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LEGIO I MINERVIA AND LEGIO XI CLAUDIA STAMPS ON BUILDING CERAMICS FROM SECTOR XII AT NOVAE — A CONTRIBUTION TO STUDIES OF MILITARY BUILDING MATERIAL PRODUCTION CENTRES

Abstract: The paper analyses 29 specimens of stamps of *legio I Minervia* and *legio XI Claudia*, discovered in Sector XII at Novae. Based on the artefacts, the author revisits the theses concerning so-called production centres of building ceramics. Furthermore, the author suggests a reinterpreted reading of TRA'EX and supplements the typology of such relics from Novae.

Keywords: Novae, Moesia, *legio I Italica*, *legio I Minervia*, *legio XI Claudia*, bricks, roof tiles, stamps, building ceramics, military production centres

The year 2011 saw the launch of archaeological research in Sector XII at Novae (Bulgaria).¹ The sector in question is located south of the *via principalis* and east of the *principia* [Fig. 1]. Features determined in that location with the greatest degree of certainty include the tabernae, barracks of *legio VIII Augusta* and *legio I Italica*, a “centurion’s house” and late-antique civilian buildings constructed on the site of the latter.²

Since the beginning of excavations, Sector XII has yielded numerous valuable finds. Stamped bricks and roof tiles stand out among them in terms of quantity, with a total of 903 items (more than in other currently studied sectors at Novae). This is due to the fact that excavations revealed several large ceramic conduits, as well as pools, latrines, bath interiors, cisterns and ceramic walkways. A decided majority of the 903 artefacts bear the imprint of a stamp of *legio I Italica*, with its brief inscription reading: LEG I ITAL. However, stamps of other legions, such as *XI Claudia* and *I Minervia*, are by no means lacking. Consequently, this paper discusses structural ceramics from Sector XII stamped by these two units. There are 29 such finds, 17 of which came from the brickyard of *legio I Minervia*, while 12 were made by *legio XI Claudia*.

State of research

Roof tiles and bricks marked by *legio I Minervia* and *legio XI Claudia* began to be discovered at Novae in more substantial numbers in the 1980s, when archaeologists working in Sector IV embarked on the exploration of the ruins of the legionary hospital. Being different from artefacts

¹ The project has been financed with resources provided by the National Science Center, Poland, allotted on the basis of decisions: DEC-2015/19/B/HS3/00547.

² DYCZEK 2016, pp. 405–406; 2018a, p. 195; 2018b, pp. 530–536.

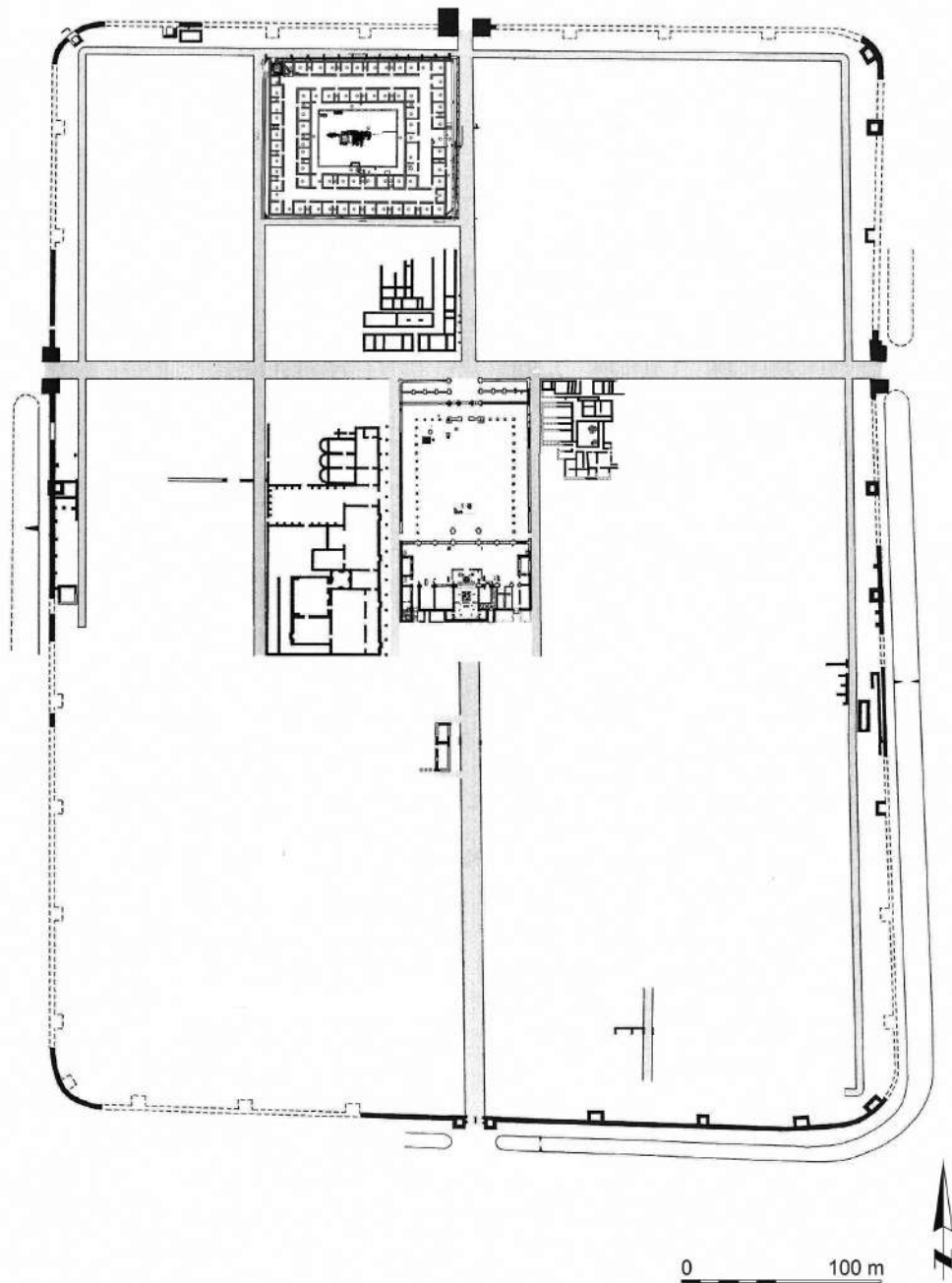


Fig. 1. Plan of Novae. Sector XII (barracks of the I cohort) (after Dyczek 2018b)

