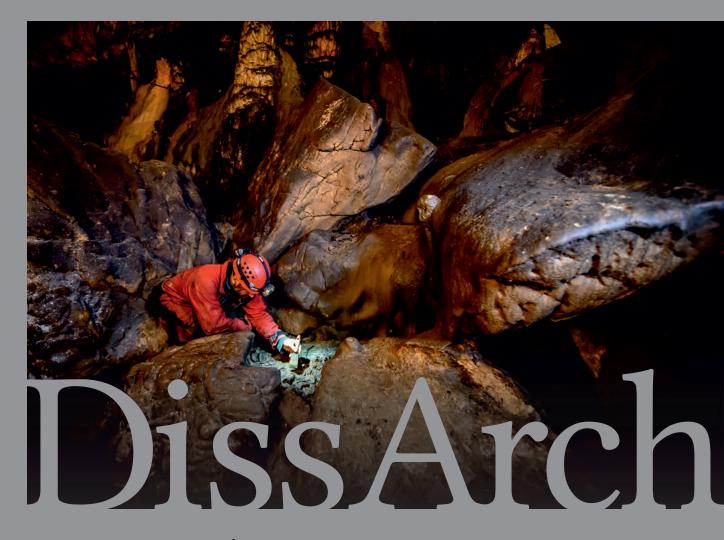
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Yellow Pottery in the Late Avar Period

The Legionary Tilery of Brigetio and the Late Roman Watchtower at Kurucdomb

The 1934-1935 Excavation of István Paulovics at Komárom/Szőny-Kurucdomb with a Catalogue of the Brick Stamps

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Abstract: Modern excavations have been going on with increasing intensity for three decades in the Roman settlement complex of Brigetio (Komárom/Szőny, Hungary). Through these investigations, our knowledge about the topography and the building phases of the legionary fortress and the civil town has multiplied. However, new information can also be acquired by revisiting unpublished or poorly published past excavations. The Komárom/Szőny-Kurucdomb (Hungary) archaeological site was first explored by István Paulovics in 1934 when he found the legionary tilery of Brigetio and a Late Roman watchtower. He only published two contradictory short reports about his findings which left us with more questions than answers. By looking into the original documentation of the excavations and assessing the descriptions, drawings, and photos, valuable new data was gained about the watchtower and the legionary tilery. The study's key results are the following: contrary to former belief, tile production had not ceased before the watchtower was built but continued in the kilns beside it. Besides the two published rectangular tile kilns, another three kilns were found on the site, a rectangular and two circular ones. The more than four hundred brick stamps collected but left unpublished indeed represent all phases of the Roman settlement complex, from the end of the first century to the end of the fourth century AD. Some of them were formerly unknown, the most important of which reads VEXIL II K, probably meaning Vexil(lationes) II (duae) K(arnuntinenses) and refers to the vexillations of the legio XIIII Gemina Martia Victrix and the legio XV Apollinaris.

Keywords: Late Roman watchtower, brick manufacturing workshop, tilery, Brigetio legionary fortress, Pannonian legions, brick stamps

Introduction

In the autumn of 1934, after finishing his excavations in the legionary fortress of Brigetio, István Paulovics decided to search for the Roman watchtower nearest to Brigetio (Fig. 1; Fig. 2). Looking closely at the landscape, he concluded that the watchtower must have stood on the small hill

called Kurucdomb¹ 1,200 m east of the legionary fortress, near the shore of the Danube. The hill had been almost completely flattened by modern ploughing by then; nevertheless, field walking in the area produced large numbers of Roman tile, stone, and mortar fragments. To verify the existence of the Roman watchtower, he opened a 2 m wide and ca. 30 m long northsouth directed test trench cutting through the hill of Kurucdomb. During the excavation between 27 September and 6 October 1934, he found not only a Late Roman watchtower from the time of Valentinian I but also the remains of a legionary tilery and a pottery workshop. Unfortunately, he only published a short report of his findings,2 mentioning two rectangular tile kilns and hundreds of stamped tiles from several centuries. The publication contained a map of the excavation area made by Aladár Radnóti; however, Trench B is missing from the published drawing (Fig. 3).3 According to his description, the Late Roman watchtower was built on top of the workshop's debris. South of the tile kilns, he found a large number of local pottery sherds and moulds, the waste of a pottery workshop. Apparently, he continued his research in 1935 because, in a 1938 publication, he alluded to four large kilns instead of two. In the second paper, he also published the drawings of nine tile stamps, including some found in the legionary fortress and not at Kurucdomb.4



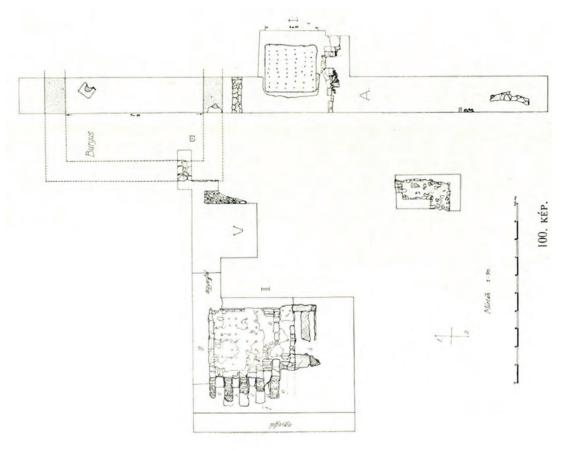
Fig. 1. Photo of the 1934 excavations in the Brigetio legionary fortress. From left to right: Aladár Schuszter, Ödön Kállay, István Paulovics, Géza Supka and Aladár Radnóti; September 20, 1934. (Photographer unknown)



Fig. 2. Photo of the 1934 excavations in Brigetio legionary fortress. From left to right: Ödön Kállay, Aladár Schuszter, István Paulovics, Géza Supka and Aladár Radnóti; September 20, 1934. (Photographer unknown)

When making a catalogue of the Pannonian tile kilns in the late 1970s, Barnabás Lőrincz found a photo with the drawings of 46 brick stamps from the Kurucdomb tilery, made by I. Paulovics in the Historical Photo Department of the Hungarian National Museum (Fig. 4).⁵ Based on this photo

- Also mentioned as "Kurvadomb" in informal papers, i.e., letters. It is also the name given on the documentation of the excavation. According to I. Paulovics, the name of the hill was given during the Middle Ages: women accused of adultery were tied with a rope and thrown into the Danube in Komárom (today: Komárno, Slovakia), and a current of the Danube used to wash the corpses ashore at the foot of this hill (see excavation documentation). HNM Central Database, Archaeological Documentation Collection, no. 76.B.II. (MNM Régészeti Adattár 76.B.II. "Paulovics-hagyaték, vegyes leletek, Szőny, 1934–35. évi római ásatások").
- 2 PAULOVICS 1934, 139-140.
- 3 Paulovics 1934, 138, 100. kép.
- 4 PAULOVICS 1938, 7. The drawing includes a stamp of the *legio XI Claudia* found in the legionary fortress: see below.
- 5 HNM Central Database, Historical Photo Department, no. 10732.



