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DISTRIBUTION SPREAD OF BUILDING CERAMICS OF LOWER MOESIAN LEGIONS AND AUXILIARY TROOPS

Abstract: This paper compiles information on the sites where stamped bricks and tiles of the Lower Moesian army (legions, cohorts, *alae* and *classis*) have been discovered. The analysis is also concerned with the locations of artefacts associated with the army in military (*castra*), semi-military (*canabae* and nearby *vici*) as well as civilian (towns, *villae rusticae*) contexts.¹

The author also reviews existing publications on the subject, as well as provides maps of distribution networks. According to the author, there is no convincing evidence of the supply of military building ceramics in Lower Moesia for civilian use. It should be noted, however, there is no shortage of them at semi-military sites in *canabae* and *vici* near military strongholds. Coming across bricks and tiles of a specific military unit in a particular location does not immediately mean that the manufacturer of these artifacts was stationed there.

The material may have been transported to specific military facilities. Based on the maps included in the article, we can see the productive activity as well as the military activity of the lower moesian army during the Principate period. It was not the purpose of this text to present a detailed analysis of the logistics of military building ceramics in Lower Moesia because it is a very complex process, requiring further, separate very in-depth studies.

Keywords: building ceramics, stamp impressions, bricks, roof tiles, Roman legions, auxiliary units, distribution

State of research

The legions stationed in Lower Moesia were the largest producers of building ceramics, which they manufactured primarily for their own use. Hence, it would be a truism to state that such material is discovered chiefly among the remnants of structures built by soldiers. However, relics are also found in sites that were clearly non-military. Numerous studies to date have deliberated on how and why building ceramics was distributed to such locations², while their authors advanced

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of Bucharest, for the assistance in obtaining Romanian archaeological literature and Maria Avramova for help in identifying some archaeological sites near Novae.

² For a comprehensive overview of literature until 2006 see Kurzmann 2006, pp. 109–140.

various conjectures, arguing for instance that the army was involved in civilian construction or engaged in barter (bricks for grain). Nonetheless, recent research has demonstrated that instances of such practices were relatively few and, when they did take place, they should be attributed to local circumstances (e.g. politics: the case of Sarmizegetusa).³

Those local conditions are an object of interest mainly to military historians and archaeologists of the Roman provinces, who analyze the spread of military bricks and tiles. This is due to the fact that having their locations catalogued enables one to determine where individual legions and auxiliary troops were stationed and facilitates mapping distribution ranges. Consequently, one obtains valuable information concerning the logistics and relocation of troops. Also, stamped building ceramics offers an excellent source for research into the organization of work in military workshops as well as a dating tool to determine the stages of reconstruction of masonry or ceramic floors.

One of the studies which provides a comprehensive catalogue of stamped building ceramics is *Der untermoesische Donaulimes und die Verteidigung der moesischen Nord- und Westküste des Schwarzen Meeres Limes et litus Moesia Inferioris (86–275 AD)*⁴ by Nicolae Gudea. With respect to the issue in question, the work largely relies on Tadeusz Sarnowski's article entitled "Legionsziegel an militärischen und zivilen Bauplätzen der Prinzipatszeit der Prinzipatszeit in Niedermoesien".⁵ Also, the section on the distribution of legionary building ceramics in Lower Moesia in "Untersuchungen zu den Ziegelstempeln römischer Legionen in den nordwestlichen Provinzen des Imperium Romanum"⁶ by Ulrich Brandl or in the more recent book by Thomas Schmidt, i.e. *Gestempelte Militärziegel ausserhalb der Truppenstandorte. Untersuchungen zur Bautätigkeit der römischen Armee und zur Disposition ihres Baumaterials*⁷ draw on that study as well. Furthermore, there is no shortage of studies that map the distribution range of selected military units.⁸

Methodology is one of the major challenges for investigations into the spread of building ceramics in Lower Moesia, particularly in certain earlier studies (notably those dating from the 1950s–1960s, mainly archaeological reports). That kind of material was quite often disregarded, and when it was included, information such as the exact location of the find, the archaeological context, or the number of discovered artefacts was lacking. Not infrequently, photographs and drawings were not provided either. Still, it has to be noted that the authors of the earliest publications (XIXth century and the first half of the XXth century) usually had no such data to share, as they would document loose artefacts discovered on the surface of the ruins, items deposited in local museums and schools or brought by the local community. Even so, impressions of stamps on building ceramics drew attention of travellers-documentarians such as Karel Škorpil⁹ and, in many cases, their notes constitute the only source of knowledge about the discovery of bricks and tiles at particular locations. In recent decades, the quality of publications on stamped building ceramics from Lower Moesia has substantially improved, primarily due to the quantity of available material. After all, stamped bricks and roof tiles are currently an abundant type of relic as a result of extensive archaeological research. It is the second most frequently discovered category of archaeological artefacts after vessel pottery. Therefore, there is still much to be done in this particular area of investigations.

³ Schmidts 2018, p. 171.

⁴ Gudea 2005.

⁵ Sarnowski 1995.

⁶ Brandl 1999, pp. 48–53, 97–101, 137–145.

⁷ Schmidts 2018, pp. 126–128.

⁸ See e.g. Stăicuț 2017, p. 55, Fig. 11: when developing the map, the author relied on papers from the 1970s and

1980s, while failing to include more recent literature, such as Sarnowski's article from 1997 or the 2005 study by Nicolae Gudea.

⁹ Škorpil 1905, pp. 443–502; Škorpil 1914.

Aim of the study

The scholarly literature cited above needs to be supplemented. First, researchers studying the distribution range of building ceramics have focused their attention on the legions whilst neglecting the auxiliary forces. The aforementioned work by N. Gudea and studies on the history of individual auxilia are an exception in that regard.¹⁰ Second, those works were published decades ago and the information they contain is not up to date. Admittedly, Th. Schmidts' work is relatively recent, though with regard to Lower Moesia it also relies on earlier literature, mainly articles by Tadeusz Sarnowski. For these reasons, the distribution maps of the building ceramics produced by Lower Moesian legions and auxiliary troops requires additions, revisions and corrections (Maps 1–6).¹¹ Also, one should re-examine the discoveries of military building ceramics at civilian sites, as the knowledge of the latter is now more extensive. Consequently, the aim of this paper is to develop new maps of the distribution range of building ceramics produced by the Lower Moesian contingent. The maps in question are not just mere visualizations of data, but another building block for further, more advanced research, especially concerning chronological distribution network of military bricks and tiles in Lower Moesia. To that end, it is also necessary to devise new typologies of both military and private stamp impressions on building ceramics, which should be informed to a greater extent by chronological rather than on typically epigraphic-paleographical criteria, notably with respect to the imprints on bricks and tiles of legio I Italica at Novae. Furthermore, this author does not engage in the debate on the existence or size of the legionary territories,¹² the subject of inquiry by Harald Petrikovits, Barnabás Lőrincz, Geza Alföldy¹³ — or Emilia Doruțiu-Boilă¹⁴ and T. Sarnowski¹⁵ in the case of Lower Moesia — as they are known to have been within the range of the Gallic league (*leuga*).¹⁶

In this paper, the presumed territorial extent of Lower Moesia overlaps with the borders established during the reign of Septimius Severus.¹⁷ The surviving stamped bricks and tiles from that area where produced by six legions (legio V Macedonica, legio I Italica, legio XI Claudia, legio I Minervia, legio VII Claudia, legio XIII Gemina), nine auxiliary cohorts (cohors I Bracarorum civium Romanorum, cohors III [...],¹⁸ cohors I Claudia Sugambrorum [Sugambrum] veterana equitata, cohors II Chalcidenorum sagittariorum, cohors I Cilicum milliaria equitata sagittariorum, cohors I Lusitanorum Cyrenaica, cohors I Ubiorum equitata, cohors II Mattiacorum, cohors II Flavia Brittonum),¹⁹ two auxiliary cavalry units (ala Flavia Gallorum, ala I Pannoniorum) and the Moesian fleet (classis Flavia Moesica). Nearly all of the troops listed above were based in Lower Moesia (temporarily and permanently, both as entire units and vexillationes) with the exception of legio VII Claudia, whose tile was discovered only at Durostorum,²⁰ and legio XIII Gemina's at Sucidava.²¹ The stamp impression of legio VIII Augusta from Selanovtsi was not included either,²² as in this case an interpretation or inventory error is likely to have occurred.²³ On the other hand, as regards the stamps of legio I Minervia, they were found only in Novae,

¹⁰ At this point one should mention the work by Florian Matei-Popescu, see Matei-Popescu 2010.

¹¹ For instance, information about the discovery of a brick stamped by Legio I Italica at Flaviana (Rasova) was nowhere to be found, cf. Sarnowski 1997, p. 499 and Doruțiu-Boilă 1990, p. 261 or misplacement of some points on the map by Sarnowski 1997, p. 501 (e.g. Cuza Voda).

¹² Kurzmann 2006, pp. 256–262.

¹³ Schmidts 2018, pp. 161–162.

¹⁴ Doruțiu-Boilă 1972, pp. 45–62.

¹⁵ Sarnowski 1988.

¹⁶ Piso 1991, pp. 131–169.

¹⁷ Gerov 1998, pp. 437–467.

¹⁸ The full name of this military unit has not been preserved.

¹⁹ As far as auxiliary troops are concerned, their bases changed quite frequently, therefore the Map includes only those determined in Lower Moesia.

²⁰ CIL III 14597, 2.

²¹ Tudor 1960, p. 338, Fig. 2.13.

²² Karadimitrova 2004, pp. 105–106 and 115.

²³ The photograph in the paper (Karadimitrova 2004, p. 126, Fig. 26) shows the impression of the stamp of legio I Italica which is fairly frequent at Novae.

where the legion stayed in the course of Trajan's Dacian War;²⁴ the unit was not a part of the permanent contingent deployed to Lower Moesia.

The analysis encompasses stamp impressions on bricks and roof tiles which, having been produced by the Moesian army, were later discovered in Oltenia, Wallachia and the Black Sea coast including the Crimea. Finds from Dacia and Upper Moesia were included as well, as without such data the mapping of the distribution ranges would be incomplete.