stamped by *legio I Italica*, the finds drew attention of Tadeusz Sarnowski, who included those originating from *legio XI Claudia* in an article about the typology of stamps on roof tiles and bricks from Novae. Later on, he discussed them in a separate, extensive paper, in which he additionally classified two types of stamps of *legio I Minervia*, which had not been taken into consideration in the 1983 typology. The roof tiles marked LEG I M PF, which he examined in 1987, originated chiefly from the structure of the latrine and the legionary hospital, where LEG XI CPF roof tiles were found as well. Interestingly enough, building material stamped by *legio XI Claudia* was used

to construct conduits³ (as in the Sector XII discussed in this paper). Relying on such finds, Tadeusz Sarnowski concluded that neither legion (*I Minervia* and *XI Claudia*) was permanently stationed at Novae,⁴ but merely participated in manufacturing and supplying bricks needed to expand the fortress of *legio I Italica* at Novae. Since it is located on the southernmost arc of the Danube, it offered armies hostile to Romans a natural gateway through which to penetrate into the Balkan Peninsula. During Trajan's wars with Dacians the camp at Novae was at risk of being seized by barbarians skilled in the art of siege, and had to be substantially fortified, just as the entire Lower Moesian stretch of the limes. Major works were indeed carried out at the fortress, providing it with better defences against potential capture, such as the gates extending beyond the line of the walls. This was a large-scale undertaking, as next to fortifications the inner area perimeter saw changes as well. The brickyards of *legio I Italica* were unable to produce sufficient volumes of building ceramics, especially for the construction of the military hospital. External supply was necessary, which is why the *vexillationes legionis I Minerviae et legionis XI Claudiae* were engaged to help. The limited number of types and variants of stamps of both legions demonstrates that this was not any long-term arrangement.⁵ Considering the fact that building ceramics was produced in October as well, the roof tiles provided with the stamps of both legions may have been supplied in October or November 101 CE.⁶ Furthermore, Tadeusz Sarnowski argued that *legio I Italica*, *legio I Minervia* and *legio XI Claudia* worked jointly in one brickyard, which may be inferred from the similar mineral composition of the roof tiles manufactured by those legions.⁷ This assertion was challenged by e.g. Karl Strobel, who maintained that no such brickyard had existed, while *legio I Minervia* had not supplied building materials in autumn 101 but in the period between the two Dacian wars.⁸ However, most recent research appears to corroborate the concept advanced by Tadeusz Sarnowski. At the same time, there are reasons to conjecture that construction of the legionary hospital began already in autumn 100 and may have been completed as early as spring the following year.⁹

Isolated but eloquent examples demonstrate that brickmaking teams did not have to be very numerous; for instance, inscription on a brick discovered in a structure in Drobeta speaks of an *in figlinis magister Aurelius Mercurius* who commanded 60 soldiers.¹⁰ Assuming — also on the basis of an inscription — that 220 roof tiles were a daily norm of production,¹¹ then a team of several dozen people were able to turn out a substantial number. Naturally, it needs to be remembered that manufacture of building material involved an entire logistical framework, including supply of wood (fuel) for kilns, clay, and transportation of the final product to its destination¹² (shipped by the Moesian fleet, for instance). It is difficult to estimate how many people were needed to carry out those tasks, but one should not expect whole cohorts. Still, there were no apparent obstacles to sending a small brickmaking team of *legio I Minervia* from Bonna to the Lower Danube in 100 or 101 to assist in the production of bricks and roof tiles that the construction undertakings at Novae required. After all, as attested by the so-called *pridiana*, the mobility of various groups of specialists between units deployed at different locations was a routine occurrence.¹³

³ SARNOWSKI 1987, p. 107.

⁴ SARNOWSKI 1987, p. 107.

⁵ SARNOWSKI 1987, pp. 110–117.

⁶ SARNOWSKI 1987, p. 112.

⁷ SARNOWSKI 1987, p. 112.

⁸ STROBEL 1988, pp. 502, 510.

⁹ CIOLEK, DYCZEK 2011, p. 16.

¹⁰ *IDR* II 1, 107: “Aurelius Mercurius milis c(ohor)tis I Sagitt(ariorum) in figlinis magister super milites LX”.

Authors of *IDR* II admit that “LX” may also be read as “IX”, which would mean 9 persons instead of 60.

¹¹ *CIL* III 11381, 11383; DUCH 2012, p. 278.

¹² DUCH 2017, p. 200.

¹³ For example, it follows from *RMR* 63 that soldiers of *cohors I Hispanorum Veterana* were dispatched to Gaul to fetch clothing and grain, as well as to Dardania to work at a mine (*in dardania ad metella*).

Building material of *legio I Minervia* and *legio XI Claudia* from Sector XII at Novae

The roof tiles and bricks produced by *legio I Minervia* [Fig. 2] (inventoried as 197-13c, 206-13c, 210-13c) and *legio XI Claudia* [Fig. 3] (46-12c, 52-12c, 56-12c, 86-12c, 89-12c; see catalogue provided at the end of the paper) were discovered as structural components of a ceramic conduit, built by the legionaries of *legio I Italica* in the Flavian period (as indicated by the characteristic ligatured stamps).¹⁴ It was then renovated shortly before or during the First Dacian War, as may be surmised from the roof tiles stamped by *I Minervia* and *XI Claudia* which were found there.