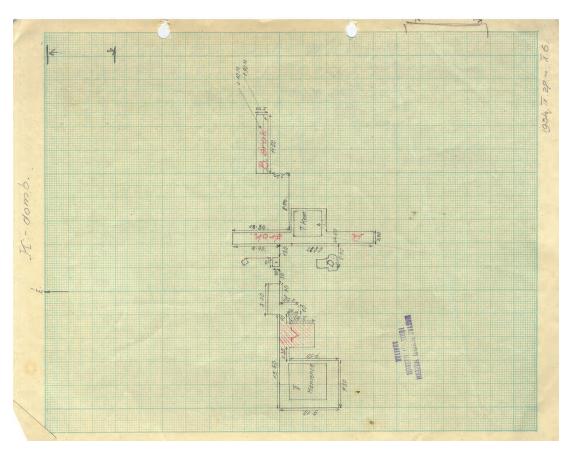


Fig. 3. Published survey map of the Kurucdomb excavation (PAULOVICS 1934, 100. ábra, drawing by A. Radnóti). Unpublished survey map of the Kurucdomb excavation with dates 27 September 1934 – 6 October 1934 (HNM Central Database, Archaeological Documentation Collection, no. 76.B.II.)

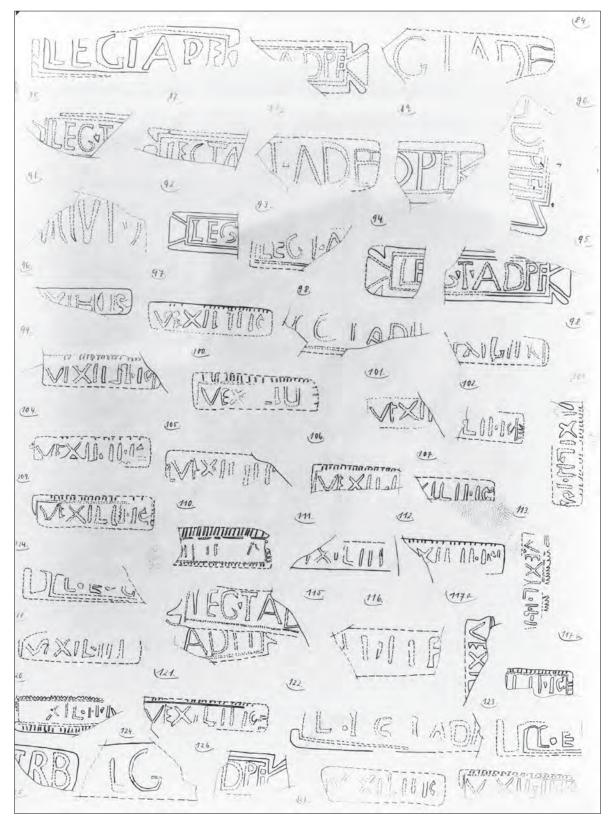


Fig. 4. Photo of the drawings of 46 tile stamps (HNM Central Database, Historical Photo Department, no. 10732)

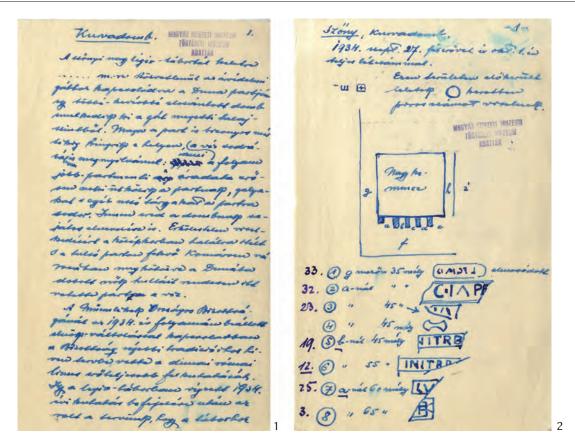


Fig. 5. 1 – First page of Paulovics's hand-written description of the Kurucdomb site, 2 – A page of Paulovics's documentation of the brick stamps

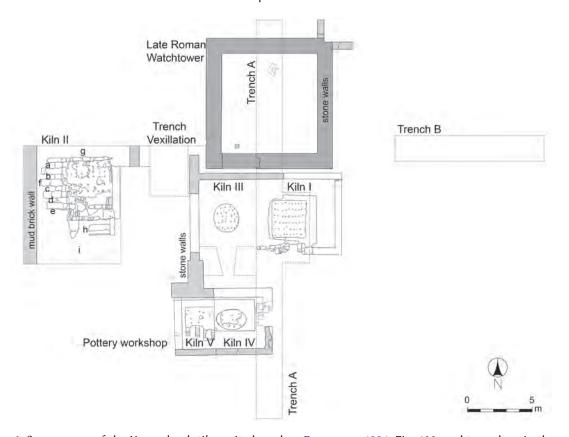


Fig. 6. Survey map of the Kurucdomb tilery site based on PAULOVICS 1934, Fig. 100, and two plans in the documentation of the excavation (drawing by L. Dobosi)



Fig. 7. Kiln I from the south



Fig. 9. Kiln II from the west

and the published short report, he suggested the following dating for the tilery and the watchtower: as the latest tile stamps in the workshop belonged to Lupicinus *tribunus*, a *tribunus* in Valeria *provincia* between AD 369–376, and the watchtowers on this segment of the *ripa Pannonica* were mainly built between AD 370–372, Lupicinus must have been making tiles in Brigetio until 370 at the latest when the tilery was closed down and the watchtower was built on top of it, probably in AD 371.6

It was high time that we studied the complete

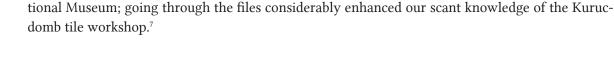




Fig. 8. Kiln I from the south-west



Fig. 10. Kiln II from the south-west



Fig. 11. Mud brick wall on the western side of Kiln II

- 6 Lőrincz 1981a, 78; Lőrincz 2006, 108–109.
- HNM Central Database, Archaeological Documentation Collection, no. 76.B.II. (MNM Régészeti Adattár 76.B.II. "Paulovics-hagyaték, vegyes leletek, Szőny, 1934–35. évi római ásatások"). All information and photos in this paper are published with the permission of the HNM Central Database. I hereby thank Szilvia Komiszár for all her help.

original documentation of the legionary tilery of Brigetio, after nearly a hundred years since its excavation by I. Paulovics. The documents are stored in the Central Database of the Hungarian Na-





Fig. 13. Kilns I, III and IV from the south



Fig. 12. Kiln III from the south

Fig. 14. Kilns IV and V from the south-west

The documentation of the excavation

The excavation documentation by I. Paulovics contains a short, hand-written description of the site, several ground plans in different scales, a list of most stamped tiles with hand-drawn sketches of some of them, and a few photos (Fig. 5). Drawings and photos from other 1934–1935 Brigetio excavations were also found in the file, mostly without any kind of label enabling identification. Based on the short reports I. Paulovics published in the 1930s, the documentation of the different excavations could be set apart with great certainty. The short, hand-written documentation in the file seems to cover only the 1934 excavation of the Kurucdomb site because it only mentions the watchtower and two of the kilns. No description of the 1935 excavation at Kurucdomb has been found. A detailed ground plan made in scale 1:20 provides the most information about the layout of the workshop. Although no date is written on the drawing, it was probably made at the end of the 1935 excavation because five kilns are depicted on it. Stamped bricks were collected during all excavation seasons at Kurucdomb.