The timeframe of this study covers only the period when Lower Moesia functioned as a province, but in several cases stamp impressions from the Late Roman period were taken into account as well, given that they represent an integral part of several existing typologies.²⁵ It should be stressed that the process of production and distribution of military building ceramics in late antiquity differed significantly from the established practice during the Principate.²⁶ It would therefore be necessary to ask quite different research questions. It is also worth noting that a number of publications on stamped building ceramics are confined to contemporary national borders, separating the Bulgarian part of Lower Moesia from the Romanian part (Dobrudja)²⁷, whereby this division is not adopted solely in publications on building ceramics.

Stamp impressions of the Moesian legions

1. Legio I Italica

The stamp impressions on bricks and tiles from Novae have so far been classified in three typologies [Tab. 1]. T. Sarnowski distinguished 32 types further subdivided into variants,²⁸ while Marta Matuszewska developed a very similar one, spanning 32 types, but expanded it to include new variants with their respective subvariants.²⁹ The third, comprising three groups with variants, was devised by N. Gudea. Legio I Italica arrived in Novae after 70 AD and remained there until around 435.³⁰ This explains such a large number of distinct variants: while Lower Moesia existed (86–270), the legion used at least 217 matrix designs.³¹

a. Discovery sites in Lower Moesia [Map 1]:

1. Augustae: LEGIT[LI];³²
2. Variana (Selanovtsi [Rahovska]): LEG I ITAL;³³
3. Baykal: LEG I ITAL;³⁴
4. Oescus: LEGITAL; LEGITALI; PROCV LEGITAL; VETIA LEGITAL; FIR LEGITAL; MAX LEGITAL; LEGITAL;³⁵
5. Obnova: LEGIITAL;³⁶

²⁴ Sarnowski 1987, pp. 107–122.

²⁵ This applies particularly to the stamped building ceramics of legio I Italica, as I did not intend to break the typologies down even further.

²⁶ Cf. Sarnowski 1991, pp. 9–32.

²⁷ E.g. Karadimitrova 2004, pp. 103–128.

²⁸ Sarnowski 1983, pp. 17–61.

²⁹ Matuszewska 2006, pp. 45–63.

³⁰ It is possible that legio I Italica was stationed in Novae until 432, see Sarnowski 2005, pp. 223–230.

³¹ Sarnowski 1983, pp. 34–39.

³² Mašov 1983, p. 98, Fig. 13, no. 9. Fragmentary stamp, showing only LEGIIT...; the remainder has not been preserved. I am disinclined to assume that it should be read as LEGIIT(ALI), cf. Sarnowski 1997, p. 499.






³³ Filov 1911, p. 275; Sarnowski 1997, 499; Karadimitrova 2004, 115: LEGIITAL (VI-121).

³⁴ Kalinka 450; Škorpil 1905, p. 465; Sarnowski 1997, 499; Karadimitrova 2004, p. 114, Cat. 29 (VI 119, VI 66).

³⁵ Ivanov 2002, pp. 7–92.

³⁶ Tomas 2016, p. 28; Gerasimova-Tomova 1986, pp. 26–32.

Tab. 1. Typologies of stamp impressions of legio I Italica

Author	SARNOWSKI 1983	GUDEA 2003	MATUSZEWSKA 2006
Typology	Type I: LEG I ITALICAE;II: LEG I ITALIC;III: LEGI I ITALI;IV: LEG I ITALI;V: LEG I ITALE;VI: LEG I ITAL; VII: LEG I ITAL ANT;VIII: LEG I ITAL ALE; IX: LEG I IT ALE; X: [LEG I] ITA; XI: LEG ITAL; XII: LEG I AN; XIII LEG IT; XIV LE I ITAL; XV: ITAL FI COR; XVI: LE PI FIGV CRT V XVII: LEG I ITA C ∞; XVIII: LE P I FI COR; XIX: MRVLO COS; XX: [illegible]; XXI: LEGXICPF, XXII: ALSOL; XXIII: VETIA XXIV: [illegible]; XXV: C ATON M; C ATO M; C ANTO M, CATO; XXVI: LCOELPRIMI; XXVII: MARC; XXVIII: ERI; XXIX: LEG I M PF; XXX: CEMEL; XXXI: RUMORID; XXXII: IIP or IIF;	Type G1: 1. LEGIITALICAE; 2. LEGIITALIC; 3. LEGIITALI; 4. LEGIITAL; 5. LEGIITA; 6. LEGIIT; G2: 7. LEGITAL; 8. LEGITA; G3: 9. LEIITAL Variants: LEGIITAL  LEGIITALA LEGIITALAL LEGIITALALE LEGIITALANT LEGIITALE LEGIITALS LEGIITALT  LEGIITAL   LEGIITAL LEGIITAL卐  LEGIITAL	I: LEG I ITALICAE;II: LEG I ITALIC;III: LEGI I ITALI;IV: LEG I ITALI;V: LEG I ITALE;VI: LEG I ITAL; VII: LEG I ITAL ANT;VIII: LEG I ITAL ALE; IX: LEG I IT ALE; X: [LEG I] ITA; XI: LEG ITAL; XII: LEG I AN; XIII LEG IT; XIV LE I ITAL; XV: ITALFIGCOR; XVI: LEPIFIGVCRTV or LEPIFIGVCHRTV;XVII: LEGIITAFIC; XVIII LEPIFICOHR, LEPIFICOR; XIX: MRVLOCOSLEGIITAL; XX: [illegible]; XXI: LEGXICPF, LEGXICPP, XICPP; XXII: ALSOL; XXIII: VETIA XXIV: [illegible]; XXV: C ATONM; C ANTO M; XXVI: LCOELPRIMI; XXVII: MARC; XXVIII: ERI; XXIX: LEG I M PF; XXX: CEMEL XXXI: RVMORID; XXXII: IIP or IIF; XXXIII: [illegible]; XXXIV: [illegible]; XXXV: VREL; XXXVI: [illegible]; XXXVII: N; XXXVIII: LEGV MC; XXXIX: [illegible] XL: ΑΛΕΞ COA

6. Nikopol I: LEGIITAL;³⁷7. Dimum: LEGIITAL; LEGIITALI;³⁸8. Svishtov: LEGIITAL; LEGIITALI;³⁹³⁷ Tomas 2006, p. 156.³⁸ Kalinka 454; Škorpil 1905, 459; Karadmitrova 2004, pp. 119–120 (Type IV 5, IV 11, VI 61–65, VI 108–109): LEGIITAL; LEGIITALI.³⁹ CIL III 785, 1; 6239; 7617; Sarnowski 1997, p. 499.

9. Novae;⁴⁰
10. Ostrite Mogili (municipium Novensium): [LE]GI[ITAL]; [...]ITAL; LEGIITAL;⁴¹
11. Pendikuryak (near Svishtov): LEGIITAL;⁴²
12. Carevec: LEGIITAL;⁴³
13. Iatrus: LEGIITAL;⁴⁴
14. Butovo: LEGIITAL;⁴⁵
15. Trimammium: [LEGIIT]ALI; LEGIIT[AL]; LEGIITAL; LEGIIT[AL];⁴⁶
16. Sexaginta Prista: LEGIITAL; LEGIITALI;⁴⁷
17. Tegra;⁴⁸
18. Garvăn: LEGIITAL;⁴⁹
19. Durostorum: LEGIITAL;⁵⁰
20. Silistra, Bogdan Voyvoda st.: LEGIITAL;⁵¹
21. Pliska: LEGIITAL;⁵²
22. Preslav: LEGIITAL;⁵³
23. Sucidava: LEGI;⁵⁴
24. Sacidava: LEGIITA[AL?];⁵⁵
25. Carsium: LEGIITAL; LEGIITALI;⁵⁶
26. Troesmis: LEGIITAL;⁵⁷
27. Dinogetia: LEGIITAL;⁵⁸
28. Barboși: [L]EGIITAL;⁵⁹
29. Aliobrix: LEGIIT[AL?];⁶⁰
30. Tomis: IITALI?;⁶¹
31. Callatis: LEGI.⁶²

b. Discovery sites outside Lower Moesia [Map 1]:

32. Drobeta (Turnu-Severin)? : LEGIITAL; LEGIITALI;⁶³
33. Draja de Sus: LEGIITAL; LEGIITALIC;⁶⁴

⁴⁰ See Tab. 1.

⁴¹ Sarnowski 1983, p. 52, Sarnowski 2023, in print.

⁴² Andreeva *et alii* 2018, Fig. 23, p. 584; Pendikuryak is the local name of a place near Karamanovo, 20 km from the city of Svishtov.

⁴³ Surface find from the ruins of a Roman settlement located on the plain surrounding Balabanovo Cheshmo near the village of Carevec, see Stefanov 1930–1931, p. 266; Sarnowski 1997, p. 499.

⁴⁴ Watchel 1982, p. 240; Sarnowski 1997, p. 499.

⁴⁵ Tomas 2016, p. 40; Sarnowski 1997, 499.

⁴⁶ Torbatov 2010, 41–57: in the typology by Matuszewska IV-4/a; VI-51/a; VI-66/a; VI-70/b; VI-70/c; VI-70/f; VI-70/i; VI-71/a; VI-72/a; VI-73/a; VI-54/a?;

⁴⁷ Typology by Matuszewska: VI-70c; VI-70d; VI-74b vel VI-74g; VI-75a; VI-93a vel VI 94a vel VI-94b; VI-94c, see Torbatov 2012, p. 196: LEGIITAL; LEGIITALI; Sarnowski 1997, p. 499.

⁴⁸ Škorpil 1905, 452: only reference to the discovery of bricks stamped by legio I Italica, no content provided.

⁴⁹ Škorpil 1905, p. 448: mentions only LEGXI CLTRM; ISM V 261, 262; Sarnowski 1997, p. 499; Gudea 2005, p. 432.

⁵⁰ Ivanov 2002, pp. 125–148.

⁵¹ Ivanov 2002, p. 145.

⁵² Antonova, Vitlyanov 1985, p. 60; Sarnowski 1997, p. 499.

