³⁹ The death of the pilot, as part of the larger battle against the tribes of fish creatures inhabiting the stomach of the sea monster, is no exception. In their commentary on the text, Georgiadou and Larmour point out that Lucian creates a critique of philosophers in the various fish folk they battle, paralleling his work the *Piscator*: “in which various philosophers are represented by different species of fish;”⁴⁰ a critique Lucian continues in the absence of the philosophers in the underworld. Von Möllendorf also discusses this section, linking the battle both to an ambush in Xenophon’s *Hellenica*,⁴¹ as well as to the battle between the inhabitants of the moon and the inhabitants of the sun in Book I.⁴² Both commentaries also point out that this scene does seem to contain “some tacit illusion”⁴³ to the *Odyssey*. Von Möllendorf discusses the battle scene in the context of the slaughter of the suitors by Odysseus, while Georgiadou and Larmour, pointing this out as well, show that Skyntharos, the old man Lucian and his men meet in the belly of the sea monster, is : “reminiscent of both Eumaeus,

32 Homer. *Odyssey*. Book 12 Lines 324-334.

33 Homer *Odyssey* Book 12 Lines 324-334. (MURRAY 1924).

34 Homer. *Odyssey*. Book 12 Lines 352-363.

35 Homer. *Odyssey*. Book 12 Lines 352-363.

36 Lucian *Verae Historiae* II. 44.

37 Lucian *Verae Historiae* II. 44.

38 Lucian *Verae Historiae* II. 44.

39 See below pp. 13-14.

40 GEORGIADOU/LAMOUR 1998, 166.

41 Xenophon *HG* 4,8,37-39.

42 VON MÖLLENDORF 2000, 251.

43 Lucian *Verae Historiae* I.1.

the noble swineherd, and Laertes, Odysseus' father."⁴⁴

If, then, the larger battle scene in which the death of the pilot takes place can be, at least on one level, associated with the Odyssey, and the only other scene in which members of the crew are killed also parodies the epic tradition, then the pilot's death too may offer a parody to the Odyssey. The question becomes, then, what in the Odyssey is being parodied here? The farcical nature of the pilot's death, makes a possible connection to the death of the youngest member of Odysseus' crew, Elpenor.

ὡς ἐφάμην, τοῖσιν δ' ἐπεπειθετο θυμὸς ἀγήνωρ. οὐδὲ μὲν οὐδ' ἔνθεν περ ἀπήμονας ἦγον ἐταίρους. Ἐλπήνωρ δέ τις ἔσκε νεώτατος, οὔτε τι λίην ἄλκιμος ἐν πολέμῳ οὔτε φρεσὶν ἦσιν ἀρηρῶς: ὅς μοι ἄνευθ' ἐτάρων ἱεροῖς ἐν δώμασι Κίρκης, ψύχεος ἰμείρων, κατελέξατο οἰνοβαρείων. κινυμένων δ' ἐτάρων ὄμαδον καὶ δοῦπον ἀκούσας ἐξαπίνης ἀνόρουσε καὶ ἐκλάθετο φρεσὶν ἦσιν ἄψορρον καταβῆναι ἰὼν ἐς κλίμακα μακρὴν, ἀλλὰ καταντικρὺ τέγεος πέσεν: ἐκ δέ οἱ αὐχὴν ἀστραγάλων ἔαγε, ψυχὴ δ' Ἄϊδόσδε κατῆλθεν.⁴⁵

[“So I spoke, and their proud hearts consented. But not even from thence could I lead my men unscathed. There was one, Elpenor, the youngest of all, not over valiant in war nor sound of understanding, who had laid him down apart from his comrades in the sacred house of Circe, seeking the cool air, for he was heavy with wine. He heard the noise and the bustle of his comrades as they moved about, and suddenly sprang up, and forgot to go to the long ladder that he might come down again, but fell headlong from the roof, and his neck was broken away from the spine, and his spirit went down to the house of Hades.”]⁴⁶

Initially, the two death scenes do not seem related. Elpenor, as the junior crewman, can in no way be considered the “best,” as the pilot of Lucian's vessel is, although he must possess a certain amount of skill (or luck) to have survived the entirety of the Trojan War and all of the dangers faced on the journey home. Nor does he die in battle, like the pilot, instead he falls off of Circe's roof.

Rather than in a one-on-one emulation, Lucian creates his parody on two levels:

1. In the position of the two scenes in their respective narratives. During their stay on the Island of the Blessed, one of the crewmen becomes enamored of Helen, and they decide to escape with a few confederates. Their plan fails, however, and they are caught: οἱ δὲ ὑπὸ προθυμίας ἐλαύνοντες περὶ μεσημβρίαν καταλαμβάνουσιν αὐτοὺς ἄρτι ἐς τὸν γαλακτώδη τοῦ ὠκεανοῦ τόπον ἐμβαίνοντας πλησίον τῆς Τυροέσσης: παρὰ τοσοῦτον ἦλθον διαδρᾶναι [They, driving on with great speed, captured them around noon, just entering the milk ocean near Tyroessa; so close they came to escaping].⁴⁷ By making the Island of Cheese the point beyond which the denizens of the Underworld cannot pass, except apparently Helen, Lucian sets up the Sea of Milk, like the River Styx,

44 GEORGIADOU/LAMOUR 1998, 166.

45 Homer *Odyssey* X: 551-560. (Murray, A.T. (trans.) *Odyssey*. Book 10 lines 550-560).

46 Homer *Odyssey* X: 551-560. (MURRAY 1924).

47 Lucian *Verae Historiae* II. 26.

the border of the Underworld, as both a barrier and a conduit. Using this conduit, Lucian and his men undergo a *katabasis*. The pilot's death occurs in the belly of the sea monster, which comes shortly before this *katabasis* in the narrative, even if temporally relatively far removed from it. In the Odyssey too, Elpenor's death occurs shortly before their *katabasis*, so shortly, in fact, that when Odysseus and his men see his ghost in the Underworld, they were surprised:

πρώτη δὲ ψυχὴ Ἐλπήνωρος ἦλθεν ἐταίρου: οὐ γὰρ πω ἐτέθαπτο ὑπὸ χθονὸς εὐρυοδείης: σῶμα γὰρ ἐν Κίρκης μεγάρῳ κατελείπομεν ἡμεῖς ἄκλαυτον καὶ ἄθαπτον, ἐπεὶ πόνος ἄλλος ἔπειγε. τὸν μὲν ἐγὼ δάκρυσσα ἰδὼν ἐλέησά τε θυμῷ, καὶ μιν φωνήσας ἔπεα πτερόεντα προσηύδων. Ἐλπήνωρ, πῶς ἦλθες ὑπὸ ζόφον ἠερόεντα; ἔφθης πεζὸς ἰὼν ἢ ἐγὼ σὺν νηὶ μελαίνῃ.⁴⁸

[. “The first to come was the spirit of my comrade Elpenor. Not yet had he been buried beneath the broadwayed earth, for we had left his corpse behind us in the hall of Circe, unwept and unburied, since another task was then urging us on. When I saw him I wept, and my heart had compassion on him; and I spoke and addressed him with winged words: “Elpenor, how didst thou come beneath the murky darkness? Thou coming on foot hast out-stripped me in my black ship.”]⁴⁹

2. The second level through which Lucian builds his narrative is the comical, almost farcical nature of the deaths of the two men, both of which temporarily remove the reader from the realm of the epic narrative. We have already discussed the farcical way in which the pilot, armed and armored, is struck down by a fish bone; and in an epic world in which men fall to the *aristeia* of various heroes, eaten by cannibalistic Laestrygonians and Cyclopes and die by the hand of various other mythical creatures, Elpenor's death seem too mundane almost banal. After imbibing too many adult beverages, the young man slips and falls off of the roof. This seems an interesting insert of realism into the narrative, drunken accidents certainly being a leading cause of death, even today.

Nearly as interesting as the similarities in the building of the parody are the differences, especially the differences in how the death is reacted to by the rest of the crew. When Elpenor's ghost is discovered in the underworld, Odysseus is distraught, not having realized that he was dead, and he promises that on his return to Circe's island they would give him a proper funeral. After the report of the pilot's death, there is no further mention of him, not even in the Underworld, and they certainly do not take the time to give him proper funeral rites, as they do not even allow a truce long enough for both sides to collect their dead: καὶ μετ' οὐ πολὺ κήρυκας ἀποστείλαντες νεκροὺς τε ἀνηροῦντο καὶ περὶ φιλίας διελέγοντο· ἡμῖν δὲ οὐκ ἐδόκει σπένδεσθαι [Not long after, they sent an embassy to discuss the collection of the dead and concerning the establishment of friendship. We, however, did not think it wise to make an alliance].⁵⁰

48 Homer *Odyssey* Book 11: 51-56.

49 Homer *Odyssey* Book 11: 51-56. (MURRAY 1924).

50 Lucian *Verae Historiae* I. 39.

When each of these men die too is juxtaposed, while both die shortly before the *katabasis* of their respective crews, the pilot dies just before the fish folk are driven from the inside of the sea monster, allowing Lucian and his men to build themselves a *locus amoenus*. Elpenor dies as Odysseus and his men depart from the *locus amoenus* they found on Circe's island. This juxtaposition gives us a clue to Lucian's purpose for the parody in this scene as well, like the scene with the Cowheads, Lucian shows himself surpassing Odysseus as an adventurer and as a leader of men. Where Odysseus' men are unwilling to set back out on their journey, wishing to remain in their *locus amoenus*, Lucian inspires his own men to continue on their journey, and their reason for leaving the belly of the sea monster is because they grew bored and longed for more adventure.

LUCIAN AND ODYSSEUS

Despite saying in the prologue⁵¹ that he will not name those to whom he is alluding, complimenting the knowledge of his audience by saying that they will know to whom he is referring, the reader is still presented by a list of authors/liars to whom he alludes. This opening invites readers to engage in "literary archaeology,"⁵² to search for the possible origins for the various episodes and satires offered in the text. Problematic is, however, that Lucian admits to lying about everything he is writing: *κἄν ἔν γάρ δὴ τοῦτο ἀληθεύσω λέγων ὅτι ψεύδομαι* [For in one thing only do I tell the truth, that I will lie].⁵³ By creating this uncertainty Lucian is able to work on two levels. He both encourages his audience to search for these sources of inspiration and "...exposes the fallacy of the very idea of origins, and explores the dangers inherent in the cultural privileging of origins through intentionalist readings..., literary *mimēsis*, and the supremacy of origin-related criteria such as the author and authenticity in literary and textual criticism."⁵⁴ Paradoxically, then, very search for this literary *mimēsis*, for a greater understanding of the text, allows the author to create an ambiguity, not only in the purpose of the text, but in the person of the author.⁵⁵ This ambiguity is reinforced by the absence of the author's name, which the reader does not know until the underworld scene (V.H. II. 28).⁵⁶ This ambiguity creates a vacuum in the mind of the reader, which is filled with those very authors he has no need to tell his audience about: Ctesias of Cnidos, Iambulus and Homer.⁵⁷

Chief among these, and therefore first in the mind of the reader, is Homer, or rather, Homer's Odysseus, further blurring the line of author and text:⁵⁸ *ἀρχηγὸς δὲ αὐτοῖς καὶ διδάσκαλος τῆς τοιαύτης βωμολοχίας ὁ τοῦ Ὀμήρου Ὀδυσσεύς* [Chief among them and the teacher of such foolishness was Homer's Odysseus].⁵⁹ This setup removes the charge of falsehood one step further from Lucian the narrator: "the charge of deception is transferred from the

poet to his character: Homer's Odysseus – not Homer himself – is named as the instructor to all subsequent literary liars. This splitting of author from character is programmatic for the *Verae Historiae*, where Lucian the author professes no intention to deceive his readers, while Lucian the Odyssean character-narrator lies with abandon."⁶⁰ Although Lucian connects himself with Odysseus in the mind of the reader, he immediately sets himself up as Odysseus' moral superior, both as author and as "character-narrator." Although Lucian the author, like Odysseus, lies throughout his work, he at least told the truth this once, and while the lies, like those of Homer, transfer to the character, this Lucian too is sure of himself: *ἐν οἷς καὶ Κτησίας ὁ Κνίδιος ἦν καὶ Ἡρόδοτος καὶ ἄλλοι πολλοί. τούτους οὖν ὄρων ἐγὼ χρηστάς εἶχον εἰς τοῦπιὸν τὰς ἐλπίδας· οὐδὲν γὰρ ἐμαυτῶ ψεύδος εἰπόντι συνηπιστάμην* [In which were Ctesias of Cnidos and Herodotus and many others. Seeing them I had great hope for the future, for I am not aware of any lie that I have told.].⁶¹ Interesting is that Odysseus, the greatest liar, is on the Island of the Blessed⁶² while these lesser liars are being punished on the Island of the Damned. Odysseus, however, is not happy on the Island of the Blessed, and wishes to escape and go be with Calypso, a message he has Lucian bring for him,⁶³ despite his physical location he is punished for his lies, while Lucian is able to both leave the island, what Odysseus longs to do, and enjoy further adventure and return to the island for eternal happiness when he does die.⁶⁴

It is not only in the matter of lying that Lucian juxtaposes and connects himself to Odysseus, the very means of driving the narrative underscores this interplay between the two heroes. In both the *Odyssey* and the *Verae Historiae*, the action takes place, to a great extent, on a series of islands,⁶⁵ the "narrative macrostructure"⁶⁶ of the *Verae Historiae* may correspond to that of the *Odyssey* in a narrative *mimēsis* so that in both "the structural implications of episodes and spaces can be identified in the teleology of the narrative."⁶⁷ Both Odysseus and Lucian begin their voyages with a specific goal in mind, for Odysseus this is a *nostos*, he is returning home, and the place of each episode in the overall narrative of the *Odyssey* is determined by its relation to this *telos*. While the structure of the voyage in the *Verae Historiae* is the same, Lucian setting out with a specific *telos* in mind, the continent on the other side of the world,⁶⁸ he must once again juxtapose himself to Odysseus, this is no *nostos* for Lucian, but a voyage driven by no better reason than curiosity,⁶⁹ this curiosity, however is used to "transform the past into something literarily new,"⁷⁰ something beyond what was done by Odysseus. The "relationship between

51 Lucian *Verae Historiae* I. 1.

52 NI-MHEALLAIGH 2009, 13.

53 Lucian *Verae Historiae* I. 4.

54 NI-MHEALLAIGH 2009, 11.

55 NI-MHEALLAIGH 2010, 84-85.

56 NI-MHEALLAIGH 2010, 84-85.

57 NI-MHEALLAIGH 2010, 85-86.

58 NI-MHEALLAIGH 2010, 87.

59 Lucian *Verae Historiae* I. 3.

60 NI-MHEALLAIGH 2010, 87.

61 Lucian *Verae Historiae* II. 31.

62 Lucian *Verae Historiae* II. 22.

63 Lucina *Verae Historiae* II. 29.

64 Lucian *Verae Historiae* II. 27.

65 The importance of narrative space in the *Verae Historiae*, especially its implications in the dichotomy of lies and truth in the text is discussed in MOSSMAN 2009.

66 MOSSMAN 2009, 49.

67 MOSSMAN 2009, 49.

68 Lucian *Verae Historiae* I. 2.

69 Lucian *Verae Historiae* I. 2.

70 NI-MHEALLAIGH 2014, 207.

geography and narrative⁷¹ becomes especially important in the Odysseus-Lucian relationship in the description Lucian gives of his voyage: Ὀρμηθεὶς γάρ ποτε ἀπὸ Ἡρακλείων στηλῶν καὶ ἀφείς εἰς τὸν ἐσπέριον ὠκεανὸν οὐρίῳ ἀνέμῳ τὸν πλοῦν ἐποιούμην [Having set forth beyond the pillars of Herakles and making for the western ocean, we started our voyage with a good following wind].⁷² By underscoring that his voyage starts out by sailing beyond the pillars of Herakles, Lucian immediately elevates his own voyage over that of Odysseus, he has sailed further, even beyond where those greatest of travelers, Dionysus and Herakles have voyaged,⁷³ in more unknown waters, putting to shame the voyage of Odysseus, who gets so lost in the Mediterranean!

The relationship of Odysseus and Lucian is best seen in the numerous intertextual allusions to the *Odyssey* in the *Verae Historiae*, which, despite the element of uncertainty in the literary *mimēsis*, would have struck the reader in almost every episode of the narrative. Since these allusions are so pervasive, it is impossible to discuss them all in the context of this paper.⁷⁴ The culmination of these allusions occurs in the scene on the Island of the Blessed.⁷⁵ The denizens of the Island of the Damned escape from their island and attack the Island of the Blessed, they are repulsed and Homer creates a new epic poem to celebrate the victory,⁷⁶ unfortunately only the first line of this poem survived the rest of Lucian's voyage: Νῦν δέ μοι ἔννεπε, Μοῦσα, μάχην νεκρῶν ἡρώων [Sing to me now, Muse, of the battle of the dead heroes].⁷⁷ By writing a new epic poem, Homer transcends his earlier two works, combining the theme of the *Iliad* with the style of the opening of the *Odyssey*: ἄνδρα μοι ἔννεπε, μοῦσα, πολύτροπον, ὃς μάλα πολλὰ [Sing to me Muse of the well travelled man, who wandered much].⁷⁸ By opening this new epic in the same style as the *Odyssey*, Homer takes the *Odyssey* away from Odysseus and opens it to include all of the heroes who fought in the battle, a tale which would include Lucian, who was present even if the text does not specify whether he fought in the battle or not.⁷⁹ Giving Lucian the epic poem to bring home with him also has a transformative effect, especially in light of the author-character ambiguity discussed above.⁸⁰ Giving the poem to Lucian allows Lucian the author to become Homer, not only does he, if associated with Lucian the character, receive the poem, he, as author, in fact writes the poem. As a result of this, Lucian the author becomes Homer the author, and Lucian the character is able to take on not only the same position in relationship to Lucian the author as Odysseus the character has to Homer the author, but his very identity.

Of these numerous scenes in the *Verae Historiae* in

71 MOSSMAN 2009, pg. 47.

72 Lucian *Verae Historiae* I. 5.

73 Lucian *Verae Historiae* I. 7.

74 Several such allusions, the Island of the Cowheads to the cattle of Helios, for example, as well as the battle against the fish people in the belly of the sea monster and its connection to the slaughter of the suitors after Odysseus' return to Ithaca. For other such allusions please see VON MÖLLENDORF 2000 and GEORGIADOU/LAMOUR 1998.

75 Lucian *Verae Historiae* II. 23.

76 Lucian *Verae Historiae* II. 24.

77 Lucian *Verae Historiae* II. 24.

78 Homer *Odyssey* I: 1.

79 Lucian *Verae Historiae* II. 24.

80 See above pg. 14.

which Lucian creates an allusion to the *Odyssey*, the two scenes in which members of Lucian's crew die are especially used to further the image of Lucian as a new and improved Odysseus. On the island of the Cowheads, this is because Lucian is able to save his men in a situation in which all of Odysseus' men die. We have discussed how the juxtaposition of Elpenor and the pilot underscore the adventurous spirit of Lucian and his crew, the connection created by Lucian between the pilot's death and that of Elpenor, however, helps to build on the same foundation as the scene with the Cowheads, Lucian is not only a more adventurous captain, he is a more competent captain. The pilot's absence in the underworld, a logical place to expect to see him again, especially as Odysseus sees Elpenor there; in the complete lack of response to the death of the pilot, the reader is reminded of the extravagant way in which Elpenor, the youngest of Odysseus' crew is treated.

νῦν δέ σε τῶν ὀπιθεν γουνάζομαι, οὐ παρεόντων, πρὸς τ' ἀλόχου καὶ πατρός, ὃ σ' ἔτρεφε τυτθὸν ἐόντα, Τηλεμάχου θ', ὃν μούνον ἐνὶ μεγάροισιν ἔλειπες; οἶδα γὰρ ὡς ἐνθ' ἐνδε κιῶν δόμου ἐξ Αἴδαο νῆσον ἐς Αἰαίην σχήσεις ἐυεργέα νῆα: ἐνθα σ' ἔπειτα, ἄναξ, κέλομαι μνήσασθαι ἐμεῖο. μή μ' ἄκλαυτον ἄθαπτον ἰὼν ὀπιθεν καταλείπειν νοσφισθεῖς, μή τοί τι θεῶν μήνιμα γένωμαι, ἀλλά με κακκῆαι σὺν τεύχεσιν, ἅσσα μοι ἔστιν, σῆμά τέ μοι χεῦαι πολιῆς ἐπὶ θινὶ θαλάσσης, ἀνδρὸς δυστήνοιο καὶ ἐσσομένοισι πυθέσθαι. ταῦτά τέ μοι τελέσαι πῆξαι τ' ἐπὶ τύμβῳ ἔρετμόν, τῷ καὶ ζωὸς ἔρρεσσον ἐὼν μετ' ἐμοῖς ἐτάροισιν.⁸¹

[“Now I beseech thee by those whom we left behind, who are not present with us, by thy wife and thy father who reared thee when a babe, and by Telemachus whom thou didst leave an only son in thy halls; for I know that as thou goest hence from the house of Hades thou wilt touch at the Aeaean isle with thy well-built ship. There, then, O prince, I bid thee remember me. Leave me not behind thee unwept and unburied as thou goest thence, and turn not away from me, lest haply I bring the wrath of the gods upon thee. Nay, burn me with my armour, all that is mine, and heap up a mound for me on the shore of the grey sea, in memory of an unhappy man, that men yet to be may learn of me. Fulfil this my prayer, and fix upon the mound my oar wherewith I rowed in life when I was among my comrades.”]⁸²

Elpenor's wish is fulfilled at the beginning of Book XII, and he is given his funeral rites and buried with his oar marking his grave. This is in contrast to so many other warriors who went to Troy with Odysseus, and whose bodies litter the Mediterranean, or were eaten by cannibals. This juxtaposition between the pilot and Elpenor serves to remind the reader of the numerous men, all of them in fact, lost over the course of the voyage to Ithaca, this in contrast to the five men killed and a few captured along the much more perilous journey beyond the Pillars of Hercules, making Lucian not only a new Odysseus, but a better Odysseus.

81 Homer *Odyssey* 11. 66-78.

82 Homer *Odyssey* 11. 66-78. (MURRAY 1924).

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WHEN THE PROVINCE TAKE CARE OF ITS OWN COIN SUPPLY. THE CASE OF THE TOWN OF DROBETA IN ROMAN DACIA

Abstract: Using comparative analysis and the most recent coin site-finds publication from the Roman site of Drobeta in Roman Dacia (nowadays Drobeta-Turnu Severin, Romania), the present paper demonstrates that when a site from a province is closed to an official mint from another province (e.g. Viminacium in Moesia Superior) the coin supply comes mainly from this mint. However, the recent coin evidence from the site of Drobeta proves that the official mint of Dacia, which produced the series of 'PROVINCIA DACIA' type was still a main supplier of Drobeta especially after AD 250.

Keywords: 'P M S COL VIM' and 'PROVINCIA DACIA' coins, coin supply, Roman Dacia

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In a previous study we have demonstrated that the Roman state was actually the one who controlled the provincial mints that issued the coin series of 'P M S COL VIMINACIUM' and 'PROVINCIA DACIA', Viminacium in Moesia Superior (nowadays, Kostolac, Serbia) and Apulum in Dacia (nowadays, Alba Iulia, Romania) (Map 1).

The two coinages were struck in bronze starting with AD 239 (P M S COL VIM) and AD 246 (PROVINCIA DACIA) following the Roman official bronze denomination scheme of sestertius, dupondius and as.



Sestertius P M S COL VIM

Sestertius P M S COL VIM



As P M S COL VIM

As P M S COL VIM



Dupondius P M S COL VIM

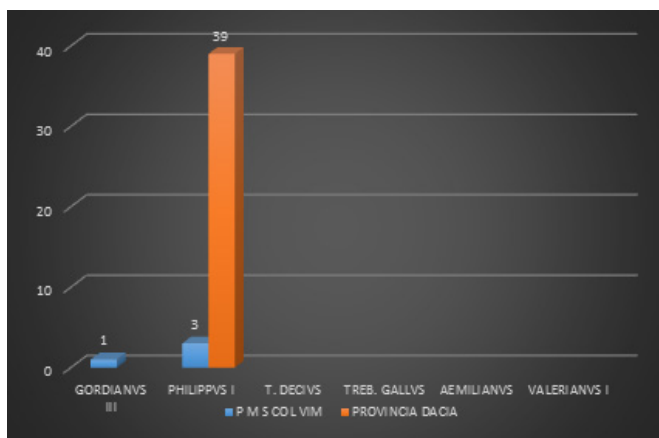
Dupondius P M S COL VIM

As the two coinages were destined for the army, for both payment and propaganda, the state/emperor just ensured a full control on them (minting, distribution), as it was also demonstrated by these coinages circulation between the provinces of Dacia, Pannonia and Moesia Superior. The present study comes with another aspect: who was the main supplier with these bronze coins, which replaced Rome's bronze issues in the provinces of Pannonia, Moesia Superior and Dacia.

The last decade witnessed the publication of numismatic monographs for various sites from the former Roman province of Dacia which provided an important data on the quantity and proportions of the two coinages.

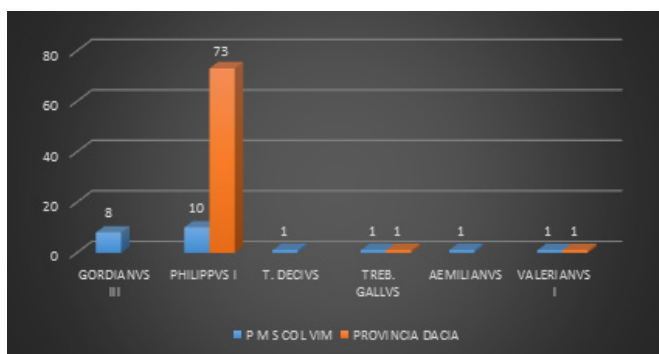
Starting from north to south, the most important sites and well-documented – from numismatic point of view – of Dacia, show quite a similar pattern.

Porolissum (nowadays, Moigrad, Romania), a military site and a *municipium* (Map 2)



The graph indicates a short but overwhelming presence of the coinage 'PROVINCIA DACIA' at Porolissum in comparison with the coinage 'P M S COL VIM'.

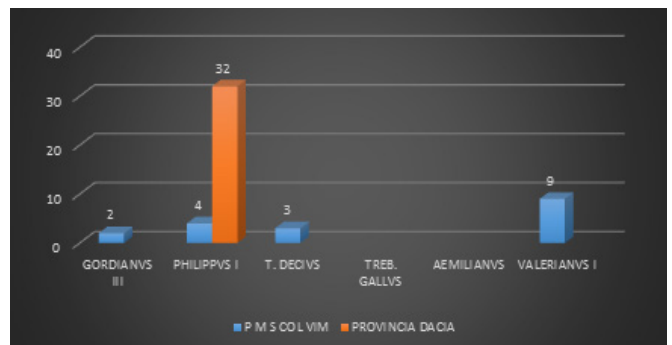
Potaissa (nowadays, Turda, Romania), legionary fort (the 5th Macedonica legion) and *colonia*.



The graph indicates the same dominance of 'PROVINCIA DACIA' coins issued in the time of Philippus I and the poor presence of both coins after AD 249.

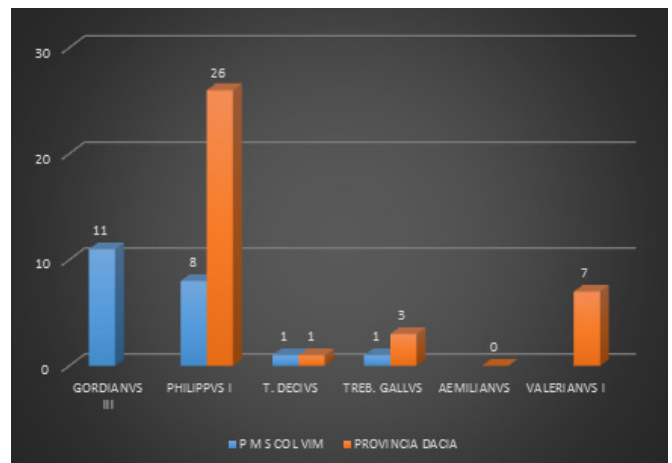
Apulum (nowadays, Alba Iulia, Romania), legionary fort (the 13th Gemina legion) and two *coloniae*.

Like in the case of Porolissum, this graph shows the low presence of 'P M S COL VIM' in comparison with the large one of 'PROVINCIA DACIA' but only



for the coins minted in the time of Philippus I.

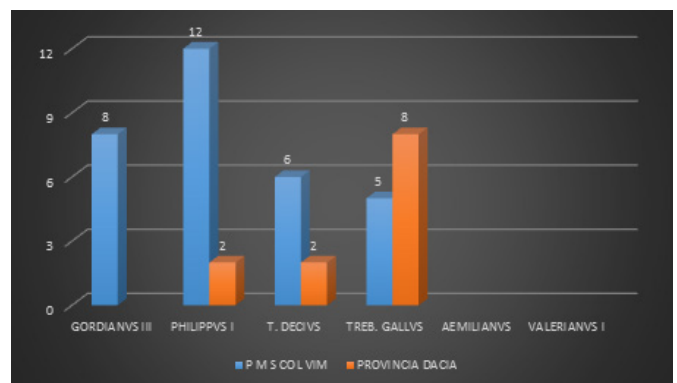
Ulpia Traiana Sarmizegetusa (nowadays, Sarmizegetusa, Romania), *colonia*



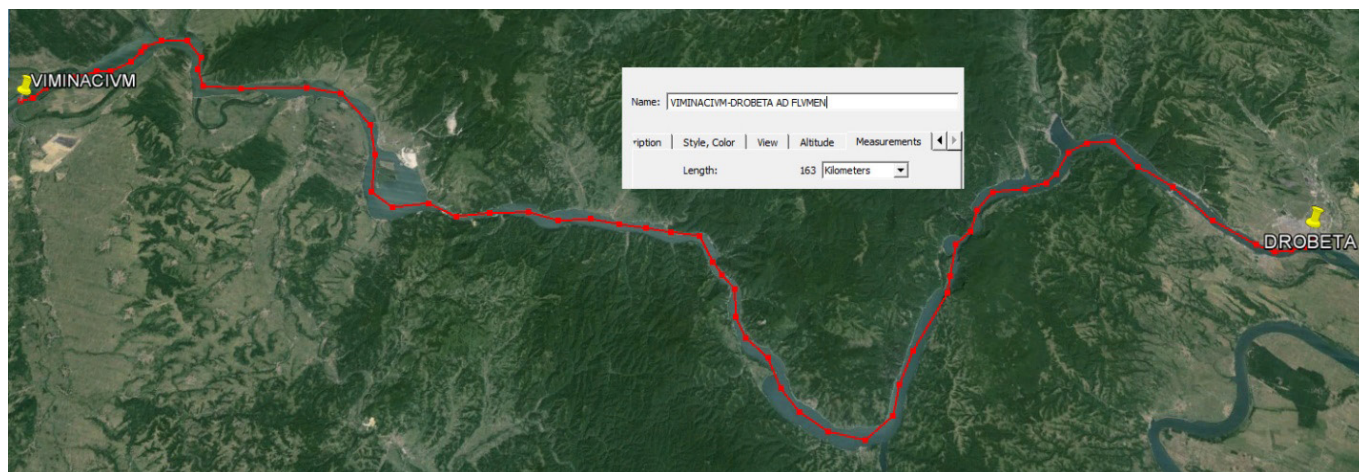
Unlike the previous sites, at Ulpia Traiana Sarmizegetusa, the coinage 'PROVINCIA DACIA' is found for other issuers, Trajan Decius, Aemilianus and Valerianus I. At the same time, it demonstrates the higher frequency of this coin at this site that the coinage 'P M S COL VIM'.

Drobeta (nowadays, Drobeta-Turnu Severin, Romania), auxiliary fort, *colonia*, Roman harbor and bridge on the Danube.

Up to 2015 the graph for this site looked as follows:



At the first site, the picture is different from what we have seen before. In the case of Drobeta, the coins 'P M S COL VIM' dominates the finding number up to Trebonianus Gallus while the 'PROVINCIA DACIA' coins were found in very small number and overtake the 'P M S COL VIM' only



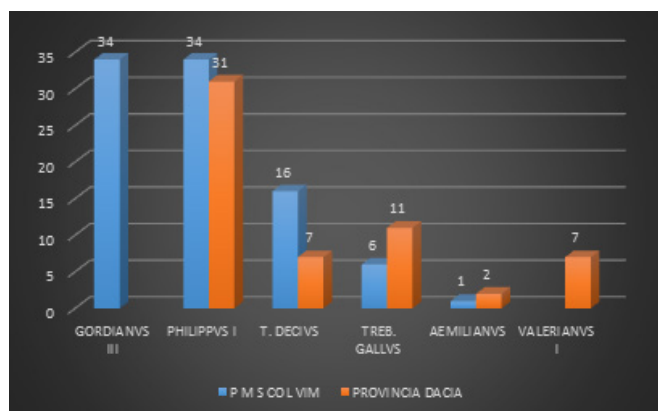
The distance between Viminacium and Drobeta on the Danube River.

for the reign of Trebonianus Gallus.¹

The explanation may have come from the geographic position of Drobeta. The site is located on the left bank of the Danube River, just 163 km downstream from Viminacium. Therefore, one could suggest that the close vicinity to the mint of Viminacium has led to the bronze coin supply of the site of Drobeta mainly with the coins from this mint.

However, the exhaustive research on the coin collection of the 'Iron Gates Region' Museum from Drobeta-Turnu Severin led to a different situation.

The recent publication of the numismatic monograph of the Roman Drobeta² has allowed us to draw another graph.



This new graph of the 'P M S COL VIM' and 'PROVINCIA DACIA' points out that, due to its close vicinity, the Viminacium mint was clearly a main supplier with bronze coins for Drobeta, but the province of Dacia was still an important counterpart on this enterprise.

A possible explanation for the higher frequency of 'PROVINCIA DACIA' coins after the reign of Trajan Decius is the re-direction of coin supply from Viminacium towards Pannonia where many troops were concentrated in the period from AD 251 to 260 following the internal conflicts with usurpers and struggle for power.³

¹ GĂZDAC 2010, CD-ROM, Catalogues/Site finds/Dacia site finds – Drobeta, 8-9.

² GĂZDAC/NEAGOE/ALFOLDY-GĂZDAC/NEAGOE 2015, 77

³ GĂZDAC/ALFÖLDY-GĂZDAC 2008, 142-144.

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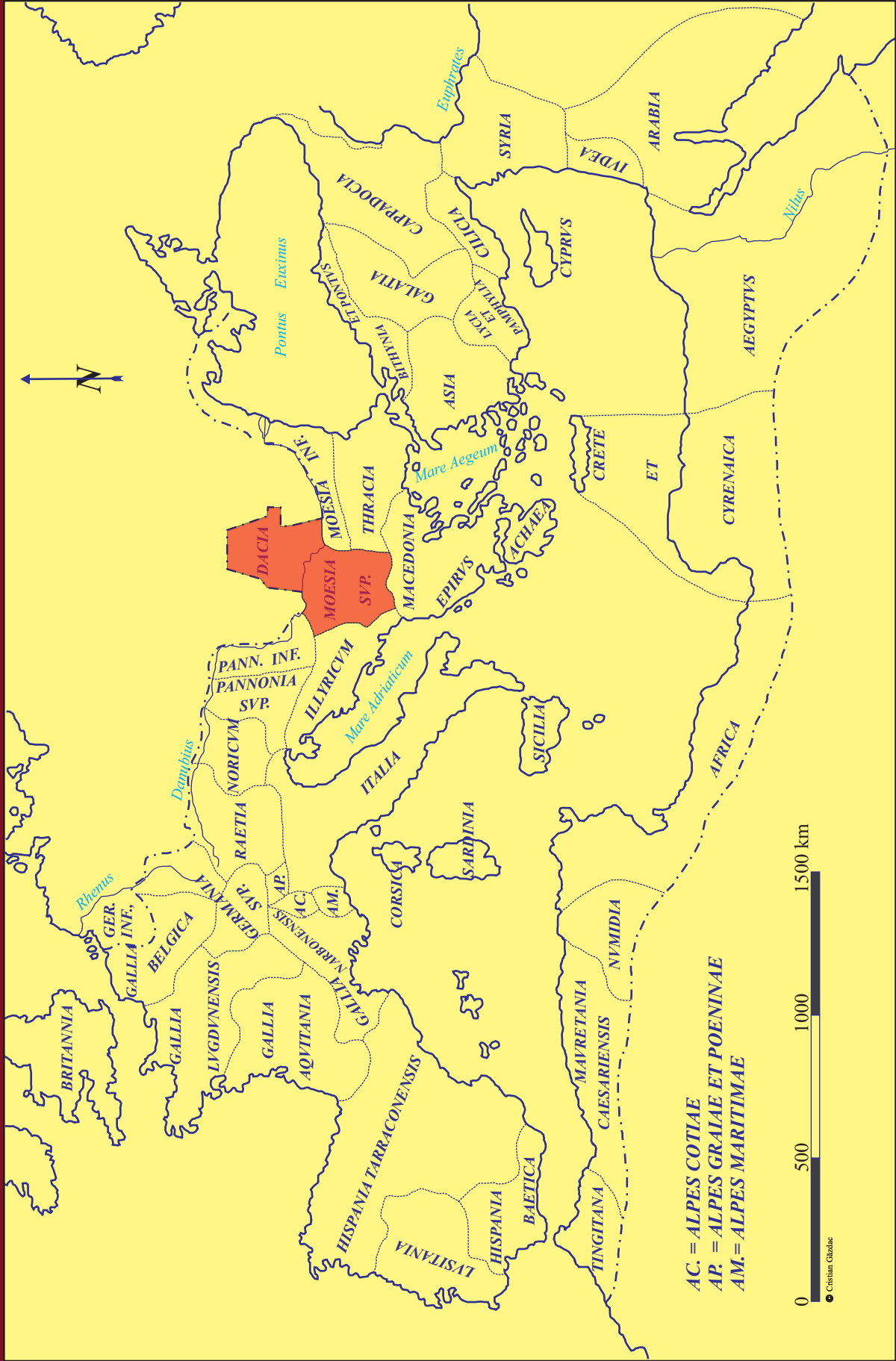
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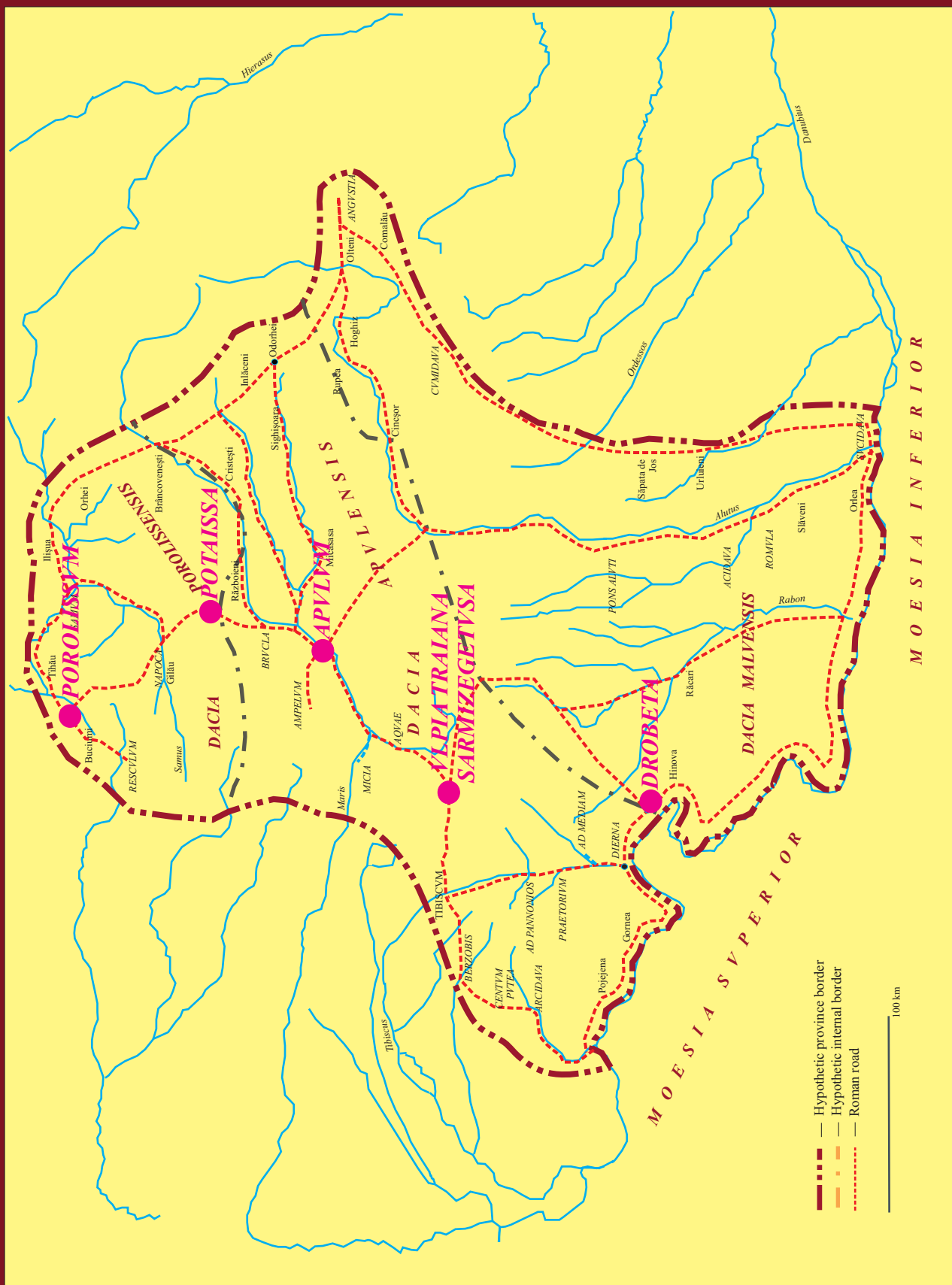
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Map 1. The Roman Empire pointing the location of provinces Moesia Superior and Dacia



Map 2. Roman Dacia pointing the sites mention in this study



COUNTERFEITING ROMAN COINS IN THE ROMAN EMPIRE 1ST-3RD A.D. STUDY ON THE ROMAN PROVINCES OF DACIA AND PANNONIA

Abstract: This paper is based on the study of Roman silver coins, from archaeological sites located in Roman Dacia and Pannonia. Initially centered on the record of hybrid silver coins, the paper expanded its analysis on counterfeit pieces as well in order to fully understand all problems of Roman silver coinage from the 1st to the 3rd centuries AD.

The new and larger area of research had more than one implications, coin distribution on the studied sites, influx of coin in the province, quantity of recorded counterfeited pieces being just some of them. Thus every situation was discussed in different chapters, first presenting the coins and the laws that protected them, the studied sites and the analyse of the silver coins on these sites, the general and compared situation between the provinces, interpretation of the counterfeited and hybrid pieces and finally, conclusions on the subject.

All these tasks have been achieved one step at a time, each archaeological site providing precious data which piled up and was finally pressed in order to present the correct historical situation.

Keywords: Roman Empire, Dacia, Pannonia, archaeological sites, silver, coins, counterfeiting, hybrid, graphs, coefficient;

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INTRODUCTION:

The area which enters this study was geographically delimited to the Roman provinces of Pannonia Inferior, Pannonia Superior, Dacia Porolissensis and Dacia Apulensis. This bordering was chosen because it offers the possibility to compare different archaeological sites from Dacia and Pannonia between them, at the end trying to compare the results from Pannonia with those coming from Dacia in order to observe the distribution of counterfeited pieces.

As a chronological period, all of the silver coins, denarius and antoninianus, from Augustus (27 BC - AD 14) to Philip I (AD 244-249) were studied. This period was selected because it represents the transformation of Pannonia in a Roman province (AD 9) and until the end of a regular flow of coin towards the province of Dacia. In the same time, the last historical period is marked by Philip I (244-249) and his reign. This time frame is very representative for the Roman Empire as it holds the “Golden Age” as well as the beginning of the “Downfall”.

For this study the following sites were chosen, military as well as civilian sites such as Porolissum, Buciumi, Samum, Arcobadara, Potaissa, Apulum, Ulpia Traiana Sarmizegetusa from the Roman province of Dacia and the sites of Intercisa, Gorsium-Herculia, Solva, Brigetio, Ad Mures, Arrabona,

Mursella, Scarbantia, Carnuntum for the Roman province of Pannonia.

After looking at the discovered coin catalogues belonging to all the sites, graphs were made to represent in a more efficient manner the number of silver coins from the catalogues. The information that was introduced in the graphs was the result of simple mathematical formula adapted from the Ravetz¹ formula which takes in consideration the number of coins and the reign of the emperor. This way, we can easily observe the distribution of coins on the studied sites and in the two provinces.

All silver coins, denarius and antoninianus, from the 1st to the 3rd centuries AD, more exactly for the period from Augustus (27 BC- AD 14) to Philip I (AD 244-249)² have been taken into account.

The Ravetz³ formula was extended, so that it may be useful, depending on the situation. Therefore, when trying to calculate the index for coins on just one site we use the next formula:

$$\frac{\text{coins per issuer}}{\text{years of reign}} \times \frac{1000}{\text{total number of coins}}$$

In the case of finding the coefficient of coins for the scale of the entire province, the formula was slightly changed in:

$$\frac{\text{coins per issuer from all sites}}{\text{years of reign}} \times \frac{1000}{\text{total number of coins from all sites}}$$

This way the correct representation for silver coin distribution, genuine and counterfeited, on archaeological sites and the two Roman provinces, is possible regardless the fact that some sites have larger quantities of discovered pieces.

SHORT HISTORY OF ROMAN SILVER COIN:

In order to carry on the study, a brief introduction in the history of the Roman coins and the laws that were trying to protect them is necessary. The first denarius was minted by Rome between the years 214 and 211 BC⁴ during the Second Punic War⁵ because of the need for many military units.

Denarius used to represent up to 35% of the total coin denomination discovered in the Roman provinces from middle and lower Danube until the period of Septimius Severus (193-211)⁶. This was the type of coin used in an economic environment thus being preferred to horde⁷.

In AD 215 emperor Caracalla (211-217) issues a brand new silver coin⁸, a double denarius conventional named as antoninianus. This piece was officially priced as 2 denarii⁹ yet

¹ CASEY 1974, 41.

² This study ends at the time of Philip I because after his reign, the quantity of silver from coins reached such a low value that is hardly any difference between genuine and counterfeit pieces in terms of silver content, the latter ones become practically worthless.

³ CASEY 1974, 41.

⁴ AMANDRY 2001, 159.

⁵ DEPEYROT 2006, 13.

⁶ GĂZDAC 2002, 176.

⁷ GĂZDAC 2002, 176.

⁸ AMANDRY 2001, 23.

⁹ HOWGEGO 2005, 127

in short time the drop in weight to just 2,5 grams of silver content showed that it only had enough silver for one and a half denarius. The antoninianus has a lower proportion at the beginning of the 3rd century AD. in comparison to the denarius, yet at the end of the century it completely replaces the denarius.

The presence of Roman denarii from the Republic period and 1st century AD. in Dacia can be explained in more than one way. First of all, after the monetary reform undertaken by Trajan (98-117) in 107, Rome melts old denarii so that it may mint new one with less silver¹⁰ in them, thus the local population tries to hold on to older coins.

Also, the republican denarii were the most minted coins from the Roman Republic¹¹ being used in circulation and imitated in many forms in pre-Roman Dacia¹².

One of the best initiatives made by the most *equal amongst equals* was to keep the minting of silver and gold coins in the hands of imperial authority¹³. This way Augustus (27 BC – AD 14) could issue coins made of precious metal and keep a vital control over the Roman Army.

During the time of Trajan (98-117), a reduction in the quantity of silver takes place¹⁴ from about 900‰ to about 800‰¹⁵, followed by the period of Hadrian (117-138) when the majority of the denarii show the base silver as being between 840‰ and 800‰¹⁶ and going on, under Antoninus Pius (138-161) reaching values between 790‰ and 700‰¹⁷.

A sudden drop of the silver content for the denarius takes place, some historians considering it as happening during Commodus (180-192) when the weight of the coin goes down by 0,5 grams and the quantity of silver from 730‰ to 661‰¹⁸, while others place it later at Septimius Severus (193-211) when denarius coins show silver content from 750‰ to about 550‰¹⁹.

Thus, the quantity of precious metal found in a silver coin will drop even more passing the limit of 50% and becoming a billion²⁰.

ROMAN LAWS ON COINAGE:

Counterfeiting money is the act of imitating and illegally producing coins with the intention of unloading them inside the monetary circulation system or for personal enrichment. Trying to fight back the possibility that some individuals might attain wealth through forgery, laws were implemented even from the time of the Roman Republic to punish these actions.

The first law against counterfeited coinage was in the *edictum cum poena et iudicio* of Marius Gratidianus from about 84 BC²¹ but which did not survive until today. Thus, the basis of Roman law concerning counterfeiting is considered to be

¹⁰ CRAWFORD 1978, 152. HARL 1996, 92-93.

¹¹ BURNETT 1987, 36.

¹² CRAWFORD 1980, 51-52. LOCKYEAR 1995, 85-102.

¹³ DUDĂU 2004, 6.

¹⁴ CASSIUS DIO, 308.

¹⁵ KIRIȚESCU 1997, 46. BOLIN 1958, 208-211.

¹⁶ DUDĂU 2006, 10.

¹⁷ KIRIȚESCU 1997, 46-47. BOLIN 1958, 210-212.

¹⁸ CALLU 1969, 244, 476.

¹⁹ DEPEYROT 2006, 126.

²⁰ AMANDRY 2001, 68.

²¹ MOMMSEN 1870, 82-84.

lex Cornelia de falsis from 81 BC, also known as *Lex Cornelia testamentaria nummaria*²².

Part from the text of the law survived until now, being quoted in the *Digestae*: “*Legea Cornelia cavetur, ut, qui in aurum vitii quid addiderit, qui argenteos nummos adulterinos flaverit, falsi crimine teneri. Eadem poena adificitur etiam is qui, cum prohibere tale quid posset, non prohibuit*”²³.

From the remaining passage it can be seen that any attempt to counterfeit a silver coin was considered as a crime. Also the usage of tin or lead made coins which were mistaken for silver was prohibited²⁴.

The punishment for counterfeiting silver coinage are described in the *Institutiones*²⁵, “...*Legis poena in servos ultimum supplicium est, quod et in lege de sicariis et veneficis servatur, liberos vero deportatio*”²⁶, thus, slaves were sentenced to death while free men were banished.

During the time of the Principate, the historical sources that bring information about the content of *Lex Cornelia* can be found in the letters from emperors to provincial governors. The most detailed account of these sources is Paul’s *Sententiae*, dated to the 3rd century AD, which reflects the main practice for the Antonine period²⁷. “*Lege Cornelia [...] qui nummos aureos argenteos adultaverit, lavaverit, conflaverit, raserit, corruperit, vitiaverit, vultuque principum signatam monetam, praeter adulterinam, reprobaverit: honestiores quidem in insulam deportantur, humiliores autem aut in metallum dantur aut in crucem tolluntur; servi autem postve manumissi capite puniuntur.*”²⁸.

The law was extended in order to cover both silver and gold coins. Further on, all of the possible methods of abusing coinage are presented in detail. Thus, being found guilty of counterfeiting, melting, clipping, washing or injuring any silver coin would have brought you banishment, lifetime work in the mines, crucifixion or capital punishment depending on the social status of the convicted one.

All of these measures could take place when trying to abuse the silver coin. In the case of illegal actions made on gold coins, the sinner would have been thrown to wild beasts in the amphitheatre while slaves were tortured to death: “*Quicumque nummos aureos partim raserint, partim tinxerint vel finxerint: si quidem liberi sunt, ad bestias dari, si servi, summo supplicio adfici debent.*”²⁹.

Lacking in any legislation against counterfeiting bronze coins can be explained because of the lack in value of these pieces and because these coins were issued by the Senate³⁰.

The analyses made on numismatic material from different sites from Dacia record the presence of ancient imitations and copies like cast coins, plated pieces, hybrids or “*barbarous*” types³¹. This image is not seen only in the case of Roman Dacia, a similar pattern being present all along the

Roman Empire³².

MONETARY SITUATION ON THE STUDIED SITES:

The first and most important civil settlement from Roman Dacia was **Ulpia Traiana Sarmizegetusa (Sarmizegetusa, Romania)**, founded in south-western Dacia soon after the Second Dacian War (AD 105-106). With the help of epigraphical inscriptions discovered here it was possible to date the founding of the Roman *colonia* at AD 106³³ with the full name of *colonia Ulpia Traiana Augusta Dacica Sarmizegetusa*.

It represented an important economic centre because of its location on commercial roads and close by farming area. During the Marcomannic Wars (AD 166-180) the town was attacked and the area outside the walled city was burned and destroyed³⁴. After the danger had passed, a period of rebuilding and prosperity followed under the Severan period³⁵ that continued well under Filip I (244-249)³⁶.

As we can see in (Fig. 1), on the archaeological site of *Ulpia Traiana Sarmizegetusa* there have been found 230 genuine coins which make up 81% of the total amount of pieces, 51 counterfeited coins that represent 18% and four hybrid pieces with 1%.

It is easy to observe how the genuine pieces from (Fig. 2) out past the number of counterfeit pieces for the Antonine and Severan period. With the start of the Anarchy period in AD 235, the counterfeited pieces rise in quantity.

For a better representation of the distribution of coins on this site, a third graph is needed (Fig. 3), which was made with the help of the Ravetz³⁷ formula.

Founded at the end of the Second Dacian War (105-106), **Apulum (Alba Iulia, Romania)** represented from the beginning an important military and economical centre serving as the garrison for Legion XIII Gemini.

During Septimius Severus (193-211), the civil settlement from the south of the legionary fortress becomes *municipium Septimium Apulensis* and at the year 250 even the rang of *colonia* as *colonia nova Apulensis*. The *canabe* from the north and west of the fortress remain in use even in the 3rd century³⁸.

Close by at 2-3 km a new settlement was established, today area known as “Partoş”. Under Marcus Aurelius (161-180) the settlement receives the title of *municipium* becoming *municipium Aurelium Apulum*, later during the period of Commodus (180-192) gaining the rang of *colonia* under the name *colonia Aurelia Apulensis*³⁹.

The graph with silver coins discovered on the site from Apulum (Fig. 4), shows the existence of 346 genuine pieces with a proportion of 55%, 269 counterfeited coins with 43% and 13 plated hybrids with 2%.

Distributing the coins on the period of reign for each issuer (Fig. 5), shows how the number of counterfeited

²² CICERO, 42. GRIERSON 1956, 242.

²³ DIGEST, 9.

²⁴ GĂZDAC/ALFÖLDY-GĂZDAC 2001, 139.

²⁵ GĂZDAC/ALFÖLDY-GĂZDAC 2001, 139.

²⁶ INSTITUTIONES, 7-8.

²⁷ GRIERSON 1956, 243.

²⁸ PAULUS, 1.

²⁹ DIGEST, 8.

³⁰ GRIERSON, 245.

³¹ GĂZDAC/ALFÖLDY-GĂZDAC 2001, 140.

³² GĂZDAC/ALFÖLDY-GĂZDAC 2001, 140.

³³ PISO 2001, 17.

³⁴ DAICOVICIU/PISO 1975, 159-160. DAICOVICIU/PISO 1977, 155-156.

³⁵ PISO 1993, 82-86.

³⁶ DAICOVICIU/ALICU 1984, 34-35.

³⁷ CASEY 1974, 41.

³⁸ GĂZDAC/SUCIU/ ALFÖLDY-GĂZDAC 2009, 2.

³⁹ GĂZDAC/SUCIU/ ALFÖLDY-GĂZDAC 2009, 2.

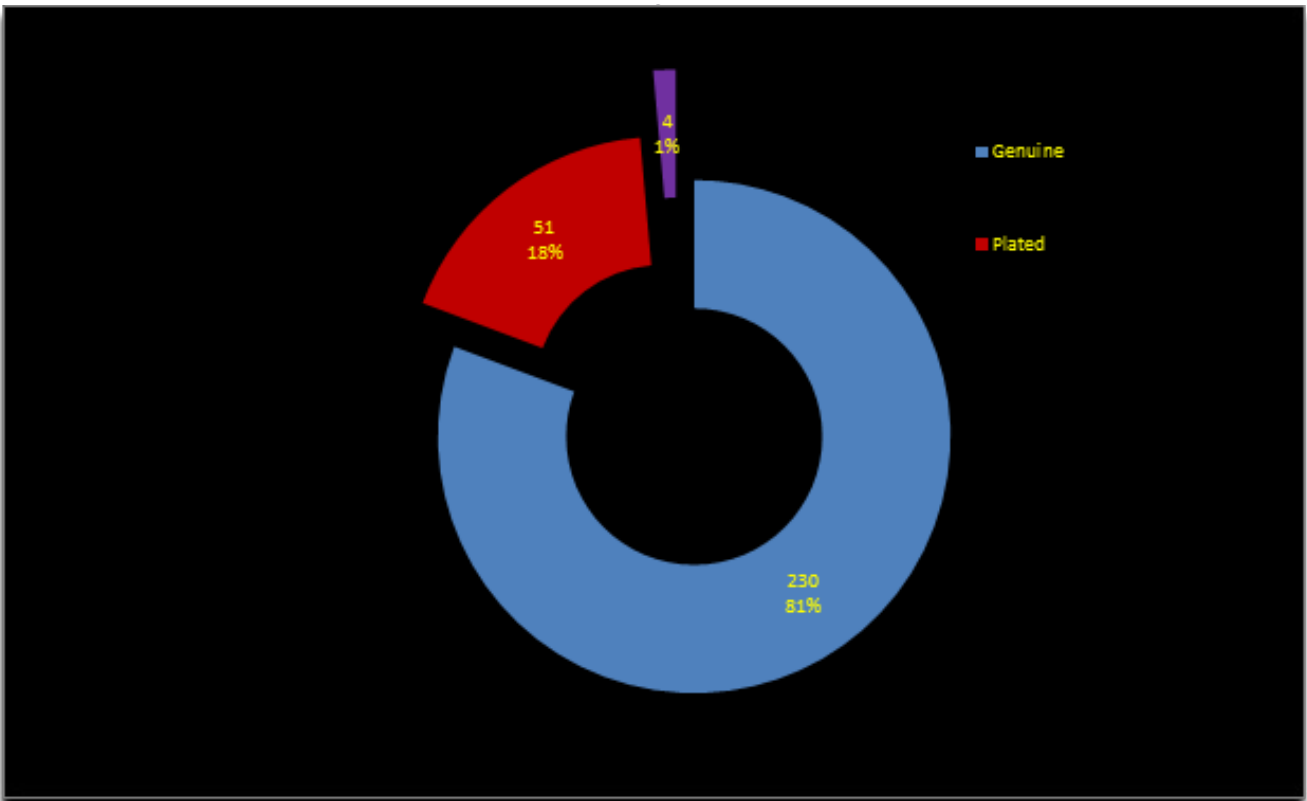


Fig. 1 – Graph of the silver coins from Ulpia Traiana Sarmizegetusa – number of coins and their proportion on the site;

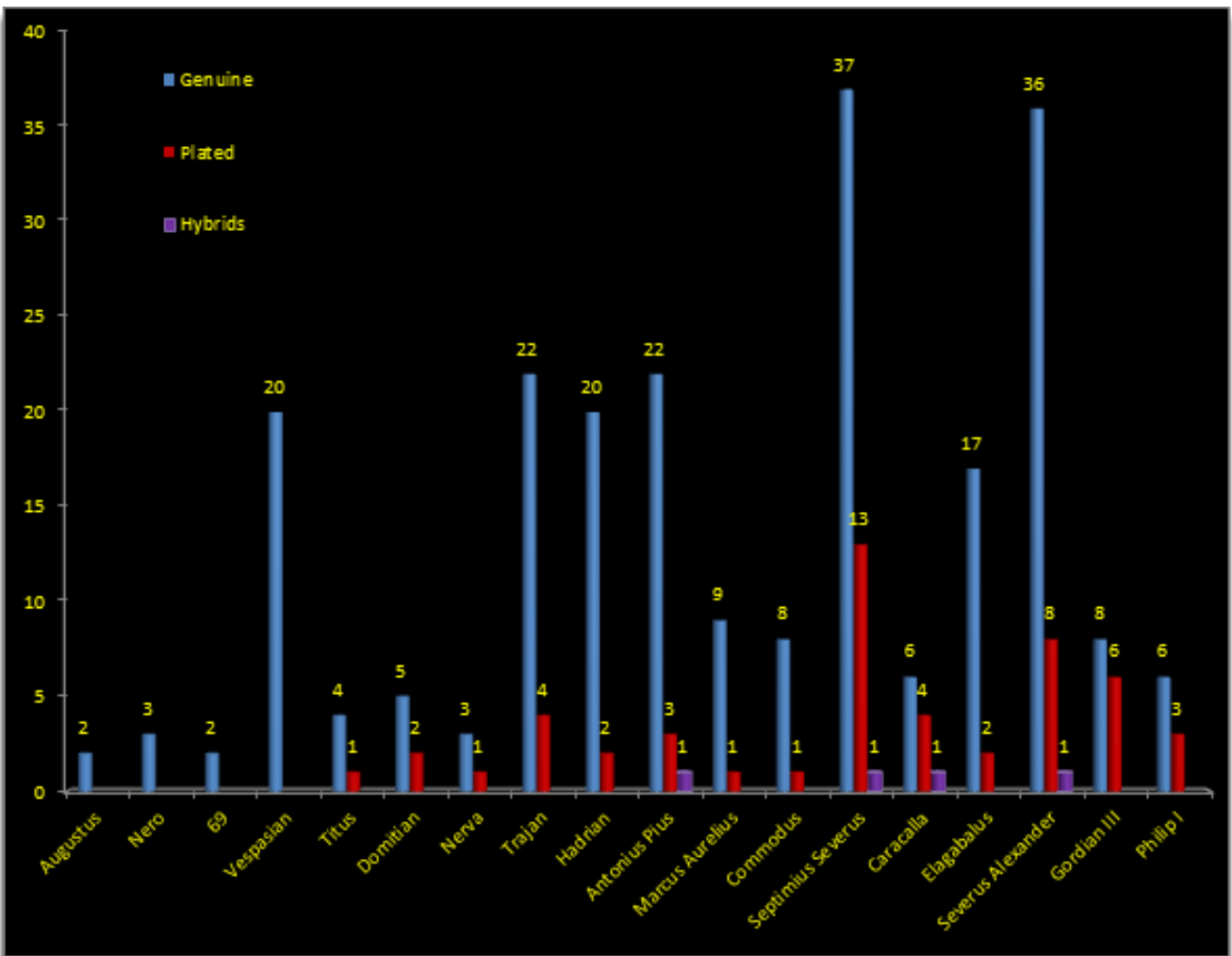


Fig. 2 – Graph of the silver coins from Ulpia Traiana Sarmizegetusa – number of pieces for each issuer;

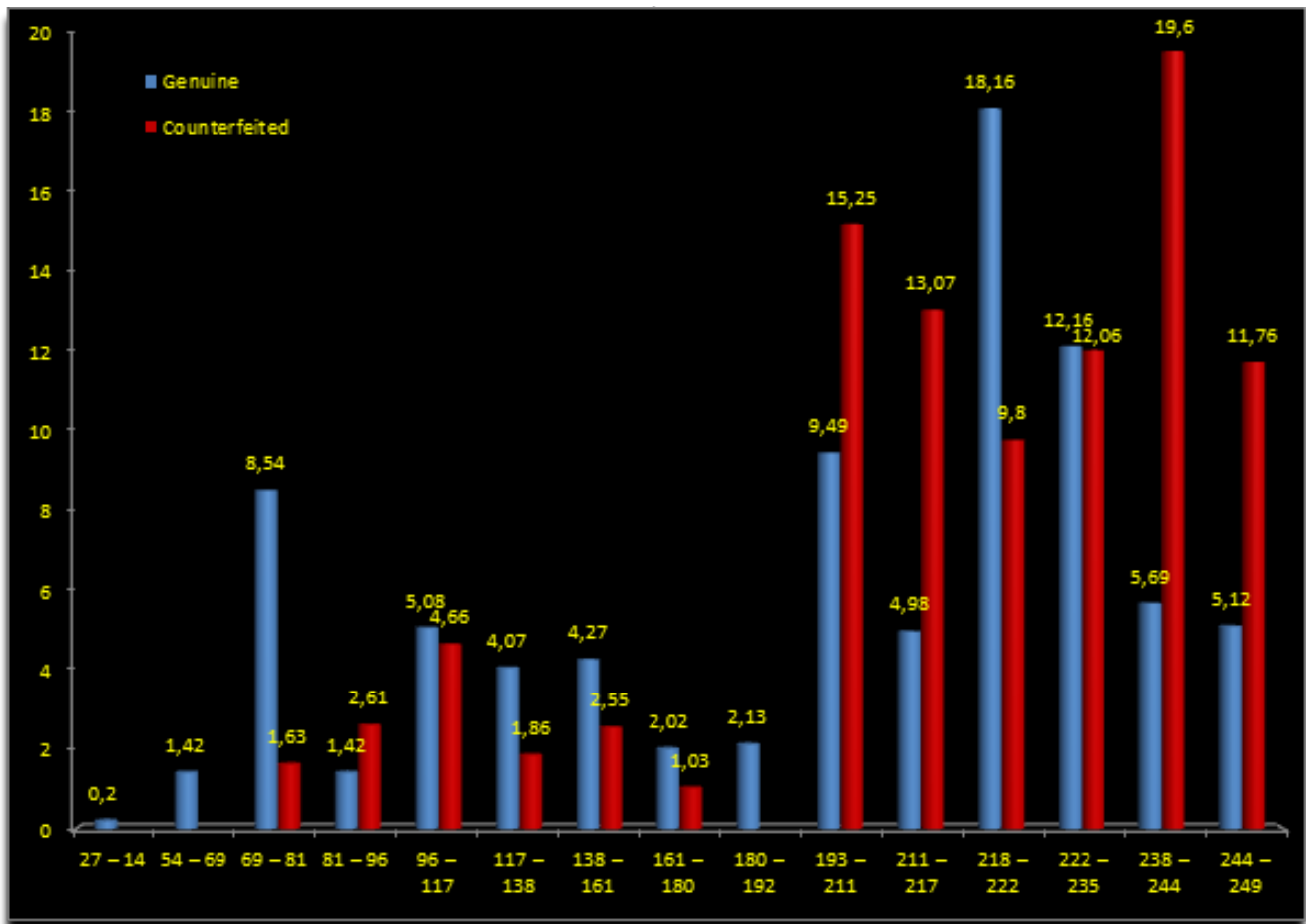


Fig. 3 – Graph of the silver coins from Ulpia Traiana Sarmizegetusa – monetary index;

pieces is almost equal with the number of genuine ones for the period of Trajan (98-117), Septimius Severus (193-211), Elagabalus (218-222), Severus Alexander (222-235), Gordian III (238-244), is twice as higher than the number of genuine ones for the time of Caracalla (211-217) and Maximinus Thrax (235-238) or is equal to half of the number of genuine coins dated at Hadrian (117-138), Antonius Pius (138-161), Marcus Aurelius (161-180).

On the other hand (Fig. 6), represents a new perspective of the situation. If during the Antoninians the coefficient of counterfeited coins is equal to that of genuine ones, during the Severan period the index for genuine ones is surpassed by the counterfeited pieces, high values for both types of coins being present in this period of time, the highest value identified under Elagabalus (218-222). The high coefficient of counterfeited pieces continues even after the Severan period, into the beginning of Military Anarchy.

The first epigraphical mention of **Potaissa (Turda, Romania)** comes from a *miliarium* dated to AD 108⁴⁰. In this location, Roman military personnel have been brought, therefor until now there have been identified auxiliary troops as *cohors I Flavia Ulpia Hispanorum miliaria civium Romanorum equitata*, *cohors I Batavorum miliaria* and some detachments from Legion XIII Gemini, all of them being testified with the help of stamped bricks⁴¹.

In the time of the Marcomannic Wars the V Macedonia Legion was brought to Potaissa to raise the military power of

Roman Dacia. The establishment of the Legion at Potaissa in the years 168 – 169⁴² meant the rapid development of the region, during the next century⁴³ the local economy of Potaissa receives an influx of coin which is most visible under the Severan period.

Barbarian attacks from the time of Philip I (244-249) left their mark on the town, parts of the legionary fortress being reconstructed, yet the settlement overcame the dangers. The biggest blow to the settlement came during Gallienus (268-270) or Aurelianus (270-275) when the legion was recalled back to defend other corners of the Empire.

The graph that was made after the discoveries from Potaissa, shown in (Fig. 7), the presence of 773 genuine pieces that form up to 84% from the total number of coins, 90 plated coins with 10%, 12 cast pieces with 1%, 20 plated hybrids with 2% and 23 hybrids representing 3%.

Next graph was made using the number of coins and years of reigning for each issuer (Fig. 8), and it shows how genuine coins are present in higher numbers for all the issuers. From Domitian (81-96) to Philip I (244-249), with the exception of Commodus (180-192), counterfeited coins, whether they are plated, casted or plated hybrids, alongside hybrid pieces, are seen in small numbers at all the issuers.

However, after using the Ravetz⁴⁴ formula we can see the new results in (Fig. 9). Not only did the index for counterfeited pieces is equal in value with the one for

⁴⁰ WINKLER 1982, 80-84. BĂRBULESCU 1994, 3. FODOREAN 2006, 64-68.

⁴¹ BĂRBULESCU 1987, 36-37. NEMETI 1999, 194-195. PĪSLARU 2009, 24.

⁴² BĂRBULESCU 1987.

⁴³ PĪSLARU 2009, 25.

⁴⁴ CASEY 1974, 41.

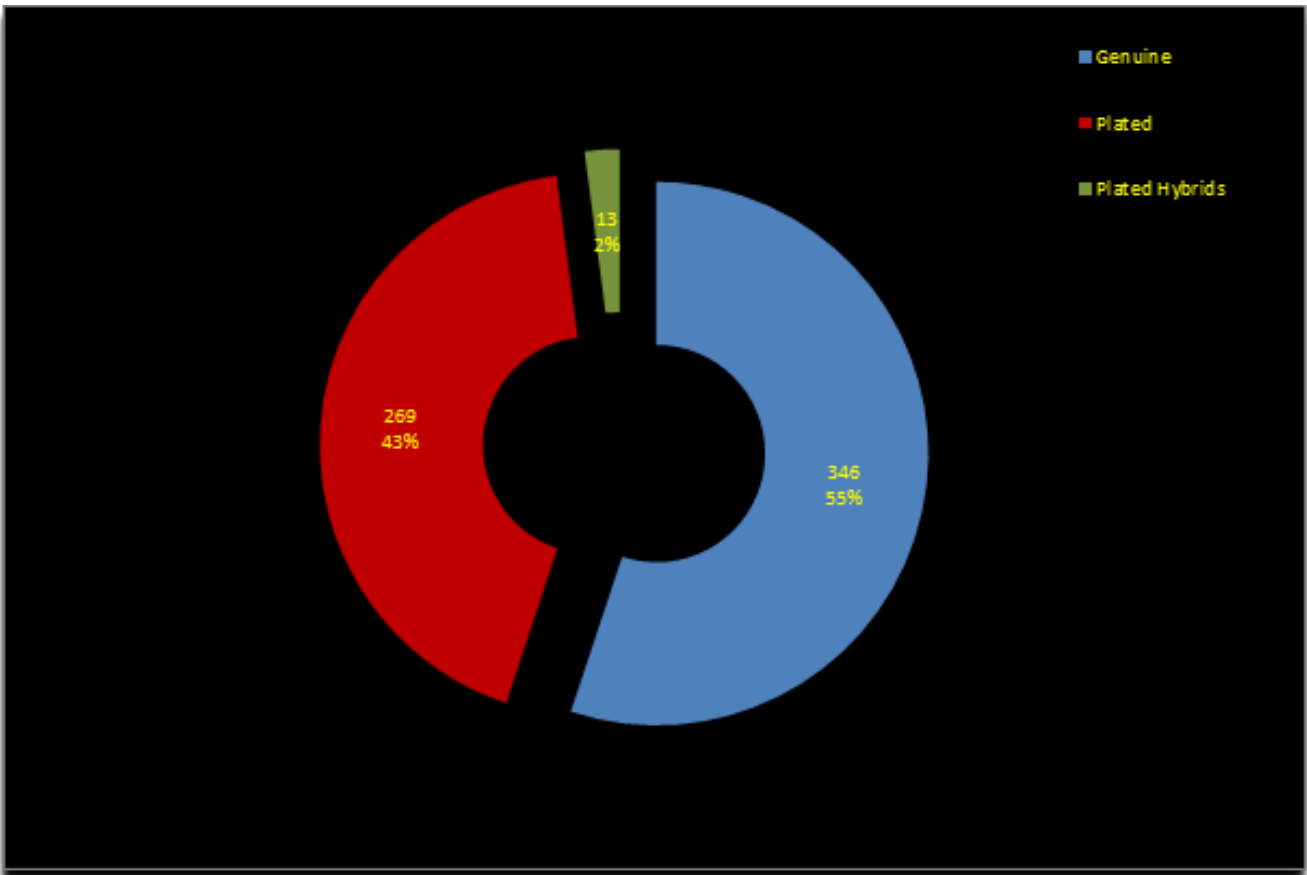


Fig. 4 – Graph of the silver coins from Apulum – number of coins and their proportion on the site;

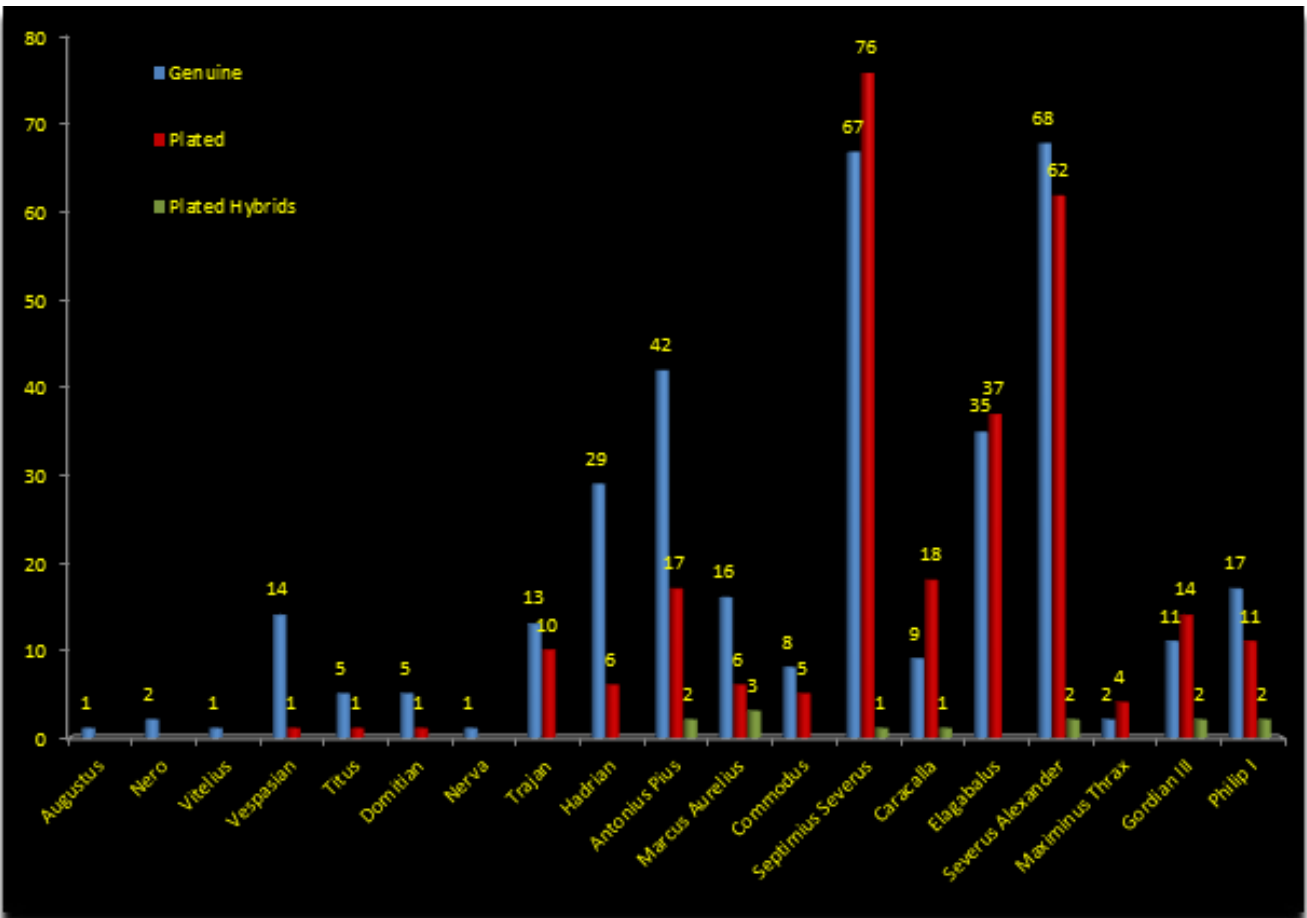


Fig. 5 – Graph of the silver coins from Apulum – number of pieces for each issuer;

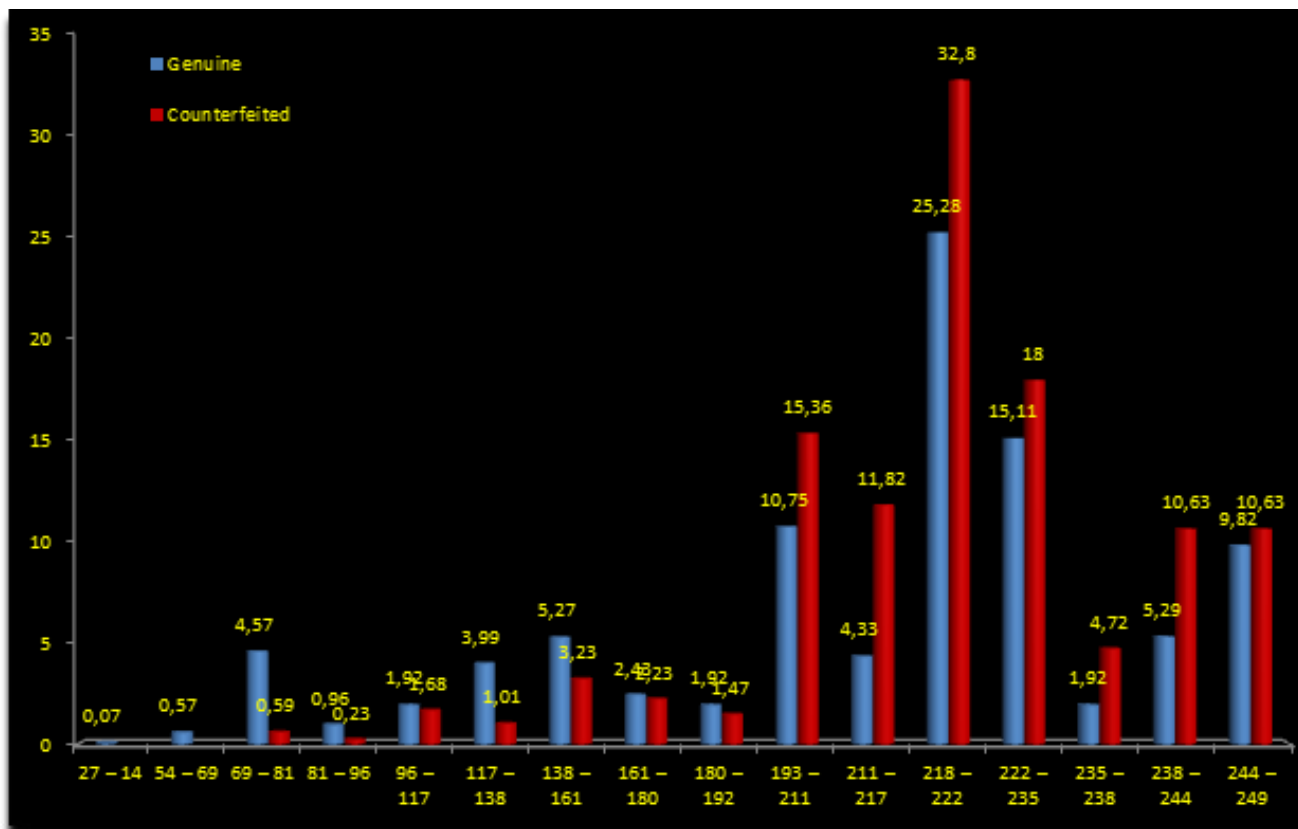


Fig. 6 – Graph of the silver coins from Apulum – monetary index;

genuine coins during the periods from Domitian (81-96) to Marcus Aurelius (161-180) and from Septimius Severus (193-211) to Severus Alexander (222-235), but for the time of emperor Caracalla (211-217) and the beginning of the Military Anarchy period, the coefficient for counterfeited coins has higher values than the one for genuine pieces.

Only for the time of Commodus (180-192) and Elagabalus (218-222) the index for genuine pieces is higher than the one for counterfeited coins.

The military garrison of **Arcobadara (Ilișua, Romania)** was placed in the north of Roman Dacia in order to protect the *Limes* and overview the Șomeșul Mare river and Țibleș mountains located at the north of the site⁴⁵. The fort was erected by *Ala I Tungrorum Frontoniana* in the 2nd century AD⁴⁶.

At Arcobadara (Fig. 10) were identified 196 genuine silver coins with a proportion of 71%, 77 plated pieces with 28%, one hybrid with 0,5% and another plated hybrid piece with 0,5%.

In (Fig. 11) it is easy to see how the genuine pieces have higher values than the counterfeit ones, only during the time of Septimius Severus (193-211) the counterfeited pieces have values as high as genuine ones.

Even so, the graph from (Fig. 12) can show a whole new situation. The monetary index for Antonine period representing genuine pieces is slightly higher than the one for counterfeited ones but starting with coins dated to Septimius Severus (193-211) the coefficient for counterfeited pieces rises in value, the new index being much higher than the coefficients for genuine pieces until the Military Anarchy period.

⁴⁵ GĂZDAC/GAIU 2011, 1.

⁴⁶ GĂZDAC/GAIU 2011, 1

Auxiliary fort of **Samum (Cașeu, Romania)**, is situated as well on the norther border of Roman Dacia⁴⁷. Initially the fort was builded out of wood and earth by *cohors II Britannorum* ∞ which was brought here after the participation of the unit at the Second Dacian War⁴⁸.

During the reign of Hadrian (117-138) *cohors II Britannorum* ∞ was relocated to Romița, in her place arriving *cohors I Britannica* ∞ c.R. *equitata*⁴⁹ building the stone phase of the fort.

The monetary situation from Samum is reduced in size because of the history of the site and the small amount of coins discovered here. After the analysis on of the available data, as we can see in (Fig. 13), there have been identified 57 genuine silver coins with a proportion of 64%, 29 plated pieces with 33% and three plated hybrids with 3%.

Most of the genuine coins from (Fig. 14) are dated for Vespasian (69-79), Trajan (98-117), Hadrian (117-138), Elagabalus (218-222) and Severus Alexander (222-235). Only during Septimius Severus (193-211) the number of counterfeited pieces dominates the number of genuine coins.

In the case of monetary coefficients (Fig. 15) it is easy to observe that at the beginning of the graph only genuine pieces are present, soon counterfeited coins are seen along with the genuine ones. For the period of 193 – 217, more exactly from Septimius Severus (193-211) to Caracalla (211-217), the monetary index for counterfeited pieces is much higher than the one for genuine pieces, followed by an intensification of the coefficient for genuine pieces under Elagabalus (218-222) and Severus Alexander (222-235). With AD 235 and the start of the Military Anarchy, the index

⁴⁷ GĂZDAC/ISAC 2007, 11.

⁴⁸ STROBEL 1984, 125.

⁴⁹ WAGNER 1938, 104-105. PETOLESCU 1997, 84-85.