We also know that the excavation trenches at Kurucdomb were still open two years later because, on 8 September 1937, Ödön Kállay wrote a letter to I. Paulovics mentioning that it would be good to cover the pits at Kurucdomb, but it would be even better to continue the excavations of the brick and pottery workshop. 10

- 8 The words "brick" and "tile" are used as synonyms in this paper.
- For example, the documentation of the 1935 development-led excavation of A. Radnóti in Komárom-Szőny, Vásártér.
- "Ha a kurvadombi gödrök betakarására gondolsz, igazad van; de százszor inkább igazad lenne, ha a faze-kastelep további feltárására is gondolnál, mert ott még csodákat rejtegethet a bélai talaj." The letter of Ödön Kállay in the HNM Central Database, Archaeological Documentation Collection, no. 107.Sz.II. (MNM Régészeti Adattár 107.Sz.II. "Paulovics-hagyaték, levelezés és újságcikk").

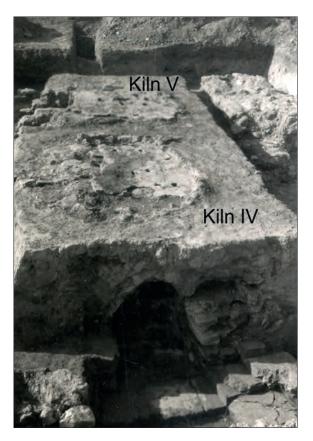


Fig. 15. Kilns IV and V from the east

According to the documentation, I. Paulovics got the remains of the small, rectangular watchtower and five kilns unearthed, with three rectangular and two circular kilns among them (Fig. 6).

The watchtower

No detailed description of the watchtower survived (if there was any to begin with). All information we have is the comprehensive ground plan mentioned above. According to this, the small, rectangular watchtower measured 9.75×10.05 m. Its stone walls were about 1.15 m thick, and the foundation was set 1.2 m below ground level. The walls were partly robbed but seemed to have survived to a height of 0.55 m in the south-western corner of the watchtower. The two thin walls at the north-eastern corner were about 0.5–0.55 m thick, and their foundation level was 0.6 m below that of the walls of the watchtower. The thin walls survived to a height of 0.9 m.

The walls of the watchtower have the same orientation as the kilns and the walls around them. In his hand-written description, I. Paulovics emphasized the fact that the kilns and the watchtower were contemporaneous, and the brick production had not ceased before the watchtower was built. This observation of his, however, was—unfortunately—not published in his short excavation reports, thus B. Lőrincz worked out his dating of the tilery and the watchtower without this information (see above).

Kiln I

In the documentation by I. Paulovics only Kiln I was recorded in any detail (see Fig. 6; Fig. 7; Fig. 8). The oven floor of the rectangular kiln measured 2.60×2.80 m and was 0.6 m below ground level. The mud brick oven walls were still *in situ* up to a height of about 0.4 m, meaning that the walls' top was only 0.2 m below ground level. The walls were plastered with mud. The *praefurnium* was 0.6 m wide and 0.85 m high, and its vaulted entrance faced south. The oven floor was apparently not demolished during the excavation, so the structure of the combustion chamber and the number of the main and cross flues is unknown.

The most interesting part, however, was that the kiln was fully stacked with unfired *imbrices*. The green tiles were separated from each other with a fine layer of sand, which made it possible to recognize the shape of the *imbrices* in the large block of clay into which the green tiles turned during the sixteen centuries spent underground. According to Paulovics, this proves that the kiln is of a very late date and that the tilery still produced bricks and tiles even after the watchtower had been built, i.e., during the AD 370s. The stamped tiles found in Kiln I were all stamped by the *legio I Adiutrix* (see Catalogue).

Kilns I and III were surrounded by a stone wall. On the northern and eastern sides, it was 0.45 m thick, while on the western side, 0.7 m. In the south-western corner, where the wall was 1.15 m thick, it survived as high as 1.5 m. The top of the wall was only 0.3 m below ground level. Kilns I and III were most probably operated from the same stokehole.

Kiln II

The largest of the five kilns was the rectangular Kiln II (see Fig. 6; Fig. 9; Fig. 10). Its oven floor was about 5.5×6.2 m, and its surface was only 0.15 m below ground level. The combustion chamber was equally large, and its floor lay 1.6 m below ground level. It had five vaulted cross walls and probably two main flues, but only the vault of one of them can be seen in the photo.

A mud brick wall accompanied the western side of the kiln (Fig. 11) and another one ran along the eastern side. The western mud brick wall was roughly 1.0 m high at the time of the excavation.

The stamped tiles found in or around the kiln bore various stamps: cohors VII, legio I Adiutrix, Terentianus tribunus, Lupicinus tribunus, cohors VII Breucorum Antoniniana, and vexillationes III (see Catalogue).

Kiln III

Kiln III stood on the western side of Kiln I (see Fig. 6; Fig. 12; Fig. 13). It was circular, and the diameter of its oven floor measured ca. 2.2 m. The oven wall survived to a height of about 0.2–0.3 m, and its inner side was covered with mud plaster. The vaulted *praefurnium* faced south.

Kiln IV

Another circular kiln, Kiln IV, lay south of Kiln III (see Fig. 6; Fig. 13; Fig. 14; Fig. 15). Its oven floor had a similar size to Kiln III, ca. 2.2 m in diameter, but its oven wall did not survive. The vaulted *praefurnium* was on the eastern side of the kiln.

Kilns IV and V were surrounded by another wall, although they must have been fuelled from opposite sides of the building because they stood back-to-back.

Kiln V

A small, rectangular kiln, Kiln V, lay on the western side of Kiln IV (see Fig. 6; Fig. 14; Fig. 15). Its oven floor was roughly 2.2×2.6 m. The oven walls had already perished by the time of the excavation, but the remains of four cross walls and three cross flues were visible on the southern side of the combustion chamber, meaning that the *praefurnium* must have been on the western side of the kiln.

The stamped tiles

Paulovics listed 408 numbered tiles on 29 postcard-sized sheets in his hand-written catalogue of stamped tiles from Kurucdomb. Besides the numbered tiles, a few unnumbered pieces also appear in the catalogue, together with four unstamped floor tiles. Not one of these tiles, however, can be found at present. They are not in the inventory of either the Hungarian National Museum¹¹ or the Kuny Domokos Museum of Tata. All we know is that after the excavation, they were stored in the

- 11 I thank Zsolt Mráv and Tamás Szabadváry from the Hungarian National Museum for this information.
- 12 I thank Anna Pórszász from the Kuny Domokos Museum of Tata for this information.

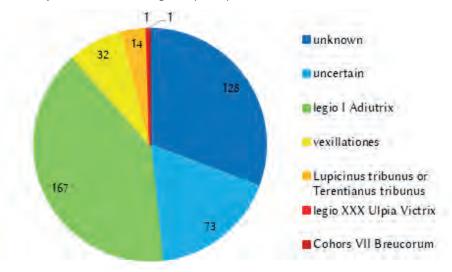


Table 1. Brick stamps collected at the legionary tilery at Kurucdomb

Komárom City Hall for a while because they were mentioned in a letter from Ö. Kállay to I. Paulovics, written on 20 February 1935. In this letter, Kállay asked Paulovics to remove the numerous tiles he had stacked on the second floor of the City Hall before the ceiling collapsed. Unfortunately, Paulovics's answer to this request, or the present whereabouts of the tiles, are unknown.

Stamped tiles were collected from five locations during the excavation: Trench A, Trench B, Trench Vexillation, the area around Kiln II, and the area of the pottery workshop (for the locations, see Fig. 8). Paulovics had reached a depth of more than 2.0 m from the surface during the excavation before getting to the earliest layers.

As a rule, Paulovics recorded the following pieces of information in the catalogue for each stamped tile: catalogue number, find spot, a small sketch of the stamp, one dimension of the tile fragment (either the length or the width, and sometimes the thickness), as well as the type of the brick or tile when not *tegula*. However, for most tiles, only some of this information was recorded.