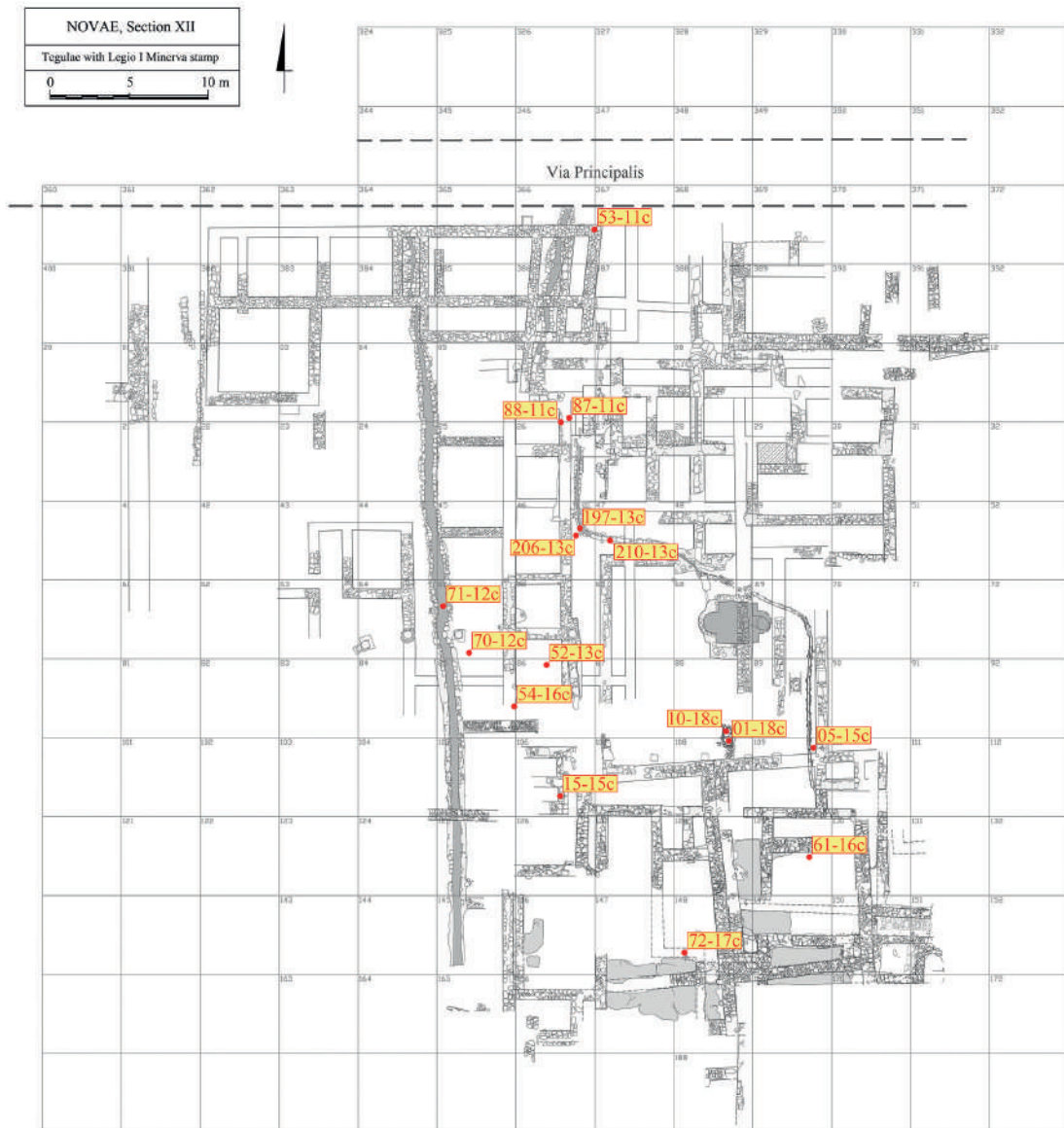


Fig. 2. The places of discovery of *legio I Minervia* stamps in Sector XII at Novae
(compiled by B. Wojciechowski)

¹⁴ Cat. nos. 49-12c, 65-12c; on the dating of the stamps, cf. DUCH 2012.

The canal itself was a part of a distinctive building which was provisionally defined as a “centurion’s house” for the purposes of ongoing research. It was built on the site of earlier legionary barracks constructed of timber and clay. The *legio I Minervia* roof tiles were used to cover the conduit (197-13c, 210-13c) and line the fourth level of bottom paving (206-13c). The roof tiles of *legio XI Claudia* were used to renovate the bottom of the canal, as 56-12c was found at a higher level of paving and in the side walls (46-12c, 52-12c). Apart from that, other roof tiles were recovered near the conduit, which most likely had either been a part of its structure or the flooring above it. These are: 53-11c, 87-11c, 88-11c, 129-12c produced by *legio I Minervia* as well as 94-13c and 113-13c made by *legio XI Claudia*.