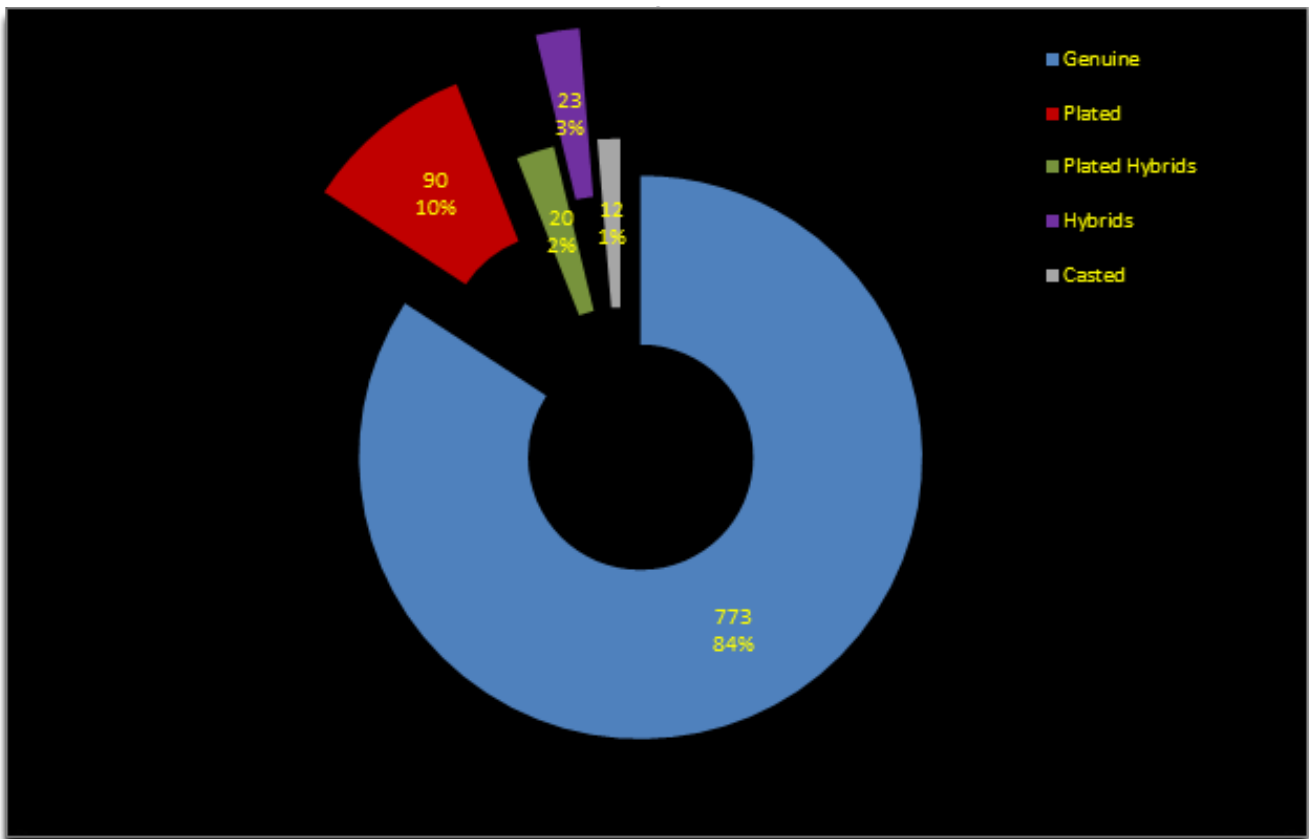


Fig. 7 – Graph of the silver coins from Potaissa – number of coins and their proportion on the site;

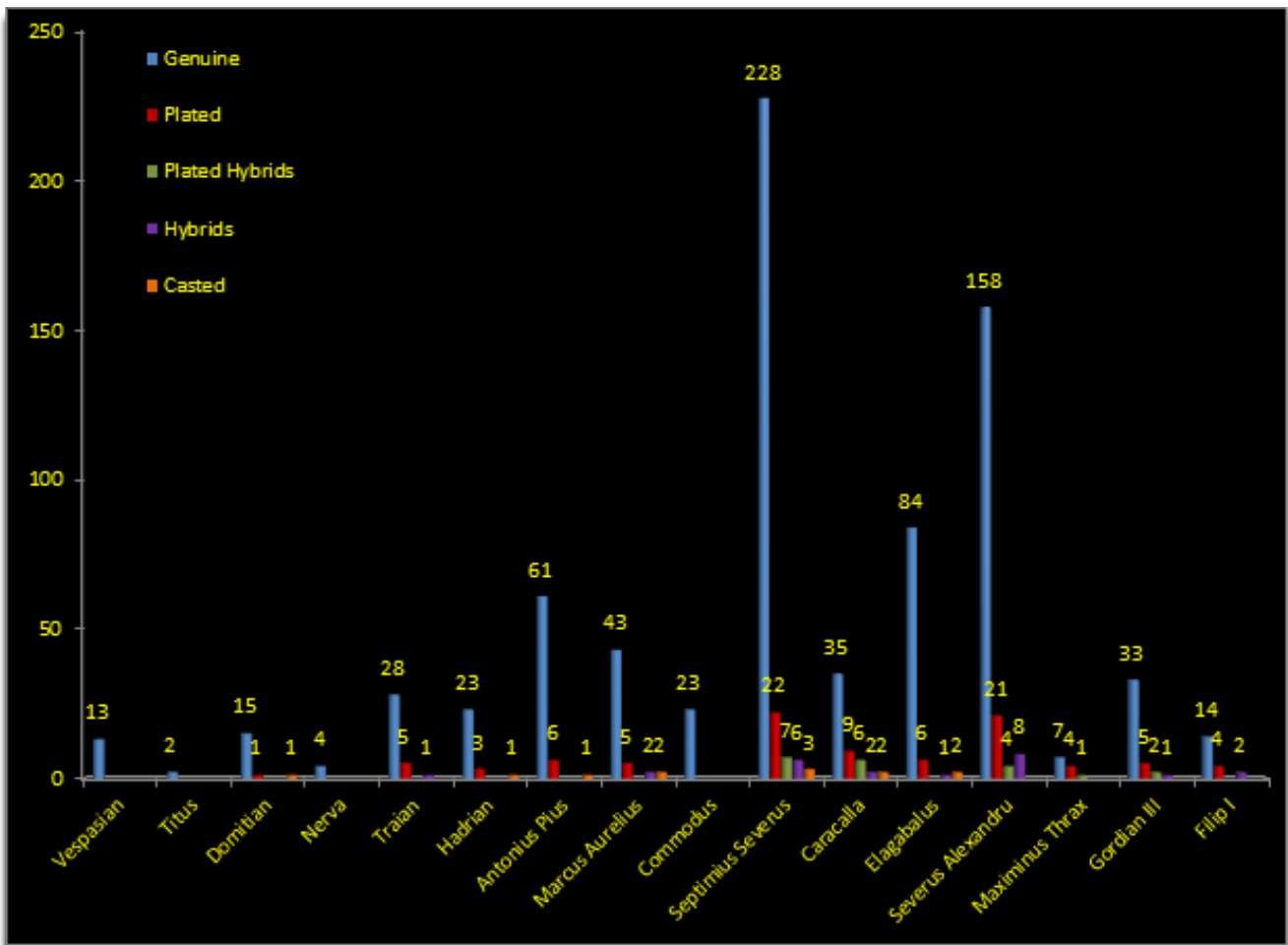


Fig. 8 – Graph of the silver coins from Potaissa – number of pieces for each issuer;

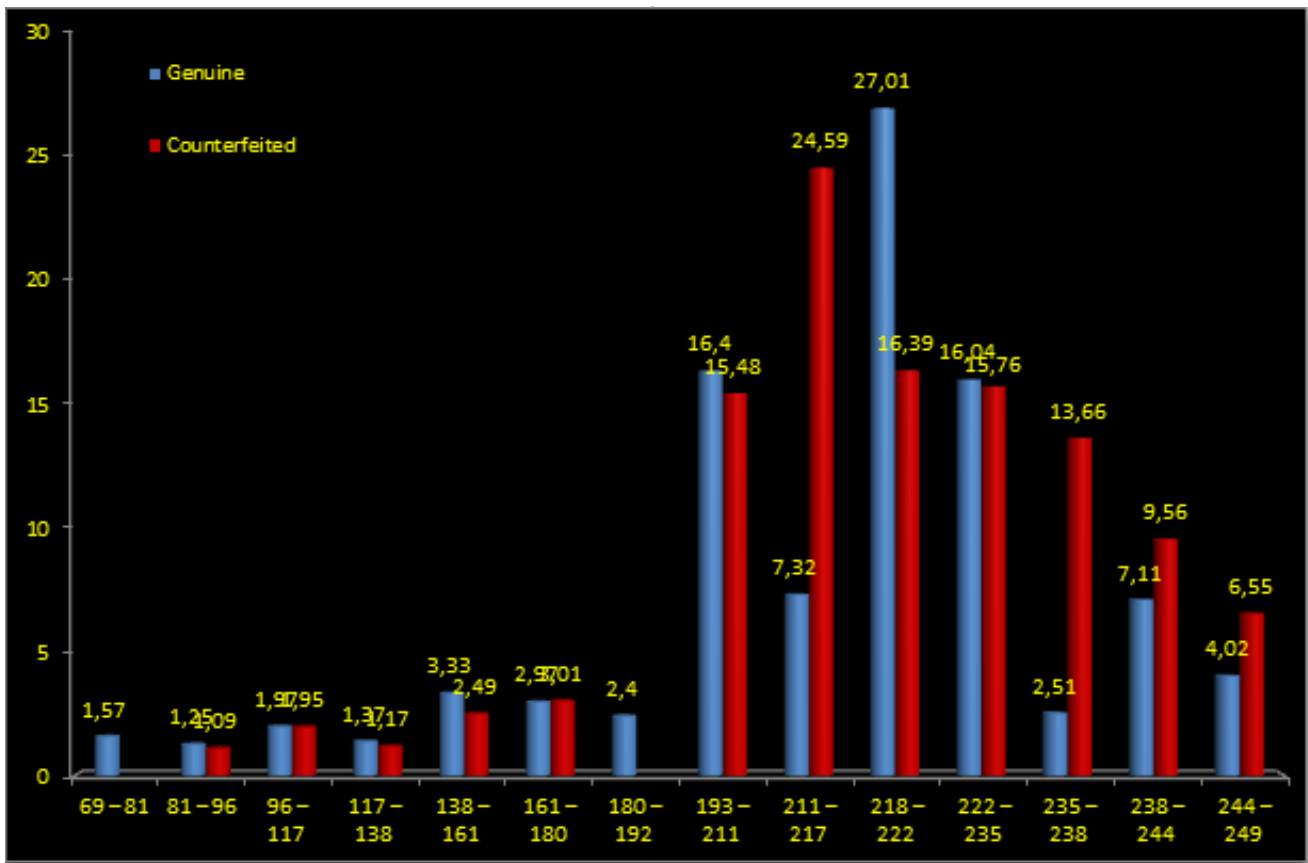


Fig. 9 – Graph of the silver coins from Potaissa – monetary index;

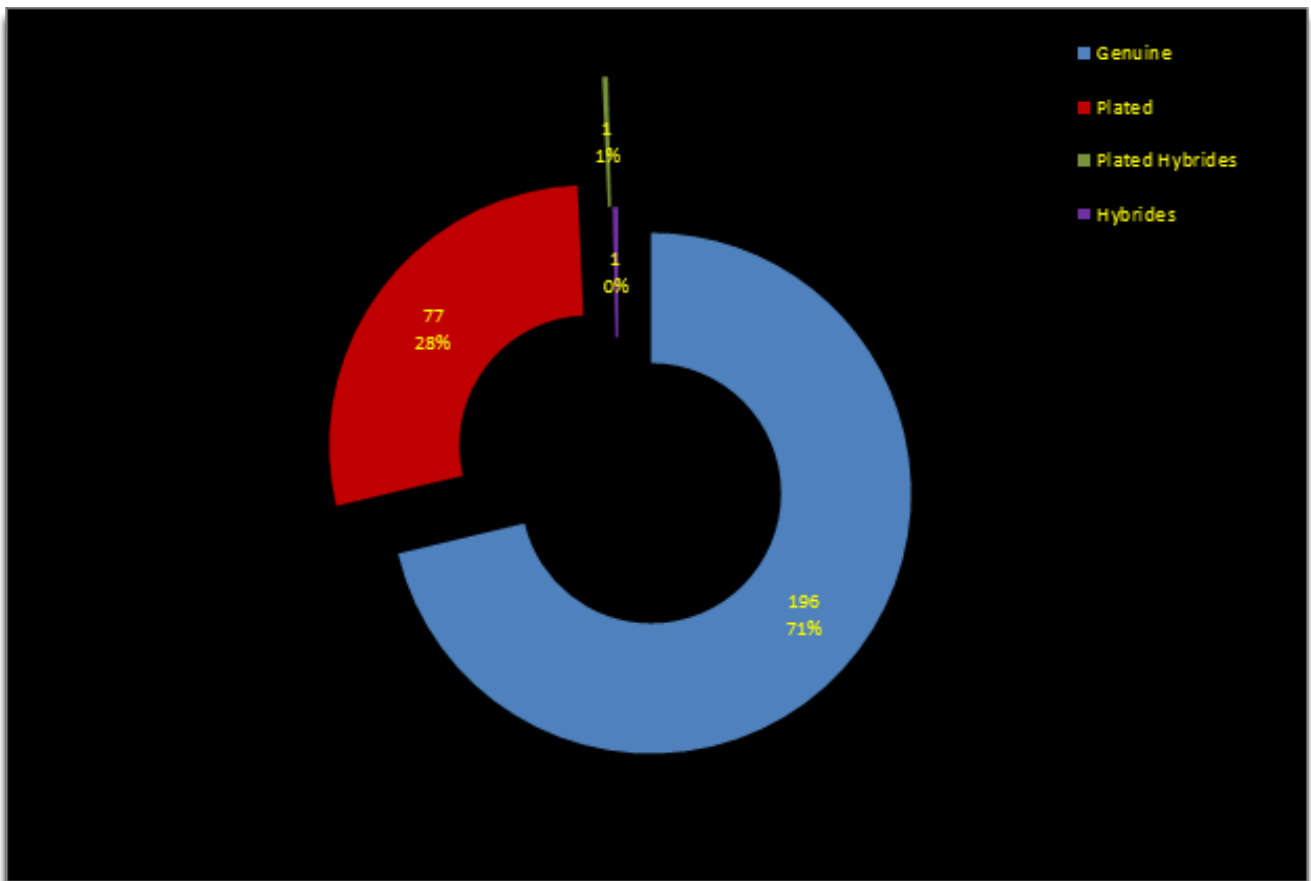


Fig. 10 – Graph of the silver coins from Arcobadara – number of coins and their proportion on the site;

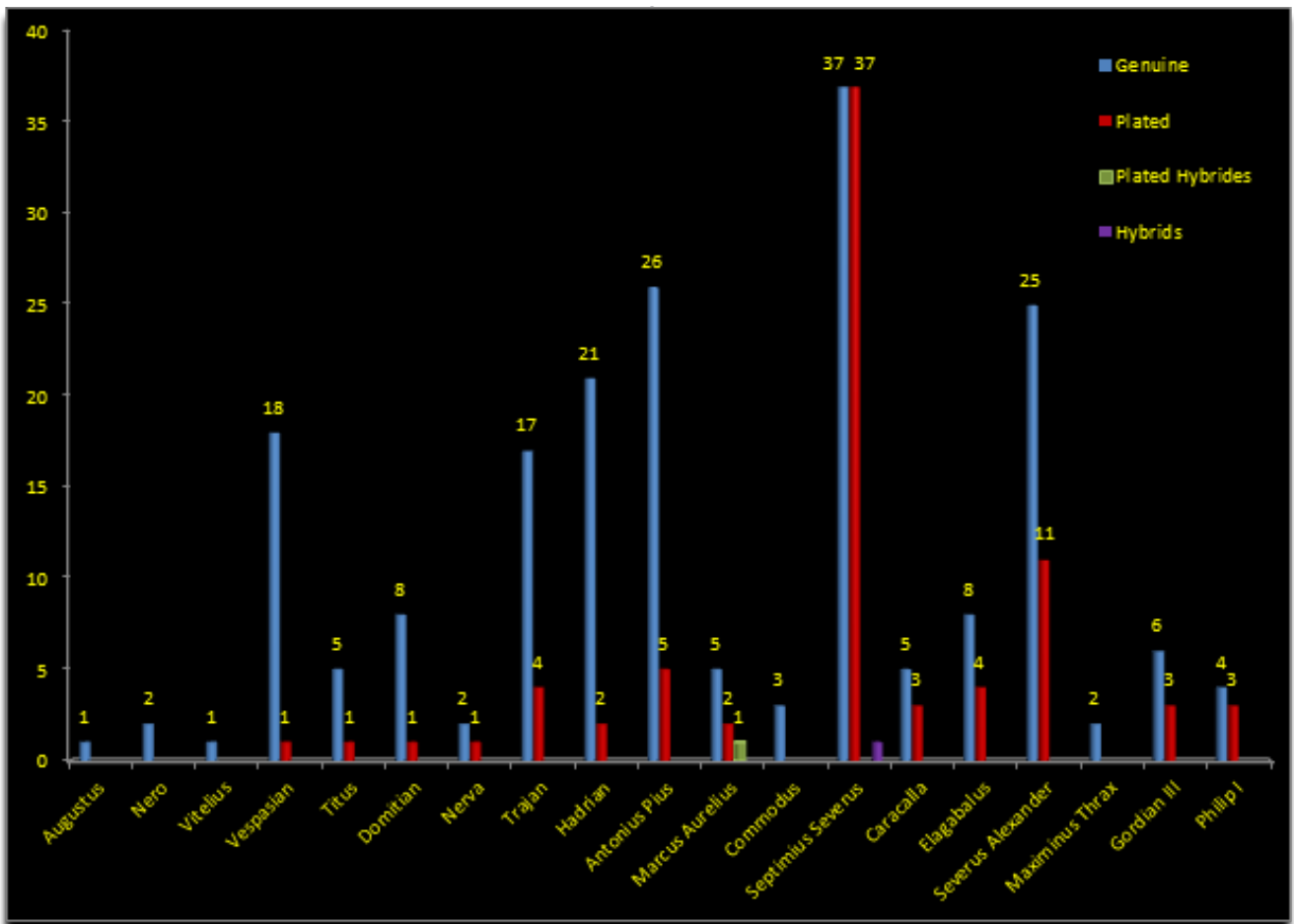


Fig. 11 – Graph of the silver coins from Arcobadara – number of pieces for each issuer;

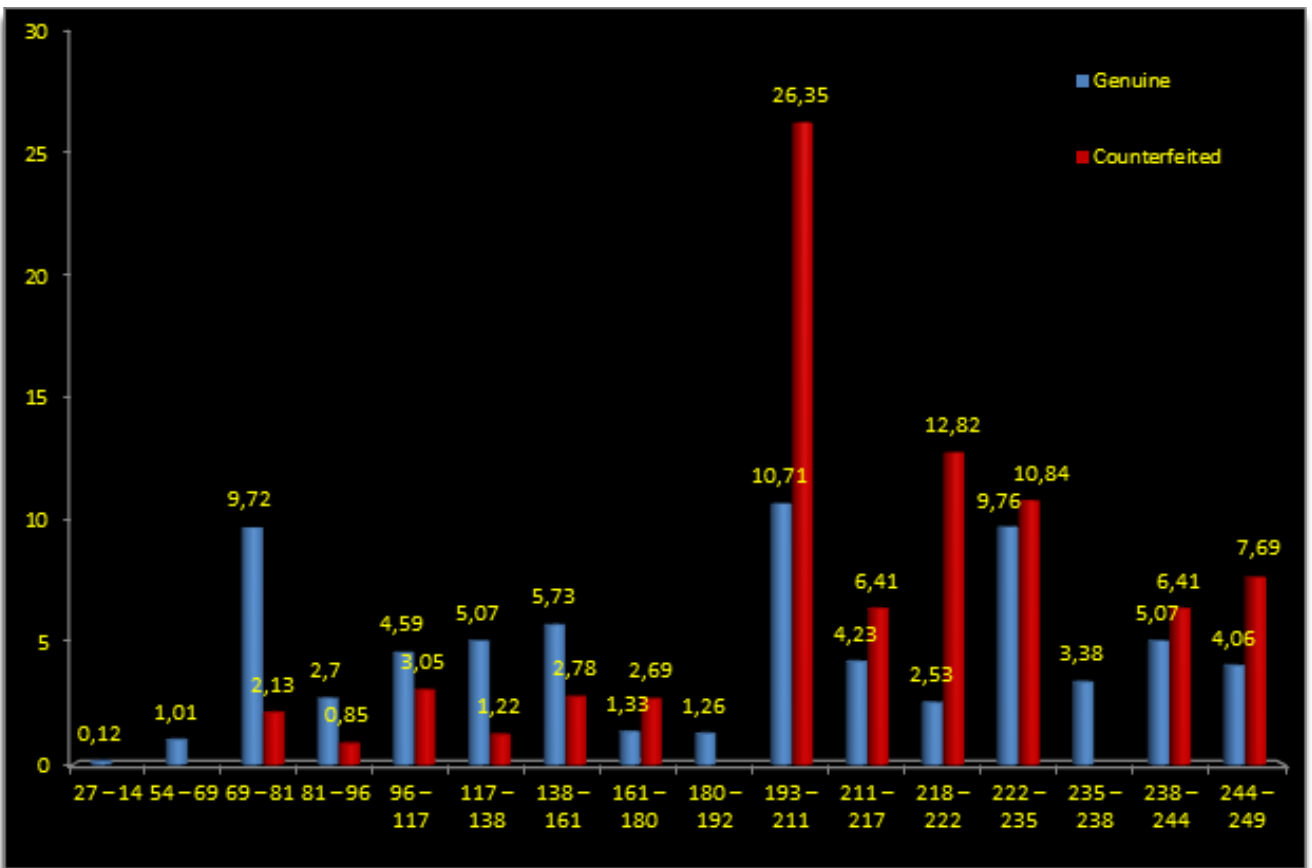


Fig. 12 – Graph of the silver coins from Arcobadara – monetary index;

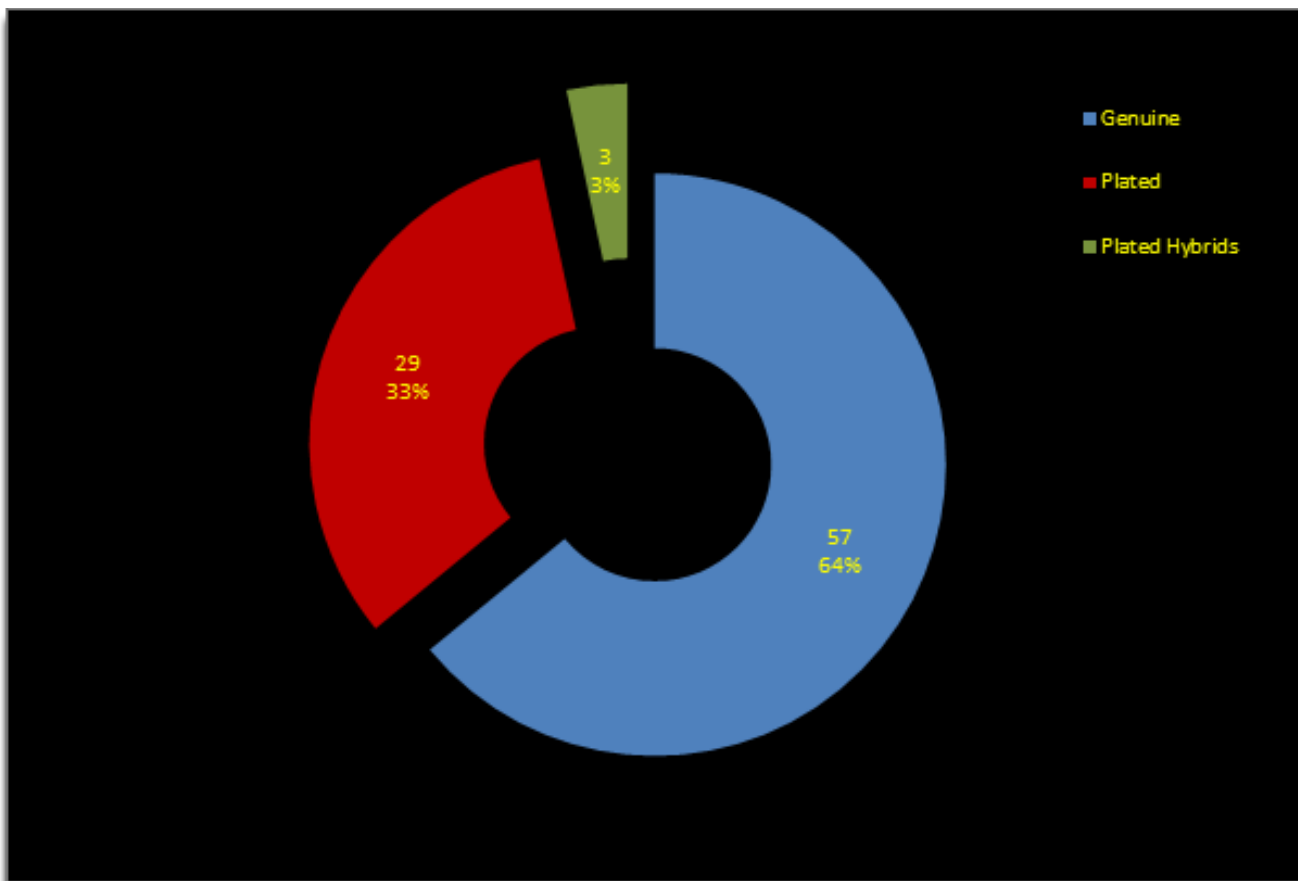


Fig. 13 – Graph of the silver coins from Samum – number of coins and their proportion on the site;

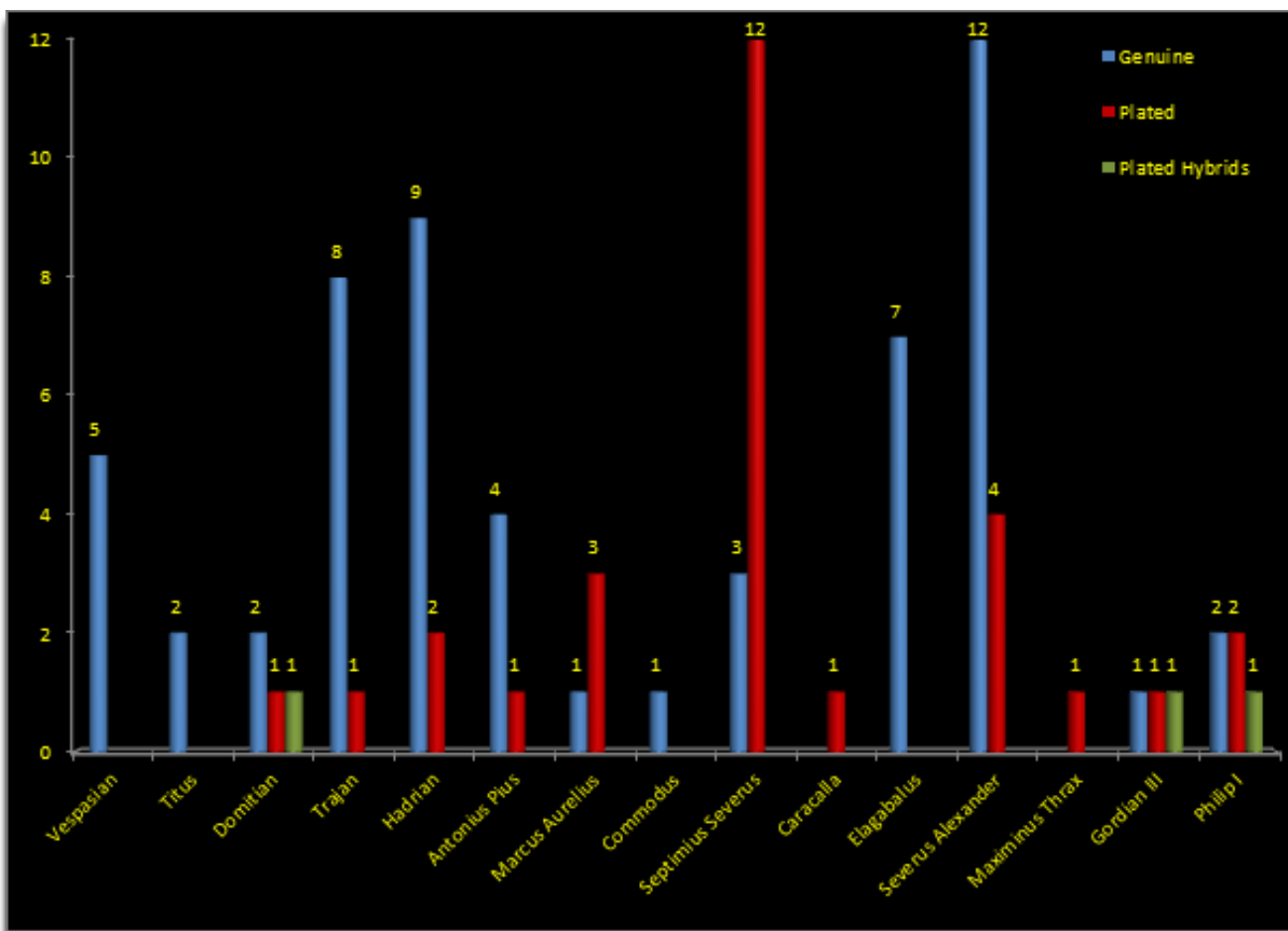


Fig. 14 – Graph of the silver coins from Samum – number of pieces for each issuer;

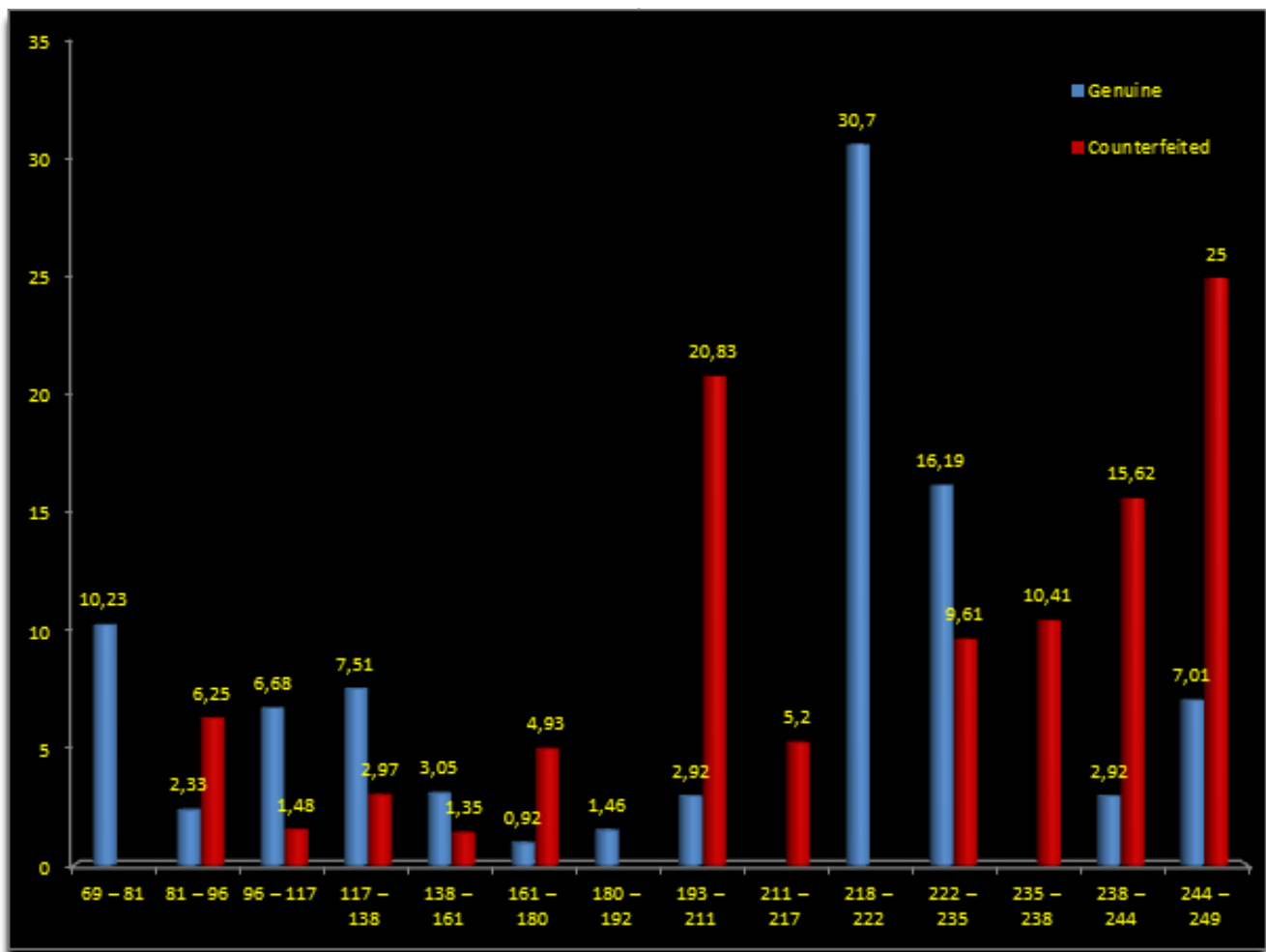


Fig. 15 – Graph of the silver coins from Samum – monetary index;

for counterfeited pieces reaches new high values which grow as intensity with time.

Buciumi (Buciumi, Romania) was a military auxiliary garrison situated on the north-west sector of Roman Dacia. Its purpose was to assist the observation towers from this part of the frontier and to assure the safe passage on the military road towards Bologna fortress by south and Porolissum with Romița fortresses to the north⁵⁰. Initially the *castrum* was erected from wood and earth, later by stone⁵¹.

The military encampment served as garrison for *Cohors I Augusta Iturneorum sagittariorum* and later on for *Cohors II Nervia milliaria Pacensis* during the 2nd and 3rd centuries AD.

At Buciumi (Fig. 16) there have been discovered 93 genuine silver coins with a proportion of 56% and 74 counterfeited pieces with 44%. Even on a small site like this we can observe a similar pattern for coin distribution.

Counterfeited pieces (Fig. 17) have the largest values during Septimius Severus (193-211) and equal in quantity with the genuine coins for the periods of Vespasian (69-79), Trajan (98-117), Antonius Pius (138-161), Elagabalus (218-222) and Severus Alexander (222-235).

It is possible to see (Fig. 18) how counterfeited coins are present for all the periods, the highest point for them remaining under Septimius Severus (193-211). The

⁵⁰ GĂZDAC/PRIPON 2012, 11.

⁵¹ RUSSU 1959, 305-317.

coefficient for genuine pieces during the reign of Elagabalus (218-222) is very interesting as being unusually high compared with other periods from the site.

With the help of some natural and geographical elements, slightly bend plateau and descending terraces, a rich area in timber, springs, stone, clay and salt, made **Porolissum (Moigrad, Romania)** an ideal location for living and resource exploitation⁵².

It is possible to date the arrival of Roman troops here at AD 106 based on two military diplomas⁵³. Porolissum was a key point in the *limes* from north Dacia, serving as a gateway between Dacia and *barbaricum*, integrated with other forts and watchtowers to form a protective barrier.

Initial, detachments of Legion IIII Flavia Felix and XIII Gemini alongside cohorts I *Ulpia Brittonum*, V *Lingonum* and I *Augusta Ituraeorum*, all of them being identified by stamp bricks and tiles⁵⁴, arrived here to secure the protection of the area. With the first half of the 3rd century, the stone phase of the *castrum* was erected, it had new stone made towers, gates, firing platforms, the new troops that will replace the old garrison were cohorts I *Ulpia Brittonum*, I *Ituraeorum Sagittariorum* and V *Lingonum*⁵⁵.

In the case of Porolissum represented in (Fig. 19), 690 genuine coins have been discovered with a proportion of

⁵² GĂZDAC/GUDEA 2006, 11.

⁵³ GĂZDAC/GUDEA 2006, 14.

⁵⁴ GĂZDAC/GUDEA 2006, 15.

⁵⁵ GUDEA 1989, 57-83. GUDEA 1997.

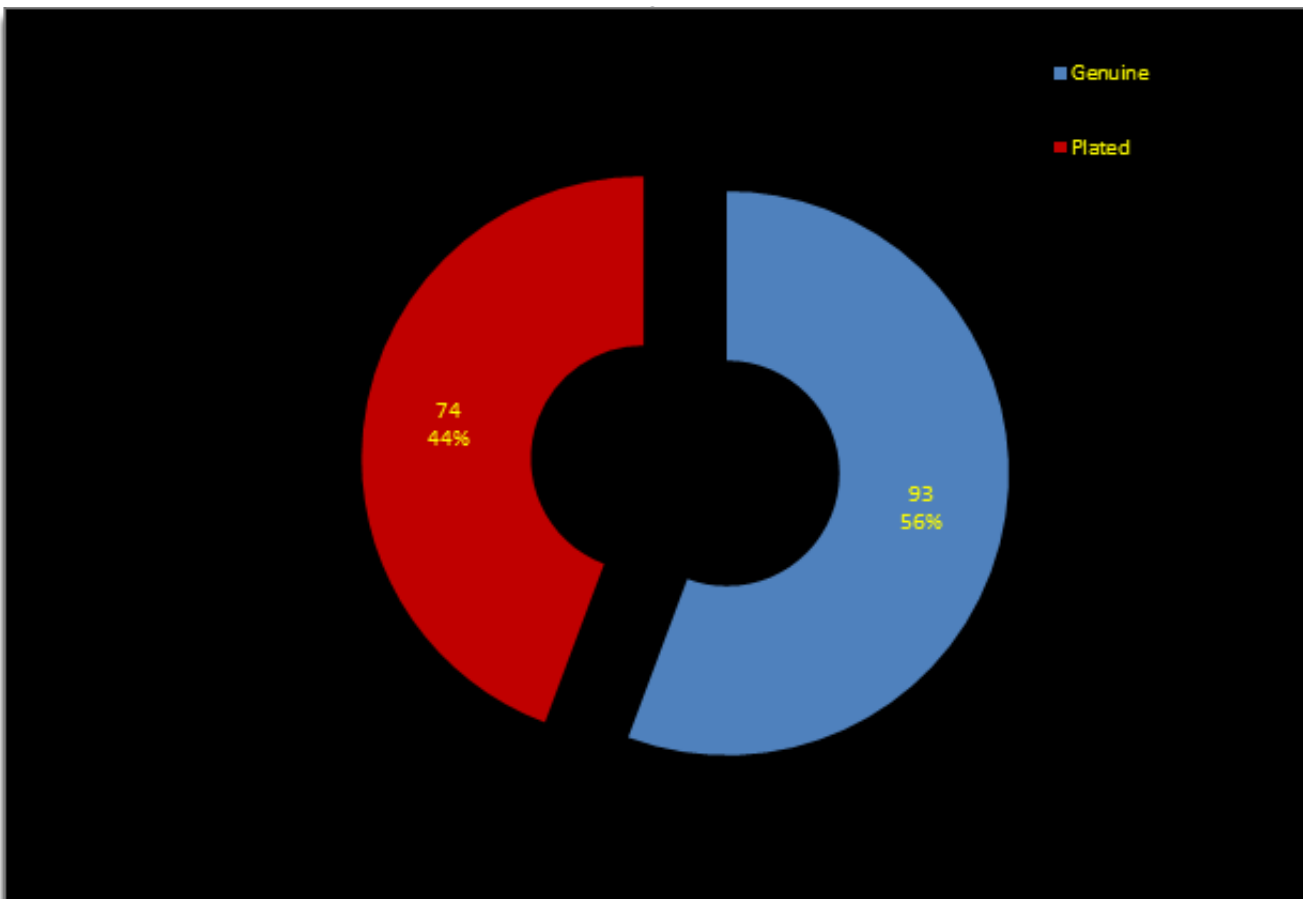


Fig. 16 – Graph of the silver coins from Buciumi – number of coins and their proportion on the site;

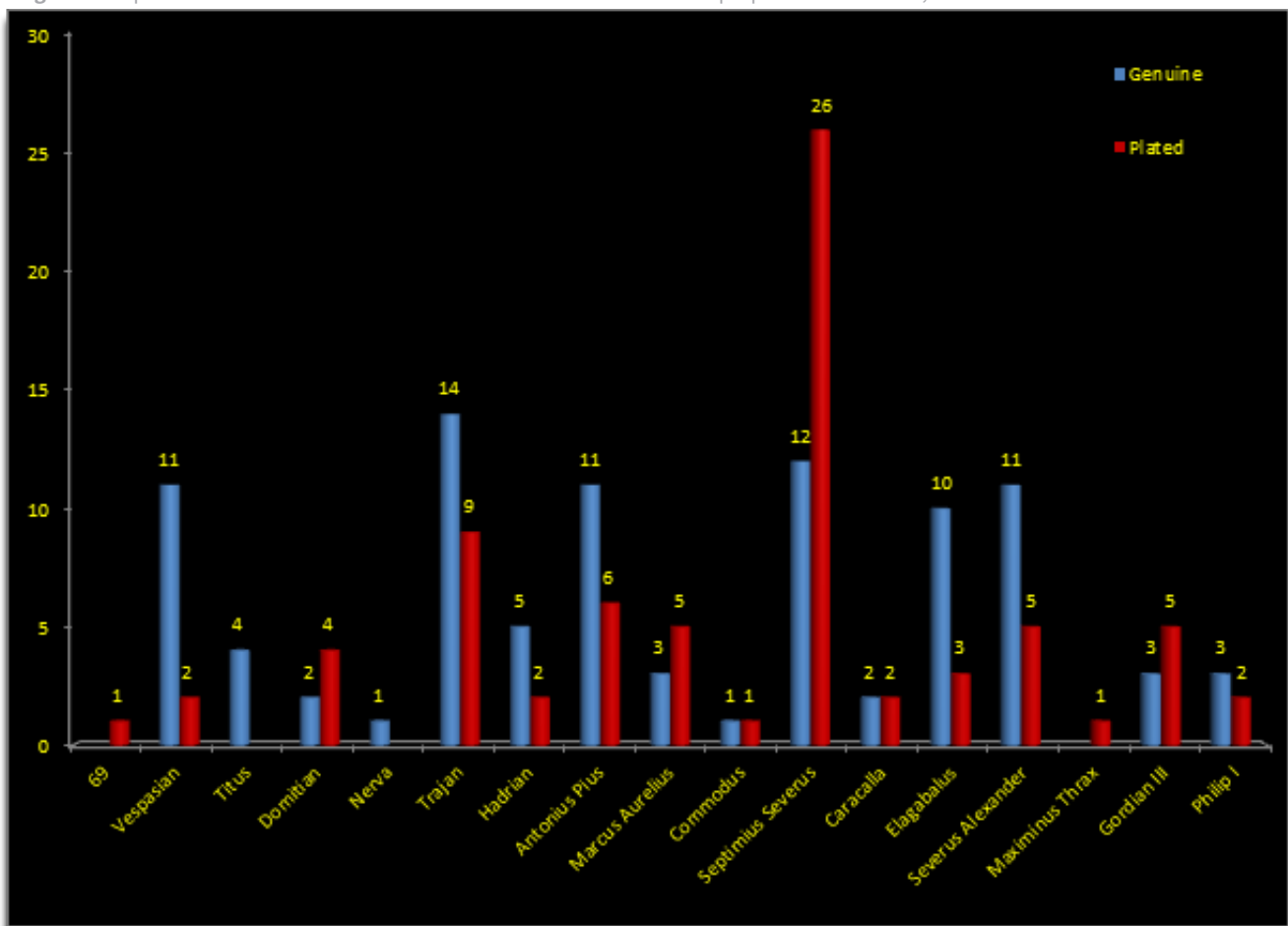


Fig. 17 – Graph of the silver coins from Buciumi – number of pieces for each issuer;

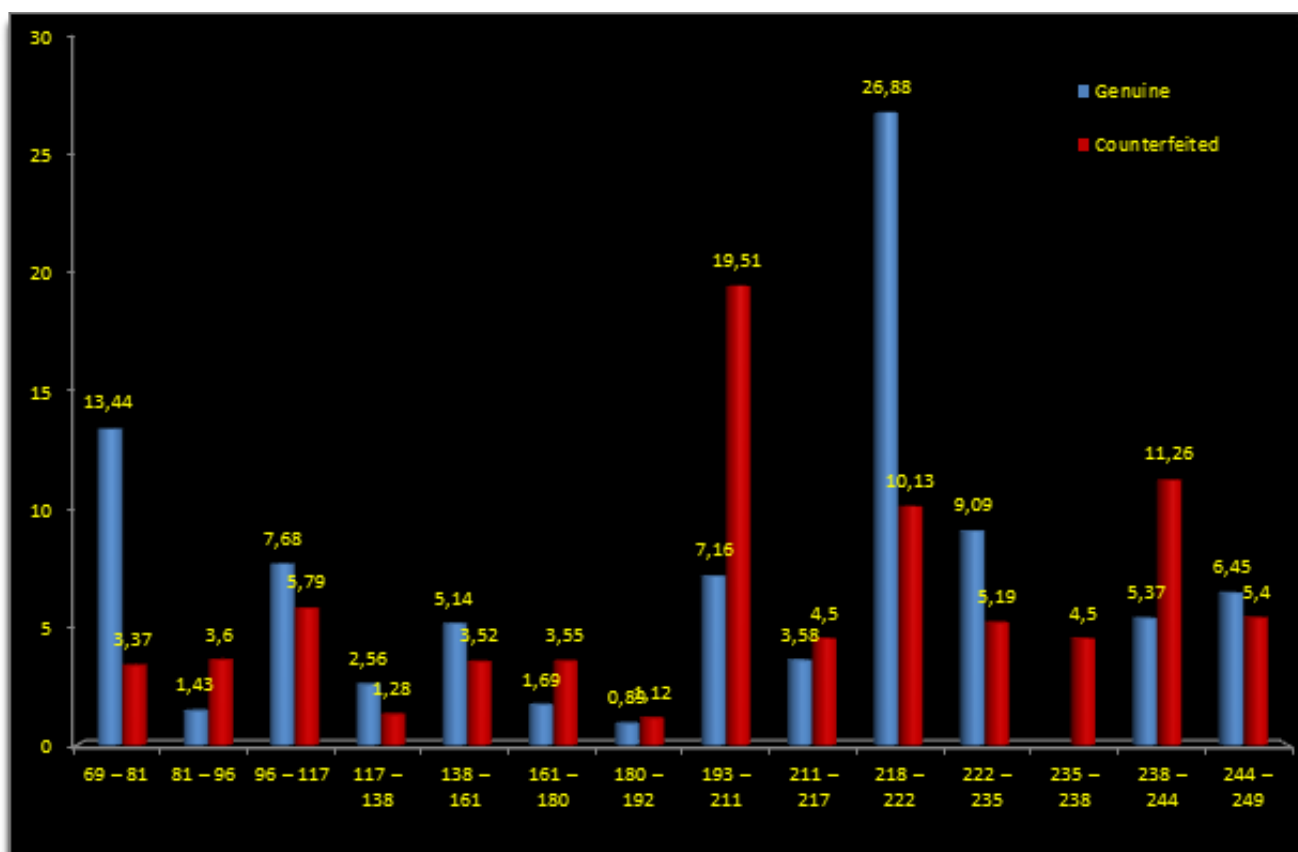


Fig. 18 – Graph of the silver coins from Buciumi – monetary index;

59% from the total amount of silver pieces, 476 plated with 40%, six hybrids representing 1% and five plated hybrids with 1% as well.

As we can see in (Fig. 20) one third of coins dated at the Antonine period and at the second part of the Severan period are counterfeited, while for Commodus (180-192) and Caracalla (211-217) half of the total amount of pieces are plated. Only in the case of Septimius Severus (193-211) the counterfeited coins overpass in numbers the genuine ones with almost 1/3.

The monetary index from (Fig. 21) shows how the coefficient for counterfeited pieces is almost equal in value with that for genuine coins during the Antonine period, it rises above the genuine coin index at the beginning of the Severan period and goes down in value during the second part of the same period. With the start of the Military Anarchy the index for counterfeited pieces goes up in value again. The largest value reached by this coefficient is during Septimius Severus (193-211) when it is twice and a half higher than the index for genuine pieces.

The first military encampment from **Intercisa (Dunaújváros, Hungary)** was constructed out of wood and earth during the reign of Trajan (98-117)⁵⁶ being remade using stone walls later on in the Severan period⁵⁷. The fortress suffers damage in more than one situation, during the wars against the Iazyges (117-118), the Marcomannic in AD 178⁵⁸ and later on from the Roxolani in AD 260⁵⁹. Repaired during the beginning of Tetrarchy it will hold on

until the abandonment of the province.

Garrison during the time of Vespasian (69-79) consisted of *ala II Asturum* which was later replaced by *ala I Augusta Iuteraeorum sagittariorum* between the years AD 92 – 105⁶⁰, succeeded by *ala I Britannica*, *ala I Tungrorum Frontoniana*, *ala I Thracum veterana*, *ala I civium Romanorum* until the year of AD 176⁶¹ when the last one is replaced with *cohors I Hemesenorum* made out of archers from Syrian Emesa⁶². The town enters a period of economic and cultural rebirth with the arrival of new Syrian inhabitants that followed the cohort here⁶³.

Situated in the south of the fortress a *vicus* was created, roughly in the same time with the earth phase of the fortress. The *vicus* enters a period of prosperity and extends in dimensions during the end of the 2nd century. After the death of Severus Alexander (222-235), Intercisa enters its downfall⁶⁴, because of the geographical location right in the path of barbarian invasions.

Following the research made at Intercisa (Fig. 22), 381 genuine silver coins have been identified, with a proportion of 87% and 56 plated with 13%.

Also, in (Fig. 23) it is easy to observe the distribution of this coins depending on the issuer. Counterfeited coins are present in the Antonine and Severan period but are only a small fraction of the total number of coins.

The monetary coefficient from (Fig. 24) shows a different situation, the index for genuine pieces is rising at a steady rhythm over the periods while the one for

⁵⁶ FODOREAN 2014, 63.

⁵⁷ VISY 2003, 188.

⁵⁸ VISY 2011, 53.

⁵⁹ VISY 2011, 54.

⁶⁰ VISY 2003, 117-118.

⁶¹ VISY 2003, 117-118.

⁶² VISY 2011, 53.

⁶³ VISY 2011, 54.

⁶⁴ TPECS 1999, Intercisa.

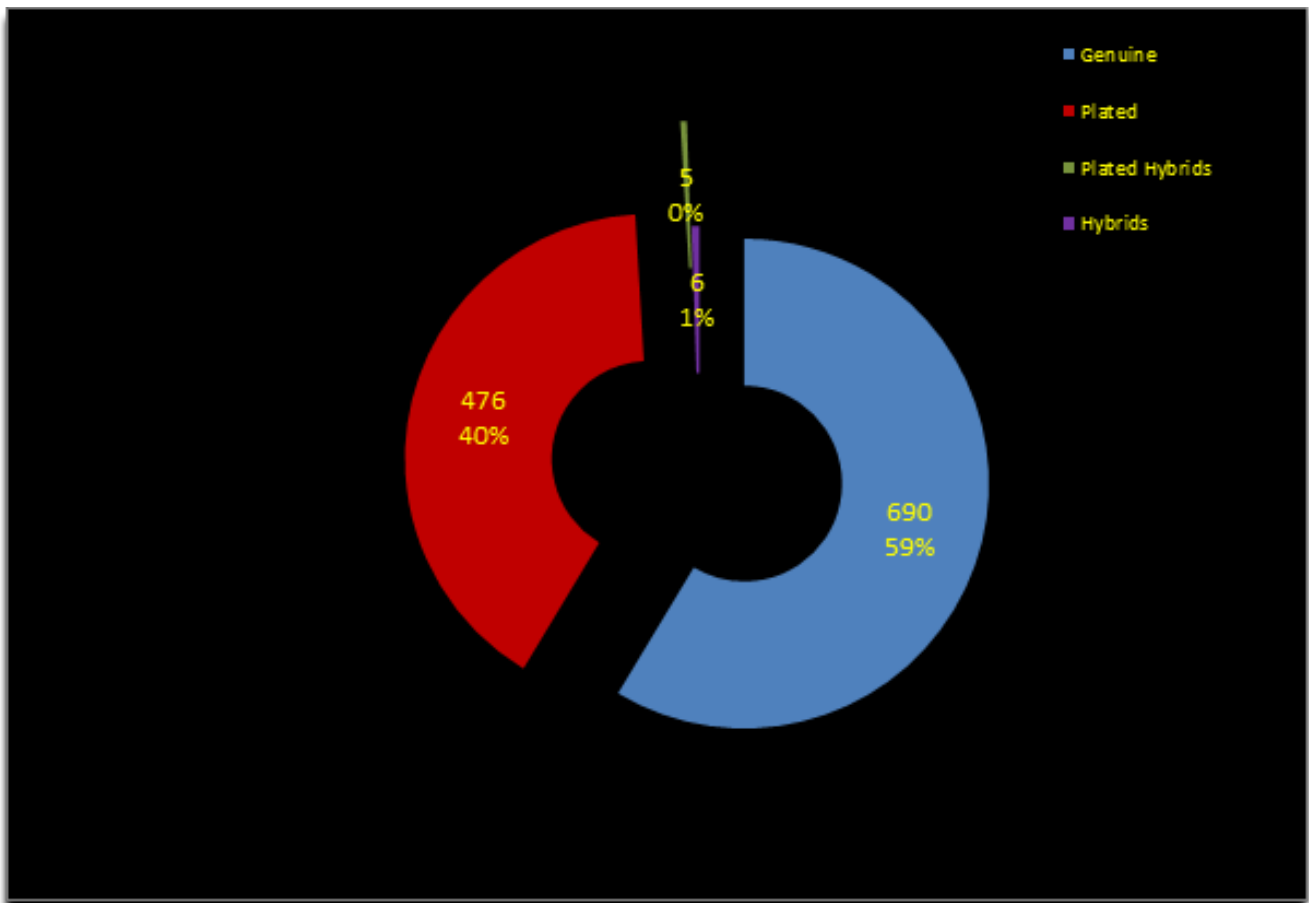


Fig. 19 – Graph of the silver coins from Porolissum – number of coins and their proportion on the site;

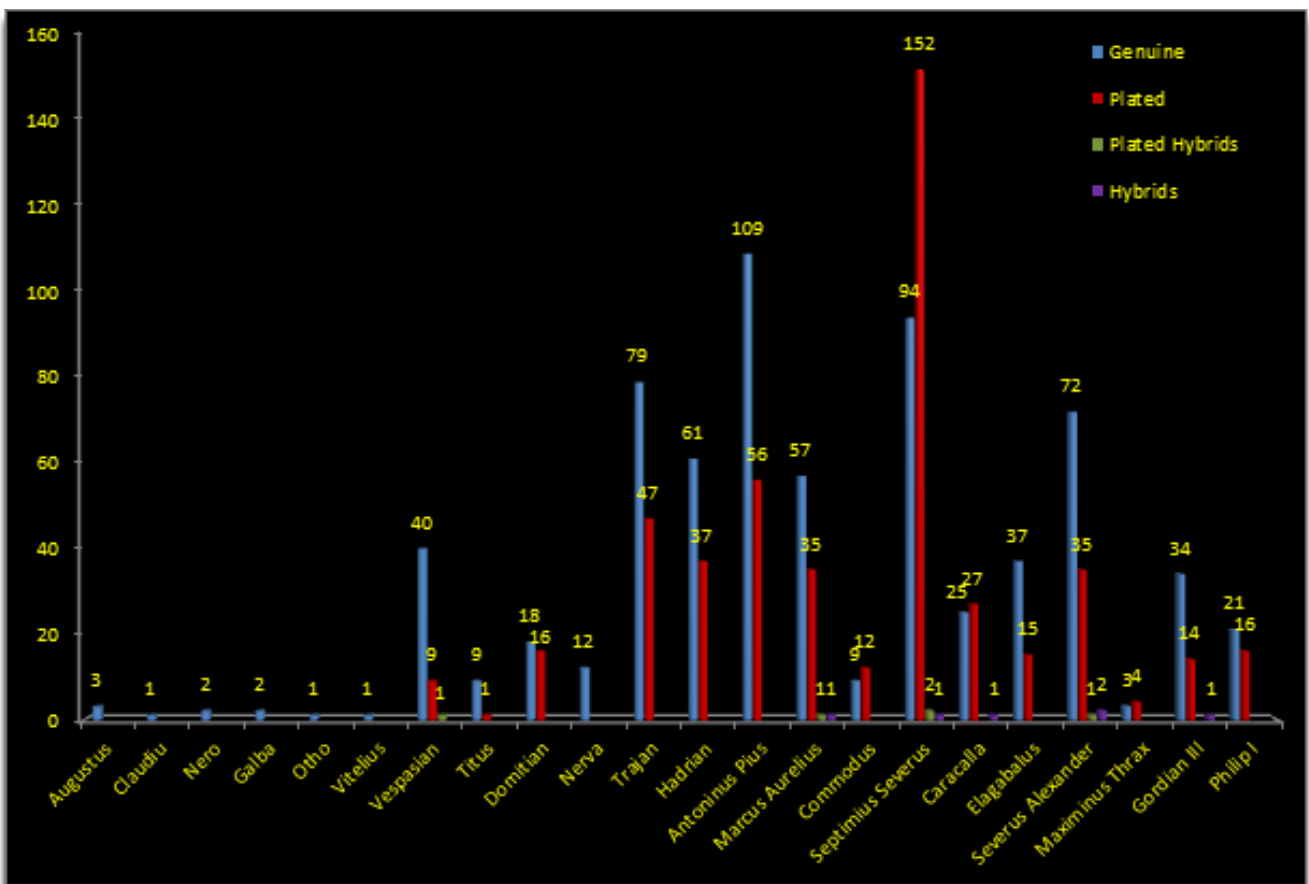


Fig. 20 – Graph of the silver coins from Porolissum – number of pieces for each issuer;

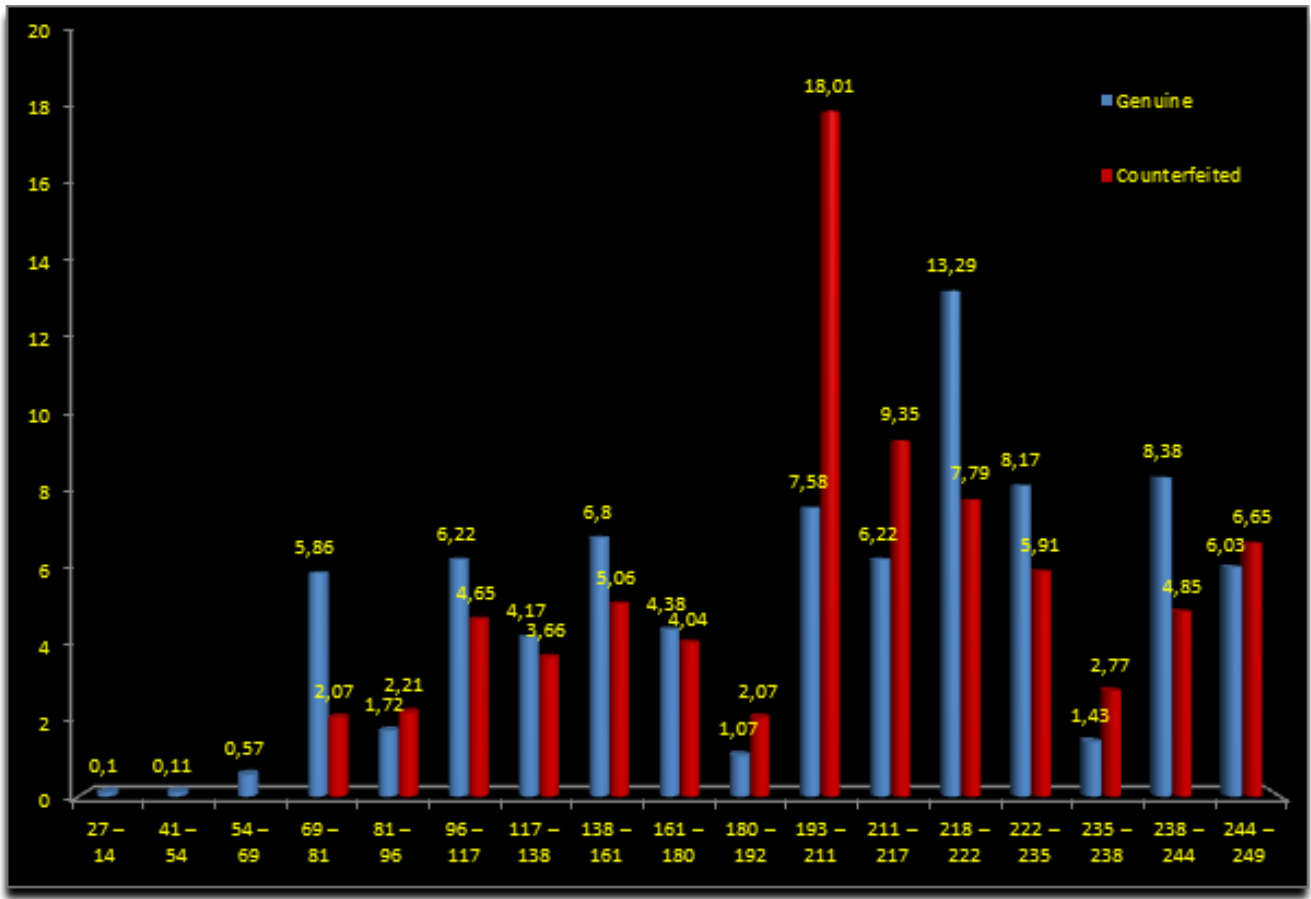


Fig. 21 – Graph of the silver coins from Porolissum – monetary index;

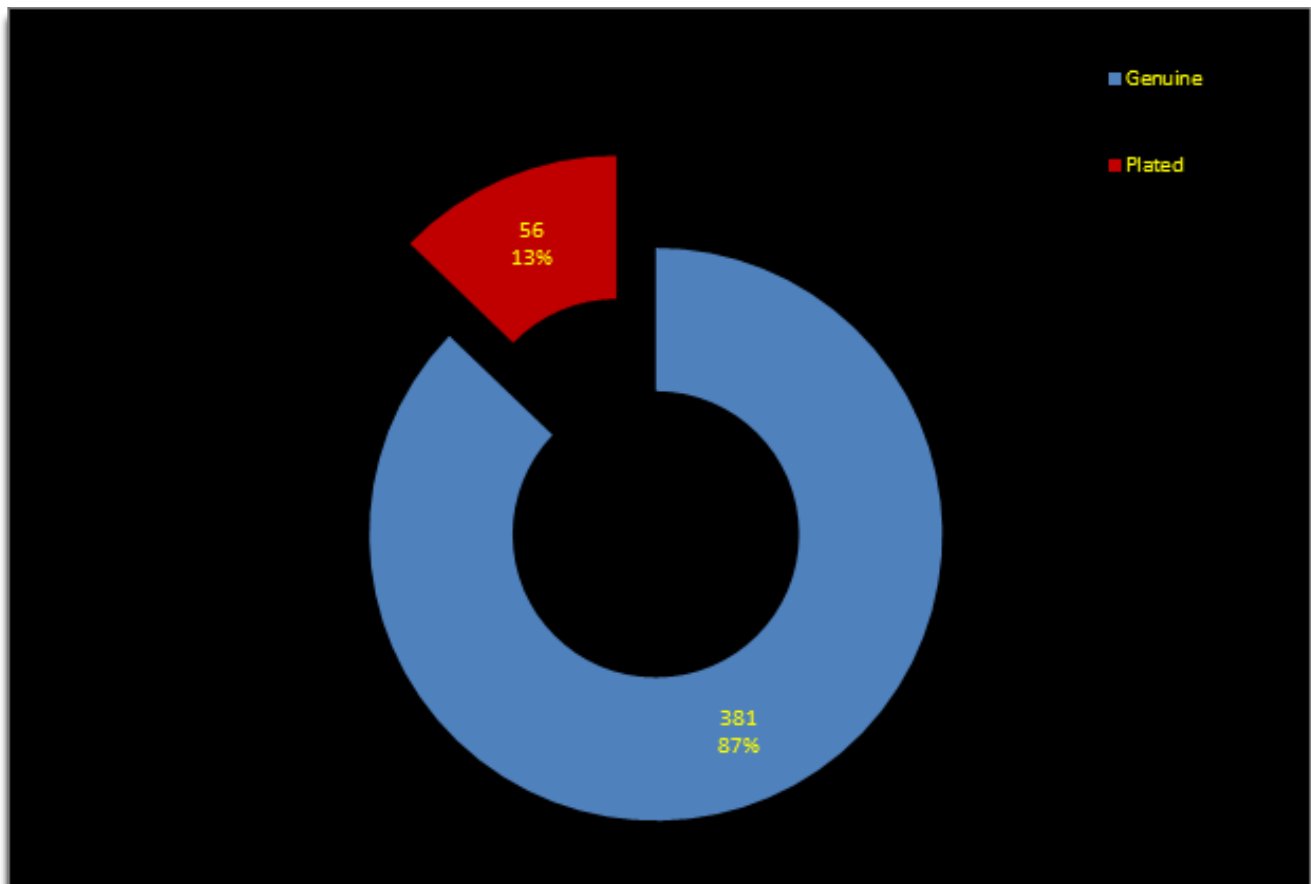


Fig. 22 – Graph of the silver coins from Intercisa – number of coins and their proportion on the site;

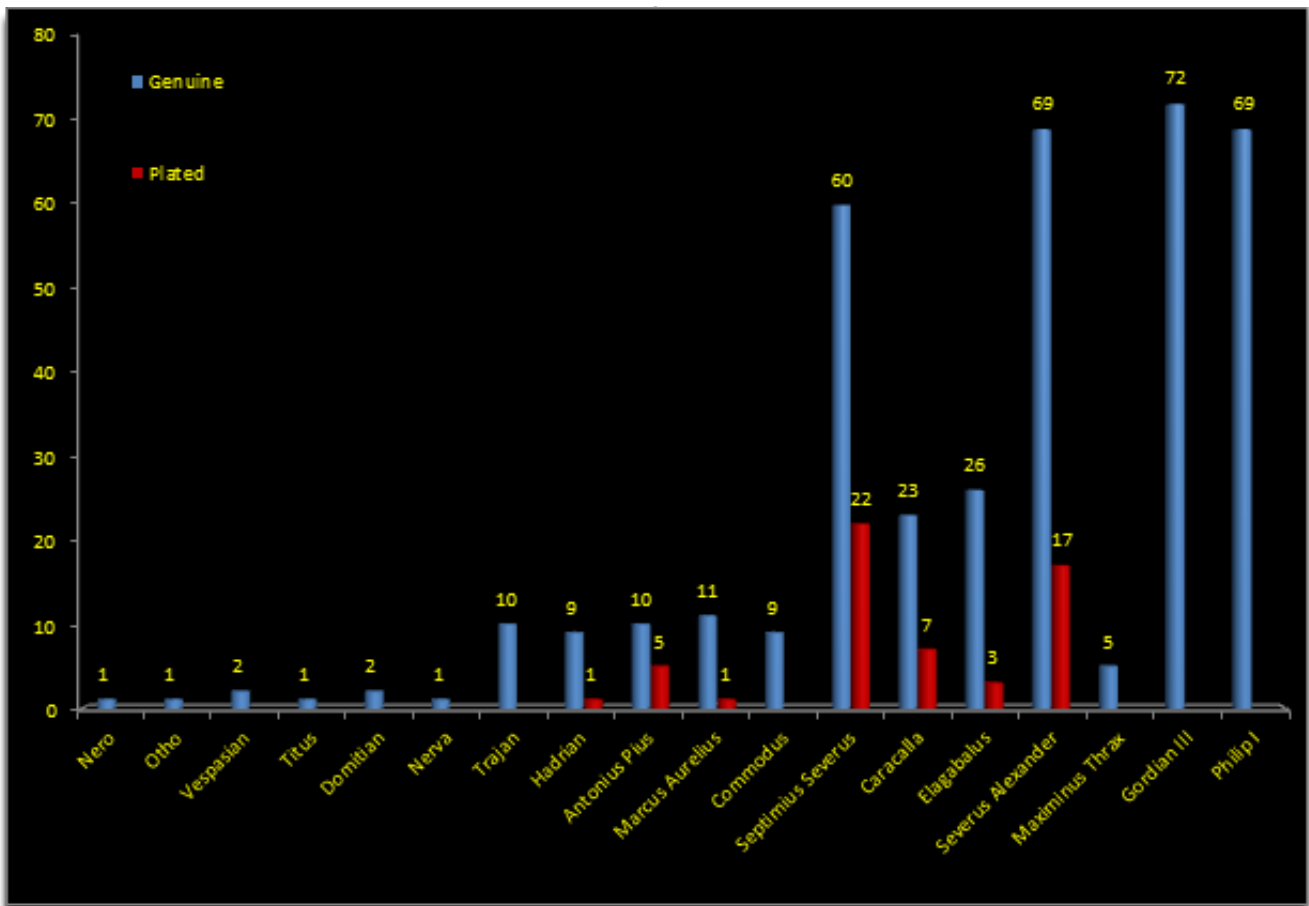


Fig. 23 – Graph of the silver coins from Intercisa – number of pieces for each issuer;

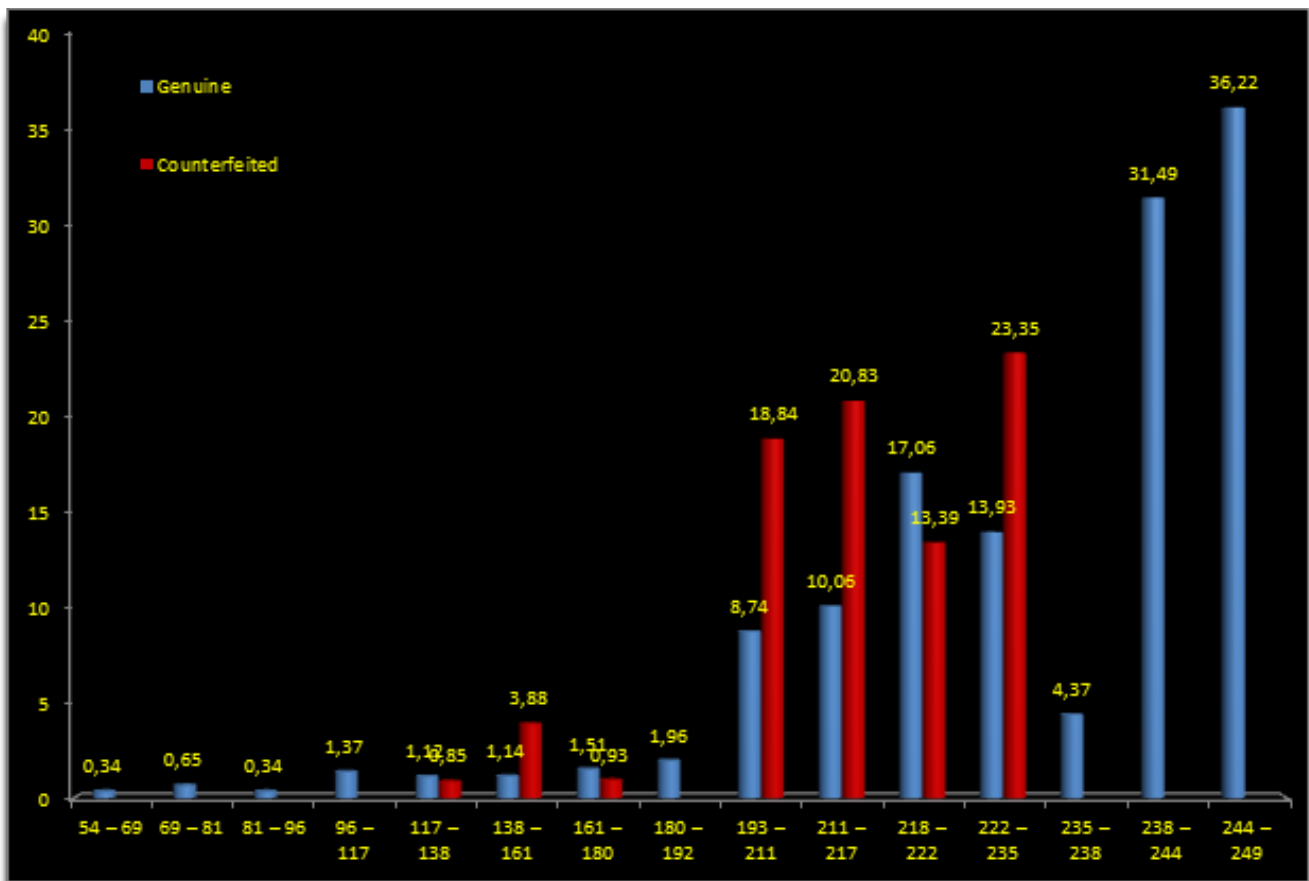


Fig. 24 – Graph of the silver coins from Intercisa – monetary index;

counterfeited coins has high values during the Severan period.

At about AD 50, a military encampment was erected at an intersection of some roads in Pannonia, the site later become **Gorsium**⁶⁵ (**Tác, Hungary**). Here was first placed *ala I Scubulorum* for a few years, after the displacement Roman troops a new civilian settlement flourished in the former location of the *castrum*, later raised at the rang of *municipia* by emperor Hadrian (117-138)⁶⁶.

Towards the end of the 1st century AD a new auxiliary fort was constructed south of the civil area and placed under the protection of cohort *Alpinorum equitata*⁶⁷. After the partition of Pannonia in AD 106 by emperor Trajan (98-117), Gorsium will became the religious centre of Pannonia Inferior.

In AD 178 the civil settlement was partially destroyed by the Sarmatians, reconstructed under Septimius Severus (193-211) only to be completely destroyed by Roxolans in 260⁶⁸. The town was only inhabited again during the reign of Diocletian (285-305) but the name changed to **Herculia**⁶⁹.

Monetary discoveries from Gorsium-Herculia (Fig. 25), present 330 genuine pieces with a proportion of 96%, four plated coins representing 1% and 10 hybrids with 3%.

In (Fig. 26) we may see how the amount of genuine coins grows in time, the highest values starting to appear during the Severan period and the beginning of the Military Anarchy. The few counterfeited or hybrid coins have been dated to the same periods.

Because of the very few counterfeited examples, the Ravetz⁷⁰ formula which was used to create the graph referring to monetary index (Fig. 27) does not offer correct results when it comes to counterfeited pieces. Still in the case of the genuine coins, the coefficients are reliable and show how the monetary distribution grows in time, with a constant rhythm that starts during the Severan Dynasty.

Located on the Danube, **Solva (Hungary)** was constructed in the 1st century AD in order to become an important point on the Danubian frontier, later raised to the rang of *municipia* by emperor Hadrian (117-138) in 121⁷¹.

Here was stationed *cohors I Ulpia Pannoniorum*, that constructed the stone phase fortress from the begging of the 2nd century⁷².

In fig. 28 we see the numismatic discoveries of 106 genuine coins with a proportion of 90% plus 12 plated pieces with 10%.

Distributing the coins for each issuer (Fig. 29), shows a constant rhythm for genuine pieces with high values for the periods of Antonius Pius (138-161), Septimius Severus (193-211) and Severus Alexander (222-235). Counterfeited coins are present but in small numbers.

When trying to establish the monetary index of the site (Fig. 30), the coefficient for counterfeit pieces has very high values, equal in size with the genuine one or even higher.

⁶⁵ TPECS 1999, Gorsium.

⁶⁶ TPECS 1999, Gorsium.

⁶⁷ TPECS 1999, Gorsium.

⁶⁸ TPECS 1999, Gorsium.

⁶⁹ TPECS 1999, Gorsium.

⁷⁰ CASEY 1974, 41.

⁷¹ KELEMEN 1995, 1.

⁷² KELEMEN 1995, 1.

This is responsible because of the small amount of counterfeit pieces which influence the correctness of the coefficient for them. On the other hand, the index for genuine coins shows a normal growth in time, Roman presence amplifies from the 2nd century as it does on many sites from Pannonia.

Military encampment, *cannabae* and *municipia*, **Brigetio (Szöny, Hungary)** was a Roman settlement located in Pannonia on the shore of the Danube that incorporated all of them⁷³.

The military fortress was erected most probably at the same time with the one from Carnuntum⁷⁴, finished by Legion XI Claudia that garrison the *castrum* until AD 105 when replaced with Legion XXX Ulpia Victrix from Germany⁷⁵. Because of its bad location, the camp was at the mercy of the Danube, most probably being flooded, so the initial location was abandoned, the fortress moved to a higher ground towards east where it was constructed from stone by Legion I Adiutrix in the year AD 119⁷⁶ and garrisoned until late Antiquity.

The fort was subject to destruction in more than one occasion, first partially destructed during the Marcomannic Wars under Marcus Aurelius (161-180)⁷⁷ later a complete destruction followed that was dated during the Tetrarchy⁷⁸, even so the fort was reconstructed and abandoned only in late antiquity.

Many Roman military troops have been garrisoned here, identified with the help of epigraphical sources, this way we know of *Cohors I Britannica milliaria* C.R. at about AD 80⁷⁹, *ala I Pannoniorum Tampiana* and *Cohors I Alpinorum Equitata* close to AD 90⁸⁰. At the beginning of the 2nd century AD, *Cohors I Iturerorum sagittariorum* and *ala I Hispanorum Arvacorum* arrived here while at the end of the century, vexillatio from Legion XIII Gemini and IV Flavia⁸¹ were send here.

Alongside those land forces, epigraphical sources identify naval units belonging to *Classis Flavia Histrica* and *Classis Flavia Pannoniae*⁸².

Close by, at 4 Km west from the military fortress, a Roman town is present which will receive the title of *municipium* from emperor Caracalla (211-217)⁸³ and later became *coloniae*, Brigetio turns into the economic and cultural centre of this part of the limes, soon after it was annexed by Pannonia Inferior⁸⁴.

In the case of Brigetio represented in (Fig. 31), there have been identified 1.015 genuine coins with a proportion of 78%, 289 plated pieces with 22% and one hybrid with 0,01%.

The coin distribution (Fig. 32), shows how genuine pieces are present in high numbers for all periods, especially for emperors like Trajan (98-117), Antonius Pius (138-161),

⁷³ VISY 2011, 43.

⁷⁴ VISY/NAGY 2003, 209.

⁷⁵ VISY 2011, 46.

⁷⁶ VISY 2011, 46.

⁷⁷ TPECS 1999, Brigetio.

⁷⁸ TPECS 1999, Brigetio.

⁷⁹ TPECS 1999, Brigetio.

⁸⁰ TPECS 1999, Brigetio.

⁸¹ TPECS 1999, Brigetio.

⁸² TPECS 1999, Brigetio.

⁸³ FODOREAN 2014, 80.

⁸⁴ VISY/NAGY 2003, 229.

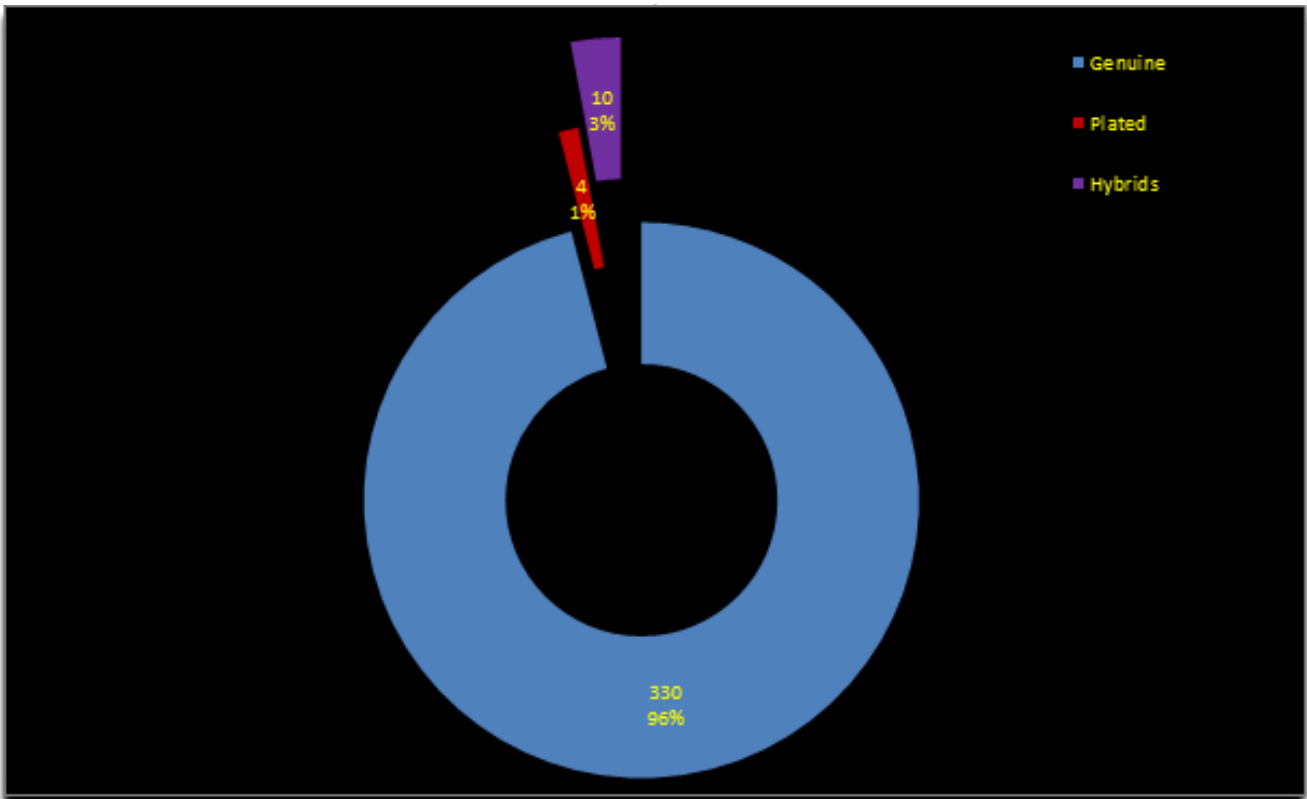


Fig. 25 – Graph of the silver coins from Gorsium-Herculia – number of coins and their proportion on the site;

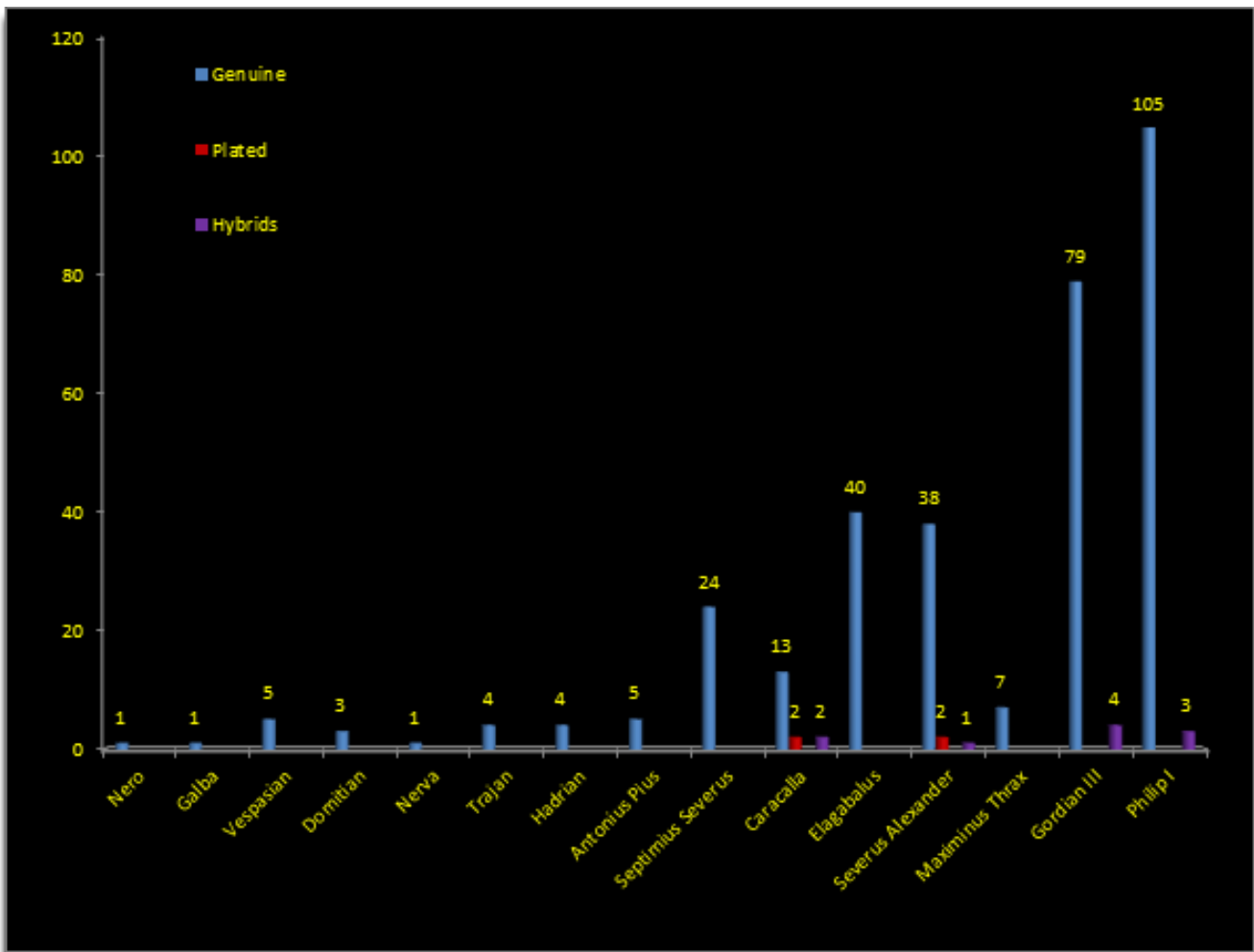


Fig. 26 – Graph of the silver coins from Gorsium-Herculia – number of pieces for each issuer;

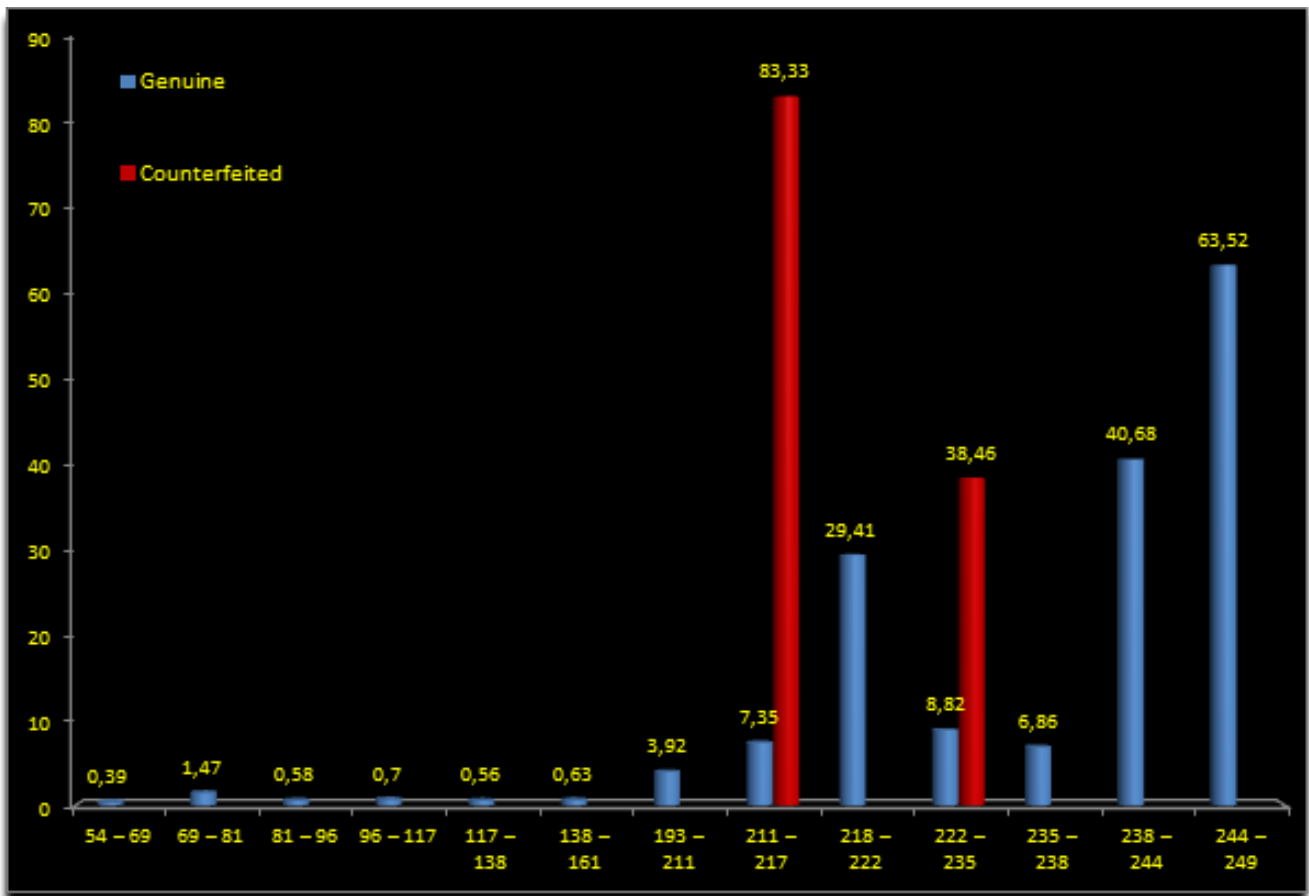


Fig. 27 – Graph of the silver coins from Gorsium-Herculia – monetary index;

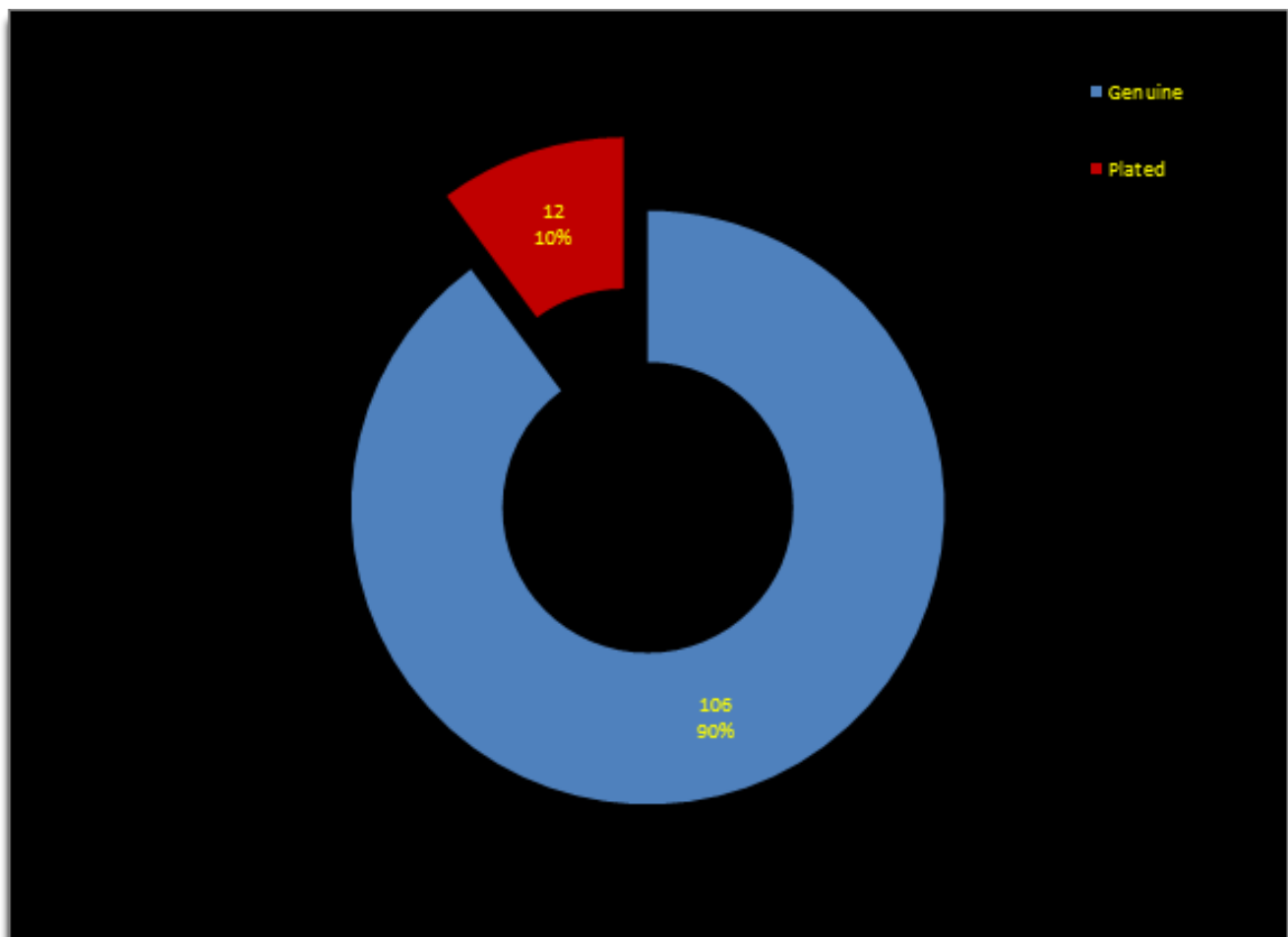


Fig. 28 – Graph of the silver coins from Solva – number of coins and their proportion on the site;

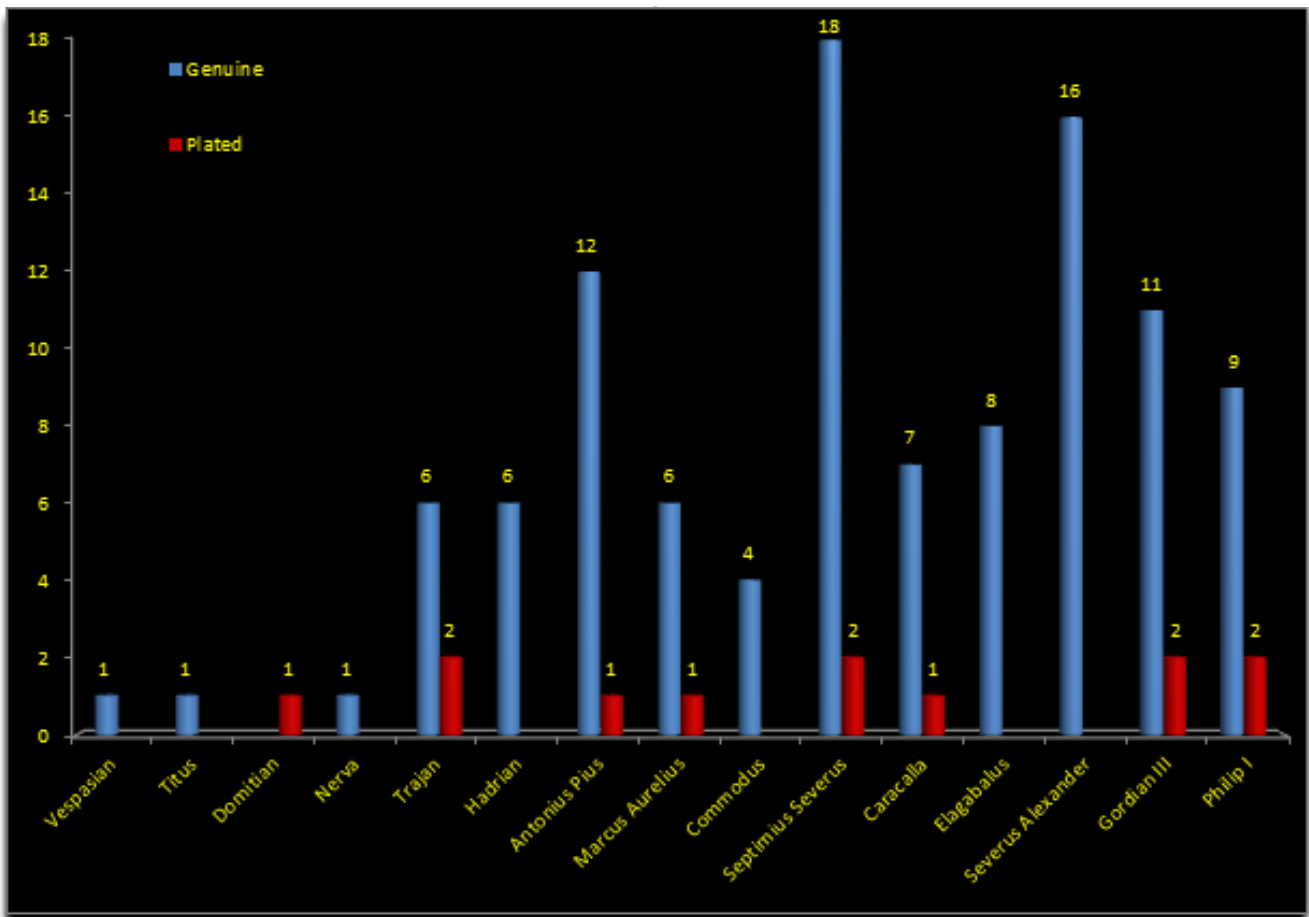


Fig. 29 – Graph of the silver coins from Solva – number of pieces for each issuer;

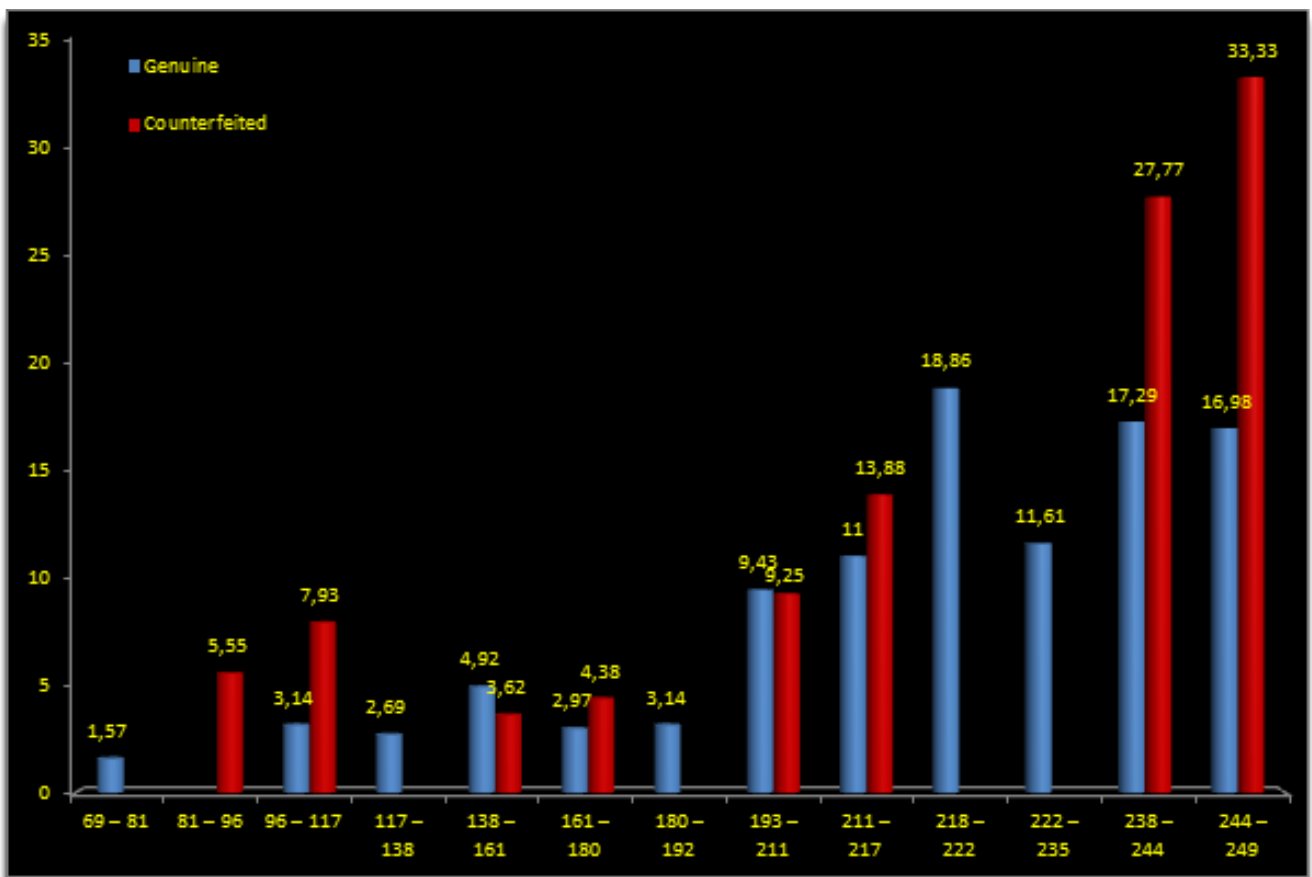


Fig. 30 – Graph of the silver coins from Solva – monetary index;

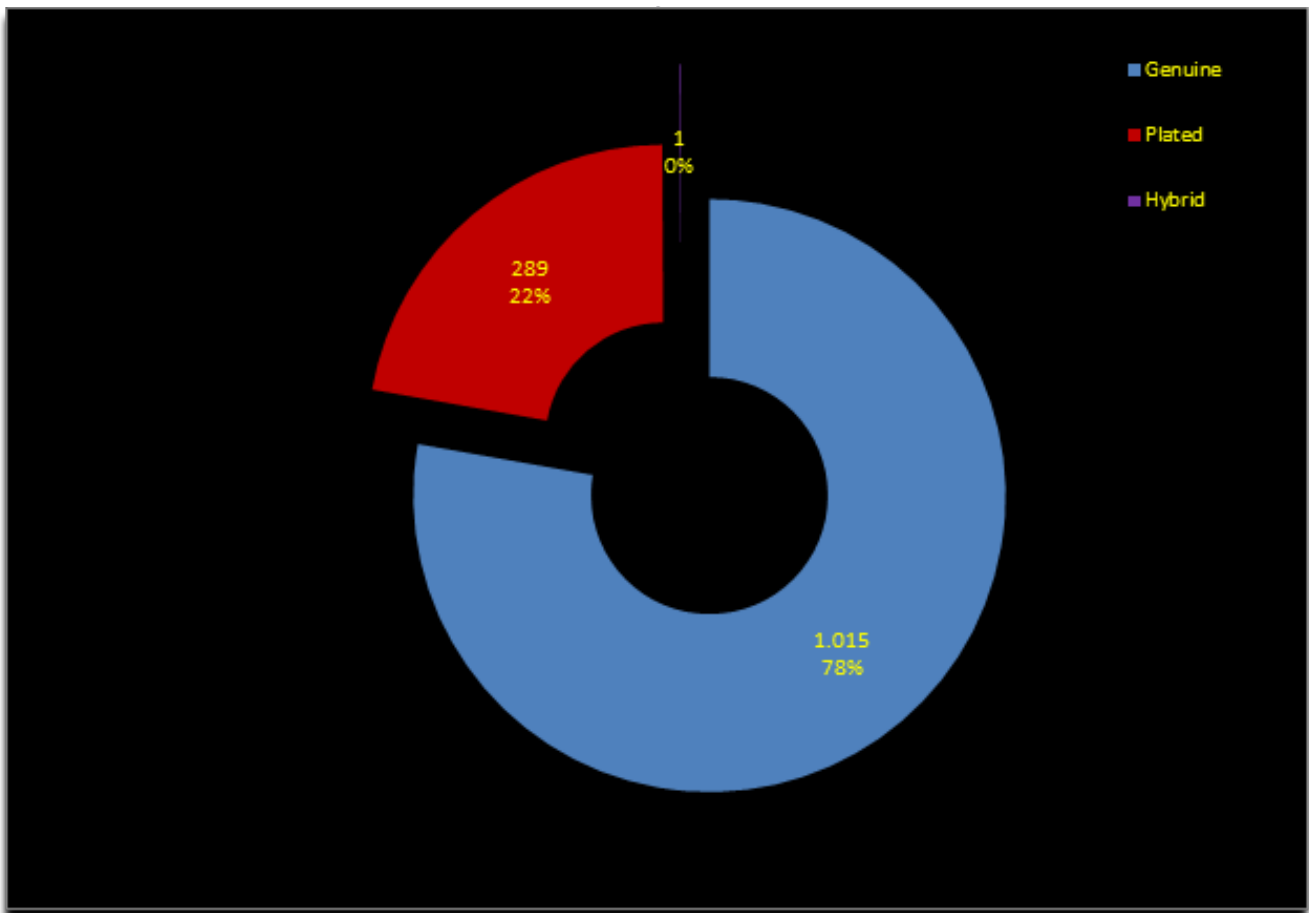


Fig. 31 – Graph of the silver coins from Brigetio – number of coins and their proportion on the site;

Septimius Severus (193-211), Elagabalus (218-222), Severus Alexander (222-235), Gordian III (238-244) and Philip I (244-249). Counterfeit pieces are present with high values in the Severan and Military Anarchy period, very few plated coins dated at the Antonine time.