Based on the hand-written notes and photos of Paulovics, we were able to compile a catalogue comprising 417 stamped tiles and four additional unstamped floor tiles (see Appendix). Of the stamped tiles, we only have some information on 289 (69%), while none (apart from their number) on 128 (31%). Photographs are available for 176 stamps (42%). In our catalogue, we included all available information on each tile and a sketch of the stamp (when available). We drew the black sketches based on the photos, while the blue ones are the original drawings by Paulovics of the tiles that were not photographed. We used the catalogue numbers of Paulovics; however, he gave two numbers for some tiles. In this case, the second number is indicated in brackets. Any additional note made by Paulovics is written between quotation marks. These notes mainly concern the colour of the tile (red, yellow, etc.). All photographs of the brick stamps found in the documentation are included in this paper in Figs 16–29. In most cases, Paulovics wrote the catalogue number of the tiles on the photo with blue ink, while in other cases, the catalogue number was written on the surface of the tile.

There are 289 brick stamps with enough information to work with. These represent six or seven different units that produced tiles in the known part of the workshop for a time of roughly three

"Minél előbb szoríts rá időt, hogy azt a sok ronda téglát, amit felhordattál a városház emeletére, feldolgozhassuk, mert a polgármester reámbecsülteti a városházát, ha leszakad az emelet." The letter of Ödön Kállay in the HNM Central Database, Archaeological Documentation Collection, nr. 107.Sz.II. (MNM Régészeti Adattár 107.Sz.II. "Paulovics-hagyaték, levelezés és újságcikk").

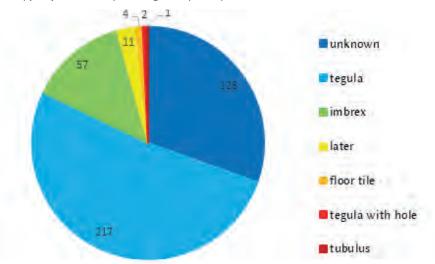


Table 2. Brick types produced by the legionary tilery at Kurucdomb

hundred years: the first stamps were made by legionary vexillations that started the construction of the legionary fortress of Brigetio at the turn of the 1st and 2nd centuries AD, and the last ones were made by Lupicinus *tribunus* and Terentianus *tribunus* at the end of the 4th century AD. The vast majority of the tiles were stamped by the *legio I adiutrix* stationed in Brigetio from the early 2nd to the early 5th century AD. We also have stamps from the *legio XXX Ulpia Victrix*, the *cohors VII Breucorum*, a *cohors VII* without further specification, and, as mentioned already, several legionary vexillations, as well as Lupicinus and Terentianus *tribuni* (Tab. 1).

Tile types

The workshop produced different bricks and tiles. Most stamped tiles collected by Paulovics were *tegulae* and *imbrices*, but there were *lateres*, a *tubulus*, two *tegulae* with a large circular hole, and four small floor tiles (Tab. 2). None of the *tegulae* or *imbrices* were complete, and their exact size was not measured.¹⁴

From the eleven *lateres* collected, ten were rectangular and one circular. The extensions of the four complete *lateres* are 200×200×75 mm, 200×200×80 mm, 200×200×80 mm, and 265×275×95 mm. ¹⁵ The 200-mm square *lateres* were called *lateres bessales*; the 265×275-mm-large tile could be a small version of the *later pedalis*. ¹⁶ The circular *later* is only known from a photo with no dimensions. ¹⁷ These *lateres* were primarily used in hypocaust heating systems. *Suspensurae pilae* made of *lateres bessales* are known from the civil town of Brigetio, ¹⁸ while *suspensurae pilae* from both rectangular and circular *lateres* were found in the *canabae* and the legionary fortress. ¹⁹

- The *tegulae* and *imbrices* collected in Brigetio's civil town were probably mainly produced at Kurucdomb. *Tegulae* came in two sizes: 325–340/452–470 mm and 394–410/505–525 mm. The length of the *imbrices* was 440–457 mm, largest width: 160–200 mm, smallest width: 147–166 mm (Dobosi 2022, 321).
- 15 Under nos 186, 217, 283, and 190 in the catalogue.
- BRODRIBB 1987, 3. The size of the bricks was not very consistent due to the shrinkage of clay during drying and firing.
- 17 Catalogue no. 315.
- 18 Dobosi Borhy 2015, 190–192. The hypocaust heated the large representative hall, Room I/4 in House I/b. Excavation units A15–B15.
- 19 Bartus et al. 2015, Figs 5-14; Bartus et al. 2023.

Only one *tubulus* fragment was found in the material. These hollow bricks, also called box-flue tiles, box-tiles, or *tubi*, were mainly used as air pipes in the hypocaust heating system and were invented in the middle of the 1st century AD.²⁰ An interesting use of *tubuli* could be documented in the civil town of Brigetio and the legionary fortress.²¹ Under no. 13 Vásártér, the *suspensurae pilae* of the hypocaust were made of *tubuli* filled with mortar.²²

Two stamped *tegulae* had a large, circular hole with a 10–20 mm high flange in the middle.²³ These holes were vent holes, and chimney pots were attached to them.²⁴ The chimney pots typically came in the form of small lighthouses with window-like openings.²⁵ Paulovics did not collect any chimney pots from the workshop waste, but several pieces are known from the so-called Gázgyár pottery workshop in Aquincum, where they were apparently produced.²⁶

The floor tiles are not stamped, and Paulovics did not give them numbers, nor did he record their size. The rectangular and three dog-bone-shaped floor tiles are only known from photos.²⁷ Nineteen very similar dog-bone-shaped floor tiles were found during the excavations of the civil town in Komárom/Szőny-Vásártér, scattered over the whole surface of the Vásártér.²⁸ Small ceramic floor tiles are said to be a characteristic of Northern Italy and the Danube provinces.²⁹

Vexillation stamps

Based on stamp texts, three vexillation stamp types can be distinguished in the material. The first type reads VEXIL II K, which can probably be read as Vexil(lationes) II (duae) K(arnuntinenses). This stamp represents a new, previously unknown stamp type in Brigetio.

Altogether 30 specimens in different states of preservation of the VEXIL II K stamp were collected by Paulovics. The best-preserved pieces are Cat. nos 97, 109, 127, and 131. It is evident that the thirty tiles were stamped with different dies because there are small variations in the text: the VEXIL is sometimes written as VIXIL, and there can be an interpunction between the VEXIL/VIXIL and the II or between the II and the K, but sometimes one or the other or even both are missing. Even when the interpunction is missing, there is a larger space in its place. In some cases, only an I is visible in the place of the K, but even then, there is a larger space between the II and the I: it is written as "II I" and not as "III". This is the case with a brick stamp from the collection of the Hungarian National Museum, recorded by Szilágyi. The end of the stamp is missing, and it reads VEXIL II I. This stamp was interpreted as *vexil(lationes) III (tres)*; however, it is the exact same stamp type as the VEXIL II K stamps from Kurucdomb.

- 20 Brodribb 1987, 70-71.
- 21 BARTUS et al. 2023.
- 22 Dobosi Borhy 2015, 190–192; for more about the context, see Dévai Gelencsér 2012, 62.
- 23 Catalogue nos 212, 213.
- 24 Brodribb 1987, 19-21, and 32.
- BRODRIBB 1987, 31–33. The function of the lighthouses has extensive literature; for some recent papers, see: Adler-Wölf Sauer 2000; Dyczek 2015; Kirch 2015.
- 26 Kuzsinszky 1932, 316–320.
- 27 See end of catalogue.
- 28 Dobosi -Borhy 2015, 189-190; Dobosi 2022, 321.
- 29 Brodribb 1987, 53-54.
- 30 These are nos 96–113, 117–121, and 127–133 in the catalogue.
- 31 Szilágyi 1933, Tab. 22,1.