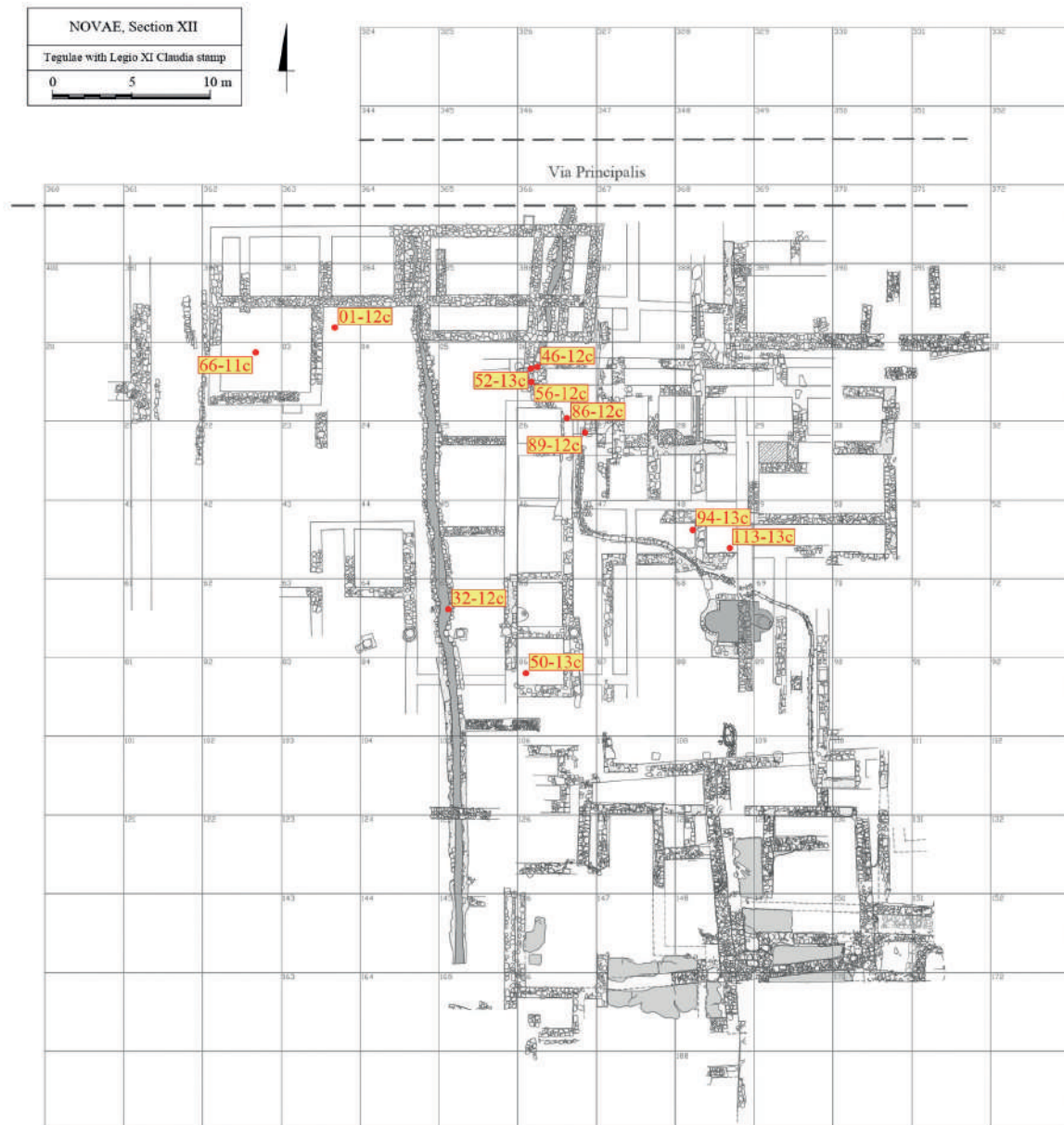


Fig. 3. The places of discovery of *legio XI Claudia* stamps in Sector XII at Novae (compiled by B. Wojciechowski)

Tegulae numbered 01-18c and 10-18c were found on the bottom of a small pool in the south-eastern sector of the “centurion’s house”. Tegula 66-11c was located in the layers of charred material, suggesting a source of intense heat; the proximity of the *via principalis* may be indicative of tabernae or utility interiors of the “centurion’s house”. The tegula 71-12c was used to fill a gap between the stones of a canal running along a N-S axis, while a column base situated nearby lay on the roof tile 70-12c. Roof tile 54-16c was discovered in the impression of the wall of the “centurion’s house”. The remainder — roof tiles for the most part — were recovered from the rubble layers that were left of the so-called “centurion’s house”.

The *legio I Minervia* and *legio XI Claudia* bricks and roof tiles from Sector XII offer a supplement to the typology of such relics from Novae developed by Tadeusz Sarnowski and Marta Matuszewska, as they add to the pool of the already known variants [Figs. 4–5].¹⁵ Tadeusz Sarnowski distinguished two types stamp impression used by *legio I Minervia*.¹⁶ The first shows distinctive spaces between the individual parts of the inscription. In Sector XII, that type is represented by 70-12c, 71-12c, 72-17c, 01-18c, 05-15c, and 15-15c. Finds belonging to the second type are more numerous, including 53-11c, 87-11c, 88-11c, 129-12c, 52-13c, 197-13c, 206-13c, 210-13c, 54-16c, 61-16c.

Differences between the stamps of the two types above are evident at first glance. The first most often measures *ca.* 15.0–15.2 cm in length and 3.9–4.1 cm in height. Type two reaches a length of 17.0–17.5 cm and usually a height of 3.4–3.8 cm.