⁵³ Karadimitrova 2004, pp. 121–122: LEGIITAL (VI34?).

⁵⁴ IDR II 235; Sarnowski 1997, p. 499.

⁵⁵ Scorpan 1980, p. 795, pl. 52.6.1: LEGIITA

⁵⁶ ISM V 113; Sarnowski 1997, p. 499; Chiriac, Nicolae, Talmațchi 1998, pp. 141–145.

⁵⁷ ISM V 216; Alexandrescu 2016, p. 245.

⁵⁸ Aricescu 1980, 15; ISM V 262.

⁵⁹ Doruțiu-Boilă 1972, p. 54, Fig. 2.3; Aricescu 1980, p. 15; ISM V 307; Sarnowski 1997, p. 499.

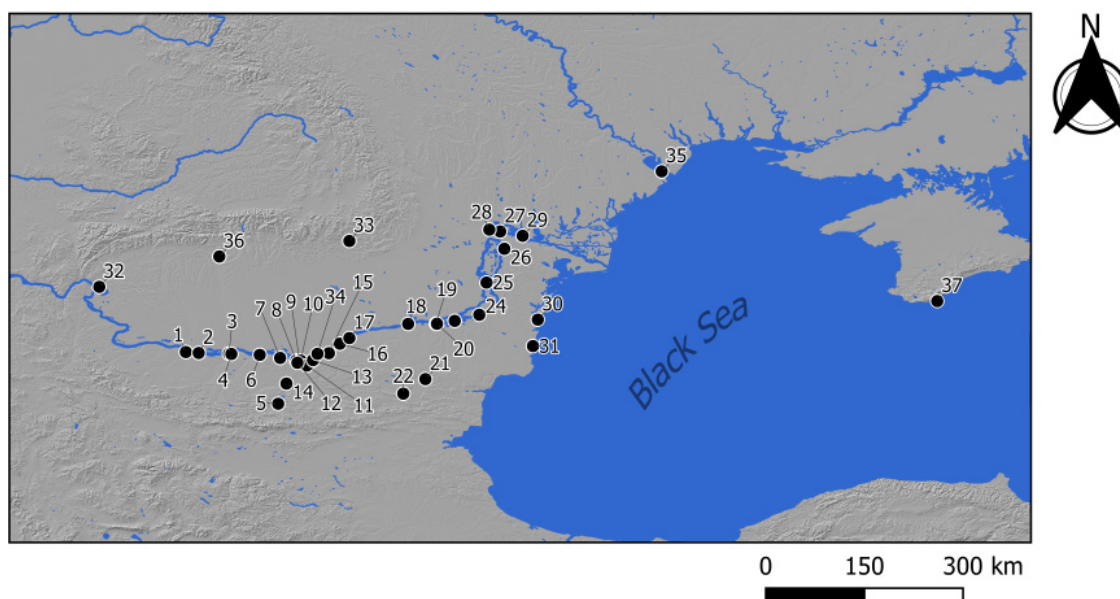
⁶⁰ Doruțiu-Boilă 1972, p. 54, Fig. 2.7; Doruțiu-Boilă 1990, p. 266, Fig. 34b; Aricescu 1980, p. 15.

⁶¹ Scorpan 1974, p. 127: the author refers to a brick with the stamp legio I ITALI(cae) deposited at a museum in Constanța, but does not state where exactly it has been discovered. For this reason, caution is advisable.

⁶² Scorpan 1974, p. 127; Aricescu 1980, p. 15; Sarnowski 1997, p. 499: LEG I ...

⁶³ Tocilescu 1902, no. 49a.

⁶⁴ IDR II, 600; Zahariade, Dvorski 1997, p. 36:



Map 1. Brick stamps of the First Italian Legion (drawing by M. Stróżyk)

34. Pietroșani: LEGIITAL;⁶⁵

35. Tyras: LEGITAL; LEG I IT; LEG V M; LEGXICLEAVXSANTPLLII;⁶⁶

36. Buridava: LEG IITALET / LEGVMACE;⁶⁷

37. Charax: PER L A C >/ LEG I IT PRAEP/VEX MOES INF.⁶⁸

A look at the map illustrating the spread of building ceramics marked by legio I Italica reveals it to be the most active military manufacturer in Lower Moesia. The largest concentrations were determined in the west and centre of the province, which is understandable given the location of Novae, the home base of the legion. Nevertheless, relics associated with that unit have been found practically across the province, including the interior, which implies an extensive network of posts of the beneficiarii.

2. Legio V Macedonica

Legio V Macedonica arrived in Moesia in the early first century, and garrisoned in Oescus (with a break during the Armenian expedition and bellum Iudaicum), staying there until Trajan's Dacian wars.⁶⁹ According to Rumen Ivanov, three matrices were used during that period [Tab. 2]. Their distinctive feature is the representation of an eagle in the centre of the imprinted inscription. Considering the fact that the custom of stamping military tiles began to spread throughout the Empire in the Claudian period at the earliest,⁷⁰ those three types should be dated to the period between 71 and 101 (from the return of the legion to Oescus to Trajan's Dacian War). Subsequently, the legion was based in Troesmis, where it relocated between the two Dacian campaigns of Trajan's. It would remain there until year 167, during which period it used five types of matrices [see Tab. 2].

⁶⁵ IDR II, 636; Sarnowski 1997, p. 499.

⁶⁶ Doruțiu-Boilă 1990, 269, Fig. 38; Sarnowski 1987, p. 70.

⁶⁷ IDR II, 556-559; Țentea, Manea et alii 2022, p. 47.

⁶⁸ Stamp VEXMOES; see Sarnowski 1987, p. 64; Gudea 2005, p. 465; Sarnowski 2005, p. 98.

⁶⁹ Matei-Popescu 2006, pp. 379-399; Ivanov 2012, p. 31.

⁷⁰ Kurzmann 2006, p. 21.

Tab. 2. Typologies of stamp impressions of legio V Macedonica

Types of stamps of legio V Macedonica (IVANOV 2002, pp. 12–13), whilst based in Oescus (early first century – 101 AD) ⁷¹ ; impressions should be dated to the Flavian — early Trajanic period:
I. LEG V MC II. LEGVMA III. LEGVMAC with eagles in the middle of inscription
Types of stamps of legio V Macedonica (after MATEI-POPESCU 2010, 76) from 107–167, whilst based in Troesmis:
I. LEG V MAC 1A: MA in ligature and smaller C, right up M 1B: MA in ligature and C and M similarly sized II. LE V MAC: the middle score is split and linked only to the right hasta III. LEG V M; IV. LEG V MC; V. L V M.

a. Discovery sites in Lower Moesia [Map 2]:

1. Almus: LEGVMCI; LEGVMCII; ...GVMCII;⁷²
2. Kozlodui (Camistrum): [LEG]VMOES;⁷³
3. Augustae: LEGMCV; LVMCIIII; LVMCV; LEGVMCV;⁷⁴
4. Baykal: [LEG]MOES;⁷⁵
5. Oescus: LEGVMC; LEGVMAC;⁷⁶
6. Novae: LEGVMC; LV[M?];⁷⁷
7. Tegulicium?⁷⁸
8. Durostorum: LEGVMA;⁷⁹
9. Sucidava: LVMOES, LVMVAR, LVMSCR;⁸⁰
10. Flaviana;⁸¹
11. Capidava: [L]EGVMAC;⁸²
12. Horia: LEG V MAC; LEG V MAC; LEGVMA; LEGV MC;⁸³

⁷¹ I concur with the views expressed by other authors (Strobel 1984, p. 90; Sarnowski 1988, p. 61; Matei-Popescu 2010, p. 47) that the legion was stationed in Oescus until 101 AD, relocating in 101–102 to Troesmis.

⁷² Ivanov, Stoičkov 2015, pp. 147–150; another find from that location was a brick of legio XIII Gemina : ...G RAT. I have also found a mention of a roof tile of legio XIII at Almus, see Stoičkov 1987, p. 112; Ivanov, Stoičkov 2015, p. 149.

⁷³ Karadimitrova 2004, p. 115: ---VMOES.

⁷⁴ Mašov 1975, pp. 40–41 (36–43): LEGMCV; LVMCIIII; LVMCV, but those are late antique specimens; Mashov 1980, p. 31, Fig. 13: LEGVMCV.

⁷⁵ Škorpil 1905, p. 465; Karadimitrova 2004, p. 115: ---MOES.

⁷⁶ Ivanov 2002, pp. 9–75.

⁷⁷ Ivanov 2002, pp. 91–92 (LEGVMC; LV...); Matuszew-ska 2006, Type XXXVIII-1a, p. 61 (LEGVMC); Ivanov

published two impressions of that legion, discovered in the layers dated to the third century, but failed to account for the presence of those bricks at Novae (p. 91); the stamp LEGVMC published by Ivanov and Matuszewska shows similarity to Type III, used in the Flavian – early Trajanic period in Oescus; cf. Ivanov 2002, p. 12–13.

⁷⁸ Sarnowski 1997, p. 499.

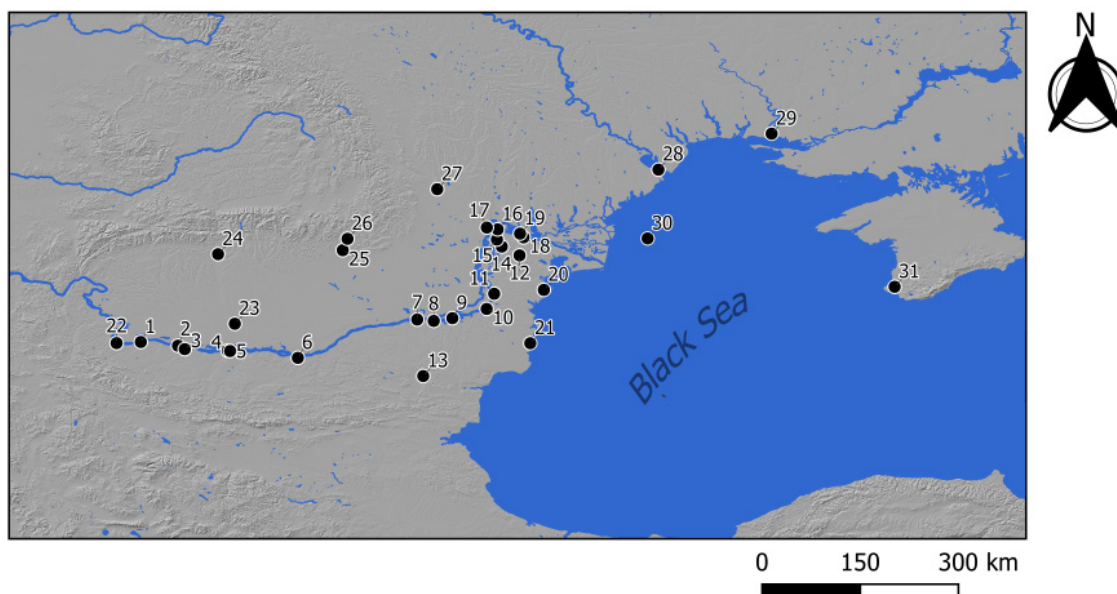
⁷⁹ Sarnowski 1997, p. 499.