Were it not fragmentary, the second type would name two legionary vexillations; it reads V L XIIII. ³² Luckily, there is an intact specimen of this exact same type in the Hungarian National Museum, which reads: V L XIIII ET XV, v(exillationes) l(egionum) XIIII et XV. ³³ Another piece was found in the legionary fortress during the 1934 excavation by Paulovics. This piece is also fragmentary: V L XIIII ET.... ³⁴ All this means that these stamps belonged to the vexillations of the *legio* XIIII Gemina Martia Victrix and the *legio* XV Apollinaris. The VEXIL II K stamp type probably refers to the same two legions.

The third type is represented by a fragmentary stamp which, according to Paulovics, reads IL III, [Vex]il(lationes) III.³⁵ Unfortunately, the tile was not photographed, so it cannot be ruled out that this stamp also belonged to the VEXIL II K type.

Two other vexillation stamp types are known from Brigetio; they read VEXIL TRES and VEXILA-TIO III.³⁶ These were not recorded by Paulovics at the Kurucdomb tilery, but we know that he did not document all vexillation stamps he found.³⁷

According to the widely accepted theory of L. Barkóczi and B. Lőrincz, the construction of the Brigetio legionary fortress began in AD 97 when the legio I Adiutrix arrived there. Based on the vexil(lationes) III (tres) stamps, they hypothesised that the construction work went on with the participation of the legio I Adiutrix and three legionary vexillations in AD 97-101. The vexillations were assumed to be the detachments of the legio XIII Gemina, the legio XIIII Gemina Martia Victrix, and the legio XV Apollinaris because these were stationed on the limes section between Vindobona and Brigetio. The dating to AD 97-101 was based on the fact that the stamps came from the lowest layers of the legionary fortress, together with the stamps of the legio I Adiutrix, and in AD 101 both the legio XIII Gemina and the legio I Adiutrix were sent to the Dacian war.38 It follows that the V L XIIII ET XV stamp type could be dated between AD 101-114/118 when only the vexillations of the legio XIIII Gemina Martia Victrix and the legio XV Apollinaris were left in Brigetio. During this time (AD 101-114/118), the legio XV Apollinaris was garrisoned in Carnuntum and the legio XIIII Gemina Martia Victrix in Vindobona. In AD 101, the legio XI Claudia arrived at Brigetio in the place of the legio I Adiutrix and stayed until ca. AD 105, when it was replaced by the legio XXX Ulpia Victrix. In AD 114/118, the legio I Adiutrix returned to Brigetio for good, and the legio XXX Ulpia Victrix left for Xanten. By this time, all vexillations left Brigetio as well.³⁹ The legio XV Apollinaris might have left earlier because brick stamps of the legio XIIII were found in Brigetio. 40

All this means that according to our present knowledge, the 14^{th} and the 15^{th} legions were not both in Carnuntum between 101-114/118; therefore, the dating of the v(exillationes) l(egionum) XIIII et

- 32 Catalogue no. 383.
- 33 Szilágyi 1933, Tab. 22,4.
- See excavation documentation, HNM Central Database, Archaeological Documentation Collection, no. 76.B.II.
- 35 Catalogue no. 35.
- 36 Szilágyi 1933, Tab. 22,2-3.
- 37 See catalogue nos 143–183.
- BARKÓCZI 1951, 19–20; SOPRONI 1965, 124; LŐRINCZ 1975, 349; BORHY 2012, 23; MOSSER 2014, 201. On the other hand, Saxer suggested that the three vexillations could have belonged to the *legio XIIII Gemina*, the *legio XV Apollinaris* and the *legio XI Claudia* (if made between AD 101–105) or the *legio X Gemina*, the *legio XV Apollinaris* and the *legio XXX Ulpia Victrix* (if made between AD 105–118), SAXER 1967, 88. Other researchers generally reject this idea because the *legio XI Claudia* and the *legio XXX Ulpia Victrix* were based in Brigetio and had their own stamps.
- 39 Barkóczi 1951, 19–20; Soproni 1965, 124; Lőrincz 1975, 349; Borhy 2012, 23; Mosser 2014, 201.
- 40 Barkóczi 1951, 19-20; Soproni 1965, 124.

XV and the vexil(lationes) II (duae) K(arnuntinenses) stamps to AD 101–114/118 needs a thorough examination and possibly an adjustment.

M. Mosser recently summarized the history of the *limes* section between Vindobona and Brigetio. Based on his research, only the legionary fortress of Carnuntum was completed by AD 97, whereas the legio XV Apollinaris had been staying in the area since AD 71.41 In AD 97, three more legions arrived at the region: the legio XIII Gemina, the legio I Adiutrix, and the legio XIIII Gemina Martia Victrix. These four legions were distributed into three locations: Carnuntum, Vindobona, and Brigetio, where they were entrusted with the construction works of the legionary fortresses and several auxiliary fortresses. 42 Each legion seems to have had a base camp but sent building vexillations to the other fortresses.⁴³ The *legio XV Apollinaris* was based in Carnuntum in AD 71–114/118, the legio XIII Gemina in Vindobona in 97-101 (then left Pannonia), the legio I Adiutrix in Brigetio in AD 97-101 and after AD 114/118, and the legio XIIII Gemina Martia Victrix in Vindobona between AD 101 and 114/118.44 Between AD 97 and 101, the exact location of the legio XIIII Gemina is uncertain: earlier research placed it to Ad Flexum (Mosonmagyaróvár, Hungary). 45 According to recent studies, it is more likely that the legion was stationed in Carnuntum or Vindobona at the time, where the presence of the legio XIIII Gemina is corroborated by inscriptions and brick stamps.⁴⁶ During AD 97-114/118, Carnuntum probably functioned as the logistic centre of the construction works of the nearby legionary and auxiliary fortresses (Tab. 3).⁴⁷

The evidence above outlines two periods when the *legio XIIII Gemina Martia Victrix* and the *legio XV Apollinaris* could have stayed together in Carnuntum. Firstly, in AD 97–101, when the 14th legion possibly spent at least some time in Carnuntum together with the *legio XV Apollinaris*. And secondly, around 114/118, when the *legio XV Apollinaris* was replaced by the *legio XIIII Gemina* in Carnuntum, and there might have been a transitional period when both legions stayed in Carnuntum for a while. It must be kept in mind that during both periods, several building vexillations of both legions might have been working at other legionary or auxiliary fortresses, and not two full legions had to be accommodated within the walls of the same fortress.

This also means that the v(exillationes) l(egionum) XIIII et XV and the v(exillationes) II (duae) K(arnuntinenses) stamps can be dated either to somewhere during AD 97–101 or to around 114/118. Finally,, the v(exillationes) v(exillationes)

Legio XXX VV stamp

An intact stamp of the *legio XXX Ulpia Victrix* came to light at Kurucdomb.⁴⁸ This stamp is not similar to any of the *legio XXX VV* stamp types listed by Szilágyi.⁴⁹ According to Barkóczi, stamped

- 41 Lőrincz 1975, 345; Mosser 2014, 205.
- MOSSER 2014, 102. Auxiliary fortresses where stamps of these legions were found are Ad Statuas (Ács-Vaspuszta), Ad Flexum (Mosonmagyaróvár), and Quadrata (Lébény-Barátföldpuszta) GABLER 1977, 167–170.
- 43 Mosser 2014, 111-112.
- 44 Lőrincz 1975, 343–345; Mráv Harl 2008, 48–52; Mosser 2014.
- 45 Lőrincz 1975, 345.
- 46 Mosser 2014, 103, 109-110.
- 47 Mosser 2014, 110-111.
- 48 Catalogue no. 314.
- 49 See Szilágyi 1933, 82-83, Tab. 22,1-7.