If we look at (Fig. 33), we can see that during the Antonine period the monetary coefficient is very low. Only from the Severan period it rises in value, the index for counterfeit pieces being larger than that for genuine coins, exception being the period of Elagabalus (218-222) and Philip I (244-249).

Arrabona (Győr, Hungary), a Roman fortress situated on the Pannonian *limes*, represented a key point on the military road from Carnuntum to Brigetio, named most likely after the river Arrabo, a toponymal of Celtic origin⁸⁵.

The region was occupied by Romans in the 1st century AD and abandoned during the 4th century AD because of repeated barbarian attacks. A military *castrum* is identified here which had two phases, first constructed from wood and earth and later erected from stone⁸⁶, the primary one completed most likely during Claudius (41-54) at the same time with the legionary fortress from Carnuntum⁸⁷.

In this location were brought cavalry units, during the first half of 1st century AD here arrived *ala I Pannoniorum*⁸⁸, under emperor Hadrian (117-138) was brought *ala I Ulpia*

*contrariorum milliaria*⁸⁹ as well, *ala I Augusta Itureorum* and *ala I Arevacorum*, units from Legion I Adiutrix⁹⁰ have been identified here as well.

In the case of Arrabona (Fig. 34) there have been identified 342 genuine coins with a proportion of 98,5%, two plated pieces with 1% and one hybrid with 0,5%.

When distributing the coins for each issuer we can see very high values for the second part of I century and first part of II century, especially for the Flavian dynasty, under Vespasian (69-79), Titus (78-81) and Domitian (81-96), and the first part of the Antonine dynasty during Trajan (98-117) and Hadrian (117-138). The next periods are present until Severus Alexander (222-235) but in a very small amount of pieces.

For the monetary coefficient graph (Fig. 36), counterfeited coins were excluded, two pieces are not enough to determine the historical truth. Because of the large numbers of genuine coins, the index for this pieces are trustworthy. Therefore, the main coin distribution on the site took place during the 1st century AD and the beginning of the 2nd century, after this time the infusion of coin goes down in quantity.

On the site from **Ad Mures (Ács, Hungary)** (Fig. 37), there have been discovered 25 silver coins, 19 genuine pieces representing 76% of the total amount of coins and six plated with 24%.

We may observe the distribution of this pieces in (Fig. 38), the majority of coins being dated to the Severan period.

⁸⁵ VISY 2003, 68.

⁸⁶ FODOREAN 2014, 66.

⁸⁷ FODOREAN 2014, 66.

⁸⁸ FODOREAN 2014, 66.

⁸⁹ FODOREAN 2014, 66.

⁹⁰ TPECS 1999, Arrabona.

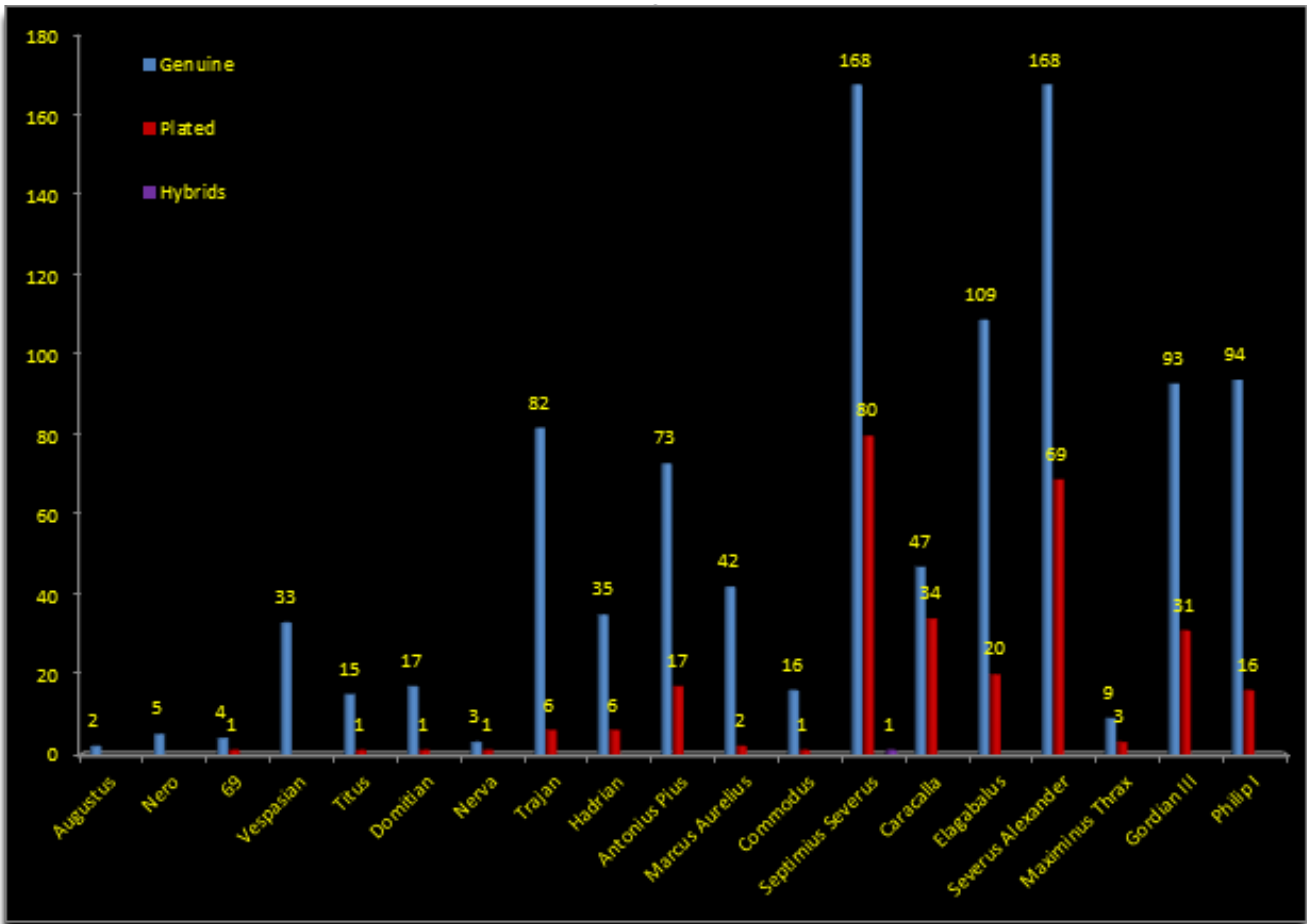


Fig. 32 – Graph of the silver coins from Brigetio – number of pieces for each issuer;

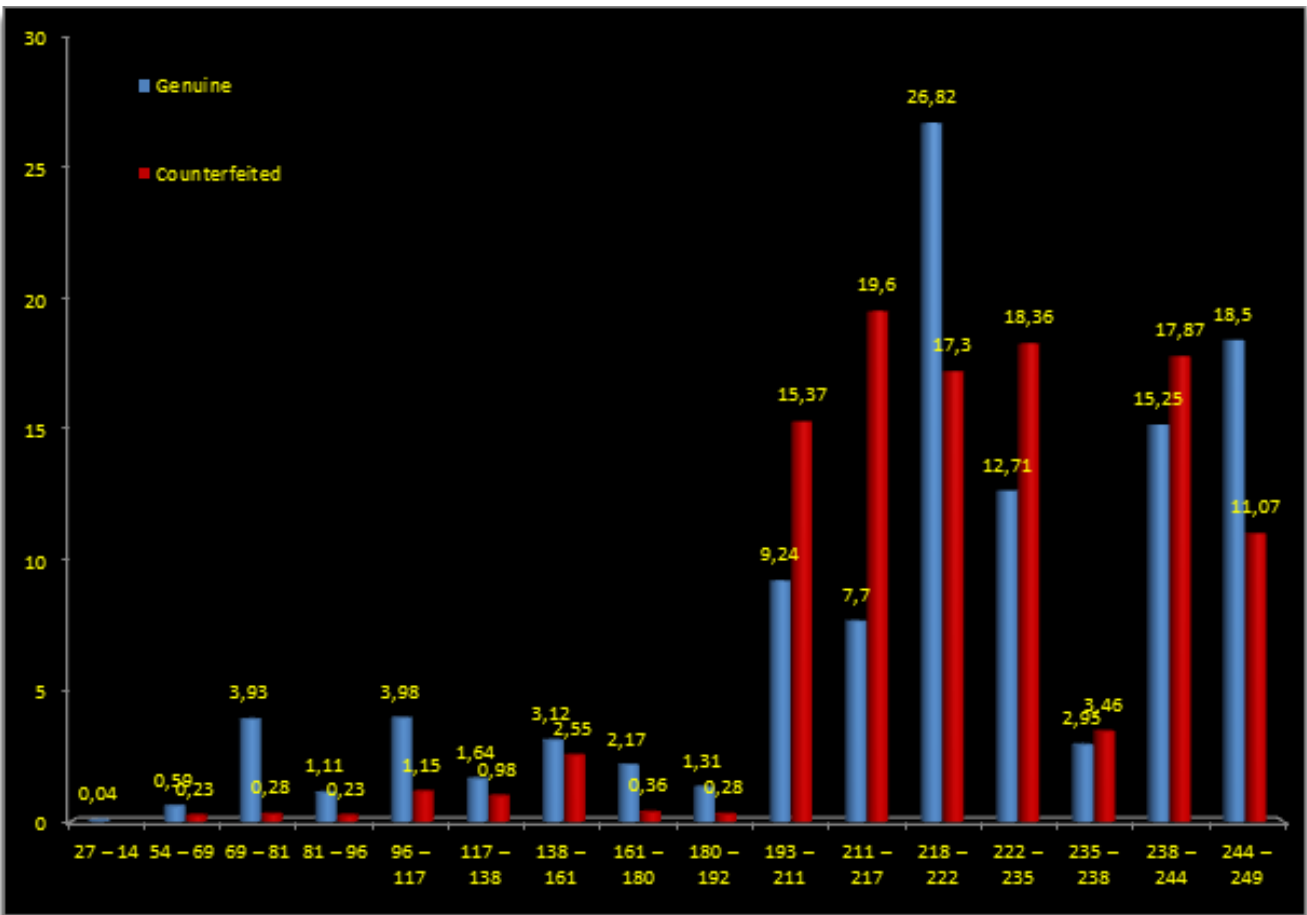


Fig. 33 – Graph of the silver coins from Brigetio – monetary index;

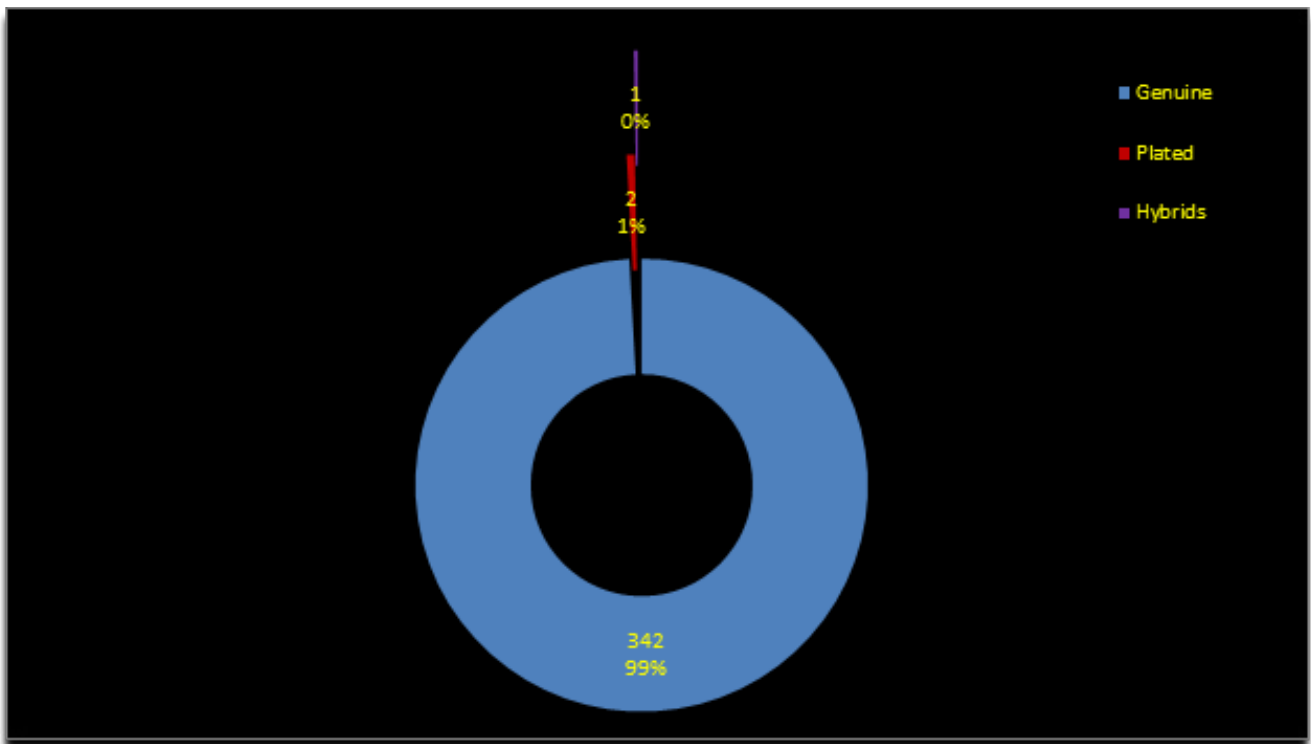


Fig. 34 – Graph of the silver coins from Arrabona – number of coins and their proportion on the site;

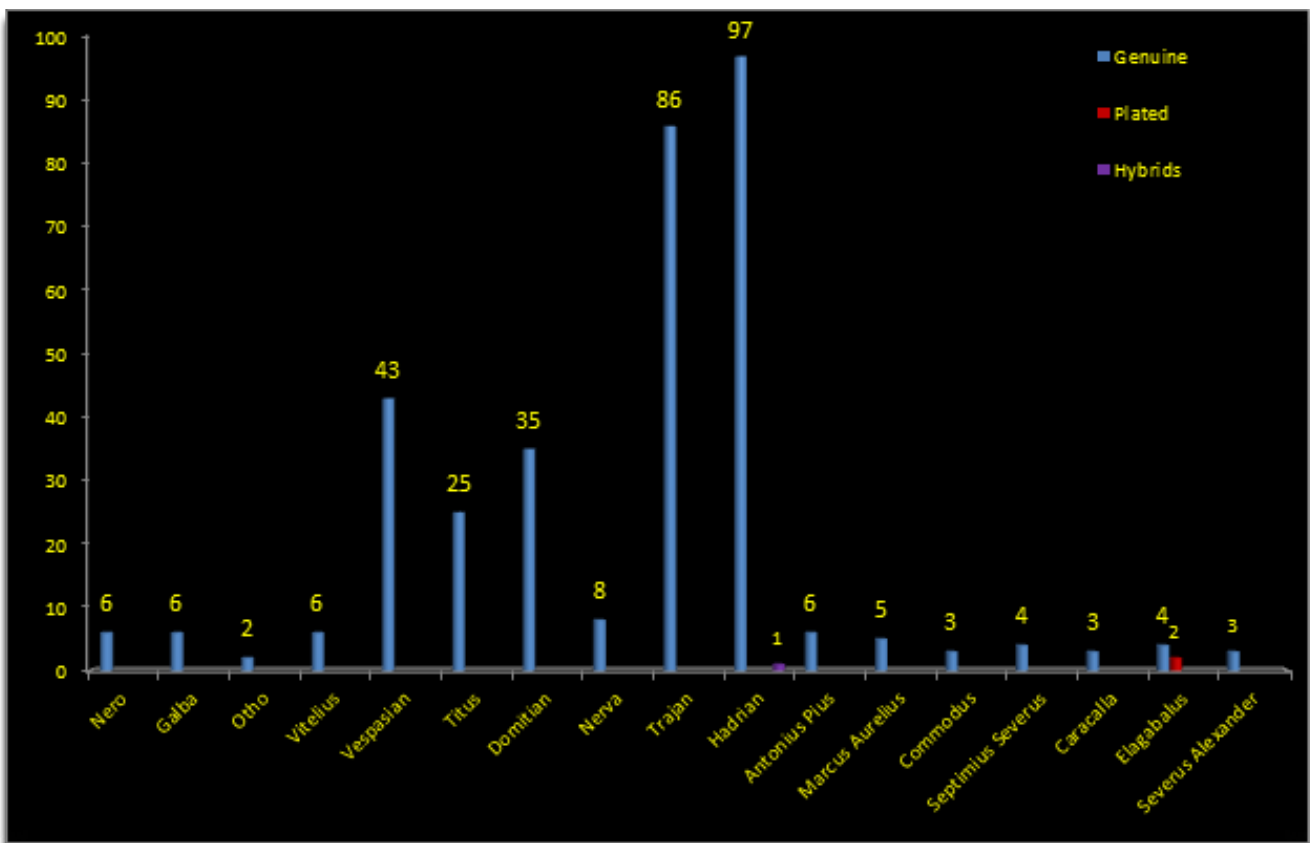


Fig. 35 – Graph of the silver coins from Arrabona – number of pieces for each issuer;

In the case of monetary coefficients (Fig. 39) the available data does not offer a correct view of the situation. Thus, the coefficients for genuine and plated pieces have very high values which are not suitable to represent a realistic situation of the monetary distribution.

Mursella (Mórichida, Hungary) was a Roman

town in the vicinity of which a wood and earth made fortress was identified, during the reign of emperor Hadrian (117-138)⁹¹ the town gained the rang of *municipium*, the civil area expanding towards the Roman fortress⁹².

⁹¹ FODOREAN 2014, 90.

⁹² VISY/NAGY 2003, 222.

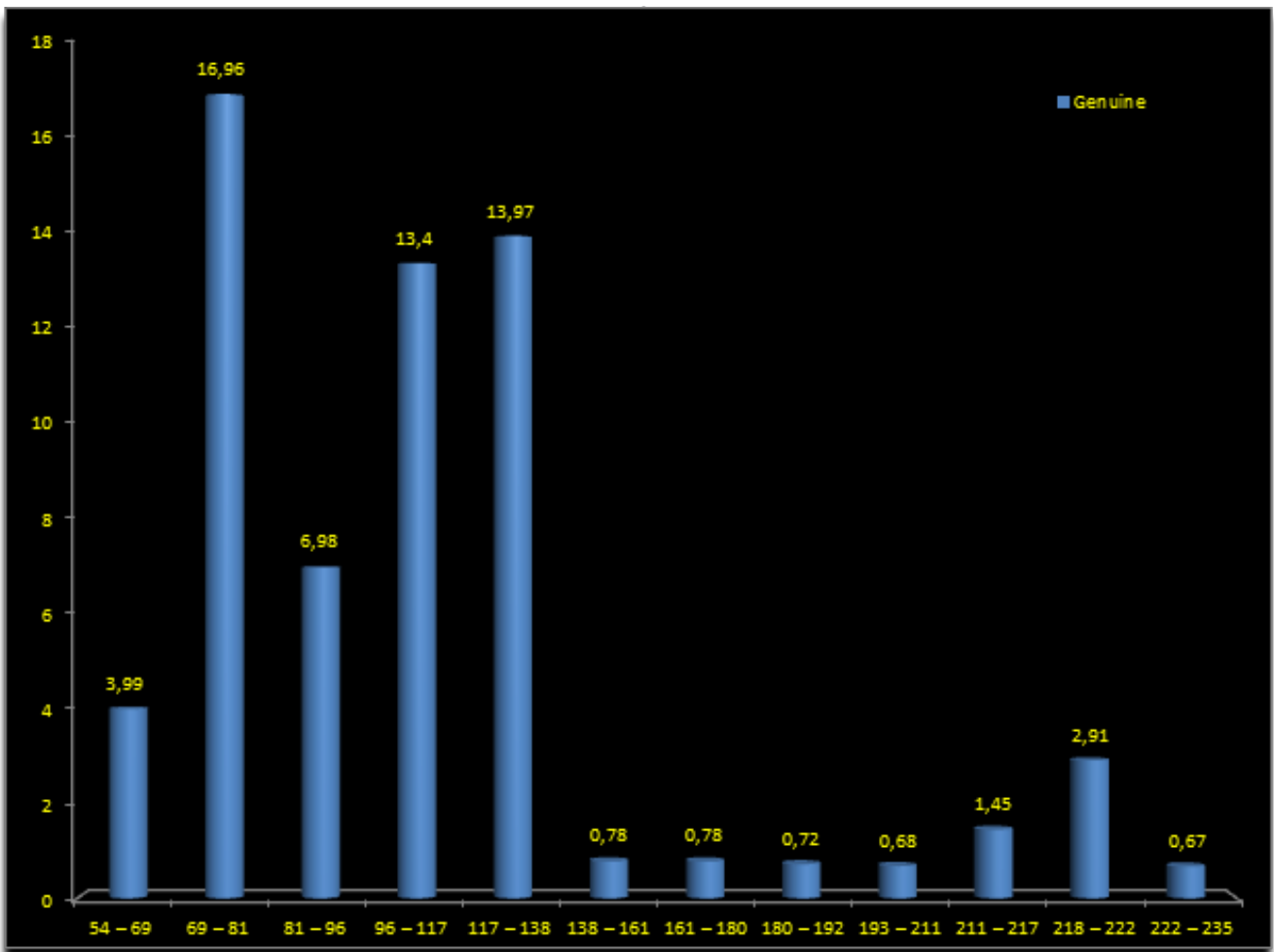


Fig. 36 – Graph of the silver coins from Arrabona – monetary index;

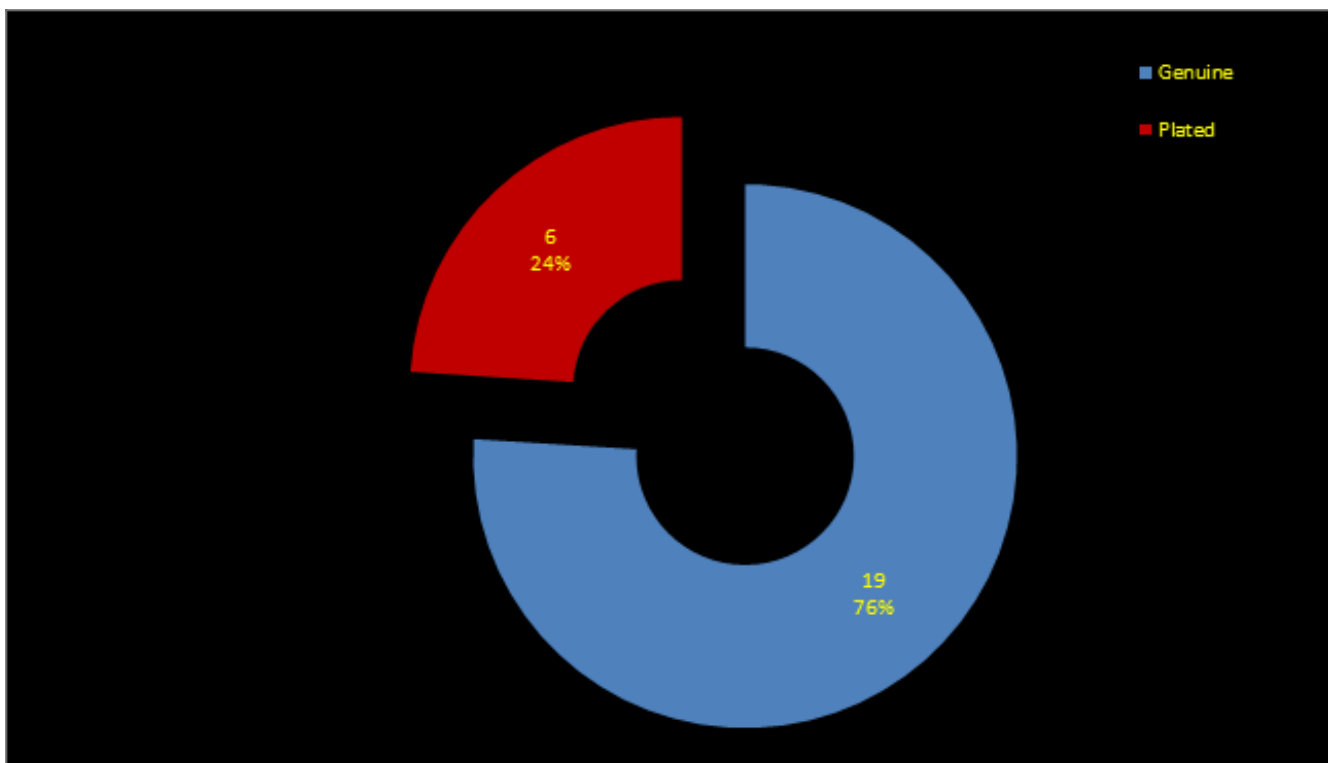


Fig. 37 – Graph of the silver coins from Ad Mures – number of coins and their proportion on the site;

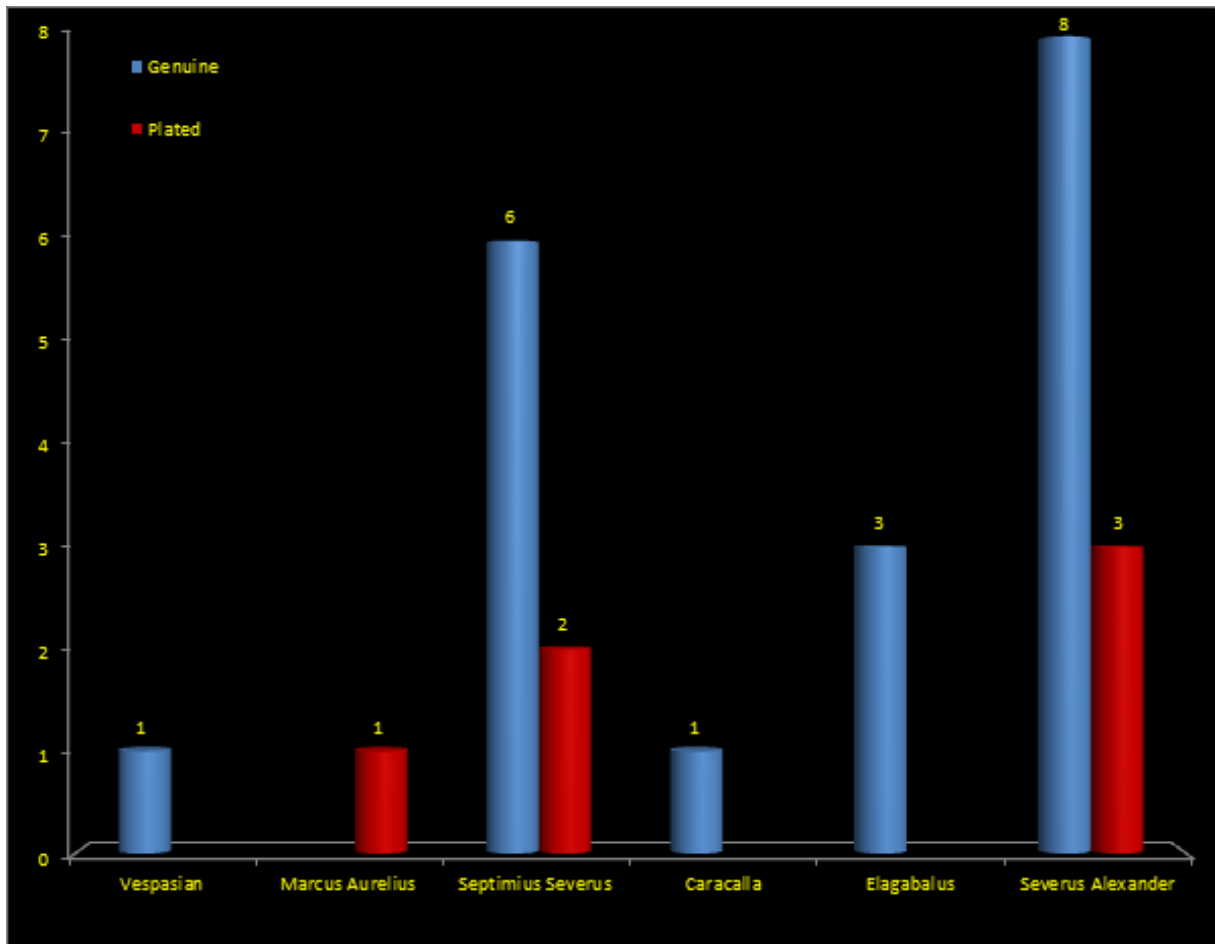


Fig. 38 – Graph of the silver coins from Ad Mures – number of pieces for each issuer;

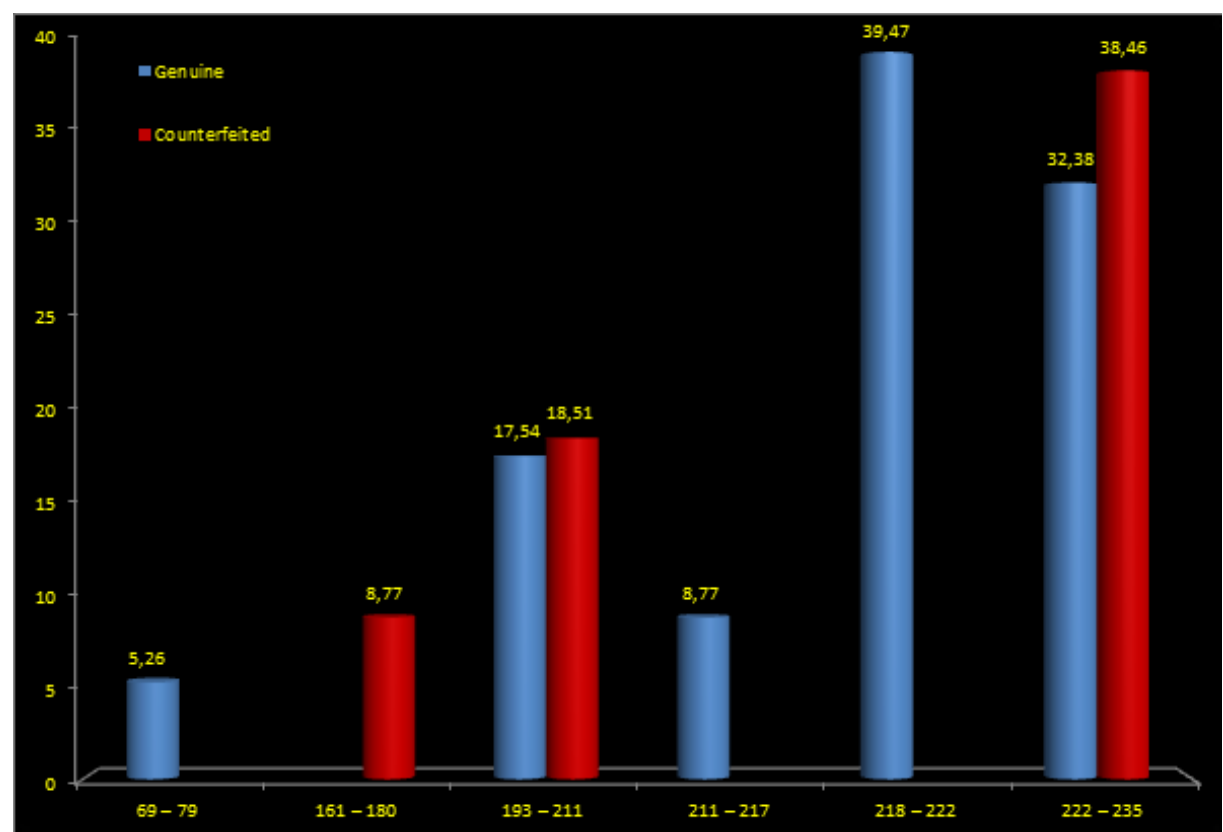


Fig. 39 – Graph of the silver coins from Ad Mures – monetary index;

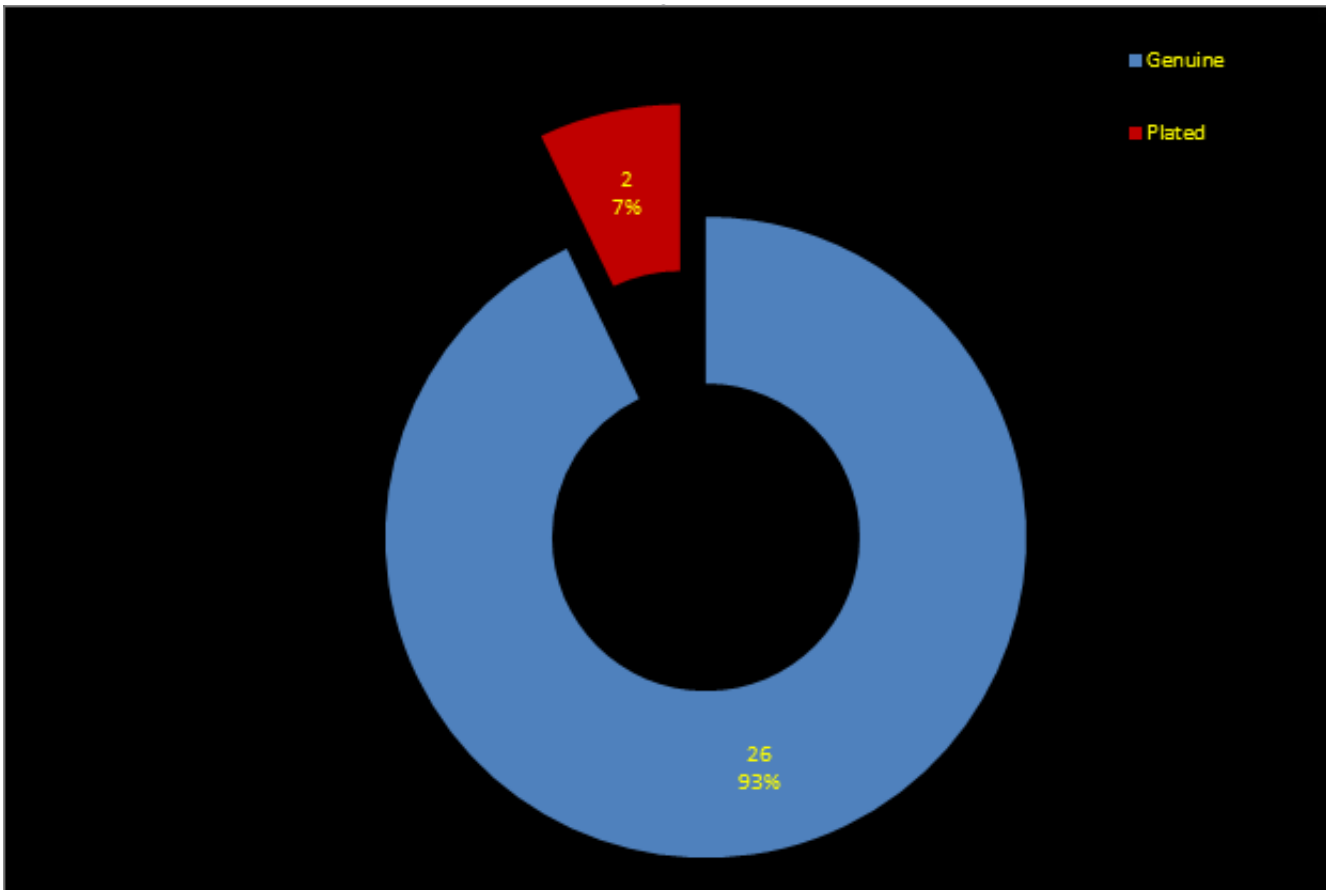


Fig. 40 – Graph of the silver coins from Mursella – number of coins and their proportion on the site;

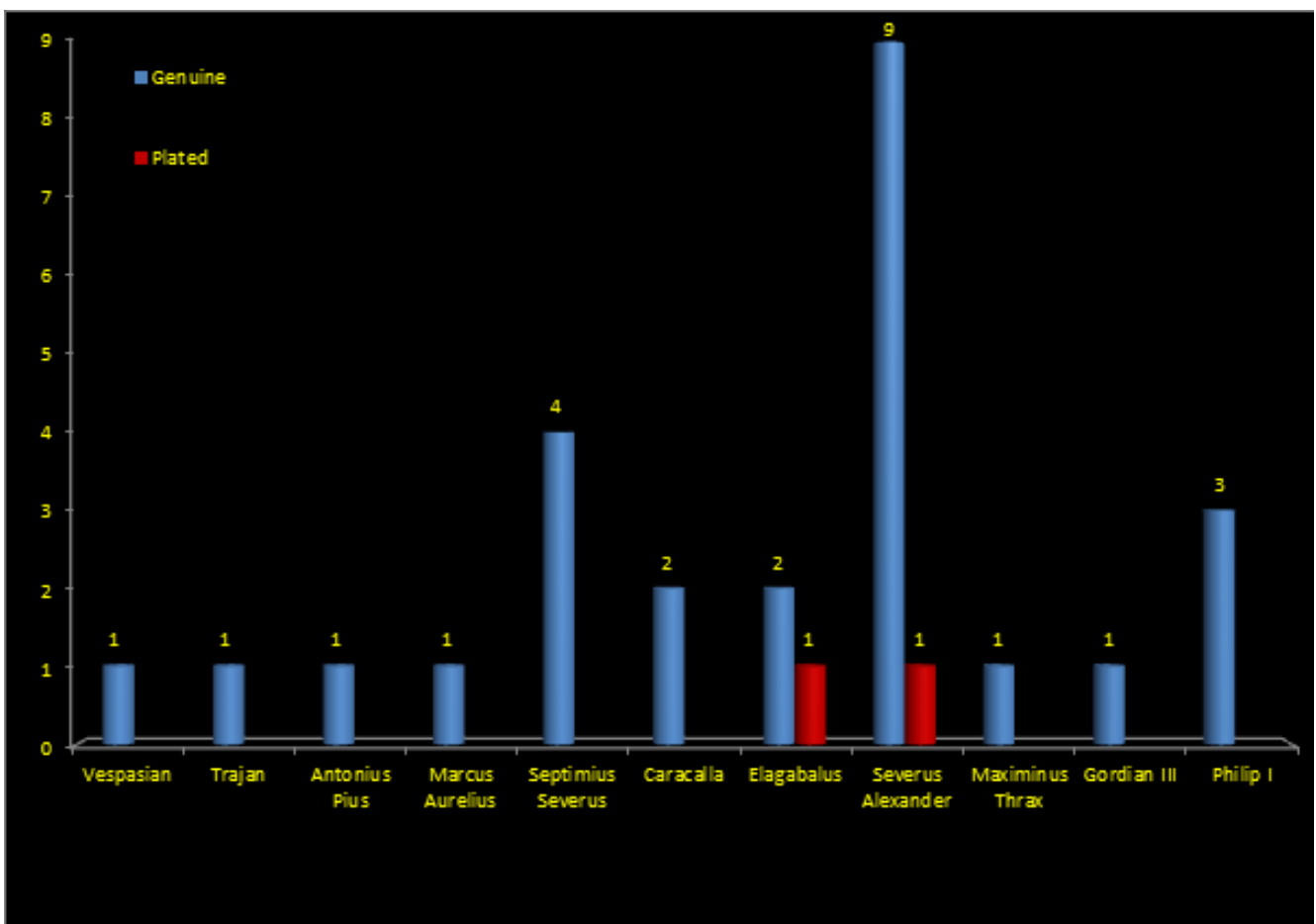


Fig. 41 – Graph of the silver coins from Mursella – number of pieces for each issuer;

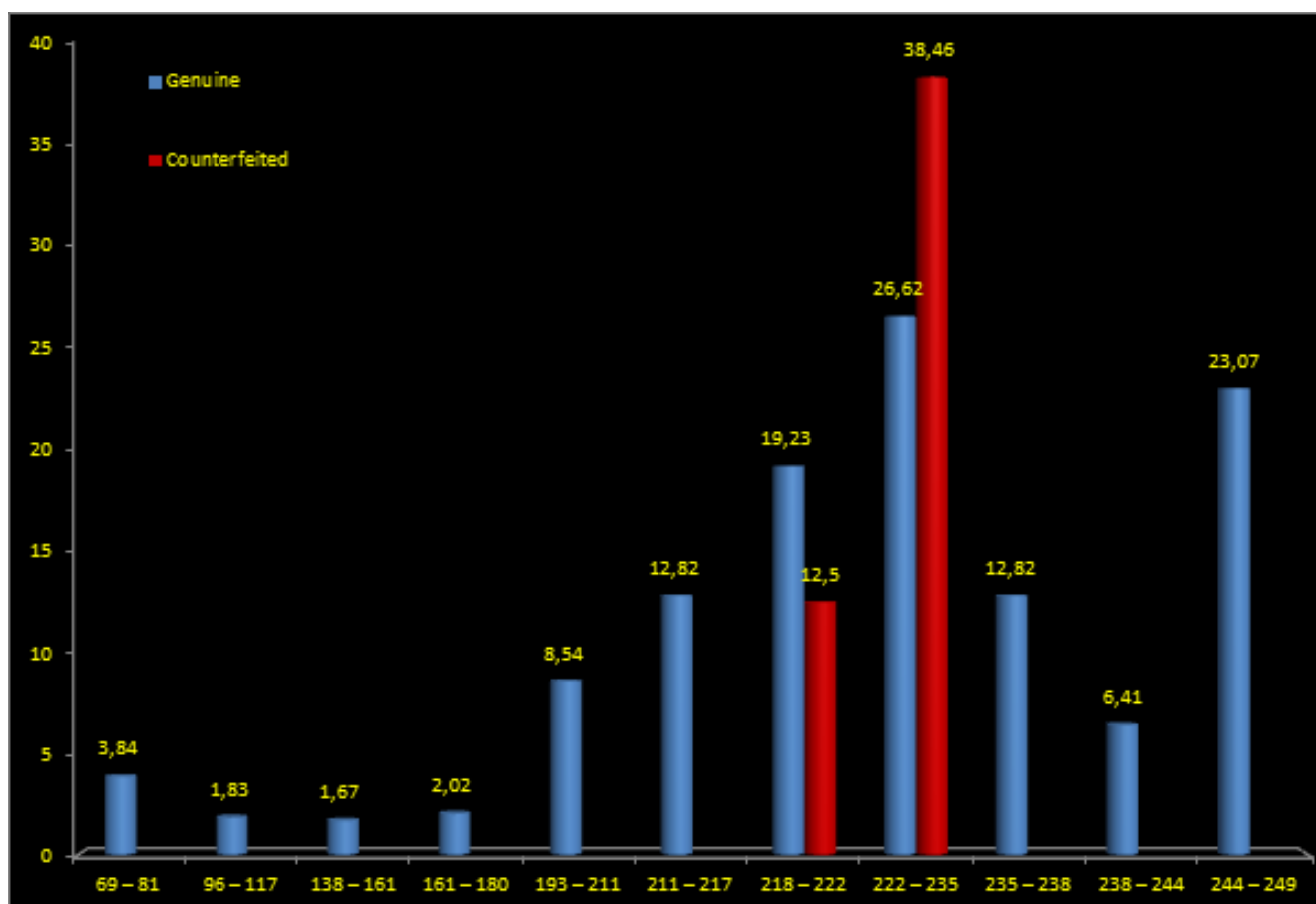


Fig. 42 – Graph of the silver coins from Mursella – monetary index;

At Mursella we find a similar situation with that from Ad Mures, very few silver coins for the period 27 BC to AD 249 have been discovered. In (Fig. 40) we see the 26 genuine coins with form a proportion of 93% and two plated pieces with 7%.

The distribution of the pieces (Fig. 41) spreads from Vespasian (69-79) to Philip I (244-249); the majority of coins were dated as belonging to the Severan time.

Furthermore, in this situation, the graph for monetary index (Fig. 42) is not very useful because of the small amount of identified pieces. Thus the coefficient for genuine coins goes up during the Severan dynasty, down at the beginning of the Military Anarchy and then up again during Philip I (244-249). The index for counterfeit pieces, based just on two pieces, has to high values becoming untrustworthy.

One of the Roman settlements that received the rang of *municipia* under Vespasian (69-79) was **Scarbantia**⁹³ (**Sopron, Hungary**). Because of its location plus economic activity, the civil town developed into an active centre, after AD 106 the settlement was updated with new road networks, a forum, public wells and an amphitheatre⁹⁴.

This period of development continued until the Marcomannic Wars (167 – 180) when the town was looted more than once by barbarians⁹⁵. Here were stationed many troops, during the Constantine dynasty the city centre was fortified with a stone wall equipped with towers and firing platforms⁹⁶.

⁹³ TPECS 1999, Scarbantia.

⁹⁴ TPECS 1999, Scarbantia.

⁹⁵ TPECS 1999, Scarbantia.

⁹⁶ TPECS 1999, Scarbantia.

The graph from Scarbantia represented in (Fig. 43), has a very small numismatic evidence from the 1st until the middle of the 3rd century, only 13 genuine silver coins have been discovered.

Those pieces have been distributed depending on the issuer (Fig. 44) (Fig. 45), but we cannot establish the monetary distribution on the site because of the scarce quantity in material.

Thanks to a *praefectus alae* named Velleius Paterculus, **Carnuntum (Petronell-Carnuntum and Bad Deutsch-Altenburg, Austria)** was first mentioned in AD 6 as a Celtic settlement⁹⁷. The Roman presence in this area was first noticed during the reign of Augustus (27 BC – AD 14) when he was trying to create the Roman province of Germania⁹⁸.

Legion XV Apollonia constructed the first permanent fortress from Carnuntum under emperor Claudius (41-54)⁹⁹. The Legion, after constructing the first fort out of wood and earth, garrisoned this area until the beginning of the 2nd century and erected the stone phase of the fort. During the Antonine or Severan period Legion XV Apollonia was replaced by Legion XIII Gemini that will remain here until late antiquity¹⁰⁰.

Once the legionary fortress was erected, many civilians flogged the area forming the *canabae* of the fortress. To the south at about 1,3 km from the legionary fortress another auxiliary *castrum* was constructed, first out of earth and later from stone, that was garrisoned by successive units like *ala*

⁹⁷ GÄZDAC/HUMMER/POLLHAMMER 2014, 13.

⁹⁸ GÄZDAC/HUMMER/POLLHAMMER 2014, 13.

⁹⁹ GÄZDAC/HUMMER/POLLHAMMER 2014, 14.

¹⁰⁰ GÄZDAC/HUMMER/POLLHAMMER 2014, 15.

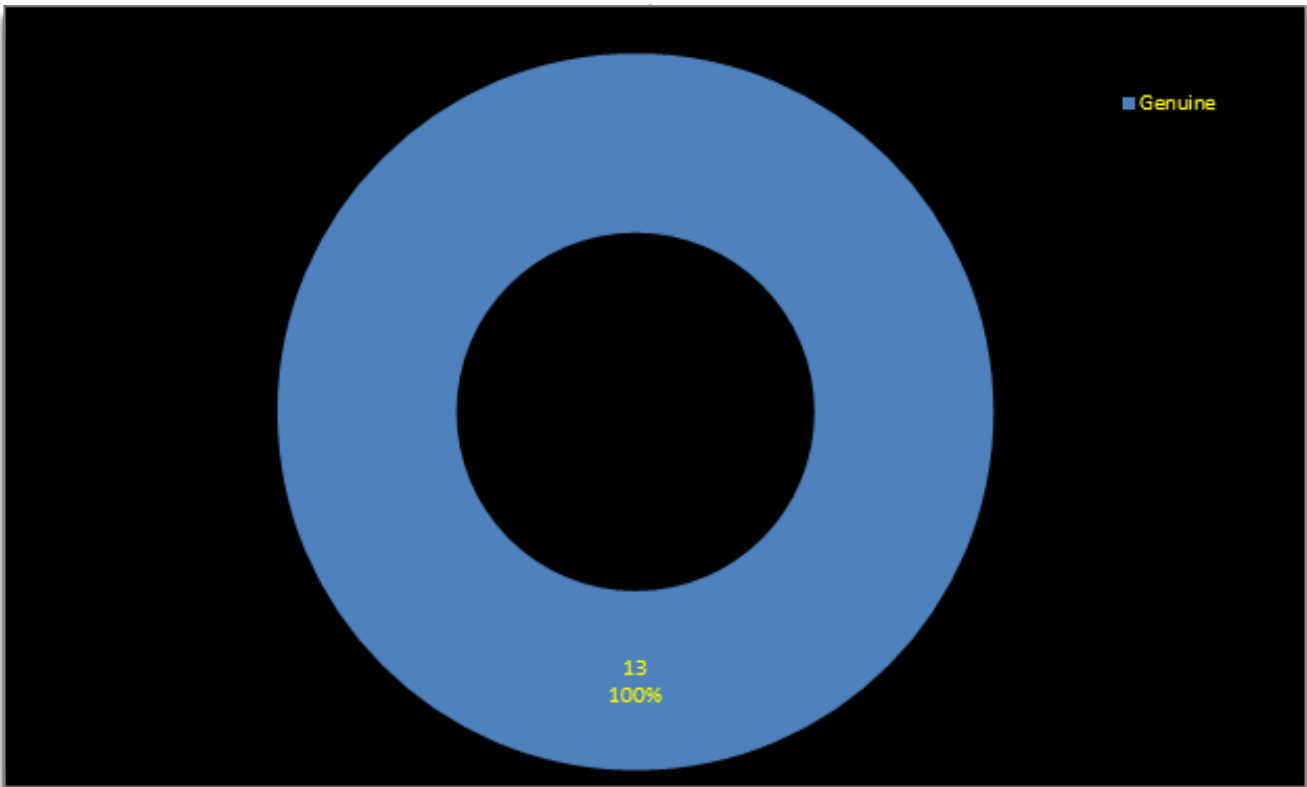


Fig. 43 – Graph of the silver coins from Scarbantia – number of coins and their proportion on the site;

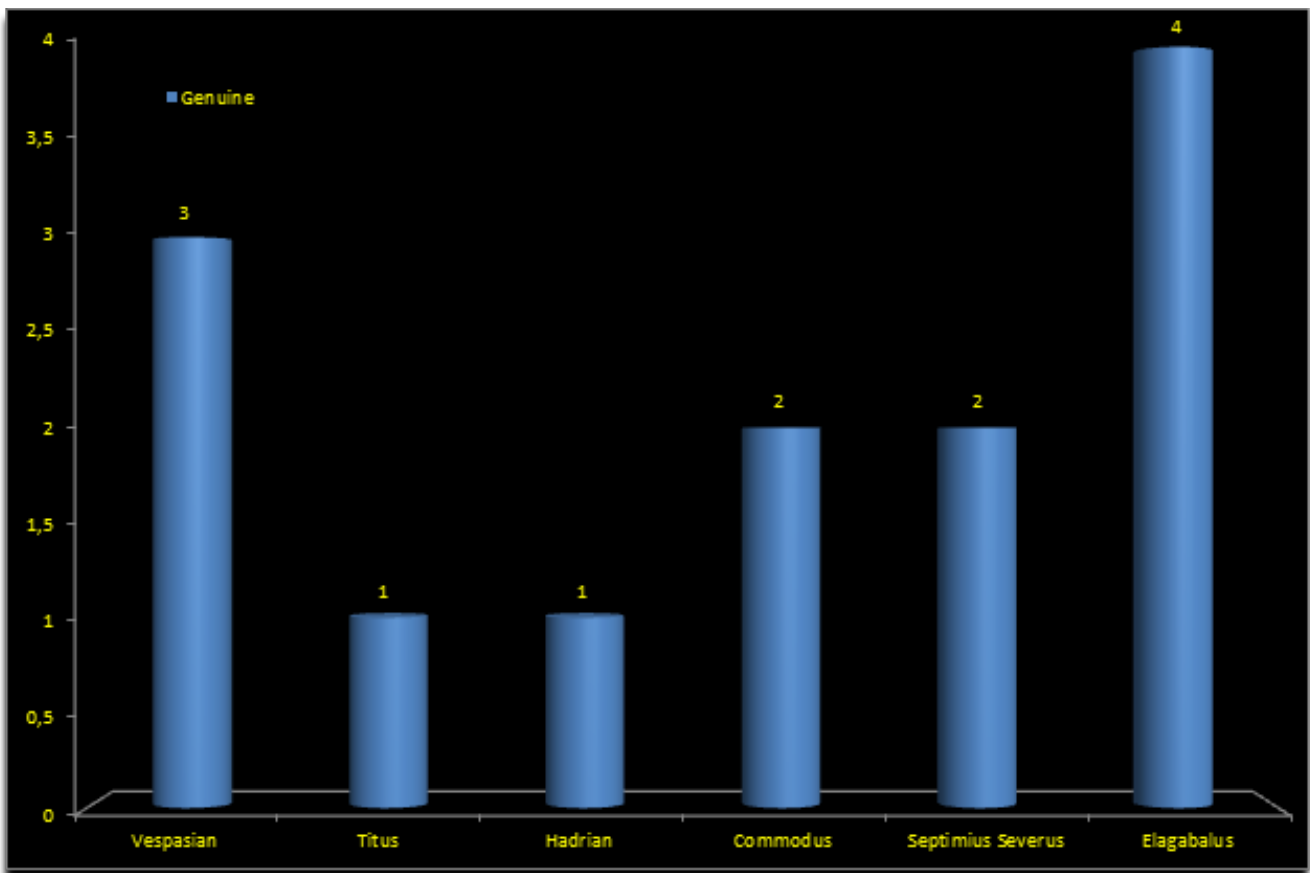


Fig. 44 – Graph of the silver coins from Scarbantia – number of pieces for each issuer;

I Hispanorum Aravacorum, ala I Tungrorum Frontoniana, ala I Pannoniorum Tampiana, ala III Augusta Thracum sagittaria and

*ala I Thracum victrix*¹⁰¹.

The civil town from Carnuntum, situated at 2,2 Km

¹⁰¹ GÄZDAC/HUMMER/POLLHAMMER 2014, 16.

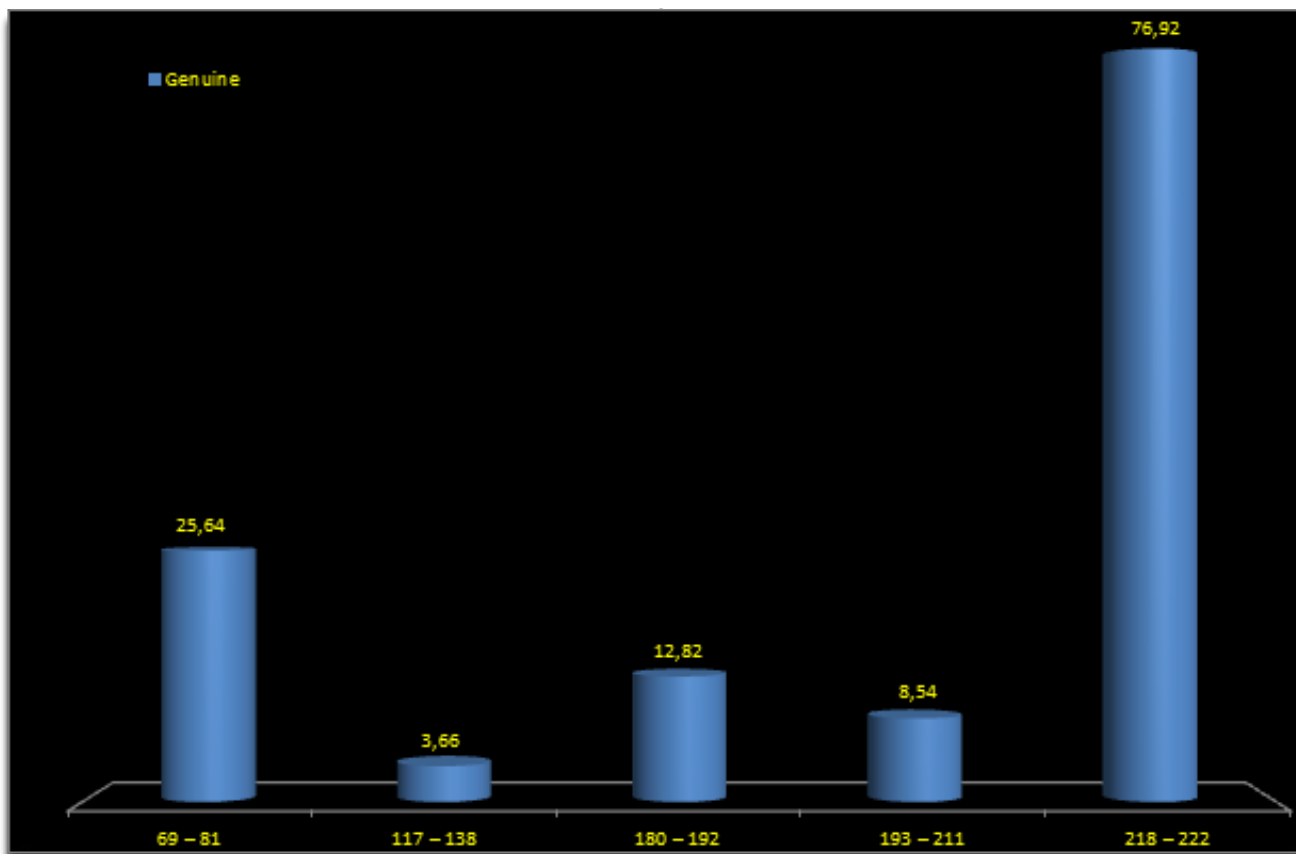


Fig. 45 – Graph of the silver coins from Scarbantia – monetary index;

south from the legionary fortress, was formed in the 1st century AD and transformed during the reign of Trajan (98-117) into the headquarters for the imperial governor of Pannonia Superior. The title of *municipium* was accorded in AD 121 followed by a “Golden Age” for the period of Hadrian (117-138) and Antonius Pius (138 – 161). During the Marcomannic Wars the prosperity temporarily stopped, Carnuntum becomes the supreme headquarters of Marcus Aurelius (161-180), the place from where all the military campaigns against barbarians from north of the Danube were coordinated¹⁰².

After the assassination of Commodus (180-192) the military troops situated on the Danube and Rhine proclaimed Septimius Severus (193-211) as emperor, the former governor of Pannonia, Carnuntum and Aquincum receiving the rank of *coloniae*. Thus follows a new period of prosperity for the legionary fortress, *canabae* and civil settlement, a stone wall was erected for the town and many more building being constructed.

On 11 of November AD 308, the future of Rome was decided at Carnuntum where Diocletian, Maximianus and Galerius meet for establishing the foundation of the Tetrarchy¹⁰³. While other Roman provinces were abandoned by the Romans, Carnuntum continues to prosper during the III and IV centuries¹⁰⁴. Around AD 355 the city was hit by an earthquake that would damage much of the civil area, while in AD 375 emperor Constantin II arrives with fresh troops for his wars against the barbarians.

¹⁰² GÄZDAC/HUMMER/POLLHAMMER 2014, 18.

¹⁰³ GÄZDAC/HUMMER/POLLHAMMER 2014, 21.

¹⁰⁴ GÄZDAC/HUMMER/POLLHAMMER 2014, 21.

Slowly the city starts to be abandoned, a big part of the population moving back to Italy, the final blow for the Roman dominance in the area coming in AD 433 when the whole region is invaded by the hordes of Attila the Hun.

At Carnuntum (Fig. 46), it was possible to identify 4.105 genuine silver coins with a proportion of 80%, 780 plated pieces with 15%, 206 plated hybrids representing 4% and 52 hybrids with 1%.

In (Fig. 47) is possible to see all these coins spreading from Augustus (27 BC-14AD) to Philip I (244-249), the highest values being during the period of Vespasian (69-79), for the Flavian period, under Trajan (98-117), Hadrian (117-138), Antonius Pius (138-161), Marcus Aurelius (161-180) and Commodus (180-192), for the Antonine time, during Septimius Severus (193-211), Elagabalus (218-222) and Severus Alexander (222-235) at the Severan dynasty and Gordian III (238-244) with Philip I (244-249) for the beginning of the Military Anarchy. Furthermore, we can see a concentration of counterfeited coins during the Severan period.

The correct distribution of this coins (Fig. 48), presents a steady rhythm for the genuine pieces between Augustus (27 BC – AD 14) and Commodus (180-192), the index for counterfeited pieces following close by. With the start of the Severan dynasty and into the Military Anarchy, the coefficient for counterfeited pieces gains very high values which decrees in intensity with the beginning of the Military Anarchy period. The only times when the index for genuine pieces is larger than the counterfeited one is under Elagabalus (218-222) and Philip I (244-249). In the case of Caracalla (211-217) the only present coefficient is the one

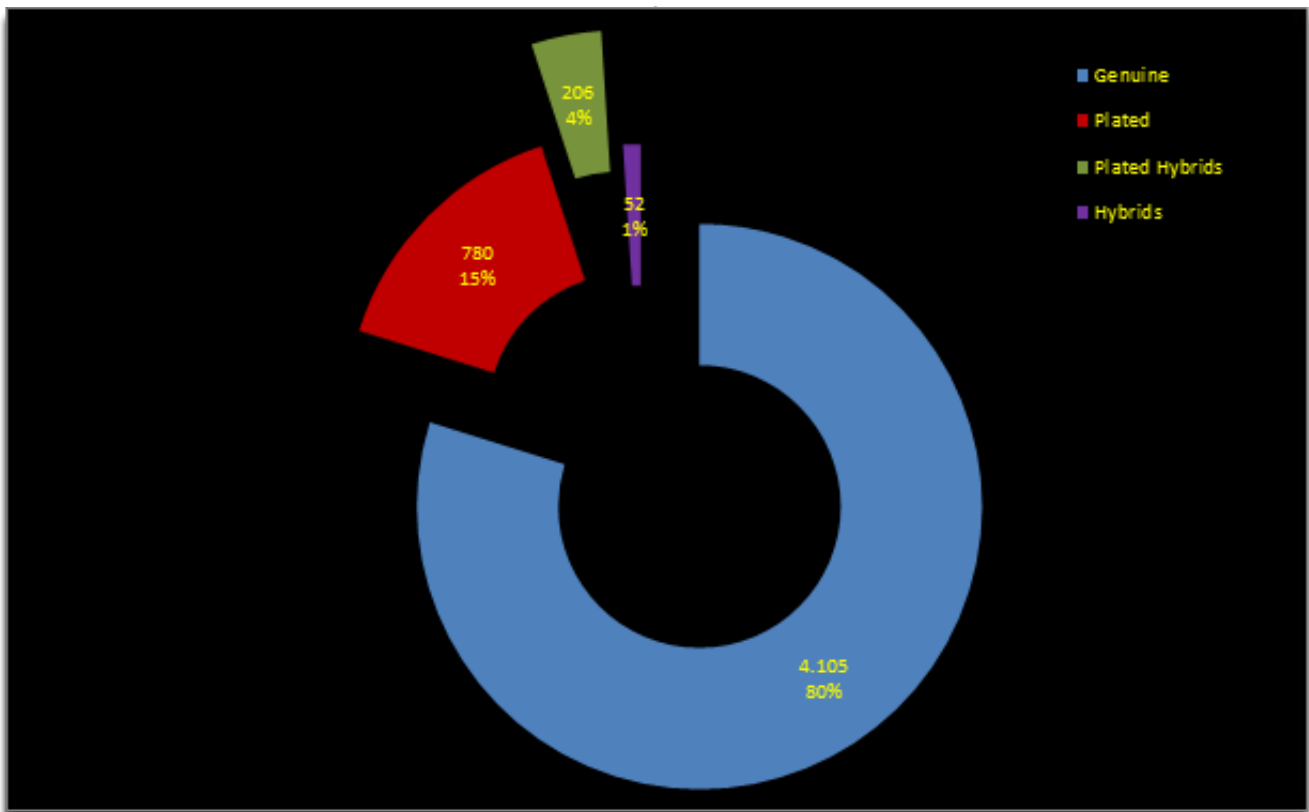


Fig. 46 – Graph of the silver coins from Carnuntum – number of coins and their proportion on the site;

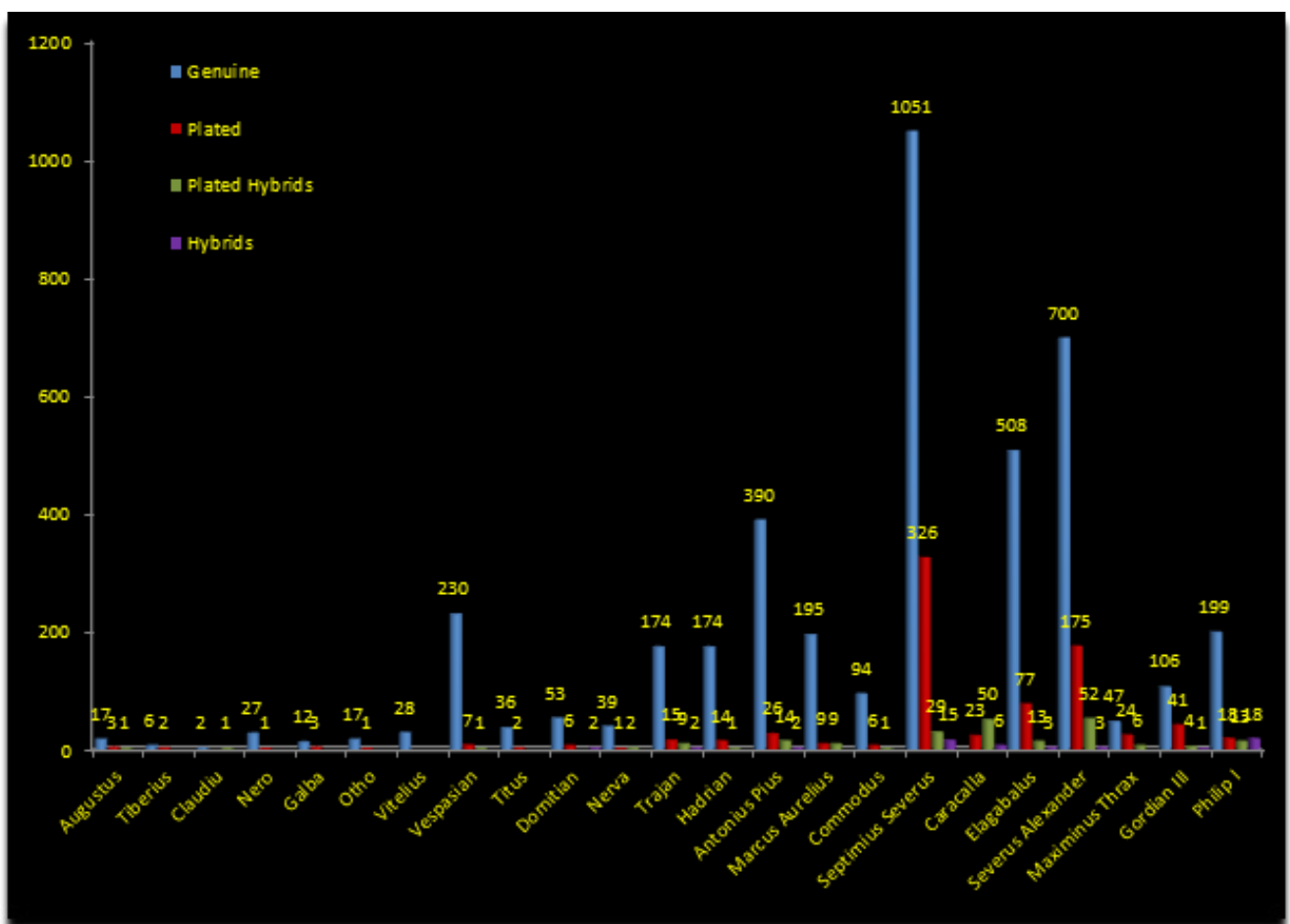


Fig. 47 – Graph of the silver coins from Carnuntum – number of pieces for each issuer;

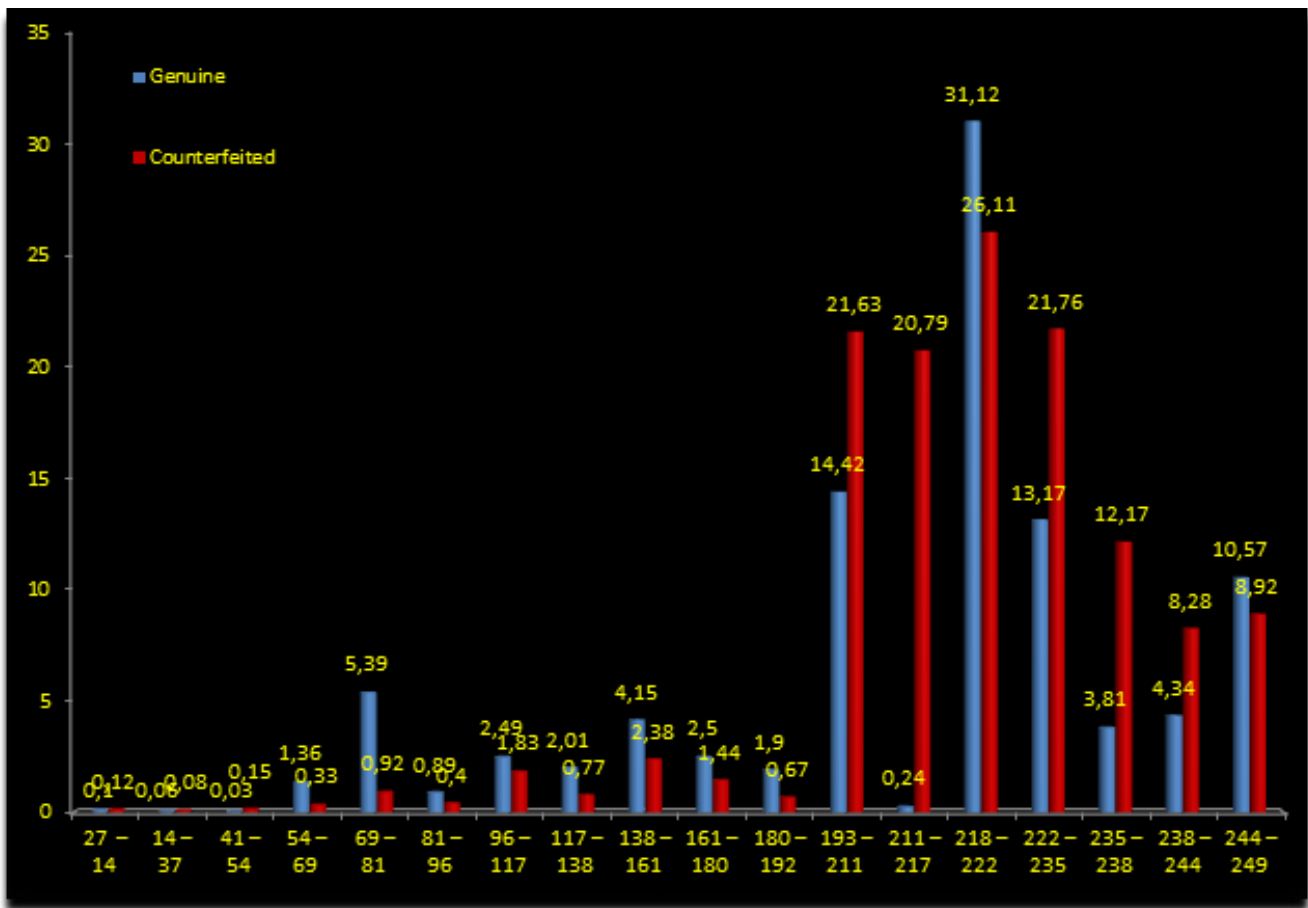


Fig. 48 – Graph of the silver coins from Carnuntum – monetary index;

for counterfeited coins, due to the small amount of genuine pieces.

The general and compared monetary index – Dacia and Pannonia

If we compile the monetary index graphs from all of the sites, we can see the situation of monetary distribution for the province. First were made graphs with the index of the genuine coins (Fig. 49) for Dacia and (Fig. 50) for Pannonia, followed by graphs representing the index of counterfeit pieces (Fig. 51) for Dacia and (Fig. 52) for Pannonia.

In the case of genuine coins from Dacia (Fig. 49), the monetary coefficients from the sites start with high values during the Flavian period, more exactly under Vespasian (69-79) and Titus (79-81).

For the second part of the Flavian time, during Domitian (81-96) the index decreases in value, following a rise and a constant rhythm during the “five good emperors”, more exactly Nerva (96-98), Trajan (98-117), Hadrian (117-138), Antoninus Pius (138-161) and Marcus Aurelius (161-180), index that will decrease again under Commodus (180-192).

With the start of the Severan dynasty, the coefficients increase sizeably, first ascent of the index under Septimius Severus (193-211) followed by a decrease during Caracalla (211-217) and a new increase dated at Elagabalus (218-222) and Severus Alexander (222-235). For the period of 235 – 238 all the coefficients go down in value, recovering later under Gordian III (238-244) and Philip I (244 – 249) to a set of values similar with those from the Antonine time.

In the case of genuine pieces from Pannonian sites

(Fig. 50), some differences are seen. First of all, at Carnuntum the monetary coefficient is starting to show its presence from the time of Augustus (27 BC – AD 14) while on the rest of the sites, with the exception of that from Brigetio where two other coins from Augustus have been identified, the beginning of the graphs are dated to Nero (54-68).

Next follows the period from 69 to 192 when the majority of coefficients have a constant rhythm, only Arrabona improves in intensity for the time Vespasian (69-79) and Titus (79-81), drops a little under Domitian (81-96) and rises again for Trajan (98-117) and Hadrian (117-138), followed by a decrease in intensity to the normal rate like the rest of the sites.

During Septimius Severus (193-211) the majority of index increase in size depending on the sites, some record a rise in value during Septimius Severus (193-211) and until Elagabalus (218-222) while other like Carnuntum record a drop in value under Caracalla (211-217), Arrabona has just a small increase for Elagabalus (218-222) after which its coefficient stops at la Severus Alexander (222-235).

From Severus Alexander (222-235) all the sites show a drop in their monetary index, drop that carries on to Maximinus Thrax (235-238). After the fall of the index follows a rise in value during emperors Gordian III (238-244) and Philip I (244-249), the majority of coefficients go up.

The highest value is reached by the site from Gorsium which in this historical period is witnessing an administrative rebirth under the name of Herculia. Next to that, following in terms of value are Intercisa, Brigetio and Solva, the lowest value being at Carnuntum where just a small increase of the

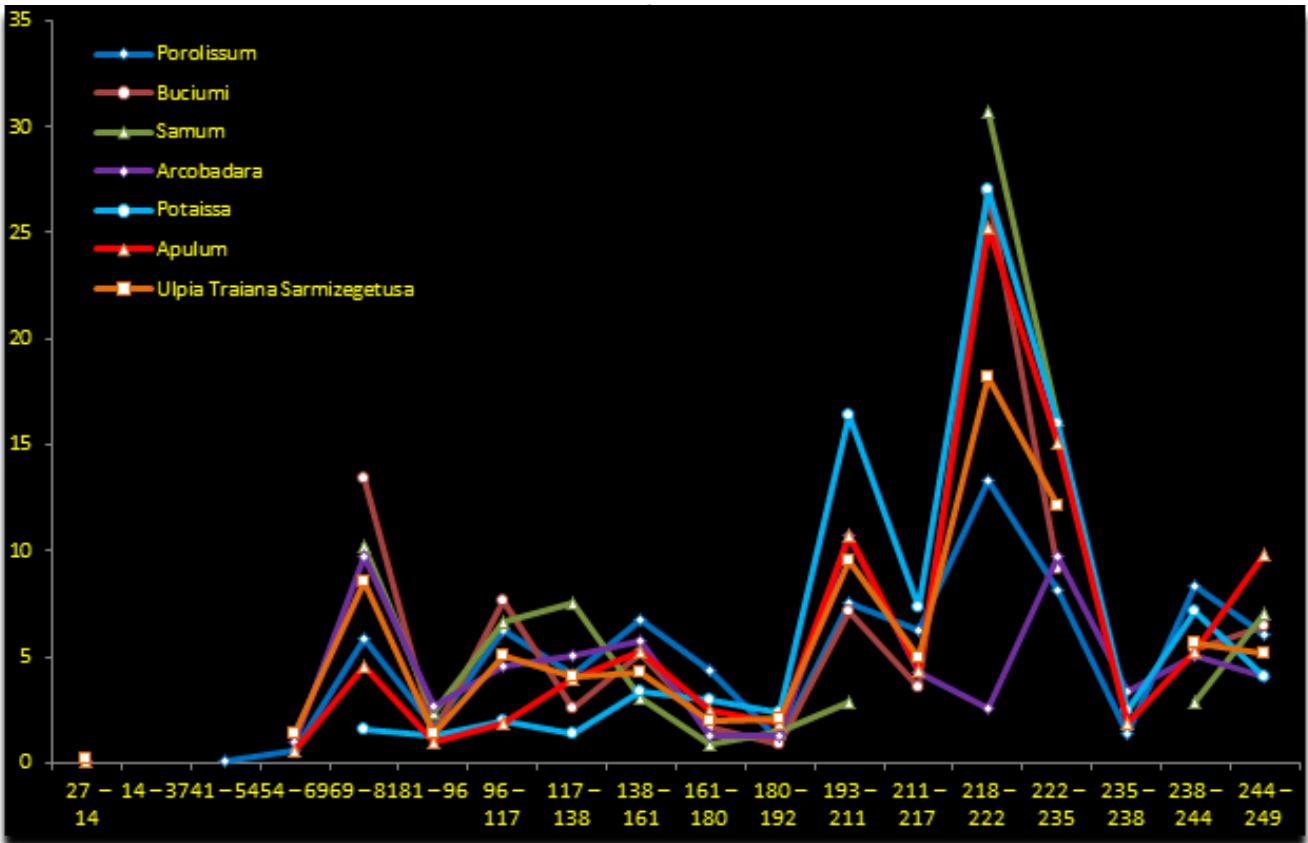


Fig. 49 – Graph with index of genuine coins on sites from Dacia;

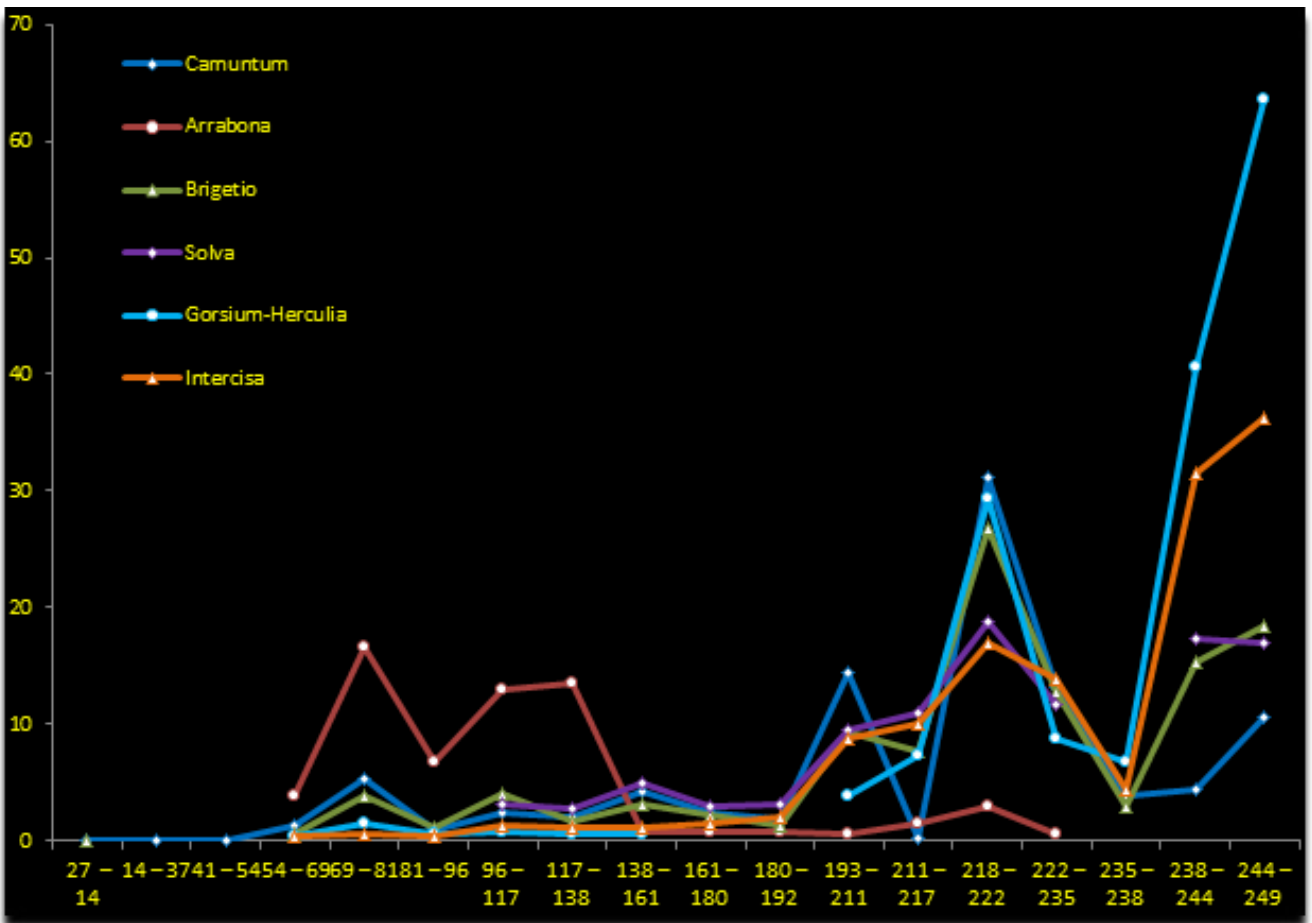


Fig. 50 – Graph with index of genuine coins on sites from Pannonia;

coefficient is recorded under Philip I (244-249).

It is important to specify that in the case of sites like Scarbantia, Ad Mures or Mursella, because of the small amount of identified coins for this period, the results do not give a correct interpretation of the sites, thus were not taken into account when establishing this graph.

Next interpretation is for counterfeit pieces from Dacia (Fig. 51). As we can see the starting point for all of these sites is during the Flavian period, more exactly under Vespasian (69-79) and Titus (79-81).