⁸⁰ Tudor 1935–1936, pp. 412–413 (LVMOES, LVMVAR, LVMSCR); Irmia 1985, pp. 141–156.

⁸¹ Only a mention, content not provided; see Doruțiu-Boilă 1990, p. 261; Sarnowski 1997, p. 499.

⁸² ISM V 54; Sarnowski 1997, p. 499.

⁸³ Baumann 1983, p. 117; ISM V 240; Sarnowski 1997, p. 499.



Map 2. Brick stamps of the V Macedonian legion (drawing by M. Strózyk)

- 13. Pliska: LEG V MAC; LEG V MC;⁸⁴
- 14. Troesmis: LEG V MAC; LEG V MC;⁸⁵
- 15. Arrubium: LEG V MAC;⁸⁶
- 16. Dinogetia: LEG V MAC;⁸⁷
- 17. Barboși: LEG V MAC; [LEG] V M;⁸⁸
- 18. Noviodunum: LEG V MAC; LEG V MC;⁸⁹
- 19. Aliobrix: LEG V MAC;⁹⁰
- 20. Histria: LEG V[---];⁹¹
- 21. Callatis.⁹²

b. Discovery sites outside Lower Moesia [Map 2]:

- 22. Ratiaria: LEG V//MAC; LEGVMACVA; LV[---];⁹³
- 23. Slăveni: LVM;⁹⁴
- 24. Buridava: LEGIITAL ET/V MACE;⁹⁵
- 25. Mălăiești: LEGVMAC;⁹⁶

⁸⁴ Antonova, Vitlyanov 1985, p. 60; Sarnowski 1997, p. 499.

⁸⁵ ISM V 215; Chiriac, Bounegru 1973–1975, pp. 97–108.

⁸⁶ ISM V 254; Sarnowski 1997, p. 499.

⁸⁷ ISM V 261; Gudea 2005, p. 454.

⁸⁸ ISM V 305; Sarnowski 1997, p. 500.

⁸⁹ ISM V 284; Doruțiu-Boilă 1990, p. 260; Sarnowski 1997, p. 499.

⁹⁰ Doruțiu-Boilă 1972, p. 54, Fig. 2.7; Aricescu 1980, p. 11; Doruțiu-Boilă 1990, p. 266, Fig. 34a; Sarnowski 1997, p. 499.

⁹¹ Tudor 1980, p. 245; given the preservation of the imprint, the relic may also be interpreted to have been made by legio XI Claudia; Sarnowski 1997, p. 499.

⁹² Aricescu 1977, 33: the author of that text cites oral information that bricks stamped by legio V Macedonica had been discovered at Callatis; similarly T. Sarnowski (Sarnowski 1997, p. 499).

⁹³ Bollini 1980, pp. 102–103; Karadimitrova 2004, p. 110: LEG V//MAC; LEGVMACVA; LV---.

⁹⁴ IDR II 522.

⁹⁵ Brick with a stamp of legions I Italicae and V Macedonica, see Tudor 1966, p. 332; IDR II, 556–559; Sarnowski 1997, p. 499.

⁹⁶ Sarnowski 1997, p. 499; Zahariade, Lichiardopol 2006, p. 122; Gudea 2004, 501: LEGVMAC; Camp abandoned in 118 AD.

26. Drajna de Sus: LEG V MAC;⁹⁷
 27. Poiana?: LEG VM;⁹⁸
 28. Tyras: LEGMAC; LEGM; LEG I IT; LEG V M; LEGXICLETAVXSANTPL>LII;⁹⁹
 29. Olbia?¹⁰⁰
 30. Leuke: [LEG V] M; [LEG] V M[---];¹⁰¹
 31. Chersonesus: LEGMAC V; LEGM ---, VEMI VEX---E---; LEG V MAC; VEX LE V.¹⁰²

Building ceramics which legio V Macedonica manufactured whilst stationed in Lower Moesia (the Dacian period was not considered) are concentrated mainly in Oescus and the Dobrudja area, as well as in the western Black Sea basin.

3. Legio XI Claudia

Stamp impressions on building ceramics have been classified into three different typologies [Tab. 3], all of which include the Late Roman period. Importantly, they also include information on the dating of each type. For a brief period — in late 101 and early 102 AD — that particular unit was stationed at Oescus and, shortly after the end of the Dacian War, it was relocated to Durostorum, where it remained until late antiquity.¹⁰³

Tab. 3. Typologies of stamps of legio XI Claudia

Typology for legio XI Claudia (CULICĂ 1978)	Typology for legio XI Claudia (GUDEA 2005, p. 435)	Typology for legio XI Claudia (MUȘETEANU, ZAHARIADE, ELEFTERESCU 1979)
I. LE XI II. LE XI CL III. LEG XI IV. LEG XI C V. LEG XI C P VI. LEG XI CL VII. LEG XI CL PF VIII. LEG XI FIG KAS IX. LEG XI CL ANT X. LEGIONIS XI [cont. from prev. page]	1. LEXI (reversed) 1a. LEXI; 2. LEXICL (reversed) 2a. LEXICL 3. LEGXI (reversed) 3a. LEGXI 4. LEGXIC (reversed) 4a. LEGXIC 5. LEGXICL (reversed) 5a. LEGXICL 6. LIIGXICLA (reversed) 7. LEGXICLAP (reversed) 8. LEGXICLPF (reversed) 8a. LEGXICLPF 9. LEGXICPF 10. LEGXICLFC 11. LEGIONISXICL (reversed) 12. FIGKAS (reversed)	A. LEG XI C P F B. LEG XI CLPF C. LEG XI CL D. LEGIONIS XI CL E. LEG XI CL/FIG KAS F. LEG XI CL F TRAM G. LEG CL F CAND H. LE XI CL I. LEG XI CLAV J. LEG XI C K. LEG XI L. LE XI

⁹⁷ IDR II, 601; Zahariade, Dvorski 1997, pp. 21, 74.

⁹⁸ Sanie 1981, p. 89: from the collection of the Archeological Museum in Tecuci, with Poiana (Nicorești, Galați County) stated as the site of origin, stamped LEG VM; Sarnowski 1997, p. 499.

⁹⁹ Sarnowski 1987a, p. 71: LEGMAC; LEGM; LEG I IT; LEG V M; LEGXICLETAVXSANTPL> LII.

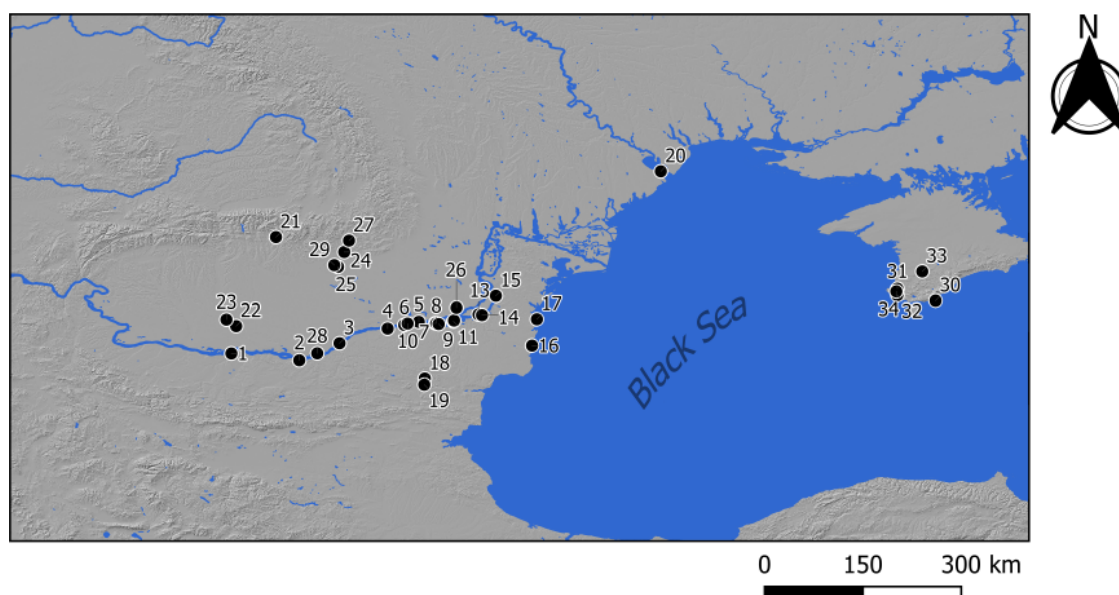
¹⁰⁰ Since Vol. 2 of IOSPE—cited by N. Gudea—proved unobtainable, I draw on the work of the latter author (Gudea

2005, p. 472), where he mentions the discovery of stamps of three Moesian legions in Olbia.

¹⁰¹ Ohotnikov, Ostroverhov 1993, pp. 44–45, Fig. 2–3; Sarnowski 1997, p. 499.

¹⁰² Sarnowski 1987a, p. 71: LEGMAC V; LEGM ---, VEMI VEX---E---; Sarnowski 2005, p. 98: LEG V MAC; VEX LE V.