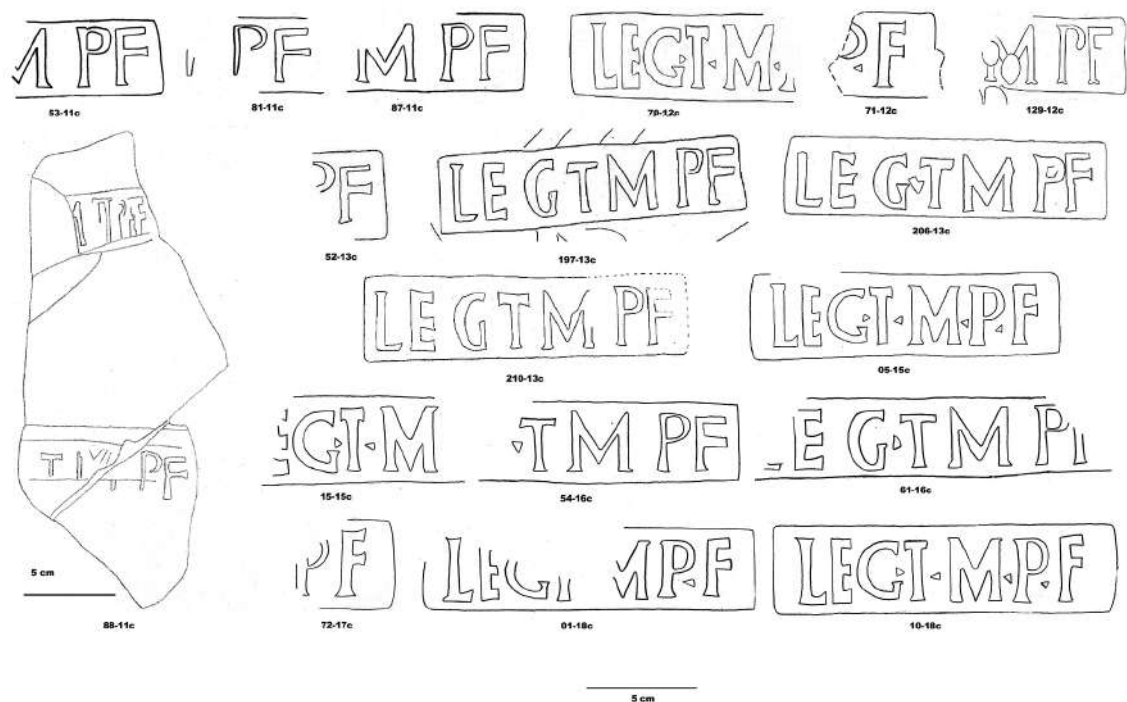


Fig. 4. Stamps of *legio I Minervia* from Sector XII at Novae (compiled by M. Duch)

¹⁵ Stamps of *legio I Minervia* were not included in Sarnowski’s typology (SARNOWSKI 1983, p. 39, pl. VII); Matuszewska does not refer to the stamps of that legion

either (MATUSZEWSKA 2006). However, both typologies do feature impressions of *legio XI Claudia* stamps.

¹⁶ SARNOWSKI 1987, p. 110.



Fig. 5. Stamps of *legio XI Claudia* from Sector XII at Novae (compiled by M. Duch)

As regards the stamps of *legio XI Claudia*, Tadeusz Sarnowski discerned three variants of one type, while Marta Matuszewska seven variants of one type (therefore the latter is referred to in this part of the text).¹⁷ Type XXI-2/a from Sector XII at Novae overlaps with cat. no. 89-12c. Type XXI-3/a imprints, known only from a small fragment in Matuszewska's typology, appear to correspond with the better preserved relics from Sector XII, namely 01-12c and 52-12c. Type XXI-4/a is represented by 32-12c, 86-12c, 50-13c, 94-13c. Other impressions of *legio XI Claudia* stamps from Sector XII have survived only partially and, being considerably worn, cannot be assigned to any specific variant. Only 15-12c appears to constitute a new variant, with its preserved lettering "PF" (*Pia Fidelis*), as opposed to the erroneous "PP".

Production centres of building ceramics

The existence of joint military production centres dedicated to manufacture and distribution of building ceramics in Lower Moesia was suggested by Tadeusz Sarnowski, who relied e.g. on the similarity of clay used in the production of roof tiles by *legio I Italica*, *I Minervia* and *XI Claudia*.¹⁸ Apart from that, he drew attention to a brick from Aliobrix, bearing the stamp of *classis Moesica* and graffito *le(gionis) vex(illatio or -illationi)*, as well as a roof tile from Buridava (Dacia), with the stamps of *legio I Italica* and *legio V Macedonica*.¹⁹ The existence of centres producing building ceramics in Lower Moesia also appears to be borne out by a section of ceramic pipe, discovered in 1961 during excavations *extra muros* of Novae in a pool or *castellum aquae*?²⁰

¹⁷ SARNOWSKI 1983, p. 39, pl. VII; MATUSZEWSKA 2006, p. 60, pl. XII.

¹⁸ SARNOWSKI 1987, p. 112.

¹⁹ SARNOWSKI 2016–2017, p. 62; IDR III 559.

²⁰ MAJEWSKI 1962, pp. 99–104.

the relic in question is marked by a stamp which reads “TRA’EX” [Fig. 6].²¹ Jerzy Kolendo and Tomasz Kowal advanced several interpretations of the enigmatic imprint, but none of them is satisfactory.²² Tadeusz Sarnowski’s (*tegularia* or *figlina*) *Tra(nsdanubiana) ex(ercitus) (Moesiae* or *Moesiae inferioris)*²³ is more convincing, particularly in the light of an analogous relic from Germania, which suggests the existence of a *tegularia Transrhenana*²⁴ — a centre where building ceramics were produced — but it does involve a certain measure of risk. The inscription from Germania is more precise and elaborate, and above all it was found to recur on numerous roof tiles. TRA’EX may also be read as (*tegularia* or *figlina*) *Tra(ciae) ex(ercitus)*. Given speculations of Kolendo and Kowal, who surmised that the pipe with the *ARRIUS* stamp from Sector IV in Novae may have been made near Butovo, an area known for its deposits of high-quality clay, forests located in the vicinity and access to water (with thriving *villae rusticae* which produced pottery); it may also be noted that during the reign of the Flavii (the pipe with the inscription is dated to that period)²⁵ remained within the territory of the province of Thrace, not Lower Moesia.²⁶ The *ARRIUS* stamp and *TRA’EX* demonstrate certain analogous features (*planta pedis*, the size of the ceramic pipe), therefore the *TRA’EX* pipe may have also originated from the vicinity of Butovo. Furthermore, the antique name of Tegulicium, located some 20 km away from Durostorum, may indicate that a centre manufacturing building ceramics did exist in Lower Moesia.²⁷