Table 3. Legions of the legionary fortresses of Vindobona, Carnuntum and Brigetio between AD 97 and 118, according to different researchers (*the paper has no data on the *legio XI Claudia* and the *legio XXX Ulpia Victrix*)

	Vindobona	Carnuntum	Brigetio		
Lőrincz 1975	92/97–101 leg XIII Gemina	71–114 leg XV Apollinaris	97–101 leg I Adiutrix		
	101–118 leg XIIII Gemina	97–101 vex XIII, XIIII, XV			
			101–105 leg XI Claudia		
			105–118 leg XXX Ulpia Victrix		
			101–118 vex XIIII, XV		
			from 118 leg I Adiutrix		
Strobel 1988	97–100 leg XIII Gemina	81–117/118 leg XV Apoll	93–100 leg I Adiutrix		
	100/101–117/118 leg XIIII G		100/101 leg XI Claudia		
			101/102–102/103 vex XIIII, XV		
			103–117/118 leg XXX Ulpia V		
	from 118/119 leg X Gemina	from 118/119 leg XIIII G	from 118/119 leg I Adiutrix		
Brandl 1999	97-100/101 leg XIII Gemina	71–117/118 leg XV Apoll	97–100/101 leg I Adiutrix		
	100–117/118 leg XIIII Gem		100/101 leg XI Claudia		
			103/118 leg XXX Ulpia Victrix		
	from 118 leg X Gemina	from 117/118 leg XIIII G	from 117/118 leg I Adiutrix		
Mráv – Harl	97–101 leg XIII Gemina	leg XV Apollinaris	97–101 leg I Adiutrix		
2008			97–101 vex XIII, XIIII, XV		
			101–105 leg XI Claudia		
			101–105/118 <i>vex XIIII, XV</i>		
	101–114/118 leg XIIII Gem		105–117/118 leg XXX Ulpia V		
		leg XIIII Gemina	from 118 leg I Adiutrix		
Mosser 2014	97/98–101 leg XIII Gemina	71–116/118 leg XV Apoll	97–101 leg I Adiutrix		
	97-101 leg XIIII Gemina?	97-101 leg XIIII Gemina?	97–101 vex XIII, XIIII, XV		
	101–114/118 leg XIIII Gem		101–114/118 <i>vex XIIII, XV</i>		
			leg XI Claudia*		
			leg XXX Ulpia Victrix*		
	from 118 leg X Gemina	from 118 leg XIIII Gemina	from 118 leg I Adiutrix		

tiles of the legion were found in the legionary fortress⁵⁰ and during his 1941 Kurucdomb excavation as well.⁵¹ Further brick stamps of the legion came to light during the modern excavations in the *praetentura*.⁵² Two more stamps were found at the civil town of Brigetio at the so-called Komárom/ Szőny-Vásártér site.⁵³ Both specimens found in the Vásártér are fragmentary; however, it can be stated that they were not stamped with the same die as the specimen from Kurucdomb but seem

⁵⁰ In the *retentura* of the legionary fortress. BARKÓCZI 1949, 173–174; BARKÓCZI 1951, 20; LŐRINCZ 1975, 347.

Barkóczi 1951, 20. No stamped tiles from the 1941 excavation by Barkóczi can be found in the Hungarian National Museum at present. Personal communication of Zsolt Mráv.

⁵² Personal communication of David Bartus, lead archaeologist of the excavations in the legionary fortress.

Klapka György Museum of Komárom, Inv. no. 2008.K40.083.10. (unpublished) and 2011.001.80. Bartus et al. 2014, 14.

to be similar to a stamp collected by Szilágyi in Carnuntum.⁵⁴ This also means that the assumption that Carnuntum-type stamps cannot be found in Brigetio and vice versa,⁵⁵ can no longer be held.

The *legio XXX Ulpia Victrix* arrived at Brigetio between AD 103 and 105 and left between AD 114 and 118.⁵⁶ Brigetio was its first base camp, as the legion was raised in Italy by Emperor Trajan (AD 98–117), together with the *legio II Traiana*, probably after the first Dacian war in AD 103–105.⁵⁷ The *legio XXX Ulpia Victrix* was relocated to Germania Inferior in AD 114–118⁵⁸ and arrived at Xanten legionary fortress Vetera II in AD 120 at the latest.⁵⁹ Its stay in Brigetio is attested by an altar inscription, although the inscription itself cannot be securely dated to the early 2nd century AD.⁶⁰

Only a few stamped tiles of the *legio XXX Ulpia Victrix* are known from Pannonia, which is not surprising, considering that it only spent roughly fifteen years in the province. However, most of its stamps are known not from Brigetio but Carnuntum and its surroundings, including Vindobona,⁶¹ Carnuntum,⁶² the Roman villa of Bruckneudorf-Parndorf⁶³ and Apetlon.⁶⁴ This picture may change in the future due to the ongoing excavations in the Brigetio legionary fortress, where hundreds of brick stamps have come to light.

Legio XI Claudia

Not one brick stamp of the *legio XI Claudia* was collected by Paulovics during his Kurucdomb excavations. This fact is worth noting for two reasons. Firstly, there is a *legio XI Claudia* stamp in Fig. 7 of Paulovics's 1938 publication about the legionary tilery.⁶⁵ The details in this publication are, evidently, imprecise; for instance, he writes about four kilns instead of the five he unearthed. The *legio XI Claudia* stamp must have been found during his other Brigetio excavation in 1934, where he unearthed the baking oven of the *legio XI Claudia* near the northern walls of the legionary fortress built of stamped tiles of the legion.⁶⁶ And secondly, brick stamps of the *legio XI Claudia* were found

- 54 Szilágyi 1933, 83/2, Tab. 22,2.
- 55 Szilágyi 1933, 83; Reuter 2012, 11.
- 56 Borhy 2012, 27; Brandl 1999, 233-234; Lőrincz 1975, 351; Mócsy 1962, 615; Barkóczi 1951, 20.
- 57 REUTER 2012, 5.
- 58 Borhy 2012, 27; Brandl 1999, 233-234; Lőrincz 1975, 351; Mócsy 1962, 615; Barkóczi 1951, 20.
- 59 Brandl 1999, 234
- 60 RIU 383 = CIL III 10974. BARKÓCZI 1951, 20; BORHY 2012, 25; REUTER 2012, 127, Kat. Nr. 88. The inscription reads: [F]ortu[nae] / sacrum / Priscin[ius] / Hilario / mil(es) leg(ionis) XX[X] / V(lpiae) V(ictricis) / V(otum) S(olvit) L(ibens) [M(erito)].