¹⁰³ Matei-Popescu 2010, pp. 133–140.



Map 3. Brick stamps of the 11th Claudian Legion (drawing by M. Strózyk)

a. Discovery sites in Lower Moesia [Map 3]:

1. Oescus: LEG XI CPF;¹⁰⁴
2. Novae: LEG XI CPF;¹⁰⁵
3. Sexaginta Prista: LEGPF?; LEGXIPF; LEG XI; [L]EGIONIS XI CL; LEG XI CL F C; LEG XI C P F; LEG XI CL P F;¹⁰⁶
4. Transmarisca: LEGXICPF; LEGXICLPF; LEG XI; LEGIONIS XI CL;¹⁰⁷
5. Tegulicium: LEG XI CL PF;¹⁰⁸
6. Candidiana: LEGXICLFC;¹⁰⁹
7. Durostorum;¹¹⁰
8. Silistra, Bogdan Voyvoda st., Seres st. and the Yavorov site: LEGXICLAL; LEGIONISXICP; LEGXICL; LEGXICPF; LEGXICLPF;¹¹¹
9. Ostrov: LEG XI CPF; LEG XI CL PF; LEG XI CL; LEGIONIS XI CL; LEG XI CL/FIG KAS; LE XI CL; LEG XI CL ANT; LEG XI C; LEG XI; LE XI;¹¹²
10. Garvăn: LEGXIFTRM;¹¹³
11. Cimbrianis (Gura Canliei): LEG XI CL; LEG XI CL PF;¹¹⁴

¹⁰⁴ Mușeteanu, Zahariade, Elefterescu 1980, p. 86; Ivanov 2002, p. 22.

¹⁰⁵ Mușeteanu, Zahariade, Elefterescu 1980, p. 86; Sarnowski 1987, p. 107–122; Duch 2019, pp. 7–19.

¹⁰⁶ Škorpil 1914, p. 55: saw a roof tile legio XI Claudia, but may have recorded it incorrectly: (LEGPF?); Torbatov 2012, p. 193; Mușeteanu, Zahariade, Elefterescu 1980, pp. 86, 89, 96, 105.

¹⁰⁷ Škorpil 1905, p. 458; CIL III 12526: (leg XI) CL F TRM.; after Škorpil, Gudea 2005, p. 431, erroneously stated it was LEGXICLPF; the correct version is CLFTRM; Mușeteanu, Zahariade, Elefterescu 1980, p. 97.

¹⁰⁸ Mușeteanu, Zahariade, Elefterescu 1979, p. 167; Sarnowski 1997, p. 499; Mușeteanu, Zahariade, Elefterescu 1980, p. 97: LEGXICLFTRAM.

¹⁰⁹ CIL III 1257; Kalinka 457: LEGXICLFC.

¹¹⁰ Mușeteanu, Zahariade, Elefterescu 1980, p. 88–93; Ivanov 2002, pp. 125–148; see Tab. 2 in this paper.

¹¹¹ Ivanov 2002, p. 145.

¹¹² Culică 1970, pp. 365–376; Mușeteanu, Zahariade, Elefterescu 1979, p. 164; Sarnowski 1997, p. 499.

¹¹³ Škorpil 1905, p. 449.

¹¹⁴ Mușeteanu, Zahariade, Elefterescu 1980, p. 93; Irimia 1981, pp. 54, 83, 101, 111; Sarnowski 1997, p. 499. Most likely, these are remnants from a fort of the auxiliary Cimbrianis, see Gudea 2005, p. 440; Irimia 2002–2003, p. 111.

12. Sucidava: [---]XI PONT;¹¹⁵
13. Sacidava: [---]GXICL;¹¹⁶
14. Flaviana (Rosova)?¹¹⁷
15. Capidava: LEG X[ICL];¹¹⁸
16. Callatis:?¹¹⁹
17. Tomis?¹²⁰
18. Pliska: [LEG] XI C: PF; LEG XI CL; LEGIONIS XI [CL];¹²¹
19. Madara: LEG XI CPF.¹²²

b. outside Lower Moesia [Map 3]:

20. Tyras: LEG I IT; LEG V M; LEGXICLEAVXSANTPL > LII;¹²³
21. Voinești-Muscel (Lerești): LEG XI C[PF] ;¹²⁴
22. Slăveni: LEG XI [---];¹²⁵
23. Romula: LEG XI CL; [LEG] XI CL PF;¹²⁶
24. Mălăiești?¹²⁷
25. Târgșoru Vechi: LEG XI CPF;¹²⁸
26. Cuza Voda (Călărași);¹²⁹
27. Drajna de Sus: LEG XI CPF; LEG XI CL;¹³⁰
28. Pietroasele: [LEG] XI CPF;¹³¹
29. Tirgșor: LEG XI CPF;¹³²
30. Charax: LEG XI CL; LE XI CL;¹³³
31. Chersonesus: LEXICL: VEX LE XI;¹³⁴
32. Balaklava-Kadykovka: LEG XI CL;¹³⁵
33. Alma-Kermen: LE XI CL;¹³⁶
35. Hügel Kazackaja: LEG XI CL.¹³⁷

¹¹⁵ Irmia 1985, pp. 141–156.

¹¹⁶ Scorpan 1980, p. 795, Pl. 52.6.2-3: GXICL.

¹¹⁷ Doruțiu-Boilă 1990, p. 261; Sarnowski 1997, p. 499; the authors refer only to the discovery of bricks in Rasova; no drawings or content of the impressions are provided.

¹¹⁸ ISM V 53; Sarnowski 1997, p. 499.

¹¹⁹ Rădulescu 1974, p. 127; Aricescu 1980, p. 14. Both publications go no further than mentioning the discovery of a brick of that legion in Callatis.

¹²⁰ Rădulescu 1974, p. 127: merely information about finding stamped ceramics of legio XI Claudia; the content of the imprint is not stated.

¹²¹ Antonova, Vitlyanov 1985, p. 60; Sarnowski 1997, p. 499.

¹²² Dečev 1936, p. 19, no. 11; Mușeteanu, Zahariade, Elefterescu 1980, p. 88; Sarnowski 1997, p. 499.

¹²³ Sarnowski 1987, p. 69.

¹²⁴ Mușeteanu, Zahariade, Elefterescu 1980, p. 93; Bădescu 1981, p. 291; Sarnowski 1997, p. 499.

¹²⁵ IDR II 523; Sarnowski 1997, p. 499.

¹²⁶ IDR II 381-382; Sarnowski 1997, p. 499; Gudea 2005, p. 494: LEG XI CL; LEG XI CLPF.

¹²⁷ The discovery of stamped brick of legio XI Claudia in that location is referred to only in Gudea 2005, p. 501.

The most recent studies make no mention to that effect, see Zahariade, Lichiardopol 2006, pp. 122, 128; Sarnowski 1997, p. 499, suggested LEG XI CPF with a question mark.

¹²⁸ IDR II 606; Mușeteanu, Zahariade, Elefterescu 1980, p. 87; Gudea 2005, 502; Zahariade, Lichiardopol 2006, p. 123.

¹²⁹ Rădulescu 1974, p. 127: merely information about finding stamped ceramics of legio XI Claudia; the content of the stamp is not stated.

¹³⁰ IDR II, 602; Mușeteanu, Zahariade, Elefterescu 1980, p. 93; Sarnowski 1997, p. 499; Zahariade, Dvorski 1997, p. 102.

¹³¹ IDR II, 605–606; Mușeteanu, Zahariade, Elefterescu 1980, p. 88; Zahariade, Lichiardopol 2006, p. 123; Stăicuț 2011, pp. 53, 56.

¹³² IDR II 606; Sarnowski 1997, p. 499.

¹³³ Sarnowski 1987, p. 71; Klenina 2015, p. 363.

¹³⁴ Sarnowski 1987, p. 71; Sarnowski 2005, p. 96; Klenina 2015, p. 363.

¹³⁵ Sarnowski 2005, p. 94.

¹³⁶ Sarnowski 2005, p. 94; Klenina 2015, p. 363.

¹³⁷ Sarnowski 2005, p. 94; Klenina 2015, p. 363.

Stamped bricks and roof tiles of the auxiliary troops

The surviving relics include bricks stamped by soldiers from nine auxiliary cohorts, two cavalry units (*alae*) and *Classis Flavia Moesica*. Compared with the output of the legions, the tegular material produced by the auxiliary troops is much more modest in terms of quantity. This should be attributed to the greater mobility of such troops, their smaller complement and, consequently, less architecturally elaborate bases. A proportion of the Lower Moesian auxiliaries would be deployed outside Lower Moesia, as evidenced by the discovery of bricks and tiles on the western Black Sea coast, for instance.

1. Cohorts

a. Cohors I Bracarorum civium Romanorum

Discovery sites [Map 4]:

1. Trimammium: CORTISIBRA, CIB and COH I BR;¹³⁸
2. Cășei: CIB;
3. Slăveni: CIB.¹³⁹

Sergei Torbatov has categorized the stamps of this cohort (featuring the text “CORTISIBRA”) into five groups, the last of which is indicated as doubtful, as it includes items where the markings are indistinct (worn down or damaged).¹⁴⁰ Building ceramics with such impressions are dated to the third century AD.¹⁴¹ Further stamps of that cohort are CIB, which in Trimammium constitute one type divided into six variants that differ graphically (*planta caligaris*) and palaeographically (letter size and border).¹⁴² Bricks stamped with COH I BR and COH BRAC have been discovered at Angustia (Brețcu)¹⁴³ and although they are attributed to cohorts I Bracaraugustanorum, they may also denote cohorts I Bracarorum.

b. Cohors III

Discovery site [Map 4]:

4. Tegra (Marten): COHIII...

The unit is known from a single stamp impression on a brick from Tegra (Marten).¹⁴⁴ A detachment of legio I Italica was also stationed here in the second and third century, which may be inferred from stamped building ceramics.

c. Cohors I Claudia Sugambrorum (Sugambrum) veterana equitata

Discovery sites [Map 4]:

5. Montana: COHISVGVE;¹⁴⁵
6. Sucidava: COCVS.¹⁴⁶

¹³⁸ Torbatov 2011, p. 84

¹³⁹ Torbatov 2011, 93, Fig. 12; also according to Coriolan Opreanu stamps reading CIB north of the Danube should be attributed to cohorts I Bracarorum. cf. Opreanu 2011, pp. 145–159; IDR II, 527, 563; Tudor 1965, p. 356.