Such military production facilities did not have to be situated in the immediate neighbourhood of a legionary camp. However, in view of the widespread occurrence of clay, it is believed that production of bricks and roof tiles took place near the sites where they were needed.²⁸ Clay is indeed widely available, but it must be remembered that not every type is well suited for high-quality structural ceramics, especially in heating systems operating at high temperatures and humidity (*hypocaustum*). Also, fuel to fire the kilns and maintain high temperature is an important element of the production process. In this respect, high-calorific wood types — such as oak — ensure the best performance. Thirdly, proximity of a waterway to enable transportation of the material is vital

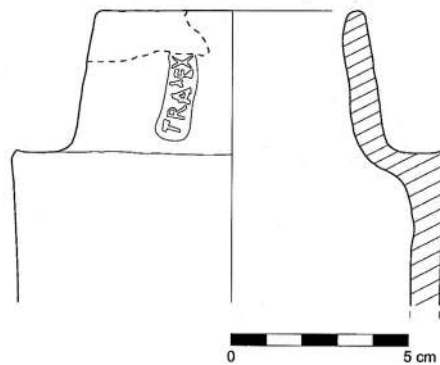


Fig. 6. TRA’EX stamp on ceramic pipe from Novae
(after Kolendo, Kowal 2011, p. 72, fig. 8)

²¹ KOLENDO, KOWAL 2011, p. 72, figs. 7–8; SARNOWSKI 2016–2017, p. 62.

²² SARNOWSKI 2016–2017, p. 62; SARNOWSKI forthcoming.

²³ SARNOWSKI 2016–2017, p. 62.

²⁴ HANEL 2002: “[TR]A(n)SR(h)ENAN[A] / C(aius) SEC (---) NAT(---) / COH(ortis) XV VOL(untariorum)”.

²⁵ KOLENDO, KOWAL 2011, p. 72.

²⁶ In terms of its territory, Lower Moesia in the Flavian period was very much extended along the Danube, but its breadth reached mere several dozen kilometres; see GEROV 1998.

²⁷ SARNOWSKI 2016–2017, p. 62.

²⁸ KRÓLCZYK, TRYNKOWSKI 2001, p. 220.

for logistical reasons.²⁹ Thus, in the period when military installations in Lower Moesia underwent large-scale conversions, e.g. under Trajan and Hadrian,³⁰ there were specialized production and distribution centres supplying building ceramics to particular military camps. It was thus easier to concentrate manufacture in several (or several dozen) locations where production conditions were favourable rather than disperse it, with many facilities which would have been closer to the destination sites but had lower output capacity. To date, archaeological remnants of military kilns have been discovered in Vrav (near Vidin, *ca.* 3 km from the ruins of the fort of Dorticum), Novae (Svištov), *vicus* Gavidina (Ostrov; 2.5 km from the legionary camp of Durostorum), Lešnica near the antique Sostra, as well as in Gigen, Arčar and Harlec.³¹

The existence of centres where the army produced building ceramics calls into question the widely adopted interpretation that the site of discovery of ceramics stamped by a particular unit of the Roman military attests to its being stationed there. One should take into account that potentially one unit merely supplied its products to another unit which was actually stationed at a particular site and undertook construction there. Such an eventuality cannot be ignored, as there is no other evidence than building ceramics to confirm the presence of a military detachment in a given location.

Conclusions

This paper analyzes 29 specimens of building ceramics stamped by *legio I Minervia* and *legio XI Claudia*, which were discovered in Sector XII at Novae. Those artefacts made it possible to revisit and reassess the arguments advanced by Tadeusz Sarnowski in relation to the so-called production centres for building ceramics. I am convinced that such an interpretation is correct. It has also been surmised in the paper that a brickmaking team from *legio I Minervia* may have been employed on the Lower Danube in 100 or 101, having been dispatched from their home base at Bonna. I would also argue that the inscription *TRA'EX*, impressed on a ceramic pipe may be interpreted as (*tegularia* or *figlina*) *Tra(ciae) ex(ercitus)*, because it had most likely been produced in Butovo near Nicopolis ad Istrum, an area within the administrative jurisdiction of the province of Thrace as opposed to Lower Moesia. Moreover, finds from Sector XII extend and supplement the range of types and variants known from two typologies of stamps on building ceramic from Novae.³² Finally, it may be stressed that finding ceramic relics stamped by a military unit in a particular location does not mean that its manufacturer was stationed there. In all likelihood, this was associated with the production and subsequent supply of bricks and roof tiles to a military installation where they were needed.

Catalogue

Legio I Minervia

1. Fragment of a roof tile (*tegula*). Cat. no. 53-11c. Dimensions [14.5] × [22.9] × 4.1 cm. Stamp imprint dimensions [7.0] × 3.4 cm. Find location: Sector XII, Hectare XI, Square 366, depth 46.88 m a.s.l., rubble.
[LEG(ionis) I] M(inerviae) P(iae) F(idelis)

²⁹ I previously expressed the view that bricks and roof tiles were produced exclusively near their site of destination, but I also refer to the existence of production centres; cf. DUCH 2017, p. 200.

³⁰ More on the construction works along the *limes*: IVANOV 2012, p. 23.

³¹ HARIZANOV 2015, pp. 34–35.

³² SARNOWSKI 1983; MATUSZEWSKA 2006.