This fact is also supported by the well-known monetary reform from the time of Domitian (81-96)¹⁰⁵ when the quantity of silver from denarius is reduced from 950‰ to approximately 900‰¹⁰⁶. This way old coins were melted in order to provide base material for newly minted ones, this situation being seen by the lack of counterfeit coins dated previous to the reign of Vespasian (69-79) in Dacia. Without having any genuine models, the counterfeited coins were not possible to produce.

For the period 69 – 192 the index on all the sites is maintained at a steady level. During Septimius Severus (193-211) however, the coefficients have very high values for all the sites. The Severian period is a highlight for many indexes, many sites reach their top value during Septimius Severus (193-211), Buciumi, Porolissum and Arcobadara, or under Caracalla (211-217) this being the case at Potaissa or under Elagabalus (218-222) the case of Apulum.

During Severus Alexander (222-235) and Maximinus Thrax (235-238) the coefficients go down in value, but go up again just as the Military Anarchy is settling in, best represented at Samum and Ulpia Traiana Sarmizegetusa.

When it comes to counterfeit silver coins from sites located in Pannonia, graph (Fig. 52) shows the best situation. Firstly, the sites that had to few counterfeited pieces were excluded from the overall graph in order to not influence in a bad way the overall result. After removing sites like Arrabona, Gorsium-Herculia, Ad Mures, Mursella, Solva and Scarbantia, it is possible to view a correct situation of the monetary index for counterfeit pieces.

Looking at the situation, a continuous activity is present from Augustus (27 BC – AD 14) to Commodus (180-192), with two small peaks during Trajan (98-117) and Antonius Pius (138-161).

With the start of the Severan period, coefficients go up in value at about 20 times higher than the previous period. During the Severan dynasty very high values are recorded on the sites, at the beginning of the Military Anarchy a drop in intensity takes place on two of the sites, the index from Brigetio being the only one to rise again in intensity under Gordian III (238-244).

After the situation on the province was determined, a new graph which gives a comparative analysis of the two provinces (Fig. 53), when it comes to genuine coins' index, was established.

It is easy to see many resemblances between the two regions, for example during the Flavian period both provinces record a growth in intensity followed by a decrease in the time of Domitianus (81-96) and a constant rhythm for

the Antonine period. The only site with higher values for this period is Arrabona which has the majority of its pieces dated for this time period.

For the Severan period, sites from both provinces show increases in their coefficients, the only site which will record a decrease is Arrabona where the coin index goes down until it disappears under Severus Alexander (222-235).

The two main increments in intensity take place under Septimius Severus (193-211) and Elagabalus (218-222) for the majority of sites. Next follows a decrease for the coefficients under Severus Alexander (222-235), the values of the indexes go down even more during Maximinus Thrax (235-238).

With the beginning of the Military Anarchy period, a difference between the two provinces is seen. The coefficients for sites located in Dacia get a little higher in value, resembling the Antonine period, while sites located in Pannonia have their coin index enter a new period of growth, similar in intensity with that from the Severan dynasty or even higher.

Interesting facts appear when looking to (Fig. 54), a graph representing all indexes for counterfeited pieces from the two provinces. First of all, in the case of sites located in Pannonia the index starts from Augustus (27 BC – AD 14) while for those located in Dacia only from Vespasian (69-79). Secondly, the value of the coefficients from Dacia are much higher than those from Pannonia during the Antonine period.

This fact is also supported by the monetary reform from made during Domitian (81-96)¹⁰⁷, when the silver content of denarii is reduced from 950‰ to approximately 900‰¹⁰⁸. Therefore, old coins were melted, coins that were issued before the reign of Vespasian (69-79) could not be used as models for counterfeit pieces in Dacia because they were out of the local circulation by the time the counterfeiters worked.

Still, there is some resemblance between the provinces, during the Severan period both show a growth in intensity from Septimius Severus (193-211), many of the sites reach their highest values from the graph during the Severan dynasty. Therefore, during Septimius Severus (193-211) some sites like Samum, Ulpia Traiana Sarmizegetusa, Arcobadara, Buciumi and Porolissum reach their highest values, during Caracalla (211-217) the sites from Brigetio and Potaissa reaches it, for Elagabalus (218-222) sites like Carnuntum and Apulum while at the end of the dynasty under Severus Alexander (222-235) the site of Intercisa.

Under Maximinus Thrax (235-238), a general decrease is recorded for the coefficients followed by an increase during emperors Gordian III (238-244) and Philip I (244-249).

Finally, all of the results were compiled in other to form a new graph (Fig. 55) which presents the index of genuine coins and counterfeited ones from both provinces, in order to compare the overall results.

First thing that stands out from the graph is the increase of the coefficients for genuine pieces between the years 69 – 81, while the index for counterfeited coins has a smaller value for this time. Next follows a slight decrease in

¹⁰⁵ Harl 1996, 14.

¹⁰⁶ Jones 1992, 76.

¹⁰⁷ Harl 1996, 14.

¹⁰⁸ Jones 1992, 76.

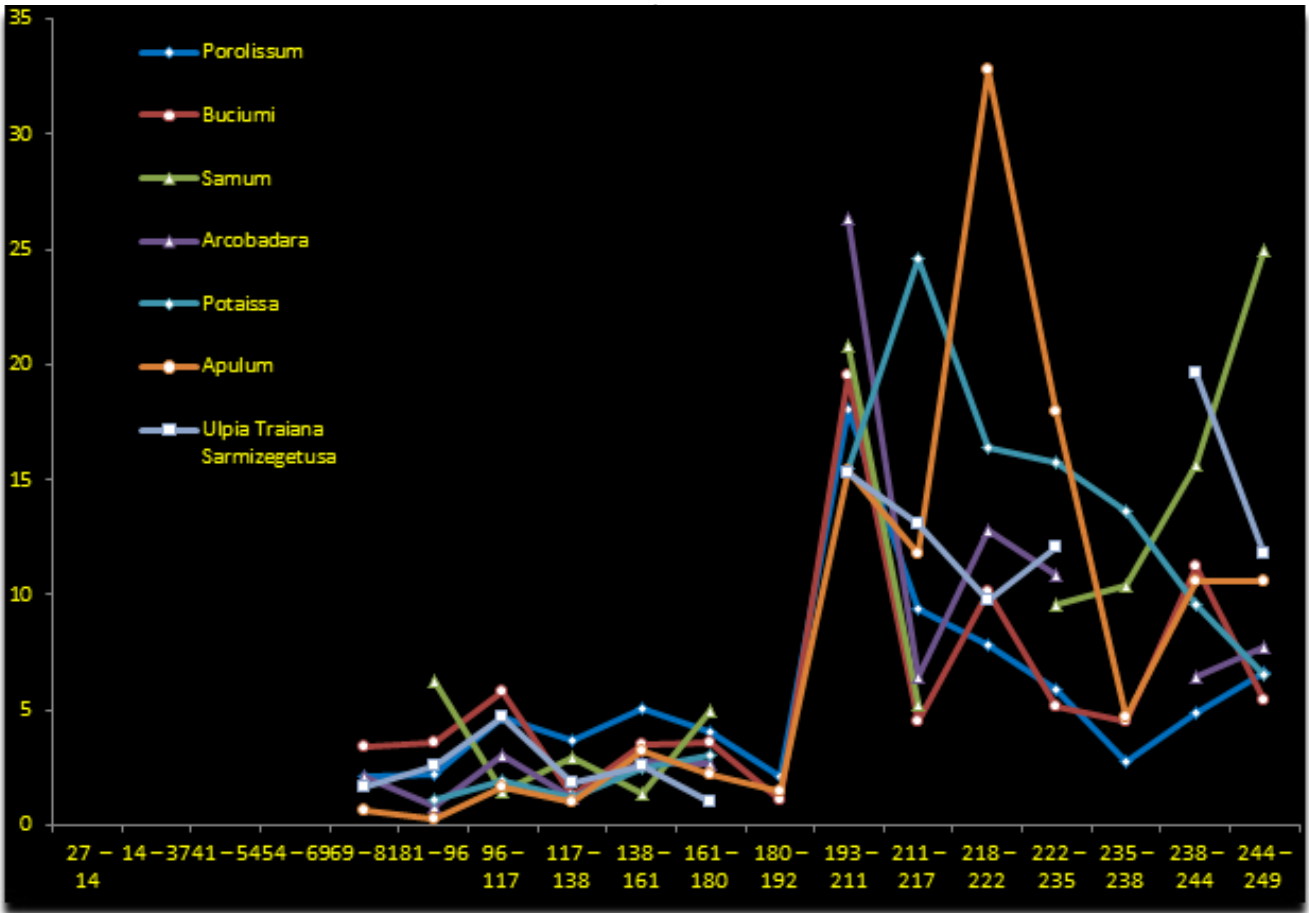


Fig. 51 – Graph with index of counterfeited coins on sites from Dacia;

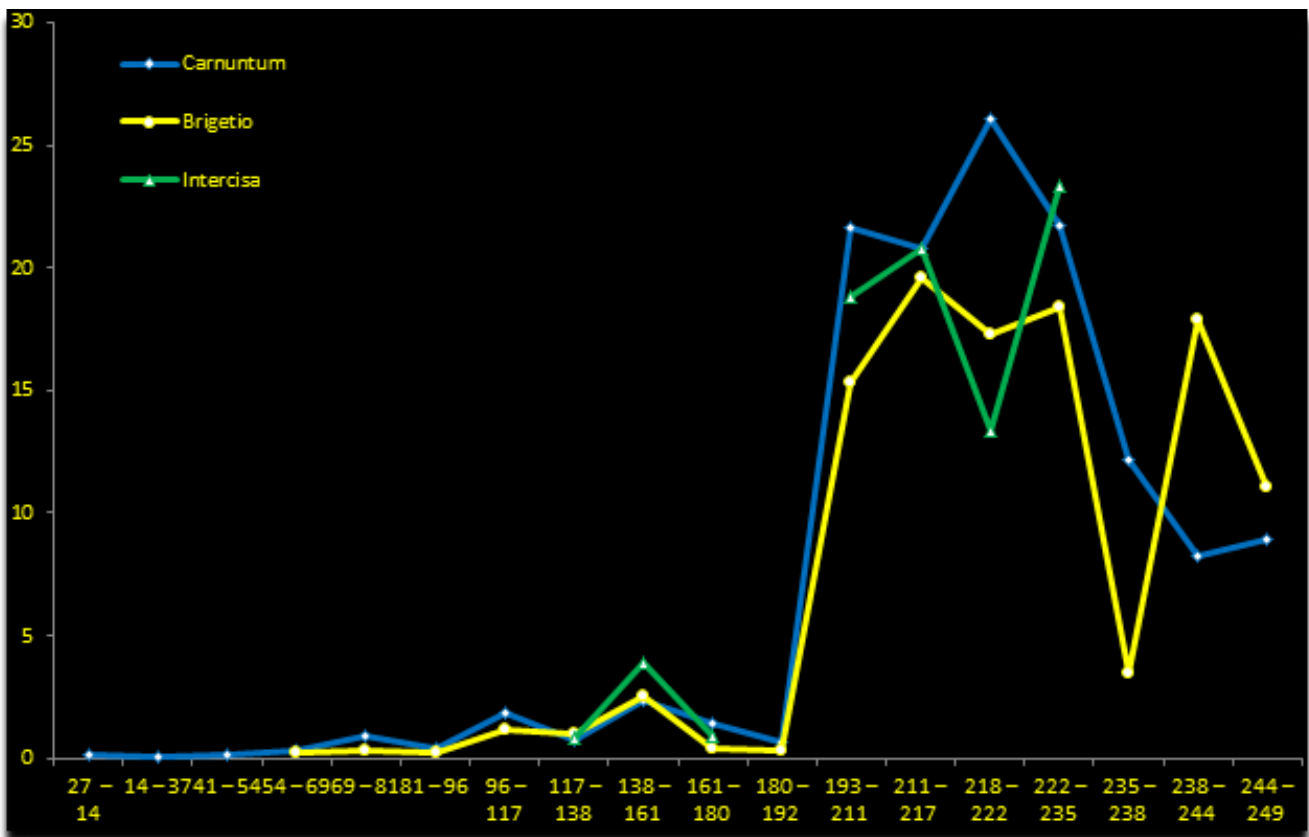


Fig. 52 – Graph with index of counterfeited coins on sites from Pannonia;

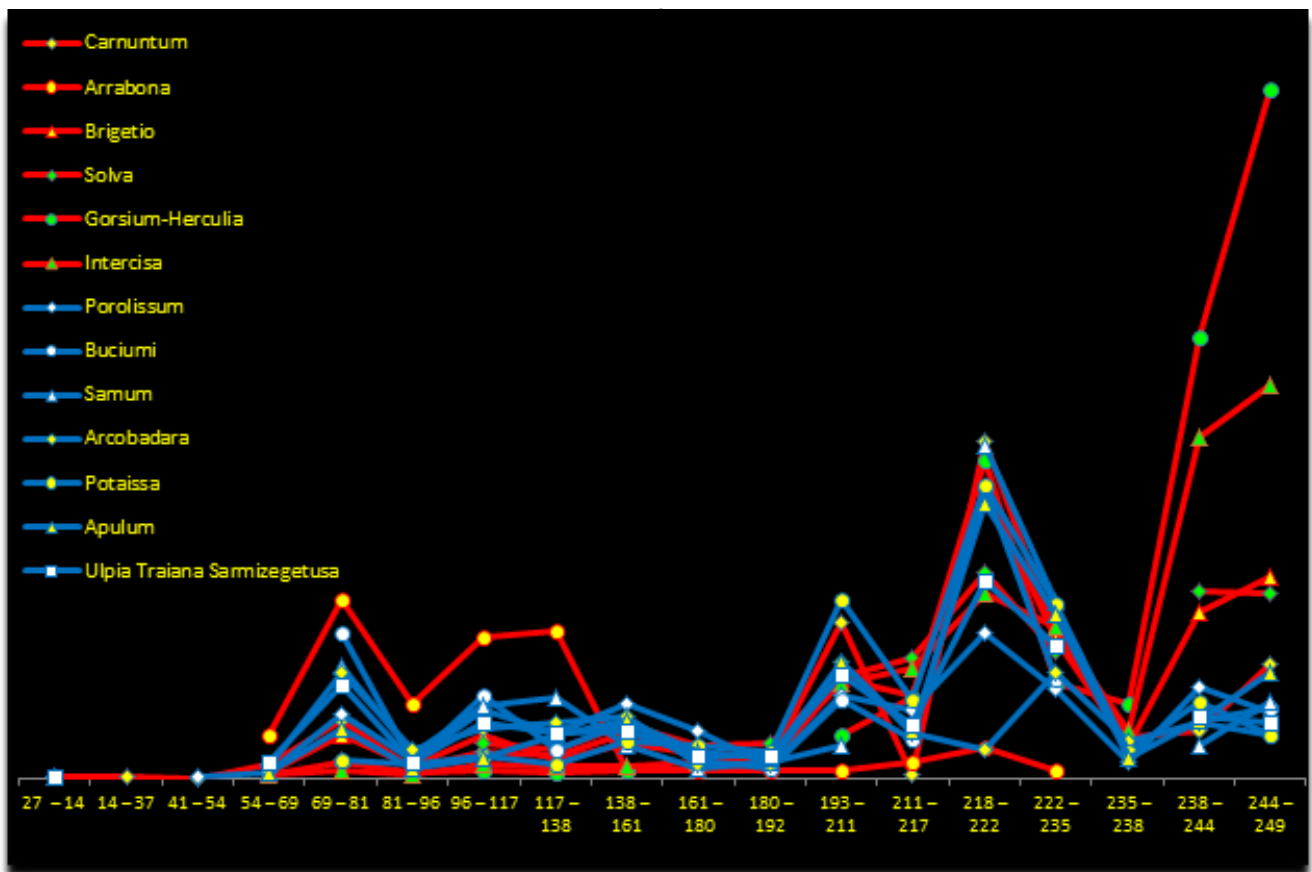


Fig. 53 – Graph with index of genuine silver coins on sites from Dacia and Pannonia;

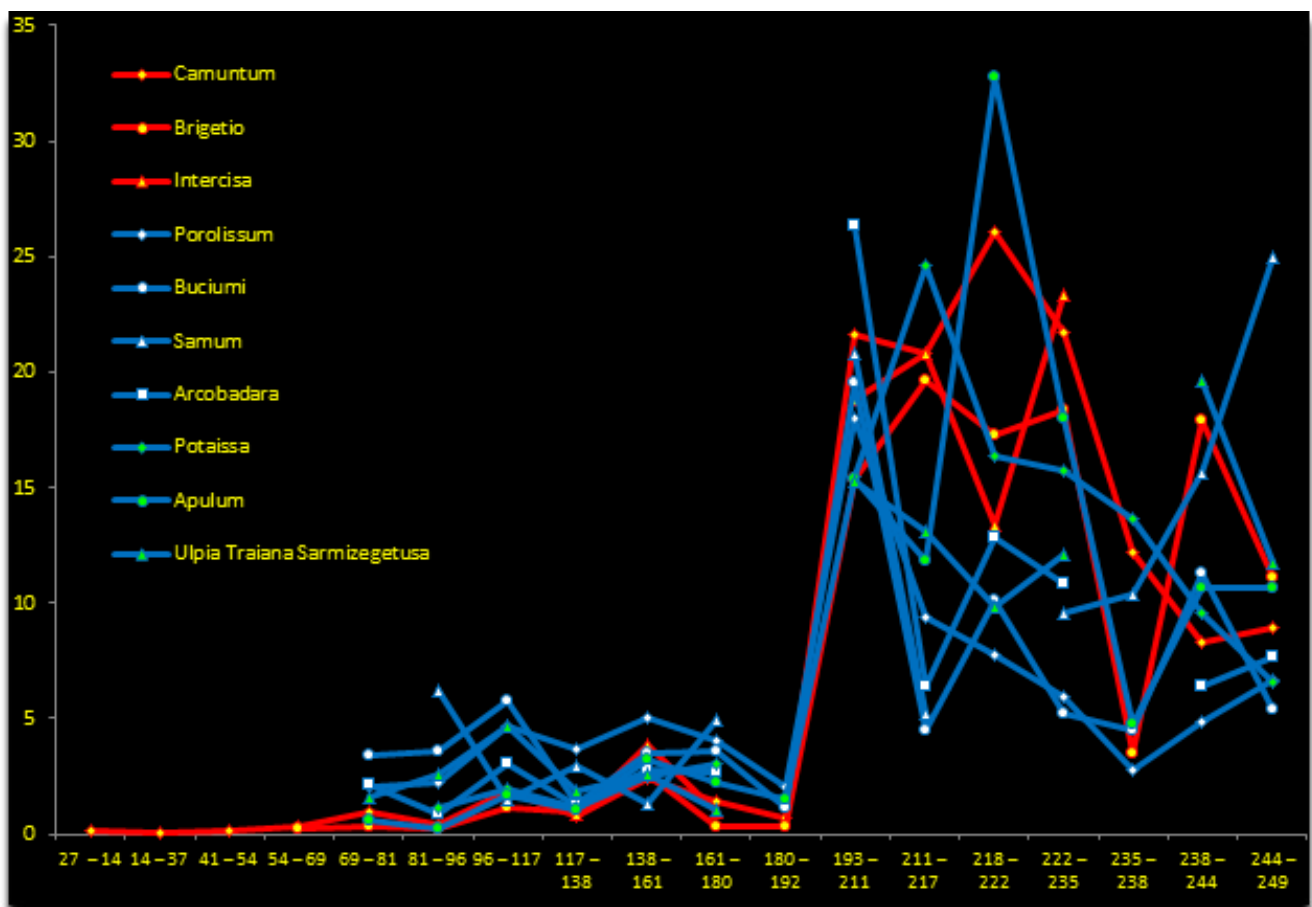


Fig. 54 – Graph with index of counterfeited silver coins on sites from Dacia and Pannonia;

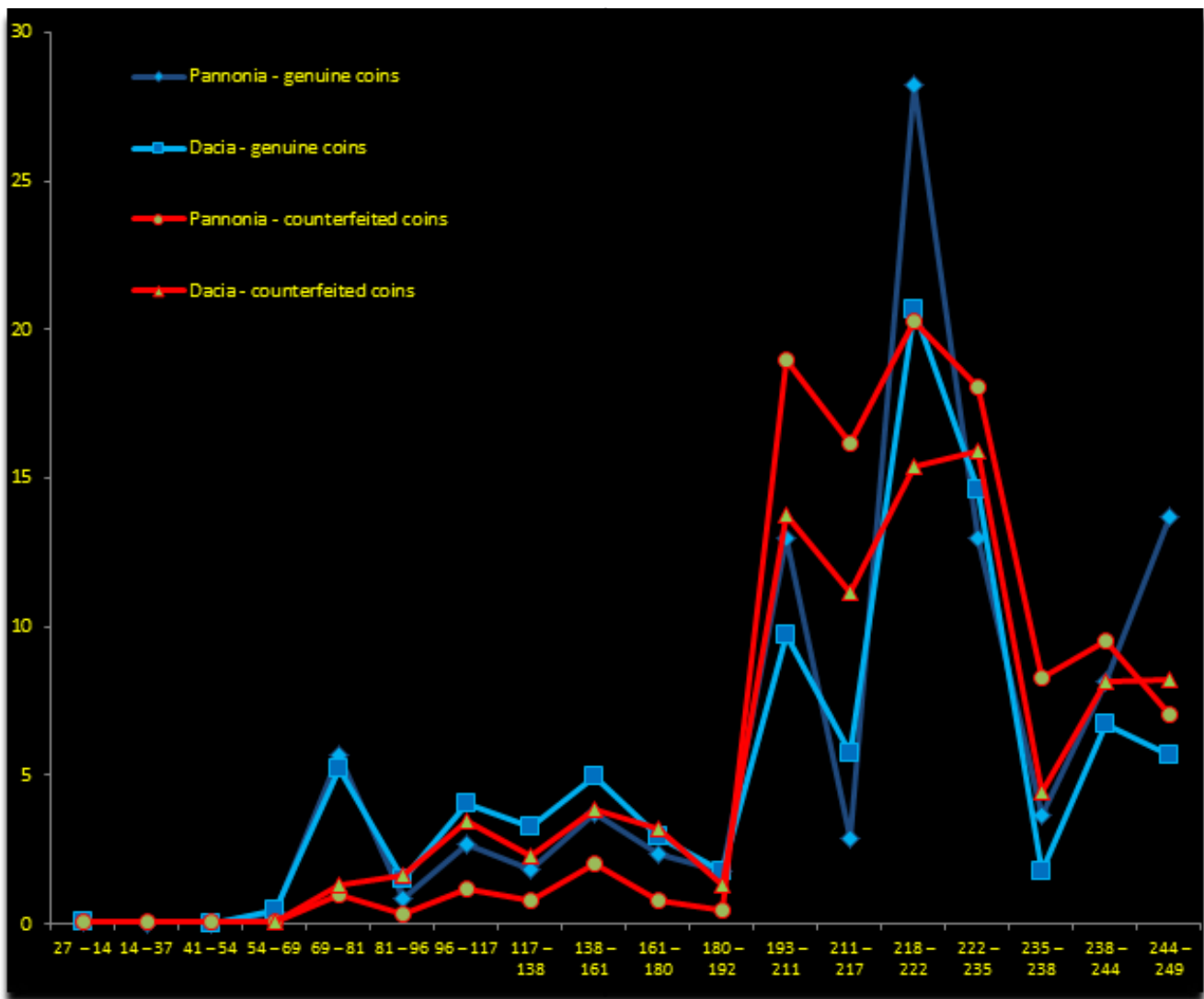


Fig. 55 – Graph with index of genuine and counterfeited silver coins from Dacia and Pannonia;

intensity for genuine pieces under Domitian (81-96), later all indexes increase in value and maintain a steady rhythm during the Antonine period. We can see that the coefficients for the province of Dacia are slightly larger in value than those from Pannonia for the time period of 96 – 192.

After the year 192 when the reign of Septimius Severus (193-211) starts, all of the coefficients report a high increase that maintains during this dynasty with slight variations. For Septimius Severus (193-211) the index for counterfeited pieces is higher than that for genuine ones, the situation maintained even for Caracalla (211-217).

From the period of Elagabalus (218-222) the index for genuine pieces will overpass the one for counterfeited ones but the new situation does not last long, under Severus Alexander (222-235) the coefficients for genuine coins is decreasing in intensity, being smaller than the one for counterfeited pieces.

With Maximinus Thrax (235-238) all indexes go down in intensity, those for genuine coins still being lower in value than counterfeited ones. From Gordian III (238-244) coefficients start to go up in value again following that under Philip I (244-249), index for genuine pieces from Dacia to go down in value, index for counterfeit coins from Dacia to maintain at a close value with that for counterfeited coins

from Pannonia and the coefficient for genuine pieces from Pannonia to rise and overtake all the others in size.

For the most part of the graph, both types of index maintain a parallel course with each other, the variations produced in time not affecting this rhythm.

COUNTERFEITED COINS

First of all, for a better understanding of counterfeited pieces it is important to mention that all plated, casted and plated hybrids have been taken into consideration when establishing the correct values for index of counterfeited coins, all of these pieces not being recognize by the official issuer.

In the case of counterfeited coins, the oldest known coin mould for casting Roman pieces was found in 1555 at Lyon¹⁰⁹, until today over 7.000 fragmented or entirely pieces¹¹⁰ belonging to Roman coin moulds have been identified¹¹¹ of which approximately ¼ were used for casting Roman silver pieces¹¹².

Very few Roman hordes, that have been identified until now, contain in their composition cast pieces but new

¹⁰⁹ SCHWARTZ 1963, 13.

¹¹⁰ AUBIN 2003, 157-162.

¹¹¹ GĂZDAC/OARGĂ/ALFÖLDY-GĂZDAC 2015, 8.

¹¹² AUBIN 2003, 157-162.

archaeological research have brought to light hordes dating to Roman times and made entirely of cast coins, such as one from Mogontiacum in Germania Superior (Mainz, Germany) which contains 63 cast denarii¹¹³ and horde number VI from Apulum (Alba Iulia, Romania) which has 232 cast denarii of bronze core¹¹⁴.

On the archaeological site of Potaissa have been found cast denarii, and after a detailed analysis it was possible to determine the alloy out of which they were cast, an alloy made up from copper-stannic-zinc also known as “white bronze” that in antiquity could have been considered as a denarius of poor quality¹¹⁵.

Plated coins have always been of interest for numismatists even from the 19th century¹¹⁶, such that until today we have a vast collection of works and many points of view on the subject¹¹⁷.

The first plated pieces appeared shortly after the introduction of coins in antiquity¹¹⁸, this technique being widely used in ancient Greece¹¹⁹ and during the Roman Republic¹²⁰. It remained in use until the end of the 3rd century AD¹²¹ when the quality of the silver coin reached such a low value that it was removed from circulation¹²².

Because this technique was used for such a long period of time, by the official authorities that issued this type of coins, in legal terms – counterfeited pieces¹²³, or by clandestine workshops which were always under the pressure of the Roman law¹²⁴, it proved to be a very effective technique in trying to save more silver¹²⁵. The idea of fraud committed by the state¹²⁶ is very common between numismatists being supported by the very low price of copper compared with the price of silver, in Rome during the Republican period the exchange rate between the two metals was approximately 1 to 240¹²⁷.

The phenomenon of plated silver pieces didn't represent a typical model for Danubian regions, being reported all along the Roman Empire, with recorded discoveries of minting patterns in many parts of the empire. This kind of moulds have been found in Augusta Raurica, Saint-Mard¹²⁸. Actually, these discoveries can suggest the existence of clandestine workshops spread all over the empire, the high amount of coin moulds show the presence of counterfeiting coin activities untroubled by state authorities¹²⁹, the severe Roman laws against counterfeited pieces being completely ignored¹³⁰.

¹¹³ GĂZDAC/OARGĂ/ALFÖLDY-GĂZDAC 2015 2015, 9.

¹¹⁴ GĂZDAC/OARGĂ/ALFÖLDY-GĂZDAC 2015 2015, 9.

¹¹⁵ PÍSLARU 2009, 66.

¹¹⁶ BERNAREGGI 1965, 6-7.

¹¹⁷ PÍSLARU 2009, 51.

¹¹⁸ LAWRENCE 1940-1941, 190.

¹¹⁹ BERNAREGGI 1965, 8-9.

¹²⁰ BERNAREGGI 1965, 21.

¹²¹ CHIRILĂ 1991, 170. GĂZDAC/ALFÖLDY-GĂZDAC 2001, 142.

¹²² BERNAREGGI 1985, 88-89.

¹²³ CURRY 1973, 231.

¹²⁴ GĂZDAC/ALFÖLDY-GĂZDAC 2001, 138-139.

¹²⁵ PÍSLARU 2009, 54.

¹²⁶ LAWRENCE 1940-1941, 194. BERNAREGGI 1965, 5-31. SERAFIN 1968, 9-30. MORELLI 1990, 115.

¹²⁷ BERNAREGGI 1965, 29-30.

¹²⁸ GĂZDAC 2002, 178.

¹²⁹ ALFÖLDI 1971, 358-363. KING 1996, 245-246.

¹³⁰ GRIERSON 1956, 244-261.

Plated antoninianus, is found in scarce quantities, part because the antoninianus was from the start an overly evaluated coin¹³¹ and because it suffered a quick depreciation in value. It was not worth faking them.

Still, counterfeited coins have been recorded in high numbers, the proportions differing from one site to another. Thus, besides the 8.700 genuine pieces, 2.400 plated pieces have been identified on different sites as follows next.

At Porolissum there have been recorded 476 plated coins with a proportion of 40%, for Potaissa 90 counterfeited pieces have been identified representing 10% out of the total amount of coin, on the site from Apulum there have been found 269 plated pieces with 43%, for Ulpia Traiana Sarmizegetusa 51 coins are known to be plated which represent 18%, at Arcobadara there have been found 77 plated pieces with 28%, Buciumi has 74 plated coins representing 44%, on the site of Samum there have been identified 29 plated pieces with a proportion of 33%, for Intercisa there have been recorded 56 plated coins with 13%, at Gorsium-Herculia only four plated pieces have been found with 1%, on the site from Mursella just two coins which are plated have been identified representing 7% of the total amount of pieces, at Arrabona are known two plated coins with 1%, for Ad Mures just six plated pieces have been identified 6 representing 24%, in the case of Solva 12 plated coins representing 10% have been identified, at Brigetio there are known 289 plated pieces with a proportion of 22%, while for Carnuntum 780 counterfeited pieces have been recorded which represent 15%.

It is important to mention, as it is easy to observe in the graphs as well, sites from Pannonia, with the exception of Carnuntum and Brigetio, show a deficit when it comes to identified counterfeited pieces.

The source of this problem is most likely based on the older research which was made on these pieces, the limited knowledge and experience of the time having its toll on the amount of identified counterfeited coins. How else can we explain that on studied locations from Dacia and the site from Carnuntum, where the numismatic evidence was revised over time, the amount and proportion of counterfeited pieces is much higher than those from other locations in Pannonia, many times between 20% and 40% of the total amount of discovered coins being identified as counterfeited pieces.

One image that is always present on the graphs for most locations is the large amount of counterfeit pieces dated during the Severan period.

HYBRID COINS

Hybrid coins are pieces that display on their obverse and reverse prototypes originating from two different issues¹³².

In the case of hybrid pieces, we must distinguish two separated categories for this type of coin. First there are the “genuine” hybrids, pieces that were made by striking the image on their surface. In the current state of research these types of coin are not found in special numismatic catalogues (e.g. RRC, RIC, MIR), but because the used metal (most

¹³¹ GĂZDAC 2002, 179.

¹³² AMANDRY 2001, 281.

commonly silver) fits as quality, size and weight in official standards. It is possible that in the near future, because of the identification of more and more types of “hybrids”, to move this kind of pieces to the ranks of official coin types.

Secondly there are the plated hybrid coins resulted after the process of plating silver on top of bronze core pieces while using a combination of prototypes, on both obverse and reverse, unknown in Coin catalogues.

The main difference between the two categories is that the first one shows marks of striking, thus minted by authorised workshop while the second type presence traces of plating, placing these pieces in the counterfeited section.

Hybrid coins have been identified in the same archaeological contexts as genuine pieces, therefore we should not consider them as avoided pieces but coins which were used in daily economical actions.

In the case of the studied sites, hybrid pieces have been identified on more than one location. Four hybrid pieces have been discovered at *Ulpia Traiana Sarmizegetusa* (Fig. 1). One coin for Antonius Pius (138-161), one under Septimius Severus (193-211), one dated at Caracalla (211-217) and a piece dated at Severus Alexander (222-235).

For *Potaissa* (Fig. 7) 23 hybrid coins have been identified, one dated at Trajan (98-117), two pieces dated under Marcus Aurelius (161-180), six during Septimius Severus (193-211), two other under Caracalla (211-217), one for Elagabalus (218-222), eight dated at Severus Alexander (222-235), one piece for Gordian III (238-244) and two coins during Philip I (244-249).

The site from *Arcobadara* (Fig. 10) offers just one hybrid piece dated at Septimius Severus (193-211).

At *Porolissum* (Fig. 19) have been identified six hybrid coins, one dated at Marcus Aurelius (161-180), one under Septimius Severus (193-211), one during Caracalla (211-217), two coins identified for Severus Alexander (222-235) and a piece for Gordian III (238-244).

Gorsium-Herculia (Fig. 25) is a site where there have been located ten hybrid coins dated for: Caracalla (218-222) two pieces, Severus Alexander (222-235) one coin, Gordian III (238-244) four pieces and Philip I (244-249) three coins.

Further on, at *Brigetio* (Fig. 31) there has been identified just one genuine silver hybrid coin for Septimius Severus (193-211).

Arrabona (Fig. 34) as well offers just one identified hybrid coin with the image of Nerva (96-98).

On a more extended archaeological site such as the one from *Carnuntum* (Fig. 46), the quantity of discovered hybrid coins is significantly larger, 52 pieces more exactly. Thus the coins have been dated for: Domitian (81-96) two pieces, Trajan (98-117) two coins, during Antonius Pius (138-161) two pieces, 15 coins under Septimius Severus (193-211), six for Caracalla (211-217), Elagabalus (218-222) three coins, Severus Alexander (222-235) three pieces, one in the time of Gordian III (238-244) and 18 pieces for Philip I (244-249).

As we can observe in the graphs from sites where hybrid coins have been discovered, this type of coin represent from 1% to 3% from the total number of pieces, on the sites where they have been discovered.

In the case of plated hybrids, the situation is a little

different as we can see when revisiting the graphs for the sites.

On the site from *Apulum* (Fig. 4) there have been identified 13 plated hybrid pieces, two dated during Antonius Pius (138-161), three coins with the image of Marcus Aurelius (161-180), one piece dated during Septimius Severus (193-211), one coin for Caracalla (211-217), two coins dated under Severus Alexander (222-235), two pieces for Gordian III (238-244) and two identified for Philip I (244-249).

At *Potaissa* (Fig. 7) 20 silver plated hybrids have been discovered, seven dated for Septimius Severus (193-211), six during Caracalla (211-217), four pieces dated under Severus Alexander (222-235), one coin in the time of Maximinus Thrax (235-238) and two pieces for Gordian III (238-244).

The site from *Arcobadara* represented in (Fig. 10) shows only one discovered silver plated hybrid dated for the period of Marcus Aurelius (161-180).

The existence of three plated hybrids has been recorded at *Samum* (Fig. 13). One of the was dated during Domitian (81-96), one for Gordian III (238-244) and the final one identified for the time of Philip I (244-249).

Porolissum (Fig. 19) is the site where there have been located five plated hybrids, one was dated during Vespasian (69-79), one for Marcus Aurelius (138-161), two from Septimius Severus (193-211) and one at the time of Severus Alexander (222-235).

From the graph made for *Carnuntum* (Fig. 46) we can observe the presence of 206 plated hybrids. One of the pieces has been dated during Augustus (27 BC – AD 14), another piece for Claudius (41-54), one coin dated during Vespasian (69-79), two pieces dated under Nerva (96 – 98), nine coins dated during Trajan (98-117), one piece for Hadrian (117-138), 14 coins for the time of Antonius Pius (138-161), nine during Marcus Aurelius (161-180), one dated at Commodus (180-192), 29 coins dated during Septimius Severus (193-211), 50 pieces identified at Caracalla (211-217), 13 dated under Elagabalus (218-222), 52 coins dated in the time of Severus Alexander (222-235), six from Maximinus Thrax (235-238), four pieces dated at Gordian III (238-244) and 13 coins dated at Philip I (244-249).

From the proportional point of view, plated hybrid coins sum up between 1% and 4% of the total amount of silver coins discovered on sites, but because of their plated status they do nothing more than adding to the number of counterfeit pieces. Even if they used as model, for counterfeiting coins, a piece which was unique from the numismatic point of view, the resulted plated hybrid coins are not more special than other counterfeited pieces.

Taken all together, recorded hybrid coins and plated hybrid pieces, we obtain a new graph (Fig. 56) which represents the distribution of these pieces from a quantitative and chronological point of view.

The first thing that we see is the large number of hybrid coins from the time of Septimius Severus (193-211), Caracalla (211-217), Severus Alexander (222-235) and Philip I (244-249).

On the other side even these periods with very high values of “official” hybrids, does not compare with the higher quantity of plated hybrids. Thus, plated hybrid pieces, record higher values for the period of the Antonine emperors like

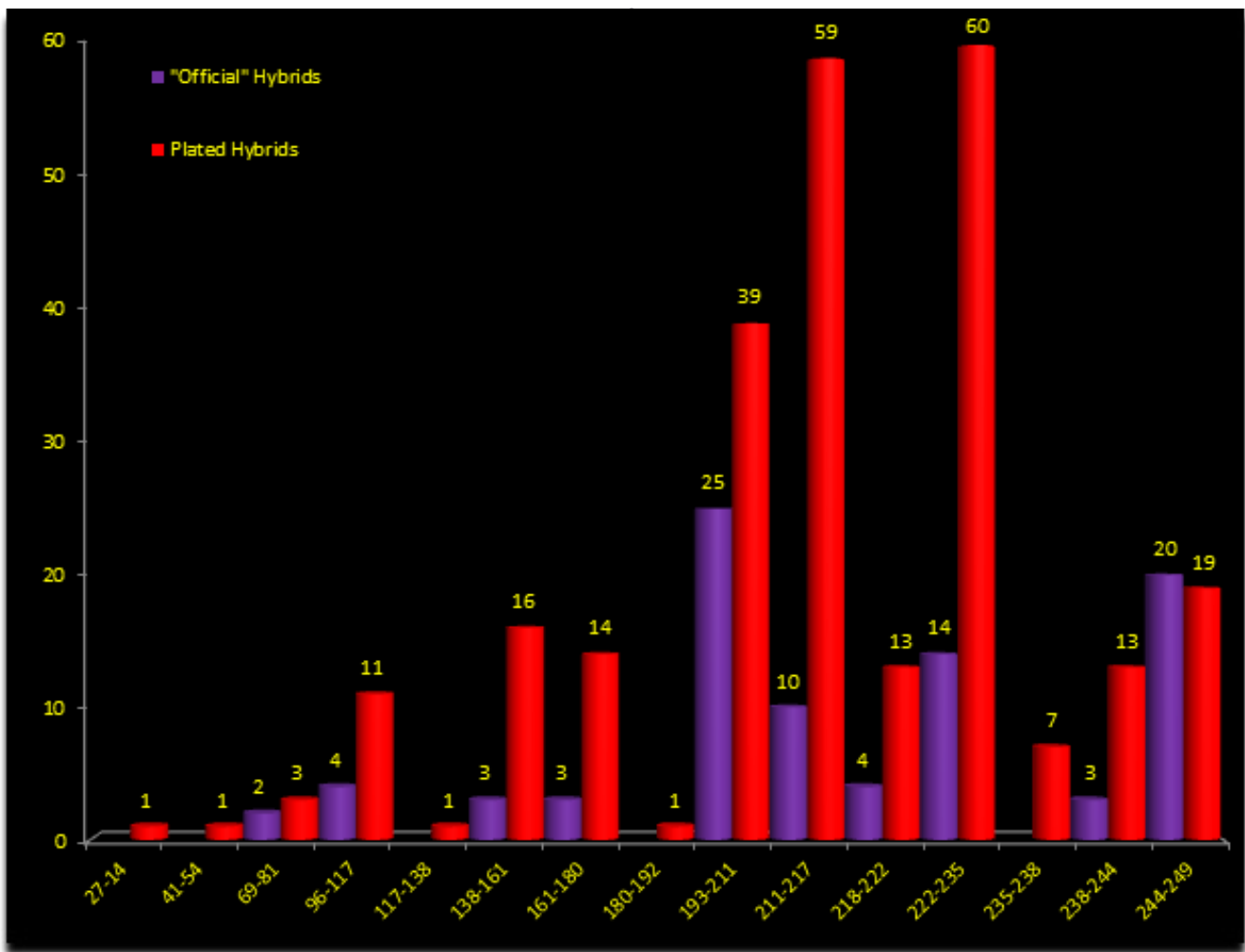


Fig. 56 – Graph with hybrid coins from all studied sites, on issuers;

Trajan (98-117), Antonius Pius (138-161), Marcus Aurelius (161-180), for emperors from the Severan times as Septimius Severus (193-211), Caracalla (211-217), Elagabalus (218-222), Severus Alexander (222-235) and for the beginning of the Military Anarchy during Maximinus Thrax (235-238), Gordian III (238-244) and Philip I (244-249).

It is very interesting that there have been discovered more plated hybrids than hybrid coins and that some of these plated hybrids were dated for periods of time when there were no economic problems in the Roman Empire. The main problem is that plated pieces offer just one possible dating, only after the issuing of the coin which was used as model for the counterfeited one.

Until now on this sites there have been accounted 88 hybrid coins and 258 plated hybrid pieces, which seems a lot at first glance, but if we take into consideration that the total amount of studied coins for this paper is close to 8.700, even these results are very modest. Although, as few as they are, these types of coins signal their presence through unconventionality and by not respecting the numismatic pattern.

CONCLUSIONS

After the interpretation of all available data, some major conclusions about counterfeit pieces and hybrid coins may be drawn.

It is correct to say that despite a sever legislation

against coin counterfeiting actions, these types of pieces have been identified in large numbers on archaeological sites from both the Roman provinces of Dacia and Pannonia.

On most sites located in Roman Dacia, counterfeited coins have been discovered in very high proportions, between 28% and 45% of the discovered silver coins dated from Augustus (27 BC – AD 14) to Philip I (244-249) are counterfeited. At Porolissum counterfeited pieces represent up to 40% of the total amount of silver coins, Apulum has a proportion of 45% of counterfeited pieces while the site from Arcobadara 28%, Buciumi has 44% and Samum with 36%. There are some settlements with lower values, such as Potaissa with 13% and Ulpia Traiana Sarmizegetusa with 18%.

In the case of Potaissa, recent studies have offered the possibility of a detailed analysis for the numismatic material coming from inside the *castrum* and civil area¹³³. The coefficients for counterfeited pieces from the fortress have much higher values that index from the civil settlement¹³⁴. Thus, the apparently different situation – because of the low percentage of counterfeit pieces on an archaeological site with a massive military activity – is based, practically, on the contribution with genuine silver coins made by the civil settlement when trying to establish the graph of monetary distribution for all Potaissa, civil settlement and military

¹³³ GASPARD 2014, 69.

¹³⁴ GASPARD 2014, 71.

fortress. The highest values for counterfeited pieces from the military area (28,4%) the general pattern observed on many sites from Roman Dacia, the coefficients for counterfeited pieces being higher than those for genuine coins during the Severan period¹³⁵.

Meanwhile, in Roman Pannonia, the studied sites present a similar situation with that from Roman Dacia, counterfeited pieces show in significant quantities such as Intercisa which has a proportion of 13% for counterfeited coins, Solva with 10%, Brigetio at 22% and Carnuntum with 19%.

For sites like Ad Mures, Arrabona, Scarbantia, Mursella and Gorsium-Herculia there have been identified to few counterfeited pieces, the resulted proportions may induce a bad interpretation. This apparently lack of counterfeited coins on sites located in Pannonia is more likely the result of how the discovered coins have been interpreted. The researchers from the time when these pieces were discovered, did not had all the knowledge we have today about numismatic interpretation and in some cases the historians did not had direct access to the numismatic material, only some published information about the discoveries.

Alongside the contrasting situation from Dacia, this conclusion is also supported by the resulted data coming from the archaeological site of Carnuntum, where there have been discovered over 40.000 coins in total. The rest of the studied sites from Pannonia have a suspiciously low amount of counterfeited pieces. After analysing the coin catalogues from FMRU it is very clearly that the authors of these volumes have limited themselves to the interpretation of the older published works without having direct access to numismatic material.

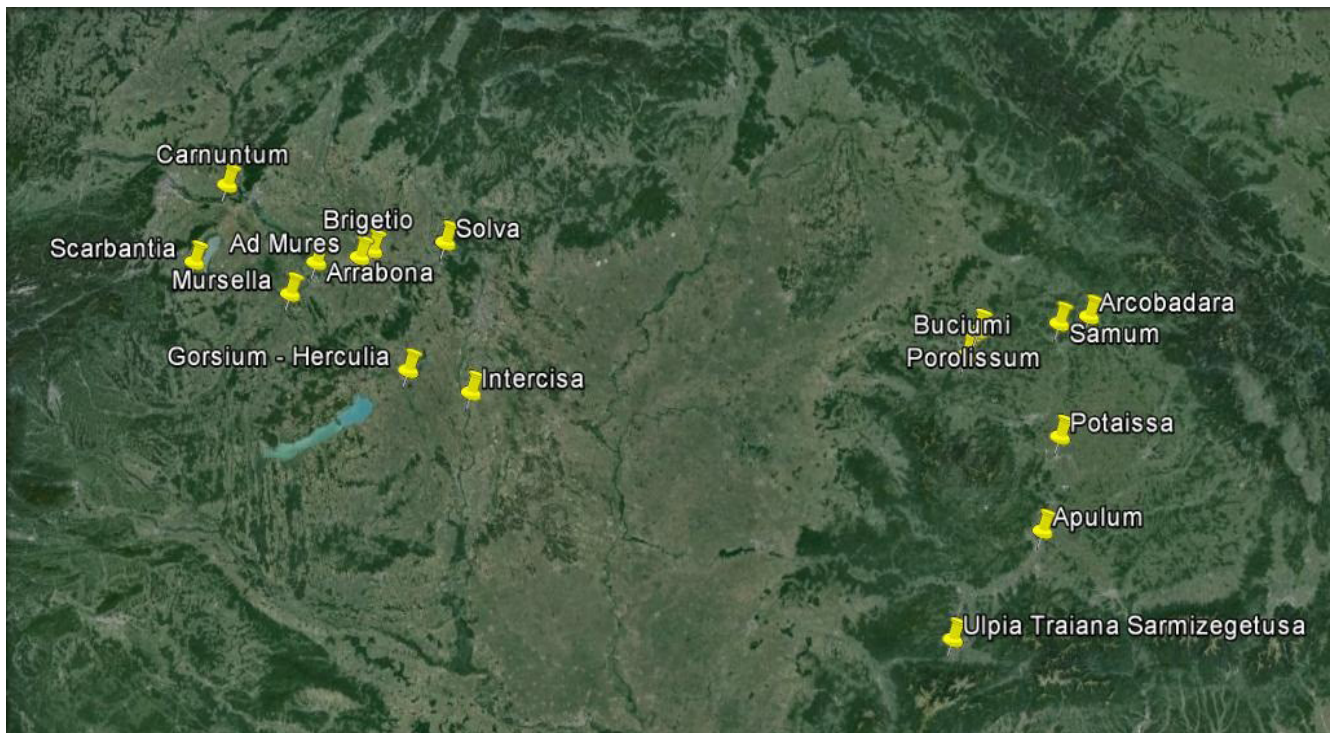
Another important aspect is deducted when analysing the graphs. These point clearly towards the Severan dynasty, characterised by many historians as a period of economic prosperity¹³⁶, as being a façade for the beginning of the monetary crises. As we have seen, on many of the sites there have been recorded high amounts of coin for this period, especially counterfeit pieces (Fig. 55).

Therefore, these graphs enable us to extract a historical-economical-financial conclusion: the heavy debasement and drop in quality of the Roman silver coin under the Severan period. The growing need of coin, in order to maintain the payment of military troops in a time when payments for units was risen by Septimius Severus (193-211) and Caracalla (211-217)¹³⁷, while the main sources of precious metal were depleting, brought in usage a new silver coin by the state, which in norms of legislation was illegal, the plated type. Basically, the huge quantity of counterfeited piece point towards a mass production, the Roman authority becoming the “counterfeiting mastermind”.

In the case of hybrid coins, these type of pieces remain an oddity of numismatics. For the studied period we can only show the lack of any pattern of distribution for these pieces, being recorded randomly and in very small amounts, between 1% and 3% for different issuers.

It is very interesting to observe if these so called anomalies of the Roman monetary system, distributed in the empire and used in everyday life, will someday be accepted as “normal” monetary types with the discovery of more “official hybrids” of the same type.

When taking into consideration the large number of coins issued by the state, this kind of errors are a normal phenomenal. Plated hybrid pieces are just counterfeited coins which fit most of the time in the chronological pattern



Map 1 – Map with studied sites;

¹³⁵ GĂZDAC 2009, 1494-1496.

¹³⁶ WILSON 2007, 292. PÍSLARU 2011, 25. PÍSLARU 2011, 81.

¹³⁷ DEVELIN 1971, 688-695. MAZZARINO 1984, 435-437. PÍSLARU 2011, 81.

of counterfeited pieces, the main problem with these coins is the same with any counterfeited piece, the only valid dating of this artefacts being the *terminus post quem* of the genuine model.

The phenomenal of counterfeit silver coins is not specific only for these two provinces of the Roman Empire, Dacia and Pannonia. Counterfeiting pieces in large quantities is a trait that covers vast parts of the empire, being even considered an epidemic phenomenal¹³⁸.

This fact can indicate a deliberate ignorance of the law by the state and an unsaid pact kept with the local authorities, during times of crises, based on the supply with quality coins made out of precious metal. This happened in close association with the army, the highest proportions of counterfeited coins being found close to auxiliary and legionary fortresses¹³⁹.

Finally, it's worth mentioning that when trying to study the monetary circulation and distribution from a region during a determined period of time, it's important to have a detailed analysis of the used pieces, preferably done with access to the numismatic material, in order to obtain the correct image of the situation.

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¹³⁸ KING 1996, 246 GĂZDAC/ALFÖLDY-GĂZDAC 2001, 145. PETER 2004, 23-25.
¹³⁹ GĂZDAC/ZĂGREANU 2008, 237-241. GĂZDAC 2009, 1487-1498. GASPAR 2014, 71.

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SETTLEMENTS FROM THE 2ND-EARLY 5TH CENTURY AD IN BANAT (I). STATE OF RESEARCH AND THE INTERPRETATION OF THE DISCOVERIES FROM ROMANIA¹

Abstract: The present paper was based on 351 settlements identified in the archaeological literature throughout the highland and lowland areas of the Banat, dated between the 2nd century and the beginning of the 5th century AD. The sites are overwhelmingly ascribed as Daco-Roman or Dacian, defined as a rural, sedentary population, with uniform, unchanging features throughout 400 years.

Keywords: settlements, Banat, Daco-Roman, ethnic attribution, chronology

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THE INTERPRETATION OF THE FINDS AND THEIR ETHNIC ATTRIBUTION

The present paper was based on 351 settlements identified in the archaeological literature throughout the highland and lowland areas of the Banat, dated between the 2nd century and the beginning of the 5th century AD.² The aforementioned figure is highly contingent as the

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² The region under scrutiny, known from the 18th century onward under the name of Banat, is today divided between three states: Romania, Serbia and Hungary. The geographical borders of the region are: the Mureș River in the north, the Tisa River in the west, the Danube in the south, and the Carpathian Mountains to the east. 18966 km² of the territory is part of present day Romania (Timiș and Caraș-Severin Counties along with some parts of Arad and Mehedinți Counties), 9276 km² belong to the Autonomous Province of Vojvodina in Serbia, and a territory of 284 km² is part of Hungary (Csongrád County). Within this vast region O. Bozu identified initially over 130 settlements dated between the 3rd and 4th centuries (BOZU 1990, 158). According to a later assessment (BEJAN 2000, 519), some 455 rural settlements are mentioned, belonging to the perimeter of 188 present day townships within the historical Banat (not including the Szeged area), as follows:

	No. of modern townships	No. of identified rural settlements
Townships with a single rural settlement identified	104	104
Townships with two rural settlements identified	31	62
Townships with three rural settlements identified	17	51

vast majority of the sites (around 90%) were identified as a result of non-intrusive methods, rather than systematic archaeological research. A further shortcoming is due to the fact that neither one of the sites was investigated in its totality, only certain features were excavated, while the finds, consisting overwhelmingly of pottery, were published in a selective manner devoid of typological classification and statistical analysis.

The beginnings of the archaeological investigation of 2nd–5th century settlements can be traced back to the 1980's (Hodoni–Pustă,³ Timișoara–Freidorf,⁴ Grădinari–Săliște,⁵ Moldova Veche–Vinograda Vlașkikrai,⁶ etc.), the researched sites being attributed to a Daco-Roman population, resulted from the 'synthesis of Roman material culture with specific elements adopted from the Dacian environment'.⁷

The majority of these studies contain merely the description of the archaeological features and finds, without drawing a comparison with archaeological situations reported in the western part of the Banat, in the *Barbaricum*. The occasional search for analogies was strictly limited to the territory of Roman and pre-Roman Dacia, to the east of the Banat.

This method leads to contradictory interpretations concerning the finds and complexes associated with 2nd–5th century AD settlements of the Banat region in the three implicated countries Romania, Serbia and Hungary. These interpretations and ethnic ascriptions were often determined by nationalist agendas. Consequently, in Romania these settlements were attributed to a Daco-Roman population,

Townships with four rural settlements identified	10	40
Townships with five rural settlements identified	9	45
Townships with six rural settlements identified	4	24
Townships with seven rural settlements identified	1	9
Townships with ten rural settlements identified	2	20
Townships with over ten rural settlements identified	3	48
		Alibunar 11, Biled 19, Gătaia 18
Total	188 townships	455 settlements

In 1996 D. Benea mentioned an identical number of 455 rural settlements identified mostly through field surveys (BENEA 1996, 122). Later on M. Mare identified 375 settlements dated to the 2nd–4th centuries AD (MARE 2004A, 49). In a recent paper D. Micle pointed out 335 present day townships with 'post-Roman settlements dated between the 2nd century and the beginning of the 5th century AD' in their perimeter (MICLE 2011, 276) while B. Muscalu mentioned 460 such settlements (MUSCALU 2009, 101). The abovementioned figures resulted from the quantification of both Roman and barbarian/Sarmatian settlements from Banat and the Dierna–Tibiscum line, interpreted as manifestations of the Daco-Roman culture. The present paper will address exclusively the problem of the modest settlements characterized by small and medium-sized sunken houses built in simple earth and timber techniques and their equally unpretentious annexes, from the Romanian part of Banat.

³ BEJAN 1981A; BEJAN 1981B; BEJAN 1995; BEJAN/BENEA 1985.

⁴ BENE 1997.

⁵ BOZU 1990.

⁶ BOZU/EL SUSI 1987.

⁷ BENE 1996, 114.

in Serbia they were linked to early Slavic inhabitants, while Hungarian researchers asserted the persistence of the Sarmatians in the area throughout the timespan between the 1st and 5th centuries AD.⁸

These discrepancies were highlighted on numerous occasions by historians, however without offering an objective research model or a solution to this paradox.⁹ A. Bejan și M. Mare underlined the existence of two models of interpretation:

- The association of the settlements with a Daco-Roman population (in the Romanian literature)
- The association of the settlements with a Sarmatian population (in the Hungarian and Serbian literature)¹⁰

D. Micle further emphasised the divergent cultural interpretation, according to the author the term 'Daco-Roman' is utilized exclusively in the Romanian literature, while the term 'Iazyges' is only to be found only in the Hungarian literature. The historian argued for the existence of mixed populations comprised of Romanised Dacian and Sarmatian elements in the area.¹¹ The possibility of a similar cultural melange was also put forward by B. Muscalu. Although the author rejects the prospect of 'ethnic purity',¹² his interpretations follow two lines which eventually give birth to a paradox, asserting that the settlements recorded in the Banat lowland belonged to Daco-Romans, while the necropolises from the same region belonged to the Sarmatians.¹³ According to this theory the material culture of the Sarmatians is perceivable exclusively in the case of the necropolises, which 'owing to the funerary ritual and ceremony offer the only clear elements of ethnic ascription'.

¹⁴ Foeni–Seliște (Timiș County) is the only Sarmatian settlement recognized as such on the Romanian side of the Banat, due to its connection to a Sarmatian cemetery.

¹⁵ In addition to this there are only settlements with Dacian and Roman pottery belonging to a sedentary population with hitherto unknown cemeteries. Therefore, the term 'Sarmatian settlements' in the case of the Banat lowlands is strongly rejected in the literature.¹⁶

The lack of 'ethnic purity' is also addressed by M. Mare and D. Tănase in the case of the settlement from Timișoara–Freidorf, which is than extrapolated by the authors to the entire Hungarian Plain, the argument being that during the 3rd–4th centuries AD there is no evidence for 'an exclusively Sarmatian presence in the rural communities of the time'. For instance, the discovery of handmade pottery displaying specific Dacian forms and decoration could be an indication

⁸ GRUMEZA 2014, 27–36.

⁹ According to D. Benea the difficulties of ethnic ascription in this case are due to the fact that no Sarmatian or indeed no Daco-Roman rural settlement has ever been completely researched. Consequently, only full-scale, comprehensive archaeological research could help overcome these historical ambiguities (BENE 1996, 115).

¹⁰ MARE 2004, 251.

¹¹ MICLE 2011, 179.

¹² MUSCALU 2009, 150.

¹³ MUSCALU 2009, 150.

¹⁴ MUSCALU 2009, 98.

¹⁵ MUSCALU 2009, 103. The example cited by the aforementioned author is not a suitable option considering that we are dealing with two different sites: Foeni–Seliște (a Sarmatian period settlement) and Foeni–Cimitirul Ortodox (Sarmatian period cemetery), the distance between the two sites is about 3 km, see GRUMEZA 2011, Pl. I/2.

¹⁶ MUSCALU 2009, 99–101.

of the presence of this population in the region.¹⁷

The main concept behind this interpretation was that the habitat of the Banat lowlands is optimal for a sedentary indigenous population, and less suitable for nomadic Sarmatian communities comprised of cattle and horse breeders¹⁸. It is obvious that the passage XXVI, 2 from Ammianus Marcellinus, in which the Sarmatians were presented as a nomadic population, was adopted uncritically by Romanian researchers.¹⁹ 'Bearing in mind the nomadic lifestyle of these populations (...) the stable settlements of the Banat lowlands cannot be attributed to the Sarmatian Iazyges, but only to the Daco-Roman natives'.²⁰ Therefore, we are dealing with a Daco-Roman habitat, 'a synthesis of Roman material culture and elements belonging to the Dacian environment'. This synthesis resulted in a Romanic culture.²¹

A different opinion was articulated by E. Dörner, during the 1970's. The historian from Arad showed that the finds from the Banat lowlands coming from Cenei, Sânnicolaul Mare, Cherestur, Dumbrăvița, Timișoara-Cărămidărie, Timișoara-Freidorf, Moșnița, Bărateaz, Zădăreni I, II, Sânpetru German I, II, Checea, Beba Veche, Hodoni, Beșenova Veche, Tomnatic, Lovrin, Vizejdia, Satchinez, Cerneteaz, Săcălazi, Șag, Ciacova and Deta (25 sites in total), belonged undoubtedly to the Sarmatian Iazyges throughout the entire timespan between the 1st and 4th centuries AD.²² Furthermore, Dörner was familiar with the contemporary Hungarian studies regarding the Sarmatians from the Great Hungarian Plain. Consequently, the author dated the beginning of the Sarmatian presence in Crișana to the 1st-2nd centuries AD based on the discovery from Vârșand, while the same phenomenon was dated to the 2nd century in the case of the Banat, based on the discovery from Beba Veche, along the line of Hungarian historians A. Alföldi and M. Párducz.²³

¹⁷ MARE/et al. 2011, 99.

¹⁸ MARE 2004A, 51; MUSCALU 2009, 99; BENE 2013, 114.

¹⁹ The explanation put forward in the Hungarian literature for the absence of settlements in the Great Hungarian Plain between the mid-1st century and the first half of the 2nd century is based on the nomadic and semi-nomadic lifestyle of the first Sarmatian communities which settled in the region. In time the Sarmatians were compelled to renounce their traditional way of life due to the geographical conditions of their new home (VADAY/SZEKERES 2001, 261; ISTVÁNOVITS/KULCSÁR 2013, 195). Furthermore, the eastern nomadic populations, comprised of shepherds and warriors settled in the Carpathian Basin were faced with a number of challenges: a limited territory, a different climate marked by a high rate of precipitations and overpopulation. These topographical, climatological and political adversities stimulated the Sarmatians to adopt new survival strategies, including sedentariness. Isolated from their habitual geographic environment, they gradually lost a significant part of their archaic material culture which defined the group culturally in the Eurasian steppe; the funerary rituals were simplified, the funerary inventory was reduced in quantity and became less sophisticated, while the usual imports from the north Pontic area were replaced with goods imported from the western part of the Empire. The entire Sarmatian way of life was transformed. Therefore, it can be asserted that this nomadic population developed a new material culture in the Great Hungarian Plain (BARTOSIEWICZ 2003, 105, 120; VADAY 1999; ISTVÁNOVITS/KULCSÁR 2013, 194).

²⁰ MARE 2004A, 51.

²¹ MARE 2004A, 250; BEJAN/BENE 1985, 197.

²² DÖRNER 1971, 687.

²³ DÖRNER 688-687, 1971. Hungarian historian A. Alföldi argued in numerous studies that the territory between the Mureș, Tisa and Danube Rivers was not part of Roman Dacia, being controlled by the Sarmatian Jazyges as early as the end of

According to D. Benea the ethnic ascription of the aforementioned sites is governed by confusion both in the Romanian, but especially in the foreign (Hungarian and Serbian) archaeological literature. Romanian researchers interpreted these finds as either Sarmatian or Dacian. Furthermore, the same historian considers that in the case of similar sites in the region between the Tisa and the Danube Rivers, their interpretation as Sarmatian settlements might be of assistance in the chronological correlation of Sarmatian settlements and cemeteries.²⁴ This chronological inconsistency between settlements and cemeteries is due to the research methods implemented at that time: the field walking and small-scale archaeological surveys exposed only small pieces of settlements and cemeteries. The concurrent research of settlements and their corresponding cemeteries (e.g. Arad-*Barieră*;²⁵ Giarmata-*Sit 10*;²⁶ Seceani-*Obiectiv nr. 02 și 03*;²⁷ Murani-*Obiectiv nr. 4*;²⁸ Hunedoara Timișană²⁹) was made possible only in recent years as a result of extensive infrastructural development works.

2. DISTRIBUTION, DIMENSIONS AND THE CLASSIFICATION OF SETTLEMENTS

In the archaeological literature various criteria of classification were put forward for these settlements:

A. From a geographical point of view, a distinction was made between:

1. Lowland settlements
2. Highland settlements
3. Mountainous settlements³⁰

Concerning the distribution of settlements in the Romanian part of the Banat it is observable that a part of these settlements are grouped on the main rivers of the region (Mureș, Aranca, Bega, Timiș, Caraș etc.),³¹ while most of them can be found in the interfluvial areas (Fig. 1). According to M. Mare the highest settlement density can be observed in the Banat lowlands, e.g. 8 settlements were identified in the territory of Satchinez and 5 at Frumușeni. This is followed by the highland areas (e.g. 18 findspots were identified at Gătaia and 8 at Gherteniș) and the depressionary regions (e.g. 5 settlements were identified at Vrâniuț and 5 at Berliște).³² Nevertheless these figures must be handled with caution as the respective sites were identified exclusively based on non-intrusive surveys. Probably as a result of this shortcoming, in the case of the township of Liebling no less

the 1st century AD (ALFÖLDI 1939, 533-534). C. Daicoviciu rejected this theory and asserted that the Jazyges arrive in Banat only in the second half of the 3rd century, subsequent to the Roman withdrawal from Dacia (DAICOVICIU 1940, 104). Daicoviciu's standpoint determined most of the research concerning the 2nd-4th century Banat, Romanian researchers almost unanimously adopting his views.

²⁴ The settlements in question belong to a sedentary environment comprised of a population which inhabited the territory between the Danube and Tisa Rivers (BENE 2013, 114).

²⁵ GRUMEZA/URSUȚIU/COPOS 2013.

²⁶ GRUMEZA 2013, 413-414.

²⁷ IONESCU/et al. 2010; PÂSLARU/et al. 2010.

²⁸ PÂSLARU/et al. 2010.

²⁹ BĂRCĂ 2014.

³⁰ MARE 2004A, 34.

³¹ MARE 2004A, 28.

³² MARE 2004A, 28.

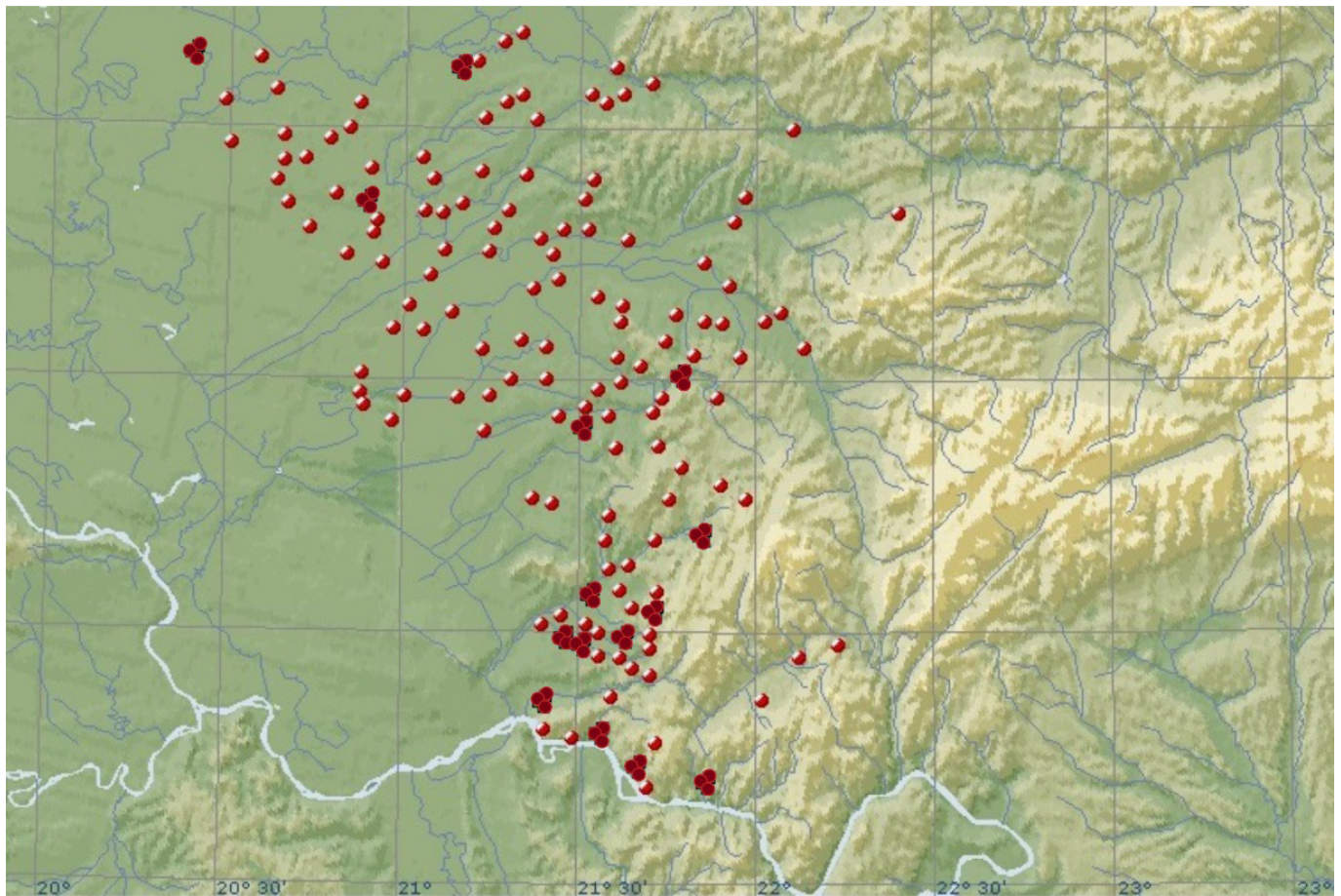


Fig. 1. Distribution of settlements in the Romanian part of Banat (2nd–early-5th century AD)

than 40 ‘archaeological objectives’ belonging to the 2nd–5th century AD were recorded.³³

The positioning and organisation of the habitat were obviously adapted to the natural environment. All considered settlements are unfortified and ‘open’.³⁴ The excavations from the Central Tisa region showed that the settlements from this period were situated in close proximity of each other, having a temporary character probably due to the depletion of the community’s farmland.³⁵ The possibility of migration, caused possibly by demographic expansion against the backdrop of an extensive farming tradition, was also put forward.³⁶

Furthermore, the houses show no traces of reparations or renovations, suggesting that they were abandoned as new dwellings were built. The only known instances of houses violently destroyed by fire are the ones from Baranda–Cigłana (the Serbian part of Banat) and Grădinari–Seliște.³⁷ In the majority of cases the concentration of dwellings indicate large farms surrounded by cropland and grazeland, while smaller settlements are known only in the mountainous areas.³⁸ In most cases the 2nd–5th century sites show no signs of systematisation. The only elements of systematisation which indicate a certain degree of recurrence are related to the workshops which usually can be found either in the

back of the houses, at the edge of the settlements or in the immediate vicinity of the craftsman’s house. Wells and water basins were placed either in the proximity of watercourses or between the houses. The houses were surrounded by storage pits and flood protection ditches.³⁹

In the case of the late site from Arad–Barieră, it was observed that the houses and annexes display a tendency of grouping into ‘nests’. A first group was identified in the north of the site, while further two similar groups, comprised however of fewer and more dispersed structures, are located to the right and to the left of the aforementioned area, presumably where the cemetery was beginning. The limit between the settlement and the necropolis was duly marked.⁴⁰ At Timișoara–Freidorf, on a researched area covering 0.5 ha, the houses and annexes belonging to both phases of the settlement were concentrated on the central area of the promontory, while the pottery kilns were placed in the vicinity of the settlement’s margin.⁴¹ In the same site the structures were positioned at variable distance from each other, with a tendency of grouping into ‘nests’, while the presence of aligned postholes suggests the marking of property limits.⁴²

A different situation was observed at Hodoni–Pustă, where the structures were aligned in rows with 7–10 m distance between the houses and rows.⁴³ Both in the case of

³³ FLOCA 2013, 123–138, 168; Tab. 8.

³⁴ MARE 2004A, 27; MARE/et. al. 2011, 95.

³⁵ GRUMEZA/URSUȚIU/COPOS 2013, 14.

³⁶ MARE 2004A, 50.

³⁷ MARE 2004A, 34.

³⁸ MARE 2004A, 28.

³⁹ GRUMEZA/URSUȚIU/COPOS 2013, 13–15 with bibliography.

⁴⁰ GRUMEZA/URSUȚIU/COPOS, Pl. II.

⁴¹ MARE/et. al. 2011, 95.

⁴² MARE/et. al. 2011, 95.

⁴³ MARE 2004A, 33.

the aforementioned site and at Sânnicolau Mare–*Seliște* the homesteads were encircled by ditches and fences.⁴⁴

B. According to dimensions, A. Bejan distinguished between:

1. Small settlements (between 2,500 and 10,000 m²)
2. Medium settlements (between 15,000 and 30,000 m²)
3. Large settlements (between 40,000 and 250,000 m²)⁴⁵

According to M. Mare the maximum dimension of 25 ha proposed for the rural settlements should be treated with caution.⁴⁶ One cannot ignore the fact that on the territory of present-day Hungary a number of large Sarmatian settlements were extensively researched, such as the one from Szeged–Kiskundorozsma–*Nagyszék II* (Site 26/72, No. 35, on the M5 motorway), where 708 1 overwhelmingly Sarmatian features were uncovered, spread on a surface of 55 099 m², the total surface of the settlement ranging between 72 000 and 108 000 m². Furthermore, at Cegléd (4/14–*Bürgeházi-dűlő*) in Pest County a 44 672 m² surface was uncovered, where 776 Sarmatian features were discovered.⁴⁷

Considering that in Banat not a single settlement was completely researched, their extent is difficult to assess. There are only three published instances of 2nd–4th century settlements for which the approximate dimensions are known: Arad–*Barieră*, Timișoara–*Freidorf* and Dumbrăvița, all researched through development led excavations. In case of the site from Arad–*Barieră*, 12 236 m² were uncovered, but certainly the Sarmatian settlement extended beyond this perimeter towards the east and west, the research being confined to the eastern and western limits of the motorway.⁴⁸ A larger surface was presumed in case of the Dumbrăvița settlement, which seemingly encompassed an area between 20 000 and 30 000 m².⁴⁹

C. According to site character a distinction can be made between:

1. Agrarian and herding sites
2. Agrarian and production sites (pottery production and ironworking)⁵⁰

The agrarian character of these settlements is suggested by the presence of numerous storage pits, hand mills (found in every settlement), charred seeds (found at Timișoara–*Freidorf* and Saravale), as well as agricultural tools, present in high numbers at Moldova Veche–*Vinograda Vlaškikrai*.⁵¹

Pottery kilns were reported from the rural area of Banat, from Grădinari–*Seliște*, Timișoara–*Freidorf*, Drăgșina and Hodoni. Three kilns belonging to Henning type B were investigated at Grădinari–*Seliște*. This type of kilns are known for their central walls and single flue. Their body is conical with a circular raised oven-floor, except for kiln no. 2, which has an oval plan, somewhat resembling a horseshoe.⁵²

⁴⁴ BEJAN 2000, 532.

⁴⁵ BEJAN 2000, 520.

⁴⁶ MARE 2004A, 29.

⁴⁷ SZALONTAI/TÓTH, 78–79.

⁴⁸ GRUMEZA/URSUȚIU/COPOS 2013, 14.

⁴⁹ DRAȘOVEAN/et al. 2004, 38.

⁵⁰ MARE 2004A, 29. Similarly D. Micle mentions Daco-Roman settlements with an agrarian and herding character and production-based Daco-Roman settlements (MICLE 2011, 181–182).

⁵¹ BENE 1996, 163–164.

⁵² BOZU 1990, 149.

The dating of the contexts starts with the first half of the 3rd–first half of the 4th century, based on the coins of Claudius II, Gordian III and Constantius II.⁵³ The pottery assemblages consist overwhelmingly of wheel thrown fine grey ware (95%), while only a small portion is handmade (5%).⁵⁴

The settlement is situated in the vicinity of the Lederata–Arcidava (Vărădia)–Berzobis–Tibiscum road, at only 3 km from the fort and civilian settlement from Vărădia.⁵⁵ Taking into account the position of the site as well as the number of kilns analysed, one can presume that the workshop was of considerable dimensions. A similar settlement, although much larger, was researched at Üllő, southwest from Budapest, also in the immediate vicinity of the limes, where approximately 50 kilns were excavated.⁵⁶

A similar situation was reported in the case of the settlement from Timișoara–*Freidorf*. One of the kilns had an oval shape, its diameter varying between 60 and 70 cm; the superstructure was not preserved, the walls had clay lining on the interior, their preserved height being 24 cm. The kiln had a reverberator plaque and a cross-like daub structure composed of four arms. The second kiln was similar, the only major difference was the presence of six arms instead of four.⁵⁷ Within the assemblages from the settlement, the wheel thrown fine reduced ware has the highest proportion, followed by the brownish handmade coarse ware. A low number of fragments belonging to oxidised colour-coated Roman provincial wares, as well as amphorae and *terra sigillata* fragments were also discovered.⁵⁸ The local pottery thrown on the slow wheel is also present in significant numbers and dated between the second third of the 4th century and beginning of the 5th century AD.⁵⁹ The local pottery assemblages are comprised mainly of tableware, namely bowls, jugs, flagons and cups, and respectively storage vessels used both for the keeping of prepared foods and supplies: jars, two-handled vessels and storage vessels.⁶⁰

In Timișoara–*Drăgșina*, on the left bank of the Timiș River a large pottery kiln of Henning type B, with central wall, was discovered.⁶¹ The products linked to the kiln consist of storage vessels (11.82%) with biconical bodies, pots as well as bowls with either footring or raised platform, produced mostly of semi-fine fabrics.⁶²

In the settlement from Hodoni dated to the 3rd–4th centuries AD, a circular pottery kiln was discovered (type Henning B?) with the diameter of 1.7 m, its raised oven floor destroyed probably already in antiquity. The pottery from the settlement consists of handmade and wheel thrown vessels. The former, amounting to 10% of the assemblage, is made up of coarse brownish-grey pots, while the latter consists mostly of reduced fineware (70%) in addition to some oxidised fineware (30%).⁶³

The local pottery production is overwhelmingly based

⁵³ BOZU 1990, 157.

⁵⁴ BOZU 1990, 152.

⁵⁵ BOZU 1990, 158.

⁵⁶ KULCSÁR/MERAI 2011.

⁵⁷ MARE/et al. 2011, 11.

⁵⁸ MARE/et al. 2011, 12.

⁵⁹ MARE/et al. 2011, 44.

⁶⁰ MARE/et al. 2011, 45.

⁶¹ MICLE 1997, 77.

⁶² MICLE 1997, 78.

⁶³ BEJAN 1995, 376.

on the manufacture of wheel thrown burnished grey wares, consisting of jars, pots, storage vessels, often decorated with incised wavy lines, occasionally displaying figurative decoration. The handmade pottery, as well as the pottery thrown on the slow wheel is usually represented in small proportions, however higher numbers are characteristic to certain sites, such as Timișoara–Freidorf.

A further category of the so-called ‘agrarian and production sites’ is comprised of the sites based on iron processing. The most important iron deposits can be found at: Oravița, Moldova Nouă, the perimeter of Bocșa-Dognecea-Ocna de Fier, and the middle course of the Bârzava River (from Reșița, Berzovia, Șoșdea, up until Gătaia).⁶⁴ The iron processing in the lowlands was usually based on the low-quality and low metal content secondary deposits, the so-called bog iron. Furnaces used for bog iron processing were discovered at Biled, Cărpiniș, Dragșina and Cerna.⁶⁵ At Criciova–Râtuț lu Mocrean a small-sized circular based furnace with conical superstructure was discovered, similar to furnaces known from Șoșdea, Fizeș, Reșița and Berzovia. Near the base of the furnaces one or two perforations could be usually found, used for the insertion of the tuyere.⁶⁶ Furthermore two fragments from small-sized iron blooms (the bloom discovered at Berzovia weighed 40 kg). The vast majority of the pottery discovered in the area of the furnace (89%) displays a high degree of similarity to Dacian pottery.⁶⁷ The furnace was dated to the 3rd century AD.⁶⁸

Production sites can usually be found in the close proximity of prime material deposits (iron, clay, etc.). The vicinity of water courses and forests was also essential for manganese production as part of the smelting process.⁶⁹ The pottery kilns and household ovens were usually placed on the margins of the settlements, as e.g. in the case of Grădinari–Săliște.⁷⁰ The extraction and processing of the iron minerals was concentrated in the hilly and mountainous areas of Southern Banat, where according to M. Mare there are 119 identified iron processing production sites (94 in the highlands, while further 24 sites were based on the smelting of so-called bog iron).⁷¹

3. THE ARCHAEOLOGICAL FEATURES WITHIN THE INVESTIGATED SETTLEMENTS

As already mentioned above, 90% of the sites were identified through non-invasive methods, consequently the number of excavated archaeological features is very low: 3 at Criciova–Râtuț lui Mocrean, 6 at Foeni–Seliștei, Lugoj–Știuca Veche and 16 at Hodoni–Pustă. A larger amount of features was researched owing to development led archaeology, resulting in the excavation of 48 features in Arad–Barieră and a further 63 at Timișoara–Freidorf. Even so, the number of investigated houses, storage/refuse pits or ovens is extremely low, amounting 195.

For the description of the **houses**, usually the terms

⁶⁴ MARE 2004A, 31.

⁶⁵ MARE 2004A, 31.

⁶⁶ BENE 1993, 81.

⁶⁷ BENE 1993, 82.

⁶⁸ BENE 1993, 82.

⁶⁹ MICLE 2011, 181–182.

⁷⁰ MARE 2004A, 34.

⁷¹ MARE 2004A, 133.

‘surface houses’ and ‘sunken houses’ are employed in the archaeological literature. According to M. Mare the dwelling structures which are between 30 and 40 cm below the walking level can be termed *surface houses* (32%), while the *sunken houses* (68%) are usually as deep as 1 m below the walking level.⁷² Their plan is usually rectangular, circular or irregular.⁷³ Occasionally dwellings with oval plans have been recorded, but the majority of discoveries have rectangular/square plans.⁷⁴ The entrance was placed on one of the short sides, opposed to the wind direction.⁷⁵

Typically, the area of a sunken house is about 14 m², while that of a sunken house ranges between 9.7 and 14 m².⁷⁶ Unfortunately in most cases the upper part of the houses was destroyed by agricultural interventions. Their structural frame was made up of girders covered by a compact layer of clay mixed with straw or chaff. A similar wooden frame was also employed for the roof built in both the gable roof and hip roof versions and covered with straw or chaff.⁷⁷ For the fastening of the components, no metal implements were used, the builders relying on wood-binding techniques instead.⁷⁸ At Moldova Veche–Vinograda the walls were made from wattle and daub, the diameter of the wattle ranging between 2 and 5 cm.⁷⁹

Houses with two rooms are extremely rare, indeed only two such structures were reported thus far, one from Hodoni–Pustă and one from Timișoara–Cioreni.⁸⁰ Refurbishments and restoration phases were noticed in the case of structures from Lugoj–Știuca Veche, Hodoni–Pustă and Timișoara–Cioreni, which display two or even three such phases.⁸¹ In the case of houses from Hodoni–Pustă and Timișoara–Cioreni, it was noticed that the structures were enlarged at a later phase. Even so, these interventions were made at fairly short intervals.⁸² Nearly half of the houses were equipped with interior hearths, usually circular, occasionally rectangular, with clay lining and surrounded by stones, or ovens burrowed in one of the houses’ walls.⁸³

All of the 8 houses of the Sarmatian settlement from Arad–Barieră analysed in 2013 were rectangular sunken houses with rounded corners, with two or three central postholes. Besides wood, clay was also used in the superstructure of the houses, indicated by the numerous daub fragments discovered both inside the houses and in the refuse pits. Most of the houses display medium or small dimensions with areas ranging between 9 and 10 m², the largest one having a surface of 10.8 m², while the smallest one 4.45 m². The identification of the entrances was not possible. The only probable identification of an entrance can be supposed in the case house 061a, on the opposing side of the hearth. Furthermore, given the usual NW–SE orientation of the houses the entrance can be hypothetically placed on the

⁷² MARE 2004A, 137.

⁷³ MARE 2004A, 40–41.

⁷⁴ BEJAN 2000, 529.

⁷⁵ MARE 2004A, 40.

⁷⁶ MARE 2004A, 40–42.

⁷⁷ MARE 2004A, 40.

⁷⁸ MARE 2004A, 40.

⁷⁹ BOZU/EL SUSI 1987, 244.

⁸⁰ MARE 2004A, 40.

⁸¹ MARE 2004A, 35.

⁸² BEJAN/BENE 1985, 191–192; MARE 2004A, 42.

⁸³ MARE 2004A, 43.

south-eastern side, thus the dwellers would have benefited from the maximum amount of natural light. None of the 8 investigated houses showed signs of refurbishment phases neither in the case of the floor nor the oven from house 061a, indicating thus a relatively short period of use.⁸⁴

The exterior annexes of the houses include hearths, ovens, pottery kilns, storage/refuse pits and fences. The number of **storage pits** varies according to the dimensions and the character of the settlement. The site from Hodoni–Pustă yielded 16 storage pits and 7 refuse pits, while the settlement from Timișoara–Freidorf 22 storage pits and 20 refuse pits.⁸⁵ Some of these pits have both internal and external features, such as an external roof suggested by the presence of postholes next to the storage pits, as well as interior steps⁸⁶.

The storage and refuse pits are the most common archaeological features discovered in these sites across the Great Hungarian Plain. From a typological standpoint, according to their section, the following types have been identified: pits with straight sides, with a flat or concave base, trapezoidal shaped (the opening wider than the base), bell-shaped, funnel-shaped and irregular pits. In addition to these, so-called systems of pits or double-pits which were simultaneously in use, with identical fills and finds were also recorded.

The **wells** played an essential role in the daily life of the Sarmatian communities, as a crucial source of drinking water and equally important in animal husbandry and other aspects of their economy. Wells can be classified according to multiple criteria: the shape of the roof, the lining, the structure of the water extraction mechanism, the shape of the channel as well as the type and building technique of the frame.⁸⁷ Unfortunately a considerable proportion of the wells' elements were made of perishable materials, while in most cases their base cannot be explored due to the water table. No instances of wells belonging to this period and displaying stone, brick, wood or wattle lining are known in the Banat.

The presence of wells is mainly characteristic to settlements with no water courses, lakes or springs in their vicinity. Even so wells from the Sarmatian period are rarely identified and investigated. At Timișoara–Cioreni a cylindrical well was partially investigated, down to a depth of 2.25 m, and was dated to the latter half of the 4th century AD.⁸⁸ At Arad–Barieră 3 such wells were discovered, in two cases (Cx 017 and Cx 042) wooden girdles were identified in the fill of the complexes, belonging probably to the structure of the wells.

According to D. Benea archaeological complexes such as storage and refuse pits or bread ovens, discovered next to houses 'indicate along with the archaeological material associated with them their belonging to the Dacian environment', considering that we are dealing with 'modest, small, one-room houses built from wood, clay and reed'. These are, according to the aforementioned author indications for the presence of a sedentary Dacian population which

⁸⁴ GRUMEZA/URSUȚIU/COPOS 2013, 15–16.

⁸⁵ MARE 2004A, 44.

⁸⁶ BEJAN/BENEA 1985, 195; MARE 2004A, 44; BEJAN 2000, 531.

⁸⁷ VADAY 2003.

⁸⁸ MARE 2004A, 44.

displayed its cultural conservatism through its dwelling structures consisting of sunken and surface houses.⁸⁹

4. THE INVENTORY OF THE SETTLEMENTS

The identification of the settlements was based on the discovery in their vicinity of 'atypical archaeological finds consisting of grey pottery'. In D. Benea's view these finds are not characteristic to the Sarmatian material culture, considering that 'this population did not use this kind of pottery in the North Pontic area'.⁹⁰

As usual **pottery** finds are the most common archaeological material within the sites from the Banat region. The pottery analysis was usually based on the firing/colour of the ceramics, as well as the morphology and functionality of the vessels. Typological and statistical analysis are very rare, in most cases covering only a part of the material, not the entire assemblage.

In case of the settlement from Grădinari–Săliște 95% of the pottery assemblage consists of wheel thrown vessels, and merely 5% was handmade.⁹¹ At Dragșina, on the left bank of the Timiș River the majority of the pottery vessels (91.6%) consist of wheel thrown grey wares, tempered with sand and mica. Only one fragment from a handmade vessel was found.⁹² Similar statistical data is available in the case of the settlement from Hodoni dated to the 3rd and 4th centuries. The handmade pottery in this case amounts to 10% of the assemblage, consisting mostly of coarse greyish-red pots, while the rest of the assemblage is comprised of good quality wheel thrown pottery of both grey (70%) and red colour (30%).⁹³ From a morphological viewpoint no differences can be noted between the oxidised and the reduced wares. The cooking pots are the most common vessel types encountered.⁹⁴ Based on these pottery analysis, A. Bejan concluded that the material 'proves the continuity of the Roman lifestyle in the Banat region throughout the 3rd and 4th centuries',⁹⁵ without any other notable influences.

According to the statistical analysis carried out for the pottery assemblages recorded at the site Arad–Barieră dated to the latter half of the 4th century AD, 37.14% of the material is comprised of storage vessels, 28.47% are cooking pots and 17.14% are bowls. The flagons and globular vessels amount to only 8.57%.⁹⁶ Over 80% of the analysed vessels are wheel thrown, while the rest are handmade or were thrown on the slow wheel, the distribution corresponding to other 4th century Sarmatian sites from the Great Hungarian Plain.⁹⁷ Further statistical analysis was carried out with regard to the firing and fabrics quality of the vessels from the site (Fig. 2–5).

It is therefore fair to say that the 2nd–5th century pottery is derived from the combination of Dacian, Celtic and Roman technical and stylistic elements.⁹⁸ Burnishing is also characteristic feature of the wheel thrown pottery

⁸⁹ BENEÄ 2013, 299.

⁹⁰ BENEÄ 1996, 114.

⁹¹ BOZU 1990, 151.

⁹² MICLE 1997, 80.

⁹³ BEJAN 1995, 376.

⁹⁴ BEJAN 1995, 376.

⁹⁵ BEJAN 1995, 389.

⁹⁶ GRUMEZA/URSUȚIU/COPOS 2013, 30.

⁹⁷ GRUMEZA/URSUȚIU/COPOS 2013, 37, with bibliography.

⁹⁸ VADAY/JANKOVICH/KOVÁCS 2011, 232.