¹⁴⁰ Torbatov 2011, p. 84.

¹⁴¹ Torbatov 2011, p. 97.

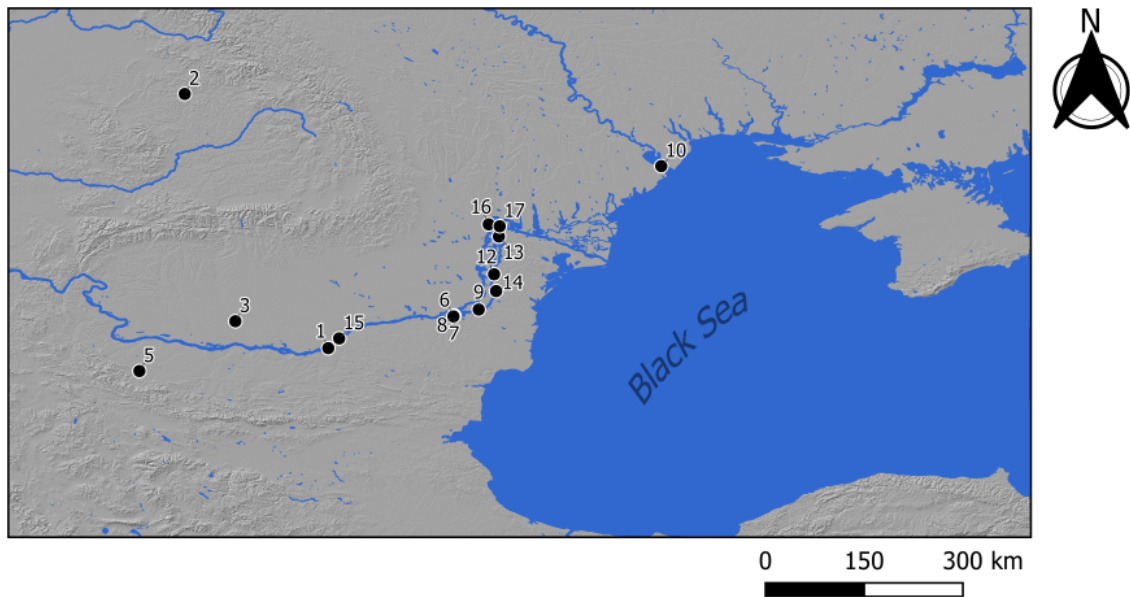
¹⁴² Torbatov 2011, pp. 92–93.

¹⁴³ IDR III, 4, 336–337; Gudea 2005, p. 499; cohorts I Bracorum is another possible alternative.

¹⁴⁴ CIL III 2107;

¹⁴⁵ Karadimitrova, 2004, p. 16.

¹⁴⁶ Scorpan 1976, p. 125: reads it as CO(hors I) C(laudia) V(eterana) S(ugambrorum) or S(ygambrorum).



Map 4. Brick stamps of cohortes (drawing by M. Stróżyk)

This cohort appeared in Moesia very early, namely already after 26 AD.¹⁴⁷ Its presence in Lower Moesia has been repeatedly attested.¹⁴⁸ Stamped building ceramics with the impression COHISVGVE has been discovered in Montana¹⁴⁹ and artefacts marked with COCVS in Sucidava.¹⁵⁰ It is noted, however, that the differences between the imprints from Montana and Sucidava are substantial enough to surmise that COCVS might not an acronym signifying that unit.¹⁵¹

d. Cohors II Chalcidenorum sagittariorum

Discovery sites [Map 4]:

7. Sucidava: OHIIC;¹⁵²

8. Gura Canliei (Cimbrianae or Cimbriana?): IIC;¹⁵³ COHIIC.¹⁵⁴

This cohort is known from stamp impressions discovered at the forts at Sucidava and Gura Canliei (Cimbrianae or Cimbriana?). The long-term presence of that cohort in Lower Moesia is also corroborated by numerous military diplomas (dated to 92, 97, 99, 119–120, 127, 145–146 AD).¹⁵⁵ It must be noted that stamps reading OHIIC, IIC and COHIIC may equally well be identified with cohort II Gallorum rather than cohort II Chalcidenorum sagittarium.¹⁵⁶

¹⁴⁷ Matei-Popescu 2010, p. 228.

¹⁴⁸ See Matei-Popescu 2010, pp. 229–230 and the literature cited there.

¹⁴⁹ Karadimitrova, 2004, p. 106.

¹⁵⁰ Scorpan 1976, p. 125: read as CO(hors I) C(laudia) V(eterana) S(ugambrorum) or S(ygambrorum), this is a military unit whose name is also mentioned in other documents originating from the sites on the Danube. The cohort is known to have been stationed in Lower Moesia from 26–27 AD to 86 AD.

¹⁵¹ Matei-Popescu 2010, p. 230.

¹⁵² Irimia 1988-1989, p. 113.

¹⁵³ Irimia 1988-1989, p. 114.

¹⁵⁴ Irimia 2002-2003, pp. 161–176.

¹⁵⁵ Matei-Popescu 2010, p. 199.

¹⁵⁶ Matei-Popescu 2010, p. 200.

e. Cohors I Cilicum (cohors I Cilicum milliaria equitata sagittariorum)

Discovery sites [Map 4]:

9. Sacidava: [COH] I CIL (negative);¹⁵⁷

10. Tyras: ICIC (reversed);¹⁵⁸

11. Dinogetia: CIC.¹⁵⁹

This detachment is another one of the units which arrived in Moesia at an early stage; it is assumed to have occurred as early as the reign of Augustus.¹⁶⁰ The cohort is mentioned on military diplomas from 75,¹⁶¹ 134,¹⁶² 145,¹⁶³ 146¹⁶⁴ and 157 AD.¹⁶⁵ Its presence is also attested in epigraphic evidence practically until the mid-third century.¹⁶⁶ Despite such a long history of being stationed on the Lower Danube, the unit did not leave that many varied stamp impressions on bricks and tiles. The inscriptions they feature are limited to [COH] I CIL (negative), at Sacidava (ICIC, reversed), as well as at Chersonesus Taurica, Tyras and CIC at Dinogetia and Tyras.¹⁶⁷ According to Emilia Doruțiu-Boilă,¹⁶⁸ CIC may have been the initial of the first name of a centurion of legio I Italica vexillatio at Tyras, and as such had no connection with the cohort in question. However, this is hardly a convincing proposition.

f. Cohors I Lusitanorum Cyrenaica

Discovery site [Map 4]:

12. Cius: stamp content unavailable.

Information concerning a brick stamped by that cohort may only be found in one publication.¹⁶⁹ The unit was stationed in Moesia in the second and third century. Based on two epigraphic relics, it is presumed that it was garrisoned in Cius.¹⁷⁰

g. Cohors I Ubiorum equitata

Discovery sites [Map 4]:

13. Arrubium: CIVID or CIVLB/R/D;¹⁷¹

14. Capidava: COH VBIOR.¹⁷²

This may have been cohors I Ubiorum, which stayed in Lower Moesia until Trajan's Dacian War. Its base was Capidava, as evidenced by the discovery of a brick stamped COH VBIOR. It was subsequently deployed to Dacia, which in turn is attested by brick stamps reading CIVB from Odorheiu Secuiesc.¹⁷³ In Arrubium, the unit stayed as a building detachment (Bauvexillation).¹⁷⁴

¹⁵⁷ Scorpan 1973, p. 312; Scorpan 1974, p. 118; Bérard 1989, p. 131.

¹⁵⁸ Gudea 2005, p. 478; Doruțiu-Boilă 1990, pp. 268–270.

¹⁵⁹ ISM V 264; Doruțiu-Boilă 1990, p. 267.

¹⁶⁰ Popescu 2010, p. 201 and the (note 1715).

¹⁶¹ Eck, Pangerl 2009, pp. 506–509, no. 1.

¹⁶² CIL XVI 78.

¹⁶³ RMD III 165; RMD V 399.

¹⁶⁴ RMD IV 270.

¹⁶⁵ RMD 50.

¹⁶⁶ Matei-Popescu 2010, p. 203.

¹⁶⁷ Doruțiu-Boilă 1990, p. 267.

¹⁶⁸ Doruțiu-Boilă 1990, pp. 268–270.

¹⁶⁹ Gudea 2005, p. 451.

¹⁷⁰ Matei-Popescu 2010, p. 221.

¹⁷¹ Zahariade, Mușeteanu, Chiriac 1981, p. 256, no. 3; Gudea 2005, p. 453.

¹⁷² Opreș 1997, pp. 277–281.

¹⁷³ Matei-Popescu 2010, p. 236.

¹⁷⁴ Matei-Popescu 2010, p. 236.

h. Cohors II Mattiacorum milliaria equitata

Discovery sites [Map 4]:

15. Sexaginta Prista: COHIIM; COHIIMATT;¹⁷⁵

16. Barboși: COHIIMATT;¹⁷⁶

17. Dinogetia: COHIIMATT.¹⁷⁷

COHIIM is the sole known variant of the stamp matrix used by that cohort. As Sregiey Torbatov observes, it has become an established notion — shared by most researchers who have cited that artefact — that it originated from Sexaginta Prista (Ruse). Indeed, it was deposited at a men's secondary school there,¹⁷⁸ but on these grounds alone one cannot be certain that the artefact definitely had come from Ruse. This cohort was fairly mobile, but operated primarily in the Danubian regions, i.e. in Lower Moesia, as well as in Thrace and Dacia.¹⁷⁹

i. Cohors II Flavia Brittonum equitata

Discovery site [Map 4]:

18. Aegyssus: CHIIFBR.¹⁸⁰

This cohort was stationed in Lower Moesia almost throughout its existence (until the administrative reorganization of Lower Moesia in the third century). The stamped bricks at Aegyssus are traces of the presence of a vexillatio of that unit.¹⁸¹ It was stationed at Durostorum until the arrival of legio XI Claudia, and at Sexaginta Prista.¹⁸²

2. Alae

a. Ala Flavia Gallorum

Discovery site [Map 5]:

1. Carsium: AL FL.¹⁸³

Mihai Zahariade, Crișan Mușeteanu and Costel Chiriac maintain that the building ceramics marked with AL FL stamp discovered at Carsium was produced by Ala Flavia Gallorum.¹⁸⁴ Even so, the stamps may also be attributed to ala I Flavia Gaetulorum, which was stationed in Moesia.

b. Ala I Pannoniorum

Discovery site [Map 5]:

2. Troesmis: ALAE I PAN.¹⁸⁵

In the sources from Lower Moesia, presence of the ala in that province is attested on a diploma dating from 92 AD. Then, immediately after the Dacian wars, a diploma from 114 AD shows it to have been in Dacia. Afterwards, it disappears from the pages of history.¹⁸⁶

¹⁷⁵ Torbatov 2012, p. 172.