2. Fragment of a roof tile (tegula). Cat. no. 87-11c. Dimensions [38.5] × [34.4] × 3.5 cm. Stamp imprint dimensions [8.3] × 3.2 cm. Find location: Sector XII, Hectare XVIII, Square 6, depth 46.71 m a.s.l., tiling level.
[LEG(ionis) I] M(inerviae) P(iae) F(idelis)
3. Fragment of a double-stamped roof tile (tegula). Cat. no. 88-11c. Dimensions [43.1] × [30.5] × 3.7 cm. Stamp imprint dimensions: I Minervia [5.1] × 3.4 cm; I Minervia [13.6] × 3.4 cm. Find location: Sector XII, Hectare XVIII, Square 26, depth 46.87 m a.s.l., tiling level.
[LEG(ionis) I M(inerviae)] P(iae) F(idelis)
[LEG(ionis) I M(inerviae)] P(iae) F(idelis)
4. Fragment of a roof tile (tegula). Cat. no. 70-12c. Dimensions [16.5] × [16.5] × 3.7 cm. Stamp imprint dimensions [12.5] × 4.0 cm. Find location: Sector XII, Hectare XVIII, Square 65, depth 48.36 m a.s.l., near the base of a column from a late Roman civilian structure.
LEG(ionis) I M(inerviae) [P(iae) F(idelis)]
5. Fragment of a roof tile (tegula). Cat. no. 71-12c. Dimensions [17.0] × [13.0] × 2.5 cm. Stamp imprint dimensions [4.0] × [2.4] cm. Find location: Sector XII, Hectare XVIII, Square 65, depth 46.96 m a.s.l., ceramic conduit.
[LEG(ionis) I M(inerviae)] P(iae) F(idelis)
6. Fragment of a roof tile (tegula). Cat. no. 129-12c. Dimensions [12.9] × [10.8] × 4.8 cm. Stamp imprint dimensions [7.8] × 3.5 cm. Find location: Sector XII, Hectare XVIII, Square 46, depth 46.97 m a.s.l., rubble.
[LEG(ionis) I] M(inerviae) P(iae) F(idelis)
7. Fragment of a roof tile (tegula). Cat. no. 52-13c. Dimensions [17.2] × [15.1] × 3.6 cm. Stamp imprint dimensions [3.2] × 3.6 cm. Find location: Sector XII, Hectare XVIII, Square 86, depth 46.98 m a.s.l., at floor level.
[LEG(ionis) I] M(inerviae) P(iae) F(idelis)
8. Roof tile (tegula). Cat. no. 197-13c. Dimensions 57.5 × 44.5 × 2.4 cm. Stamp imprint dimensions 17.9 × 3.4 cm. Find location: Sector XII, Hectare XI, Square 46, depth 46.87 m a.s.l., used as a cover of a ceramic conduit.
LEG(ionis) I M(inerviae) P(iae) F(idelis)
9. Fragment of a roof tile (tegula). Cat. no. 206-13c. Dimensions [48.5] × 45.0 × 3.2 cm. Stamp imprint dimensions 17.1 × 3.8 cm. Find location: Sector XII, Hectare XVIII, Square 46, depth 46.67 m a.s.l., bottom of a ceramic conduit.
LEG(ionis) I M(inerviae) P(iae) F(idelis)
10. Fragment of a roof tile (tegula). Cat. no. 210-13c. Dimensions [35.0] × [31.0] × 3.4 cm. Stamp imprint dimensions 17.3 × 3.6 cm. Find location: Sector XII, Hectare XVIII, Square 47, depth 46.88 m a.s.l., cover of a ceramic conduit.
LEG(ionis) I M(inerviae) P(iae) F(idelis)
11. Fragment of a roof tile (tegula). Cat. no. 05-15c. Dimensions 56.5 × [31.0] × 3.5 cm. Stamp imprint dimensions 15.1 × 3.9 cm. Find location: Sector XII, Hectare XVIII, Square 109, depth 48.33 m a.s.l., rubble.
LEG(ionis) I M(inerviae) P(iae) F(idelis)
12. Fragment of a roof tile (tegula). Cat. no. 15-15c. Dimensions [11.5] × [13.1] × 2.9 cm. Stamp imprint dimensions [10.0] × 3.9 cm. Find location: Sector XII, Hectare XVIII, Square 106, depth 47.77 m a.s.l., rubble (fragmented stone and shards of building ceramics).
[L]EG(ionis) I M(inerviae) [P(iae) F(idelis)]

13. Fragment of a roof tile (*tegula*). Cat. no. 54-16c. Dimensions [26.0] × [38.0] × 3.8 cm. Stamp imprint dimensions [11.8] × 3.4 cm. Find location: Sector XII, Hectare XVIII, Square 85, depth 46.88 m a.s.l., wall impression.
[LEG(ionis)] I M(inerviae) P(iae) F(idelis)
14. Fragment of a roof tile (*tegula*). Cat. no. 61-16c. Dimensions [29.3] × [29.0] × 3.6 cm. Stamp imprint dimensions [16.5] × 3.7 cm. Find location: Sector XII, Hectare XVIII, Square 129, depth 47.58 m a.s.l., rubble containing building ceramics.
[L]EG(ionis) I M(inerviae) P(iae) [F(idelis)]
15. Fragment of a roof tile (*tegula*). Cat. no. 72-17c. Dimensions [8.5] × [10.5] × 2.9 cm. Stamp imprint dimensions [4.5] × 4.1 cm. Find location: Sector XII, Hectare XVIII, Square 148, depth 47.25 m a.s.l., rubble above floor level.
[LEG(ionis) I M(inerviae)] P(iae) F(idelis)
16. Fragment of a roof tile (*tegula*). Cat. no. 01-18c. Dimensions [24.5] × [13.2] × 3.9 cm. Stamp imprint dimensions 15.3 × 3.9 cm. Find location: Sector XII, Hectare XVIII, Square 108, depth 47.11 m a.s.l., bottom of a small pool at the “centurion’s house”.
[LEG(ionis) I] M(inerviae) P(iae) F(idelis)
17. Fragment of a roof tile (*tegula*). Cat. no. 10-18c. Dimensions [25.1] × [23.8] × 3.1 cm. Stamp imprint dimensions 15.6 × 4.0 cm. Find location: Sector XII, Hectare XVIII, Square 88, depth 47.13 m a.s.l., bottom of a small pool at the “centurion’s house”.
[LEG(ionis) I M(inerviae)] P(iae) F(idelis)