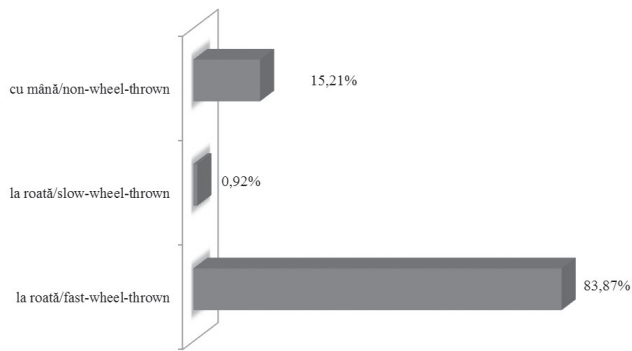


Fig. 2. Production technique of the pottery vessels from Arad-Barieră (GRUMEZA/URSUȚIU/COPOS 2013)

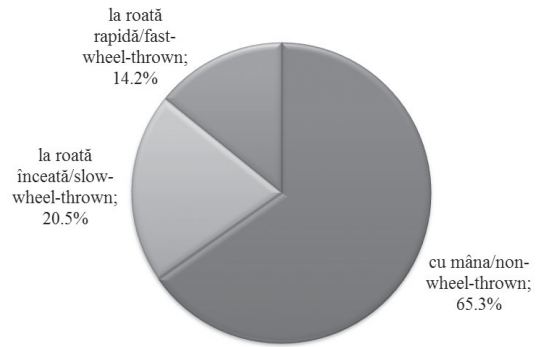


Fig. 3. Production technique of the pottery vessels from the 4th century Sarmatian settlements between the Mureș and Criș rivers (VADAY/RÓZSA 2006)

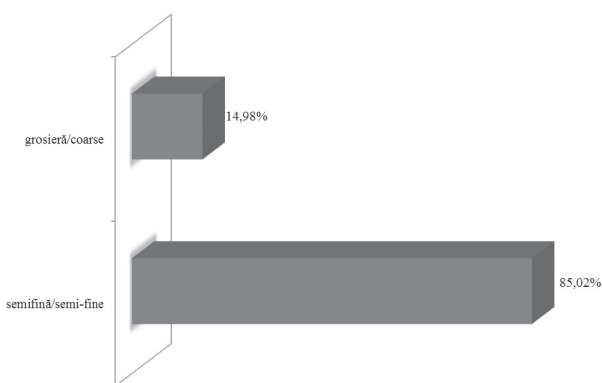


Fig. 4. Fabric quality of the pottery from Arad-Barieră (GRUMEZA/URSUȚIU/COPOS 2013)

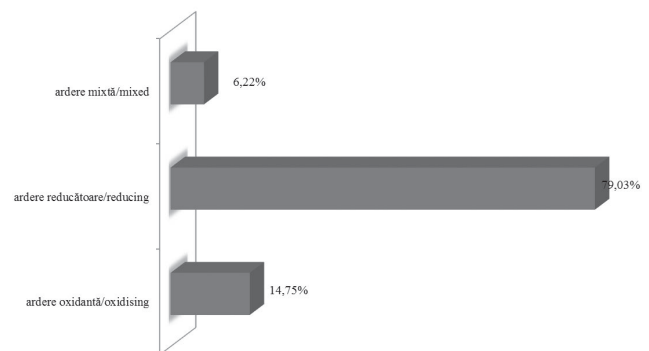


Fig. 5. Firing of the pottery vessels from Arad-Barieră (GRUMEZA/URSUȚIU/COPOS 2013)

of this period. Starting from the 2nd century AD, the burnished pottery with geometrical motifs gradually made its way into the customary Sarmatian pottery production practice, lasting until the late Sarmatian and Hun period.⁹⁹ The burnished decoration consists mostly of geometrical motifs, the most common being the wavy line, while the occurrence of figurative motifs is considerably lower, and are characteristic for the late Sarmatian and Hun period.¹⁰⁰ Starting with the latter part of the 4th century, the spreading of the floral and elaborate figural decoration can be partially linked to the influence of the Cerneahov culture and the arrival of new populations in the Great Hungarian Plain. The combinations of burnished geometrical and animal motifs, typical for the late Sarmatian period can be noted especially on flagons, vessels with one or two handles and bowls with a raised base.¹⁰¹ This type of pottery is characteristic for the middle-Tisa basin, the southern part of the Great Hungarian Plain, the Western Banat and Bácska (Serbian: Bačka).¹⁰² The stylistic aspects such as the burnishing of the vessels, the grey, often metallic colour of the fabric, the rich variety of burnished motifs (Fig. 6-7) were only occasionally addressed in the Romanian archaeological literature.

⁹⁹ VADAY/MEDGYESI 1993, 63.

¹⁰⁰ VADAY/JANKOVICH/KOVÁCS 2011, 229-230.

¹⁰¹ VADAY 1982, 121, 128.

¹⁰² VADAY/MEDGYESI 1993, 63.

According to the archaeological record, the Roman pottery import must have been a rare occurrence, the pottery demand of the settlements being mostly achieved through local production. Other Roman products such as bronze vessels, silverware, terracotta and lamps are also unaccounted for. The bulk of Roman imports is comprised of *terra sigillata* vessels. Unfortunately, the overwhelming majority of this material, discovered at Timișoara-Cioreni, Hodoni, Iecea Mică, Timișoara-Freidorf, Satchinez, Criciova, Becicherecul Mic, Foeni-Seliște, Biled, Herneacova, Dumbrăvița and Liebling, is highly fragmentary. Furthermore, fragments of amphorae were published from Timișoara-Cioreni, Iecea Mică, Timișoara-Freidorf, Satchinez, Biled and Dumbrăvița.

The infiltration of this material into the Banat Plain took place either from the province of Dacia through the supply lines connecting the province with the Danube area or from the Tisa region of the *Barbaricum* through the system of local roads.

Unfortunately, in the case of the amphorae, because of the fragmentary state of the material, its precise chronological classification is impossible, the finds being usually dated between the 1st and the 4th century AD.

The only verified data in this regard is linked to the

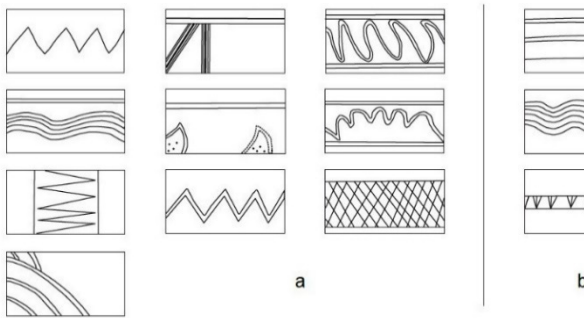


Fig. 14. a) Ornamente realizat prin lustruire; b) Ornamente realizate prin incizie
a) Burnished patterns; b) Incised patterns

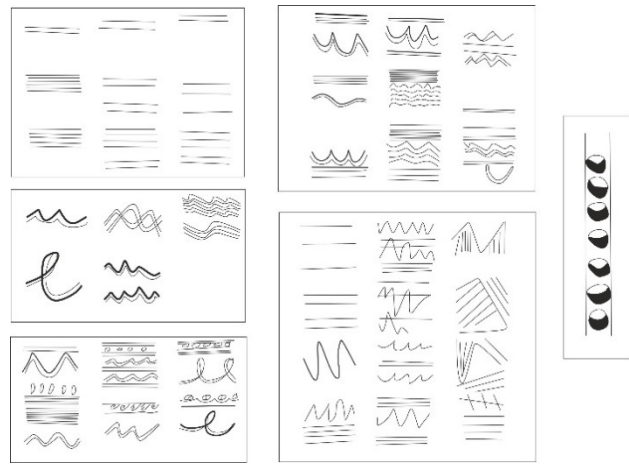


Fig. 7. The ornamental motifs of the pottery vessels from Grădinari-Săliște (BOZU 1990)

Fig. 6. The ornamental motifs of the pottery vessels from Arad-Bariera (GRUMEZA/URSUȚIU/COPOS 2013)

houses from Timișoara-Freidorf which yielded *terra sigillata* and amphora finds and are dated to the 3rd and 4th centuries.

Furthermore the state of fragmentation also prevents the typological classification of the finds. According to D. Benea the fact that in the Tisa-Danube area the majority of the *terra sigillata* vessels belong to the type Dragendorff 37 suggests a similar situation in the case of the rural settlements from the Banat region.

Metal small finds such as **brooches**, coins or weapons are also very rare, amounting to only 1% of the discoveries, appearing mostly in funerary contexts. The brooches are dated to the period between the end-2nd century and the beginning of the 5th century AD, and were supplied from the neighbouring Roman provinces. No complex typological and chronological analysis can be encountered in the archaeological literature concerning these finds.

Brooches were reported from the following sites (Fig. 8/1-8):

1. Timișoara-Freidorf – a knee brooch with a rectangular plate, arched body small circular head; the spring is made of windings covered by a semi cylindrical plate in addition to two brooches with returned foot, one them made of bronze, the other one from iron
2. Criciova-Tramnic – early variant of a bronze returned foot brooch
3. Grădinari-Săliște, house no. 6 – a ‘T-shaped brooch’ described by O. Bozu
4. Moldova Veche-Vinograda Vlașkikrai – yielded the highest number of brooches (9) belonging to various types: with onion-shaped knobs, with returned foot and of the crossbow type. In O. Bozu’s view the large number and variety of iron finds (tools, weapons, jewels), the iron slag and fragments of molten metal, indicates large scale iron working activities at this site

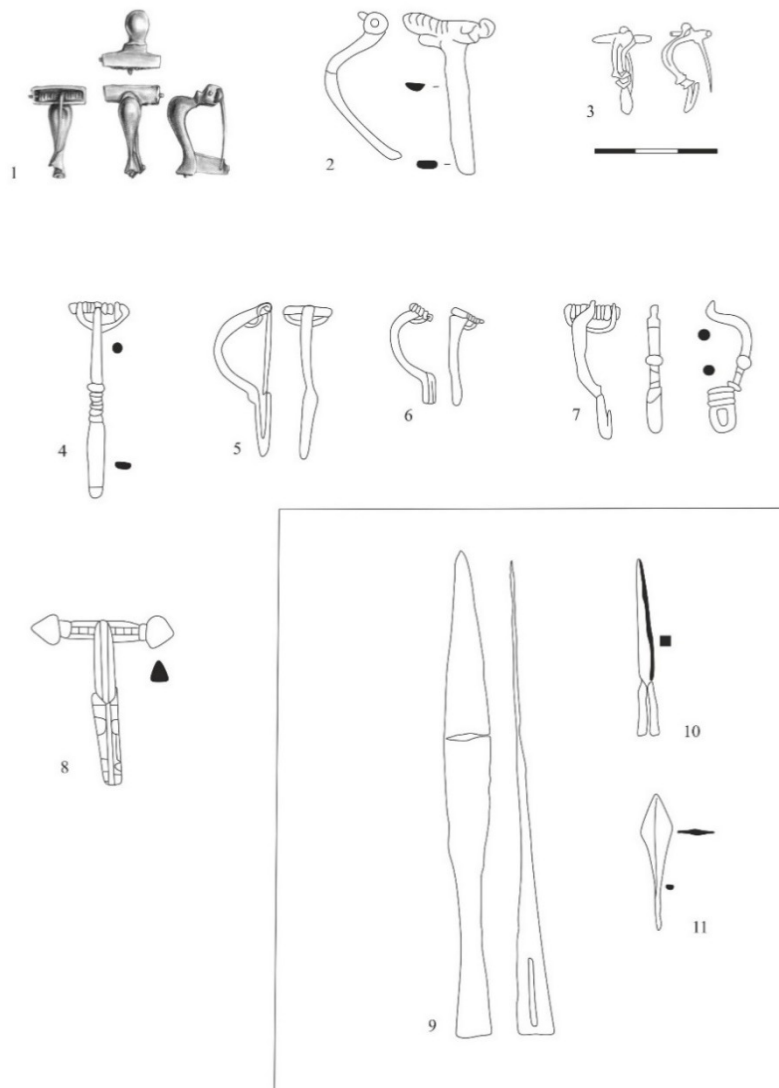


Fig. 8. Brooches and weapons discovered in settlements from the Banat Plain: 1. Timișoara-Freidorf MARE/et al. 2011), 2. Foeni-Seliște (SZENTMIKLOSI/TIMOC 2005), 3. Grădinari-Săliște (BOZU 1990), 4-11. Moldova Veche-Vinograda Vlașkikrai (BOZU/EL SUSI 1987).

5. Timișoara-Cioreni – a bronze brooch with returned foot dated between the end of the 2nd century and the

- beginning of the 3rd century AD
6. Foeni–*Seliște* – a fragmentary bronze brooch with returned foot and an iron spring discovered in a context dated between the end of the 2nd century and the beginning of the 3rd century AD¹⁰³
 7. Arad–*Barieră*, feature no. 12 – a fragmentary iron brooch with a part made of bronze (possibly a winding). Usually these types of brooches are made of bronze and have a long foot comprised of 5 to 12 windings; the respective piece is similar to a variant of the returned foot brooches dated to the latter part of the 4th century AD¹⁰⁴
 8. Satchinez – a bronze brooch with returned foot
 9. Iecea Mica – an iron brooch with returned foot¹⁰⁵

Based on the material two chronological groups can be identified: the first group consists of brooches dated between the end of the 2nd century and the latter part of the 3rd century AD, while the second one can be dated between the end of the 3rd century and the late-4th, or early 5th century. The earlier finds are comprised of a small number of knee brooches and a certain variant of the crossbow type brooches, as well as brooches with returned foot. The latest finds consist of large brooches with returned foot, occasionally made of iron, brooches with onion-shaped knobs, dated as late as the end of the 4th, or beginning of the 5th century. The most common brooches belong to the type with a returned foot (Timișoara–*Freidorf*, Timișoara–*Cioreni*, Foeni–*Seliște*, Satchinez, Iecea Mica) occasionally repaired with iron windings.¹⁰⁶

In contrast with the Roman provincial environment and the Sarmatian cultural milieu east of the Carpathian, **weapons** have only been rarely reported in the Banat region, in fact the only site with such finds is Moldova Veche–*Vinograda Vlașkikrai*. The following weapons were discovered here:

1. An arrowhead (Fig. 8/11)
2. A spearhead with 4 blades, the socket was obtained by bending the plate, L = 15 cm, L_{tip} = 10 cm, L_{socket} = 5 cm, D_{socket} = 1.5 cm (Fig. 8/10)
3. A spearhead with a long and narrow leaf-shaped blade and a well-preserved socket, L = 39.5 cm, L_{blade} = 27 cm, l = 3.5 cm, L_{socket} = 12 cm, D_{socket} = 2.5 cm (Fig. 8/9).

Accordingly, the weapons can be placed in three distinct chronological phases:

1. The first phase (end of the 2nd–beginning of the 3rd century) yielded only two finds of defensive and offensive weapons from grave tumuli from the Northern Banat. The weapons were probably brought by warriors arriving during the Marcomannic Wars.
2. The second phase, dated between the last third of the 3rd century and the beginning of the 4th century AD, yielded 10 finds belonging to the group of offensive weapons, coming exclusively from simple graves with north–south or east–west orientation. This demand of weapons as well as the arrival of new groups

of ‘barbarians’ is linked to the important political changes from the Lower Danube, especially the repeated barbarian attacks and the reorganisation of Roman rule in the area, namely the withdrawal from Dacia in 271 AD and the restructuring of the neighbouring provinces.

The later phase, dated between the latter part of the 4th century and the early-5th century yielded further 10 weapon–finds. The funerary finds are concentrated in the area of Vârșeț, and the history of this period (D1 according to the Central European chronology) is determined by the arrival of the Huns.¹⁰⁷

The weapons discovered at Moldova Veche–*Vinograda Vlașkikrai* are dated to this late period. This site stands out due to the rich and varied archaeological finds it yielded, comprised of agricultural and woodworking tools, 13 coins, numerous brooches and weapons¹⁰⁸. The richness of the site can be linked to its placement on the banks of the Danube, 23 km from the late Roman fortification of Gornea and 7 km from the auxiliary fort of Pojejena.¹⁰⁹ Nonetheless, O. Bozu and G. El Susi, who analysed the site have not placed much emphasis on the weapon–finds from Moldova Veche–*Vinograda Vlașkikrai*. The large number of such finds may be due to the economic wealth of the settlement as well as its vicinity to the border and the Danube.

In the region of the Banat belonging to present day Romania, **coin–finds** have been reported from 11 settlements¹¹⁰:

1. Bobda: one coin issued by Constantius II¹¹¹
2. Bocșa Voislovei–*Gruniul Cetății*: 17 bronze coins¹¹²
3. Deta: two *denarii* issued by Trajan and Antoninus Pius, in addition to other coins from the 4th century¹¹³
4. Grădinari–*Săliște*: two bronze coins issued by Gordian III, Claudius II Gothicus, two *folles* issued by Constantius II¹¹⁴
5. Hodoni–*Pustă*: one *denarius* issued by Traianus Decius¹¹⁵
6. Iecea Mică–*Rapas*: one coin from the 4th century AD¹¹⁶
7. Ilidia–*La Funii*: two coins from the 4th century AD¹¹⁷
8. Liebling–*Țelina Mare/ L 41* (?): one *denarius* issued by Marcus Aurelius (December 173–June 174 AD)¹¹⁸
9. Liebling–*L 28* (?): one *sestertius* issued by Marcus Aurelius, one AE issued by Constantius II (330–333 AD), one AE issued by Constans (347–348 AD)¹¹⁹
10. Moldova Veche–*Vinograda Vlașkicrai*: three *denarii* from the 2nd–3rd centuries, 10 coins issued between 320 and 361 AD and a coin hoard dated to the 4th century AD¹²⁰

¹⁰⁷ GRUMEZA 2014, 122.

¹⁰⁸ BOZU/EL SUSI 1987, 267.

¹⁰⁹ BOZU/EL SUSI 1987, 269.

¹¹⁰ Only the cases in which the coins were discovered in clear archaeological contexts were taken into consideration.

¹¹¹ LUCA 2006, 41.

¹¹² MARE 2004A, 160.

¹¹³ DOMOCOȘ 2014, 244.

¹¹⁴ BOZU 1990, 157.

¹¹⁵ BEJAN/MARE 1987, 24.

¹¹⁶ MARE 2004A, 181.

¹¹⁷ BENEĂ/ BEJAN 1994, 137.

¹¹⁸ BĂLĂRIE/GRUMEZA 2012, 85.

¹¹⁹ FLOCA 2013, 133.

¹²⁰ BOZU/EL SUSI 1987, 253, 256.

¹⁰³ SZENTMIKLOSI/TIMOC 2005, 61.

¹⁰⁴ GRUMEZA/URSUȚIU/COPOS 2013, 47.

¹⁰⁵ BENEĂ 2013, 133.

¹⁰⁶ BENEĂ 2013, 132–133.

11. Dragășina: one coin issued by Hadrian¹²¹

In addition to these coins dated predominantly to the 4th century AD, M. Mare suggests the remarkable figure of 50 000 4th century coins discovered in the Banat, especially in the southern and central part of the region, discovered individually or as hoards.¹²² A. Bejan mentions 77 coin discoveries dated to the 3rd–4th centuries, 52 isolated finds and 30 coin hoards, all in the perimeter of the settlements or in their immediate vicinity.¹²³ The hordes are also considered by D. Benea, who completed a classification based on the number of coins yielded by these discoveries: Biled (2000 coins issued by emperors Trajan–Constantine the Great), Timișoara I (comprised of coins issued by emperors Vespasian–Hadrian), Timișoara II (coins issued by emperors Antoninus Pius–Philipp I) and Recaș, from the period between 218 and 251.¹²⁴

Based on the coin-finds two main phases can be outlined in which Roman currency penetrated into the Sarmatian environment at a large scale: the period marked by the rule of Antoninus Pius and Marcus Aurelius, respectively the period between the end of the 3rd and middle of the 4th century (especially under the rule of emperors Constantine I – Valetianus I).¹²⁵ The large number of coins issued by Antoninus Pius and Marcus Aurelius is directly linked with the events of the Marcomannic Wars. Throughout the 4th century AD one can notice a significant increase of

according to T. Kačina can be translated into an intense commercial exchange with the Roman Empire.¹²⁶

A further artefact-type found in settlements is the **comb**, an indicator of Germanic influences, ascribed usually to the Sântana de Mureș-Cerneahov culture. It can be noted that these artefacts were also ignored by the archaeological literature from the western part of Romania. Such finds have been reported from Moldova Veche–*Vinograda Vlașkicrai*, Timișoara–*Freidorf*, Ictar–*Budinț* as well as Giarmata–*Site 10* (Fig. 9, 10).

The respective combs are made of bone, having one (type II = type 3f, Sovan 2005) or two functional sides (type I = type 5, Sovan 2005), are fastened in the centre with iron rivets, and are dated between the end of the 3rd, and beginning of the 5th century AD.¹²⁷ Bone combs are rare finds in the western Sarmatian environment, G. Pintye counted 61 such artefacts discovered in the Great Hungarian Plain up to 2009, the majority being dated to the late Sarmatian–Hun period.¹²⁸ In the southern part of the Plain their number amounts to merely 6, among which 4 were discovered in settlements and 2 in funerary contexts.

5. THE DATING OF THE SETTLEMENTS

A further shortcoming concerning the research of this period has to do with the dating of the settlements in the Banat region. The absolute dating of the sites was

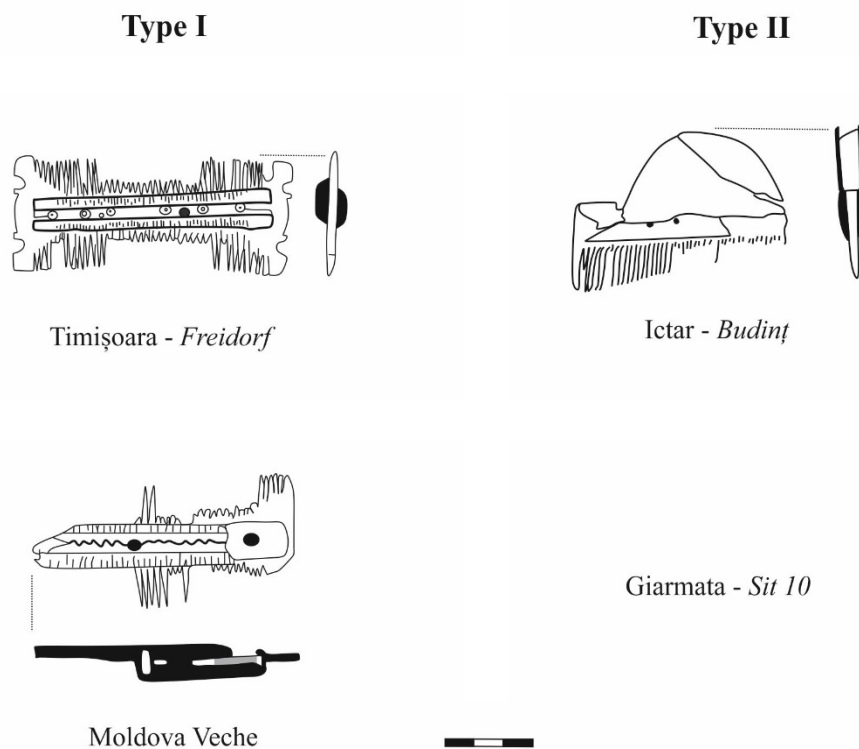


Fig. 9. Combs discovered in the Banat region (redrawn after MARE 2004A)

bronze coins (97% of the total number of coin-finds), which

¹²¹ BENE A 2013, 133.
¹²² MARE 2004A, 32, with bibliography.
¹²³ BEJAN 2000, 521.
¹²⁴ BENE A 2013, 133.
¹²⁵ VADAY 2005, 21.

based on the Roman imports: brooches, *terra sigillata* and

¹²⁶ In T. Kačina's view, the hoards with a high number of coins were probably the result of an accumulation from acts of systematic thievery in the area to the south of the Danube, see KAČINA 2014, 169.
¹²⁷ PINTYE 2009, 166, 184.
¹²⁸ PINTYE 2009, 184–190.

coins. According to A. Vaday this method has numerous deficiencies, the most important being that it ignores the vital period between the production of the goods, their commercialisation, use, and finally their hoarding or their loss.¹²⁹

In the Romanian archaeological literature, the settlements were dated in 75% of the cases to the 3rd–4th century AD. None of these sites could be integrated with certainty into the timeframe between the 2nd and the beginning of the 3rd century AD, due to the fact that only a very small proportion of these sites benefited from systematic archaeological research, rather than non-intrusive investigations.

Habitation levels (without definable archaeological contexts) dated to the late-2nd–3rd century AD were identified at Foeni–Seliște¹³⁰ and Timișoara–Freidorf, where the Roman dwelling lasts until the 5th century AD. Numerous finds from Timișoara–Freidorf can be dated to this early period (late-2nd–3rd century AD) were reported so far:

1. One knee brooch
2. Imported *terra sigillata* (type Dragendorff 37)
3. Imported amphorae¹³¹

The Timișoara–Freidorf settlement was initially dated to the period between the early-3rd century and the last third of the 4th century AD, unfortunately a clear division between the habitation levels was not possible. Later the chronology was revised and the settlement was dated between the beginning of the 3rd century and the last third of the same century AD, and thus was partially contemporary with the province of Dacia. Even so, the majority of the archaeological complexes are dated to between the second third of the 4th century and the early-5th century AD. Dwelling at the site ended probably at the beginning of the 5th century, considering that the graves dated after the year 400 are cutting the houses and pits belonging to the early settlement.¹³²

Based on some *terra sigillata* and amphorae fragments, D. Benea dated the settlement from Dumbrăvița between the 2nd and the beginning of the 3rd century AD.¹³³ According to the assertion of the aforementioned author the mere presence of the respective pottery fragments (without the precise identification of type, production centre and chronology) is enough to establish an early dating for these settlements.¹³⁴ A similar chronology was put forward by D. Benea for the sites from Timișoara–Cioreni, Sânnicolau Mare and Liebling.¹³⁵

According to M. Mare there is a smaller group of settlements, comprising of approx. 20% of the analysed sites, which can be dated as early as the 2nd century, up to the 4th century AD. Even so the largest group is composed of the sites beginning in the 3rd century AD, continuing throughout

¹²⁹ VADAY 1999, 550.

¹³⁰ TIMOC/SZENTMIKLOSI 2008, 118.

¹³¹ MARE/et al. 2011, 41, 52.

¹³² MARE/et al. 2011.

¹³³ BENEÄ 2013, 127.

¹³⁴ BENEÄ 2013, 176.

¹³⁵ BENEÄ 2013, 124.

the 4th century, in some cases up to the 5th century AD.¹³⁶ The late chronology of these sites was based by M. Mare on the following arguments: the presence of certain types of jewels, the disappearance of the Roman 'red' pottery and the increase in numbers of fine wheel thrown grey wares, in addition to the presence of a 'Dacian type' coarse brownish-black handmade pottery.¹³⁷

Until recently the concept that the presence of red pottery indicated the early phases of the Sarmatian period, while the grey-coloured pottery was a product of the late-Sarmatian period was dominant in the Romanian archaeological literature. The analysis of Sarmatian sites from the Great Hungarian Plain revealed no such chronological divisions related to the colour of the pottery¹³⁸. The same can be said in the case of the site from Arad–Barieră.¹³⁹

6. CONCLUSIONS

The aim of this paper was to define in general terms the habitat of the 2nd–5th century AD Banat, exploring issues such as the organisation and positioning of the settlements, their numbers, and the types of archaeological features associated with them: houses, storage/refuse pits, wells and other structures. The analysis includes a short description of the archaeological finds associated with them: pottery, brooches, coins and weapons.

The habitat is typically 'barbarian', defined by modest, small and medium dwellings, usually sunken houses made of timber and clay. The annexes are also adapted to this lowland environment. The archaeological record of these sites differs profoundly from the Roman environment of western and south-western Dacia, characterised by urban settlements (towns, *vici* and *pagi*), forts, *villae rusticae*, etc. According to M. Mare there is an urban and a rural area in the Banat, both belonging to the Daco-Roman culture.¹⁴⁰ The sites from the lowland area of the Banat are overwhelmingly ascribed as Daco-Roman or Dacian, defined as a rural, sedentary population, with uniform, unchanging features throughout 400 years.

The investigation methods employed (either non-intrusive methods, or slotting, without large scale and interdisciplinary research), the selective publishing of the material, the absence of internal chronologies of the sites prompted these implausible interpretations in the Romanian archaeological literature.

Translated by David Petruț

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BARTOSIEWICZ 2003

¹³⁶ MARE 2004A, 49.

¹³⁷ MARE 2004A, 49–50.

¹³⁸ VADAY 1996, 558.

¹³⁹ GRUMEZA/URSUȚIU/COPOS 2013, 39.

¹⁴⁰ MARE 2004A, 25–29.

Site	Interpretation / dating	Bibliography
Hodoni–Pustă	‘ Daco-Roman settlement from the 3 rd –4 th century AD. The continuity of the Roman way of life throughout the Banat’	BEJAN 1981A BEJAN 1995
Lenauheim	‘Rural post-Roman settlements dated to the 3 rd –4 th centuries AD. Fundamental elements of the Daco-Roman continuity in the Banat region.’	BEJAN 1981B
Jebel		
Satchinez–Pământul Galben		
Herneacova		
Timișoara–Cioreni		
Grădinari–Săliște	‘ Daco-Roman settlement dated to the 4 th century AD. The entire territory comprising the Danube, Mureș and Tisa (...) according to the unanimous opinion of the historians was an integral part of the Roman period throughout the 3 rd –4 th centuries AD’.	BOZU 1990
Moldova Veche–Vinograda Vlașkikrai	‘Rural settlement inhabited by a strongly Romanised native population (mid-3 rd –early-4 th century AD).’	BOZU/EL SUSI 1987
Sănnicolau Mare–Seliște	‘The territory is either part of the <i>municipium</i> Tibiscum or of <i>pagus</i> Micia, therefore it is part of province Dacia ’	BENEA 2005
Dumbrăvița	‘ Daco-Roman settlement from the 2 nd –4 th century AD’.	DRAȘOVEAN/et al. 2004
Foeni–Seliște	‘Settlement dated to the late-2 nd –early-4 th centuries AD’.	TIMOC/SZENTMIKLOSI 2008
	No ethnical ascription given	
	‘ The only accepted Sarmatian settlement from the Banat in the archaeological literature up to 2009’	MUSCALU 2009
Timișoara–Freidorf	‘3 rd –4 th century AD settlement / Unfortified rural settlement’.	MARE/et al. 2011
	No ethnical ascription given	
Arad–Barieră	Sarmatian period site dated to the 4 th century AD.	GRUMEZA/URSUȚIU/COPOS 2013
Conclusions		
The settlements from the Banat (both the lowlands and highlands)	‘The settlements belonged to autochthonous populations of Daco-Romans (consisting of native Dacians in various phases of Romanisation in addition to Roman colonists and veterans); a synthesis of the material culture with specific elements from the Dacian environment’.	BEJAN 1995 BENEA1996 MARE 2004A DUMITRAȘCU 1993
	The Sarmatians, comprised of nomadic populations throughout the 1 st –5 th centuries, arrive in the Banat only after the Roman withdrawal.	
	D. Benea in the footnote of a 2013 study asserted that these settlements were ‘outside the limits of the province (extra provinciae), beyond the limes, therefore the term Daco-Roman is not particularly suitable’.	BENEA 2013, 114, n. 529

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ONE HUNDRED SHERDS. CHILIA-MILITARI CULTURE RELOADED. ALEXANDRIA POTTERY CASE

Abstract: Preparing themselves for field survey along *Limes Transalutanus*, the authors are looking for references – other than book descriptions and drawings – concerning the so-called Chilia-Militari culture, laying on the both sides of the Roman frontier, stretching from the second half of the second century up to the late third (or early fourth) century. After several attempts with pottery contained in exhibitions, they finally reached an unprocessed lot of pot sherds from a recent digging on the by-pass route north of Alexandria city.

Interested first of all in fabrication issues, in order to successfully deal with fragmentary pottery, they fill a database with notes, photos and drawings, and make a typology sustained by petrography. The distribution of artefacts on functional types – as uncertain as it is – shows a society thinking and living ‘big’, speaking either of tableware, liquid containers or storage vessels.

Beyond shreds, shapes, colours and sizes, there is a flagrant ambiguity of a ‘barbarian’ culture born at the fringes of the empire, part inside and part outside, cooking Roman but drinking as Dacians did, setting the table for the Gothic feast.

Keywords: pottery, fabrication, fine ware, coarse pottery, storage containers.

THE FRAME

The state of art of the so-called Chilia-Militari Culture lays today about where it was three decades earlier, when Gheorghe Bichir was publishing his monograph (1984). Most of the literature is in Romanian language, thus almost not known abroad, fact which enforces a larger introduction, in order to enable the reader to follow the debate¹.

The reference geographic area is comprised between the outskirts of Bucharest city in east and Olt River in west (185 km), and between the Lower Danube and the crests of Meridional Carpathian Mountains (200 km), or an area of 37,000 square km. This territory is cut in unequal parts by the Roman frontier know as *Limes Transalutanus*, from the first half of the third century, delineated approximately south-north, between the harbour fort Flămânda and the fortlet from Drumu Carului, the last made at an altitude of 1200 m, in the pass Bran. The *limes* is located only 15 km afar from the mouth

¹ From the long list of Bichir’s publications one can pick only some titles in international languages; most of them deal with the culture at stake under the much larger umbrella of ‘Free Dacians’ (BICHIR 1971, 1975, 1976, 1977, 1982), only one being centred on our subject (BICHIR 1980), detailing yet more chronological issues and less about pottery. The monograph from 1984 (in Romanian) remains the only reliable source for the last.

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of Olt River, but the distance is progressively increasing northward, to 38 km at the latitude of Roșiorii de Vede city, 49 km at the latitude of Pitești city, and 75 km at the peak of the mountains. The name of *Limes Transalutanus* – a modern concept – is linked by Olt River, named *Alutus* in antiquity, meaning ‘the frontier beyond the Olt River’. The northern end of *Limes Transalutanus* is made by its intersection with the upper middle-upper course of the same river, 45 km northeast of Drumu Carului, as the crow flies.

This territory had as neighbours, in the second century, the Roman provinces of *Moesia Inferior*, at the Danube, and *Dacia Inferior* along the Olt River, Sarmatian nomads east of the embouchure of Argeș River and the *Carpi* settlements in north-eastern Muntenia (see the map from the Figure 18).

The chronological frame of the Chilia-Militari culture, as stated by Gheorghe Bichir, stretches out from the middle of the second century² to the second decade of the fourth century. Based on his detailed diggings in Mătășaru – where both a settlement and a cemetery were thoroughly investigated – G. Bichir stated two phases, divided hypothetically by the *Carpi* invasion from 214³, when the settlements were burned down, then remade, in the same place (as Mătășaru) or near the former location, as in the cases Scornicești or Colonești. Therefore the diggings from Mătășaru are so far the most important, because the main traits of each phase were defined on the study of that site. The name of the culture was given anyway earlier, starting from the necropolis from Chilia⁴ (in northwest) and the settlement from Militari (located near a neighbourhood of Bucharest, from which borrowed the name)⁵.

The population that nourished that culture is a bit problematic, at least in the first instance. The plain laying north of the Danube, known today as the Romanian Plain, was several times ‘sterilized’ by Romans, long before the conquest, turning it in a *terra deserta* at the half of the first century AD⁶; just some places, located more than 100 km of Danube, at the foothills line, remained shelter for some Getic communities, like Gruiu Dării, possibly also Târgșor, Drajna de Sus, Cetățeni⁷. All these were located in war area, in the time of the wars raged by Trajan against Decebal’s allies (especially 101-102), the communities being disrupted and probably relocated; this is why the exact origin of the later ‘Chilia-Militari’ population is not that clear. It would be yet not unfair to suppose that their ancestors lived on the high lands⁸ from the north, almost unexplored archaeologically.

² Lowering down the date to the rule of Hadrianus, as suggested by the author (BICHIR 1984, 91-92; see also BICHIR 1980) is not safe, due to the fact that ‘analogies’ and ‘typologies’ are not exactly a science, also because the silver coins minted by Trajan and Hadrian, of high quality, stayed in circulation up to the early third century (as we saw in our own digging in the fort Răcari (Dolj County). There are also some historical issues, because the Romanian Plain was in fact an empty territory at least to around the year 120.

³ BICHIR 1984, 93.

⁴ MORINTZ 1961, esp. 402-407. Diggings were made beginning with 1958 (MORINTZ 1962, 513), covering most of the cemetery, but just two test trenches in the settlement.

⁵ ROSETTI 1932; ZIRRA/CAZIMIR 1963; ZGÎBEA 1963. See also TURCU 1992.

⁶ BICHIR 1974, 28; BĂRCĂ 2015, 37-38, TEODOR 2015, 3-4.

⁷ For Gruiu Dării see TEODOR 2014, 129; for the others – BICHIR 1974, 28.

⁸ The mediaeval name of the region, Muntenia, is derived from Rom. ‘munte’ (mountain), meaning ‘The Highland’. The historical example of the formation of the mediaeval state of Walachia (or Muntenia), with highlanders

As the situation of this territory was, in the day after the wars, on short, a huge emptiness, but the network of Chilia-Militari settlements is pretty dense (see the map), one should conclude that the process of repopulation took some time, as a generation or two.

One needs here also some historical guidelines. When the wars against Dacians were over, in 106, Muntenia and southern Moldavia became part of the Roman province *Moesia Inferior*, as well as the most part of Oltenia (located between the Lower Olt River and the Iron Gates of the Danube). When the conqueror died, in 117, the eastern Sarmatians *Roxolani* upraised asking access to the green plains north of Lower Danube. The war was settled down by a peace treaty giving *Roxolani* what they wanted: a *foedus*, high titles for the king, and pasture rights in Muntenia, but with under the severe supervising of the Roman army⁹. The peace conditions drove also to a major administrative reestablishment: the Roman army left the permanent bases from Muntenia, leaving a huge territory in the hands of barbarians; *Moesia Inferior* lost also Oltenia, which became *Dacia Inferior*, attaching also the south-eastern corner of Transylvania, formerly under the authority of *Moesia Inferior*, including the key fortress *Angustia* (Brețcu), which was controlling the main pass over the Eastern Carpathians, Oituz. To this period, just after 120, have to be ascribed some isolated Sarmatian discoveries in central Muntenia, as the funerary *tumulus* from Vitănești (8 km east of Alexandria city)¹⁰. The earliest Sarmatian presence in the plain north the Lower Danube, prior to the second century, is located in areas east of the longitude of Bucharest, as well as the bulk of the later discoveries¹¹. The influence of Sarmatians on the Chilia-Militari culture, as well as the influence played by *Carpi*, can be revealed mostly in the eastern fringes of it.

The Marcomanic wars did not left relevant signs in Romanian Plain, but inflicted consequences with strategic meaning, affecting directly the situation south of the mountains. The main outcome of the war, in the Lower Danube area, was the completely – and final – destruction of *Piroboridava*¹², a major hub of Roman communications, making troubles in logistics. Restraining us from a detailed argument, because it is already written¹³, we will just make the statement that the last effect of this alteration in the strategic state finally drove to the construction of *Limes Transalutanus*, as a mean not only to improve the early

colonizing the southern plains, has been frequently used by the Romanian historiography as a paradigm for other (less known) historical ages, although the lack of documentation is still embarrassing. In fact there is no clue that the folks from Chilia-Militari area would be far away migrants. They certainly did not come from Moldavia, because eastern communities are relatively easy to spot, as illustrated both by the necropolises within the province of Dacia (Obreja, Locusteni or Sopor de Câmpie; see PROTASE 1969, 1973, POPILLAN 1980) or *Carpi* culture influences observed in the eastern settlements from Chilia-Militari culture (most obvious in later settlements, as Cățelu, Străulești or Târgșor, see TEODOR 2001, chapter 8). They couldn’t come from Transylvania either, where the defeated Dacians fled northward, not southward.

⁹ BĂRCĂ 2015, 37-39; TEODOR 2014.

¹⁰ BĂRCĂ 2015, 36.

¹¹ BĂRCĂ 2015.

¹² Poiana, on the left Siret River, at the half way between the Roman bridgehead from Tirighina-Barboși (near Galați city) and the eastern outpost of the Roman possessions in Transylvania, *Angustia*.

¹³ TEODOR 2014.

alarm in front of *Romula*, the capital of *Dacia Inferior*, but to shorten the supply lines heading south-eastern Transylvania. Although the debate about the exact chronology of building up *Limes Transalutanus* is not quite over¹⁴, in our advice this happened at the threshold of the second and the third century AD.

Another checkpoint in the history outline is the year 214, when a new *Carpi* invasion struck the Romanian Plain, event considered by G. Bichir¹⁵ as decisive for the end of the first phase of Chilia-Militari culture, including for settlements west of the Roman frontier, as Colonești or Scornicești. Unfortunately, this circumstance cannot be equally established for the *limes* itself, at least at this stage of research¹⁶.

Another devastating happenstance occurred in 245 (and the next two years), when *Carpi* annihilated *Limes Transalutanus*, the Roman troops being withdrawn west of Olt River¹⁷. Intriguing enough, this time the settlements of the Chilia-Militari type did not suffer damages. Of course, from such a pair of uneven events one could picture the drama of the local connivance with the raiders; from our point of view, this is a speculation difficult to prove, from reasons maybe easier to understand at the end of this study.

The last event – on a minimal list – is localised in the years 315-317, when Constantine the Great smashed *Carpi*, changing the balance of power at the Lower Danube. The real winners were the Goths, taking the opportunity and overflowing Prut River, down to the Romanian Plain. This is probably the moment when the Chilia-Militari culture concluded its existence, or at least G. Bichir was thinking so¹⁸. But a small mystery is hidden here: the Gothic federation, archaeologically identified with Chernyakhov¹⁹ culture, spread out exactly to the limit of the former Roman *limes*, *Transalutanus*, not further; a ghost frontier in glorious Constantine's days, ruined seven decades earlier. Isn't that odd?... What happened in the western Muntenia for the rest of the fourth century?... We cannot tell today.

A brief description of the civilization Chilia-Militari

¹⁴ See PETOLESCU 2005 and BOGDAN-CĂTĂNICIU 2009, mentioning only the latest developments in a long 'war'.

¹⁵ BICHIR 1984, 93. The exact significance of that year (214) for the history of the Romanian Plain, is not clear at all, at least for us.

¹⁶ The only extensive archaeological research is at the large fort from Urlueni (BOGDAN-CĂTĂNICIU 1997, 96-104; see also TEODOR 2015, 60-63), located perfectly in this context, east of Scornicești and southeast of Colonești, pretty close of each (one day of march). Unfortunately, the results regarding the old phase – earth and timber – are rather poor.

¹⁷ But did the invasion struck directly the forts of the *limes*? Or the troops were withdrawn from strategic reasons pertaining of the general situation from Balkans, for instance being needed somewhere else? There are yet some clues that the circumstances of the withdrawal were truly dramatic, as proved by the recovery of a hoard of over 20 aurei, minted between 242-244, in Pitești city (DIMA 2012). Although it is not documented a fort in the city, due of its position on Argeș River – the most important stream cutting *Limes Transalutanus* – we can consider as granted a major garrison at that location.

¹⁸ BICHIR 1984, 94.

¹⁹ Known in Romanian archaeology as Sântana de Mureș (-Cerneahov, see MITREA/PREDA 1964, 1966) culture, after the name of a late necropolis from Sântana de Mureș (Mureș County, in central Transylvania), of early Hunnic Age. Using a distinctive name for the Gothic mixture, on the territory of Romania, is motivated by the absence of the early stages of Chernyakhov culture, as well as a better connected society to the Roman world, and reflected in the casual presence of Roman imports. For the sake of the foreign reader, we will use here the well-known name of the material culture of Gothic confederation.

recalls the relatively small and opened settlements, with half buried houses (on-surface huts are not missing), usually without a hitting device. A second trait is the contrast made between the humble housing and the considerable frequency of Roman 'imports', from fibulae, rushlights, weaponry, military equipment, to amphorae and tableware. A third fact is the occurrence – more often in the early phase – of 'iconic' handmade pottery, as the so-called 'Dacian cup', or tall pots with wide mouth and bag-like shape, adorned with fingerprints or cuts on middle diameter added clay strips, artefacts inherited from the darkness of the Iron Age, much beyond La Tène influence²⁰.

An archaeologist collecting data in field walking is dealing mostly with pot sherds. The main categories one could encounter are the following (classification resuming a chapter from the book of G. Bichir)²¹:

(A) handmade pottery of archaic tradition, with coarse fabric, usually reddish, decorated with clay strips and buttons on the shoulders, summing up to around 40% of all pottery in settlements, but only ca. 15% in cemeteries (incineration, mostly in covered urns); the frequency in the first phase is greater; the most usual shapes are the (cooking) pots, adding some 'Dacian cups' – small conical recipients, with or without a handle²²;

(B) wheel made pottery 'of local tradition', fine fabric, grey; pots²³, storage vessels ('Krausengefäße'), amphorae, large jugs (or flagons, with a term frequently used lately) and relatively small beakers²⁴, both with a handle, then bowls, lids, strainers (just a few), others (very rare);

(C) cooking pottery (Roman provincial ware, locally made), taking a share of 35% from all thrown pottery: cooking pots, dishes, conical lids, others; oxidant firing, giving yet dark shades of red, turning grey for dishes;

(D) Roman imports (amphorae, bowls, cups, *terra sigillata*, rushlights, others) usually brick-red, with a share up to 15% (from all pottery) in some major sites, but less in the others.

The classification above is pretty much a 'paradigm', good for teaching, probably, but well distracting an applied research. Most of the 'historical' encounter is half true, half a fake. Not being specialists on La Tène pottery, but shaping our professional life in museums and seeing plenty of Dacian ware, we couldn't miss some critical observations. Bringing here only the short list of troubles, let's see together the main preconceived facts, or at least as they appeared to us.

The class B of wares is considered 'traditional' mainly because the fabric is fine and the colour is grey. Well – it is not *the same grey*. The Dacian wheel thrown pottery from

²⁰ MOSCALU 1983, plates XIV-XXI, all from the Type III, with roots in the Late Bronze cultures Noua and Sabatinovka (or Noua-Sabatinovka, *idem*, 37-38).

²¹ BICHIR 1984, 30-40.

²² BICHIR (1984, 31) was using two different names, because the cups with handles are those coming directly from La Tène tradition, the other being 'new'. One has to consider if the absence of the handle could not mean a changed function.

²³ Labelled by BICHIR (1984, 34) 'urns', mostly being recovered from cemeteries, a wrong choice, because they can be encountered in settlements too. The generic shape is named, in Romanian archaeology, 'oală-borcan' (app. 'pot /-'jar)

²⁴ Having distinctive names in Romanian: 'cană' (beaker of any capacity) and 'urcior' (also 'ulcior', which is a tall flagon, with a narrow neck, usually of larger capacity).

the 'classic age' (first century BC and AD) is grey indeed, but most of it is *light grey*²⁵. Chilia-Militari fine ware is usually *middle and dark grey*, as we shall see.

The Roman imports (class D) are allocated only for red-brick colours, a fact relatively acceptable for the second century, but obviously problematic in the third century, which gives most of the artefacts analysed. As long as the research cannot provide a discriminant analysis, based on petrography or spectroscopy (XRF and diffractometry), nothing is really secured.

The cooking pottery, made on a Roman recipe (class C), is easily identified by the sandy paste, the S shaped rims (fitting the lid), the smoked margins, the traces of the flames on sides, the organic remains. Interesting to note, the class A is made from almost the same paste composition, and it is baked the same, in oxidant conditions and almost very well, turning out a sort of (dark) red. It is then 'traditional' only because it is shaped by hand? Of course not; for instance, much of this class is made of 'Dacian cups' (most of them without handle), perpetuated on that archaic manufacture from reasons beyond 'necessity'²⁶. But truly 'traditional' handmade Dacian pottery was not sandy at all, but porous and with a slippery surface²⁷.

Looking deeper into the descriptive texts wrote by G. Bichir, one can easily get that he was aware about the relativity of the employed definitions. We will bring here just some examples; for instance, some pots from the B class have concave bottoms, not flat, as in the 'classical age', or even in the contemporary culture of *Carpi*²⁸, an innovation defying the concept of 'traditional', easy to be ascribed rather to a Roman influence. As concerns the so-called *Krausengefäße* (the most casual shape of storage container, in Chilia-Militari milieu), he was writing that '*due to their shorter proportion, as compared with Dacian dolia, they suggest the Roman influence*'²⁹. Also, many bowls, although greyware, are indebted to Roman shapes, as well as one of the types of lids³⁰.

²⁵ CRIȘAN 1969, 154-155, fig. 65 for 'classic' Dacian cup.

²⁶ There are some isolated examples of 'Dacian cups' made on the wheel (MATEI 2011, 98), but not in southern Romania.

²⁷ Unfortunately, we are handling here definitions made for a span time of two centuries before the conquest (as the 'classic Dacian Age' goes). A comparison with the latest layer of living on the Dacian fortresses would be much more helpful. A recent visit at Pietra Roșie (one of the six strongholds from Orăștiei Mountains, the 'Dacian Mountains', where the power was held) occasioned finding on the surface several hand-shaped sherds made from a quite sandy paste. The debate about the Romanization of Dacians prior to the conquest, interesting as it is (BOGDAN-CĂTĂNICIU 2007, 23-33), has never stopped here, in the matter of pottery making and fabrication. As the most expected collection of Dacian pottery, from Sarmizegetusa Regia, is not published (from many decades), we have little other choices, as for instance the artefacts published for Gruiu Dării (DUPOI/SÎRBU 2001, MATEI 2011).

²⁸ BICHIR 1984, 34.

²⁹ BICHIR 1984, 35.

³⁰ BICHIR 1984, 36. We can look at the ceramic evidence the other way around. Many pottery types (as shape, function and fabrication) are casual all over the Roman world; nevertheless, at least as many fit better the concept of *Roman provincial pottery*, being created and distributed in one province or a small group of provinces, as a regional hub. The issue is worthing a stand-alone study for Dacia Inferior and the surroundings. From the old – and the only – monograph of pottery from Oltenia (the southern part of *Dacia Inferior*; see POPILIAN 1976), one can collect examples of types circulating only in closed areas, being candidates for local developments of the former cultural experiences. Such would be the pots type 7 (POPILIAN 1976, 88, cat. 351-355, rendered as certain Dacian legacy), type 11 (*idem*, 89, cat. 365-369,

The concept developed by G. Bichir about this archaeological culture, in the wider frame of the 'Free Dacians' (most of his studies are overviews at a national scale, including areas so distant as north-eastern, north-western and southern parts of modern Romania, located 500-600 km away each other) is not only struck nowadays by the rust of nationalism³¹, but developed also monstrous side effects. The worst of all is an absurd split of the research fields of research for southern Romania. Gheorghe Bichir – the specialist in 'Free Dacians' – and Ioana Bogdan Cătănicu – the only 'classicist' archaeologist from the retired generation really interested in *Limes Transalutanus* – never worked together, being almost absent from the other's *opus*. Consequently, they created together the parallel worlds of Chilia-Militari culture and *Transalutanus* frontier, although they existed in the same geography and chronology.

This is, more or less, the departure point of the current research. The progress recorded in the last three decades is rather poor. The systematic diggings in sites with Chilia-Militari remnants were stopped after 1990, except Militari³², near Bucharest, due to a chronic lack of funds and interest³³. Furthermore, the old historiography was buried under harsh reviews³⁴, mainly for its nationalism and lack of method, Romanian archaeology needing a time-out, for reflection.

THE TRIGGER

The current study was initiated under the objectives undertaken within a research project about *Limes Transalutanus*³⁵ – the Roman frontier crossing western Muntenia (or Great Walachia) in the first half of the third century³⁶. Some early fieldwalking made along the line, in fall 2012³⁷, showed that the pottery scattered along that border is not only 'Roman', but a mix with different, more archaic features, of La Tène³⁸ extraction, known as Chilia-Militari Culture. This is exactly why the research project comprises a study supposed to enhance our knowledge about the last, in

found only in rural area), pots with two handles type 4 (*idem*, 92, cat. 399-407), beakers type 2 (*idem*, 94, cat. 410-411), jugs type 1 (*idem*, 96, cat. 418-432, spread only in the Lower Danube provinces), and so on. Understanding that 'Romanization' is a two way process, including an *interpretatio romana* of the local culture, the process of ascribing 'cultural roots' for a particular feature becomes tricky. What we can fairly do, at this point, is to establish the differences between a 'barbarian' culture, as Chilia-Military, and the material culture of the proximal Roman territory, as *Dacia Inferior* or *Moesia Inferior* in our case.

³¹ Almost impossible to understand for a gifted and informed researcher without a good knowledge of the anthropology for the twentieth century, dominated by the 'besieged fortress' (or 'the isle of Romanity in a Slavic Sea').

³² NEGRU 1999, 2006. Other contributions to the archaeology of the third century, mainly in southern Romania: NEGRU 2002, 2003.

³³ The same happened with the entire post-Roman and early Middle Age.

³⁴ As CURTA 1994 or NICULESCU 2005.

³⁵ Granted by the Ministry of Education and Science through UEFISCDI, project PN-II-PT-PCCA-2013-4-0759, 2014-2016, see www.limes-transalutanus.ro.

³⁶ BOGDAN-CĂTĂNICIU 1977, 1997, 2009 (selection); TEODOR 2015; TEODOR/ȘTEFAN 2014 (selection).

³⁷ TEODOR 2015, see the seventh chapter (Fieldwalk, 125-167).

³⁸ Although not dealing with a proper La Tène culture, but a strong Celtic influence (especially in Transylvania), the Romanian archaeology usually ascribes the second Iron Age to the La Tène Culture. The final stage of it, covering the first century before and in the Christian era, is labelled as the 'Classic Dacian Culture', on good grounds, being an original and influential mix of western (Celtic) and southern (Thracian) and eastern (Iranian) traditions.

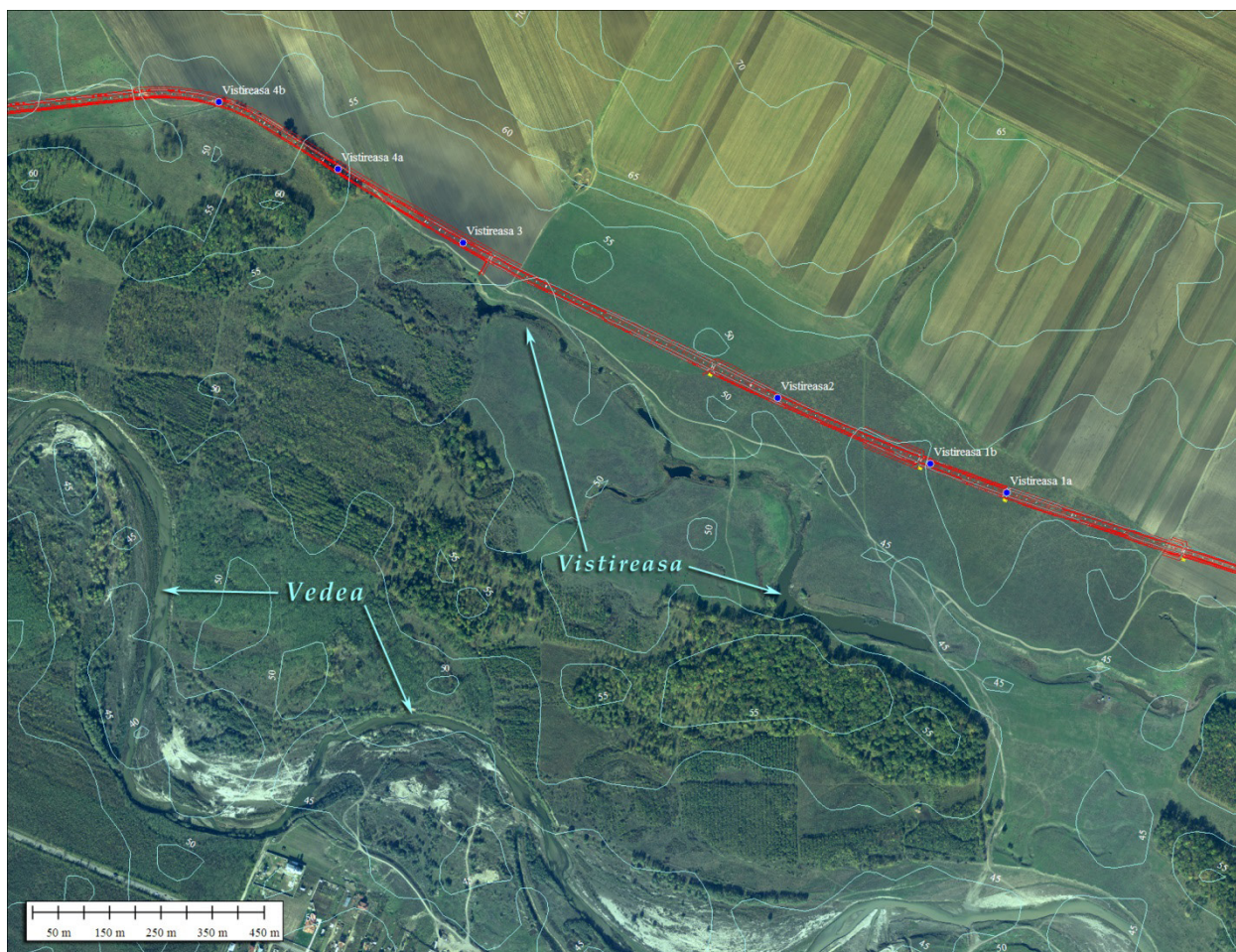


Figure 1. Localization of the investigated archaeological sites on the bypass route north of the city Alexandria Military orthophotos 2012 and the project of the route (see mainly the sites Vistireasa 1a and 4a).

order to enable us to make the difference, in the fieldwork or in the laboratory.

We have started collecting data from the museum repositories, taking pictures and making notes for ceramic artefacts from the area. Most of them were done at the County Museum Argeş (Piteşti), the others – at the National Museum from Bucharest. Almost all comes from the main site of this culture, Mătăсарu, and from the cemetery from Chilia, and just a few others (as Vlăsineşti, but also some comparison items related to Chernyakhov culture or to the Sarmatic milieu). More interested in fabrication issues than in shapes (many published), we worked also clay based non-pottery items, like miniatures, spindle whorls, loom weights, and even two fragments of clay coating for the houses' walls. Soon enough we understood the fact that we were standing in a dead-end: the available pottery from the public display is just a small part of the digging inventory, the rest of it being lost somewhere in dark and unfriendly storerooms, deprived of any connection with the digging itself. All we could see were just some 'outstanding discoveries' of what happened to be restorable shapes, with rough completion and neglecting restitution. This is a fact: the restored recipients are not fitted for a detailed study.

That was the context in which we paid a visit to the County Museum Teleorman, from Alexandria city, where the manager – and our good friend, Pavel Mirea – took us in a repository of unprocessed artefacts. A huge amount of pottery – enough to load a small truck – was coming from a relatively recent preventive digging (2012) on the Alexandria city bypass

(Figure 1). The team of Limes Transalutanus was dumbstruck not only of the mass of the remains, but also by the sizes of the recipients and the quality of manufacture. The next day we have started persuading the keepers of the intellectual rights – the archaeologists which have conducted the digging – to allow us to make a detailed study on a sampled lot of pottery; just a sample, because the whole bulk of matter would have ask much more time than existing, for our project. Finally, after seeing all the stuff, we picked up two bags³⁹ of pottery and took them to Bucharest (at the limit of transportation in a city car), for study.

They proved later to be exactly 100 sherds, mostly large, from two different archaeological sites from the bypass, those numbered 1 and 4. As we still hope – an acceptable and relevant sample from the entire archaeological inventory. Giving the fact that the time was ticking – too fast – we decided to make from this lot an introductory study on Chilia-Militari pottery.

METHODOLOGY

Fortunately we were not forced to look much for a recording system; both researchers implied in the 'laboratory phase' had in their backgrounds PhD thesis dedicated to pottery, for close related areas of research⁴⁰. It have been established four key criteria for evaluating the quality of the ceramic paste, on a fixed scale of 5, where 1 is 'bad' and 5 is 'excellent', as follows:

³⁹ We did not alter the selection of the artefacts, just taking two of the most interesting packs, as they were.

⁴⁰ TEODOR 2001, BĂDESCU 2011. The processing system is strongly indebted to the older handbook of ORTON/TYERS/VINCE 1993.

Table 1. Criteria for the ceramic paste evaluation

critterion	code	meaning	simple hints
hardness	D1	very friable	fragments can be detached by soft rubbing with the fingers
	D2	friable	fragments are detaching when rubbing with the nail
	D3	soft	the sherd can be scratched with the nail
	D4	hard	the sherd cannot be scratched with the nail
	D5	extremely hard	the sherd cannot be scratched with a knife (glass like)
roughness	R1	very high	the surface has obvious and systematic bumps, visible from distance; rough touch
	R2	high	the uneven surface is not very well visible, but extremely obvious to the touch
	R3	dusty	smooth surface, but handling the sherd leaves on the fingers a silty dust
	R4	smooth	flat, regular surface, no roughness
	R5	soap like	slippery surface
inclusions' size	M1	very coarse	> 6 mm; oversized but rare (less than 1 to 20 cm ²) are ignored
	M2	coarse	2-6 mm (same as above)
	M3	middle sized	0.5-2 mm
	M4	small	0.2-0.5 mm
	M5	very small	less than 0.2 mm
inclusions' frequency	F1	very high	> 30% (adapted after the chart from ORTON/TYERS/VINCE 1993, 238)
	F2	high	15-30% (or around 20%)
	F3	medium	5-15% (or around 10%)
	F4	small	<5% (certainly less than 10%)
	F5	almost invisible	less than 2%

The size and the frequency of the 'inclusions'⁴¹ are followed by a list of identifiable inclusions, just with the naked eye or a magnifier, codified as follows (Table 2).

We used deliberately a very limited range of colour names. Although the Munsell code is so popular between archaeologists⁴², we believe that would be a wrong choice⁴³, at least for our research. One can find five or ten different Munsell shades on every pot sherd; which one to be recorded and why? The object of study is not some new stuff, but seventeen centuries old ceramics, used for cooking – then smoked – and storage – sometimes for fats, leaving darker stains. Once broken, they filled garbage pits and burned several times along organic waste, following the complicated depositional alterations. Some of the fragments are so deteriorated that one could hardly guess the original basic colour.

The records of the database are made in Romanian language, of course, trying to find here the most appropriate

⁴¹ The term is consecrated, although not fully acceptable in any circumstances, as an archaeologist rarely can determine, just by himself, if an 'inclusion' is natural (geological) or technological (a proper 'inclusion').

⁴² As in the very detailed report for the Roman pottery from London (DAVIES/RICHARDSON/TOMBER 1994, 5).

⁴³ And we are not alone (see TALPERT 2010, 264, bringing basically the same arguments as above).

Table 2. Codifying inclusions

code	meaning	hints
N01	clay	unkneaded pellets
N02	crushed sherds	more compact, different shade of colour
N03	crushed shells	laminar, relatively soft, dissolved by acids
N04	Limestone	whitish as the quartz, but softer; usually dissolved by the hit, leaving small holes; possibly found in barely fired pottery
N05	Mica	usually silver-like, or even black, shiny, friable
N06	iron oxides	red or black, magnetic
N07	Sand	visible with the naked eye, but also on touch (the fine one)
N08	broken flint	yellowish, hard, opaque
N09	Quartz	not coloured or white, hard, glass like, do not react with an acid
N10	feldspar	laminar, usually of a light colour, easily making cleavage
N11	Vegetal	traces left in fired clay
NX	Unknown	not identifiable by the archaeologist
NY	Without	without visible inclusions

English correlatives. After completing the database, the terms used have been normalised, in order to get the simplest picture of the distribution of colours (Table 3).

Table 3. Basic colours describing the pottery from Alexandria

basic colours	shades	number in each class ⁴⁴
grey	(half black)	24
	light grey	8
	dark grey	13
	yellowish grey	2
	reddish grey	1
brown	(ice coffee)	9
	light brown	2
	dark brown	1
yellow	(pale yellow)	1
	reddish yellow	21
red	(brick-red)	9
	yellowish red	7

Indexed colours have been used only for describing the surface of the pot, or the slip cover. For a description of the inner part, visible on the broken section, we have avoided naming colours, for the very good reason that the section of a pot is – most usual than not – an array of shades; we used instead a conventional – and theoretical – sequence of firing, as follows:

Table 4. The theoretical sequence of firing

code	description	details
OO	oxidant	homogenous 'warm' colour, including the section
OR	reduced	homogenous grey (of any shade)
IN	incomplete	oxidant firing, but too short (the sherd is also relatively friable), with reddish faces and grey core
RS	reversed	as above, but the outer face is more reddish than the inner face (firing upside down?)
IS	insufficient	as 'incomplete', but worst (shrinking cracks, exfoliation)
CO	complex	sequence of warm and cold shades suggesting an alternation of firing in oxidant and reduced atmosphere (in any combination), on a hard, well-cooked pottery
SE	secondary	extensive secondary firing (no parts of the sherd would allow a certain evaluation of the original colour)

Note that for the secondary firings which are not preventing the evaluation of the original colour, there are used the next notations (as the third sign in the code above):

1 = no secondary firing

⁴⁴ There are 98 sherds in the table; two were not allocated, having a severe secondary burning.

2 = functional firing (as those of the cooking pots, for instance)

3 = secondary firing after the breaking (as in a garbage pit)

4 = secondary firing of undetermined origin

As a consequence, the Code from the Table 3 will display an array of three signs, as OO1, OR1 or CO3.

We did not take into consideration the possibility that the shades of colour could be due not to a deliberate sequence of firing, but to the position taken by a recipient in the kiln, as described in the literature⁴⁵; in the simplest way of understanding, the pottery located on the perforated grill would take a darker shade, like dark grey, but the pots located near the chimney, up, would turn lighter, as pale yellow. We don't know in fact the exact type of the kiln (closed by a dome, or not?), so such presumptions are now irrelevant. Nevertheless, the hypothesis has to be considered, sometime in the future, because it would easily explain why sorts of pottery usually grey (as the tableware), can sometimes look reddish, or vice-versa, some 'traditional' handmade pottery, usually oxidized, turn darker or grey. What really do the codes from the Table 4 is something simple and handy: to describe a scheme of the colours beginning with the outer and the inner faces and the relationship between the faces and the core, no matter the technological reason.

The system of recording the fabrication issues, described above, was doubled, for Alexandria lot, by a general classification of the categories of fabrication, in a dedicated table. Because the available space in our laboratory is not enough to see all the one hundred sherds in the same time, to be grouped on apparent types⁴⁶ from the very beginning, we have proceeded to classify groups of 10-15 sherds at once. Every identified type received an interim name (code), and one sherd of each was collected in a reference fabrication set, the provisionally name being noted on it, with a marker. For the publication, the interim names were doubled by another column, containing a final classification, grouping them on classes of fabrication. Both 'names' (simply letters) are important, because the interim labels are used in the main record of the database⁴⁷, as well as in some snapshots, and the final classification because it presents a (hopefully) meaningful set of sorted data; therefore, both are rendered in the next table (5). It is important to say that defining types of fabrications we looked merely to the quality of the clay, the inclusions (sort, size, frequency), and some of the outcomes of the firing, as the hardness and roughness, but not at the apparent colours of the sherd, as long as they could be the result of such a random fact as the position of the pot in the kiln, or a secondary burn. Similarly, the technique of shaping (wheel-thrown or handmade) did not affect the classification, being anyway recorded on a dedicated field.

⁴⁵ NIKOLSON 2010, 4.

⁴⁶ The procedure is the usual, making groups more or less alike, by visual evaluation (TALPERT 2010, 264). Working with a relatively limited set of samples, we tried to avoid producing a very detailed classification, intention half-fulfilled (the outcome is relatively branchy, as one can see in the Table 5)

⁴⁷ And this will be shortly available for the public, on the web-site of the project, www.limes-transalutanus.ro, under 'baze de date' (databases) page.

Table 5. General classification of the fabrication types (Alexandria samples)

final sort	provisional	count	Description
A	F	2	Half-fine clay, relatively soft (class 3), homogenous, compact; inclusions of small dimensions (class 4) and relatively low frequency (class 3), sand and mica ⁴⁸ . Reducing firing, or slightly oxidizing, but using a blackish coat (it is a 'greyware'). Similar with the type F, but better and covered by slip
A1	F1	3	As type A, but finer (frequency class 4). It has no slip and has the same firing colours as the previous (from brownish to middle grey) ⁴⁹
B	J	1	Half-fine clay, relatively hard (4), well kneaded, reddish yellow, middle quality sort, including middle size sand and rare but coarse limestone (both as small pinches and large but rare pebbles). It misses mica and it is a good candidate for an import .
C	G	1	Half-fine clay, hard (4) and compact, without visible inclusions, but with a relatively rough touch, thus having plenty of fine sand. Grey, possibly import .
D	H	2	Half-fine clay, similar to type C, but less rough, thus less sandy. All reduced and coated (grey on grey, lighter or darker). Possibly import .
D1	H1	14	Similar with the previous (type D), but the sand is visible with the naked eye. All local (contains mica), all coated, most often fired in oxidized atmosphere (from light brown to yellowish red), but some turn grey (4 out of 14). Best candidate for local replicas of the Roman shapes.
D2	H2	1	Half-fine, sandy but smooth, with lots of mica, sparsely and small quartz, adding yet some vegetal marks; complex firing, grey coating of good quality, darker as the main fabric.
E	I	6	Half-fine clay, relatively soft but homogenous, sandy touch, always grey and coated (almost always the slip is finer but also of a darker shade). All local (mica is present). The Type E is a close relative of the type A (and especially A1), but better, excellent sorted (inclusions almost invisible). It can be understood also as a local replica to the fabrication type D.
E1	I1	1	A variant of the type E, missing mica but having instead some small grains of quartz. Probably import . It is also similar to the type D (which is an import), but not identical, being softer, but having larger inclusions.
F	E	1	Half-fine clay, hard, rough touch, containing sand (not visible), mica and quartz of relatively small size (class 4) and middle frequency (class 3). Grey, no coat visible.
F1	E1	2	A variant of the type F, finer (inclusions of lower frequency, class 4), grey also, coated (darker).
G	L	1	Coarse sandy paste, rough, well burned, containing also smashed sherds, mica, quartz and vegetal parts. The frequency of the inclusions is high (class 1). Red. Used for a handmade pot.
H	K	3	Very coarse paste (M1, F1), but not very rough at the touch, having inclusions as sand, quartz, powder of mica, crushed sherds (from very small up to 6 mm) and limestone (? white, friable). Red, relatively well burned, mostly handmade pottery.
H1	K1	5	Similar with the basic type H, harder, more sandy, better sorted. No crushed sherds. Red, mostly handmade pottery.
I	B	3	Half-coarse paste, relatively hard and rough, inclusions of average size and frequency (sand, mica), light grey shades.
I1	B1	1	A rougher variant of the type I, with greater inclusions (size and frequency), incomplete firing, yellowish surface.
J	D	22	Half-coarse paste, relatively hard (4) and rough (2), middle size inclusions (sand, mica, quartz). Almost always well burned on both cases of the basic colours, red-brick and grey. All wheel turned. Usually not coated, but exceptions occurred. This is the most often case of fabrication type in Alexandria (22%)
J1	D1	12	Variant of the main kitchen ware type fabrication, coarser (F 1), also well represented statistically (11%).
K	A	11	Coarse paste, very rough, hard, well burned, most of the time oxidizing (8 cases out of 11); usual set of inclusions (sand, mica, quartz). All used for wheel thrown pottery.
K1	A1	2	Variant of the type K, still coarser, with quartz grains up to 3 mm and crushed sherds up to 6 mm.
L	C	3	Coarse paste, rough (2), hard (4), not always well burned, with the usual set of inclusions in the local clay (sand, mica, quartz) and frequencies below 30% (F2).
L1	C1	2	Same as the basic type, adding crushed sherds.

In the process of recording data about the pottery

⁴⁸ These two are almost ever present in the sherds from Alexandria, and seems included in the local source of clay. Mica is present on the regional scale, all over along Limes Transalutanus (south of the Argeş River), but also east of Bucharest, speaking here only about soils very well known by the authors. The lack of mica is a strong indicator of imports.

⁴⁹ See yet the different resolution given by the petrographic analysis (infra). We cannot give up this 'archaeological' definition, as long as this is what a human can see with the naked eye, which is the most common situation in processing pottery. It turned out anyway that the fabrication type A1 has a slip.

from Alexandria, the detailed description of fabrication (Tables 1-4) and the integrated typology of fabrication (Table 5) were used in parallel. The two sets of data are redundant to each other and apparently one of them is parasitizing the system. In fact, they were useful as they were planned, being used at the end of the recording process and previous to the analysis of data, as a cross reference system able to spot the errors in evaluation or just in the transcription of data. The records identified as having errors were reprocessed and fixed.

PETROGRAPHY

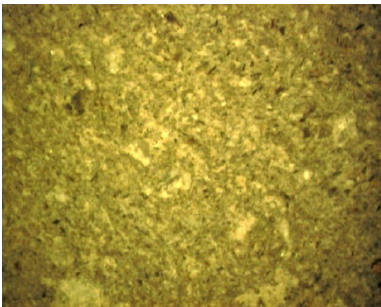

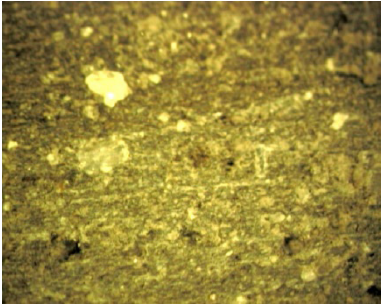

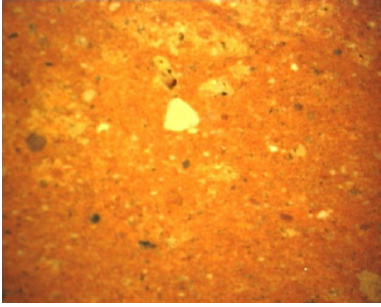

There has been selected one sherd from each type – as determined by archaeologists; all were sectioned with a diamond disc cutting machine and manually polished, then analysed at a stereomicroscope at x50 - x100 magnification.

The observations were made on the nature and texture of the matrix, homogeneity and nature, dimensions,

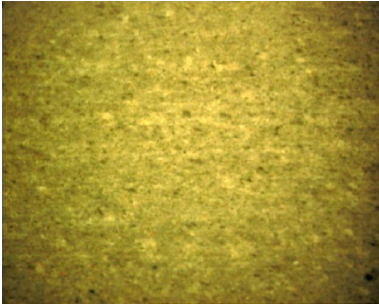
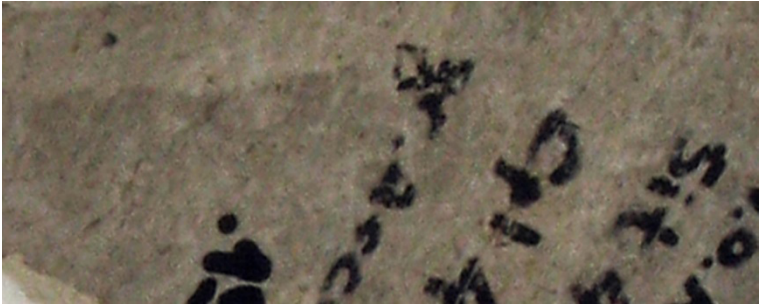
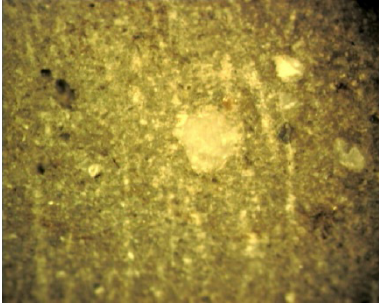

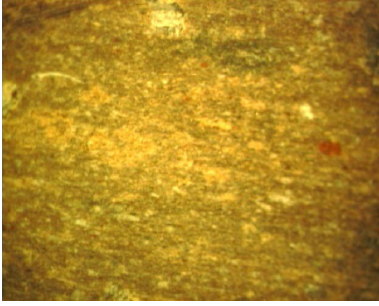



and frequency of inclusions. The sorting and variability of dimensions were considered in order to appreciate the degree of mixing of different sediments, or to argue the use of sediments in the natural state.

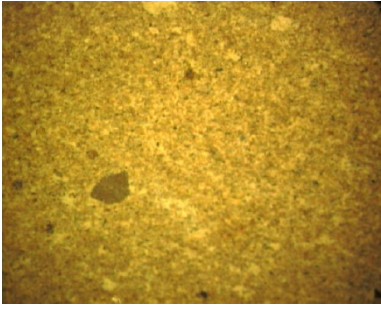
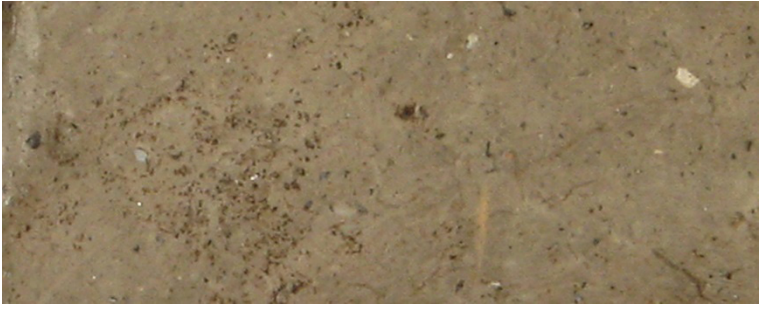






The photographs for each fabric type were done with the x5 objective at Olympus BX 60 microscope (named ‘microphotography’ at the Table 6).

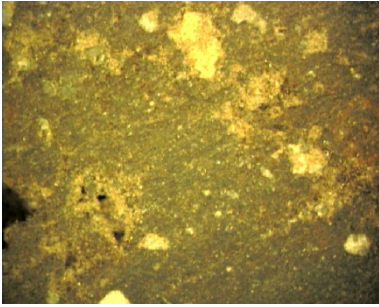

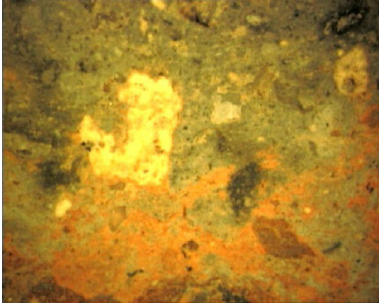





Table 6. Description of the identified types of ceramic paste⁵⁰

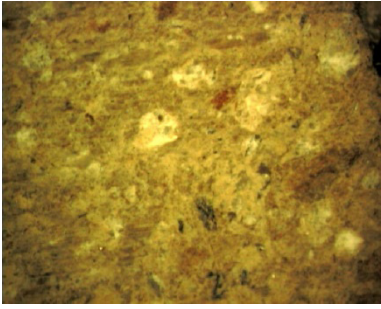

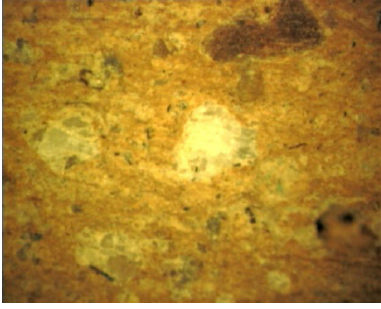



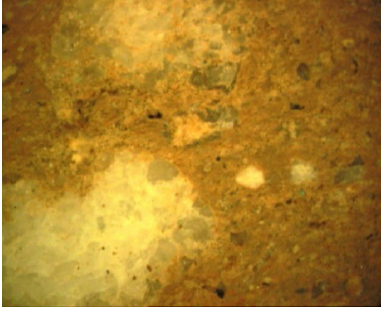

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
A	F		
<p>Semi-fine homogeneous paste. Paste semi-fine with clay and fine sand, with fine mica, including remobilized on the surfaces, with slightly larger sizes. Practically without inclusions, without mixing, from natural sediments.</p>		A1	F1
		<p>Semi-fine heterogeneous paste. Paste coarser than provisional type F (see above), clay with frequent fine to medium sand, external surfaces frequent mica and rare inclusions of quartzite of 2 mm.</p>	
B	J		
<p>Very fine paste. Fine paste, silty clay, with rare grains of carbonate (5%), generally lamellar, 1-3 mm, probably fragments of shells. Grains of quartz are absent.</p>			

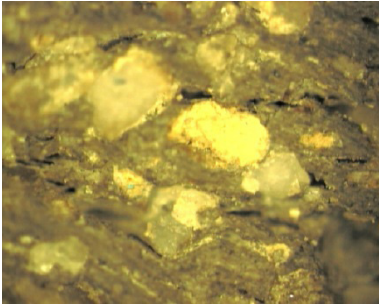
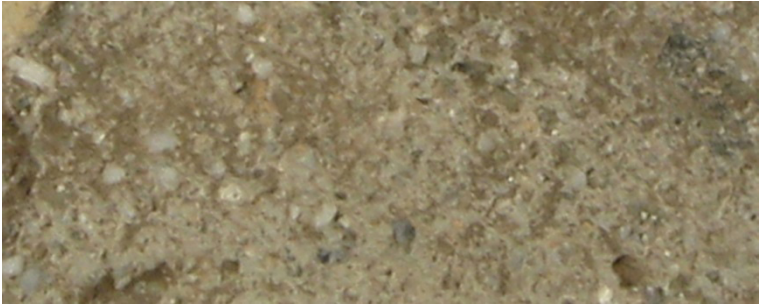
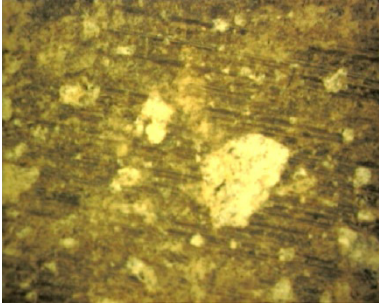



⁵⁰ On the header of the first column F means ‘Final sort’ (elected for publication), and P means ‘Provisional sort’ (working with the database, including that accessible online (<http://www.limes-transalutanus.ro/baze-de-date/ceramica.html>)).

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
C	G		
		<p>Fine homogeneous paste.</p> <p>Fine paste, very homogenous, consisting of clay and silt, compact, with rare and fine muscovite.</p>	
D	H		
		<p>Semi-fine paste.</p> <p>Semi-fine paste, compact, clay and fine sand, with medium to coarse sand inclusions and small mica on the surfaces. It is probably a mixture of two sediments.</p>	
D1	H1		
		<p>Semi-fine paste.</p> <p>Similar to the previous, having clay and fine sand, but coarse to medium sand more frequently, generally quartzite, but mica is absent.</p>	
D2	H2		
		<p>Fine paste.</p> <p>Fine paste with clay and fine sand matrix, more frequent (5-10%) but fine mica, and very rare grains (up to 2 mm) of quartzite and limestone.</p>	

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
E	I		
		<p>Semi-fine paste.</p> <p>Similar with the provisional types H (see D). Fine sandy clay, rarely medium to coarse sand, quartzite, but frequent fine muscovite on surfaces.</p>	
E1	I1		
		<p>Very fine paste.</p> <p>Silty clay, very homogeneous, grey, with rare grains of fine sand and few of medium sand, quartzite, fine-grains of mica very rare. Frequently fine muscovite on the outer surface.</p>	
F	E		
		<p>Semi-fine paste.</p> <p>Paste with fine sandy clay matrix and medium to coarse sand inclusions and rare very coarse, without fine gravel, quartzite and limestone in relatively equal proportions, but the grains of limestone are finer and rounded.</p>	
F1	E1		
		<p>Semi-fine paste.</p> <p>Paste with fine sandy clay matrix and medium to coarse sand inclusions and rarely very coarse, without fine gravel, quartzite and limestone in relatively equal proportions, but the grains of limestone are finer and rounded.</p>	

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
G	L		
		<p>Coarse paste.</p> <p>Coarse paste, similar with the provisional type K (see below), but has a finer matrix, fine to medium sand, rare coarse sand and rare pottery fragments. Rare very fine mica.</p>	
H	K		
		<p>Coarse heterogeneous paste (“with everything”).</p> <p>Coarse paste, very heterogeneous, silty clay, coarse sand and rarely fine gravel (3-4 mm), generally quartzite but also limestone grains and crushed pottery. Rare fine mica.</p>	
H1	K1		
		<p>Coarse paste.</p> <p>Very coarse paste (seemingly rather to the provisional type A; see below, type K), with fine sand, coarse sand and fine gravel, visible on surface. The low sorting of the sediment most likely indicates that the gravel was added to the matrix of fine sand.</p>	
I	B		
		<p>Semi-coarse homogeneous paste.</p> <p>Fine to coarse sand, moderately sorted, with rare fine gravels (5-10%) of 2-3 mm and rare and fine mica (muscovite). It may be a natural sediment without mixing/preparation.</p>	

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
I1	B1		
		<p>Semi-coarse heterogeneous paste.</p> <p>Fine to coarse sand, moderately sorted, inclusions of fine gravel more frequent (10-15%) and fine mica. We noted the clay covering the coarse grains.</p>	
J	D		
		<p>Coarse paste.</p> <p>Coarse paste with frequent inclusions of coarse sand, quartzite and limestone, in relatively equal proportions, angular, possibly intentionally crushed, and very rare fine gravel of 2-3 mm.</p>	
J1	D1		
		<p>Coarse paste.</p> <p>Coarse paste with frequent inclusions of coarse sand and very rare fine gravel, frequent quartzite and rarely limestone, fine mica present.</p>	
K	A		
		<p>Coarse paste with very small gravels.</p> <p>Very coarse paste composed of fine sand, coarse sand and fine gravel, including on surfaces, especially the outside one. The very low sorting of the sediment most likely indicates that the fine gravel (25-30%) is added to the matrix of fine sand.</p>	

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
K1	A1		
		Coarse paste with very small gravels and crushed sherds.	
		Coarse paste, matrix of fine to coarse sand, poorly sorted, with rare fine gravel and rare pottery fragments.	
L	C		
		Coarse paste with very small gravels.	
		Very coarse paste, frequent coarse inclusions, very similar to provisional type C1 (see below), without grains of burned clay or crushed pottery, but with rare, rounded, carbonate granules, 1-3 mm.	
L1	C1		
		Coarse paste with very small gravels.	
		Very coarse paste, like the provisional type A (see K), frequent coarse inclusions, including on the surface, approx. 30%, with frequent quartzite and limestone approx. 5% and very rare grains of burned clay. Matrix of fine sandy clay, very low sorting.	

We will close this large section of petrography with some comments of the archaeologists while looking at data. They were not very glad to see that the publication order proposed for the fabrication types⁵¹ (see above, Table 5), following only what they could see with the naked eyes, was only partially confirmed by the petrographic analysis. The intention was to make a continuous sequence, leaving from very fine pottery and ending with the coarser types. What an archaeologist see is, first of all, the surface of the sherd, which is frequently covered with a slip, usually with a different – smoother – composition; one can see also the

⁵¹ What one could get there is, *stricto sensu*, a classification of the paste composition, because other usual factors, as the colour and the technique of shaping (with or without the potter's wheel) were excluded, in order to avoid dealing with too many types, making statistics useless.

broken section, of course, but if it is not perfectly clean and straight (and it is not), the 'sort order' will follow rather the appearance of the slip, if any.

We have to live with that, anyway, because the petrographic expertise is slow and expensive, and it is always performed on *sampled* artefacts, not on the whole body of discoveries. Today – and also in the predictable future – the archaeologist will do that dirty job of evaluating every sherd in the laboratory; all classifications of the fabrication being based on that.

This petrographic expertise is nonetheless relevant, as one can see, enlightening some crucial facts. So would be the 'inclusions', which are added matters to the native clay matrix. This is the case mainly with the so-called 'coarse' ceramic paste; 'coarse' because in some cases, as the type

K, the pebbles are added to a *fine* matrix of clay. Similarly, the type J was made with *broken* inclusions, which proves an elaborate technology, rarely suspected for the ‘coarse’ pottery. Most of the types from this class are in a similar situation (types I1, J1, L, L1). Even more interesting, such kind of additions can be encountered for semi-fin pottery, as illustrated by the types A1, D, E and E1.

The morale is that the clays available in the area are generally fine⁵², but in order to obtain a certain type of ceramic paste, for a certain utilitarian function, the potters added hard matters, as coarse sand, quartzite or crushed sherds. Those inclusions are not improving the pot’s appearance, but most of the times improve the mechanical properties, as the resistance on sudden heating or the breaking stress⁵³.

The petrography boldly highlights the importance of the slip, for which, in most of the cases was used a *different* natural resource, not just a diluted clay. The analysis confirmed that the presence of mica is almost general, with a very important amendment: the muscovite is very tiny and rare in the body of the pot, but larger and pretty frequent in the slip. It means that the potter had to search sediments reach in mica, and to use that especially to make its products ‘shine’, which is a deliberate ‘trading’ attitude.

A last very important fact is connected with the use of the crushed sherds in the composition of the prepared ceramic plastic matter. There is a long prejudice, at least in the Romanian archaeology, about the presence of this type of inclusion, which would be – no more or less – a sign of barbarism, thus a good reason to handle it as an ‘ethnic’ litmus⁵⁴. In fact, as we can see, only the size matters... The potsherds can be very fine crushed, down to the point of invisibility (with the naked eye), but still playing a role in improving thermic behaviour of the artefact⁵⁵.

THE ANALYSIS OF DATA / CATALOGUE

The petrographic analysis brings a valuable insight of the matter. A statistical analysis could be run anyway only on archaeological observation, which is basically a naked eye rendition of the studied objects; the reason is plain: it can run on large numbers. We can see also a second strong reason: if the archaeologist can’t tell a difference between two objects, then is very unlikely that the historical user ever made a stylistic difference, even when the fabrication details could be a bit different.

The detailed description of the fabrication types, as pictured in the Table 5, will be gathered further in three large classes of objects, as follows:

- imported pottery (as an archaeological presumption, types B-D, E1)
- fine paste pottery (all types between A and F2, excluding

the above mentioned)

- local kitchenware (all types from G to L1)

Each of the three is introduced by an illustrated catalogue, followed by some comments. The catalogue includes only some of the fields from the database, trying to compress data as much as possible, in order to save space. The order is sorted depending on (1) group, (2) function, (3) fabric, (4) context and (5) present part (first the upper, then the lower).

GENERIC CLASS: IMPORT

ID: 33 fabric: D **ink notes:** [VOA; sit 4A;] 1-124; .33 tip H **context:** site 1, cpl ? **group:** liquid containers **function:** flagon **present:** Shoulder **ref. D:** G % of D.: 30 **estim. D. (mm):** 76 **size of section (mm):** 4 **relative size of section:** C **colour:** grey **slip**⁵⁶: dark grey

morphology: Upper body, just beneath the neck, down to the proximity of the middle diameter. For a proposal of restitution see the drawing (artefacts 33+96).

free notes: Polished outside. A fragment of a vessel bottom (ID 96), from the context 22, could also be originated from the same object.

ID: 96 fabric: D **ink notes:** VOA; sit 1; km 6+700; cpl 22; .96 tip H **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon? **present:** bottom to lower body **ref. D:** B % of D.: 30 **estim. D. (mm):** 70 **size of section (mm):** 4 **relative size of section:** B **colour:** grey **slip:** dark grey

morphology: Base standing on a short whorl (shaped from the same bulk of clay), wall rising at 125°, suggesting a developed, arched belly. Ascribing it as ‘flagon’ is just a hunch (could be also a deep bowl).

free notes: A harsh, horizontal polishing on the outer wall (thus more a ‘flagon’, than a ‘bowl’) made marks and irregular incisions. The artefact was exposed to flames after being broken (like in a waste pit). Very likely it comes from the same pot as ID 33.