Another inscription of the legion from Brigetio is the tombstone of Aelius Carus $tribunus\ militum$ of the legio XXX VV. RIU 658 = CIL III 15188. This inscription can be dated to the 3rd century AD. It reads: $D(is)\ M(anibus)\ /\ Ael(io)\ Caro\ tr-\ /\ ib(uno)\ mil(itum)\ leg(ionis)\ XXX\ /\ Vlp(iae)\ Germ(aniae)\ in-\ /\ fer(ioris)\ qui\ vix(it)\ annis\ LIII\ /\ Aelia\ Statu-\ /\ ta\ coniugi\ /\ b(ene)\ m(erenti)\ (Reuter\ 2012,\ 64-65,\ Kat.\ Nr.\ 16).$

- Brandl 1999, 233–239. A stamp is even known from the legionary tilery of Vindobona: Mosser 2018, 177.
- 62 Szilágyi 1933, 83; Brandl 1999, 233–239.
- 63 Lőrincz 1989, 246; Saria 1966, 256.
- 64 Brandl 1999, 238-239.
- 65 Paulovics 1938, 7, Fig. 7.
- 66 Paulovics 1938, 6; Paulovics 1941, 158; Barkóczi 1951, 9.

at several points in the legionary fortress,⁶⁷ two specimens even at the civil town of Brigetio.⁶⁸ There are several different types among the published stamps, making it all the more probable that they were produced in Brigetio and not shipped from elsewhere. The fact that none was found at the Kurucdomb tilery can be explained in two ways: either they were overlooked by the excavators or illegible, or the *legio XI Claudia* fired its bricks in another, yet unidentified, kiln.

Legio I Adiutrix stamps

Most stamps belonged to the *legio I Adiutrix*, which is not surprising, considering that the legion was stationed in Brigetio for about three centuries. Altogether 167 stamps can be attributed to them without any doubt and probably most of the fragmentary leg(io) [- - -] stamps also belong to this legion. There is a great variety of different texts, letter and stamp shapes, although, without the original tiles, it is impossible to tell just how many different dies are, in fact, represented in the material. Based on the photos, about 120–150 different stamps can be estimated.

Imperial epithets were used in twelve cases: ten stamps included an abbreviation of the epithet *Antoniniana*⁶⁹ and two of the epithet *Severiana*. *Antoniniana* stamps can be dated to the second half of the 2nd century AD, while the *Severiana* stamps to the first half of the 3rd century AD.

Another interesting stamp reads $leg(io) I Ad(iutrix) / Bomm[i(us)_-__]$. According to B. Lőrincz, brick stamps with the name Bommius were produced sometime during the 4th century AD. Several different stamps by Bommius are known: $leg(io) I Adi(utrix) / Bommi(us) f(ecit),^{71} leg(io) I Adiutr(ix) / Bommi(us) f(ecit),^{72} leg(io) I (Ad(iutrix) / Bom(m)i(us) Cresc.^{73} These stamps were found in Brigetio,^{74} Carnuntum,^{75} and Vetus Salina.^{76} These brick stamps were listed under the heading "laterculi centuriarum" in a paper by Augustus Jünemann.^{77} While Jünemann thought Bommius to be a centurio of the legio I Adiutrix, in B. Lőrincz's opinion, person names appearing on military tiles usually indicated immunes, i.e., soldiers specialised in brick production in this case.$

A few ligature types frequently appear on the stamps, like the AD ligature in the Adiutrix, ⁷⁸ ANT ligature in Antoniniana, ⁷⁹ PF ligature in $Pia\ Fidelis$. ⁸⁰ Two solutions are particularly interesting. In a

- PAULOVICS 1941, 157–158; BARKÓCZI 1949, 70; BARKÓCZI 1951, 20; LŐRINCZ 1975, 347; BORHY 2012, 28; a large number of legio XI Claudia stamps were found in the bath of the legionary fortress: see BARTUS et al. 2023 in this volume.
- They were found during the Komárom/Szőny-Vásártér excavations in 2005 and 2014: 2005.F17.048.129. Almost complete stamp, Dobosi 2020, 320–322, unlike any of the stamps listed by Borhy (Borhy 2012, 32) or Szilágyi (Szilágyi 1933, Tab. 14) and 2014.P18-P19. 058.420. Fragmentary stamp: leg(io) X [---] (Bartus et al. 2016, 114–115). Based on the photos, it is the exact same stamp that Paulovics found in the legionary fortress (Paulovics 1941, Taf. 26,1; Bartus et al. 2016, 5. tábla 4).
- 69 Catalogue nos 21, 199, 217, 221, 222, 226, 302, 317, 381, and those without number at the end of the list.
- 70 Catalogue nos 211 and 236.
- 71 Szilágyi 1933, Tab. 4,107; Buora Jobst 2002, 252.
- 72 Szilágyi 1933, Tab. 4,106.
- 73 Szilágyi 1933, Tab. 4,104; Mathédesz 2015, 92, Fig. 1.
- 74 Szilágyi 1933, 18.
- 75 Buora Jobst 2002, 252.
- 76 Lőrincz 1979, 10.
- 77 Jünemann 1894, 121.
- 78 Catalogue nos 62a, 246, 308.
- 79 Catalogue nos 199, 221, 226, and those without number at the end of the list.
- 80 Catalogue nos 316, 389.

few cases, the PF ligature forms an E; thus, the stamp reads LEGIADIE.⁸¹ These stamps are all retrograde. In another case, a DP ligature appears, where the PF is turned upside down, so the P looks almost like a 'd' in cursive Latin writing.⁸²

Another characteristic of some stamps is "spelling mistakes". Often an I stands in the place of an E, an I instead of an L, or a C in the place of a G (VIXIL / VIXII instead of VEXIL⁸³ or LEC(io) / LIC(io) instead of LEG(io). This must be partly caused by the aging or deterioration of the dies.

Some letters tend to appear mirrored in the stamped texts; especially D and N are prone to this phenomenon. In one case, the whole stamp is retrograde except the D. Text always poses a problem where the creation of an object involves making a mirror image first, like in the case of engravings, woodcuts, linocuts, or any kind of stamping and casting from a reverse mould. The nineteenth-century cast relief portrait of Heinrich Rose at the Eötvös Loránd University, where the N in Heinrich is written mirrored (Fig. 31), illustrates this phenomenon well.

Cohors VII Breucorum Antoniniana stamp

One fragmentary tile stamp can be attributed to the *cohors VII Breucorum* with an *Antoniniana* epithet.⁸⁷ The *cohors* is known to have used several imperial epithets⁸⁸ which makes these stamps easy to date.

According to B. Lőrincz, the *cohors VII Breucorum* arrived at Pannonia in AD 85. After AD 92, it was relocated to somewhere near Viminacium. During the Antonine dynasty, the *cohors* returned to Pannonia, probably to Lugio, where it was garrisoned during the 3rd century AD.⁸⁹ Brick stamps of the *cohors* are known from numerous locations in Pannonia Inferior, based on which B. Lőrincz concluded that the *cohors* was specialised in brick production and shipped its stamped tiles along the Danube.⁹⁰ The workshop of the *cohors* was in Lugio (Dunaszekcső-Halena, Hungary), where a small part of a kiln was unearthed in 2012.⁹¹ This stamp from the legionary tilery of Brigetio means that the *cohors* not only sent finished tiles but also specialists to other locations.

Cohors VII? stamp

The attribution of the stamp of a cohort VII with no specification is uncertain. It might be a stamp of the *cohors VII Breucorum*, but the stamps of this *cohors* never end with the number VII; they always contain at least a BR after the VII.