Legio XI Claudia

1. Brick fragment (*bessalis*). Cat. no. 66-11c. Dimensions [16.4] × [12.8] × 8.6 cm. Stamp imprint dimensions [7.6] × [3.2] cm. Find location: Sector XII, Hectare XVIII, Square 2, depth 46.22 m a.s.l., bottom of a dark-brown layer with containing charcoal and crushed building ceramics.
LEG(ionis) XI C(laudiae) [P(iae) F(idelis)]
2. Brick fragment. Cat. no. 01-12c. Dimensions [28.3] × [22.2] × 7.0 cm. Stamp imprint dimensions [9.0] × 3.2 cm. Find location: Sector XII, Hectare XVIII, Square 383, depth 46.22 m a.s.l., rubble.
[LEG(ionis)] XI C(laudiae) P(iae) P=F(idelis)
3. Brick fragment. Cat. no. 15-12c. Dimensions [10.7] × [13.5] × 7.8 cm. Stamp imprint dimensions [9.1] × 3.4 cm. Find location: Sector XII, relic found on the surface, location unspecified.
[L]EG(ionis) XI C(laudiae) P(iae) F(idelis)
4. Fragment of a roof tile (*tegula*)? Cat. no. 32-12c. Dimensions [17.0] × [15.1] × 3.3 cm. Stamp imprint dimensions [5.9] × 3.3 cm. Find location: Sector XII, Hectare XVIII, Square 65, depth 47.44 m a.s.l., rubble.
[LEG(ionis)] XI C(laudiae) P(iae) F(idelis)
5. Fragment of a roof tile (*tegula*)? Cat. no. 46-12c. Dimensions [25.1] × [18.5] × 3.5 cm. Stamp imprint dimensions [8.3] × 3.5 cm. Find location: Sector XII, Hectare XVIII, Square 6, depth 46.05 m a.s.l., element of a conduit structure (side wall).
[LEG(ionis)] C(laudiae) [P(iae) F(idelis)]
6. Fragment of a roof tile (*tegula*). Cat. no. 52-12c. Dimensions [58.0] × 47.3 × 3.0 cm. Stamp imprint dimensions [10.0] × [3.0] cm. Find location: Sector XII, Hectare XVIII, Square 6, depth 46.40 m a.s.l., element of a conduit structure (side wall).
LEG(ionis) XI C(laudiae) P(iae) P=F(idelis)

7. *Tegula mammata* (vertical heating system tile). Cat. no. 56-12c. Dimensions 53.8 × [31.5] × 3.0 cm. Stamp imprint dimensions [9.0] × 3.4 cm. Find location: Sector XII, Hectare XVIII, Square 6, depth 45.97 m a.s.l., bottom of a ceramic conduit.
Impression considerably worn.
[L]EG(ionis) XI C(laudiae) [P(iae) F(idelis)]
8. Fragment of a roof tile (*tegula*). Cat. no. 86-12c. Dimensions [23.5] × [19.5] × 6.5 cm. Stamp imprint dimensions [4.2] × [3.1] cm. Find location: Sector XII, Hectare XVIII, Square 6, depth 46.20 m a.s.l., structure of a ceramic conduit.
[LEG(ionis) XI] C(laudiae) P(iae) F(idelis)
9. Brick fragment. Cat. no. 89-12c. Dimensions [22.5] × [13.8] × 6.3 cm. Stamp imprint dimensions [7.4] × 3.2 cm. Find location: Sector XII, Hectare XVIII, Square 26, depth 46.07 m a.s.l., ceramic conduit.
LEG(ionis) XI C(laudiae) [P(iae) F(idelis)]
10. Brick fragment. Cat. no. 50-13c. Dimensions [16.0] × [17.0] × 3.9 cm. Stamp imprint dimensions [3.2] × 3.9 cm. Find location: Sector XII, Hectare XVIII, Square 86, depth 47.15 m a.s.l., ceramic floor.
[LEG(ionis) XI] C(laudiae) P(iae) F(idelis)
11. Brick fragment. Cat. no. 94-13c. Dimensions [27.5] × [20.5] × 7.8 cm. Stamp imprint dimensions [8.8] × 3.2 cm. Find location: Sector XII, Hectare XVIII, Square 48, depth 47.53 m a.s.l., roof tile rubble.
[LE]G(ionis) XI C(laudiae) P(iae) P=F(idelis)
12. Fragment of a roof tile (*tegula*). Cat. no. 113-13c. Dimensions [35.3] × [25.1] × 3.4 cm. Stamp imprint dimensions [5.2] × 3.3 cm. Find location: Sector XII, Hectare XVIII, Square 48, depth 47.46 m a.s.l., large roof tile rubble.
LEG(ionis) X[I] C(laudiae) P(iae) F(idelis)]

Abbreviations

CIL	<i>Corpus inscriptionum Latinarum</i> , Berlin.
IDR	<i>Inscriptiones Daciae Romanae</i> , vol. II: <i>Pars meridionalis inter Danuvium et Carpatos Montes</i> , ed. G. FLORESCU, C. PETOLESCU, Bucharest 1977.
RMR	R. O. FINK, <i>Roman Military Records on Papyrus</i> , London 1971.

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