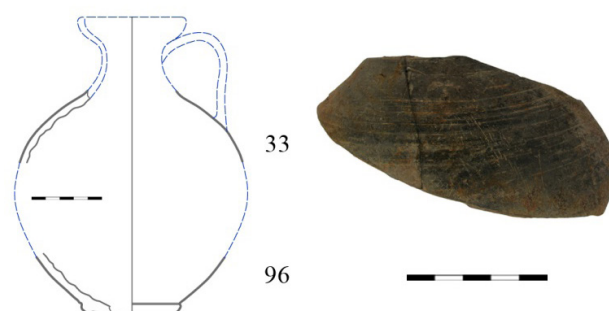


Figure 2. Reconstructed shape of a flagon, very likely not made on site.

⁵² Which is not coming as a surprise, as long as both sites are standing on the banks of a slow, muddy river.

⁵³ BRONITSKI/HUMER 1986, FEATHERS 1989.

⁵⁴ As did TEODORESCU 1971 about Ipotești-Cândești culture, splitting it in a western, Romanized area, with ceramic paste without crushed sherds, and an eastern, more barbarous area, with very obvious crushed sherds in composition. This west-east opposition from the sixth century has to same roots as that from the third century.

⁵⁵ In a recent discussion, Agnieszka Tomas told us that much of the pottery made in *Novae* has very fine crushed sherds in the composition of the ceramic paste. As laboratory tests proved, this inclusion is meant to improve the pots qualities for thermic shock (BRONITSKY/HAMER 1986).

⁵⁶ Short directions for reading the catalogue: **ID:** number in database (**Alexandria group**) and **ink mark on the sherd;** **fabric:** see Table 5, column 1; **ink notes:** all inscriptions in ink; **context:** site and context; **group:** functional group; **function:** supposed function; **present:** conserved diameter; **ref. D:** size of the same diameter; **% of D.:** percent of the conserved diameter; **estim. D. (mm):** estimation of the same diameter (mm); **size of section (mm):** cross-section in mm; **relative size of section:** an intuitive evaluation, where A is ‘thick’, B is ‘normal’, C is ‘thin’; **colour:** of the surface, under the slip (if present); **slip:** mentioned if present.

Table 7. Comparative data for flagons' capacity n Roman Oltenia and Chilia-Militari milieu

sextarii	0.5	1	2	3	4	5	6	7	8	9	10
Roman Oltenia ⁵⁷	4	52	29	11	8	5	2	0	0	1	1
Chilia-Militari	0	0	1	2	3	0	0	1	1	0	0

ID: 05 fabric: B **ink notes:** VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .5 tip J **context:** site 4A, cpl 4 **group:** storage **function:** amphora **present:** Fragment of body **ref. D:** middle % of D.: 10 **estim. D. (mm):** 410 **size of section (mm):** 7.8 **relative size of section:** B-C **colour:** reddish yellow **slip:** reddish yellow

morphology: A relatively large amphora, with a developed and rounded belly.

free notes: Strong marks of spinning inside. The external wall is well finished, straight, undecorated, and finer than the core (the slip has the same colour). Sandy paste (over 15%), with larger but sparse fragments of limestone (≤ 3 mm). Oxidizing firing in two stages, the first highly ventilated, the second less.

ID: 20 fabric: D **ink notes:** VOA; sit 4A; cpl 4; .20 tip H **context:** site 4A, cpl 4 **group:** tableware **function:** dish ? **present:** rim **ref. D:** G % of D.: 5 **estim. D. (mm):** 300 **size of section (mm):** 3.6 **relative size of section:** C **colour:** dark grey **slip:** light grey

morphology: A simply rounded rim, heading 60° from the axis of symmetry (suggesting a flat and shallow recipient).

free notes: A stripe on the external face is apparently polished.

ID: 21 fabric: E1 **ink notes:** VOA; sit 4A; cpl 4; .21 tip I **context:** site 4A, cpl 4 **group:** tableware **function:** beaker? **present:** rim to the neck **ref. D:** G % of D.: 5 **estim. D. (mm):** 120 **size of section (mm):** 4.2 **relative size of section:** B **colour:** dark grey **slip:** almost black

morphology: Almost vertical rim, simply rounded, slightly reverted, a neck suggesting a long descending line down to the shoulder (thus a morphology with a long neck, as a large beaker). A small collar is highlighting the neck.

free notes: No decoration. The fragment is too small to allow us finding a certain analogy. The fabrication seems not local, thus the artefact could be of Roman manufacture. Although the Roman beakers are plenty, configurations with relatively vertical rim and a long neck with a collar are very few, as Popilian 1976, cat. 576-580, from which only one is grey (cat. 579), having only half of the size from that fragmentary found in Alexandria. The allocation of the fragment (as 'import' and 'beaker') should stay in attention (not from Oltenia?...). Better resemblance with Bichir 1984, plate XXI/3 (large beaker from Mătăsar), including the size (but the pot did come from Mătăsar, for which mica is almost every time present).

The first observation is that the list is rather short (5 sherds from 100, of which two are belonging to the same object), much below the figures given by Bichir for imports

⁵⁷ POPILIAN 1976, 95-101, cat. 418-531.

(10-15% from all thrown pottery). Nevertheless, this is only the list of the most obvious imports, due to the lack of mica. Saying 'imports' we will not understand automatically Roman manufacture, but any product made far away from the site. Speaking yet of settlements having their own production meanings (both have pottery ovens discovered), the imports from the neighbored Roman cities should be the most common way to provide social relevance to the owners. Due to the most likely chronology of the both sites from Alexandria, in the very late third century, the closest source of Roman goods is Novae, located only 40 km southward, as the crow flies. Looking now at the pottery made in Novae⁵⁸, we are facing two major facts: all the pottery from Novae has mica in its fabric, and it is all oxidized. As a consequence, we cannot ascertain imports from Novae just looking at the ceramic paste, and those possible imports are anyway absent from our list above.

The most interesting object from this short list is the flagon reconstituted from the sherds ID 33 and 96. Following the drawing from the Fig. 2, the recipient would have a maximum diameter of 16.4 cm and a height around 21 cm, having a capacity of almost two litres⁵⁹. The closest analogy – in terms of dimensions and colour – is to be found in Străulești⁶⁰, a flagon determined as having a similar capacity (1.7 l.)⁶¹. Although the flagons made in the area Chilia-Militari are following closely the morphology of the Roman ones, there are two major distinctions: the former are grey and generally much larger. In order to prove that intuition, we made a comparative table containing the capacity of the flagons from the both sides of the Olt River, for the Centuries 2 and 3; the collected figures, in litres, of course, were translated to the closest Roman unit of measure for drinking: *sextarius*⁶²

The table above (no. 7) is unexpectedly interesting. Almost half of the flagons found in Oltenia have a capacity around one *sextarius*; the next statistic results are coming, naturally, for 2, 3 and 4 *sextarii*. This very basic class of capacity for drinking (one *sextarius*) is completely missing from Chilia-Militari milieu, which has a climax very far, in

⁵⁸ TOMAS 2003.

⁵⁹ Exactly 1.89 l, calculated in AutoCAD.

⁶⁰ BICHIR 1984, plate XXIV/5.

⁶¹ Measurement made many years ago, while preparing PhD (TEODOR 2001), using the Compass System, which provides tools for morphology, but also capacity calculations (*idem*, see the third chapter). See also TEODOR 2000.

⁶² The sixth part of a *congius* (3.275 l., acc. to Enciclopedia civilizației romane, București 1982, s.v. 'măsuri'), then 0.546 l. Expressing the capacity of the flagons of the Chilia-Militari culture in *sextarii* we do not mean that the "barbarians" from București or Alexandria were actually using the Roman norms (the lot of artefacts is too small to prove anything about); *sextarii* are here only a very comfortable grouping variable for the scattered data. As concern the native data, in litres, it comes, for Chilia-Militari, from the Compass application (see the previous note); as for the Roman stuff from Oltenia (see the next footnote), there were used figures provided by the author of the monography, for 113 complete shapes. Of course, this kind of 'calculation' is rather a loose estimation, anyway too complicated to be fully described in a footnote.

the class of 4 *sextarii*. True enough, most of the discoveries from Oltenia are coming from the cemeteries, where some of the funerary could be a special, mortuary production, smaller in dimensions as the daily commodities, but the differences are too strong to be reversed by any possible conjecture. The meaning of this statistic is that in the Roman world the flagons were produced mainly for the individual consumption of wine, and that drinking wine was something usual, for all social classes. Although the lot of artefacts of Chilia-Militari type is still too small to jump on conclusions, the suggestion is, anyway, that the object was used mainly for short transportation (most of them are recovered from fountains!), not for (individual) drinking.

Another fact of interest here is that, from 113 Roman flagons from Oltenia, only four are grey⁶³, all relatively large (2.1 to 3.5 l.), and at least of them two are also certainly late (mid third to early fourth century). They could be not 'imitations of *terra nigra*', as Popilian thought, but imports from the other bank of Olt River.

GENERIC CLASS: POTTERY IN FINE CERAMIC PASTE

ID: 26 fabric: E ink notes: VOA; sit 1; km 6+700; .26 tip I context: site 1, ? **group:** liquid containers **function:** cauldron? **present:** rim to the neck **ref. D:** mouth % of D.: 3 **estim. D. (mm):** 260 **size of section (mm):** 3.2 **relative size of section:** C **colour:** light grey **slip:** grey

morphology: Slightly thickened rim, turned out 40°. The shape is an opened one, with a body shrinking beneath the neck. Broken handle, caught on the rim, relatively small (width 45 mm, height 36 mm) and probably short (closing just below the neck).

free notes: The outer face is attentively finished (looking polished). The inner side is somehow sloppier, with coils of wet slip made by a spatula. The fine fabrication suggests a commodity outside the kitchen, but the opened shape leaves little choices, as a sort of 'krater' (for mixing wine and water). The morphology is similar with the number 27 (see the drawing), yet with a simpler rim.

ID: 27 fabric: F1 ink notes: VOA; sit 1; km 6+700; cpl 27b; 1-065; umplutura cuptor .27 tip E1 context: site 1, cpl 27b **group:** liquid containers **function:** cauldron ? **present:** rim to shoulder **ref. D:** mouth % of D.: 7 **estim. D. (mm):** 450 **size of section (mm):** 8.9 **relative size of section:** A-B **colour:** grey **slip:** dark grey

morphology: Flat, wide rim (45 mm), everted outside; short neck, fragment of a body suggesting an opened shape; a small collar under the rim. The shape of the rim is not fitted for pouring liquids; it cannot be either a cooking pot (too large for that anyway). On the other hand, the opened shape would not be fitted for storage. The fine fabrication suggests a recipient for liquids, as, for instance, for mixing wine.

free notes: The object is deformed on firing, being more or less a reject of fabrication. No decoration has been observed.

⁶³ POPILIAN 1976, cat. 460, 529-531, all described as 'imitations of *terra nigra*' and all relatively large (in order: 2.7, 2.1, 3.5 and 3.1 litres, or 4 to 6 *sextarii*).

ID: 28 fabric: F1 ink notes: VOA; sit 1; cpl 27b; umpl. cuptor; 1-065; .28 tip E1 context: site 1, cpl 27b **group:** liquid containers **function:** cauldron/storage **present:** base and lower body **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 70 **size of section (mm):** 7.2 **relative size of section:** A-B **colour:** light grey **slip:** darker grey

morphology: Fragment of the lower body relatively splay; whorl on the underside of the base, made from one piece (not added).

free notes: Strong wheel marks inside, finishing marks outside. Polished decoration with vertical lines dragged from the very edge of the bottom. The bottom has a deformation due to the firing, of the same kind as the sample no. 27, but the two, although recovered from the same context, has too different shades to come from the same recipient, and the dimensions do not really fit.

ID: 93 fabric: E ink notes: VOA; sit 1; km 6+700; cpl 22; 1-116; .93 tip I context: site 1, cpl 22 **group:** liquid containers **function:** pot/ beaker? **present:** rim to the neck **ref. D:** G % of D.: 15 **estim. D. (mm):** 140 **size of section (mm):** 4 **relative size of section:** A-B **colour:** dark grey **slip:** grey

morphology: Oblique rim (50°), short neck, rounded belly – all indicating rather a pot, than a beaker, although the fabrication type is usually associated with tableware or liquid containers.

free notes: On the inner side of the rim – one can see traces of polishing – a common issue for bowls and jugs (flagons). Similar traces – on the outer face, on the shoulder.

ID: 97 fabric: E ink notes: VOA; sit 1; cpl 22; 1-123; .97 tip I context: site 1, cpl 22 **group:** liquid containers **function:** beaker **present:** bottom to lower body **ref. D:** bottom % of D.: 80 **estim. D. (mm):** 60 **size of section (mm):** 6 **relative size of section:** B **colour:** light brown **slip:** dark grey

morphology: Bottom with a whorl; on the inside the bottom is separated by the rounded body by a groove.

free notes: The paste of the main body is light brown, with a grey slip inside, but darker grey outside. The inner side is exfoliated for about 40% of the surface.

ID: 91 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-105; .91 tip H1 context: site 1, cpl 22 **group:** liquid containers **function:** carafe/table amphora **present:** rim, upper body and handle **ref. D:** mouth % of D.: 65 **estim. D. (mm):** 100 **size of section (mm):** 5 **relative size of section:** B **colour:** light brown **slip:** light brown

morphology: Rim slightly reverted. The handle is anchored just above to neck (and probably just above the middle diameter). The profile of the neck at the junction

Figure 3. Alexandria sherd ID 27, scale 1:5 (cauldron?).



has the wall slightly thickened, probably in order to better support the traction. The thickness of the section of the neck is a common feature with the artefact no. 31.

free notes: The slip is light brown, of the same colour as the main body of the vessel, but obvious enough due to its fineness. The jug (?) suffered damages from flames twice, once before breaking apart, and again afterwards. Nevertheless, large areas are not affected, displaying a fine vertical polishing, beginning immediately under the rim, down to the shoulder (and further).

ID: 31 fabric: D2 **ink notes:** VOA; sit 1; km 6+700; cpl 2; 1-012; .31 tip E2 **context:** site 1, cpl 2 **group:** liquid containers **function:** carafe/table amphora **present:** rim to the neck **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 150 **size of section (mm):** 9.3 **relative size of section:** A-B **colour:** reddish grey **slip:** dark grey

morphology: Thickened vertical rim, with a long, enlarged neck (suggesting a cap, a lid for transportation). The shoulder is suggesting lengthy morphology.

free notes: Very fine sand, plenty of mica (the hallmark of the local production), scattered quartz. Complex firing: light grey core, reddish yellow in sides, dark grey slip added. The handle is missing, but the place where it was hung is well visible, on the enlarged segment of the neck; the mark is 63 mm wide and 56 mm in height. This was a recipient of at least 10 litres (but possibly double!).

ID: 95 fabric: E **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-126; .95 tip I **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon? with handle **present:** handle (fragment) **ref. D:** % of D.: **estim. D. (mm):** **size of section (mm):** 12 **relative size of section:** B **colour:** grey **slip:** dark grey

morphology: Wide, massive handle with two longitudinal collars. It is 40 mm wide, suggesting an object of relatively large dimensions.

free notes: The cross section is very similar with no. 94, being probably sherds coming from the same object, very likely a large flagon. See Bichir XX/6 (it fits the lower body, but not the handle), XXI/8, XXIV/3 (flagon with a very resembling handle).

ID: 94 fabric: E **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-120; .94 tip I **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** bottom to lower body **ref. D:** B % of D.: 75 **estim. D. (mm):** 90 **size of section (mm):** 8 **relative size of section:** B-C **colour:** grey **slip:** dark grey **morphology:** The bottom with a whorl and the body raised at 125° recommends rather a bowl, but see further.

free notes: The core is grey (the inner 55%), the outer core is brown (40%), and the outer faces grey, with a slip still darker. Vertical polishing, using a spatula (sandstone?), on the lower body. This is not a proper 'decoration', but a finishing technique. Considering the striking similitude of fabrication (a complex one), it is most likely that sherds 94 and 95 (see above) are fragments from the same vessel, a large flagon (reconstructed at 31 cm in height, see the drawing).

ID: 71 fabric: A **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-173; .71 tip F **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** bottom **ref. D:** B % of D.: 20 **estim. D. (mm):** 13 **size of section (mm):** 6 **relative size of section:** B-C **colour:** brown **slip:** dark grey

morphology: Base standing on a whorl, wall strongly tilt.

free notes: In the area of the whorl the firing is incomplete, the core of the paste being grey (40% from the mass), the proxies – brown (50% of the mass), and the faces – grey again (possibly being a distinctive slip, up to 10%). The suggestion is an early firing in pretty much oxidizing conditions, ended with closing the ventilation. The past is well compacted.

ID: 92 fabric: D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-106; .92 tip H1 **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** rim to the neck **ref. D:** G % of D.: 60 **estim. D. (mm):** 100 **size of section (mm):** 3 **relative size of section:** A **colour:** brown **slip:** light brown

morphology: Thickened rim outside, a second collar beneath the rim, shoulder clearly delineated by a second collar; probably a flagon, having at most one handle (we have

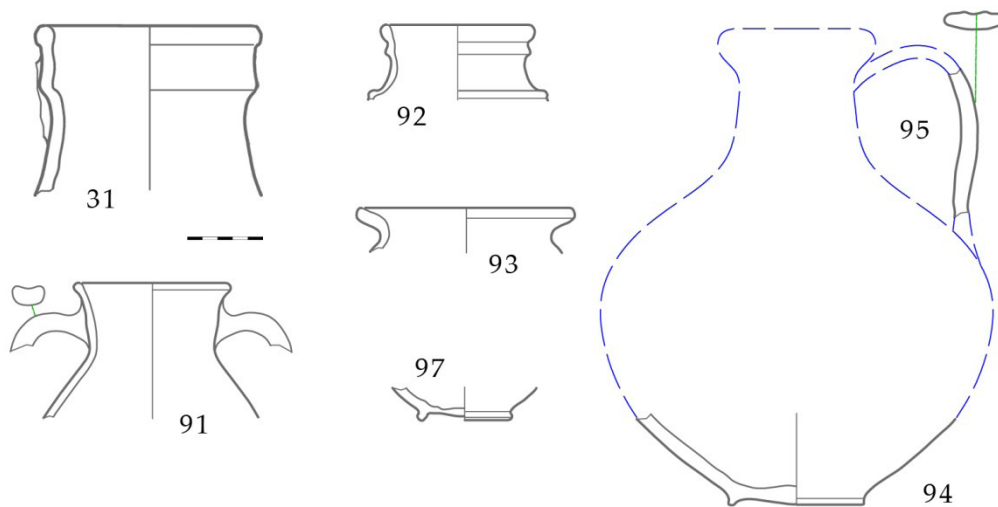


Figure 4. Alexandria – fine liquide recipients.

a 60% presence from the diameter, and no handle, but see the analogy, below, because the handle is to be found lower than the collar!).

free notes: Oxidized firing, light brown slip. The vessel has a secondary firing after breaking apart (two fitted sherd has different colours). Analogy Popilian 1976, 110 (jugs type 11, cat. 523-524), but no analogy within the known Chilia-Militari culture. Giving the fact that the fabrication is local, the jug is a local imitation of a Roman model.

ID: 18 fabric: A **ink notes:** VOA; sit 4A; cpl 4 **conturare** .18 tip F **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** rim **ref. D:** mouth % of D.: 15 **estim. D. (mm):** 280 **size of section (mm):** 3.8 **relative size of section:** C **colour:** light grey **slip:**

morphology: Thickened rim both inner and outer, triangular in section, flattened (22 mm wide).

free notes:

ID: 17 fabric: F **ink notes:** VOA; sit 4A; cpl 4 .17 tip E **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** bottom **ref. D:** bottom % of D.: 20 **estim. D. (mm):** 180 **size of section (mm):** ? **relative size of section:?** **colour:** light grey **slip:**

morphology: Strongly profiled base, standing on a discreet whorl, detached by the body by a sharp edge.

free notes: The sherd is cleaved and does not allow an evaluation of the thickness.

ID: 76 fabric: A1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-152; .76 tip F1 **context:** site 1, cpl 22 **group:** storage **function:** storage containers **present:** rim to the middle diameter **ref. D:** G % of D.: 20 **estim. D. (mm):** 300 **size of section (mm):** 8 **relative size of section:** B **colour:** brown **slip:**

morphology: Flat horizontal rim (13 mm), collar on the body.

free notes: Spinning traces inside; good firing, but not

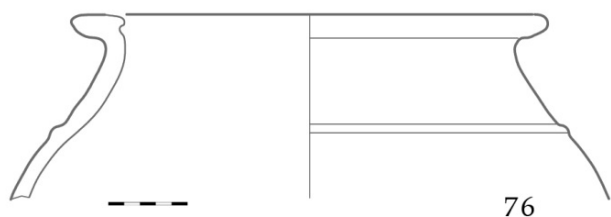


Figure 5. Brown fine storage recipient, scale 1:5.

enough.

ID: 19 fabric: C **ink notes:** VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .19 tip G **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** Shoulder to middle D **ref. D:** % of D.: **estim. D. (mm):** **size of section (mm):** 12 **relative size of section:** A-B **colour:** light grey **slip:** grey

morphology: Very massif fragment from in between the shoulder and the middle diameter.

free notes: Wheel marks inside. Incised decoration alternating bands of waved and horizontal lines, usually are standing on the shoulder, with an undecorated field below.

The wall is very thick (12 mm), suggesting a very large recipient. This kind of decoration usually occurs on storage vessels known as Krausengefäße for Chilia-Militari (Bichir 1984, XIV/4, XVI/ 6, 11, 12). The waved incision could be encountered on Late Roman storage vessels from *Moesia Secunda* (Böttger 1982, plate 50/96, 515, 519, 520; 51/601, 602), but never in this combination.

ID: 32 fabric: A1 **ink notes:** VOA; sit 1; km 6+700; cpl 23; 1-039; .32 tip F1 **context:** site 1, cpl 23 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 15 **estim. D. (mm):** 320 **size of section (mm):** 4.8 **relative size of section:** B-C **colour:** grey **slip:**

morphology: Flaring rim, thickened both way, mostly inner, flat top 11 mm wide; strong careen middle diameter, with a collar. The lower part is absent, but should be very thin and almost horizontal.

free notes: no decoration

ID: 77 fabric: A1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-122; .77 tip F1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl? **present:** bottom to the lower body **ref. D:** bottom % of D.: 15 **estim. D. (mm):** 90 **size of section (mm):** 7 **relative size of section:** B **colour:** grey **slip:**

morphology: Thick base standing on a whorl, the body is developed on 45° (which wouldn't recommend a storage vessel).

free notes: Spinning marks inside.

ID: 89 fabric: D1 **ink notes:** [VOA; sit 1; cpl 22]; 1-110; .89 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 330 **size of section (mm):** 4 **relative size of section:** B **colour:** yellowish red **slip:** yellowish red

morphology: Vertical rim, thickened outside.

free notes: Outer surface polished by spinning (visible on about 40% of the surface)

ID: 81 fabric: D1 **ink notes:** VOA; sit 1; cpl 22; .81 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the upper body **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 280 **size of section (mm):** 3 **relative size of section:** B-C **colour:** light brown **slip:** dark grey

morphology: Vertical rim, thickened outside.

free notes: Outer surface polished by spinning (visible on about 35% of the surface). Possible polishing on the inner face also.

ID: 86 fabric: D1 **ink notes:** VOA; sit 1; cpl 22; 1-111; .86 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 290 **size of section (mm):** 5 **relative size of section:** B **colour:** grey **slip:** grey

morphology: Vertical rim, thickened outside.

free notes: Outer surface polished by spinning (visible on about 75% of the surface).

ID: 85 fabric: D1 **ink notes:** VOA; sit 1; cpl 22; 1-114; .85 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of

D.: 10 estim. D. (mm): 300 size of section (mm): 5 relative size of section: B colour: yellowish grey slip: grey morphology: Vertical rim, thickened outside. free notes: The inner side is darker (the slip is conserved better).

ID: 88 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-108; .88 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 15 estim. D. (mm): 290 size of section (mm): 5 relative size of section: B colour: yellowish red slip: brick-red

morphology: Vertical rim, thickened outside.

free notes: The slip is fallen from the external side (80%), which is polished (on 40% of it).

ID: 90 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-109; .90 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 5 estim. D. (mm): 290 size of section (mm): 4 relative size of section: B colour: yellowish red slip: same, darker

morphology: Vertical rim, thickened outside. The middle diameter is strongly careened.

free notes: Outer surface is polished (40%) by spinning the recipient. The slip is fallen (60%). This is one of the few bowls having the middle diameter, being very similar with previous items (the same rim, same polished surface).

ID: 87 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-110; .87 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 250 size of section (mm): 5 relative size of section: B colour: yellowish red slip: yellowish red

morphology: Incurving rim, but almost vertical, bilateral thickening; biconical body.

free notes: Outer face decorated by horizontal polishing in alternated stripes with unpolished surfaces.

ID: 84 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-112; .84 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 290 size of section (mm): 4 relative size of section: B colour: grey slip: grey

morphology: Vertical rim, thickening outside.

free notes: The slip is preserved, but the external face is rougher than items numbered 79-83. No decoration observed.

ID: 83 fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-113; .83 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 350 size of section (mm): 4 relative size of section: B colour: brown slip: grey

morphology: Incurving rim, but almost vertical,

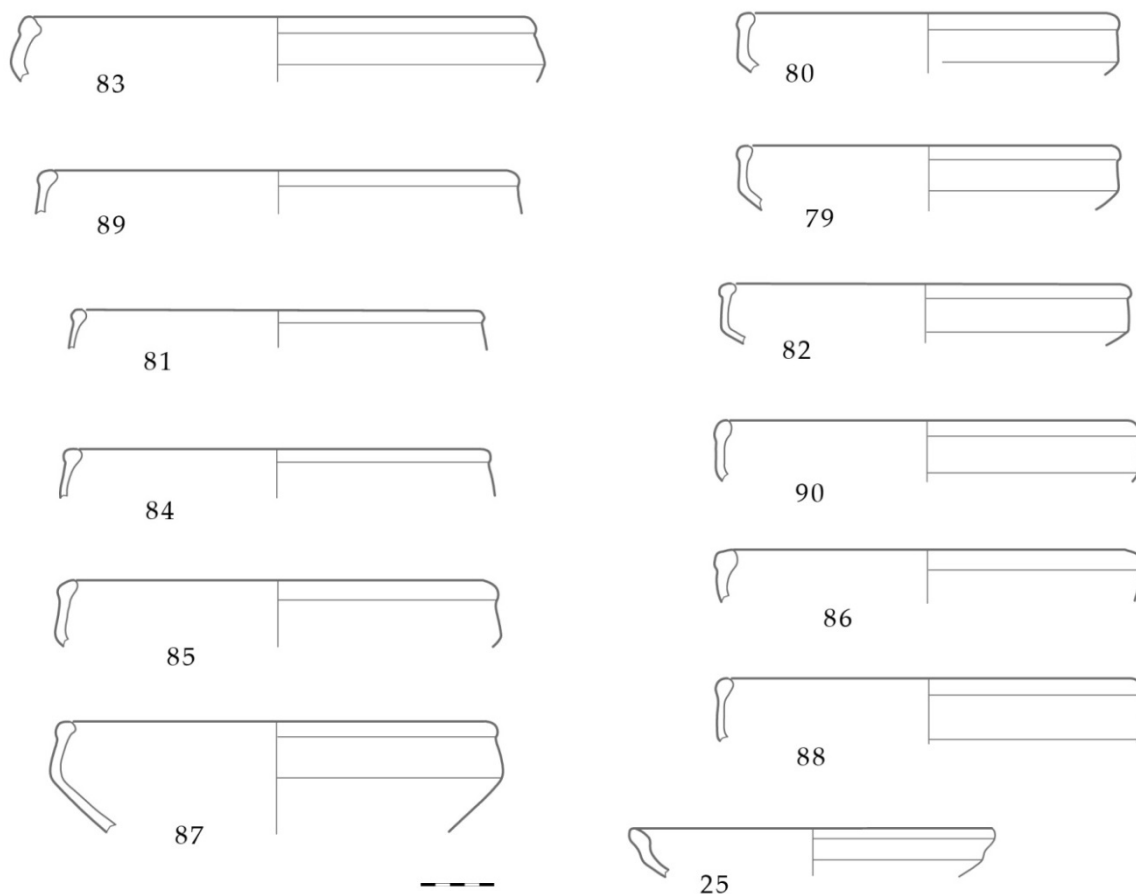


Figure 6. Bowls made of fine paste.

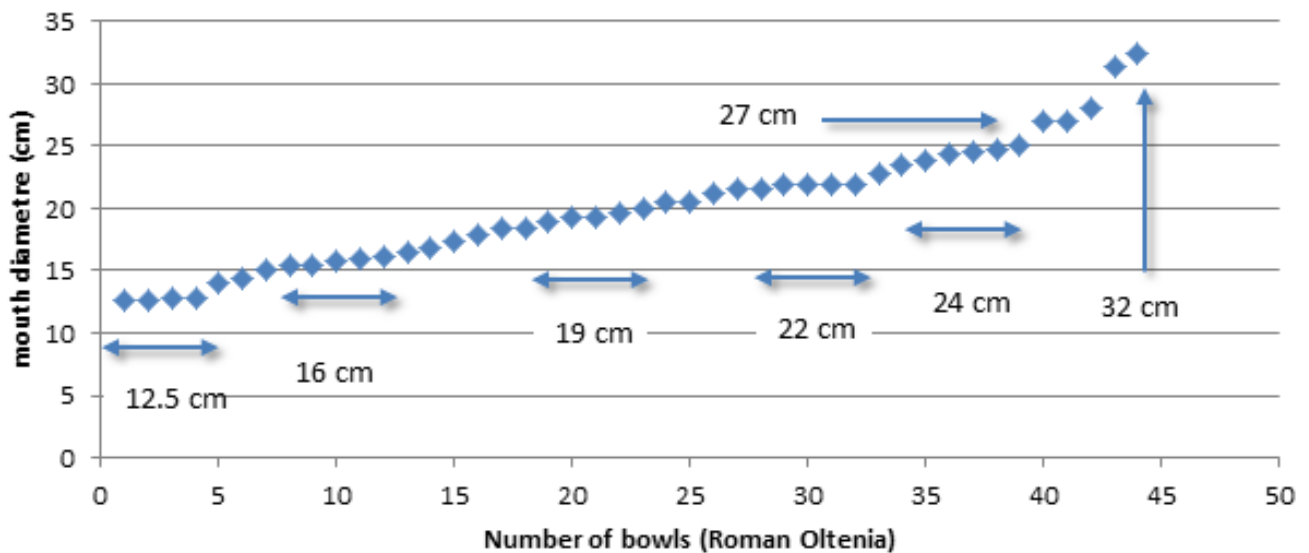


Figure 7. Diagram of the rim diameter for the Roman bowls from Oltenia.

thickened outside.

free notes: Almost all the slip is lost on the outer face.

ID: 79 fabric: D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .79 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 20 estim. D. (mm): 270 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:** dark grey **morphology:** Vertical rim thicker outside; another thickening in the shoulder area.

free notes: Polished outer face, made by spinning the recipient.

ID: 80 fabric: D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .80 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 5 estim. D. (mm): 270 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:** dark grey **morphology:** Vertical rim thicker outside **free notes:** Polished outer face, made by spinning the recipient (655).

ID: 82 fabric: D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .82 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 20 estim. D. (mm): 290 **size of section (mm):** 4 **relative size of section:** B **colour:** grey **slip:** dark grey **morphology:** Vertical rim thicker outside, middle diameter careen

free notes: Lost slip on the external face (40%), the rest polished around 60% of the surface by spinning the ware.

ID: 25 fabric: E **ink notes:** VOA; sit 1; km 6+700; cpl 27a; 1-086; gr. acces .25 tip I **context:** site 1, cpl 27a **group:** tableware **function:** bowl **present:** rim to the lower body **ref. D:** mouth % of D.: 15 estim. D. (mm): 250 **size of section (mm):** 4.2 **relative size of section:** B **colour:** light grey **slip:**

grey

morphology: Rim slightly thicken outside, short neck standing on the middle diameter.

free notes: Outer face visibly polished.

If we would have to pick one word picturing the pottery from Alexandria, it would be 'big'; that was our impression all along describing, measuring, taking pictures or making drawings. Finishing all those, the statistics confirmed the intuition. The average of the rim diameter for 14 bowls made of (semi-)fine paste is 29 cm. To get a better significance of that figure, we made – again – a comparison with the Roman bowls from Oltenia, published by Gheorghe Popilian, half a century ago⁶⁴.

Figure 7 presents the increasing sequence of the rim diameter for bowls from Oltenia, showing the tendency of grouping on 7 classes of size, from very small (12.5 cm) to small (16 or 19 cm), large (22 and 24 cm) and very large (27 or 32 cm). This classification was necessary to have a common term of comparison with the bowls seen from Alexandria archaeological sites.

As we shall see below, in Alexandria one-hundred-sherds one can find other three fragmentary bowls made out of coarse paste, which would not change much the picture from above⁶⁵.

Interesting to note, the comparison with Dacian bowls does not work better. Sebastian Matei⁶⁶ has gathered the bowls from north-eastern Muntenia, for the so-called 'classical age' (second c. BC – AD first century); he splits them in two categories (usual in Romanian language), 'străchini' (app. 'deep dishes') and 'castroane' (app. 'deep bowls')⁶⁷. From the first category the catalogue counts 16

⁶⁴ POPILIAN 1976, cat. 761-805.

⁶⁵ One of them, no. 16, has a rim diameter of 'only' 18 cm. The other two – fragments from the bottom – are also very large ones.

⁶⁶ MATEI (2011, 208-214).

⁶⁷ There is a third category, bowls with half globular body, with no foot, which are drinking vessels.

artefacts, having an average diameter of 21.2 cm (measuring between 16.6 and 23.2 cm); from the second – there are only 3 artefacts, between 21.7 and 29.2 cm, and an average of 24.7. Obvious enough, the bowls from Chilia-Militari milieu are not following a ‘Dacian tradition’ in terms of size (see Table 8). In terms of morphology, less than half of the Dacian shapes have successors in the third century AD (including here those published by Bichir)⁶⁸.

The shift of the capacity of the bowls does not mean that the people was eating double, but a shift in culture and habits. The issue was highlighted relatively long time ago for North Africa, where occurs such a spectacular change in dishes scale during the third century⁶⁹, explained as an adaptation of the production for the communal – Christian – eating. Obviously, this shift is not equal and not synchronic all over the Empire. We do not have reliable proves that the Christianity was the reason for using much larger dishes, in Chilia-Militari culture; we have only to note that shift and to say that the feature is not due to the local tradition, nor to the influence played by Romans (at least not those from Oltenia), speaking here *only* about the unusual sizes of the

Table 8. Comparison set for Roman bowls from Oltenia and artefacts from Alexandria (fine types only). Rim diameter classes (following fig. 7)

class (cm)	12.7	16	19	22	24	27	32
Oltenia	4	11	8	10	6	3	2
Alexandria	0	0	0	0	1	8	4

bowls.

As for the Roman bowls morphology, it is practically identical with the morphologic set recorded for Chilia-Militari milieu. The similitude goes further, in the array of shades. In general terms it is true that the Roman bowls from Oltenia were ‘red’, and those from Alexandria are more frequently ‘grey’. In detail, 30% from the Roman bowls were grey, and 32% of them made by coarse paste; as about the ‘barbarian’ bowls from Alexandria, only 6 out of 15 recipients are grey (40%), and only 3 out of 18 are made of an inferior paste (17%); both are usually covered by a slip⁷⁰, almost systematically darker⁷¹ as the main body, with several situations in which although the body has an ‘oxidized’ colour (from yellowish-red to brown), the slip is grey (from light to dark), counting 3 cases for Alexandria lot.

We have insisted on the comparative analyse of the Roman and Chilia-Militari bowls because it is an interesting case of ‘border culture’. If the typical Roman tableware is ‘red’, and the traditional Dacian – ‘grey’, we can see here two mixed situations, a certain field of further debate. We have here similar shapes, but dissimilar scales of the artefacts, reflecting a complicated – and non-linear – process of asymmetrical but reciprocal adjusting.

⁶⁸ BICHIR 1984, pl. XIX/2-5, XXII/1-5, 7-8, XXV/6, 9, 12, XXVI/1-9, 11-12, XXVII/1. 2. 6. 8, 11-13, XXVIII/1-14, XXIX/1-17.

⁶⁹ See esp. HAWTHORN 2000, 23; see fig. 3.5 for the second century bowls and fig. 3.6 for the third century bowls.

⁷⁰ Named by Popilian systematically ‘paint’. Some real differences seem to be present, as the consistence and composition of the slip within the two groups: the Roman ‘paint’ seems finer, more diluted, thus slimmer, but such things need further deepening.

⁷¹ With only one exception (POPILIAN 1976, cat. 799), probably a technological error.

Table 9. Distribution of Alexandria fine pottery on functional shapes

function	number of items	percent of all	apparent grey
bowl	15	51.7%	11
cauldron	3	10.3%	3
beaker	2	6.9%	2
carafe/ amphora	2	6.9%	1
flagon	3	10.3%	2
storage	4	13.8%	3
TOTAL	29	100%	22

Gheorghe Bichir did not provide statistics about the frequency of the main pottery shapes within the ‘grey’ pottery of Chilia-Militari type; he made anyway some estimation, like ‘the bowls are the most numerous in this group’, which proved true in Alexandria also (Table 9). For all others we have only approximations, as relative to the beakers, which are ‘less often’ as in Carpic culture or in La Tène Age⁷². Those shapes considered by Bichir very rare, as the pots with two or three handles, the lids, or the strainers, are missing from this very limited lot from Alexandria, which gathers artefacts from only a bunch of contexts. Surprising, then, is only the presence of two fragments of very large carafe/ amphora, Bichir illustrating only one⁷³.

A comparison about the apparent colours of the fine pottery, respectively the colour of the slip, shows that 75.6% from the share of Alexandria pottery analysed is grey, but this is far away from the description left by G. Bichir, who was indicating that almost all the fine pottery is grey, except around 2%, which is yellowish-red (the described shade is identical!), adding that they occur only in the late stage of evolution⁷⁴. A simple conclusion would be, then, that the ceramic ensemble from Alexandria is *very late*.

GENERIC CLASS: COARSE POTTERY (KITCHENWARE)

ID: 66 fabric: H1 **ink notes:** VOA; sit 1; cpl 22; 1-162; .66 tip K1 **context:** site 1, cpl 22 **group:** cooking pots? **function:** pot? **present:** bottom to lower body **ref. D:** bottom % of D.: 25 **estim. D. (mm):** 110 **size of section (mm):** 7 **relative size of section:** B **colour:** (brick-) red **slip:**

morphology: Flat bottom with a thin centre but the junction to the walls is thick. The lower body is close to vertical.

free notes: Spinning marks inside. The suggested shape is a tall one, the angle of the wall being very small (close to vertical). The outer edge has a struck, before firing. There are no signs of use (could be a refusal).

ID: 68 fabric: J **ink notes:** VOA; sit 1; cpl 22; 1-165; .68 tip D **context:** site 1, cpl 22 **group:** cooking pots? **function:** pot? **present:** bottom to lower body **ref. D:** bottom % of D.: 25 **estim. D. (mm):** 90 **size of section (mm):** 5 **relative**

⁷² BICHIR 1984, 35.

⁷³ Also very fragmentary, BICHIR 1984, pl. XV/2.

⁷⁴ BICHIR 1984, 34.

size of section: B-C colour: yellowish red slip:

morphology: Thin bottom, slightly concave outside, imitating shapes with a whorl. The lower body is suggesting a short shape (as a bowl, for instance).

free notes: The core of the bottom is dark grey (insufficient firing), for 90% of the mass, mostly were thicker. Spinning marks inside. Despite the fabric, the estimated function ('cooking pot') is debateable.

ID: 63 fabric: K ink notes: VOA; sit 1; cpl 22; 1-155; .63 tip A context: site 1, cpl 22 group: cooking pots? function: pot? present: bottom ref. D: bottom % of D.: 100 estim. D. (mm): 110 size of section (mm): 13 relative size of section: B colour: yellowish red slip:

morphology: Flat bottom, with a short but well profile edge, suggesting a whorl (which is missing).

free notes: Spinning marks outside (meaning a very superficial finishing), but also marks made with a string (see photo 3455), on the outer part of the bottom, usually ascribed to the detaching of the pot from the wheel. This is not usual for Chilia-Militari milieu, but endemic afterwards, suggesting a late chronology, possibly in the fourth century.

ID: 65 fabric: H1 ink notes: VOA; sit 1; cpl 22; 1-166; .65 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom ref. D: bottom % of D.: 50 estim. D. (mm): 100 size of section (mm): 15 relative size of section: B colour: red slip:

morphology: Flat bottom, slightly concave, with a short foot.

free notes: Spinning marks inside.

ID: 67 fabric: H1 ink notes: VOA; sit 1; cpl 22; 1-157; .67 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 100 estim. D. (mm): 70 size of section (mm): 7 relative size of section: B colour: red slip:

morphology: Flat bottom, arched lower body.

free notes: In the inner side there is more than simple 'spinning mark', there is a large groove at the junction between the bottom and the lower body, possibly shaped separately. No signs of use (possibly production refuse).

ID: 70 fabric: H1 ink notes: VOA; sit 1; cpl 22; km 6+700; 1-163; .70 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 15 estim. D. (mm): 140 size of section (mm): 8 relative size of section: B-C colour: red slip:

morphology: Flat bottom, almost vertical body.

free notes: HANDMADE POTTERY. Paste with sand in excess. Cracks. Secondary firing, most likely not functional (in a trash pit?). The cracks could be also the result of overheating, but the excess of sand in composition is favouring the process.

ID: 37 fabric: H1 ink notes: VOA; sit 1; km 6+700; S 76; cpl 18; 1-024; .37 tip K1 context: site 1, cpl 18 group: cooking pots function: pot present: Bottom ref. D: bottom % of D.: 35 estim. D. (mm): 70 size of section (mm): 8.8 relative size of section: A-B colour: (light grey) slip:

morphology: Flat bottom outside, ogival inside. The lower body consists from a long foot, turning outside.

free notes: HANDMADE POTTERY. Careful finished. The core is light grey, turning brownish. The faces are strongly altered by secondary firings, due cooking fats, as well as a post-disposal fire, touching the section.

ID: 39 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-129; .39 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the shoulder ref. D: rim % of D.: 10 estim. D. (mm): 220 size of section (mm): 6.1 relative size of section: B colour: reddish yellow slip:

morphology: Simply rounded rim, with a mild edge on top, a short neck and a low shoulder.

free notes: The sherd has a chalky thin (post-) deposition, making difficult the evaluation of the paste and colour.

ID: 48 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-130 a+b; .48 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the neck ref. D: rim % of D.: 25 estim. D. (mm): 170 size of section (mm): 5.8 relative size of section: B colour: reddish yellow slip:

morphology: Strongly everted rim (almost horizontally), thickened and flat outside, trapezoidal in section. Very short neck and an arched shoulder.

free notes: There are two sherds with an identical profile and fabrications (taken as one object in the database).

ID: 50 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-133; .50 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the neck ref. D: rim % of D.: 15 estim. D. (mm): 150 size of section (mm): 6.8 relative size of section: B colour: reddish yellow slip:

morphology: S type rim (accommodating a lid), slightly thickened outside, a short neck and a moderate lifted shoulder.

free notes: Three superficial incisions on the neck and the shoulder. The neck has a perforation, very unlikely as 'reparation' for such a modest ware, more likely for vegetal strips hanging the vessel (for storage, for instance)

ID: 49AB fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-137 B+a; 49A+49B tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the upper body ref. D: rim % of D.: 30 estim. D. (mm): 160 size of section (mm): 4 relative size of section: B-C colour: reddish yellow slip:

morphology: S type rim (accommodating a lid), slightly thickened outside, a short neck and a moderate lifted shoulder.

free notes: There are two sherds with an identical profile and fabrications, of different shades due to some different conditions of deposition, coming yet from the same vessel.

ID: 57 fabric: J ink notes: VOA, sit 1, 1-172, cpl. 22, .57 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom ref. D: bottom % of D.: 30 estim. D. (mm): 70 size of section (mm): 5 relative size of section: B-C

colour: grey slip:

morphology: Flat bottom, a short foot and an arched lower body.

free notes: The core is darker than the sides. The centre of the bottom is thinner. Fabrication with large pores, especially on the inner side. Tracks of vegetal matter in composition.

ID: 51 fabric: J ink notes: VOA; sit 1; cpl 22; 1-156; .51 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 120 size of section (mm): 12 relative size of section: B colour: grey slip:

morphology: Flat bottom separated by the body, in the inner side, by an unusual groove, suggesting (possibly) that they were shaped separately and did not match very well.

free notes: Spinning marks inside. The core is slightly yellowish.

ID: 53 fabric: J ink notes: VOA; sit 1; cpl 22; 1-167; .53 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 90 size of section (mm): 8 relative size of section: B-C colour: grey slip:

morphology: Flat bottom, splay wall.

free notes: Spinning marks inside.

ID: 54 fabric: J ink notes: VOA; sit 1; cpl 22; 1-170; .54 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 15

estim. D. (mm): 120 size of section (mm): 9 relative size of section: B colour: grey slip:

morphology: Flat bottom.

free notes: Spinning marks inside.

ID: 56 fabric: J ink notes: VOA; sit 1; cpl 22; 1-171; .56 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 90 size of section (mm): 7 relative size of section: B-C colour: grey slip: dark grey morphology: Flat bottom, arched wall.

free notes: The core is grey also (and a bit yellowish), but lighter than the sides.

ID: 55 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-168; .55 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 30 estim. D. (mm): 90 size of section (mm): 9 relative size of section: B colour: reddish yellow slip:

morphology: Flat bottom, splay lower body.

free notes: The inner side is almost black, due to (cooked?) fats. Possible flame marks on the preserved part of the bottom.

ID: 69 fabric: J ink notes: VOA; sit 1; cpl 22; km 6+700; 1-169; .69 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 110 size of section (mm): 10 relative size of section: B colour: yellowish red slip:

morphology: Flat bottom, splay body. Concentric string marks for detaching the pot from the wheel.

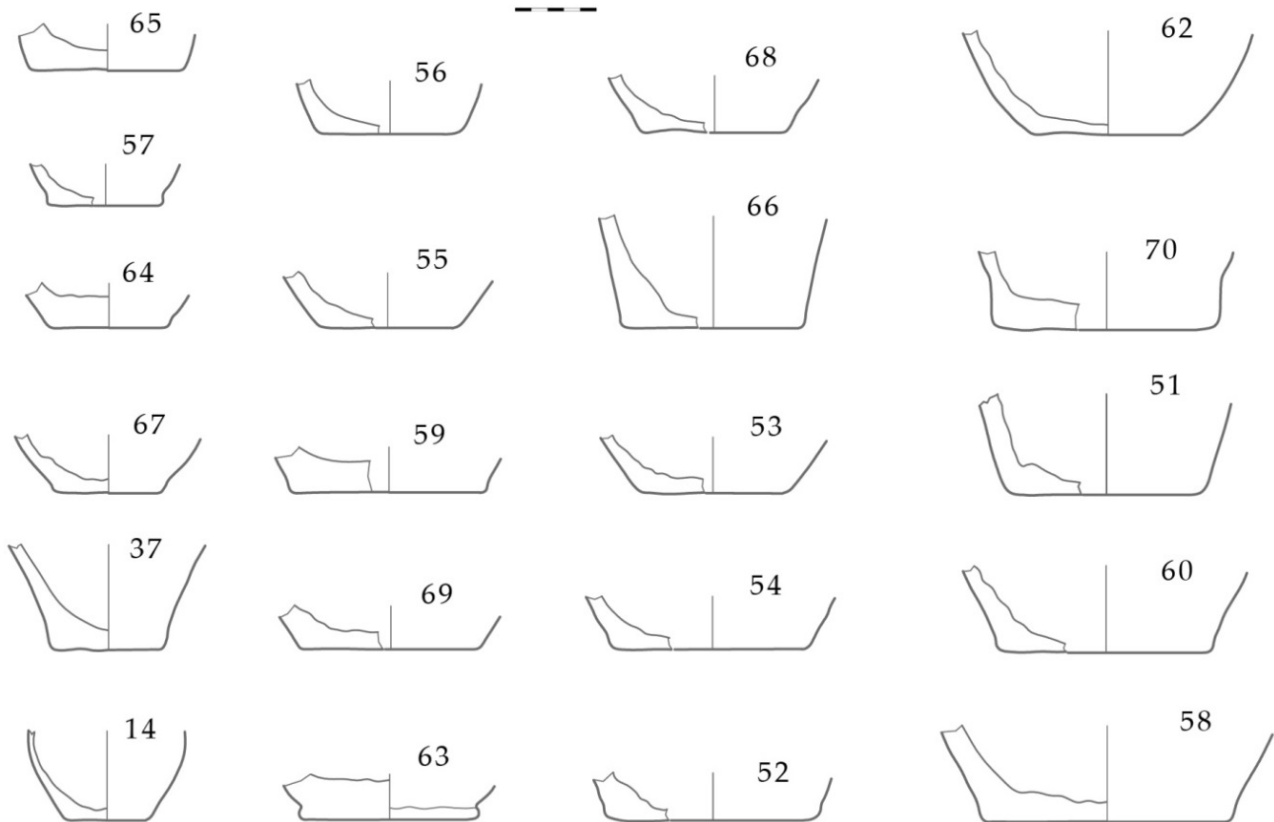


Figure 8. Cooking pots from Alexandria. Lower fragments.

free notes: The core (80 %) is grey. Spinning marks inside. Post-breaking secondary firing.

ID: 52 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-160; .52 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom **ref. D:** bottom % of D.: 20 **estim. D. (mm):** 130 **size of section (mm):** 13 **relative size of section:** B **colour:** grey **slip:**

morphology: Flat bottom (with a thicker part at the junction with the body).

free notes: Spinning marks inside. Grey paste, slightly turning yellowish. The section is discreetly fired, thus it was laying in a disposal area.

ID: 46 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; .46 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 15 **estim. D. (mm):** 230 **size of section (mm):** 6.7 **relative size of section:** B **colour:** reddish yellow **slip:**

morphology: Simply rounded rim, with a mild edge on top (see also no. 39).

free notes: Very tidy work; a very short (but certain) use, having smoke marks both inside and outside the rim.

ID: 23AB fabric: J ink notes: VOA; sit 1; km 6+700; cpl 27a; .23 A-B tip D **context:** site 1, cpl 27a **group:** cooking pots **function:** pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 25 **estim. D. (mm):** 180 **size of section (mm):** 5.2 **relative size of section:** B-C **colour:** dark grey **slip:**

morphology: S type rim, short but strongly arched neck, profiled shoulder, large and rounded upper body.

free notes: Strong spinning marks on the shoulder (strongly raised on shaping). Secondary firing, mainly around the rim, due to the hot steam from boiling fats.

ID: 24AD fabric: J ink notes: VOA; sit 1; km 6+700; cpl 27a; .24 A-D tip D **context:** site 1, cpl 27a **group:** cooking pots **function:** pot **present:** rim to shoulder **ref. D:** rim % of D.: 40 **estim. D. (mm):** 160 **size of section (mm):** 4.2 **relative size of section:** B-C **colour:** dark grey **slip:**

morphology: S type rim, with a sharp edge beneath, short neck, medium developed shoulder.

free notes: Four sherds from the same pot. Simple incisions on the shoulder, separated by non-decorated fields. Darker shades inside, as well as for the pot no. 23. Both have obvious marks for cooking activities, therefore the kiln was surely used for cooking (and possibly for firing crude vessels).

ID: 47 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-132; .47 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 20 **estim. D. (mm):** 180 **size of section (mm):** 5.3 **relative size of section:** B **colour:** reddish yellow **slip:** reddish yellow

morphology: Thickened and flatted on top S type rim, short neck, developed shoulder, large middle diameter.

free notes: No decoration on the upper part of the vessel. Although the slip is not obvious, one can see than the coarse inclusions are less visible on faces than in the broken section. Less used, if ever, it has a blackish coloration on

some of the inner side, but not near the rim; most likely it is a secondary firing after the disposal of the artefact.

ID: 45 fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-136; .45 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 20 **estim. D. (mm):** 200 **size of section (mm):** 7.2 **relative size of section:** B **colour:** dark grey **slip:**

morphology: Thickened S type rim, with a sharp edge separating it by the neck, on the inner side; another small edge is located just beneath the neck, on the outer face. The shoulder has a normal development (for a pot of that age).

free notes: Decorated with a horizontal incision on shoulder. Tracks of smoke on the both sides of the rim (thus used in kitchen). The sherd was also exposed to open fire after the breaking of the pot.

ID: 14 fabric: J ink notes: VOA; sit 4A; cpl 4 .14 tip D **context:** site 4A, cpl 4 **group:** cooking pots **function:** small pot **present:** lower half **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 50 **size of section (mm):** 3.2 **relative size of section:** B-C **colour:** light grey **slip:** dark grey

morphology: Flat bottom, slightly profiled foot, globular lower body, relatively short.

free notes: Deep marks from spinning the wheel. The core is a brownish grey, the faces are grey (mostly dark on the outer side). This is one of the few relatively small pots from the working lot Alexandria.

ID: 44 fabric: J1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-139b; .44 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 230 **size of section (mm):** 6.2 **relative size of section:** B **colour:** reddish yellow **slip:**

morphology: Slightly thickened S type rim, a short neck and a developed body.

free notes: No decoration, unused.

ID: 43 fabric: J1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-139a; .43 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 30 **estim. D. (mm):** 160 **size of section (mm):** 6 **relative size of section:** B **colour:** reddish yellow **slip:** (the same)

morphology: Slightly thickened S type rim, a short neck and a developed body.

free notes: Decorated with one shallow incision beneath the neck. Surely it is covered with a finer slip of the same colour. Brand new, not used. Chalk like spots on the outer face, maybe from the depositional layer (see also no. 39 and 47).

ID: 41 fabric: J1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-138; .41 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 20 **estim. D. (mm):** 140 **size of section (mm):** 5.1 **relative size of section:** B-C **colour:** dark grey **slip:** (darker)

morphology: Slightly thickened S type rim, a short neck and a developed body.

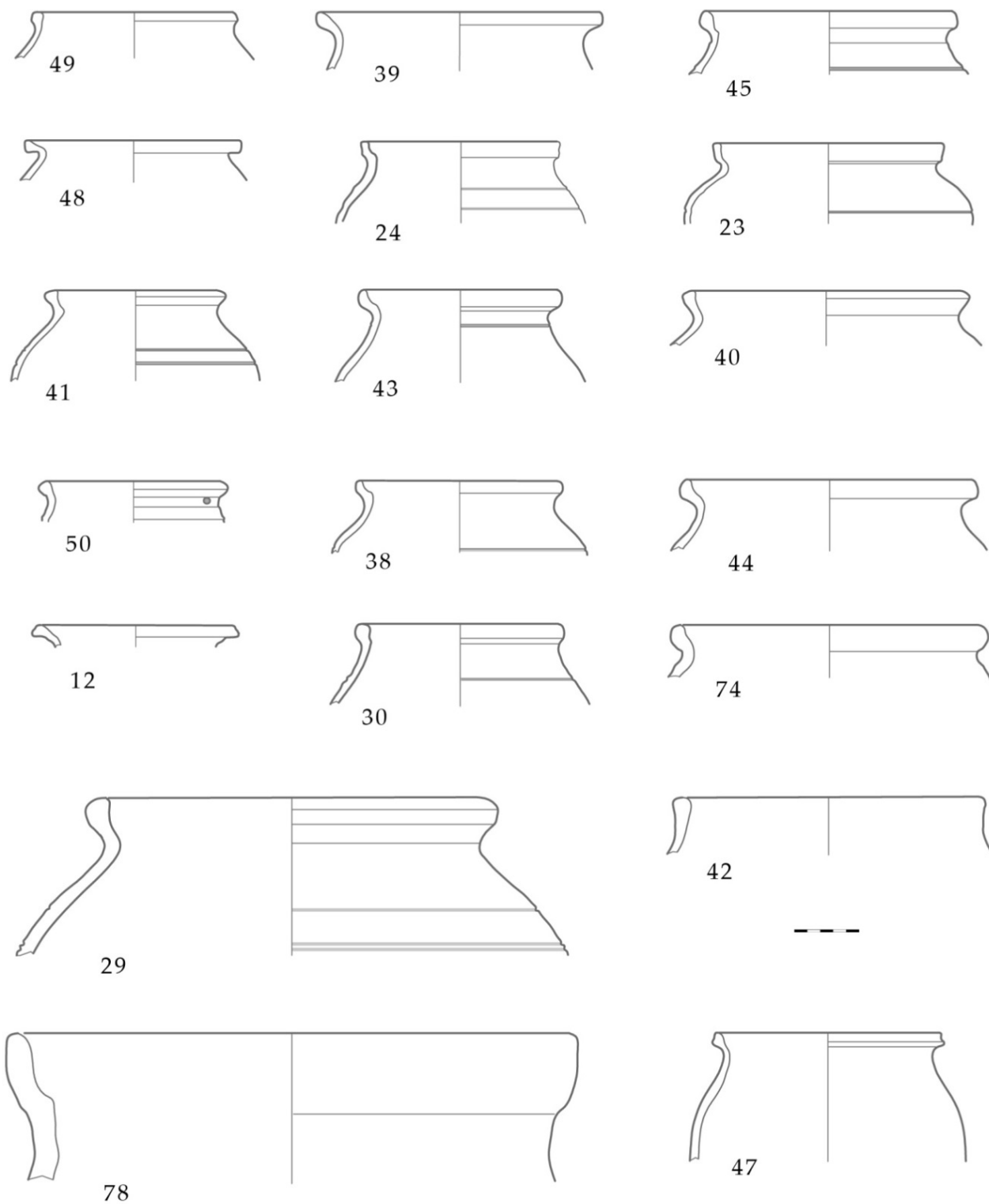


Figure 9. Cooking pots from Alexandria. Upper fragments.

free notes: Decorated with horizontal incisions separated by flat bands. Although the slip is not obvious, the body is covered by a finer and darker thin coating. The colour makes difficult an evaluation of the vessel's use in the kitchen.

ID: 40 fabric: J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-138; .40 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref.**

D: rim % of D.: 5 estim. **D. (mm):** 220 **size of section (mm):** 5.2 **relative size of section:** B-C **colour:** grey **slip:** dark grey **morphology:** Slightly thickened S type rim, a short neck and a relatively developed body, with a large middle diameter (almost 30 cm!)

free notes: No obvious traces of use.

ID: 38 fabric: J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-135; .38 tip D1 **context:** site 1, cpl 22 **group:** cooking

pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 30 **estim. D. (mm):** 160 **size of section (mm):** 6 **relative size of section:** B-C **colour:** reddish yellow **slip:** **morphology:** S type rim ended with a mild edge, short neck, developed shoulder.

free notes: Horizontal incised between the shoulder and the middle diameter. There are no obvious marks of use in the kitchen, but the evaluation is difficult, the sherd being burned after breaking apart.

ID: 30 fabric: J1 **ink notes:** VOA; sit 1; km 6+700; cpl 5; .30 tip D1 **context:** site 1, cpl 5 **group:** cooking pots **function:** cooking pot **present:** rim to shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 160 **size of section (mm):** 3.6 **relative size of section:** B-C **colour:** dark grey **slip:**

morphology: Slightly thickened S type rim, a neck longer than usual (for the same class) and a moderated developed body.

free notes: Decorated with simple horizontal incisions separated by flat fields. Unusual thin wall for the pot's size. No signs of use. The outer side has a finer finishing.

ID: 42 fabric: J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; .42 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 240 **size of section (mm):** 4 **relative size of section:** B-C **colour:** dark grey **slip:**

morphology: Thickened vertical rim and a short neck.

free notes: The shape is not typical for a cooking pot, but the suggestion giving by the fabric is this. No obvious traces of use.

ID: 78 fabric: J1 **ink notes:** VOA; sit 1; cpl 22; 1-153; .78 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim, neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 440 **size of section (mm):** relative size of section: B **colour:** brown **slip:** dark grey

morphology: S type rim shape, separated by the short neck by a sharp edge.

free notes: Compact and well finished pottery, Although usually the cooking pots have no slip, in the this case it very likely had a finer coat, of a distinct shade. Giving the estimated diameter (44 cm), this is a huge and rare cooking pot.

ID: 74 fabric: J1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-131; .74 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 260 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:**

morphology: Thickened S type rim, short neck, shoulder marked by an edge (see also no. 29, the next in this selection).

free notes: The core is grey, the sides are (dark-) brownish.

ID: 29 fabric: J1 **ink notes:** VOA; sit 1; cpl 27b; umpl. cuptor; .29 tip D1 **context:** site 1, cpl 27b **group:** cooking pots **function:** cooking pot **present:** rim to shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 290 **size of section (mm):** 7.2

relative size of section: B **colour:** dark grey **slip:**

morphology: Thickened S type rim, short neck, shoulder marked by an edge (see also no. 74, the previous in this selection), probably a well-developed body, with a large middle diameter.

free notes: Simple incision on the shoulder, followed downwards by an decorated band and another double incision. No traces of use.

ID: 61 fabric: K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-174b; .61 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 25 **estim. D. (mm):** 130 **size of section (mm):** 6 **relative size of section:** B-C **colour:** reddish yellow **slip:**

morphology: Flat bottom, unusual thin towards the centre (4-5 mm). A discreet foot, normal lower body (for a 'pot').

free notes: Strong secondary firing both inside and outside, affecting also the broken section. See also no. 60, with a very similar shape and fabrication, coming yet from another vessel.

ID: 60 fabric: K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-174a; .60 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 15 **estim. D. (mm):** 130 **size of section (mm):** 6 **relative size of section:** B **colour:** reddish yellow **slip:**

morphology: Flat bottom, unusual thin towards the centre (4-5 mm). A discreet foot, normal lower body (for a 'pot').

free notes: Strong secondary firing both inside and outside, affecting also the broken section. See also no. 61, with a very similar shape and fabrication, coming yet from another vessel.

ID: 62 fabric: K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-164; .62 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 75 **estim. D. (mm):** 100 **size of section (mm):** 7 **relative size of section:** B-C **colour:** reddish yellow **slip:**

morphology: Flat bottom, unusual thin, slightly concave outside. Rounded lower body.

free notes: Spinning marks inside. Possibly used in household. The bottom is far more blackish as the body, on the both sides, but this does not mean exposure to flames, but rather a deposit of fats (penetrating the wall of the vessel). On the outer face, supplementary whitish spots of undetermined origin.

ID: 64 fabric: K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-158; .64 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 70 **size of section (mm):** 10 **relative size of section:** B **colour:** red **slip:**

morphology: Flat bottom.

free notes: Spinning marks inside. On the inner side there are no signs of use (in the kitchen). On the outer side there is a whitish thin deposition (like a white powder supposed to help removing the pot from the wheel. Being not used, it could be a refusal (from no obvious reason on

the **bottom** area).

ID: 12 fabric: K ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .12 tip A context: site 4A, cpl 4 **group:** cooking pots function: pot present: rim ref. D: rim % of D.: 10 estim. D. (mm): 200 size of section (mm): 4 relative size of section: C colour: dark grey slip:

morphology: Everted rim at 45°, thickened and flatten on top, with sharp edges.

free notes: Although it is not a S type rim, the angle of the internal rim could fit a lid (or something else playing the lid function). The dark shade prevents observations connected with shades' alterations due to the hot and fatty steam.

ID: 58 fabric: K1 ink notes: VOA; sit 1; cpl 22; 1-159; .58 tip A1 context: site 1, cpl 22 **group:** cooking pots function: pot present: **bottom** to lower body ref. D: **bottom** % of D.: 25 estim. D. (mm): 150 size of section (mm): 15 relative size of section: B colour: grey slip:

morphology: Flat **bottom**, a short and discrete foot.

free notes: Concentric string marks for detaching the pot from the wheel. The outer side has a secondary firing, most likely when the vessel was already broken.

ID: 59 fabric: K1 ink notes: VOA; sit 1; cpl 22; 1-173; .59 tip A1 context: site 1, cpl 22 **group:** cooking pots function: pot present: **bottom** to lower body ref. D: **bottom** % of D.: 15 estim. D. (mm): 120 size of section (mm): 15 relative size of section: B colour: grey slip:

morphology: Flat **bottom**

free notes: Vegetal marks outside (more likely coming from the wheel, than from the mixed paste)

ID: 10 fabric: L1 ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .10 tip C1 context: site 4A, cpl 4 **group:** cooking pots function: pot present: **Bottom**, short wall ref. D: **bottom** % of D.: 15 estim. D. (mm): 170 size of section (mm): 9 relative size of section: B colour: red slip:

morphology: Flat **bottom**, ogival inner side, short foot.

free notes: The inner side is plain red, with no obvious signs of use. The outer side turns grey have lots of deep cracks. Could be a manufacture refusal.

ID: 08 fabric: L1 ink notes: VOA; sit 4A; cpl 4; gr. Acces/cuptor .8 tip C1 context: site 4A, cpl 4 **group:** cooking pots function: pot present: **Bottom**, lower body ref. D: **bottom** % of D.: 30 estim. D. (mm): 130 size of section (mm): 9.5 relative size of section: B colour: light grey slip:

morphology: Flat **bottom**, a small foot, developing an almost straight lower body, suggesting a tall shape.

free notes: Strong spinning marks inside. There are two matching sherds, one found in the oven (kiln??), the other outside, in the access pit. One of them has a long and deep crack in the section of the lower body, developed longitudinally, as a cleavage. There are no signs of use and most likely this is a manufacture refuse.

ID: 07 fabric: L ink notes: VOA; sit 4A; cpl 4; gr.

Acces (cuptor-n.n.) .7 tip C context: site 4A, cpl 4 **group:** lids function: lid present: handle, partly body ref. D: handle % of D.: 80 estim. D. (mm): 73 size of section (mm): 6.8 relative size of section: B colour: grey slip:

morphology: Strongly deformed (in the kiln). The estimated diameter is that of the button (handle).

free notes: Firing reject. Most likely the context is a fabrication area.

ID: 09 fabric: L ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .9 tip C context: site 4A, cpl 4 **group:** lids function: lid / bowl present: **bottom**, fragm. body ref. D: B % of D.: 15 estim. D. (mm): 80 size of section (mm): 9.4 relative size of section: B colour: reddish yellow slip:

morphology: Short 'foot' (if bowl), but well profiled ('handy', if lid), imitating a whorl (which does not exist). The inner is concave.

free notes: More likely a lid, due to the coarse fabrication. Not decorated.

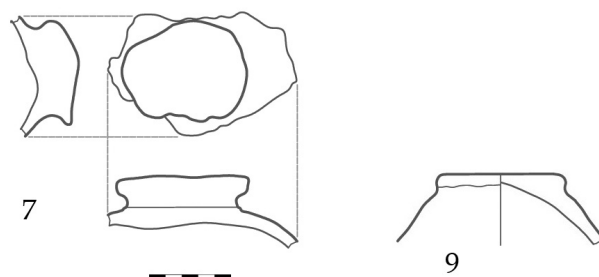


Figure 10. Lids made of coarse paste.

ID: 11 fabric: L ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .11 tip C context: site 4A, cpl 4 **group:** lids function: lid? present: **bottom** ref. D: **bottom** % of D.: 5 estim. D. (mm): 90 size of section (mm): 9.5 relative size of section: B colour: reddish yellow slip:

morphology: A short handle with a whorl. Flat outside, concave inside.

free notes: No decoration. The morphology of the fragment is similar with the **bottom** of a bowl, but the fabrication recommends a lid.

ID: 22 fabric: J1 ink notes: VOA; sit 1; km 6+700; cpl 27a; 1-084; .22 tip D1 context: site 1, cpl 27a **group:** liquid containers function: pot (with handle?) present: rim to the middle diameter ref. D: rim % of D.: 25 estim. D. (mm): 230 size of section (mm): 10 relative size of section: A-B colour: dark grey slip:

morphology: Simple rounded and reverted rim, long neck, almost cylindrical, a short, biconical body with sharp careen middle diameter. Such a nice and careful shape should be completed by a profiled foot and at least one handle (better two).

free notes: The upper half, from the rim to the middle diameter, has been polished, but with a soft matter, like some skin. There is no peremptory slip on it, yet the outer surface is darker than in the inner one. The fabric type is not the best

between the 'coarse' pastes, being a coarser variant of the best (J, which is also the most presented); there are a lot of quartz pebbles, many greater than 2 mm; some vegetal traces are also visible! Nevertheless, the finishing of that vessel is unusual careful and finally nice, although many pebbles popped up in the process. There is any straight analogy in all known Chilia-Military pottery. Beyond polishing, there is only one decoration – a pair of horizontal grooves stressing the passage from neck to upper body.

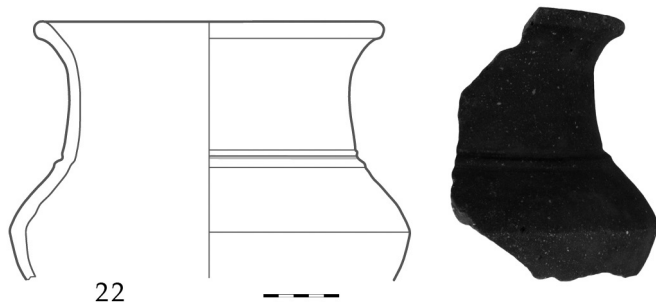


Figure 11. Pot (with handle?) made of coarse paste.

ID: 75 fabric: J1 ink notes: VOA; sit 1; cpl 22; km 6+700; 1-154; .75 tip D1 context: site 1, cpl 22 **group:** liquid containers **function:** flagon? **present:** handle **ref. D:** % of D.: 0 **estim. D. (mm):** size of section (mm): 18 **relative size of section: B** colour: brown slip:

morphology: A big, strong handle from a large recipient, 110 mm in length and 38 mm in width, with two large, longitudinal grooves.

free notes: The core is grey, but the faces – light brown. Due to the size, it doesn't match a beaker, but a large flagon like Bichir 1984, pl. XX/1, XXI/1-3, 13, XXIV/3, 5, 8 (with two grooves), LIX/3, 5, 8, 9.

ID: 36 fabric: G ink notes: VOA; sit 1; km 6+700; cpl 17; 1-020; .36 tip L context: site 1, cpl 17 **group:** storage? **function:** storage? cooking? **present:** rim to shoulder **ref. D:** rim % of D.: 5 **estim. D. (mm):** 380 **size of section (mm):** 12.5 **relative size of section: B** colour: reddish yellow slip:

morphology: A bag-like shape, with an almost vertical rim, slightly thickened and reverted, an almost straight neck driving to an upper body almost vertical.

free notes: HANDMADE POTTERY, carefully shaped and finished; collated strip of clay decorated with fingerprints, almost horizontal, in a typical position on the vessel, for the third century – above the middle diameter. Both sides of the rim are smoked, and this could drive to another function as firstly suspected.

ID: 34 fabric: H ink notes: VOA; sit 1; km 6+660; S 73; 1-180; -0,25-0,30 .34 tip K context: site 1, S 73 **group:** storage containers **function:** Cauldron? **present:** rim to middle diameter **ref. D:** rim % of D.: 15 **estim. D. (mm):** 380 **size of section (mm):** 9.3 **relative size of section: B** colour: reddish yellow slip:

morphology: Bevelled rim, slightly thickened, everted 45°, short neck, long and straight upper body, like a cauldron. This is a half-open shape.

free notes: HAND MADE POTTERY, but very careful. No trace of smoke or fats. Due to its size, it could be used for storage (as grains or fruits). The shape reminds some 'kraters', but the fabric is not that good for mixing wines.

ID: 02 fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor ,2 tip B context: site 4A, cpl 4 **group:** storage **function:** storage containers **present:** rim to the shoulder **ref. D:** rim % of D.: 20 **estim. D. (mm):** 390 **size of section (mm):** 9.3 **relative size of section: B** colour: light grey slip:

morphology: Bilateral developed rim, with a triangular section inside and a trapezoidal section outside. The flat top of the rim has 53 mm in width, with a small circular depression in the middle. The connection with the short neck is marked by a small collar. The shoulder is well developed, suggesting a very large middle diameter.

free notes: Brownish core, suggesting a good firing. Secondary firing on the rim, without connection with its main function. This storage type container is known as Krausengefäß, frequently decorated on the shoulder (not this one).

ID: 03AB fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor .3+3B tip B context: site 4A, cpl 4 **group:** storage **function:** storage containers **present:** rim to the shoulder **ref. D:** G % of D.: 7 **estim. D. (mm):** 450 **size of section (mm):** 10 **relative size of section: B** colour: yellowish grey slip:

morphology: Bilateral developed rim, longer inside, of a triangular scheme, with flat top, underlined above the neck by two horizontal incisions A second sherd (noted B), from the upper body, above the middle diameter, is almost completing the upper half of the shape.

free notes: The sherd A is secondary burned. The sherd B has incised ornaments, made by alternating flat areas with waved or straight lines, aligned horizontally. The type is known as Krausengefäß and it is usually decorated with kindred themes and means.

ID: 04 fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor .4 tip B context: site 4A, cpl 4 **group:** storage **function:** storage containers **present:** rim to the shoulder **ref. D:** rim % of D.: 6 **estim. D. (mm):** 330 **size of section (mm):** 9 **relative size of section: B** colour: grey slip:

morphology: Flat rim, extended outside, having a width of 25 mm, a short neck and a relatively well developed shoulder.

free notes: Type known as Krausengefäß, not decorated. See also no. 2

ID: 99 fabric: K ink notes: VOA; sit 1; cpl 22; .99 tip A context: site 1, cpl 22 **group:** storage **function:** storage containers **present:** rim (incomplete) to neck **ref. D:** rim % of D.: 5 **estim. D. (mm):** 450 **size of section (mm):** 19 **relative size of section: B** colour: dark grey slip:

morphology: Odd conformation, with large rim developed straight in an angle of 45°, with the end enlarged and flattened. At the inner side of the junction with the body, it is developed a large holder (a lid's holder?), leaving for the inner diameter of the neck only 14 cm (compare with the outer diameter of the rim, which is estimated to 45 cm).

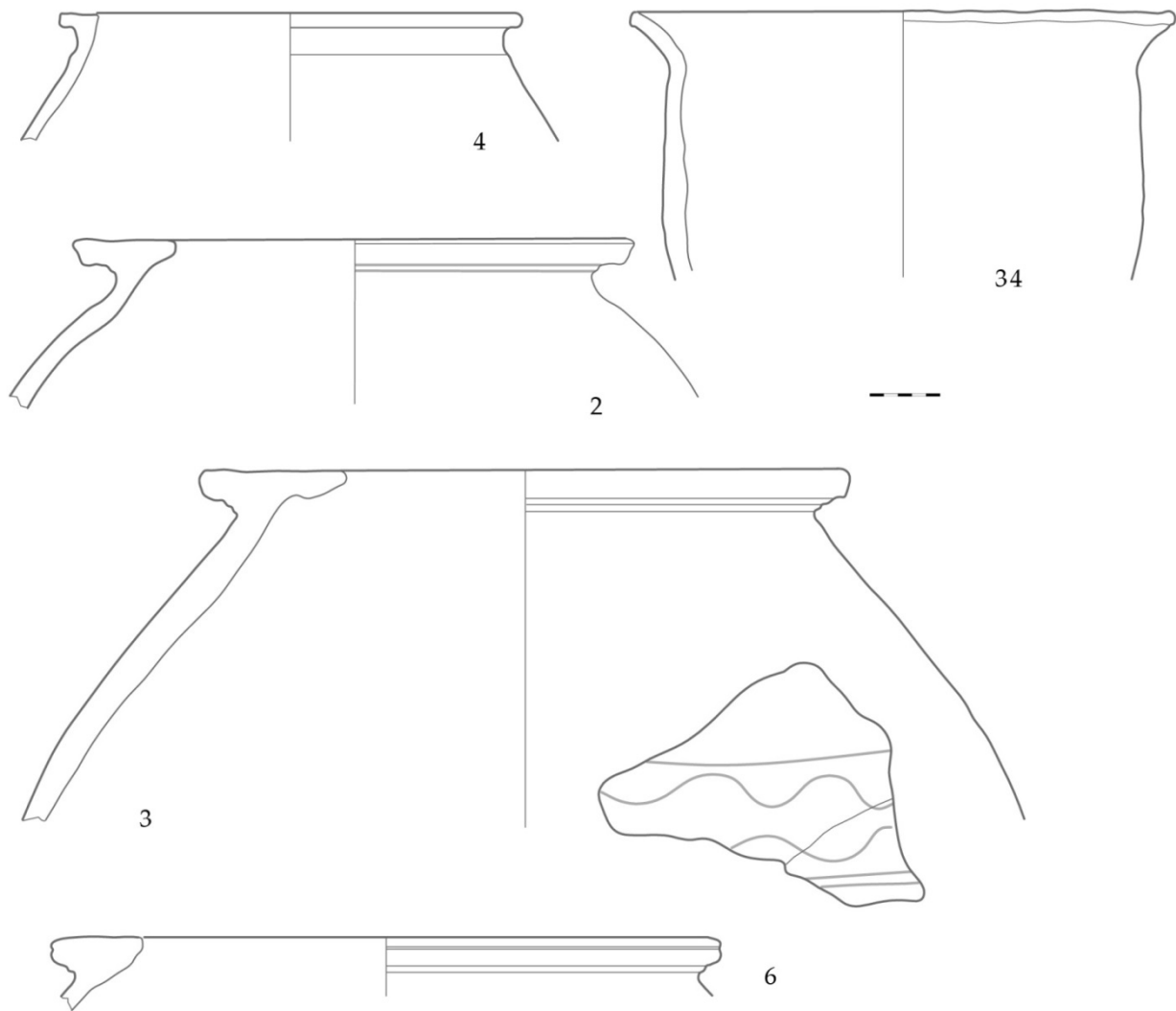


Figure 12. Storage recipients made of coarse paste. No. 34 is handmade.

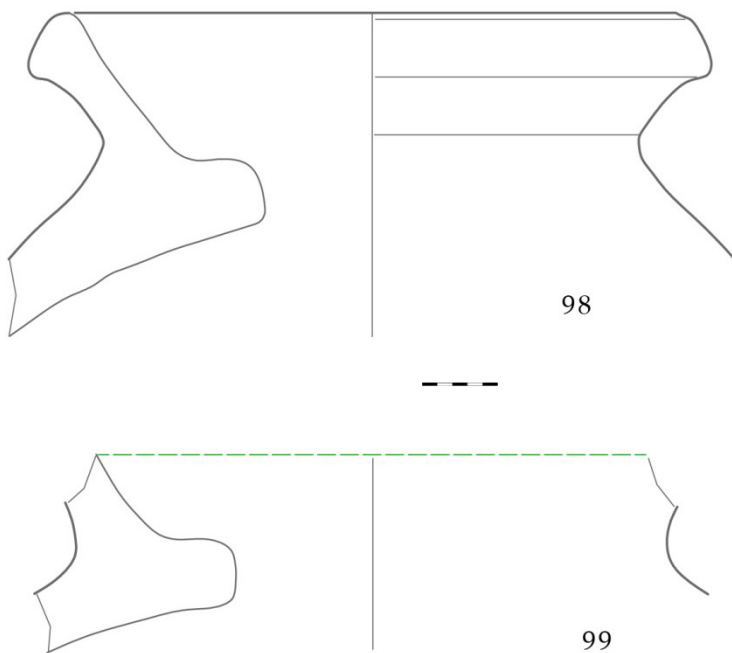


Figure 13. Very large storage recipients.

The body is developed symmetrical with the rim, in a diagonal.

free notes: Although similar with no. 98, they seem to be different objects.

ID: 98 fabric: K ink notes: VOA; sit 1; km 6+700; cpl 22; 1-151; .98 tip A context: site 1, cpl 22 **group:** storage function: storage containers present: rim to the neck ref. D: rim % of D.: 15 estim. D. (mm): 450 size of section (mm): 19 relative size of section: B colour: dark grey slip:

morphology: The same shape as no. 98 (see there the full description). The end of the rim is broken here.

free notes: Although similar with no. 99, they seem to be different objects.

ID: 35 fabric: K ink notes: VOA; sit 1; km 6+680; S 74; 1-100; cpl 1 .35 tip /A/ context: site 1, cpl 1 **group:** storage function: storage containers present: Fragment of upper body ref. D: middle % of D.: 3 estim. D. (mm): 500 size of section (mm): 14.8 relative size of section: B

colour: red slip:

morphology: (very large body)

free notes: 'Combed' decoration, with wave-like incisions, pretty sloppy, with angular strokes. The core of the sherd turns grey, being not burned enough, being thick, as expected (almost 15 mm). The wave-like decoration is typical for storage containers of the age (coming from La Tène).

ID: 01CD fabric: K ink notes: VOA; sit 4A; cpl 4; cuptor .1C+1D tip A context: site 4A, cpl 4 **group:** storage function: storage containers present: Bottom ref. D: bottom % of D.: 15 estim. D. (mm): 200 size of section (mm): 9.2 relative size of section: B-C colour: reddish yellow slip:

morphology: Flat bottom, a lower body with a low profile foot. The common fabric of 01CD and 01AB (the upper part) suggested to try ensemble the parts, and apparently it works (see the drawing).

free notes: The sherd noted D (the lower body) has many cracks and it could be a manufacture refusal..

ID: 01AB fabric: K ink notes: VOA; sit 4A; cpl 4; cuptor; cenustae(?) .1A+1B tip A context: site 4A, cpl 4 **group:** storage function: storage containers present: rim to the middle diameter ref. D: rim % of D.: 30 estim. D. (mm): 350 size of section (mm): 7 relative size of section: B-C colour: reddish yellow slip:

morphology: Bilateral developed rim, in triangular scheme, with flat top, 37 mm in width. Very short neck, followed by a large upper body.

free notes: Spinning marks inside. Combed decoration alternating horizontal and wavy lines (the execution lacks perfect symmetries). The firing is good, although not complete. The type is known as Krausengefäß and is the only sherd matching the fabrication type from the bottom numbered 01CD.

ID: 06 fabric: I1 ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .6 tip B1 context: site 4A, cpl 4 **group:** storage function: storage containers present: rim to neck ref. D: rim % of D.: 5 estim. D. (mm): 460 size of section (mm): 9.5 relative size of section: B colour: reddish yellow slip:

morphology: Triangular shape rim, prolonged outside, with a flat top of 48 mm in width, with an incision on its maximum diameter, adding a collar beneath the rim, and a very short neck.

free notes: Note that the Krausengefäß are always done from coarse fabrics, at least on the site Alexandria 4A (see Bichir 1984, 34-35, where they figure out as being made from 'fine fabric').

ID: 73 fabric: H ink notes: VOA; sit 1; cpl 22; km 6+700; 1-176; .73 tip K context: site 1, cpl 22 **group:** tableware function: bowl? present: bottom ref. D: bottom % of D.: 20 estim. D. (mm): 110 size of section (mm): 10 relative size of section: B colour: yellowish red slip: yellowish red morphology: A very typical bottom with a whorl, a fact not recommending a cooking pot. The whorl seems modelled from the same bunch of clay as the bottom.

free notes: Although the fabric is a 'sandy' one, there is no sign of degraded fats, the surface being a nice and clean light red. The faces have a smooth touch, very likely due to a treatment with a slip. This is definitely not a cooking pot.

ID: 72 fabric: H ink notes: VOA; sit 1; cpl 22; km 6+700; 1-177; .72 tip K context: site 1, cpl 22 **group:**

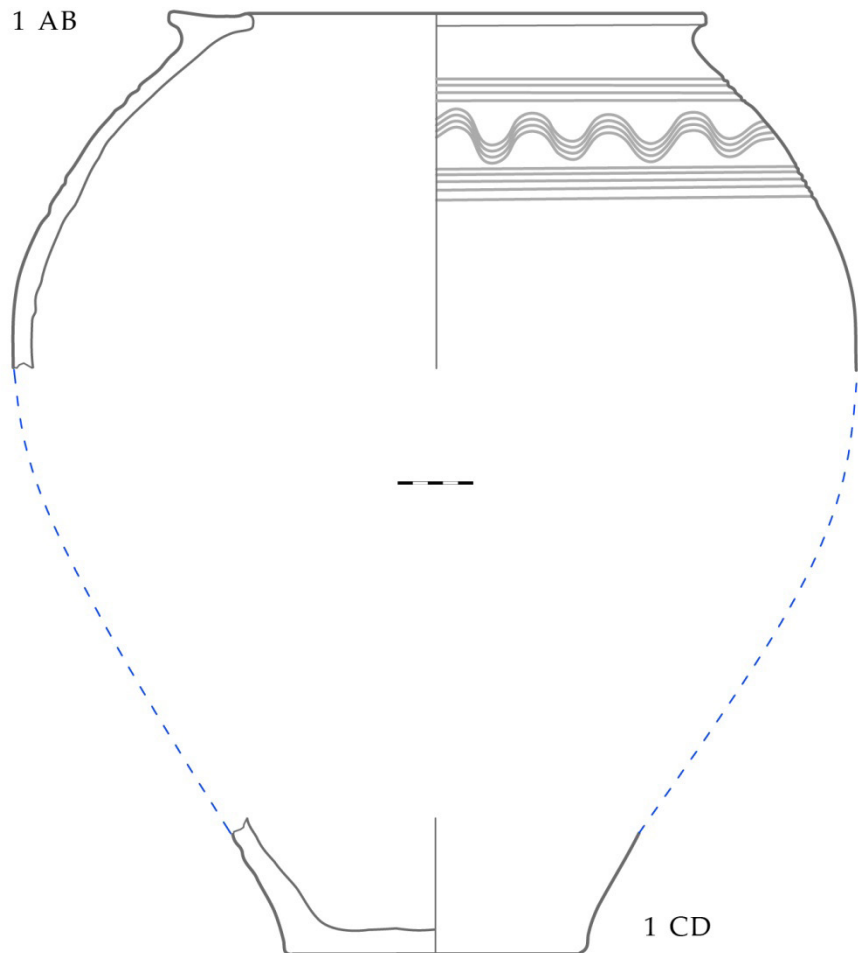


Figure 14. Possible reconstruction of the sherds with ID 01A+B (top) and 01 C+B (bottom). The restitution has the next dimensions:

- height = 50.6 cm
- upper d = 35 cm
- middle d = 54.9 cm
- lower d = 25 cm
- capacity = 49 l

tableware function: bowl? present: bottom ref. D: bottom % of D.: 10 estim. D. (mm): 140 size of section (mm): 14 relative size of section: A-B colour: red slip: red

morphology: The whorled bottom raises the question if this is bowl (or flagon). The sherd is quite thick for its size.

free notes: HANDMADE POTTERY. The faces are fine and smooth, although the fabrication is sandy, being treated with a solution of clay and carefully finished. The inner side is almost black, due to a kind of residual organic matter, although no secondary firing was noticed. This is why there is more likely a bowl than a flagon (to add here the technic of shaping, for which a 'bowl' is something we saw, but the flagon – not).

ID: 13 fabric: J ink notes: VOA; sit 4A; cpl 4 .13 tip D context: site 4A, cpl 4 group: tableware function: bowl present: Bottom ref. D: bottom % of D.: 45 estim. D. (mm): 70 size of section (mm): relative size of section: B colour: yellowish slip:

morphology: Very nice, tall whorl added to a bottom having its inner side made as a 'umbo'.

free notes: There is a striking contrast between the careful shaping of the bottom and the very coarse paste used. There are no traces of fire, but some organic deposits (which might be depositional or post-depositional. In fact – the object looks new.

ID: 16 fabric: J ink notes: VOA; sit 4A; cpl 4 .16 tip D context: site 4A, cpl 4 group: tableware function: bowl present: rim to lower body ref. D: rim % of D.: 15 estim. D. (mm): 180 size of section (mm): 6.2 relative size of section: B colour: (grey) slip:

morphology: Rounded rim, very short neck, a short but definite upper body, discreet careen middle diameter. One can see (but mostly feel) a small groove under the rim, on the outer face.

free notes: The morphology is undoubtedly pointing out a bowl, although the fabrication is typical for kitchenware. One cannot tell if the recipient was used for cooking, because the artefact was strongly burned, after being broken (therefore indicating either a burning trash pit, either a strong fire consuming a facility). See also no. 15, which is probably the bottom of the same dish.

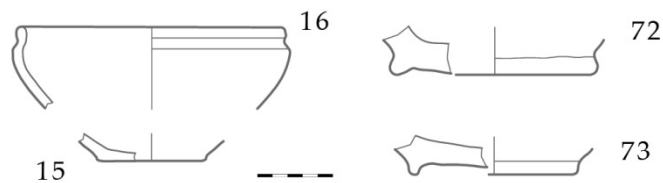


Figure 15. Tableware made of coarse paste.

ID: 15 fabric: J ink notes: VOA; sit 4A; cpl 4 .15 tip D context: site 4A, cpl 4 group: tableware function: bowl present: Bottom ref. D: B % of D.: 20 estim. D. (mm): 90 size of section (mm): 5.5 relative size of section: B-C colour: grey slip:

morphology: Flat bottom, with the inner side concave. The lower body is relatively tilt (see the drawing), making difficult to imagine it as a cooking pot. Anyway, the function of the recipient giving this sherd is very difficult.

free notes: The inner side is blackish, due to an organic matter.

As expected, the most frequent shape within the coarse type of ceramic paste is the cooking pot. Those 44 recovered fragments are happily split in 22 upper parts, and 22 lower parts⁷⁵, allowing us a comparison of their sizes (Figure 16). Although working only with fragments, the arrays of the two sets of data are matching perfectly, suggesting 'pairs' of data⁷⁶ having a proportion between the bottom diameter and the rim diameter between 50% and 63%, and the average at 57%. We can now compare these data with other known references, like the pots published by G. Bichir for Chilia-Militari culture, but also other sets of data, for the proximal historical age.