¹⁷⁶ ISM V 306.

¹⁷⁷ ISM V 260; Barnea 1974, p. 116.

¹⁷⁸ Torbatov 2012, p. 172.

¹⁷⁹ Matei-Popescu 2010, p. 223.

¹⁸⁰ Opait 1981, pp. 297–298.

¹⁸¹ Matei-Popescu 2010, p. 199.

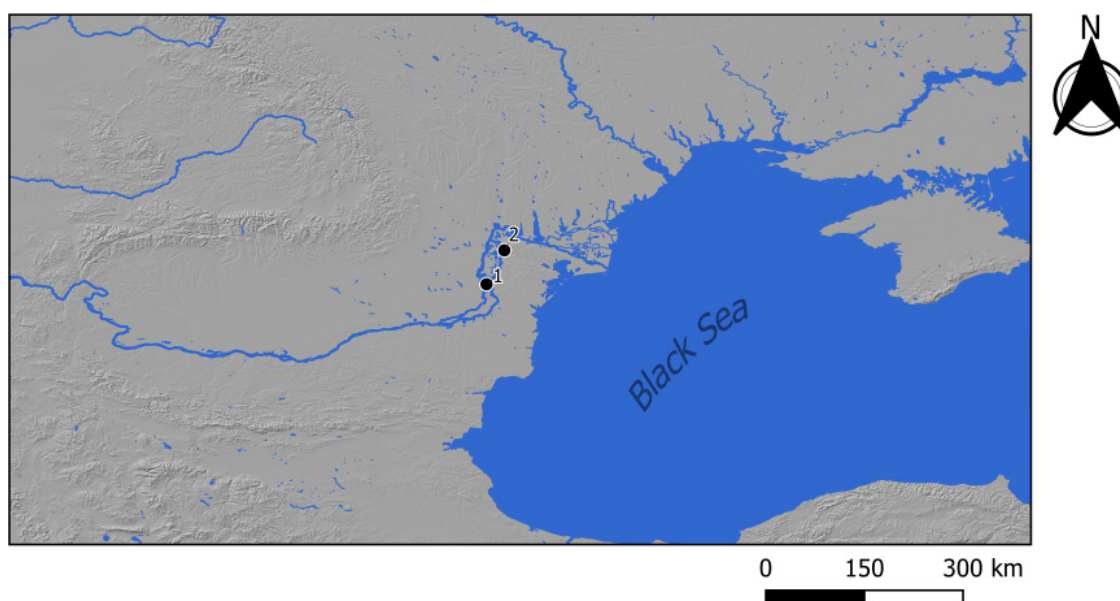
¹⁸² Matei-Popescu 2010, p. 199.

¹⁸³ Zahariade, Mușeteanu, Chiriac 1981, pp. 255–261; Chiriac, Nicolae, Talmațchi 1998, p. 140.

¹⁸⁴ Chiriac, Nicolae, Talmațchi 1998, pp. 145–149; a similar interpretation is adopted by Gudea 2005, p. 449.

¹⁸⁵ ISM V 214; Gudea 2005, p. 452.

¹⁸⁶ Țentea, Matei-Popescu 2002–2003, p. 269; Matei-Popescu 2010, pp. 191–192.



Map 5. Brick stamps of alae (drawing by M. Stróżyk)

3. Classis Flavia Moesica

Discovery sites [Map 6]:

1. Noviadunum: CLASSIS FM, CLASFM, CLFLM, CLFLMY, CLFLW, CLFM;
2. Aliobrix: CLASFM;
3. Dinogetia: CLASSIS FM;
4. Barboși (Tirighina): CLFLAM?
5. Troesmis: CLASSIS FM;
6. Carsium: CLASSIS FM, CLASFM?
7. Rasova: CLASFM;
8. Durostorum: CLFLM?¹⁸⁷
9. Horia: CLASSIS FM, CL FLM;¹⁸⁸
10. Leuke: CLA...¹⁸⁹

Next to the Moesian legions, Classis Flavia Moesica was the most active military unit to manufacture and distribute building ceramics. The material proved sufficiently abundant to have its own typology of brick stamp impressions. Seven following types have been distinguished:

- I: CLASSIS FM
- II: CLASFM
- III: CLFLM
- IV: CLFLMY
- V: CLFLW
- VI: CLFM
- VII: CLFLAM

¹⁸⁷ All above mentioned discovery sites: after Opreș 2020, p. 397.

¹⁸⁹ Ohotnikov, Ostroverhov, 1993, pp. 44–45, Fig. 1, 4.

¹⁸⁸ Baumann 1983, p. 117.

It may be worthwhile to note that bricks made by *Classis Flavia Moesica* have been discovered at a villa at Horia and in the ruins of the temple of Achilles at Leuke (Type I or Type II).

Analysis of the discovery sites and conclusions

In general, the discovery sites of military bricks and tiles can be divided into four categories:

- a) military areas;
- b) semi-militarized areas (*canabae*, *vici* in the vicinity of fortresses);
- c) towns;
- d) *villae rusticae*.

Unsurprisingly, the military-stamped bricks and roof tiles may have made their way — most likely unofficially — into the settlements adjacent to the military strongholds. In *Novae*, the material from the dismantled military hospital was successfully reused for the construction of civilian buildings (as legionary camp transformed into fortified town). Conversely, the fact that bricks and roof tiles with a military stamp are discovered in towns is much more surprising. However, one should approach such finds with caution and bear in mind that military units were also stationed in the cities. Secondly, many of such bricks may have ended up there by accident (e.g. bricks were often used as ballast on ships). This is certainly how certain discoveries (e.g. *Histria*, *Tomis* and *Callatis*) of bricks made by the Lower Moesian legions may be interpreted.¹⁹⁰ As for *Oescus*, the long-standing and fairly popular conjecture is that building ceramics were supplied by *legio XI Claudia* and *legio I Italica* to meet the construction needs of the newly established colony. That particular case requires separate studies, consisting in detailed comparison of the material from *Oescus* with the latest chronological findings from *Novae*. However, even at this point it may be claimed that roof tiles with the wording *LEG I ITALI* with the characteristic apostrophe above the letter *G* were produced in the late Flavian¹⁹¹ and early Trajanic periods.¹⁹² This means that the tiles in question had been manufactured before the colony was established, therefore they could not have been supplied for architectural purposes, but were re-used.

The four fragments of building ceramics discovered at *Ratiaria* tend to be associated with *legio V Macedonica*. Still, none were discovered *in situ*, as they originate from structures in which they were used secondarily or represented surface relics.¹⁹³

Investigations in *Bogdan Voyvoda Street* in *Silistra* revealed a bathhouse ruins of which contained bricks belonging to the three Moesian legions (*I Italica*, *XI Claudia* and *V Macedonica*). The fact that bricks contain name “*Rumoridus*” (*dux Moesia Secunda*) from IV century were discovered in the last structural phase of the bathhouse demonstrates that it was intended for the soldiers stationed in *Durostorum*.¹⁹⁴

A brick with the *LEGIITAL* stamp, discovered in the village of *Obnova* is an interesting find.¹⁹⁵ Besides *Pliska*, *Madara* or *Butovo*, this is one of the few locations in the interior of the province where legionary building ceramics has been recorded. Given the discovery of two inscriptions there: one belonging to a centurion¹⁹⁶ and the other mentioning a soldier in the rank of *regionarius* (*centurio regionarius?*)¹⁹⁷, as well as further inscriptions relating to the army, it

¹⁹⁰ As T. Sarnowski as previously observed (Sarnowski 1997, p. 497), nothing is known about the context of discoveries in *Histria*, *Tomis* and *Callatis*.

¹⁹¹ Duch 2012, pp. 259-282.

¹⁹² Sarnowski 2018, p. 61.

¹⁹³ Bollini 1980, pp. 102–104.

¹⁹⁴ Ivanov 2002, p. 145.

¹⁹⁵ According to T. Sarnowski (Sarnowski 1997, p. 497), it is uncertain whether the brick stamped by *legio I Italica* was indeed found in that very location. I would argue otherwise; see text above.

¹⁹⁶ *ILatBulg* 241.