In the Table 10 (see below) we gathered comparative data for the size of the pots, from southern Romania, for the third and the fourth century. The most obvious comparative lot is, of course, that published by G. Bichir (1984), for all known sites of the Chilia-Militari culture. Not all of the 27 pots are cooking pots, but they have similar morphology and we used them all, in order to have a relevant amount of data, aiming to finally understand how specifically the pots from

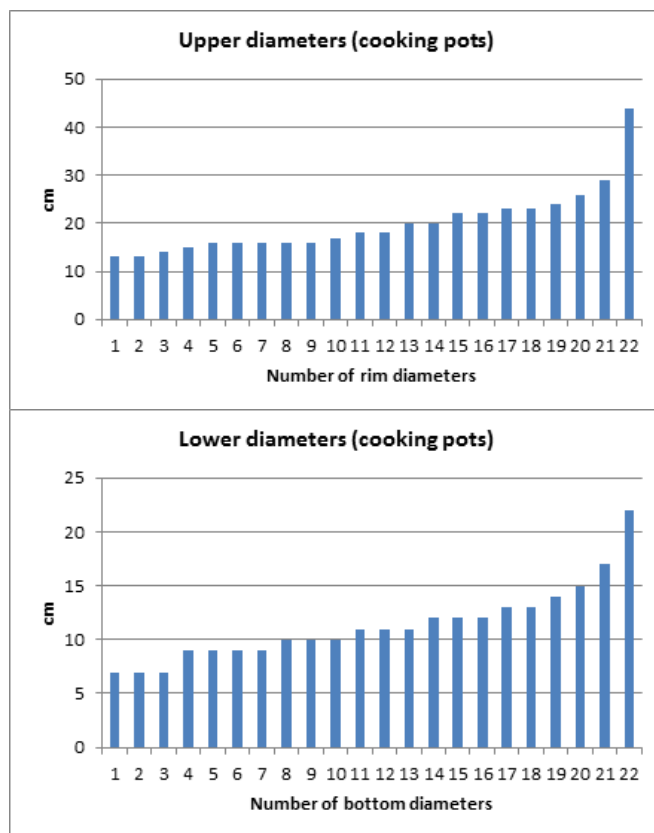


Figure 16. Comparative diagrams for upper and lower diameters of the cooking pots.

⁷⁵ Only by chance, because an analysis profiled on each context composition would show uneven situations.

⁷⁶ Pay attention! They are 'fictional', the apparent 'pairs' not fitting together (the type of paste, the colour or the context).

Table 10. Comparative data about the size of the pots in the third and fourth century, in Southern Romania

lot	count	Upper D. max. (cm)	Upper D. min. (cm)	Upper D. aver. (cm)	Lower D. max. (cm)	Lower D. min. (cm)	Lower D. aver. (cm)	Ratio LD/UD max.	Ratio LD/UD min.	Ratio LD/UD aver.
Chilia-Militari	27	49.5	11.3	22.8	16.2	5.7	10.1	67%	26%	47%
Alexandria	(22)	44	13	20.0	22.0	7.0	11.4	63%	50%	57%
Mogoşani	30	15.2	7.3	11.3	10.5	2.7	7.0	77%	37%	62%

Alexandria fit in the picture. Of course, all 27 shapes are complete ones, allowing a pertinent study of the proportions between the upper and the lower parts.

The second comparison lot, concerning the Chernyakhov culture, from the same geographical area, is coming from the cemetery from Mogoşani (the closest large cemetery, located in the north-eastern area of the former Chilia-Militari milieu); the fact is important in order to understand the obvious differences of the sizes. Most of the tombs' inventories from the Chernyakhov culture⁷⁷ could be 'funerary artefacts', recalling the 'real-life' objects, but smaller. Our interest here, anyway, is targeting the proportions, not the size⁷⁸.

The analysis of the data from the Table 10 provides two relevant facts. The first is that the sizes of the pot sherds from Alexandria, although 'big', are fitted in the general picture of the culture Chilia-Militari. The second is a major shift in the general morphology of the pots, evidenced on the last column: the ratio between the lower and upper diameter changes from 47% to 57%, which is a considerable difference between the averages for more than 20 items. Of course, we don't have *real* cooking pots for Alexandria, to compare directly that ratio, but only a statistic report, pictured in the figure 16. Although the real differences could be lower, a conclusion is still very obvious: the statistic ratio between the bottom diameters and the rim diameters, in Alexandria case, is closer to the Mogoşani cemetery⁷⁹ case than to the pottery published by Gheorghe Bichir. It should be, also, *later*.

There are plenty of reasons to consider the analysed pottery from Alexandria as very late in the chronology of the Chilia-Militari culture, maybe at the threshold of the third and fourth centuries. One of them is the scarcity of the handmade pottery. Following the handbook of Bichir⁸⁰, it should be around 40% in settlements; for Alexandria the figure is 5%. Symbolically, the most iconic – but also endemic⁸¹ – pottery object of Chilia-Militari milieu, the so-

⁷⁷ Or 'Sântana de Mureş-Cerneahov' culture, in Romanian archaeology.

⁷⁸ There is no real better choice than that, because in southern Romania there is no relevant settlement for the fourth century. Or, regarding local cultural evolutions, we need a term of comparison from Muntenia.

⁷⁹ DIACONU 1969. All data used in this comparison is taken from Compass Database, made many years ago, while working to PhD dissertation (TEODOR 2001). Due to the differences in the system of measurement, between the laboratory standard measurement (at the external side of the shape, for the rim, for instance), and the approach of the Compass System (working on drawings already made, the diameter is measured at the end of the straight line!), all figures from the Compass System regarding the upper and the lower diameters were increased with 10%, which is not strictly true, in each case, but fair enough.

⁸⁰ BICHIR 1984, 30.

⁸¹ It occurs in almost any trash-pit in the settlement from Mătăsar (BICHIR 1984, *passim*). It misses from the test-lot, by not from the sites Vistireasa. The archaeological report of discharge (not published) mentions such an artefact in the context no. 18 from the site 1a.

called 'Dacian cup', is absent from our test-lot.

From many other points of view, the test-lot from Alexandria goes well with the 'definitions' coined by Bichir for the handmade pots, as would be, for instance, the fabrication tips: a coarse ceramic paste containing sand, pebbles, rarely also crushed sherds, but not chaff, more frequently burned oxidised. Another common clue is the decoration: usually absent, less habitual than in the contemporary culture of Carpi; when still occurs, it is mainly an applied waistband decorated with fingerprints or cuts (as in the figure 17)⁸². As a general feature, the handmade pottery is of good quality, from well prepared paste (even 'coarse'), skilfully modelled and carefully finished⁸³, well burned and consistent.

The handmade pottery from Alexandria is made out from the same types of paste used for all the other kitchenware. For instance, the cooking pots no. 37 and 70 are made from the type H1, as well as the pots wheel-made with no. 65 and 67; the storage container no. 34 has the same paste as the bowls (?) no. 72 (handmade) and 73 (wheel thrown); the large pot no. 36 is the only handmade artefact without paste reference within the wheel thrown pottery.

The real advantage of processing pottery using a detailed description of each fabrication type is that we can avoid prejudice. The most obvious case is the so-called *Krausengefässe*, a storage pot with wide and flat rim⁸⁴. For Gheorghe Bichir they had to be 'grey' and 'fine', being of 'Dacian tradition'⁸⁵. We found in the Alexandria test lot storage containers of both conditions, 'fine' or 'coarse'; but all 5 *Krausengefässe* fall in the last group. This does not make them 'Roman' either.

'Coarse' paste does not mean 'bad' at any price; most of the time, it means a well-adjusted technology of fabrication for certain needs, like boiling edibles. Some of such products, made of coarse paste, could be very well done and quite good looking, as the pot from the fig. 11.

Two thirds of the pottery considered here as made of coarse paste is made of cooking pots (44 out of 66), from which half are upper parts. Most of them have the most typical traits, as recorded also by Bichir⁸⁶, as it is the 'S' shaped rim, adjusted for supporting a lid; 15 out of 22 upper parts have this feature. Only four of them have traces of use,

⁸² See also BICHIR 1984, plate XI/3, 6, 7, 9.

⁸³ As, for instance, at the fig. 17, where one can see, under the rim, traces of a wooden palette. The sherd was considered as coming from a storage container due to its size, but a second attentive look at the photography has drawn attention to the smoked rim (it is similar to the inside face); it could be, very likely, a large cooking pot.

⁸⁴ See fig. 12 (without no. 34) and 14, in this paper; see also BICHIR 1984, plates XV/4, XVI/11, 12, XIX/11, 12, XXVII/2.

⁸⁵ BICHIR 1984, 35.

⁸⁶ BICHIR 1984, 37, pots type 1a, which would be rather rare in the early stage of the culture (before year 220), but did not provide numbers or percent. The problem is – both in Bichir's monograph and in our test lot from Alexandria – the large number of pots with S shaped rim and the scarcity of the lids.



Figure 17. Large handmade pot (storage container? kitchenware?), Alexandria, ID 36, estimated rim diameter at 38 cm.

respectively smoked rims or side burning due to heating the meal; there is a good reason for that: some of them were discovered in an access pit to a potter's kiln, a place where technological refuse usually stands; 11 sherds were brand new, and – although the reason is not always obvious – could well be manufacturing scrap.

Regarding the bottoms of the cooking pots, they are usually flat, or slightly concave (no. 62, 65, 68, see fig. 8). Some of them show a shorter (no. 57, 63, 67) or higher foot (no. 37, 70), imitating recipients standing on a collar. This is a morphological trait which could be eventually ascribed to the Dacian tradition⁸⁷, although it worth mention that the frequency of foot-like lower bodies, in Chilia-Military and Roman Oltenia, seems very similar.

Following the inherited concept about the cooking pots from Chilia-Militari milieu, as a 'Roman provincial' tradition, they should be more or less 'red', which is only about half true (see Table 11). We were not able to reveal any connection between the types of ceramic paste and the shades of colour. For instance, the most frequent shade, which is the reddish yellow (13 results), it is distributed within the type J (8 out of 18), J1 (3 out of 10) and K (3 out

of 5), but it is absent in less frequent types (H1 = 5, K1 = 2, L1 = 2). Such matters cannot be cleared without a consistent help from the chemists.

THE ARCHAEOLOGICAL SITES AND THE REGIONAL SETTINGS

The two bags of pottery taken from the repository of the museum from Alexandria were collected in a preventive digging made in 2012 for the bypass route of the city, near the large meadow of Vedea River. Looking back, at the figure 1, there are pointed out six sites, from Vistireasa 1a to Vistireasa 4b, after the name of a tributary of Vedea, flowing lazy in the same meadow. Those pair names (1a-1b, 4a-4b) have been chosen from pure administrative reasons, related to the contracts; there are, in fact, six different archaeological sites.

For instance, the site 1a was uncovered on a width of 23 m (which is the width of the project) and on a length of 40 m, containing contexts from the third century (Chilia-Militari) and only a few ascribed to Hallstatt. For the next 140 m westward, on the route of the bypass, no other traces of human living were detected; at the end of this distance, it were crossed the remains of a house dated in the ninth of tenth century, noted as the site Vistireasa 1b⁸⁸.

Having the general plan of the site Vistireasa 1a, although not giving here details – for which all of us have to wait a proper publication – we have to mention the contexts connected to the presented pottery. One of them – context 22 – is a pretty large house for that age, measuring 8 x 5 m⁸⁹, oriented east-west. At only three meters to south-east – there is a network of pillar holes, organized in three rows and three (possible four) columns, closing a space of 3.6 x 4.4 (or 6.1) m and having almost the same orientation as the house. The group of pillars is at least unusual, recalling one single thing: a Roman *horreum* in miniature⁹⁰.

On the opposite part of the large house, westward, there is a potter's kiln (noted context 27B) and the service pit (noted 27A). Due to the distance between the house and the kiln (less than one meter), they couldn't function together; due to the fact that from the ruined house have been collected many new, unused pots (refusal), we know that the kiln functioned after the house (and the granary). These are the contexts from which our artefacts are originated: the house (context 22, 62 sherds⁹¹), the service pit (context 27A, 4 sherds) and the kiln (context 27B, 3 sherds), other 9 sherds

Table 11. The distribution of colour shades on cooking pots from Alexandria.

group	'oxidized'				'reduced'		
	reddish yellow	yellowish red	(brick) red	brown	light grey	grey	dark grey
recorded	13	3	6	2	3	9	8
totals	24				20		

⁸⁷ Although they are not completely missing from the Roman cooking pots (POPILIAN 1976, cat. 330-332, 334, 350, 358, 362, 366, 369), all on shapes difficult to be ascribed to the Dacian tradition. For pots standing on a collar in 'classical' Dacian pottery (so having a foot) see CRIȘAN 1969, plates XCIX/1, 2, 5-7, C/1. 2, CI/2-5; for pots without a collar, still presenting a morphological foot, see CRIȘAN 1969, plates XCIX//4, C/3, CI/1, 6; all are wheel made and just examples (being endemic).

⁸⁸ Data following the technical report for the site Vistireasa 1 (not published).

⁸⁹ Or 40 square meters. The largest Chilia-Militari house known have 7.75 x 6 m, or 46 sq. m (BICIR 1984, 9).

⁹⁰ We do not know anything similar, in *barbaricum*, but we saw a modern replica, in the late 1990s, in the village Copăceanca (Teleorman County), located only 15 km north northwest of Vistireasa 1, having the same function (a suspended granary) and almost the same size.

⁹¹ Most of them being refusal from the adjoining kiln.

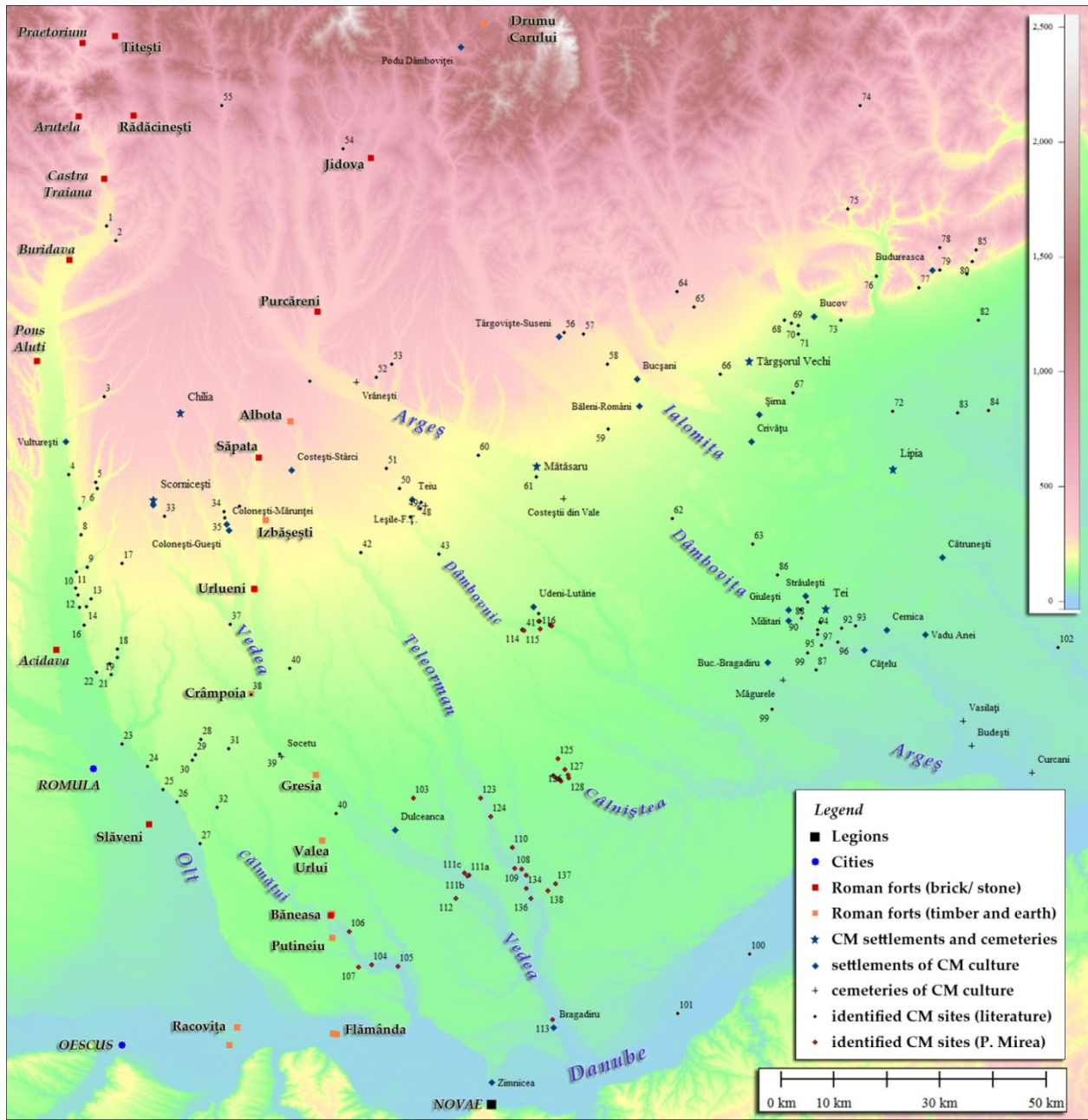


Figure 18. Distribution map for archaeological sites regarding Chilia-Militari culture.

coming from divers other contexts.

Amazingly, on the site Vistireasa 4a was discovered a second potter's kiln⁹², noted as context 4, from which our share counts 22 sherds. We do not know details about that facility, except the fact that is the only context from the site 4 which can be connected to the culture Chilia-Militari, the rest of the discoveries regarding the fourth century (Chernyakhov culture).

Also we do not have information about the sites Vistireasa 2 and 3, except for the critical fact of being very rich in discoveries related to the third century.

Consequently, we have now a relatively good idea about a settlement running along the third century (only the second half?), possibly the same community researched in the site Vistireasa 4⁹³ for the fourth century. At its both

⁹² In his synthesis from 1984 Gh. Bichir did not mentioned any potter's kiln.

⁹³ We do not know, so far, any settlement of the age Chilia-Militari to continue its existence throughout the fourth century (see Bichir 1984, 93-94),

ends – western and eastern – we have a pottery kiln, a feature strongly signalling the edges of that community, at least in its final stage of Chilia-Militari culture. In between, on 700-800 metres along the low terrace of Vistireasa, there was a large village, possibly made out of small hamlets, as suggested by the contexts within Vistireasa 1a, but also by the gaps between the archaeological sites, along the bypass route.

Is this distribution of the remains of the settlements of Chilia-Militari culture – small hamlets gathered in larger villages – a usual pattern? At least apparently it is almost the rule (see the Figure 18). Clusters of close related archaeological sites of the (later) second and the third centuries can be observed everywhere; so would be the cluster around Drăgănești (sites 23-31), Ipotești (sites 18-22), Slatina (sites 9-16), all along the Olt River. Such therefore the chronology of the entire body of discoveries from Vistireasa needs a careful evaluation.

clusters could be found all over the territory, as those around Scornicești and Colonești (on upper Vedea basin), on lower Călmățui Valley, at the mouth of the Teleorman Valley, and so on, detaching as the largest of them all, that from the lower Dâmbovița Valley, which is also the place of the modern Bucharest. This last example raises the question about how much of our knowledge is dependent on the quality of the archaeological research. Of course, a capital of a modern country, counting today around 2 million of inhabitants, cannot be but a good place to live; still, over 20 sites for around 140 km² is very much, a score impossible to accomplish without lots of rescue diggings.

The question standing here cannot be answered by just plotting the location of the known sites; it would also be a very interesting fact to know the map of researched (or unsearched) areas. But nobody is publishing the negative evidence... Till now. Our colleague and friend from the Museum of Alexandria, Pavel Mirea, sent us not only his unpublished catalogue of the identified Chilia-Militari sites (red dots at the figs. 18 and 19), but also the map of the territories he have checked carefully on the field, but no Chilia-Militari pottery was discovered (see Figure 19, in hatches). More than that, he allowed us to publish here his results⁹⁴.

The map from the figure 19 makes a big step forward explaining the distribution of the Chilia-Militari sites. One can see there dense clusters of settlements in north of the county, around Udeni, in eastern part of the territory, on Călniștea basin, on the lower Teleorman Valley, or on the lower Călmățui Valley. This is precisely because it highlights the areas with negative results. One can see, for instance, the cluster from the middle course of Călniștea (9 points inside a 9 km² area), but also a much larger territory, southwards, of around 200 km², which is 'empty'. Similarly, the clusters of archaeological sites from the lower Teleorman and lower Vedea are bordered by large territories without discoveries for the third century.

We can assume now, more confidently, that the clustered look of the main map (fig. 18) is reflecting, more or less, a certain reality, and it is not due (only) to the lack of research⁹⁵. The extensive diggings from Vistireasa sites, on Alexandria bypass, explains clearly that such clusters are in fact the result of the developing of the same community, extending and shifting nearby, in search of new resources. This social mechanism, known from many decades and named 'swarming', was explained by the needs of the extensive agriculture, and partially it could be right⁹⁶. One

⁹⁴ Most of the reported field work is connected with tasks required by Urbanistic Plans and Regulations (in Rom: PUG, or Planuri de Urbanism General). This activity is undertaken at the level of a territory administrated by a town hall. Pavel Mirea gave us two complementary things: the catalogue of the sites containing Chilia-Military pottery, and the list of the mayoralties for which the result was negative. As one can see, only about half of the communities from the Teleorman County have completed their 'PUG's. This is exactly why Pavel Mirea is postponing the publication of the catalogue of the archaeological sites from the county.

⁹⁵ The same kind of distribution came out from mapping the sixth century settlements (TEODOR 2001, third volume, plate XII, Map 2), where the gaps are still more larger, as for instance the complete lack of data between Teleorman River and Argeș River (around 70 km for the lower courses).

⁹⁶ DOLINESCU-FERCHE 1984, which is the most complete synthesis for Ipotești-Cândești culture, developed for the fifth to seventh centuries, in basically the same area as Chilia-Militari culture. See Map 1 (p. 123)

could also count other needs, like the wood, necessary for buildings, heating or technological processes, as the case with the potter's kiln; the forests are regenerating themselves indeed, but much slower than the ploughing land.

Another fact illustrated by the maps is that the communities of the third century were separated by distances likely to be made in one day of travel. So would be the distance between Udeni and the middle course of Călniștea Valley (28 km), going further to the lower Teleorman (24 km), to Dulceanca (28 km) or to the middle course of Călmățui (30 km, all as the crow flies). Similarly, we can now predict where would be the missing evidence, as, for instance, at the half way from Călniștea to Măgurele, near Bucharest (42 km), or at the lower Olt, near its mouth⁹⁷.

Turning back to the settlements from Alexandria, the suggested chronology is in the second half of the third century, and cannot have connection with the life time of *Limes Transalutanus* (deserted around 245 AD). Obviously, they have to be connected rather to the legionary base from Novae, located only 43 km southward, in straight line. A better knowledge about the archaeological works undertaken there by the Polish team led by Tadeusz Sarnowski⁹⁸ could improve our understanding about the main body of discoveries from Alexandria. The cluster of settlements from Vistireasa Valley was probably connected to the Danube through the relay from Bragadiru (near the mouth of Vedea River)⁹⁹, the river being, very likely, a navigable stream on its lower course.

THOUGHTS AT THE END OF A PAPER

We do not try to 'conclude' now anything; we are just expressing here some thoughts, at the current state of art. The main question is what, in fact, would be the 'Chilia-Militari culture'? We have to pass as quickly as possible beyond the stereotypes of the 70s and 80s, submitted to the Romanian Communist Party's official propaganda about the 'independence' and 'the fight for... peace', turning into 'Free Dacians' anything not looking exquisite Roman. We know – as well as Bichir knew – that the funding of research is always connected to some 'priorities' drawn by the political authority; we don't really need anger to break up with that 'tradition', we just have to look at the evidence with a fresh eye.

showing the same clustered distribution of sites, but with even larger gaps. See pages 124 and 126 for the distances between the sequence of settlements from Dulceanca (the mentioned settlement 'Vedea' was later published as 'Dulceanca IV'). In a more recent study (named just 'un update') it is stressed the short time of living for most of the known settlements (TEODOR 2004, 405), the very small distances between some of them, as well as the existence of two (if not more) phases, in relatively many cases, implying a temporary desolation of the site (idem, 406), suggesting the conservation of the style of life from the third century. See also TEODOR 2004, 406.

⁹⁷ The field research made by Pavel Mirea on the left bank of Olt River, in the area of the mayoralties Uda-Clocociov, Saelele, Lunca, Segarcea Vale, Lița, Turnu Măgurele, did not reveal any archaeological site ascribed to Chilia-Militari culture, very likely due to the very simple fact that the remnants of Roman age were considered just 'Roman'. Our own research in the area (October 2014) revealed a large settlement at Dăneasa (no. 26 on the maps), with pottery from the third century (possibly the early fourth century), which is partially synchronous with the discoveries from Alexandria.

⁹⁸ In a recent personal communication, Agnieszka Tomas told us that the team is preparing important ceramic monographs about the research in the camp.

⁹⁹ The field research led by Pavel Mirea, for the Urbanistic Plans and Regulations, reported things literally found on the field, not archaeological sites reported in former decades, as Bragadiru (rescue diggings made by G. Bichir, back in 1962).

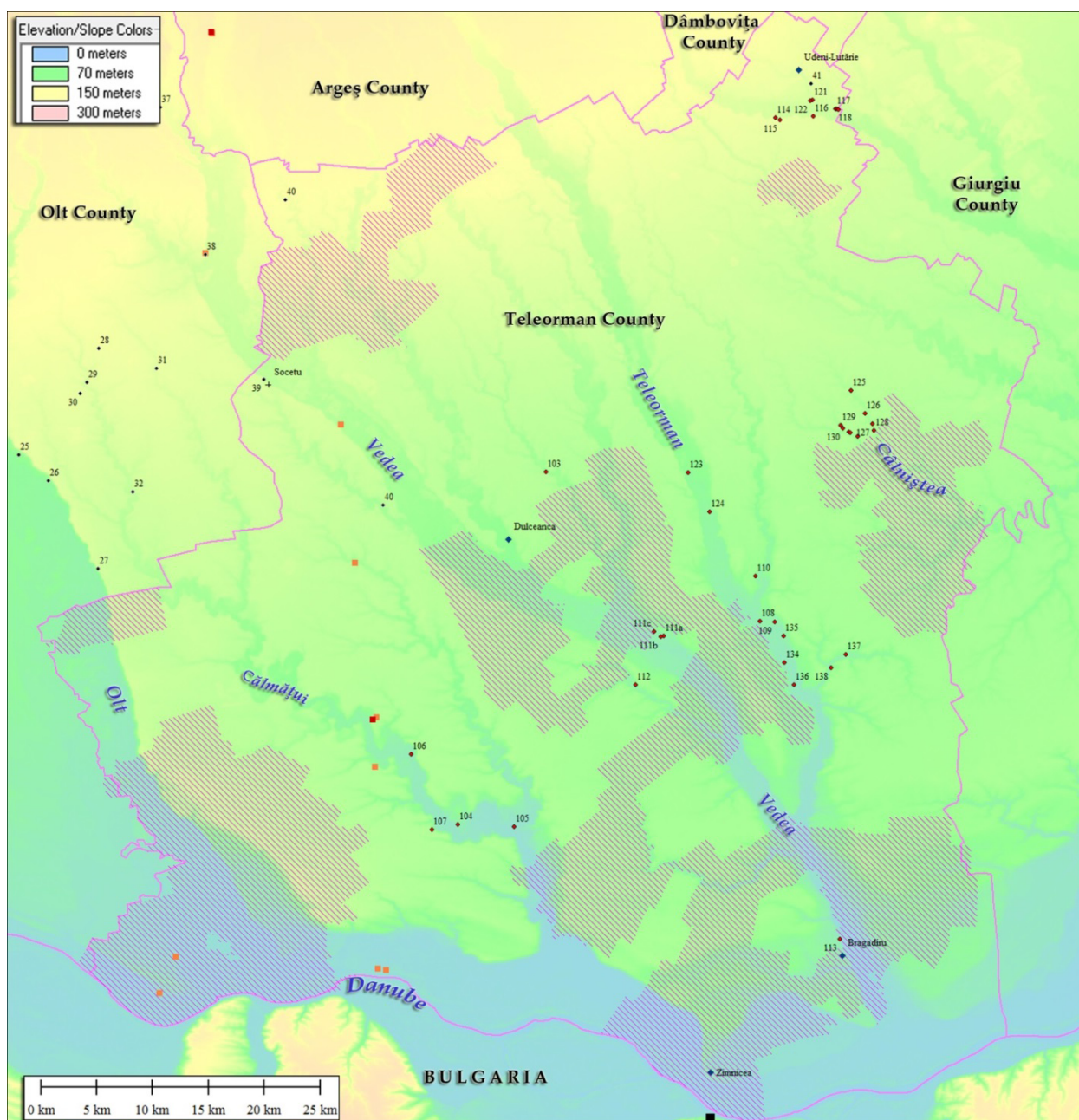


Figure 19. The map of the Chilia-Militari sites versus the coverage of the archaeological research. Hatched – territories investigated, with no Chilia-Militari discoveries. For the legend – see fig. 18.

Within the research project *Limes Transalutanus* our job is to collect archaeological remains along the former Roman border of the third century AD and to determine its cultural roots. In order to prepare ourselves for this task – expected for 2016 – we tried to improve our knowledge about the pottery made in Chilia-Militari milieu. The very first thing was to fix some criteria and procedures needed in pottery processing and to build a database. The second move was to see what is preserved in the museums from the area, taking photos and making measurements and notes. Soon enough we realized that the ‘restored’ pots from the exhibitions are ‘nice’, but not really helpful in describing ‘fabrication’.

In this point we paid a visit at the museum from Alexandria, in which were stored the artefacts collected in 2012, on a preventive digging for the city bypass. We were really impressed by the quantity and quality of the pottery

recovered and soon after that we found out that at least at some of the information connected with the digging we might have access to.

We picked up those two bags of pottery and processed them, the result being this paper. Of course, they make just about a tenth of the archaeological material collected in digging, and real conclusions will be possible only after the publication of all those six archaeological sites, including the digging and the artefacts. Nevertheless, our knowledge about Chilia-Militari culture is much improved, at the end of several months of work (between many other institutional and project tasks...), and we feel ready for the next job, in the field.

Preparing ourselves to deal with small sherds broken by the ploughs, the main concern was to make a reference collection of pottery fragments (the content of the Table 6), anytime at the hand for comparisons. The fabrication

typology excluded the technique of shaping (recorded in a separate field of the database) and the colour (*idem*), in order to avoid a catastrophic multiplication of the types. The analysis of the types drove to their grouping in three larger classes: (1) the so-called 'import' (while missing mica from composition), (2) the fine ware and (3) coarse pottery, or kitchenware.

The separation of the 'imports' was empirical, isolating the pots which very likely were not made on the site. Unfortunately we did not manage to make a chemical analysis of the composition of the ceramic pastes, in the given span of time¹⁰⁰, and we need a comeback at least for this reason, in a later paper. The list of 'imports' is unnaturally short, for such a wealthy community, due to the fact that mica is endemic in the clays and silts from the region (including *Novae!*).

A ceramic set including only 100 sherds cannot express all functional set of a culture like Chilia-Militari. The missing items – like the 'Dacian cup' or the Roman rushlights – will not be considered as 'missing', but having a very low representation. Due to the same low representativeness we couldn't make useful considerations except for the functional shapes well represented, as the bowls, the flagons or the cooking pots, for which the comparisons with Roman pottery or the published Chilia-Militari pottery was possible.

There are no 'news' in our paper, but some relevant shades. In general terms, the studied pottery is 'big', well done, compact and carefully finished. The distinction 'fine' versus 'coarse' pottery is not about quality, but about functionality. We don't understand each time the potter's choice; for instance, although much of the tableware is falling in the finer category, there are also bowls made out of coarse paste (fig. 15). Surprising or not, the storage recipients known as *Krausengefäße* are falling, entirely, in the 'coarse' category (fig. 12, 14), although very well done; do they not need to be resistant on mechanical stress, preventing the breaking? Isn't the coarse paste proper for that purpose? Of course it is...

These large vessels known as *Krausengefäße*, although not the only used for storage (see fig. 12/34 and fig. 13), are the most representative for what the legacy of Chilia-Militari culture is, the easier to be seen in the field, a 'badge' frequently encountered in field survey and mentioned in archaeological repertoires¹⁰¹. The origin of this storage shape is controversial. Most of the specialists gave it a Dacian provenance¹⁰², relying on examples from the 'Classical Age'¹⁰³, but also on its very early occurrence in Roman Dacia, in Trajan's time¹⁰⁴. Its presence in the Roman provinces

¹⁰⁰ Latest December 2015, due to the deadline from the 'List of Activities' watched by the sponsor...

¹⁰¹ As the recent book for Argeş County (see MĂNDESCU/DUMITRESCU/PĂDURARU 2014, 48). In the archaeological notes sent to us by Pavel Mirea, about Chilia-Militari sites from Teleorman County, this type of pottery is mentioned for the village Moşteni, site no. 132 on our maps from figs. 18 and 19.

¹⁰² The idea is not new and not... Romanian ((B. v. Richthofen – Germanische Krausengefäße des 4 Jahrhunderts n. Chr. aus der Provinz Oberschlesien..., *Mannus*, 6, 1928, 73-95, *apud* POPILIAN 1976, 115, note 690).

¹⁰³ As (newer) CRIŞAN 1969, plate LXXXIV/1 (Blidaru), a shape similar with our drawing from the fig. 14, but longer, with a very narrow base (thus to be kept only in a pit). Ion Horaţiu Crişan had in fact another explanation: Roman and Dacian *pitthoi* are so similar because they have a common parent: the Hellenistic one (CRIŞAN 1969, 245, note 523).

¹⁰⁴ RUSU-BOLINDEŢ 2007, 427.

from the middle and lower Danube area is rather discreet, better in Dacia Porolissensis¹⁰⁵ but – surprisingly – a poor one in Dacia Inferior¹⁰⁶. On the right bank of the Danube – its popularity seems even lower¹⁰⁷. This kind of storage recipient had much more success in *barbaricum*, far in the north, where was spread out in the area of Przeworsk culture, in its later phase, sometime in the early fourth century, being also made of coarse paste (clay mixed with smashed granite grains), having a brick-red outer face, but with a 'multicoloured cross-section'¹⁰⁸, or what we have named 'a complex burning'. For the *Krausengefäße* found in Polish contexts there is a clear consensus about its 'Dacian' origin¹⁰⁹, although nobody seems to be worried about the discrepancy between the ethnonym and the chronology. The vehicles of spreading Dacian knowledge in pottery making could be two: the Gothic conglomerate known as the Chernyakhov culture, in east, or the mixt-barbarian group from the lower Someş basin, in which very good wheel thrown pottery was made as early as the second century, after the Marcomanic wars, a region having such an outstanding pottery centre as Medieşu Aurit. Although having a great deal of differences at the ensemble of the pottery set, in north-western Romania one can see the same kind of leaning for 'big', for dark grey pottery and lots of profiles of *Krausengefäße* type, with flat, large rim, developed both inside and outside, even if some of them could not fulfil the condition of being a 'storage' pot (there is no precise 'limit', so far)¹¹⁰. It is impossible to tell how possibly could the communities from Muntenia interact with those from the lower Someş milieu, keeping in mind that we have in between 400 km as the crow flies and two massive range of mountains, the Southern and Western Carpathians...

Beyond the complicated discussion about the formation and distribution of the so-called *Krausengefäße*, there is another matter, at least as interesting: why, in fact, needs a relatively small community, as that from Vistireasa, so many storage vessels? Did those people give up the old inhabit of preserving the grains into the pits? If yes¹¹¹ – why? This feature of the local communities – pits with food reserves – is well known both for previous¹¹² and

¹⁰⁵ Taking 9 positions in the catalogue made by Viorica RUSU-BOLINDEŢ (2007, 426-427).

¹⁰⁶ POPILIAN 1976, only catalogue no. 746, because no. 747 is 'just a larger pot', with different morphology, and this in a corpus of Roman pottery made of 960 items!

¹⁰⁷ We were not able to find any supply recipients, others than *amphora*, for Iatrus (BÖTTGER 1982), Halmyris (although *dolia* pits are mentioned in the description of the layers 4, 5, and 9, TOPOLEANU 2000, 278). For *Novae* is published a large storage recipient (DOMŹALSKI 1998, 151, cat. no. 35, plate IV), which is a pretty far analogy. Our colleague Agnieszka Tomas, from the archaeological team digging the legionary camp, sent us unpublished drawings of some large pots from the area, which have definitely a different morphology.

¹⁰⁸ STASIAK-CYRAN 2008, 319-321.

¹⁰⁹ STASIAK-CYRAN 2008, 321, following older work of GODŁOWSKI/SZADKOWSKA 1972 (157); ANDRZEJOWSKI 2010 (21) is dating the skill of thrown pottery at the beginning of the Late Roman Period, as an 'influence from the Dacians', but an extensive spread of *Krausengefäße* is to be dated no earlier than the phase C3 (Central European Chronology, meaning the middle of the fourth century, following HARHOIU 1998, plates CXXXVI and CXXXVII), or something earlier following BURSCHE 1996, 31.

¹¹⁰ GINDELE 2010, fig. 2/9, 10, 4/ 8, 9, 14/2-6 (Apa), 32/6, 14, 34/6, 35/4, 37/5, 6, 43/5 (Bervei), 51/9, 52/6, 53/10, 11, 54/12, 13 (Culciu Mare), etc.

¹¹¹ For an answer we have to wait for the complete report of the digging.

¹¹² Ioan Horaţiu Crişan made an interesting observation about the correlation between the storage pits and storage vessels: the storage pots are

later ages¹¹³, not only from archaeology, but also from the historical literature¹¹⁴.

This – at least apparently – new storage procedure, in large pots, is well illustrated, for Vistireasa 1a, by the remains of that small – but unusual – granary. Another question is if the surplus of edibles was used by locals, or exported? The proximity of a relatively large stream, as Vedea River, on its lower course, almost sure navigable, makes the idea possible, although not proved¹¹⁵.

Speaking of Chilia-Militari pottery is always a delicate problem of balance: how much it is indebted to the ‘tradition’, and how much to the Roman influence? The analyses made for flagons (table 7) and (table 8) proved that although the morphological similitudes are great, the distribution of the classes of size is completely different: the inhabitants of Chilia-Militari milieu had a certain taste for ‘big’ things, probably as a consequence of a form of ‘commensality’. This behaviour – still not explored for earlier times in the local communities – could be new, but certainly not unique for Chilia-Militari; an analysis performed for the German *foederati* from the northern Balkans, for the late fourth to the sixth century, proved a very similar distribution of tableware and drinking recipients. The origin of those *foederati* – making, in fact, the main part of the Roman army from northern Balkans – is obviously northern¹¹⁶, the former warriors of the Gothic empire. Their pottery – near-black, with burnished decoration – was relatively difficult to copy, due to the high-firing kilns and to the complicated procedures of a long ‘shut-down’, was the result of an old manufacturing tradition, inherited in family, by potters originated north of the Danube¹¹⁷. The analysis performed by Vivienne Swan showed a strong emphasis on flagons, jugs and beakers, but also deep bowls¹¹⁸, a set relatively common with Chilia-Militari culture. We have therefore to answer not only to the question about how much ‘Roman’ is Chilia-Militari culture, but also to the question about how much the later influenced Chernyakhov culture¹¹⁹.

generally just a few, in a settlement, but only because that the pits are casual (and large...). The obvious exceptions are almost all in the mountains, like in Orăștie Mountains, where the rocky soil makes hard to dig a hole, but there one can find lots of very large *pythoi* (up to two meters height). Crișan found also an interesting twist at his rule, at *dava* from Popești (near Bucharest), made in a field with a very thick layer of clay (at least 50 m), but where 5 large *pythoi* have also been found in only one campaign, 1957 (CRIȘAN 1969, 185).

¹¹³ We don't know a study quantifying them for the sixth century (for which there are known relatively many settlements dug for more than 20% of the surface), for instance in relationship with the number of houses, because certain differences are clear, as for instance, a relation 1:5 (houses to pits) for settlements located some hundred kilometers north of the Danube, but probably 5:1 – in settlements located under 100 km of the river.

¹¹⁴ There are accounts related to storage pits both from the early (as Varro, *Re.rust.*, I, 57,2, mentioned by CRIȘAN 1969, 185) and very late Antiquity (as Strategikon, XI, 4-5 and 8, cited in CURTA 2001, 295 with the note 74, and 316-317 with the note 10); the unknown author of the handbook of the military strategy was saying two different things about storing foods: first that they were kept in heaps (something impossible to be ever proved archeologically, but we think it is only a great misunderstanding, because that way of storage cannot be anything else than a provisional one), but next that the *Sklaveni* were burring the edibles in secret places, which are simply covered pits.

¹¹⁵ We have to recall here the fact that such Krausengefäße were not found in Novae, the most eligible importer.

¹¹⁶ See VAGALINSKI 2002, *apud* SWAN 2007, 273.

¹¹⁷ SWAN 2007, 273.

¹¹⁸ SWAN 2007, 275.

¹¹⁹ The influence played by Romans on the Gothic society is a well-known

On the other hand, Gheorghe Bichir was speaking about the kitchenware of Chilia-Militari culture as about a ‘provincial pottery’. And he was right! The paste recipe, the shapes (the S shape rims are dominant), most of its shades (see table 11), and even the kilns (not published) are Roman. Chilia-Militari milieu could be pictured as a society cooking as Romans did but eating in a barbarian (lavish) style, as a border culture at the dawn of the Middle Age. If some of its legacy can be found on the opposite bank of the Danube, as the military table set of the sixth century, the other side – paradoxically, the Roman one – could be retrieved in S shaped rims from the pots made in Ipotești-Cândești milieu¹²⁰, north of the Danube, in the same ‘long century’¹²¹. Do you remember *Sklaveni*? They were doing wheel-thrown pots with S shaped rims, but only here, in Muntenia...

A final detail: Gheorghe Bichir used systematically the collocation ‘Militari-Chilia’, not ‘Chilia-Militari’, as we did¹²². This is *almost* the same thing, the difference being only at a symbolic level, which is true in both cases.

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We are adding on this (long) list Agnieszka Tomas, fact. Here there are some ‘structural’ features of a kinship between local society from the lower Danube (Chilia-Militari) and the ‘foreign’ culture Chernyakhov. Although looking homogenous on its very large territory, the Chernyakhov culture was a mix of barbaric cultures and local traditions, all strongly influenced by the Roman culture (SHCHUKIN/KAZANSKI/SHAROV 2006, 38), the western areas being considered of ‘Dacian’ tradition, even in Russian historiography (*idem*, 39). In what concerns the cemeteries from southern Romania, the main arguments for a Roman influence stands on some obvious imports, like amphorae, flagons and beakers made of fine red paste, of covered with olive glaze (MITREA/PREDA 1966, 133-135), adding others, like glass artefacts. It is also interesting to note that many of the most relevant cemeteries in the area are located on the terrace of the Danube (Spanțov, Independența, Izvoru, Gogoșari, Curcani, see MITREA/PREDA 1966, fig. 252).

¹²⁰ Teodor 2001, chapter 13, 185-186. The site with the best occurrence of S type rims, for the sixth century, is Dulceanca IV, located about 15 km away from Vistireasa.

¹²¹ On the personal page of Florin Curta (<http://users.clas.ufl.edu/fcurta/opus.html>) there is an inspired title of a book (in progress): ‘*The Long Sixth Century in Eastern Europe*’.

¹²² Yet we are not alone (for instance PETOLESCU 2010, 306).

from the University from Warsaw, who gave us important information about the research made by the Polish team in *Novae*.

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APPENDIX.

List of the sites numbered at the Figs. 18 and 19.

site	name	municipality	county	data from
1	Goranu-Sticlărie	Râmnicu Vâlcea	Vâlcea	Bichir 1984
2	Budești-Sticlăria	Budești	Vâlcea	Bichir 1984
3	Sâmburești	Sâmburești	Olt	Bichir 1984
4	Dumitrești	Verguleasa	Olt	Bichir 1984
5	Cungrea	Cungrea	Olt	Bichir 1984
6	Ibănești	Cungrea	Olt	Bogdan Cătănicu 1997
7	Cucueți	Verguleasa	Olt	Bichir 1984
8	Comănița	Teslui	Olt	Bichir 1984
9	Teslui	Teslui	Olt	Bichir 1984
10	Curțișoara	Curțișoara	Olt	Bichir 1984
11	Dobrotineț	Curțișoara	Olt	Bichir 1984
12	Linia din Vale	Curțișoara	Olt	Bichir 1984
13	Cireășov-Leasă	Slatina	Olt	Bichir 1984
14	Cireășov-Siliște	Slatina	Olt	Bichir 1984
15	Slatina-Cărămidărie	Slatina	Olt	Bichir 1984
16	Slatina-Crișan	Slatina	Olt	Bichir 1984
17	Priseaca	Priseaca	Olt	Bogdan Cătănicu 1997
18	Brebeni-Români	Brebeni	Olt	Bichir 1984
19	Brebeni-Sârbi	Brebeni	Olt	Bichir 1984
20	Brebeni-Ordorești	Brebeni	Olt	Bichir 1984
21	Brebeni-Puturoasa	Brebeni	Olt	Bichir 1984
22	Ipotești	Ipotești	Olt	Bichir 1984
23	Comani-Mărunței	Mărunței	Olt	Negru 2002
24	Drăgănești-Olt	Drăgănești-Olt	Olt	Bichir 1984
25	Dăneasa	Dăneasa	Olt	Negru 2002
26	Zănoaga	Dăneasa	Olt	Limes T. unpub.
27	Sprâncenata-Viespești	Sprâncenata	Olt	Negru 2002
28	Drăgănești-Boian	Stoicânești	Olt	Negru 2002
29	Stoicânești-Coandă	Stoicânești	Olt	Negru 2002
30	Stoicânești-Puierniță	Stoicânești	Olt	Negru 2002
31	Văleni-Călmățui Mic	Văleni	Olt	Negru 2002
32	Radomirești	Radomirești	Olt	Negru 2002
33	Scornicești-Tătărai	Scornicești	Olt	Bichir 1984
34	Colonești-Bărăști	Colonești	Olt	Bichir 1984
35	Colonești-Bătăreni	Colonești	Olt	Bichir 1984
36	Colonești-Drumu Vechi	Colonești	Olt	Bichir 1984
37	Ursoaia	Icoana	Olt	Limes T. unpub.
38	Crâmpoia	Crâmpoia	Olt	Bichir 1984
39	Socetu	Stejaru	Teleorman	Limes T. unpub.
40	Roșiori-Măldăeni	Măldăeni	Teleorman	Limes T. unpub.
41	Udeni-Est	Sârbeni	Teleorman	Bichir 1984
42	Deagu	Recea	Argeș	Bichir 1984
43	Mozăceni-SE	Mozăceni	Argeș	Măndescu et al. 2014

site	name	municipality	county	data from
44	Negrași-Fântâna Ilinii	Negrași	Argeș	Măndescu et al. 2014
45	Leșile-Minculescu	Teiu	Argeș	Măndescu et al. 2014
46	Leșile-Nania	Teiu	Argeș	Măndescu et al. 2014
47	Leșile-Stâncani	Teiu	Argeș	Măndescu et al. 2014
48	Leșile-Lotul Bisericii	Teiu	Argeș	Măndescu et al. 2014
49	Leșile-Capătul Pomoaștelor	Teiu	Argeș	Măndescu et al. 2014
50	Teiu din Deal	Teiu	Argeș	Măndescu et al. 2014
51	Rocianca	Rociu	Argeș	Măndescu et al. 2014
52	Râncăciuv	Călinești	Argeș	Măndescu et al. 2014
53	Valea Mare	Priboieni	Argeș	Măndescu et al. 2014
54	Berevoiești-Pământeni	Berevoiești	Argeș	Măndescu et al. 2014
55	Corbeni	Corbeni	Argeș	Măndescu et al. 2014
56	Valea Voievozilor	Răzvad	Dâmbovița	Bichir 1984
57	Răzvad	Răzvad	Dâmbovița	Bichir 1984
58	Comișani	Comișani	Dâmbovița	Bichir 1984
59	Mircea Vodă	Sălciara	Dâmbovița	Bichir 1984
60	Găești	Găești	Dâmbovița	Bichir 1984
61	Pănești	Mogoșani	Dâmbovița	Bichir 1984
62	Răcari	Răcari	Dâmbovița	Bichir 1984
63	Buftea	Buftea	Ilfov	Bichir 1984
64	Filipeștii de Pădure	Filipeștii de Pădure	Prahova	Bichir 1984
65	Filipeștii de Târg	Filipeștii de Târg	Prahova	Bichir 1984
66	Mănești	Mănești	Prahova	Bichir 1984
67	Bătești	Puchenii Mari	Prahova	Bichir 1984
68	Ploiești-Nord	Ploiești	Prahova	Bichir 1984
69	Ploiești-Gara de Nord	Ploiești	Prahova	Bichir 1984
70	Ploiești-Bereasca	Ploiești	Prahova	Bichir 1984
71	Ploiești-Alexandru cel Bun	Ploiești	Prahova	Bichir 1984
72	Gherghița	Gherghița	Prahova	Bichir 1984
73	Valea Călungărească	Valea Călungărească	Prahova	Bichir 1984
74	Starchiojd	Starchiojd	Prahova	Bichir 1984
75	Matița	Păcureți	Prahova	Bichir 1984
76	Străoști	lordăchianu	Prahova	Bichir 1984
77	Ceptura de Jos	Ceptura	Prahova	Bichir 1984
78	Călugăreni	Călugăreni	Prahova	Bichir 1984
79	Deal Brâncoveanu	Vadu Săpat	Prahova	Bichir 1984
80	Perșinari	Gura Vadului	Prahova	Bichir 1984
81	Gura Vadului	Gura Vadului	Prahova	Bichir 1984
82	Baba Ana	Baba Ana	Prahova	Bichir 1984
83	Cioranii de Jos	Ciorani	Prahova	Bichir 1984
84	Sălciile	Sălciile	Prahova	Bichir 1984
85	Fințești	Năeni	Buzău	Bichir 1984
86	Mogoșoaia	Mogoșoaia	Ilfov	Bichir 1984
87	Progresu	Jilava	Ilfov	Bichir 1984
88	Casa Scânteii	Sector 1	București	Bichir 1984
89	Str. Florilor	Sector 1	București	Bichir 1984

site	name	municipality	county	data from
90	Piața Grant	Sector 6	București	Bichir 1984
91	Precupeții Noi	Sector 1	București	Bichir 1984
92	Stadion 23 August (Național)	Sector 2	București	Bichir 1984
93	Pantelimon	Sector 2	București	Bichir 1984
94	Palatul Justiției	Sector 5	București	Bichir 1984
95	Schitu Maicilor	Sector 4	București	Bichir 1984
96	Dudești-Cioplea	Sector 3	București	Bichir 1984
97	Parcul Tineretului	Sector 4	București	Bichir 1984
98	Str. Gl. Ștefănescu	Sector 5	București	Bichir 1984
99	Novaci	Mihăilești	Giurgiu	Bichir 1984
100	Giurgiu	Giurgiu	Giurgiu	Bichir 1984
101	Arsachi	Vedea	Giurgiu	Bichir 1984
102	Sărulești	Sărulești	Călărași	Bichir 1984
103	Rădoiești Deal (Rad-D 005)	Rădoiești	Teleorman	Mirea mss
104	Dracea (DRA 002)	Dracea	Teleorman	Mirea mss
105	Dracea (DRA 003)	Dracea	Teleorman	Mirea mss
106	Florica	Dracea	Teleorman	Mirea mss
107	Dracea (DRA 015)	Dracea	Teleorman	Mirea mss
108	Măgura (MAG-TR003 sat)	Măgura	Teleorman	Mirea mss
109	Buduiasca (TR003)	Măgura	Teleorman	Mirea mss
110	Guruieni (GUR-CL 006)	Măgura	Teleorman	Mirea mss
111	Vistireasa	Nanov	Teleorman	Mirea mss
111a	Vistireasa 1	Nanov	Teleorman	Mirea mss
111b	Vistireasa 2	Nanov	Teleorman	Mirea mss
111c	Vistireasa 3	Mavrodin	Teleorman	Mirea mss
111d	Vistireasa 4	Mavrodin	Teleorman	Mirea mss
	missing from the maps (see Fig. 1)			
112	Nanov (NAN 014)	Nanov	Teleorman	Mirea mss
113	Frumoasa (FRU 006)	Frumoasa	Teleorman	Mirea mss
114	Drăghinești (GRT 004)	Gratia	Teleorman	Mirea mss
115	Drăghinești (GRT 007)	Gratia	Teleorman	Mirea mss
116	Ciurari-Deal (GRT 014)	Gratia	Teleorman	Mirea mss
117	Gratia (GRT 017)	Gratia	Teleorman	Mirea mss
118	Gratia (GRT 018)	Gratia	Teleorman	Mirea mss
119	Schitu-Poienari (SCH 009)	Vitânești	Teleorman	Mirea mss
120	Gratia (GRT 026)	Gratia	Teleorman	Mirea mss
121	Gratia (GRT 027)	Gratia	Teleorman	Mirea mss
122	Gratia (GRT 028)	Gratia	Teleorman	Mirea mss
123	Orbeasca de Sus (ORB 017)	Orbeasca	Teleorman	Mirea mss
124	Orbeasca de Jos (ORB 034)	Orbeasca	Teleorman	Mirea mss
125	Moșteni (MOS 003)	Moșteni	Teleorman	Mirea mss
126	Moșteni (MOS 006)	Moșteni	Teleorman	Mirea mss
127	Moșteni (MOS 008)	Moșteni	Teleorman	Mirea mss
128	Moșteni (MOS 009)	Moșteni	Teleorman	Mirea mss
129	Moșteni (MOS 031)	Moșteni	Teleorman	Mirea mss
130	Moșteni (MOS 032)	Moșteni	Teleorman	Mirea mss

site	name	municipality	county	data from
131	Moșteni (MOS 035)	Moșteni	Teleorman	Mirea mss
132	Moșteni (MOS 036)	Moșteni	Teleorman	Mirea mss
133	Moșteni (MOS 038)	Moșteni	Teleorman	Mirea mss
134	Vitânești (VIT 007)	Vitânești	Teleorman	Mirea mss
135	Vitânești (VIT IV)	Vitânești	Teleorman	Mirea mss
136	Purani (PUR-V 006)	Vitânești	Teleorman	Mirea mss
137	Siliștea (SIL-V 012)	Vitânești	Teleorman	Mirea mss
138	Pitești-Observator	Pitești	Argeș	Măndescu et al. 2014

KARL GOOSS AND A TEMPLE OF JUPITER FROM APULUM¹

Abstract: *Karl Gooss (1844-1881) was one of the few intellectuals of his time who witnessed personally the building of the railway and the ditch of Alba Iulia between 1865 and 1868. The construction was the biggest project of the city since the building of the Vauban fort and destroyed the most significant part of the Colonia Aurelia Apulensis, one of the biggest urban centres of the province. During these works, Gooss witnessed the discovery and destruction of the first Jupiter temple attested in Dacia, the biggest silver deposit ever found in Transylvania and the first coin hoard of Apulum. His German publication was ignored by the later historiography, although it is the first and only detailed account of the archaeological finds discovered in the Partoş in the end of August, 1867. His detailed account helps us to identify the context of some well-known artefacts and to reconsider the topography of the Colonia Aurelia Apulensis.*

Keywords: *Apulum, Karl Gooss, Jupiter temple, ancient topography, Roman heritage*

The main obstacles and issues of urban archaeology in the end of the 19th century were similar in most of the cities of Europe in the *Belle Époque*. One of the problems, which affected severely the Roman archaeological heritage of Alba Iulia was in fact, the greatest industrial project of the Austro-Hungarian Empire: the building and expansion of the railway system.

Although, it was one of the major motors of urbanization and modernization in Central-East Europe², one of the negative effects of its fast expansion was the catastrophic impact on the archaeological sites. Many of the railway routes passed rarely habited parts of the cities, meadows and crop fields or valleys, where archaeological material was unearthed and perfectly preserved. Many of the Roman sites, preserved relatively well till the end of the 19th century, were severely damaged in the 1860's and 70's when the

¹ This article is an extended version of a subchapter from the monograph on Béla Cserni's life: Szabó 2016 forthcoming. See also: Szabó 2015. I'm most grateful to dr. Ute Klatt and Peter Bibinger from the Römisch-Germanisches Zentralmuseum from Mainz for their kind help regarding the rights for the photographic material. I owe special thanks to Dr. Robert Conrad from the University of Erfurt for his help in translating the German text of Karl Gooss. I am also thankful to Róbert Bodnár from the Lucian Blaga University Library from Cluj-Napoca for his help.

² On the benefits of the railway system and its impact on urbanisation see: FRISNYÁK 2001, 51-101, GIDÓ 2013.

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railway system was built. Brigetio (Ó-Szöny) was one of the most affected sites, numerous buildings described by the earlier travellers were practically destructed to the ashes³.

The same happened with the ruins of the *Colonia Aurelia Apulensis*. The territory was well preserved, because the modern city expanded in a different area, avoiding a great part of the Roman civil settlement. This had multiple reasons: the still visible ruins of the Roman city preserved the memory of Apulum in the collective mentality and this area was also very unsecure because of the numerous floods of the Mureş (Maros) River.

The plan of the first Hungarian Railway System was established by István Széchenyi in 1848, however it was extended to Transylvania much more later in 1865⁴. The so called First Transylvanian Railway system (EEV)⁵ practically sliced the very heart of the *Colonia Aurelia Apulensis*. The railway affected 1290 m long the Roman city an it's territory. It enters in the NW corner of the city, passing through the possible city wall and a highly urbanized, domestic area, where later numerous kilns and ovens were discovered. It is also very close to the Liber Pater shrine and the sacred area of the Asklepeion, where a high concentration of religious material was attested⁶. The railway continues in a straight line to the SW part of the Roman city, affecting especially the Western part of the settlement. The Roman town suffered serious damages also during the building of the Brick factory and later, the main road, which follows the path of the Roman road and pass the very heart of the Roman settlement.

Béla Cserni, the first archaeologist of the city noticed numerous times, that he witnessed personally the destruction of the Roman walls, the aqueduct and the houses of the *colonia*⁷. Several altars and votive monuments were also find in this short period, which means, that the Northern part of the city with the sacred area was the most severely affected. In less, than 1,5 years, the workers moved more than 63000 m³ of soil, probably the biggest project since the construction of the Vauban fort, which had the same catastrophic impact on the other settlement, the *Municipium Septimium Apulense*. Similar, massive destructions will happen only during the 20th century, when the large urbanization and monumentalisation of the buildings expand also in the Partoş area and in the rest of the *Municipium* or the necropolis on the Dealul Furcilor⁸. Although, Cserni witnessed personally the destruction of the *Colonia Aurelia Apulensis* in the 1860's, the most detailed and most vivid report was made by Karl Gooss.

GOOSS' REPORT ON THE DESTRUCTION OF THE COLONIA AURELIA APULENSIS AND THE DISCOVERY OF THE TEMPLE

Karl Gooss (born on the 9th April, 1844, died on the 23rd June, 1881)⁹, a German teacher from the Lutheran

³ SZÁMADÓ 1997, 149-174.

⁴ GIDÓ 2011, 17, 26.

⁵ HORVÁTH/KUBINSZKY 2001, HORVÁTH 2001.

⁶ SZABÓ 2015.

⁷ Cserni 1901. See also: Cserni 1912, 109.

⁸ On later destructions, see: BOGDAN-CĂTĂNICIU 2000, CIUTĂ 2013, CIUTĂ 2014.

⁹ His name appears in numerous forms in the bibliography: Károly Torma cites his name as Carl Gooss, while he wrote his name as Karl Gooß in his publications. About his short and tragic life see: N.A. 1881, 83-84, SCHULLER

School of Sighişoara (Schäßburg, Segesvár) was a well-known intellectual in the 1870's in Transylvania, publishing extensively on the archaeological and epigraphic material of the region¹⁰. As a student of renowned historians from the universities of Jena and Berlin, his activity between 1870 and 1878 produced numerous important catalogues and articles, serving as a supplement for the monumental work of the *Corpus Inscriptionum Latinarum III*. Among his many important works we also find a short synthesis on the Roman fort of the XIII Gemina legion, with a detailed introduction on the Roman history of Apulum, the first published before the monograph of Király from 1892 and Cserni from 1901¹¹. His focus on Apulum intensified after his remarkable eye witness from the end of August, 1867, published in details in his long article from 1871¹² and mentioned shortly again in 1874. His detailed report on the finds and the destruction of the Roman contexts were cited also by Cserni and numerous later sources, although never with a contextual analysis or a careful reading¹³.

Gooss, who visited for some days Alba Iulia (Gyulafehérvár, Karlsburg) in 1867 for examining the inscriptions of the Batthyanaeum, was present personally in the last days of August, 1867 in the territory of the Partoş (*Maros-Porto*). After finishing his research in the fort and the Batthyanaeum, Gooss had a long and careful walk along the river Mureş (Mieresch)¹⁴, where the railway and the dig was under construction (**fig.1**).

He describes the place of the discovery and the most affected area in the following way: *“these works were carried on in the very heart of the ancient Apulum. 35 fathom below the Maros-Porto, on the right side of the Mieresch, should lead directly to the train station in front of the lower city of Karlsburg, while cutting the street from Apulum to Karlsberg in a sharp angle. During these days, as I took these notes on location, where they worked on the last third of those 600 Klafter length of embankment between the river and the street. However, there were 400 Klafter of the route from the river to the amassed embankment section not started and even the worked on section had not totally proceed to the street”*¹⁵. The exact location of the described place is hard to establish, although the topographic references suggest, that the area must be in the Western part of the Roman city¹⁶. If the distance of 600 fathom (wiener Klafter) is around 1096 m, it must refer to the section from the river till the area of the Galgenberg. After the map of the Second Military Survey finished in 1869, only two years after Gooss' report¹⁷, the distance of 600 fathom corresponds perfectly with the river-Galgenberg distance. His account

1904.

¹⁰ His bibliography was partially collected by Károly Torma: TORMA 1881, 26-28, cat. nr. 238-251.

¹¹ GOOSS 1878. SEE ALSO: KIRÁLY 1892, CSERNI 1901.

¹² GOOSS 1870, 33-63. See also: GOOSS 1874, 167-175.

¹³ CSERNI 1901, PISO 2001 based on Mommsen's contribution from the CIL III.

¹⁴ GOOSS 1870, 35.

¹⁵ GOOSS 1870, 35.

¹⁶ See also CSERNI 1901, 275-276, PISO 2001, pl. III. nr. 11. Piso interpreted the description of Gooss as referring to the intersection of the railway with the contemporary Dacilor street. In this case, the sanctuary of the supreme Roman god would be in the southern periphery of the city, far from it's economic center and the forum itself.

¹⁷ <http://mapire.eu/hu/map/collection/secondsurvey/>.

Last accessed: 17.11.2015.



Fig. 1. Building the first Transylvanian railways. Photo from the courtesy of the Hungarian Museum of Science, Technology and Transport (www.facebook.com/KozlekedesiMuseum. Last accessed: 20.12.2015).

states, that the discovery was made around the first 200 fathom (365 m) from the Galgenberg. This area corresponds with the NW corner of the *Colonia Aurelia Apulensis*, where the most intensive concentration of ruins and finds were attested (**fig. 2.**)¹⁸. Later Cserni also mentioned, that in this area the builders of the railway moved a significant amount of soil for the dam¹⁹.

Gooss described the building of the dam in details. He mentions, that the earth foundation of the railway dam was made of the soil looted and removed from 3 to 9 feet deep from the ancient ruins. He observed, that the soil was already mixed and disturbed in the past, which – after him – suggest previous lootings for ancient ruins in this area of the Roman city. Later research proved, that the looting of the *Colonia Aurelia Apulensis* had indeed, a much longer history. Due to the finds mentioned by Gooss, important to mention, that an inscription dedicated by a certain Tenax, slave of A. Tapetius Antoninus to Diana, described in the 16th century by Mezerzius (IDR III/5, 55) could belong to the same context described above. The



Fig. 2. Aerial photo representing the territory of the *Colonia Aurelia Apulensis* (today Partoș). The yellow line represents the main road (E 81), the purple line the railway and the dig. The white triangle represents the area where probably Gooss witnessed the destruction of the temple and later, Cserni excavated 6 Roman houses. Blue area: the shrine of Liber Pater. Photo: HAYNES 2005, 38.

¹⁸ SZABÓ 2015.

¹⁹ CSERNI 1912B.

reused soil contained not only countless bricks, stones and wall fragments, but also mortar and red or yellow coloured gypsum²⁰. Gooss vividly described, that in some cases even the brick elevation of the buildings was preserved. The walls showed a very irregular shape and structure, which corresponds with the structure of a usual Roman *insulae*, revealed also in the case of the *Colonia Aurelia Apulensis* during the geophysical survey of the Apulum Project²¹. He described in details the “stratigraphy” of these ruins, highlighting that numerous layers of mortar, brick, pavements and earth covered the walls. In two of the compartments he described, large parts of *cocciopesto* (*opus signinum*) were attested²².

Among the ruins, Gooss remarks a particular one: a “temple of Jupiter Capitolinus”²³. He noticed, that the ruins were so monumental, that the building must have large dimensions. The foundation of it was formed by large construction blocks (38 Zoll length, 20 Zoll width²⁴), two of them being intact and connected with iron installations²⁵. Gooss mentioned, that he observed similar construction blocks all over the gardens and buildings of Alba Iulia in secondary, reused position. He describes also a perfectly preserved, standing column, which was one of the architectural features to identify the building as a “temple”. The basis of the column was 30 Zoll width (76,2 cm), while at the upper part of the abacus was 22 Zoll (55.8 cm). From the details served by him we can presume, that the standing column was at least 300 cm high. In the same site he saw also a Doric column capital, although he presumed, that such a temple should have Ionic or Corinthian columns. As analogy, he gives the Roman Corinthian capital which decorated the garden of the major²⁶. In the interior of the building, Gooss observed numerous column bases. A particularly large quadrate stone (37 x 16 Zoll)²⁷ was standing also in the building, interpreted by Gooss as the statue base of the cult image.

Near the base, he found a splendid statue of “Jupiter Capitolinus sitting on a throne”²⁸. Although, he didn’t publish a drawing of the statue, his detailed description serves as an essential report for the identification of the monument. Gooss mentions, that the bust of the divinity was nude, the right shoulder was covered by a fine mantel which lied till the legs of the god, leaving free only the sandal of the divinity. Important to notion, that Gooss remarks especially the fact, that Jupiter wears a sandal. Left to his legs there is a fragmentarily preserved eagle. The head of the animal and the divinity is intentionally destroyed. The height of the statue is 3.2 feet (94.8 cm), the width of his throne is 21 Zoll (53.3 cm). Gooss presumed, that the statue was made of marble. Unfortunately, he didn’t mention the fate of the statue and where was it transported. Although, it is one of the most detailed description of any Jupiter statues discovered in the territory of the *Colonia Aurelia Apulensis*, the later

²⁰ GOOSS 1870, 36.

²¹ HAYNES 2014.

²² GOOSS 1870, 35.

²³ GOOSS 1870, 35-38.

²⁴ 96,52 x 50,8 cm.

²⁵ Similar technique was attested also in the recently excavated principia of the legionary fort.

²⁶ On Roman capitals from Apulum see: HAMPEL 1911.

²⁷ 94 x 40,6 cm.

²⁸ GOOSS 1871, 37.

historiography ignored totally his report, none of the studies focusing on the stone representations of Jupiter will cite his article²⁹. Without a precise drawing, the identification of the statue is possible only based on some particular features mentioned by Gooss. From the 13 statuary representations known in 1980³⁰, only two marble statues were known from the two cities of Apulum: one discovered in the territory of the *Colonia Aurelia Apulensis* between the two world wars³¹ and another from the territory of the *Municipium Septimium Apulense* discovered in 1976³². This could indicate that Gooss identified wrongly the material of the statue. The decisive details are served by the date and place of discovery, the mutilated face of Jupiter, the height of the statue and the detailed sandal of the divinity. From the few Jupiter statues discovered in the territory of the *Colonia Aurelia Apulensis* before 1920, only one have a mutilated face, a long mantel and a beautifully decorated sandal (figs. 3a, b, c).

The statue today is preserved in the Brukenthal Museum (inv. no.)³³, which replaced the Batthyanaeum, as the leading institute for preserving the archaeological heritage of Transylvania between 1800 and 1886³⁴. Many of the monuments from the Batthyanaeum, such as the splendid Mithraic

²⁹ PAULOVICS 1940, 27, PL. X, FIG. 22, ISAC 1974, MOGA 1974, BĂLUȚĂ 1980, OTA 2012, OTA 2013.

³⁰ BĂLUȚĂ 1980. See also: BĂRBULESCU 1984.

³¹ DAICOVICIU 1941, 306, no. 6. fig. 7. See also: OTA 2013.

³² BĂLUȚĂ 1978, 169-174.

³³ Unfortunately, the inventory sheet of the monument does not mention the site and date of discovery. Verbal confirmation of Claudiu Munteanu.

³⁴ See also: SZABÓ 2014, SZABÓ 2016.



Figs. 3a-c. Statue of Jupiter from the Brukenthal Museum, Sibiu. Photos by Orlolf Harl: Lupa 17354.



Fig. 4. Altar of Aulus Tapetius Amethystus (IDR III/5, 167) preserved in the Brukenthal Museum, Sibiu. Photo: Ortolf Harl (Lupa 11504).



Fig. 5. Altar of Aulus Tapetius Epius (IDR III/5, 168) preserved in the Brukenthal Museum, Sibiu. Photo: Ortolf Harl (Lupa 11505).

statue of Secundinus and the material of the so called “Kaftal mithraeum” were transported in the Brukenthal Museum in the second half of the 19th century³⁵. The dimensions of the statue (105 x 63 x 47 cm), the intentionally mutilated face of Jupiter and the details of the sandal and the eagle corresponds with the description of Karl Gooss.

Other arguments, which prove that the statue from the Brukenthal is identical with the one described by Gooss, are the altars found in the same building, near the statue. Gooss reports, that he found 5 altars in the compartment: three inscribed and two unepigraphic. He published for the first time the inscriptions and described in details their appearance and side-decorations³⁶. Today, only two of the altars are preserved (IDR III/5, 167, 168) both of them in the Brukenthal Museum (inv.no. A 3419, A 3420, **figs. 4-5.**), acquisitioned by Ludwig Reissenberger (1819-1895)³⁷.

The altar of Aurelianus Aelianus (IDR III/5) today is missing, the description of Gooss is the only detailed report about this monument. Both the statue from the Brukenthal and the altars show a particular iconography and possibly, external influences or workshops as it was already highlighted³⁸. Beside the statue and the five altars, Gooss observed in the building also a channel and a cylindrical water reservoir (or fountain) which was deeply excavated and used as potable water for the workers of the railway (more than 100 persons could use it daily).

LOCATING THE BIGGEST SILVER TREASURE OF APULUM AND THE COIN HOARD APULUM I.

Beside the so called Jupiter temple and its relatively well preserved inventory, Gooss reports numerous other, exceptional finds discovered in 1867 and 1868. Among these, we find numerous inscriptions dedicated to a large variety of divinities (IDR III/5, 5, 22, 45, 50, 122, 123, 136, 167, 168, 218, 245, 268, 277, 320, 389)³⁹. Unfortunately, none of these finds were precisely located. Two of the finds need however, a more careful attention.

Gooss mentioned, that four silver objects (two plates, a lid and a cup) were discovered in the nearby of the above mentioned temple⁴⁰. One of the pieces, published by Gooss in 1870 was republished in 1980 without the citation of his work as *editio princeps*⁴¹. Cserni himself cites the work of Gooss and gives the dimensions of the silver objects in his monograph, although without the drawing published by the German teacher (**fig. 6a-d.**)⁴². The two plates (cca. 5.2 x 9.5 cm)⁴³ unfortunately were melted in the same year in the mint of the Vauban fort for 97 forints. The beautifully decorated silver cup was transported later in Cluj (Kolozsvár) where

³⁵ SZABÓ 2013.

³⁶ GOOSS 1870, 37-38.

³⁷ PISO 2001, 128. On Reissenberger's activity see: TORMA 1881, 72-73, nr. 620-622.

³⁸ ISAC 1974, 78. Isac enrolled the statue as “from Transylvania”, citing the work of Paulovics.

³⁹ Some of these were found in 1868. Gooss reports only 3 inscriptions found in the summer of 1867: GOOSS 1874. See also: SZABÓ 2014.

⁴⁰ Although they certainly belonged to the *Colonia Aurelia Apulensis*, their exact context is unknown and it seems that they are not from the same spot.

⁴¹ MACREA 1937, 112, TUDOR 1959, KÜNZL 1980.

⁴² CSERNI 1901, 275.

⁴³ 2.25-inch-deep and 4.75-inch-wide: GOOSS 1970, 40. Cserni gives the wrong dimensions: CSERNI 1901, 275.

seems to be lost after 1937⁴⁴. Beside the silver artifacts, a beautiful bronze statuette of Venus, numerous fibulae and other small finds was also among the objects which later disappeared⁴⁵.

Among the finds from the *colonia* discovered in 1867, another important one was reported later by Béla Cserni in 1901. In his seminal work on the Roman history and topography of Apulum, he mentions an intact moneybox with 612 Roman coins, dated from Nero till around 185



Fig. 6a-b. Drawings of the silver cup by Karl Gooss: GOOSS 1870, 62-63, figs. 1-2.

AD⁴⁶. In this area numerous moneyboxes were identified in the 1990's during the excavation of the Liber Pater shrine⁴⁷. The hoard was published in the Latin article of Henrik Finály in 1873⁴⁸. The famous classical philologist mentioned in the title of his article, that the hoard was discovered "*inter rudera municipii Apulensis*" in September, 1867. No further topographic details were given. The date corresponds exactly with the construction of the railway, described by Karl Gooss. Recently, this hoard is known as "Apulum I"⁴⁹, as the first numismatic hoard ever found in Apulum. The latest publisher mentioned, that it was found in the "*ruins of the palace of the princepe*" in the territory of the Roman fort⁵⁰, probably based on Finály confusing reference to the "*municipium*" and on the topography of later coin hoards from Apulum. Important to mention however, that in 1873 when the hoard was published, the topography and administration of the conurbation was not known, and the

⁴⁴ The silver cup was last photographed in 1937 and in 1959 was already mentioned as missing object. It is possible, that it disappeared – as many of the archaeological material – during the Second World War.

⁴⁵ Gooss saw the statuette in 1867, but in 1901 it does not exist as Cserni's report mention it as „missing object”: GOOSS 1870, 42, CSERNI 1901, 275-276.

⁴⁶ CSERNI 1901, 276.

⁴⁷ HÖPKEN/FIEDLER 2007, HÖPKEN 2008.

⁴⁸ FINÁLY 1873, 24.

⁴⁹ GĂZDAC 1995. See also: GĂZDAC et al. 2015 and www.tezauremonetare.ro. Last accessed: 8.12.2015.

⁵⁰ GĂZDAC 1995, 133.



Figs. 6c-d. The silver cup copy. Photos reproduced with the kind permission of the Directorate of the Römisch-Germanisches Zentralmuseum Mainz.

"*municipium Apulensium*" is referred to the territory of the later *Colonia Aurelia Apulensis*⁵¹. Cserni's short reference to the topography of this find is crucial: although he doesn't cite Finály's work, helps us to locate exactly the first hoard found in the civil settlement. The chronology of the find indicates a turbulent period of the settlement in the early Septimian age, before it was transformed and expanded into a *colonia*⁵².

Unfortunately, the fate of the temple, the fountain, the numerous stamped bricks and the numismatic material⁵³ is presumable: the railway was opened soon after 1868 and with that, a large part of the *Colonia Aurelia Apulensis* was destroyed forever.

CONTEXTUALIZING THE TEMPLE AND THE FINDS WITHIN THE TOPOGRAPHY OF THE COLONIA AURELIA APULENSIS

Although Gooss diligently reported the finds and the ruins, the first who located on a map was Béla Cserni in his monograph on the Roman city in 1901⁵⁴. Although the father of urban archaeology in Transylvania mentioned the silver treasure and the coin hoard, he forgot to mention the Jupiter temple. The first who will observe again, that Gooss identified a possible temple was Ioan Piso who copied the reference from the *Corpus Inscriptionum Latinarum*, although he never identified the context and Gooss'

⁵¹ On the reconstruction of the history of Apulum see: BĂRBULESCU 1993, 177, OTA 2012, SZABÓ 2014, SZABÓ 2016.

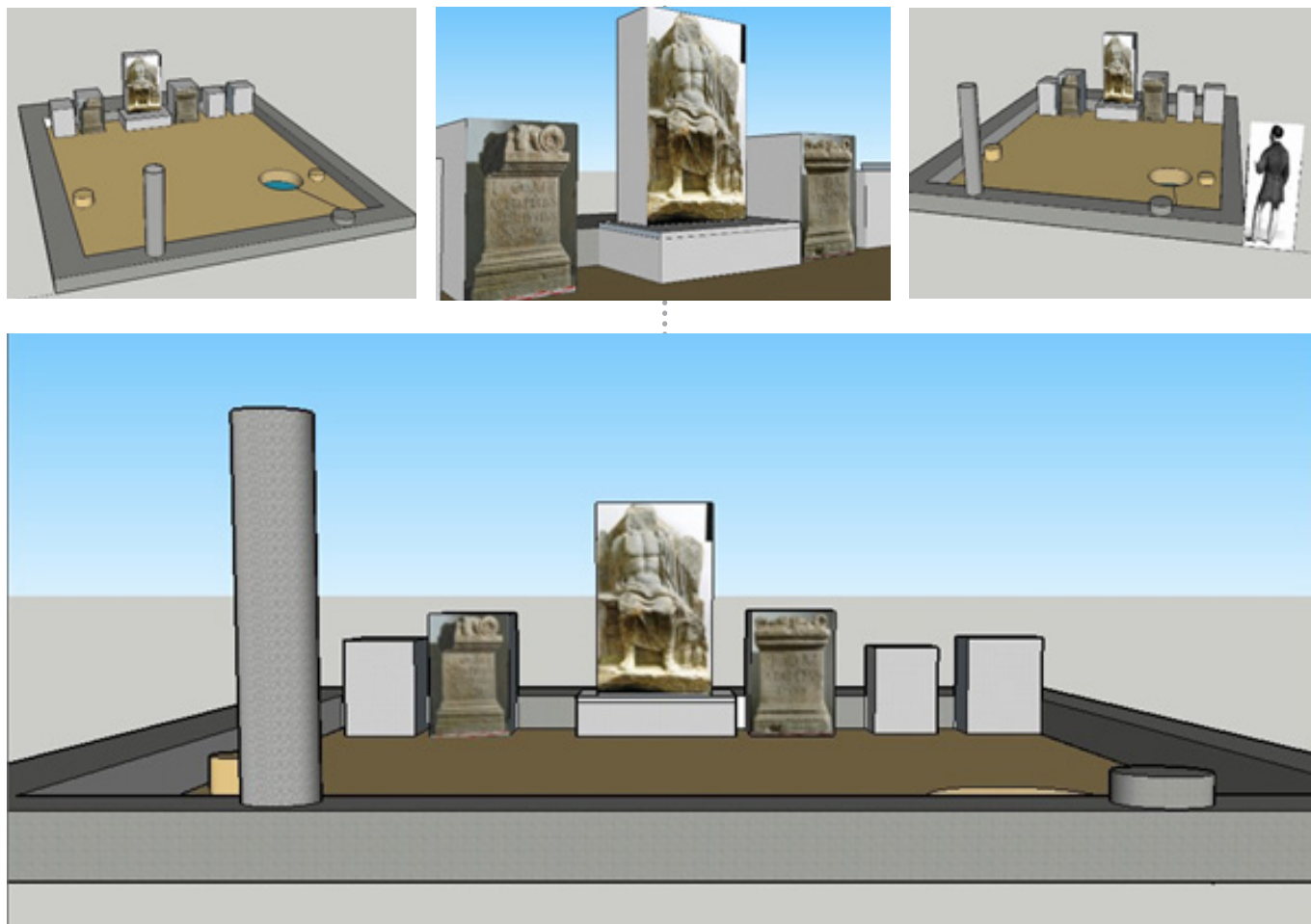
⁵² See: DIACONESCU 2004.

⁵³ Gooss published also an important list of coins found or observed by him during these days, although it does not consist probably a treasure or hoard, but more sporadic finds: GOOSS 1870, 44.

⁵⁴ See chapter V in: SZABÓ 2016.

detailed description⁵⁵. None of the studies focusing on Roman temples and sanctuaries mentioned Gooss' or Piso's observation⁵⁶. The location of the site – although it is the most precisely reported from all the main discoveries of 1867 – is uncertain. What is sure, that we are talking about a waste area of approx. 1100 m long and 300 m wide, which consists the NV corner and the V part of the Roman city (**fig.2**). As we mentioned, the topographic features given by Gooss suggests that the temple was found in the first half of the str. Regimentului V. Vânători, which consisted the NV corner of the *Colonia Aurelia Apulensis*. Contrary to this, Ioan Piso suggested, that the area must be in the SV part of the city⁵⁷. Other finds, such as the inscriptions dedicated to Liber Pater (IDR III/5, 245) suggest also, that the area of the Liber Pater shrine was also affected by the railway building⁵⁸. It seems plausible, that this area (the NV corner and the V periphery of the Roman city) was highly populated with sanctuaries of small group religions (*mithraea*, *dolichenum*, Liber Pater shrine) and was also a very rich, domestic area, as the silver plates and later, Cserni's discoveries will prove this⁵⁹.

The role and identification of the temple with a possible Capitolium is problematic⁶⁰. Although, based on the epigraphic and statuary material known from the conurbation, the existence of a Capitolium was long time ago presumed⁶¹ and recently the vicinity of a possible Forum could indicate the existence of a public Roman temple dedicated to the supreme triad, the lack of the archaeological evidence, the rarity of the Capitolia in Danubian provinces and the omnipresent nature of Jupiter monuments in urban contexts makes it difficult to identify the temple attested by Gooss with a *capitolium*⁶². The chronology of the finds represents also great homogeneity and variety, some of them (such as the Apulum I hoard) predates the *Colonia Aurelia Apulensis*⁶³, others (such as the silver cup) was dated to the end of the 3rd century⁶⁴. Although it is uncertain if the temple attested by Gooss is a *capitolium*, it was surely, a public Roman *templum*⁶⁵. This is indicated by the nature of the monuments and the monumental quadrate blocks, which is attested in Apulum only in public buildings protected by law (*res sanctae*)⁶⁶. The presence of the *Tapetii*



Figs. 7a-d: hypothetical reconstruction of the temple site based on Karl Gooss' description

⁵⁵ In CIL III vol. 2. (CIL III 6260) Mommsen wrote: "*ara ad Maros - Portum rep. a 1867 in ruini templi antiqui*". See also: PISO 2001, 128-129, Idem, fig. III. 11.

⁵⁶ ALICU/PESCARU 2000, ALICU 2002.

⁵⁷ PISO 2001, fig. III.11.

⁵⁸ SZABÓ 2014, 60-61.

⁵⁹ About the topography of Cserni's excavations in this area see chapter V in: SZABÓ 2016.

⁶⁰ Without knowing the context of the discovery and Gooss' description, Paulovics identified the statue from the Brukenthal with a *capitolium*: PAULOVICS 1940.

⁶¹ BARTON 1982, 259-342.

⁶² QUINN/WILSON 2013, CIOBANU 2014, SZABÓ 2015.

⁶³ GĂZDAC 1995.

⁶⁴ KÜNZL 1980.

⁶⁵ On the notion see: SZABÓ 2015, n. 3. with further bibliography.

⁶⁶ Till now in the case of the *principia*, the wall of the fort and possibly, the city wall of the *Municipium Septimium*.

family (represented by multiple inscriptions) indicates, that sacred spaces dedicated to the supreme god worked similarly as in the case of some shrines of small - group religions. The foundation and the maintenance of the building was ensured by a prominent family or religious entrepreneurs of the conurbation, connected with familial bounds, securing their important role on the so called religious market of the Roman city with an accumulation of titles and an intense implication in the economic life of Apulum⁶⁷.

Gooss already highlighted, that the face of the statue was mutilated intentionally⁶⁸. The statue from the Brukenthal Museum shows indeed, a violent intervention on the surface of the face. This could indicate an intentional mutilation and iconoclasm. Similar cases are interpreted in the Romanian literature as act of Christian mutilations from Late Antiquity, although none of these can be proved with solid arguments or contexts⁶⁹. It is very probable, that the temple attested by Gooss was still visible on the surface in the late Byzantine period (8-10th centuries), when the first organized Christian communities emerged in the territory of the ex-Roman city.

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The report of Karl Gooss about the destructions on the territory of the *Colonia Aurelia Apulensis* is one of the most important testimonies of this kind from the 19th century literature in Transylvania. Its importance consists in the exceptional and in many sense unique finds: the first Jupiter temple attested in the province, the first and largest Roman silver treasure and the first coin hoard from Apulum. His article influenced also Béla Cserni's work and was the first written testimony, which highlighted the importance and extreme richness of this area of Alba Iulia (**figs 7a-d**).

Karl Gooss, who's life and career were short and unfinished, ending tragically in 1881, need to be relocated in the historiography as the first predecessor of urban archaeology, which began with the activity of Béla Cserni, few years later.

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⁶⁷ On the notion of religious market: NORTH 1992. On religious entrepreneurs: GORDON 2013, GORDON 2016.

⁶⁸ GOOSS 1870, 45.

⁶⁹ BENE/HICA 2004. See also: ZUGRAVU 2007, 323-324.

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AERIAL ARCHAEOLOGY IN ROMANIA. SITES FROM ROMAN DACIA EXAMINED USING AERIAL PHOTOS

Abstract: The history of aerial archaeology in Romania is strictly linked to the political history of the state represented by the regimes and bureaucracy systems. The importance of this domain was only acknowledged in Romania after 1989 when important programs were unrolled, in particular those for the sites belonging to the Roman period in Dacia's area.

Keywords: aerial archaeology, aerial archaeology investigations in Romania, pioneers, programs and projects, archaeological sites in Roman Dacia analyzed using aerial photographs

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Aerial archaeology was discovered long ago and even before the first cameras, some of the oldest mentions of this method dating from the 17th century¹ when people from Italy and Britain saw changes in the shades of their crops. This happened in the ripening season, with some of the plants growing well while others presenting pale or yellower colors. It was then discovered that beneath those yellower plants which did not had enough water to grow healthy were sitting antique monuments from the Roman times.

This method of investigating marks in the crop fields, other types of vegetation or simply on the ground is still applied today but with the help of new technology. Aerial archaeology focuses on analyzing photographs made from high altitudes to find new possible traces of historical monuments, to analyze those already knew or to observe the conservation state of the structures. If the monuments are located underground and the photos are made by a specialist they should appear on the images as marks(Fig. 1). Those could be shadow-marks, crop marks, soil marks, frost and snow marks, or damp marks, their apparition being influenced by geographical and climate factors.

Some countries like France and Great Britain experienced a stable development of this approach which studies historical monuments, which is due to many factors such as geographical conditions, military techniques or the liberty guaranteed by their political regimes.

In Romania's history aerial photography welcomed many obstacles in the way of creating systematically programs for archaeology purposes, many due to the ex-political authorities. The situation is still not clear today, as this domain is facing lack of funds and specialists, carelessness, destructive methods being preferred instead of those nondestructive, like aerial photography.

Through the first activities which implied aerial photography and were documented in Romania we find those of Carl Schuchhardt. In 1918, March,

¹ MUSSON/PLAMER/CAMPANA 2013, 17.

during the First World War, Carl S. started a number of aerial prospections, investigating the roman *limes* in the area of Danube and Black Sea, the photos being published in 1954.

Other research was done back in 1931 for the roman fort at Argamum, done by Paul Nicorescu, and in 1938 at Histria (Fig. 2), supervised by Scarlat Lambrino who fled some years later to Portugal because of the communist regime which was installing in Romania.

Dinu Adameșteanu was also a pioneer in the field of aerial photography, fleeing in 1939 to Italy and doing his research there. He revisited his native country in 1968, and many years after, with the purpose of highlighting the importance of aerial photography, offering scholarships for the interested students. He also tried to create an archive for photographs in Romania, using the model he applied in Italy.

From the first collaborations with Dinu Adameșteanu we can find those of Ioana Bogdan-Cătănciu, who studied starting with 1969 areas in Muntenia, Troesmis, Adamclisi, Colonia Aurelia Apulum, using aerial photographs.

Another step for the Romanian archaeologists collaboration with experts from other countries took place in 1975, Bucharest, when Irwin Schollar held an exposition about aerial archaeology in Rhine Valley.

A special department was created in Romania in 1978, called 'Secția de cercetări aerofotografice și evidență centralizată a siturilor arheologice' at Muzeul Național de Istorie a României². This was where the national archive of aerial photographs was moved, earlier being stored at Institutul de Arheologie from Bucharest. In the front of the department was Alexandru Simion Ștefan who promoted the usage of aerial photographs resulted from other activities such as cartography, in the field of archaeology, and also started a number of aerial prospections.

In the end of the '70s other aerial photography programs occurred, with the most of them made by Alexandru Simion Ștefan who collaborated with Institutul de Geodezie, Fotogrametrie, Cartografie și Organizarea Teritoriului (IGFCOT). Some of the investigations were made for areas at Munții Orăștiei, the Danube line, Iron Gates II, with the results being published not only in Romania, but also outside³.

A public institution from Romania, named Consiliul Culturii și Educației Socialiste (CCES, currently named Institutul de Memorie Culturală, CIMEC), also played an important role in this domain because it was hosting collections of topography archaeology documents, which will be used later in different researches by archaeologists.

So far we can see a period where collaboration within institutions and researches was flourishing, and also a big number of aerial prospections being started. But this only lasted until 1984, when the legislation of the communist regime made practically impossible to make this kind of prospections. Another effect of those changes was that Alexandru Simion Ștefan fled to France in 1986, and no other aerial prospections were made until 1989-1990⁴.

But even after the democratic regime was installed, the legislation problems still existed, being inherited from

2 PALMER/TĂRNOVEANU/BEM 2009, 64.

3 *Ibidem*.

4 OBERLÄNDER 2010, 389.

the ex-communist regime. Civil flights required special authorizations, in many zones those activities being forbidden, and also there was a big lack of funding for this domain. The alternative for archaeologists to study aerial photographs could have been the using of topographic maps, but those collections were included in the top secret documents⁵, most of them being made by the army. About the national archive of aerial photographs made for archaeological purposes, this was closed to public, and being in a bad conservation shape.

Only two aerial photography actions took place in the beginning of the '90s, but mostly for advertising reasons. The first one was made by E. Pescaru, with the help of a helicopter, for different sites in Hunedoara, and the other one being made by V. Barbuta, which photographs helped in the discovery of the *Liber Pater* temple⁶ from *Apulum* after cropmarks analyses.