¹⁹⁷ *ILatBulg* 243.

may be surmised that a post of *centurio regionarius*¹⁹⁸ or *beneficiarius consularis* existed there. Perhaps bricks of the *legio I Italica* were dispatched there for its construction? Another interesting artefact from the interior is a brick from Butovo with a stamp reading *LEG I ITAL*, which should also be associated with a *beneficiarii* post west of Pavlikeni.¹⁹⁹ However, those are isolated finds. The largest quantity of building ceramics in the interior was discovered in Pliska, where it was repurposed for the construction of medieval fortifications. For example, a substantial number of bricks bearing the stamps of *legio I Italica*, *V Macedonica* and *XI Claudia* were found during archaeological investigations at the southern gate in Pliska. Regrettably, the author of the archaeological report did not specify their quantity. Meanwhile, only few bricks were discovered in the western wall of the same medieval fortress, as published in the excavation report for 1973–1975 (*legio I Italica* – 1 specimen; *legio XI Claudia* – 2 specimens; *legio V Macedonica* – 1 specimen).²⁰⁰ The report covering the years 1973–1977 states the discovery of bricks of *legio XI Claudia* and *LMOES*.²⁰¹ The latter were discovered together with bricks marked by local manufacturers, such as *Dules* (*ΔVLES*) *Dionisis* (*ΔIONISIS*), *Anicetus* (*ANICETVS*), *Mercuris* (*MERCVRIS*), *Annia* (*ANNIA*), *Rimorio* (*RIMORIO*). Bricks stamped with *LEGXICL*, whose shape resembled *tabula ansata*, were also discovered in the south-east wall.²⁰² The author of the archaeological report concerned with the south gate incorrectly classifies *LVMOES* as a civilian product, since this is a *legio V Macedonica* brick as well.²⁰³ It is also doubtful whether the stamp impression *RIMORIO* has been read correctly, as in all likelihood this was actually *RVMORID*.²⁰⁴ This means military manufacture, because bricks marked in this fashion contained the name of *Rumoridus* (*dux Moesia Secunda*).²⁰⁵ Bricks of the kind were widespread especially along the Danube, but also inside the province.²⁰⁶ As regards the aforementioned bricks made by private producers, they are commonly discovered in Madara, Pliska, in the village of Voyvoda and Radko Dimitriev in the Shumen region²⁰⁷ or in Kovachevsko kale.²⁰⁸ Based on archaeological excavations at the latter site, those bricks are dated between 308 and 375 (i.e. between the reigns of *Licinius I* and *Constantine I the Great* and the end of *Valentinian rule*). Thus, everything points to the conclusion that the bricks and tiles produced by the three Moesian legions were secondarily used in various architectural features erected later. According to the researchers involved with Pliska, Roman military bricks originated from a late antique town in the present-day village of *Vojvoda*²⁰⁹, where a military fortress — also built in late antiquity — would become the source from which the material was probably taken.²¹⁰

Near the village of Madara, several bricks marked with *LEGXICPF* were discovered in a Roman villa²¹¹, while several brick fragments with the stamp reading *LEGXICLTRM* were found in one of the caves where the shrine of a nymph had been located.²¹² The area around Madara is highly fertile, which is why numerous estates were established there, including imperial demesnes: an important link in the supply chain for the army stationed along the Danube.²¹³ It is therefore possible that the army sent their building ceramics there. Nevertheless, isolated

¹⁹⁸ Gerasimova-Tomova 1986, pp. 22–32; Tomas 2016, p. 40.

¹⁹⁹ Tomas 2016, p. 40.

²⁰⁰ Antonova, Vitlyanov 1985, p. 60.

²⁰¹ Doncheva-Petkova 1985, p. 104.

²⁰² Balabanov 1985, pp. 117–131.

²⁰³ Milchev 1985, pp. 16–43.

²⁰⁴ Milchev 1985: regrettably, no photographs or drawings were appended by the author.

²⁰⁵ On the *Rumoridus* bricks see Sarnowski 2007, pp. 25–29.

²⁰⁶ Torbatov 2012, p. 166, cf. T. Sarnowski, “Die *legio I Italica* und der untere Donauabschnitt der *Notitia Dignitatum*“, *Germania* 63, 1985, pp. 107–127.

²⁰⁷ See also Morfova 1971, pp. 25–33; Karadimitrova 2004, p. 121.

²⁰⁸ Škorpil 1914, p. 17.

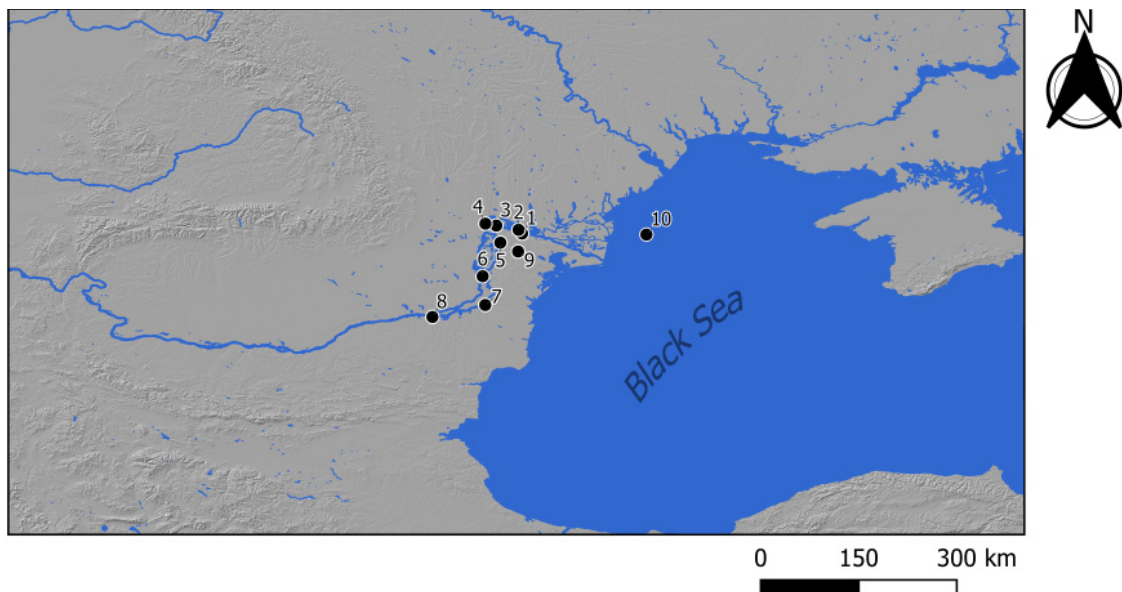
²⁰⁹ Vasilev 1979, p. 106.

²¹⁰ Mitchev, Damianov 1972, pp. 263–277.

²¹¹ Dečev 1936, p. 19, no. 11; Velko 1960, pp. 265–271.

²¹² Dečev 1936, p. 19, no. 12.

²¹³ Sarnowski 1997, p. 497.



Map 6. Brick stamps of Lower Moesian Fleet (drawing by M. Stróżyk)

finds do not warrant accepting such a surmise without reservations. Another interesting site of discoveries of military bricks is Horia; presence of such artefacts there should be attributed to the fact that the villa functioned as a spa which the legionaries frequented.²¹⁴

Sites where a considerable proportion of discoveries has been made are semi-military, having been inhabited by veterans or persons affiliated with the military through business. These are mainly *canabae*, which adjoined legionary camps (*castra*), as well as *vici*, which grew over time into *municipia* such as Ostrov (*municipium Durostorum*) or Ostrite Mogili (*municipium Novae*). Such sites were also to be found at some distance away, but still close to legionary strongholds, e.g. Baykal near Oescus, or Carevec and Pendikuryak (vernacular name of a locality near the village of Karamanovo) near Novae.

As far as the distribution range of building ceramics is concerned, *legio I Italica* appears to have been the most active in that respect. This is due to the fact that its *vexillationes* operated extensively across the Dobrudja area after *legio V Macedonica* had left Troesmis.²¹⁵ *Legio V Macedonica* stayed in Lower Moesia the shortest, therefore the distribution map of that unit is the most modest. Undoubtedly, intriguing finds include bricks of *legio V Macedonica* and *Classis Flavia Moesica* at Leuke where, as previously noted, a temple of Achilles existed. Nevertheless, the island was certainly strategically important in antiquity — as it is today — hence the presence of bricks of both units. *Legio XI Claudia* was very active in the Black Sea regions, notably in Crimea [Map 3].

No convincing evidence has been found to demonstrate that military building ceramics was supplied to strictly civilian locations in Lower Moesia, though there is no shortage of such relics in semi-military settlements in the proximity of military camps. The stamped bricks and roof tiles made by the Lower Moesian army, which have been discovered north of the Danube and in the southern Carpathians at military facilities operating until 117, are associated with Trajan's conquest of Dacia.²¹⁶

²¹⁴ Sarnowski 1997, p. 497.

²¹⁵ Sarnowski 1997, p. 497.

²¹⁶ Sarnowski 1997, p. 497.

Coming across bricks and tiles of a particular military unit at a given location does not immediately imply that the manufacturer of those artefacts was stationed in that place. The material may have been transported there for specific military installations. The logistics of production and subsequent distribution of the army-made bricks and tiles in the Lower Danube area was a highly complex phenomenon, which necessitates further in-depth studies.

Abbreviations

<i>AOR</i>	<i>Arheologiĉeski otkritiâ i razkopki, XXIII Naciunalna Arheologiĉeska Konferenciâ, Blagoevgrad, 9–12 maj 1988</i> , Sofia 1989.
<i>CIL</i>	<i>Corpus Inscriptionum Latinarum</i> , ed. TH. MOMMSEN <i>et alii</i> , Berlin 1863–.
<i>IDR</i>	<i>Inscripĉiile Daciei Romane I. Diplomele militare Ńi tâbliĉele cerate</i> [Inscriptions of Roman Dacia I. Military diplomas and wax tablets], ed. I. I. RUSSU <i>et alii</i> , BucureŃti 1975.
<i>ILatBulg</i>	<i>Inscriptiones Latinae in Bulgaria repertae</i> , ed. B. GEROV, Sofia 1989.
<i>ISM</i>	<i>Inscripĉiile din Scythia Minor greceŃti Ńi latine</i> [= <i>Inscriptiones Scythiae Minoris</i>], ed. E. DORUŃIU-BOILĂ, BucureŃti 1983.
KALINKA	<i>Antike Denkmäler in Bulgarien, bearbeitet von E. Kalinka</i> , Schriften der Balkankommission, Antiquarische Abteilung, Wien 1906.
<i>SCIVA</i>	Studii Ńi Cercetări de Istorie Veche Ńi Arheologie [Ancient History and Archeology Studies and Research], BucureŃti 1975.

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BALABANOV 1985	T. BALABANOV, “Razkopki na severnata i iztoĉnata krepotna stena v Pliska (1977–1987)” [Excavations of the northern and eastern walls of the fortress in Pliska], <i>Pliska – Preslav IV</i> , Sofia, pp. 117–131.
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