The most important program of aerial archaeological investigation begun in 1998. This was the result of the collaboration between different institutions, like Muzeul Național de Istorie al Transilvaniei din Cluj, Universitatea de la Alba Iulia și Muzeul Civilizației Dacice și Romane Deva with the University from Glasgow. This program was initiated by Ioana Oltean and W. S. Hanson from University of Glasgow, and funded by Leverhulme Trust and the British Academy, with the main objective to start a number of systematic flights of aerial photography.

The program focused on the late Iron Age and the Roman period, in the South and West of Transylvania, with the flights taking place between 1998 and 2004, counting 30 hours of aerial photography every year⁷. Among the investigated objectives there are the *vici* from Micia and Cigmău, other constructions at *Apulum*, *villae rusticae* from Oarda and Vințu de Jos, and other settlements dating from the Iron or Medieval Ages. The results were published in Ioana Oltean's book in 2007, *Dacia, Landscape, Colonisation, Romanisation*. The author, with an important place in Romania's aerial archaeology researchers, attended at the courses of Aerial Archaeology Research Group (AARG) in Hungary. This organization started its activity with 1996 in ex-communist states in Europe, willing to teach students and other persons about the research done by aerial archaeology⁸. AARG was created in 1981 in Great Britain and is known for its involvement in promoting aerial prospections and international annual conferences about this subject.

Moving on to another structure, Institutul de Memorie Culturală will have an important role in supporting aerial prospections in Romania. The institute is managing national databases like Repertoriul Arheologic Național, digital archives and the central file of the cultural patrimony.

In 1991 CIMEC introduced a list of archaeological sites and historical monuments (list which came from Direcția Monumentelor, Ansamblurilor și Siturilor Istorice) in RAN's database. Doing so, the personnel encountered a problem raised by the lack of information this list provided. The problem refers to the locations of those sites because

5 OBERLÄNDER, 2010, 389.

6 OLTEAN 2007, 14.

7 PALMER/TĂRNOVEANU/BEM 2009, 66.

8 BERECKI/CZAJLIK 2012, 8.

only 20% of them had precise geographical coordinates. Among the solutions found there was aerial archaeology, but in Romania there were not enough specialists in this domain. They had to collaborate with foreign experts to teach and instruct Romanian archaeologists in analyzing and using aerial photographs, for the purpose of identifying and mapping sites.

The collaboration started with a project called *Peisaje europene: trecut, prezent și viitor* inside the programme Cultura 2000, between 2004 and 2007. In 2005 was held the first international course of this program at Bușteni with 34 participants, six of them being CIMEC's employees. The members were taught about the interpretation of aerial photographs and how to put them to use for the archaeology domain.

The pilot project of aerial prospection in Romania was chosen to be an area surrounding Mostiștea river. This decision was influenced by many factors like the vicinity an airport at Cliceni, the good relations between the archaeologists in this zone and the researchers, and also by the interest to apply this method in an area where there is a lack of stone buildings⁹. The target of the project was to obtain exact geographical positions of known or newly discovered archaeological sites. This was done with the new flights but also by analyzing older aerial photographs which were made for other purposes, in order to see the changes of the landscape.

The flights were initiated in July 2007 using a Cessna plane, a Canon camera and GPS's. In 2007 other aerial prospections were made by Carmen Bem at Valea Neajlovului in Bucșani area, during which new settlements were discovered dating from the Bronze Age or Iron Age.

In 2008, between May and June, Rog Palmer from Cambridge University studied using aerial prospections areas from Mostiștea, discovering traces of some graves and settlements like the ones from Preasna Veche. In 2009 and 2010 areas of the rivers Vedea and Teleorman were investigated, in the end 10 new Neolithic settlements being discovered.

Another important objective of the project was to examine Sultana area, more accurate the archaeological sites from here which dates from the Eneolithic. This was done by comparing new photos with older ones in order to see the condition of the site which was destroyed by erosions in proportion of 70%. All the results of those investigations were presented at Aerial Archaeological Research Group conference in 2010 at Bucharest.

Nowadays, aerial program taking place in Romania are few, with their results not always being accessible to the public. About the number of flights, some of the obstacles are the low number of experts, airports accessibility, lack of funds, the indifference of the officials¹⁰ or the lack of a public database of aerial archaeological photographs. It is easier now to buy ortophotoplans from structures like ANCPPI than to start aerial prospections, but the ortophotoplans were not made for archaeological purposes, so the results won't be great.

Among the prospections made during the recent

years I would mention those done by Muzeul Județean Mureș in collaboration with Institutul de Arheologie și Istoria Artei al Academiei Române and Babeș-Bolyai University, the investigations at Porolissum, and the ones for *Limes Transalutanus*.

Participants of the first project were Sándor Berecki, Zoltán Czajlik and Simion Câmpeanu, who analyzed different areas in Transylvania in order to discover or detect historical structures dating from Prehistory to the Middle Ages¹¹. The results were published in 2012, and for the flights it was used an CTSW light plane with high wings.

At Porolissum it was used the LiDAR scanning because the area was highly wooded, aerial photography being useless for those zones. The prospections took place in 2013, with the photos being taken from an helicopter on an area of 10 km² and then analyzed using ArcGIS for a better understanding¹²(Fig. 3).

The last and more recent project analyzes sections of the *Limes Transalutanus*, participants being researchers and members from Muzeul Național de Istorie a României, and Institutul de Arheologie Vasile Pârvan. The first phase of the project started in 2014 between 1 July and 5 December, analyzing a large area covering 155 km¹³ using aerial photographs, geophysical prospections, archaeological diggings and surface surveys, military ortophotoplans or images done by UAV's.

After this short history about aerial archaeology in Romania I would like to point out a number of sites from Roman Dacia which were the subjects to this kind of investigation, in order to highlight the importance of this method and its results.

The area where the most aerial prospections were done in order to investigate roman *castra* is Dacia Superior, where we can find Micia(Vețel), Germisara(Cigmău) and Războieni-Cetate¹⁴. Outside of those military positions there were found traces of civilian settlements or military *vici*, which are clearly connected to the *castra*.

At Micia the *castrum* measures 6.51 ha and archaeological diggings were made starting with 1929. Here were found baths with *palaestra*, a small amphitheater, houses with one them having *hypocaustum*, two graves located at the East and South of the *castrum*, and a temple dedicated to the gods of moors¹⁵, the presence of the latter being confirmed by inscriptions found here. Other military units which were present here were *ala I Hispanorum Campagonum* and *coh. II Flavia Commagenorum*.

Aerial investigations were done at Micia, more exactly at the *vicus*, between 1998 and 2004, by Ioana Oltean and Bill Hanson. Cropmarks played an important role in the interpretation of the photos, being highly visible in the summer¹⁶. Those marks could then help to establish the construction phases of the stone buildings found here(Fig. 4).

The stone structures which are visible on the photos are located near the ones already known, and they are stretching from the Vest side of the *castrum* on 850m.

11 BERECKI/CZAJILIK 2012, 9.

12 OPREANU/LĂZĂRESCU 2014, 71-73.

13 TEODOR/ȘTEFAN 2014, 31.

14 OLTEAN 2007, 155.

15 OLTEAN 2007, 156.

16 OLTEAN 2007, 156.

9 OBERLÄNDER 2010, 393.

10 MUSSON/PLAMER/CAMPANA 2013, 52.

At a more detailed analysis the researchers found that the structures are probably the ends of four buildings and some interior roads.

While aerial investigation took place a problem was raised by the crops which grow in this area. Only in small portions there were plants like barley and wheat, plants which help at the formation of cropmarks, being highly dependent to humidity¹⁷. The rest of the plants cultivated in the area play no role in the formation of those marks, mainly just obstructing the visibility of what is on the ground.

The *castrum* at Germisara located near the Mureş river is also surrounded by a military *vicus*, which plan was restored using aerial photographs. Again, with aerial photographs a roman road could be discovered, located South-Vest to the fort. The road was visible on the photographs on the form of cropmarks which appear along the both sides of the road's ditches. The limits of the fort could also be established with this method, together with some defensive stone walls, an access gate or buildings inside the *castrum* like *Principia* or *horreum*.

The position of the civilian settlement at Cigmău was little known, and only with the help of surface archaeological activities. But the aerial photographs made in 2000 and 2002 solved this problem because some negative cropmarks visible on the photos made at the East side of the *castrum* may confirm the presence of some stone buildings, which could be part of the civilian settlement.

The position of the *vicus* at Războieni-Cetate was also established using aerial photographs made by Ioana Oltean and Bill Hanson. It is somewhere at 200m North the *castrum* and its expansion measures 750m in the East and West sides¹⁸. The structures appear on the photos as cropmarks, also a complex system of roads being visible. The expansion of the settlement means that the *vicus* was well organized, with a high grade of development.

A comparison was made by Viorica Rusu-Bolindeţ and Onofrei Cosmin between the plans of the *castrum* at Războieni-Cetate made by Ioana Oltean and the plans made by other authors in 1995 and 1996. The conclusions were that the real size of the *castrum* was probably the one established using aerial photographs, done by Ioana Oltean¹⁹. The two authors also discuss the military *vicus* along the *castrum*, which had two habitation cores, one in the North and one in the South, visible on the photographs.

Sections of the roman *limes* in Dacia are currently systematically analyzed using aerial archaeology since July 2014. In this case we refer to components of the *Transalutan limes*, south of Argeş river. Other research was done here in the past by Ioana Bogdan Cătănicu, again using aerial photographs, but the results were not the ones expected²⁰. Carls Schuchardt also analyzed this *limes*, but his presumption was that defensive border was just a roman road²¹.

This new project started a year ago follows new archaeological research technologies like geophysics, aerial photographs made by UAV's, surface activities, GIS analyzes,

17 OLTEAN 2007, 158.

18 OLTEAN 2007, 158-159.

19 BOLINDEȚ/ONOFREI 2010, 402-403.

20 TEODOR/ȘTEFAN 2014, 34.

21 TEODOR/ȘTEFAN 2014, 34.

the destructive methods being ignored.

The target area for the research represents an opportunity for aerial prospections because archaeological traces are almost invisible from the ground. The dyke along the *limes*, which is in a badly preserved shape, can be seen on the photographs as straight lines stretching to North-East and South-Vest²².

The photos used for this project are mostly oblique, made from light planes or drones, but also vertical photos like ortophotoplans coming from other institutions.

Following the defensive ditch only partially visible on the ortophotoplans, the researchers from the project succeeded to make the structure more visible on the images, using photogrammetry algorithms²³ which could penetrate the dense layers of tall plants in the area.

Another kind of structures, which were little investigated in the area of Roman Dacia using any kind of archaeological methods, are the *villae rusticae*. They did not got too much of attention from historians or archaeologists because of many reasons. Some of them could be the strategic position Dacia had for the Roman Empire, position expressed by the big number of military settings. The same problem applies for the rural settlements in Roman Dacia.

There is submitted a number of 100 of *villae rusticae*, but only 25-30 of them present a higher grade of veracity. Those type of farming settlements consist of a house located in the center, where the owner sits, the settlement being surrounded by walls and along those, in the interior, there are other buildings like the slaves house, warehouses, barns or watchtowers.

The locations of *villae rusticae* are mostly near the roads or other communication routes and in Roman Dacia we have different types of those constructions: farms with an intensive agriculture due to the geographical factors (Miercurea, Caransebeş), farms along the main roads (Aiton, Şura Mică), and farms near big cities (Hobiţa, Sântămăria Orlea)²⁴.

In the course of the project *Aerial Reconnaissance of Western Transylvania* there were analyzed, alongside with other possible *villae rusticae*, the settlements from Oarda, Şibot and Vinţu de Jos²⁵. Eventually those settlements were then excavated archaeologically and confirmed to be *villae rusticae*. In those three cases the structures were visible on the photos as plough marks and they were made of stone. At Oarda there were identified traces of some buildings grouped around a central yard²⁶ in the form of negative cropmarks which appeared in the barley crops (Fig. 5). At Şibot and Vinţu de Jos there were also seen remains of some structures on the aerial photographs.

Other structures were investigated with aerial archaeology for sites in Roman Dacia, such as extraction quarries, graves and roads.

In Dacia's area the Romans benefited by the rich deposits of metals, salt or stone. The most known place where extraction activities took place was at *Alburnus Maior*,

22 TEODOR/ȘTEFAN 2014, 35.

23 TEODOR/ȘTEFAN 2014, 35.

24 GUDEA 2008, 37.

25 OLTEAN 2007, 126.

26 OLTEAN 2007, 126.

but also in other areas, such as Pianu de Sus²⁷, which was investigated using aerial archaeology. The photographs revealed marks of extraction activities, gold being probably the one Romans were looking for here.

Searching information using aerial photographs for the archaeological landscape at Micia's *vicus*, the researchers found here a circular structure located in the interior of the settlement. The results concluded that this was probably a center for the pottery production²⁸.

Not much information about the graves found at Vințu de Jos with the help of aerial archaeology, only that they contain most probably cremated remains and there are no stone constructions²⁹.

Parts of the roman roads in Dacia were also discovered at Bobâlna, Sebeș, Micia, Apulum, Cigmău and Alba Iulia, the last two appearing on satellite images³⁰.

All things considered, there can be seen a progress in aerial archaeology domain in Romania after 1989 with more projects being developed, but there is still more work to do, as in this state there are numerous archaeology sites, known or newly discovered, with many of them lacking exactly geographical coordinates, limits and plans, or a better way to monitor their preservation state.

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27 OLTEAN 2007, 183.

28 OLTEAN 2007, 185.

29 OLTEAN 2007, 192.

30 OLTEAN 2007, 195.

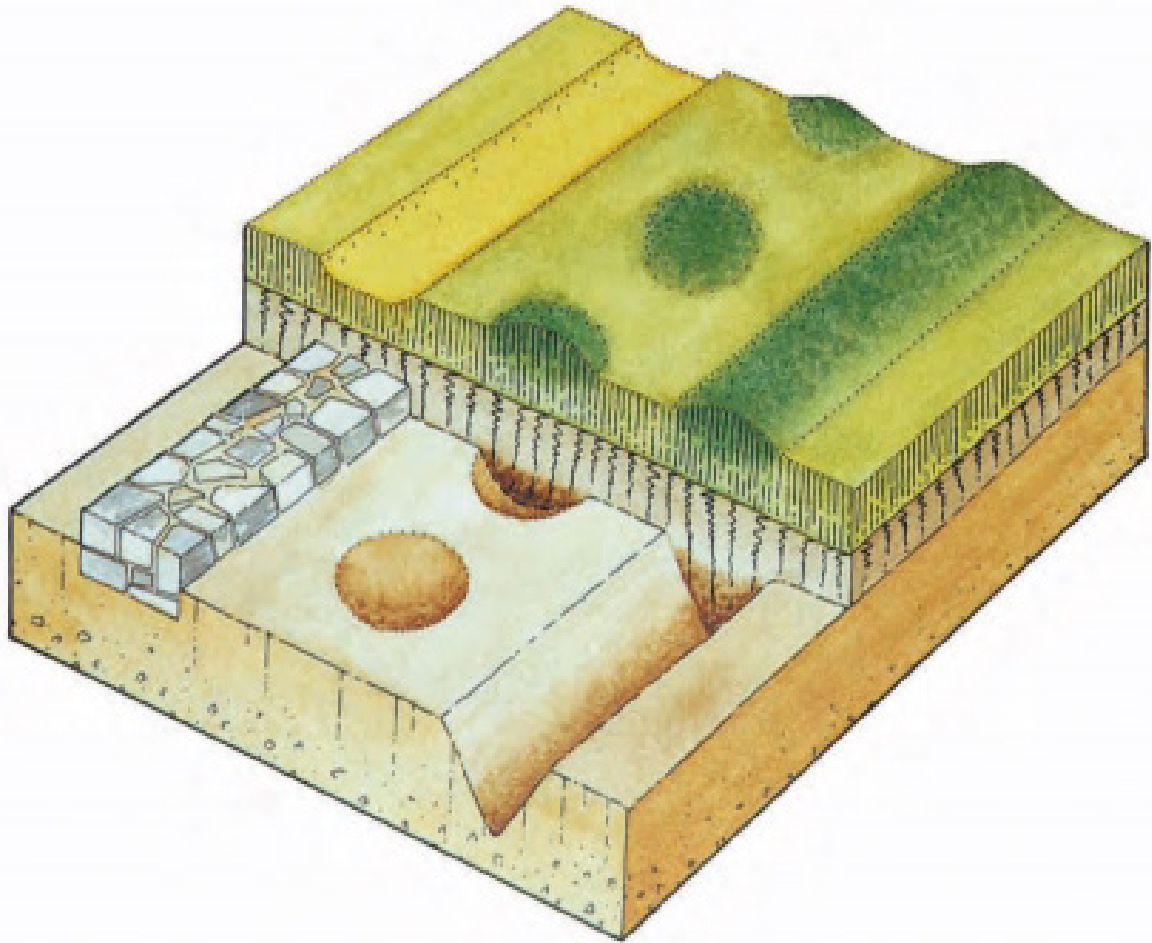


Fig.1. Formation of positive (above a ditch) and negative (above the stone wall) cropmarks. (MUSSON/PALMER/CAMPANA 2013, 67, fig. 2.7)

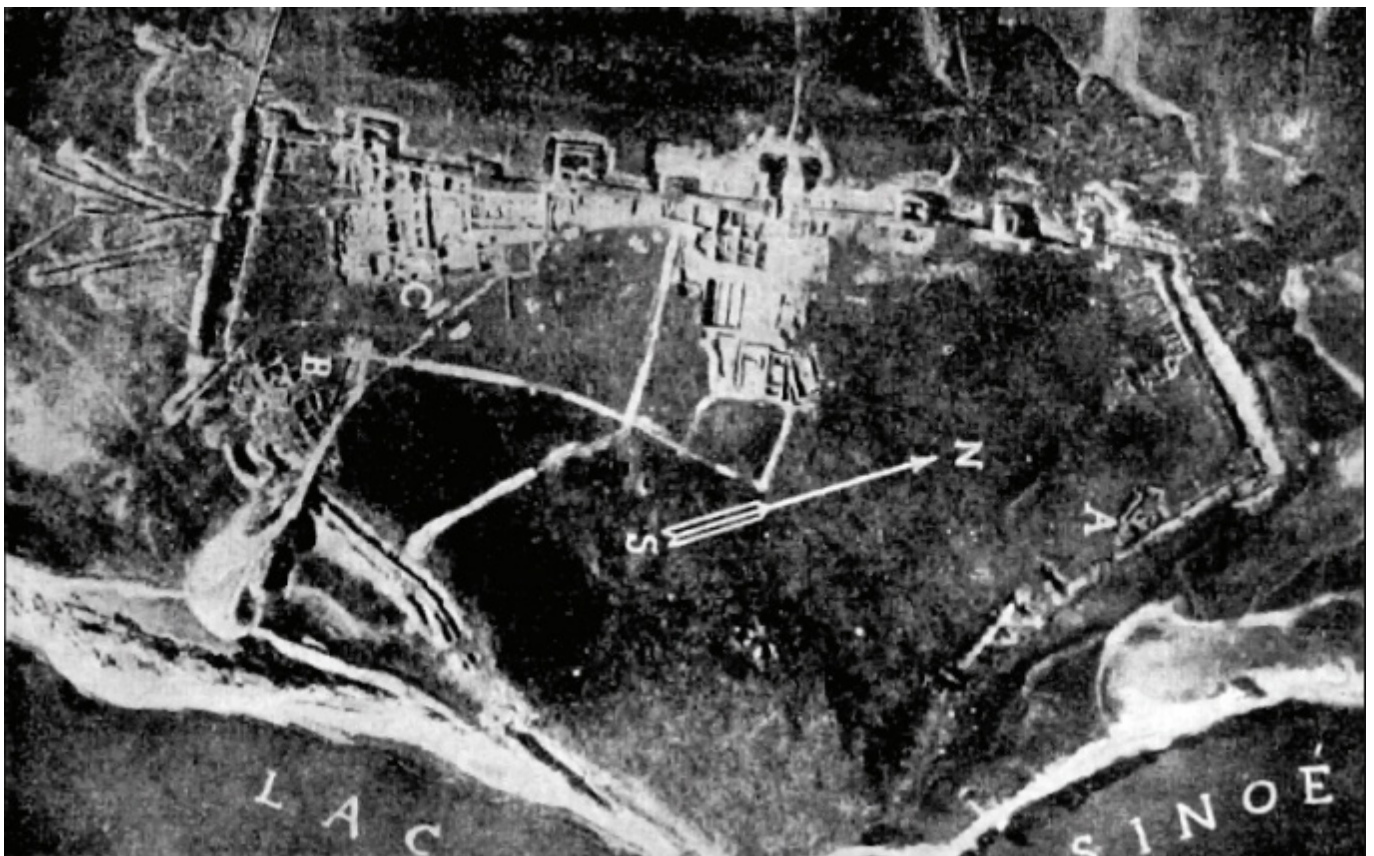


Fig. 2. The Roman-Byzantine fort at Histria. (PALMER/TÂRNOVEANU/BEM 2009, 63, fig. 1).

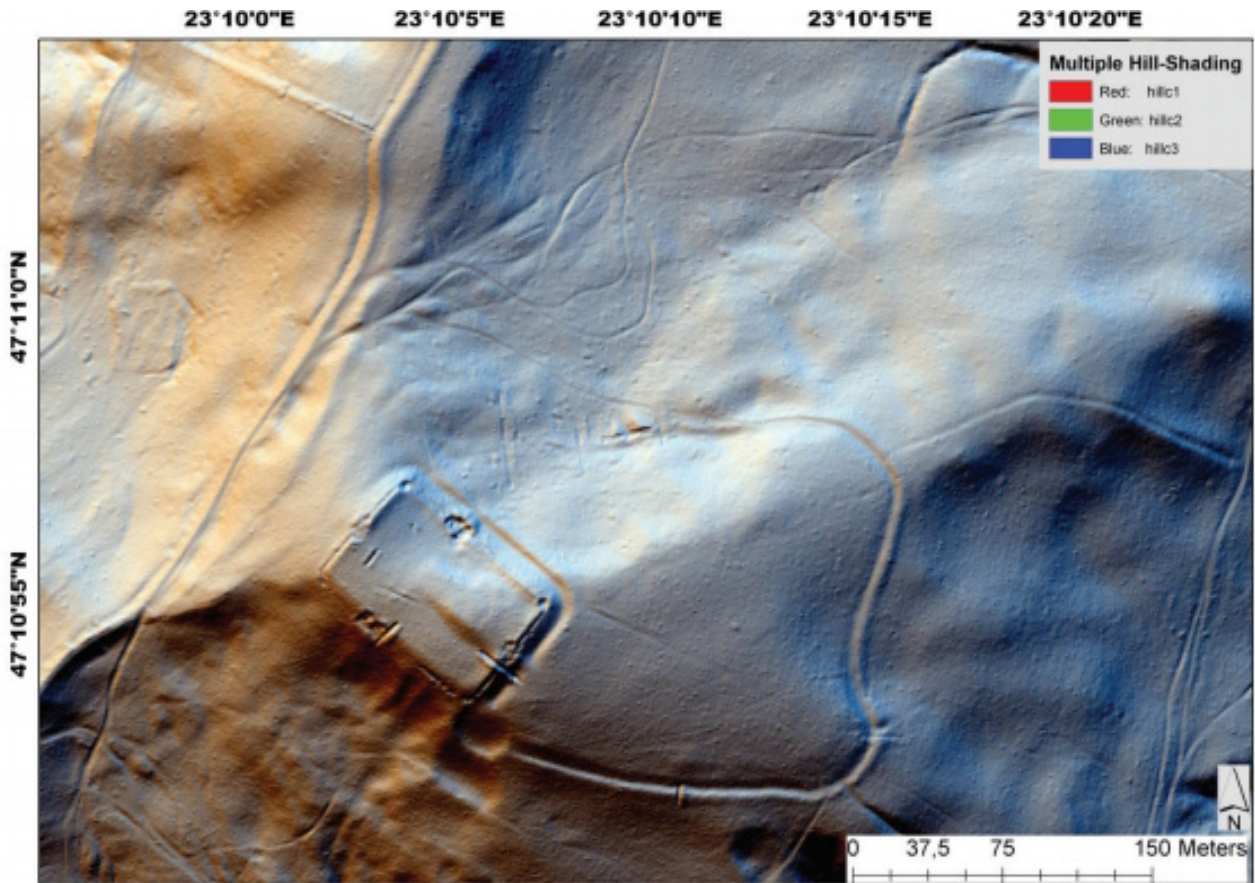


Fig.3. LiDAR investigation at Porolissum castrum. (OPREANU/LĂZĂRESCU 2014, 79, fig. a)

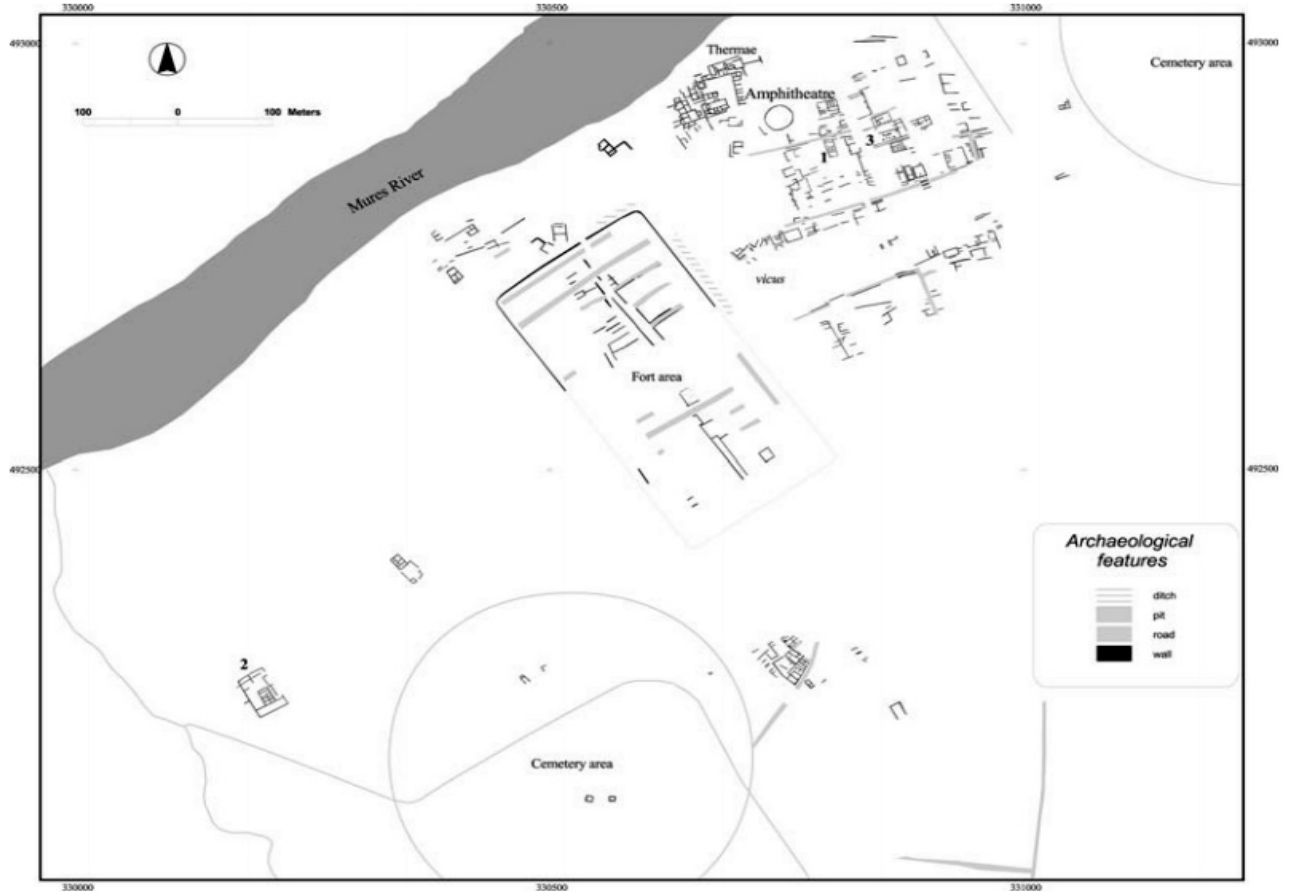


Fig. 4. Plan of the castrum and the vicus at Micia. (OLTEAN 2007, 157, fig. 5.28).



Fig. 5. Vertical photograph showing traces of the Roman farm at Oarda. (OLTEAN 2007, 129, 5.9)

Reviews

Clemente Marconi (ed.), *The Oxford Handbook of Greek and Roman Art and Architecture*, Oxford University Press, New York 2015, pp. 710, ISBN 978-0-19-978330-4

Even though the title gives a hint on the content, this book is more than a simple handbook. One of the most surprising facts is the diversity and the richness of the detailed information being brought together to present the newest references regarding the Greek and Roman art and architecture. This edition represents a collection of research ideas about the Greek and Roman cultural aspects. Furthermore, is dedicated to Salvatore Settis, a renowned archaeologist and historian of Italian art.

The book is structured in five parts, containing thirty articles, which marked the history of ancient art and architecture from theoretical and practical approaches to the interpretation of Greek and Roman times importance all the way to the current perception.

Part I, *'Pictures from the Inside'* contains 4 articles presenting two sections, namely the ideas about Greek and Roman art and architecture and information about the written and artistic records.

Part II, *'Greek and Roman Art and Architecture in the Making'* consists of 6 articles bringing up the difference between the *eternal* substance of an object and the external *appearance*, more exactly the difference between the production of images, buildings, the materials and the techniques used in their production.

Part III, *'Ancient Context'* contains 7 articles. This part goes back to identifying the agents or forces behind the creation of art and architecture, the purpose of their creation and the way it was perceived.

Part IV, *'Post-Antique Contexts'* is composed from 5 articles and discusses the issues of reception, as a historical phenomenon where different contributors, such as artists, architects and institutions, are the pawns in conveying, transforming and reinterpreting of the images and monuments of Greek and Roman heritage.

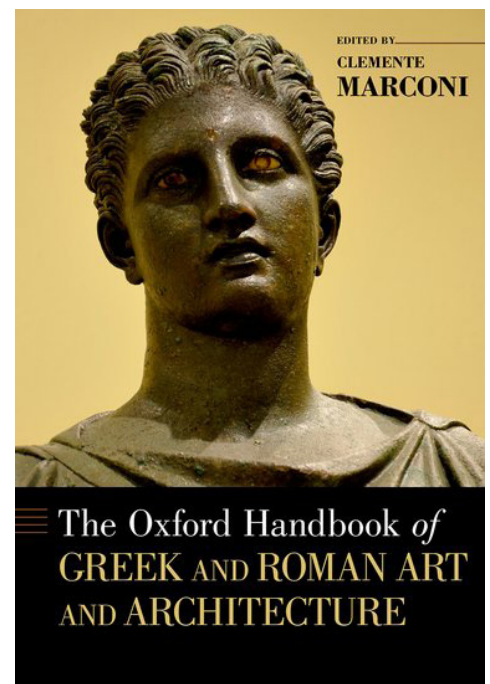
And the last but not the least, part V, *'Approaches'* with 8 articles presents vast theoretical implications, methodologies and directions of research in the field of study Greek and Roman art and architecture.

Right after the Contents, Acknowledgments, Abbreviations and Spelling, and Contributors, there is a complex Introduction – *Advocating a Hermeneutic Approach* signed by the editor of the book, Clemente Marconi. At the very end is placed the Index.

The editor affirms that the scope of this handbook is to explore key aspects of Greek and Roman art and architecture and review the larger theoretical frameworks, methodologies, and directions of research in this field. It also defines the audience, to which this book is dedicated, in the first place, graduate students with a particular interest in the study of Greek

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and Roman art and architecture. The main purpose of this handbook is to offer guidance by introducing students to the critical aspects of the theme and to the various modes of inquiry that have directed the discipline from its origins, as well as some future directions.

One important aspect of this book is its contributors, senior scholars, who have played a critical role in shaping the field, but also younger scholars having an equally important role in defining the discipline for future generations. Within this framework, the volume brings together scholars of various generations, nationalities, and backgrounds, to voice their opinion regarding art and architecture in Greek and Roman times. This book contains over 150 line drawings and images used to underline the important aspects of this subject.

The art and architecture of Greek and Romans are bought in a common discussion for two reasons: first the information we hold today about the Greek culture is a result of perception and its transmission through Roman eyes, and secondly, the Greek culture is an essential component of the Roman culture. The references are marked in the text, making the reading a bit difficult to follow. Despite that, it is easy to observe that most of the references are recent papers, underlining the well researched and documented procedures. Each article has more than one heading and at the end of it the bibliography is presented.

As we underlined before, the book represents more than a handbook, being a collection of thirty articles structured in five parts. Therefore, we decided to review each article individually.

The **first chapter**, *‘Greek and Roman Theories of Art’* by Deborah Steiner, illustrates how art was perceived in that period and explores the art theory not only through the ideas of different philosophers but through a wider view over the Greek and Roman literature and epigraphy. Each artwork it is analyzed not only by its message, but also by its material and function.

Homer, Pindar and many other sources imagine craftsmanship as a gift of the Gods. Still, Callimachus in *Iamb 6* indicates that *technē* is a skill that stands independent of and opposed to the innate genius or divine inspiration. In Dio’s *Stoic*, the artist’s innate conception of the divine allows him to fashion the God, while Maximus of Tyre uses *phantasia* as a secondary manifestation, a *mimēsis* to describe the ‘mental presentation’ that Phidias’s piece transmits. In this chapter by focusing on images, the very notion of ‘ancient art history’ is questioned.

Chapter 2, *‘Greek and Roman Architectural Theory’* by Mark Wilson Jones, focuses on practice and anticipates theory in the development of human endeavors, because thinking is creating. By contrast, ancient Greek and Roman architectural theory was one and the same: a similar appreciation for materials, scale, and precision unites. Vitruvius’s treatise will always remain the starting point for investigating both Greek and Roman architectural theories. Vitruvius indicates three fundamental prerequisites for

a successful piece of architecture (De arch. 1.3.): *firmitas*, *utilitas*, *venustas*, not just for building (*aedificatio*), but also for chronometry (*gnomonice*) and engineering (*machination*). Each construction plan must respect the three principles formulated by him, namely *symmetria*, *eurythmia* and *decor*. In the second part of the chapter, the design of ancient buildings is being discussed, supported by many examples, starting from the idea that stands at the base of their construction.

In **chapter 3**, *‘Greek and Roman Specialized Writing on Art and Architecture’* by Francesco de Angelis, the different forms of writing about the art and architecture of that time are discussed, with a special emphasis on the writings of the artists themselves. In this chapter it is revealed that many of the antique sources are pure theoretical and do not combine what it was known with what it was created. Furthermore, the chapter explores the use of writing to control and standardize procedures, to reinforce memory, to shape thinking and to extend communication.

Chapter 4, *‘Greek and Roman Images of Art and Architecture’* by Maryl B. Gensheimer, follows the representation of images and buildings. These representations are a very important part in understanding the creators and the reception of their work. The reception of images depends, to a certain extent, on the preconceptions of the viewer. Vase production played a role in the interpretation of the meaning of divinity representation. By document sources, the frieze from the Praedia of Julia Felix presents details of the ancient cityscape that have been lost. This frieze and metapictures of statues and columns provide a vivid scene of the ancient city. The images of architecture within the various marble plans of Rome are intended to encapsulate a sense of authority and order. The vase painting, the friezes and marble plans illustrate aspects of how the images were seen in ancient times, created for both public and private contexts.

A detailed chronological historiography about Greek and Roman artists is presented at the beginning of **chapter 5**, *‘Greek and Roman Artists’* written by Rainer Vollkommer. In the period of Greeks and Romans there was no boundary between ‘artist’ and ‘craftsman’. The word *‘technē’*, in Greece, describes all kind of manual activities, meaning craft, skill and knowledge. In Latin, *‘ars’* describes the activities such as hard work and labor performed by people who could not afford to have leisure and time for politics. From a diachronic point of view, the first example of Greek signature of an artist is found on vases. Most of the signatures identified belonged to sculptors and half of them are from the Roman to Byzantine period. It is known that artists from the IV century BCE had a strong personality and were often depicted as wearing glamorous clothes or by giving away their artwork, which was considered to be too valuable to be sold. As for the payment, sculptors were remunerated depending on the size of the relief. Most of the sculptors and painters were paid like other laborers, just a few of them were lucky to be highly paid thanks to their fame. The most expensive works of art from that period that are known today are paintings. The possibility that artists were women

was very rare. The evidence relies entirely on literary sources which point two domains in two time periods: painters in Hellenistic period and goldsmiths in Roman Imperial period.

The knowledge about Greek and Roman artists is generally limited by the remaining evidences. New findings might change the aspects and interpretation about artists' lives and works.

Chapter 6 `Greek and Roman Architects` by Henner von Hesberg, depicts the persons that were behind each great monument built, the architects. `What kind of people were these architects? How were they seen in ancient times?` are just a few of the questions answered in this chapter. Being an architect, in the perception of ancient contemporary society, meant that the person was an intellectual, raised above the level of simple craftsmen, but without having an income higher than the craftsmen.

It is not defined clearly what was exactly the basis for an outstanding reputation for classical period architects, but it is concluded that other qualities, and not the design skills as in the contemporary society, had an important role, as the ability to coordinate the construction process, as well as to solve specific technical problems. What is known about Greek and Roman architects comes from diffuse references, from ancient sources and from inscriptions. Most of those inscriptions belong to the Greek world, because in Roman times they were stored in archives, rarely written on stones.

How detailed was the architect's work? How precise was it? It is known that the architect had to approve the models or samples, but there was no guarantee for the execution of the original design.

According to the Homeric poems, there were no experts in planning mention in the early Greek period. Still, it can be deduced that planning and execution seemed closely connected, where the patron gave the important instructions. The information preserved from the inscriptions shows that an architect had to take part in the selection of the location, to verify that all the measurements were correct, manage the payments, approve the work and oversee each detail. In this chapter, we learn about some Greek architects, about their work and projects from other writers, from inscriptions or from their own stories. The concept of architecture in Italy developed at first under similar condition to those from Greece, by implying the presence of an executing planner and a supervisor who was responsible for the construction. From the Vitruvius's writings, today are known the names of some architects. In addition, in his writings, it is specified the significant changes in the training and profession of architects in the Roman period, where a number of them were trained in the context of the army. The main purpose of Roman architects was to create the greatest possible effect with minimal costs. That was also interpreted in Roman architecture, precision of execution was less important than the logistical management of the enormous projects.

The next two articles discuss about patronage, financing and sponsorship of the art and architecture. **Chapter 7**, `The Patronage of Greek and Roman Art` written by Eric R. Varner, deals with art's patronage. Art historical interpretation is focused on the patrons, because most of the

Greek and Roman artworks are anonymous and unsigned. The identities and social classes of patrons came through inscriptions and ancient textual sources. For the writer, patrons are both agents and authors of the works they commission.

As for **chapter 8**, `The Patronage of Greek and Roman Architecture` by Bonna D. Wescoat, it continues the previous chapter with the story of two rulers, Alexander the Great and Octavian Augustus. Both were patrons from three major senses: they offered support to individual architects; they have funded public architectural projects that repaid in personal, political and social benefits and at the same time they were manipulators of the art in order to make demonstrative statements.

For art, the personal patronage is an unequal relationship where the patron sponsors or fosters the dependent artist, offering financial support, providing opportunities which benefit both the artist and the art. A special powerful medium for the patrons to express, in the civic code, is architecture because it was the most expensive long-lasting expression. During that period, people with power, financial resources and the desire for lasting recognition invested in architecture. There were different purposes why a patron financed a construction, two of them which were often mentioned are opportunity and obligation. Architecture had the capacity to shape and change people's life. Regarding these reasons, Greek and Roman patrons took advantage of it, which allowed them to influence the population.

Having a very deep connection with archaeology, in the following two articles the essential role of the technical and scientific analysis used in the study of Greek and Roman art and architecture is discussed.

In **chapter 9**, `The Materials and Techniques of Greek and Roman Art` by Kenneth Lapatin, is mentioned that the *Natural History* of Pliny the Elder is the most important ancient text which survived for the study of materials and techniques of many kinds, especially the last five books (33-37). The fourth-century CE Greek papyri from Egypt are focused on the work of Pliny by presenting hundreds of recipes for a number of crafts. Many types of materials and techniques were used by the craftsmen in ancient time, being selected based on its natural proprieties and visual characteristics. The most commonly used material was clay because it was cheap, malleable, ubiquitous, being considerate the plastic of antiquity. Different stones were used for a variety of purposes, some types of stone had political and economic implication. Gold, silver, copper, iron, lead, bronze were the most important alloys used by ancient craftsmen. On panel and fresco, painting was widely practiced in Greek and Roman world, particularly in the second period. How and why Greek and Roman craftsmen choose some materials can be deduced by understanding the sources and proprieties of specific materials and the symbolic, cultural and political values attributed to them.

Chapter 10, `The Materials and Techniques of

Greek and Roman Architecture written by Pier Luigi Tucci, focuses on detailed descriptions of several architectural monuments. An important matter of today's research is to investigate the historical context of ancient buildings and to place antique architectural practices into a larger social and cultural-historical view. In this chapter the common materials used in construction (mainly wood, stone, metal and clay) are also described. Wood was the earliest material used for building because it was easily shaped and widely found. Due to its low resistance, people began a search for new type of materials which could be used in major building projects. Soon after, stone became the most used material in construction during the first half of the sixth century BCE. There are no construction entirely sustain on metal, this material being mainly used to maintain the pieces together. As the ancient society started to develop, the new materials based on clay (e.g. burned bricks) lead to a new era in the development of constructions. One surprising aspect of this article is the use of geological information regarding the materials used in construction, like lithic material, as well as the main sources from where it was brought. Inspired by the Etruscans and the Greeks, the Romans builders had their own development. From the sixth century BCE onward, most of the buildings in Rome and central Italy were consolidated in stone. The most common stones used were the local volcanic conglomerate, tuffs. As the Roman Empire expanded, new tuff quarries were used, having a stronger tuff and new types of rock were discovered like travertine and basalts. Even though, one of the differences between Greek and Roman architecture refers to the design of the stone columns, the most important Roman contribution to building technology is the systematic use of concrete. The brick production had a major impact on Roman building development, from bricks for masonry, to tiles, and many other clay products. The use of arch was brought to a whole new level once transformed into concrete constructions, which lead to the large-scale vaulted structures, that is considered by the author one of the most significant Roman contributions to the history of building technology.

All the studies regarding the design, materials and techniques of Greek and Roman architecture should also be analyzed in comparison to the architecture in ancient societies, in order to establish a connection between the construction space and their inhabitants. These analyses should involve an interdisciplinary work for a better understanding.

The author of **chapter 11**, *The City in the Greek and Roman World*, Jamieson C. Donati, introduces the concept of urban environment. Centuries before the Greek and Romans, in Mesopotamia and Egypt, cities existed as a conglomeration of people coexisting within durable structural forms and sharing a system of cultural norms. Still, the most innovative part of the Greek and Roman urbanism consists in their ability, to transform their environment in order to match the needs of a changing population. This chapter also contains a short yet very compact historiography of the evolution of Greek and Roman cities. The most important turning points of the city's evolution are marked. A chronological evolution of the Greek city is presented, starting from the Early Iron

Age through Classical and Hellenistic period. At the end of the Classical period, dynasts were those who had an impact regarding the changes in the construction preferences, selecting big grandiose houses and then transforming some of the parts into semi-public places.

During the Middle Roman Republic, most of the colonies were organized within an orthogonal plan dividing the city into public, religious and residential areas. In Late Roman Republic, the basilica becomes a quintessential architectural element of the Roman forum. The use of concrete and stone allowed the Romans to build enormous porticoes. As the construction techniques evolved, buildings and venues for public spectacles and games were built: theatres, circuses, amphitheatres and odeia. During the Principat, these major changes were inaugurated. Rome and the other cities became instruments to consolidate the power of the emperor. At the end of the chapter, a conclusion is drawn: the city is a flexible, man-made instrument that takes shape and is continuously modified at any time to serve its inhabitants.

The next two papers analyze the wide variety of functions of images in Greek and Roman times. **Chapter 12**, *The Functions of Greek Art* of Olga Palagia, explores the use of art in the Greek society. From the mid-seventh century BCE, Greeks began to create images on monumental scale for the divine, commemorating and in honour of men and women. All the artwork was being revolved around the human body. The article follows two main directions, the sculptures and paintings of the Greek art. What was the role of a statue? Why it was placed in a sacred context? And why most of the statues are female representations? Are just a few questions answered in this article. Moreover, sculptures were also integrated into the decoration of the temples and stoa: Ionic temples were decorated with sculptural friezes, Doric temples with sculptural metopes, and for the Hellenistic stoas was used relief friezes. At first, painting was entirely reserved for sacred places, but after the Peloponnesian War this rule was bypassed as the surviving paintings of Macedonia present the world of the royal court and not the democratic societies.

Chapter 13, *The Functions of Roman Art* written by Paul Zanker, explains the Roman art implications. One interesting aspect of this chapter is the beginning of it with the following questions: what purpose did art have for the Romans? why some arts were placed in a specific space? And what function did this art have there? In this chapter the function of art in two places is discussed, in public spaces as squares, streets, sanctuaries and private spaces, as houses and villas. Sculptures and paintings in private space had the purpose to distract the owners from their everyday life problems and were meant to seduce the viewer to dream, to feel and to ponder. The forum became the main place to locate honorary statues of politicians and generals, although those statues remain a particularly effective tool for political advertisement.

The next two articles follow the use of images even further by exploring the relationships between built

environments, images and rituals.

Can a specific activity be understood as ritual? This question stands at the base of the **14th chapter**, *'Buildings, Images, and Rituals in the Greek World'* by Joannis Mylonopoulos. Rituals and rites are taken as parameters which influence sacred architecture and religious imaginary. This article presents in details the elements of a temple and a stoa, and their connection to the sacred. Another aspect presented here is the importance of paintings on the pottery vases from the Archaic and Classical periods. Most of the themes decorating temples, treasuries and other structures of religious character are mythological rather than cultic. We learn that architecture was the decisive parameter in the spatial and visual definition and organization of any sacred space, being eventually defined by the ritual activity.

As for the Roman world, in **chapter 15**, *'Buildings, Images, and Rituals in the Roman World'* by Richard Neudecker, are presented the materials used for the construction of the sacred buildings from the Republican to the Late Imperial period. Some of the scholars consider that architecture is a cultural indicator and buildings are social objects. It is necessary to understand the relationship between buildings, images, and rituals in order to establish their correct function. The buildings associated with the hierarchies of Roman social life are the ones with a great impact on cultural spheres of action. The religious buildings were the most elaborate in terms of design, the richest in decoration and the highly enduring in their conception.

The next two articles are connected, both presenting the analyses of the ancient reception for Greek and Roman art and architecture. In **chapter 16**, *'The Roman Reception of Greek Art and Architecture'* by Rachel Kousser, the interaction of Roman with Greek art is shown as being varied, pragmatic and widespread. Most of the Greek art was copied into the Roman time in such a way that the Greek works were adapted to satisfy the need of the Romans.

In **chapter 17**, *'Roman Art and Architecture in the Provinces and beyond the Roman World'* by Natalie Kampen, the discussion follows the principle central-province-periphery, a model created by Michelle Marcus (1990) for Near East. This model can be used, to a certain point, to describe all the territorial and social relationships. Still, this delimitation does not take into consideration the constant fluidity of historical development. Different scholars had tried to present some aspects of cultural visions of the Roman world, most of them reduced their interest to local and regional aspects.

Chapter 18, *'The Post-Antique Reception of Greek and Roman Art'* by Lucia Faedo, presents a large introduction about the reception of Greek and Roman art and architecture, by starting with the Middle Ages to the twentieth century. The main focus is on Italy, because this country played an important role in the Early Modern era, an era where the major emphasis falls on the artists and architects engaged into this process.

An interesting aspect of this article, **chapter 19**, *'The Historiography of Greek and Roman Art and Architecture'* by A.A. Donohue, resides in the fact that right from the beginning the contour of the main theme is marked, the focus on the historiography, a process in which the history of art and architecture of Greek and Roman period is written and the specific studies connected with it are conceived.

Chapter 20, *'Conserving of Greek and Roman Architecture'* from John H. Stubbs is the only article which offers information about how the heritage can be protected and who can contribute to this process. Right after their creation, ancient buildings need to be restored, rehabilitated, reconstructed and preserved. At the beginning of the nineteenth century, legislation measurements were adopted in Rome regarding the historic monument protection. This was just the beginning, soon after, other European countries also took caution measurements for protecting their historical monuments. A few important charts were created and adopted, as the Athens Charter (1931) and the Venice Charter (1964). These charts established an international guidelines for practice in architectural conservation. Whichever line of intervention is chosen, long-term conservation should respect its historic physical and aesthetic integrity. In this chapter, different terms are defined, as it follows: preservation or conservation, preventive conservation, maintenance, consolidation or stabilization, restoration, rehabilitation or renovation, reconstruction, relocation, replication, re-restoration. Specialists who take on the task of architectural conservation should follow four main phases: project identification, research and planning, implementation and maintenance-protection-sustainability.

In **chapter 21**, *'Displaying Greek and Roman Art in Modern Museums'* by Beth Cohen, the idea of permanent museums is discussed, following the ones devoted to ancient art, to archaeological-site museums and the university museums. One important aspect presented in this chapter is the museum display environments for Greek and Roman art, from the Early Modern period to the present, and its importance of how a viewer precepts the ancient art.

Chapter 22, *'Greek and Roman Art and the Debate about Cultural Propriety'* by Margaret M. Miles argues about the proper ownership of Greek and Roman art. Because, art is considered the identity of one country. This chapter follows two ideas, first is about looting and the effort to reduce this action and the effect it can have on the reception of Greek and Roman art, and the secondly the importance of protecting artworks both in museums and on the archaeological sites.

The **chapter 23**, *'Connoisseurship'* by Adolf H. Borbein, follows an interesting approach. Since the antiquity, the way of identifying the authors has been based only on assumptions as most of the works of art have not been signed and the ones with signature of the creator are just a few. Staius considered that a connoisseur recognizes the style/*ductus* of ancient/*veteres* artists and can also attribute unsigned pieces to them. In January 1506, Giuliano da

Sangallo and Michelangelo were the first ones to discover that the Laocoon group was the work of Rhodian sculptors Hagesander, Polydorus and Athanodorus mentioned by Pliny. Another marking point was the work of J.J. Winckelmann, who was the first one who attempted to write art history as a history of the development of artistic forms and not as a history of artists, in his *Geschichte der Kunst des Alterthums* (1764). It is impossible to associate the copies of ancient Greek paintings with the Greek artists, because the lack of any historical evidence. On the other hand, it is not possible to make any connections between the Greek copies from the Roman period with the original ones from the Greek time, because the first ones were adjusted in order to confirm the Roman principles of composition. In antic and epigraphical sources only a few Roman painters are mentioned. A good solution in search for the masters of the artworks is the use of both written and archaeological sources.

Chapter 24, *Formal approaches* by Christian Kunze, the notion 'style' is at the base of a concept regarding exposition and interpretation of images from antiquity. This term comes from the Latin word *stilus*, which is a written instrument. From the fifteenth century, the term was used to describe a characteristic manner of literary and rhetorical expression. Also, this term implies that individual formal attributes of an image are connected with one another. The term can be applied not only to individual objects, but also to attributes of an artist's oeuvre, as personal style, to a large group of works or an artistic genre, as genre style, or to a specific period of time, as epoch style. The meaning of 'style', in terms of its 'use', is a sum of all the observable relationships and consequences with which style is connected. Greek and Roman archaeology, as well as art history, are the ones to answer further problems regarding how antic images are seen and presented to the viewer.

Chapter 25, *Iconographical and Iconological Approaches* by Cornelia Isler-Kerényi, focuses on the current study of the Greek and Roman art, in particular ancient iconography, by taking into consideration the documentation and classification of images, in order to gain a deeper understanding of the ancient Greek and Roman culture. Moreover, this chapter aims to obtain a comparison between the ancient culture and the contemporary world. The main study focuses on Greek vases and Roman sarcophagi, which are placed into the cultural and historical context to which they belong. We need to question the very roots of how we see and interpret the ancient images of Greek and Roman culture by taking into consideration the gap between the ancient pagan and the polytheistic world, as well as the Christian and Modern Europe. The author points out that using the methodology of Panofsky in the study of Greek and Roman art is in vain, because of the many differences between Renaissance paintings and ancient images, where the images on the Greek vases and Roman sarcophagi do not reflect the reality as it is Renaissance paintings. Therefore, a new approach is needed in order to understand and interpret ancient images.

The **chapter 26**, *Sociohistorical approaches* written

by Burkhard Fehr, presents a way of associating images with different approaches in order to obtain a bigger picture of the art, where the main actor is not the artist himself but a part of a larger group. On the other hand, it is well founded the concept stating that art is a world of its own (*l'art pour l'art*), where its core is not even touched by external social factors. Still, the sociological approach of the Greek and Roman art is focused neither on personalities, nor the artist, but it starts from the characteristics and interests of smaller or larger group of individuals and follows their interest in the rules that connect the group to its art. The relationship between different categories of social hierarchies and how these images were seen by the intellectual viewer depends on the maker of the paintings or on the constructor of architectural monuments, because we have to keep in mind that each artist was part of a social context.

Chapter 27, *Gender studies* by Caroline Vout, starts with the question 'How confident are we that we know what we are looking at, that it looks as it did in antiquity, that we see in the same way as the ancients?' and follows the impact on how scholars interpret the Greek and Roman art and architecture by trying to explain certain aspects. One of these aspects is the concept of 'gender', which was analyzed based on the body descriptions, interactions and gestures by the ancient authors and artists and placed it into a larger grid with social characteristics.

It is known that anthropology plays an important role in the studies of Greek and Roman art, but it can not be described by a set of principles because of the discontinuity and eclecticism of the subject. Therefore, **chapter 28**, *Anthropological Approaches* by Gloria Ferrari, follows a historiographic overview with some general considerations. Carl Robert, in the nineteenth century, concluded that the relationship between the visual and the verbal was formulated in terms of a structural analogy. Based on his theory, Mortiz Lazars and Heymann Steinthal concluded that the rules that govern the human societies are dependent on historical and social factors. All the issues around 'art' as a privileged category of cultural production cannot be submitted under false categories such as 'material culture' or 'visual culture'. What is art and how art operates in society, these concepts have been recently introduced in the field of anthropology. The Greek and Roman art should be seen as a product of cultural expression and social practice.

In **chapter 29**, *Theories of Reception* by Michael Squire, is discussed the difference between past and present regarding art and how it is received. The way we see Greek and Roman antiquity goes through the lens of the modern world. Reception is a way of rebuilding intellectual bridges between the disciplines of classics and art history.

The scientific exploration of the artworks is based on three principal questions of meaning, function, and agency: what images represent, how they were used, and what they bring about. Meaning, the most important one in the art of visual can be expressed on five different levels: factual meaning or subject matter, conceptual meaning

or significance of images, explicit historical messages of images, implicit historical meanings of images - valued in their significance from the perspective of modern historians, actualized meaning of images - presented according to the experiences and concepts of modern observers. In the last chapter of this book, **chapter 30**, '*Semiotics to Agency*' by Tonio Hölscher, it is explained the understanding of the historical art as visual form by referring to bodies and object, attitudes and actions, compositions and style. The image of the human body, with its qualities and capacities, is the main piece in the understanding of the Greek and Roman art. A bridge can be built between cultural theory and art based on the body's postures.

This assemblage of articles offers the possibility to go beyond of what a handbook can offer, by collecting different theories and ideas, but maintaining the purpose of the

book to bring light in the studies of Greek and Roman art and architecture. Even though, this book was conceived for scholars and students with an interest in the field, the book is well structured so that anyone can gain an overview idea of the reception of the subject. The book starts with different theories leading the reader through exploring the Greek and Roman art and architecture and by placing it in both ancient and post ancient context, as well as approaching this subject from different angles.

It is an innovative book by bringing together specialists and their ideas into the context of Greek and Roman art and architecture research. Each contribution gives new perspectives upon a wide range of subjects.

By using recent references and a new approach, this book should be a starting point for anyone interested to explore the subject presented.

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The Oxford Handbook of Roman Epigraphy, edited by Christer Bruun and Jonathan Edmondson, Oxford University Press, 2015, 928 pages, 155 illustrations, 248x171mm ISBN 978-0-19-533646-7

The following book focuses on many aspects of the Roman world, aspects that can be found and understood mainly with the help of inscriptions. As it can be seen in the title, we are dealing with a *handbook*, a treatise on a special subject, in our case the Roman epigraphy. The dimensions of this writing in hard cover edition are not really suggesting that we handle a pocket reference, measuring 9.9 x 1.8 x 7 inches, and this is due to the very large subject the book encompasses. In the title it can be seen the term *Roman epigraphy*, and not *Latin epigraphy*, the last one being the one most historians are used to. The reasons behind this are very logical, one of them being the fact that for a better understanding of the Roman culture we also have to check the Greek inscriptions.

The two editors, Christer Bruun and Jonathan Edmondson represent only a small part of the people who worked at the creation of this product. Specialists from different parts of the world were involved in the process of writing this book along with institutions like museums or universities, collaborative programs and other contributors.

Targeting not only historians but also students or scholars interested in the Roman world in general, this book wants to answer to the question *why inscriptions matter* and *what do they have to offer*.

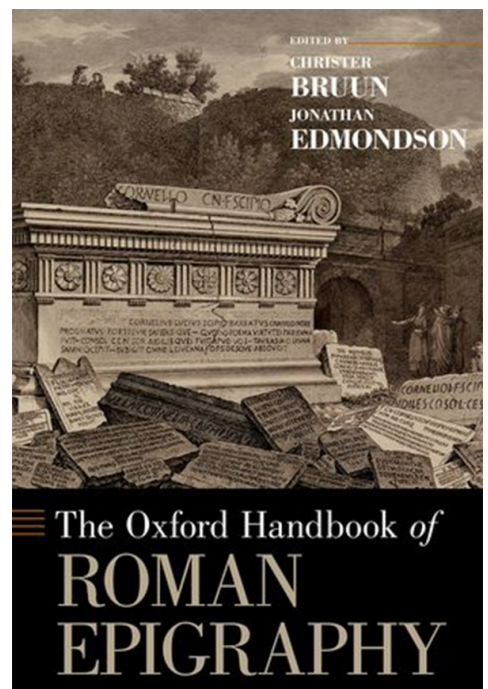
The language used in this book is simple, clear and concise, as the volume was designed to be useful to any kind of readers interested in the arts of decoding inscriptions that contain information about the Roman religion, administration, society etc.

The volume is structured thematically on three main parts, every part containing a number of articles written by different authors. The way of organizing the book is very helpful especially when one is interested in one particular aspect of the Roman life or a specific type of inscriptions, making it easier to find that subject. Pictures, photos and drawings of inscriptions can be seen all over in this book with some of their texts being explained and translated in English. The inscriptions used for information are/were made from different materials, such as stone, bronze, or paintings in the style of graffiti. They can be found on different works like milestones, funerary altars, brick stamps etc.

The first part, called *Roman epigraphy: epigraphic methods and history of the discipline* is made up by five chapters, providing data about how the deciphering of inscriptions started, who were the pioneers of this domain, how to date and interpret these products. Another interesting subject that can be found here is the topic on faking the inscriptions for various reasons and ages together with the methods to identify them. Other information can be found about 'The major corpora and epigraphic publications' in Chapter 4, publications like *Corpus Inscriptionum Graecarum* (CIG) or Thomas Mommsen's well known work *Corpus Inscriptionum Latinarum* (CIL), the part ending with the new technology possibilities such as online epigraphic databases or photos of

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inscriptions uploaded online for an easier accessibility.

Part II, *Inscriptions in the Roman World* presents in the first chapter the two main types of inscriptions in the Roman society, public and private, with all their subtypes. The next chapter, *Inscribing Roman texts*, explains the phases that take place in order to create an inscription, starting from the *officina*, moving then to the stonecutter's tools, *ordination*, the main letterforms, like *scriptura monumentalis* or *capitals quadratae* and how were the errors corrected.

In my opinion, the most intriguing chapter is the last one, 'The "Epigraphic habit" in the Roman world'. The topic discussed here is on the "trend" that the Romans were kin on producing inscriptions. This chapter provides impressive figures like plans of buildings and the "hotspots" where the stone texts were sitting or various graphs with the number of inscriptions created in the time of certain emperors.

The last part, 'The value of inscriptions for reconstructing the Roman world' represents the core of this volume. The four main subparts are about the most common types of inscriptions in the history of the Romans. The first one refers to inscriptions about the Roman public life and the most important ranks in their society. It starts with the history of the inscriptions in the time of the Roman Republic with details about the structure of the texts, differences referring to the name format such as *praenomen*, *cognomen*, abbreviations, and of course, the most common types of inscriptions from this time.

The chapter dedicated to the most powerful persons of Rome, the emperors, covers everything bound to their names as they appear on inscriptions, their powers, their family members, virtues, and the purpose of those epigraphic works had, mostly propaganda.

The Roman knights – *equites Romani* – and the senators, both part of the elite troops, are also explained along with their names on inscriptions, with some practical examples used to help anyone interested in decoding epigraphic texts.

The following chapters are about other Roman elites in different parts of the empire, the army with all their ranks and decorations and other epigraphic works like laws or documents emitted by authorities, ending up with inscriptions from the period between Diocletian and Phocas and how they changed their texts frames.

'*Inscriptions and Religion in the Roman Empire*' is the second sub-part, with the first chapter only about the piety in Rome and Italy space. Here we are dealing with some of the deities appearing on inscriptions, the priests and

worshippers, and few data about curses, oracles or dreams, the last one not being so specific to the Romans. The second chapter is about the piety in other Roman provinces and their gods with some epithets, the sub-part ending with the changes Christianity brought to the Roman civilization.

The next two chapters are related to other Roman life aspects, as the social, economic and cultural ones. Things like associations are being explained here and also a dedicated part to the sex life in the Roman world with some funny examples of epigraphic writings in the form of graffiti. Another part is about the acts of evergetism, very common in the Roman society. Such events helped people increasing their ranks or become better known, this being possible by aiding the towns' needs with different things.

Other information can be found about the members of a family and the changes that took place in their name structure after a marriage or adoption or the names of the slaves and the freed slaves on inscriptions, submitting the most important clues to identify those individuals, such as words like *liberto*, filiations or the groups they were associated with. Other aspects discussed in this chapter are about death and road communication in the Roman world, with inscriptions like epitaphs, *tabulae*, milestones and the epigraphic attestation of *cursus publicus*.

The last two chapters deal with linguistic aspects, semantics, phonology, different local languages and other stuff related to this domain with the third chapter being the most interesting in my opinion. This one is about *Carmina Latina Epigraphica* (CLE), the Latin verse inscriptions created for particular reason, taking the form of hymns, prayers or epigrams, and being the rarest type of those writings, the author providing illustrations of stone works, paintings and graffiti.

Some very useful appendixes follow up this chapter, designed to help the beginner epigraphists decoding the inscriptions. A list of epigraphic abbreviations is included here about very common terms along with Roman onomastic elements, kinship terms, voting tribes, Roman numbers and some online websites with epigraphy databases.

The many authors of this volume succeeded in creating a unique piece of work, combining Roman history with epigraphy and linguistics for the matter of a better understanding of the Roman civilization and the importance of inscriptions. They also managed to offer the reader many examples consisting in photographs, drawings, or texts that were only explained and not translated, giving the lecturer the possibility to exercise his epigraphic skills.

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AUGUSTO, *Res gestae. I miei atti*, Patrizia Arena (ed.), Bari: Edipuglia, 2014, 187 p. (*Documenti e studi* 58), ISBN 978-88-7228-737-8

The anniversary of 2000 years from the death of Augustus in 2014 has led to an explosion of publications dedicated to this emperor. In parallel, the famous epigraph *Res gestae Divi Augusti* was re-published on various historiographic areas. One of these new editions is the signed by Patrizia Arena published in *Documenti e studi*, a series of the 'Dipartimento di Scienze dell'antichità e del tardoantico' of the University 'Aldo Moro' of Bari – Faculty of History. This edition contains the following chapters: *Introduzione*, pp. 5-6; I. *Le iscrizioni* (pp. 9-17), with subchapters: 1. *Roma* (p. 9-11), 2. *Ankara* (p. 11-12), 3. *Antiochia* (pp. 12-13), 4. *Apollonia* (p. 13), 4. *Sardi* (p. 14), 6. *La trasmissione del testo* (p. 14-15), 7. *Le edizioni recenti* (pp. 15-17); II. *Res gestae*, p. 19-117; III. *L'opera* (p. 119-139), cu subchapters 1. *L'autore* (p. 119), 2. *Il titolo* (p. 120), 3. *La data di composizione* (p. 120-122), 4. *L'autobiografia di Augusto e le Res gestae* (pp. 122-126), 5. *La struttura del testo* (pp. 126-132), 6. *Significato e destinazione del testo* (pp. 132-137), 7. *La rappresentazione dei poteri del princeps* (p. 137-139); *Bibliografia* (pp. 141-154); *Tavole cronologiche* (p. 155-161); *Tavole iconografiche* (pp. 163-186).

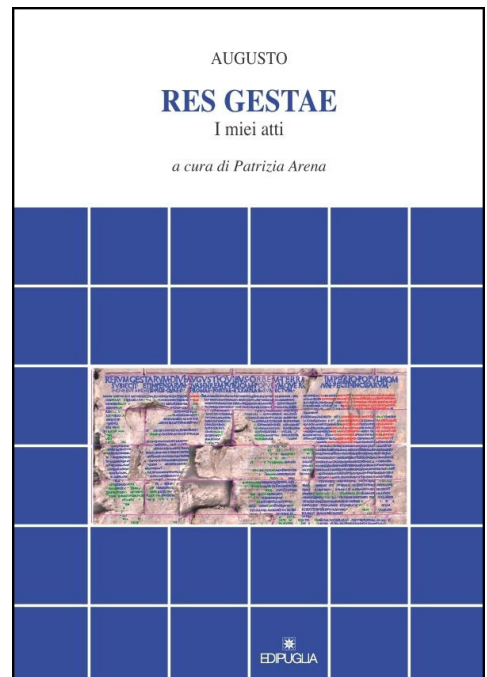
To come up with a new edition on this well-known inscription – which was a major theme for many famous epigraphists and historians of Antiquity, and a topic that still raises a high number of debates – is not an easy enterprise. The editor of this edition has fulfilled her task with honor. She is well knowledgeable on this Augustan text. Her comments are made, naturally, based on the information extracted from other contemporary or later sources of literary, epigraphic, numismatic nature (especially p. 106, comment to **34.1**), architecture or iconographic nature, etc. At the same time, it is obviously that she is well aware with the newest discovery of fragments from this epigraph in Latin (*Antiochia Pisidiae*) and Greek (*Sardis in Asia*). Fragments that have increased some of the controversial versions (especially pp. 106-108, comment to **34.1**). Although her commentary is extremely dense, still it is clear and focused on the topic, raising an abundant series of issues which have been previously debated, sometimes in divergent opinions. Her ideas stated on both the analysis, paragraph by paragraph, of the *Res gestae* and the chapter *L'opera* (pp. 119-139) resonate with other scholars' opinions. Beside old writings, still indispensable, the reference list includes also recent contributions an argument that the editor is closely following the progress on this inscription research, as well as the era of Augustus and the early Roman Empire in general¹. Therefore, it can be considered a successful edition which fully covers the aimed goal – „la migliore fruibilità di un'opera fondamentale per lo studio del Principato” (p. 5).

However, some remarks cannot be avoided. The explanations regarding the criteria that guided this edition, especially the analysis of the Latin and the Greek texts are missing. At page 5, one can read: „il testo latino e quello greco sono stati *ricostruiti* sulla base delle recenti edizioni di J. Scheid (2007), di A. Cooley (2009), di A. Mitchell-D. French (2012)” (our underline). One can

¹ For the commentary to **31.1**, the study of Nicola Biffi would have been more helpful, BIFFI 2004, 33-55.

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understand that the epigraph's text in the present edition is a *creation* of Patrizia Arena. How it will be possible to check how much has she relied on the previous editions she used? Therefore, a *lemma* would have been welcome to explain this aspect.

The editor came up with an original editing formula: the Latin text, the Italian translation, and the Greek text overlaid in this order. On this way the reader can easily compare the three versions. For all that, the Greek version shows numerous tones, paraphrases, adaptations, loan translations, interpretations, notable differences, etc. with high implications on multiple levels: – the cultural and political statute of the translator; messages; public; the way of understanding the Roman institutions and the specific vocabulary for the Hellenophone environment, etc. Would not a separate translation of the Greek text have been more appropriate, as A. Cooley did? Anyway, even without this solution, the comments should offer explanations requested by the above mentioned aspects, but they are extremely scarce – see pp. 43 (comment to **9.1**), 45 (comment to **10.1**), 64 (comment to **18**), 76 (comment to **22.2**), 106-107 (comment to **34.1**).

In regard to the title, Patrizia Arena tried to convince us why she preferred the translation *I miei atti* (see pp. 6-8). I respect her option although I do not share it. As the exegetes demonstrated before, and the editor entirely agrees with them, (see p. 120), it is less likely that the Augustan text had a title. Most of the editors made it up following the indication of Suetonius, *Aug.*, 101, 4, from the *praescriptio* issued during the reign of Tiberius (see p. 19), and from the 'neutral' expression *Res gestae*. On the other hand, however, it is true that Augustus explicitly used twice the mentioned formula – *ob res... prospere gestas* (**4.2**) and *rebus... prospere gestis* (**12.2**) (see pp. 28 and 30). On the same line, with the exception of the *Appendix* – where the addressing formulas uses the third person while in the rest of the chapters the verbs are in the first person (see p. 117). Still, it is hard to believe that these aspects may have led to the choice of such an emphatic 'autobiographic' title (see p. 137: *Res gestae* – „resocontro autobiografico”). First of all, one should take into account that the formula of *res gestae* comes from the political language of the Roman Republic, where it was used to describe the facts done by the Roman politicians during peace- and wartime. A good example comes from Cicero: *Rep.*, I, 8, 13: *cum superiores ali fuissent in disputationibus perpoliti, quorum res gestae nullae inuenirentur*”; II, 32, 56: *sed tamen omnia summa cum auctoritate a principibus cedente populo tenebantur, magnaue res temporibus illis a fortissimis uiris summo imperio praeditis, dictatoribus atque consulibus, belli gerebantur*. Therefore, it was a well-known formula. Secondly, the same syntagma is used by the contemporary literature characterizes the facts of Augustus, e.g. Quintus Horatius Flaccus: *Ep.* I, 3, 7-8: *Quis sibi res gestas Augusti scribere sumit? / Bella quis et paces longum diffundit in aeuum?*; II, 1, 250-256: *Nec sermones ego malle/ repentes per humum quam res componere gestas...* At the end, if Tiberius, himself, wanted to subsume the contents of this document left by the *princeps* under and a 'claiming' formula, respectively *Rerum gestarum divi Augusti...*, why, then, we should push the original sense of the epigraphic text in order to come up

with a title? I believe that the translations in various modern languages which stay with the idea from *praescriptio* (see pp. 6-8; to add the Romanian version *Faptele divinului Augustus* [*The Facts of the divine Augustus*]) is the right solution.

Owing to much to her predecessors on this topic, the editor has very few original opinions. Many pages contain a mere enumeration of names and opinions while the critic dialogue with historiography is totally absent (e.g., pp. 120-122, 132-137). This exaggerate obeisance simply blocked the creativity. One example is relevant. At the present stage of research, to keep asserting that the *Res gestae* have a tripartite structure as Theodor Mommsen imagine more than a century ago (see p. 5: „la sua sostanziale tripartizione”, and pp. 6, 19, 126-132) is more than obsolete.

It would have been an interesting to read the editor opinion on the Gregory Rowe's interpretation on the note to **34.3** about *auctoritas*. This scholar questioned an entire historiography dedicated to the ideological fundaments of the imperial power reflected in the *Res gestae*.² Still, no opinion, but a mere record of an opinion among other aspects (p. 113).

In the absence of real conclusions, even those pages that may be considered as the concluding ones (pp. 137-139) have no elements of a new interpretation. The idea that the *Res gestae* is „un documento politico, una costituzione generale del Principato in forma di resoconto autobiografico” (p. 137) that stipulates the powers and honors held by Octavianus/Augustus based on his exceptional *auctoritas* has been clearly demonstrated already by John Scheid: „Les *Res Gestae* ne glorifient pas seulement les hauts faits et les libéralités du prince qui sentait la mort approcher ou venait de décéder. Elles présentent également comme une constitution générale du principat, donnée sous forme de récit autobiographique, dans lequel Auguste essayait, en s'appuyant sur son *auctoritas* suprême, d'imposer à ses successeurs et aux Romains un modèle de régime politique capable de survivre à sa mort sans retomber dans les conflits politiques qui avaient déchiré Rome depuis un siècle”³.

Finally, concerning the other editions of the *Res gestae* mentioned by Patrizia Arena (see pp. 15-16, 141-142), we may be wrong to suspect her of arrogance, ignorance or both. With all due respect for a fellow scholar, I dare to point out that not only in countries such as Italy, France, Germany, United Kingdom or USA but also in countries from Eastern Europe there is a special historiographic interest for this exceptional epigraphic document. And here, I include also its publication at the highest academic standards. On this line, it will be an honor if the editor would have consulted or simply mentioned the title of the *Res gestae divi Augusti* edition published by Marius Alexianu, Roxana Curcă and Nelu Zugravu (Iași „Alexandru Ioan Cuza” University Press, 2004)⁴. This edition was placed **right from the released**

2 ROWE 2013, 1-15, mentioned by Patrizia Arena at p. 151.

3 SCHEID 2007, pp. LIII-LXII (quotation p. LXI); pp. VIII („exposé autobiographique”), XLIII-LXII („une autobiographie politique”); SCHEID 2009, 19-22. Concerning the author (p. 119), it is interesting that Patrizia Arena does not mention the entire opinion of John Scheid – which is similar to her: it was not Augustus who wrote the text but his secretaries (SCHEID 2007, p. XXVI-XXVII).

4 ALEXIANU/CURCĂ/ZUGRAVU 2004.

year in the libraries from Italy. Patrizia Arena would have discovered enough aspects that she, most likely, may not have agreed with but first she would have to read that work. If the language was considered an unbearable limit – although for a true scholar this aspect cannot serve as an excuse – it can be mentioned that Romanian is a neo-Latin and a European language. Other scholars did not have such an issue.

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Scheid, J., *Res Gestae Divi Augusti. Hauts faits du divin Auguste* [texte établi et traduit par John Scheid], Paris: Les Belles Lettres.

SCHEID 2009

Scheid, J., La mise en scène autobiographique du principat augustéen: les *Res Gestae divi Augusti*. In: Christol, M./Darde, D. (eds.) *L'expression du pouvoir au début de l'Empire. Autour de la Maison Carrée à Nîmes. Actes du colloque organisé à l'initiative de la ville de Nîmes et du Musée archéologique (Nîmes, Carrée d'Art, 20-22 octobre 2005)*, Paris: Errance, 19-22.

prostitution, sexual ethics, the construction of gender, rape.

Chapter VI is based on the essay of Alastair Blanshard, who re-examines the evidence for same-sex orgies between males in ancient Athens. He argues that the orgies were seen as far from desirable being used to regulate normative sexual experience.

Following this chapter, Andrew Lear tackles same-sex relationships in Chapter VII where he scrutinizes the idea that pederasty was “problematized” in ancient Greek culture. His view is that what scholars have observed until now is an essentially classical Athenian phenomenon, and that in other areas pederasty is idealized in an almost unquestioning way.

The eighth chapter, by Walter Duvall Penrose Jr. is based on the same theme of homoerotic scenes, mostly on the iconography of the Tomb of the Diver. These scenes point to a homonormativity to pederast male relationship in ancient Poseidonia, the author suggesting that Orphic rites included pederast or other homoerotic behavior.

Chapter IX by Allison Glazebrook, features pederast relationships especially the eroticized figures of boys and prostitutes in the context of the symposium. His study demonstrates that these two figures are often compared in poetry and art, the female prostitute often used as a negative model compared with the boy in terms of ethical and erotic behavior.

Simon Goldhill carries on the study of prostitution in Chapter X, trying to figure out whether a history of prostitution can be established. Moreover, he explores the diverse ways in which different societies are organized, questioning the extent of the term “prostitution” over a range of phenomena from different eras and locations.

In the case of Chapter XI, Claude Calame writes about the figure of Helen in Greek melic poetry, exploring how different forms of lyric poetry construct gender identities and erotic relationships, which have an impact on the formation of social and gender relations. Coming next is Chapter XII by Nancy Sorkin Rabinowitz with the study of Electra in tragedy, variously portrayed as a marginal figure, ambiguous in gender and resistant to those in power, a site where heterosexual norms are re-imposed.

More studies on ancient texts are those of Monica S. Cyrino, in Chapter XIII where she explores the violent ways that Eros is depicted in the play, the lover’s body being depicted as vulnerable to violation. In Chapter XIV, Dorota Dutsch centers around the concept of “dog marriage”, a playful term that denotes a partnership between individuals entitled to make free choices. Getting to a more secret part, Sheila Murnaghan exposes the narratives from Greek literature which feature the exposure of sexual secrets in the boundaries of Chapter XV.

From Chapter XVI we engage the main subject of rape in ancient Greece. Kathy L. Gaca looks at the use of rape in times of war, exploring the consequences of this sexual and physical violence against women by ancient armies. Edward M. Harris’s essay, seen as Chapter XVII, brings important information to the discussion, proving that the consent of women in ancient Greece had a big impact on the decisions made by men. Athenian literature reveals that men did in fact pay attention to when women said “yes” or “no”. The last chapter from this part, number XVIII, is represented by

the essay of James Robson. He examines the representation of rape in Old Comedy, arguing that the ancient passages display rape as an uncomplicated sexual act and an ability to degrade and harm the victim.

The third and last part of the volume is *Republican, imperial and late-ancient Rome* where the themes of same-sex relationships, Roman manliness and unmanliness, the gendered reception of female figures and sexual ethics in late antiquity are met.

Thus Chapter XIX by Matthew Fox deals with the problem of homoeroticism while Chapter XX by Amy Richlin meets the problem of same-sex desires. In her conclusion slave boys alongside free boys were the most common desire for sex in Rome.

A different kind of same-sex activities are discussed in Chapter XXI by Sandra Boehringer. She analyzed the erotic manual *Peri Aphrodision* by Philaenis and demonstrates that the author’s sex raises complex questions about authorship and sexual knowledge in antiquity, attitudes towards prostitution and female homoeroticism. The presentation of female sexuality is continued in the next chapter by Hunter H. Gardner, who uses the notion of “monstrous-feminine” to explore the use of thematic use of threatening aspects of feminine sexuality.

Manliness in Rome is another big discussion of this volume, Judith P. Hallett examines the portrait made by Suetonius of Emperor Tiberius’ “erectile dysfunction”. The author goes further by making links with similar scenarios described by other ancient authors and by exploring the way in which Tiberius predecessors, Julius and Augustus Caesars, presented their sexual inadequacies publicly. Kelly Olson shows in Chapter XXIV that the occasional adoption of Greek costumes by Roman men had not only the formation of cultural identity but also on the construction of gender and sexual personality.

Chapter XXV by Deborah Kamen and Sarah Levin-Richardson revisits the topic of penetrated males through a study of literature and graffiti while Chapter XXVI by Craig Williams turns to the Latin vocabulary of unmanly men for his essay.

The final chapters of Part III are focused on the later antiquity, Barbara K. Gold writes about the III century Christian martyr Perpetua and how later male editors sought to reframe the narrative that Perpetua wrote before her execution. Steve D. Smith’s essay, Chapter XXVIII, says about the VI century Agathias of Mirne and Paul the Silentiary. These poets, who write at a time when same-sex sexual activities had been banned by emperor Justinian, sublimate these desires by forming a triangle of love in which the relationship of two men is intensified by their mutual relationship with a woman.

Daniel Boyarin considers in his essay that relations between male Talmudic scholars, one married to the sister of another. From his point of view non-carnal relations between men have more privilege that carnal ones between man and wife. Chapter XXX by Mark Masterson, is trying to present a late platonic philosophy in works from the IV century thus suggesting a possible connection to late ancient notions of elite manhood.

Thus the book is about sex, as refracted through

the lenses of 30 essays, a collection that takes gender and sexuality in all the richness that these terms possess. All thou full of interesting facts and ideas, when you think of any activity bounded by the term sex, images are the most powerful tools of representation.

It is very hard to sum up a volume of essays as wide-ranging as this one, the fact that it has been done in harmonious way shows the balance and masterwork that has been put in place. Readers may pick and choose what interest them most from these essays and the simple fact that some ideas may stimulate further thoughts will please the authors.

AD FINEM IMPERII ROMANI! Studies in Honour of Coriolan H. Opreanu, editors: Cociș, S./ Lăzărescu, V.-A./ Gui, M./ Deac D.-A., Cluj-Napoca: Mega Publishing House, 2015, 390 pp. ISBN 9786065436008.

The present and impressive volume of studies is dedicated to Deputy Director of the Institute of Archaeology and Art History of the Romanian Academy from Cluj-Napoca, Romania.

The opportunity to have such a volume edited is always an excellent occasion to gather together both the scientific activity of the honoured person and the new works in the same field or adjacent ones of research.

The list of publications of C.H. Opreanu contains 128 works which indicate a wide area of research from the analysis on archaeological and material evidence to synthesis on very important aspects on the Roman History of Dacia and the post-Roman period.

Noticing the important contributions by C.H. Opreanu to the history of Romania, the works of contributors to this volume must have come at the same level of scientific level.

The first remark on this volume is that following the diversity of topics the editors have decided to organize the contents in alphabetical order of authors.

In order to have a better view on the scientific profile of this volume I am presenting the studies according to their main chronological segments.

Prehistory is represented by the study of F. Drașoveanu – *The Transition from the Neolithic to the Copper Age in Banat. Tradition and Innovation* (pp. 129-143) – on the transition period from the Neolithic to the Copper Age in Banat. The author is reconsidering the previous works in Romanian historiography on the chronology of this topic.

S.A. Luca – *Istoria unei comunități din primul val de neolitizare a teritoriului Transilvaniei* [*The History of one community from the first Neolithic wave in Transylvania*] (pp. 239-273) – produces an impressive synthesis work on the history of a community from the Starčevo-Criș Culture located on the Orăștie-Sibiu motorway itinerary.

Roman period represents the strongest section of this volume.

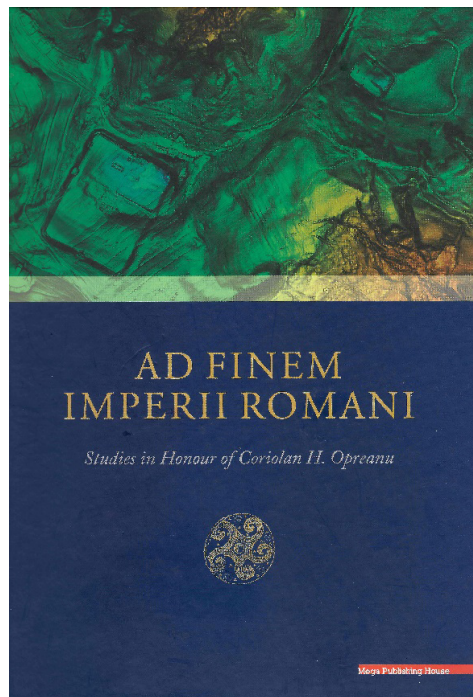
After the *laudatio* papers the first article by D. Aparaschivei – *Some remarks concerning the rural vici and their administration in Moesia Inferior Province* (pp. 27-43) – is a detailed approach on establishing general and specific patterns on the rural settlements from the province of Moesia Inferior.

S. Ardeleanu's work – *Reconstruction proposal for the Roman houses C1 and C2 in Deleu Street, Cluj-Napoca* (pp. 45-63) – on the reconstruction proposal of Roman dwellings is another well-documented study that analyses not only the architecture and the functionality of rooms but also the archaeological context in order to identify the phases of these dwellings. The reconstructions drawings bring a plus to these studies. Colorful plates for reconstructions and the wall painting fragments would be a great advantage for the reader.

R. Ardevan comes with a very concise and amateurish study on the size (two pages of text, two pages of references) of *collegia* in Roman Dacia, an

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old research topic of the author, in which the archaeological evidence on the ground by such edifices are an occasion to speculate on how many people could have been hosted inside – *On the size of collegia and associations in Roman Dacia* (pp. 65-70).

M. Dawson study on the peri-urban settlement from Roman Dacia is a magisterially example of a detailed analysis and synthesis of a topic. The author proves to be an excellent connoisseur on the Romanian historiography on this topic. Starting from the old Romanian bibliography on the topic, M. Dawson reveal the connection between the image of Roman urban life in Dacia written under the communist influence and pressure on historical writings. After the scholar establish general and specific patterns of urban development in Dacia and other provinces, his main conclusion is to establish the ‘duality between western style organisation and hierarchy and eastern practice’ – *Peri-urban settlement and Roman Dacia* (pp. 85-99).

The *grafitti* evidence from *Dacia Porolissensis* is presented and illustrated by D.-A. Deac – *Graffiti aus Dacia Porolissensis (I)* (pp. 101-106).

F.-Gh. Fodorean – *Landscape archaeology in Dacia. Mapping the Roman discoveries along the road Apulum-Brucla* (pp. 167-174) – contributes to this volume with a brief study on the Roman settlement discoveries from the segment of the former imperial road Apulum-Brucla. The methodological approach allowed the author to establish four categories of discoveries: archaeological evidence of structures and material; funerary discoveries; epigraphic and sculptural monuments; monetary discoveries.

Based on material and sculptural evidence, M. Gui presents in an attractive and scientific way the functionality of Ringschnallengulum in Dacia – *How to wear the Ringschnallengulum in Dacia* (pp. 175-189).

The study by Z. Mari on the Trajan’s villa from Arcinazzo (Italy) is an excellent synthesis on the recent excavations at this fascinating archaeological findspot – *La villa di Traiano ad Arcinazzo Romano alla luce delle recenti ricerche* (pp. 275-296).

Another study that discussed the functionality and chronology of a Roman artefact is the one written by S. Mustață and S. Cociș on a Roman bronze basin discovered at the Roman site of Micia (nowadays, Vețel, Hunedoara County, Romania) – *A Roman bronze basin found at Micia (Mintia, Vețel Commune, Hunedoara County)* (pp. 301-310).

The Late Roman Empire period is a topic of the study by M. Olędzki, A. Dubicki, – *The lower Danube in the propaganda of Constantine the Great* (pp. 315-322). The authors demonstrate through the numismatic evidence that the concern of the Empire for the Lower Danube territories is pointed out on the monetary military types.

The study by C. Onofrei and D. Blaga – *Some issues regarding the identification of ancient Romula with the urban ghost Malva* (pp. 323-330) – raised a methodological aspect. Based on epigraphic evidence and military diploma the two scholars proved that the long-term debated issue on the possibility to identify the Roman town of Romula with Malva it is far from being settled.

On the same methodological line, can be framed the article by C. Radu and B. Kelemen – *Estimating stature for*

archaeological human remains. A methodological review (pp. 331-338) – which reviews the main criteria on establishing stature based on Human bone remains.

L. Ruscu study on *Das Amt des Protos Archon in Bithynien und Thrakien* (pp. 339-345) is one of the few articles which deals with other parts of the Roman Empire than Dacia as well as it is focused on the onomastic and local tradition in the both provinces.

The territory at the north-west border of Roman Dacia is magisterially analysed by I. Stanciu in his synthesis *Schimbări demografice și culturale pe durata secolelor I-II p.Chr. în spațiul nord-vestic al României [Demographic and cultural transformations during the 1st-2nd centuries AD in the northwestern part of Romania]* (pp. 347-372). The author demonstrates that from the material evidence point of view during the 1st-2nd centuries AD this territory was inhabited by the bearers of Przeworsk Culture. An evidence, which I. Stanciu clearly points out that it is limited by the absence of ethnic and linguistic information.

Using the opportunity to enlist the Roman frontier of Dacia in the World Heritage Linear Site E.S. Teodor presents in detail the advantages and limits on the various segments of the *limes* in Romania – *A Romanian World Heritage linear site? Unsolved issues* (pp. 373-390).

The early medieval period in Romania is represented by the work of D. Băcuet-Crișan – *Pagans or Christians in the early mediaeval cemetery from Zalău “Valea Răchișorii/Pălvăr”?* (pp. 71-83). The author discusses whether those buried in the ‘Valea Răchișorii’ cemetery (Zalău, Romania) were Christians or heathens. One can easily notice the rich illustrations that follows the demonstration of the author.

A. Dobos’ study on the punched decoration artefacts from Migration Period and early Middle Ages from Transylvanian cemeteries is not a simple catalogue but also a typologic scheme and functional approach – *Notes on artefact with punched decoration discovered in the late row-grave cemeteries in Transylvania* (pp. 107-128). His arguments are strongly supported by high quality illustration.

Chr. Eger – *Guarrazar und seine Bedeutung für eine Archäologie des westgotischen Königiums* (pp. 145-166) – re-discusses the famous Visigoth treasure discovered at Guarrazar, near Toledo, Spain, through the new archaeological evidence following the excavations from 2013.

Zs. Körösfői comes with an exotic subject, that of grave-looting technique in the Sântana de Mureș Culture – *Grave-looting in the Late Roman age cemetery of Sântana de Mureș/Marosszentanna* (pp. 191-209).

An impressive by scientific achievement, demonstration, size, illustration is the team-work of V.-A. Lăzărescu, B. Ciupercă, A. Anton on the case-study about the site of Ciorani (Prahova County, Romania) of the post-Černjachovian horizon – *The post-Černjachovian horizon in Wallachia revisited. A case study for the newly discovered site* (pp. 211-237).

S. Nemeti presents a rare artefact discovered in Transylvania – a brooch of the Udine-Planis type dated in the first half of the 6th century AD – *Une fibule du type Udine-Planis en Transylvanie* (pp. 311-314).

Two engineers, M. Munteanu and V. Țopa, present the benefits for archaeology of the archaeometric measurements

at the Technical University of Cluj-Napoca – *The Archaeometry in the technical University of Clu-Napoca* (pp. 297-300).

Summing up, it can be stated that honoring a prominent figure of nowadays Romanian Archaeology, C.H. Opreanu, this volume gathers studies of various generations of archaeologists and of a large area of research from prehistory to the Middle Age.