- 81 Catalogue nos 214, 218, 224, 225, 259, 386.
- 82 Catalogue nos 239, 293, 301, 378.
- 83 Catalogue nos 99, 105, 106, 109, 111, 118, 127, 128, 129, 130.
- 84 Catalogue nos 86, 241, 294, 314, 321, 380, 381, 388, 400, 403.
- 85 Catalogue nos 56, 184, 206, 208, 213, 223, 230, 231, 235, 262.
- 86 Catalogue no. 49.
- 87 Catalogue no. 31.
- Kovács 2005; Havas 2008; Farkas 2013, 120. The imperial epithets used by the cohors are An(toniniana)/ Ant(oniniana) AD 211–222, Sev(eriana)/Sever(iana)/Severian(a) AD 222–235, Ale(xandriana)/Alex(andriana) AD 222–235, Max(iminiana) AD 235–238 Gord(iana)/Gordi(ana) AD 238–244, Phil(ippiana)/Philipp(iana) AD 244–249.
- 89 LŐRINCZ 2001, 31.
- 90 Lőrincz 2001, 31.
- 91 Gábor 2020.

Lupicinus and Terentianus tribuni stamps

Fourteen stamps can be attributed to either Lupicinus or Terentianus *tribunus*, all fragmentary. Ten stamps belong to Lupicinus *tribunus*, one to Terentianus *tribunus*, and three can belong to either.

Lupicinus was *tribunus* in Valeria *provincia* sometime between AD 369 and AD 372.⁹² His brick stamps are well-known from several locations along the Danube *limes*.⁹³ Terentianus was *tribunus* roughly the same time as Lupicinus, in the late 360s and early 370s AD. Their brick stamps are frequently found together.⁹⁴ Two stamped tiles of Terentianus tribunus were found at the 4th century tilery at Solva (Esztergom, Hungary)⁹⁵ and one near the tile kilns at Lugio (Dunaszekcső-Halena, Hungary),⁹⁶ indicating that his tiles were produced at several workshops in different locations along the Danube limes in Valeria.

The Kurucdomb and Gerhát pottery workshops

The excavated part of the legionary tilery of Brigetio was part of a huge pottery workshop on the eastern side of the legionary fortress. Archaeological research distinguishes between the Kurucdomb and Gerhát pottery workshops, but the two were probably parts of the vast complex that manufactured an array of products: different kinds of bricks and tiles, household pottery, coarse and tableware, as well as imitations of Samian ware. Both the Kurucdomb and Gerhát pottery workshops were only excavated sporadically between the 1930s and 1980s, and the documentation of some early excavations got lost during and after World War II. Therefore, the exact size and topography of the workshop are still unknown.⁹⁷

The other tilery of the *legio I Adiutrix*: the Dömös workshop

Another military tilery of the *legio I Adiutrix* was discovered in the 1980s in Dömös, approximately 70 km east of Komárom/Szőny. According to the lead archaeologist Márta H. Kelemen, the two large, rectangular kilns were in operation in the second half of the 2nd century AD. 8 Both kilns were larger than Kilns I and II of the Kurucdomb tilery and produced a variety of building ceramics: *tegulae*, *imbrices*, *lateres*, and *tubuli*. All 18 stamped tiles recovered during the excavation bore the stamp of the *legio I Adiutrix*.

- 92 Lőrincz 2006, 108–109. Or between AD 368–374, Kovács 2018, 92.
- 93 LŐRINCZ 1981b, 46–49. LŐRINCZ mentions the following locations: Koppánymonostor, Komárom-Brigetio, Tokod, Esztergom-Solva, Pilismarót-Castra ad Herculem, Dömös-Hajóállomás, and Pécs-Sopianae. Besides these, Soproni listed Iža-Leányvár-Celamantia, Milanovce, Lábatlan, Kisoroszi-Hosszúrét, Nógrádverőce, Dunabogdány-Cirpi, Balhavár, Horány and Dunakeszi (Soproni 1958, 53).
- LŐRINCZ 2006, 109. Terentianus' stamps were found in Koppánymonostor, Komárom-Brigetio, Tokod, Esztergom-Solva, Dömös-Hajóállomás and Pilismarót (LŐRINCZ 1981b, 48–49). Besides, Soproni listed Intercisa and Paks. Several more stamps were found in Iža-Leányvár-Celamantia published by L. Mathédesz (MATHÉDESZ 2015, 70–72), and I. G. Farkas published an additional one from Dunaszekcső-Lugio (FARKAS 2013, 127).
- 95 H. KELEMEN 2011, 141.
- 96 FARKAS 2013, 127.
- About the research history of pottery workshops in Brigetio, see Delbó 2020, 21–23. For more information about the Kurucdomb and Gerhát pottery workshops, see Delbó 2019 and Delbó 2020.
- 98 H. Kelemen 1995.
- 99 For a size comparison, see Dobosi 2021, Fig. 6.

Brick and tile kilns in Pannonia

Until 2021, 62 tile kilns were discovered in Pannonia in thirty settlements; fourteen of these belonged to seven military workshops. Of the four legionary bases (Vindobona, Carnuntum, Brigetio, and Aquincum), the legionary tilery of three is known; only the location of the Carnuntum workshop is still undiscovered. Apart from these, military brick manufacturing workshops were discovered in Solva (4th century AD, Esztergom, Hungary), Dömös (2nd century AD, *legio I Adiutrix*, Hungary), Lugio (2nd–3rd centuries AD, *cohors VII Breucorum*, Dunaszekcső, Hungary), and Progar (2nd–3rd centuries AD, *classis Flavia Pannonica*, Progar, Serbia). 100

All Pannonian legionary tileries were located outside the legionary fortresses and were in operation for centuries, from the end of the 1st century to the 4th century AD. All occupied a large area and had several rectangular kilns. Based on the brick stamps found in the workshop waste, not only the base legion of the fortress used the kilns for firing ceramic building material but also other military units or vexillations, probably helping out at major construction works.¹⁰¹

Conclusions

The results of the 1934–1935 excavations at the Komárom/Szőny-Kurucdomb site, led by István Paulovics, mostly remained unpublished until now. The thorough examination of the original documentation of the excavations stored in the Archaeological Documentation Collection in the Central Database of the Hungarian National Museum yielded interesting new data about the Late Roman watchtower and the legionary tilery of Brigetio, both found at Kurucdomb.

Based on a hand-written report by Paulovics, the legionary tilery started production at the very end of the 1st century AD and was still operating when the watchtower was built in the 370s. The 9.75×10.05 m rectangular watchtower was erected beside the kilns, its walls oriented in the same direction as the walls belonging to the tile manufacturing workshop. One of the kilns, Kiln I, was found fully stacked with unfired *imbrices*.

Altogether five kilns were excavated by Paulovics, three rectangular and two circular ones, only two of which were published in his excavation report. He found hundreds of stamped tiles in and around the kilns. Unfortunately, the bricks and tiles apparently got lost since the 1930s but, based on his notes and photos, a catalogue of 417 stamped tiles and four additional unstamped floor tiles could be compiled. Of the 417 tile stamps, 216 could be securely linked to a military unit. Most of these were stamped by the *legio I Adiutrix* (167 pieces and probably most of the uncertain ones), 32 by military vexillations, 14 by either Lupicinus *tribunus* or Terentianus *tribunus*, one by the *legio XXX Ulpia Victrix*, and one by the *cohors VII Breucorum*. Paulovics did not record any brick stamp of the *legio XI Claudia* at the tilery.

Most interesting are the previously unknown vexillation stamps that read VEXIL II K, probably meaning *Vexil(lationes) II (duae) K(arnuntinenses)*. Another vexillation stamp of the V L XIIII ET XV, *v(exillationes) l(egionum) XIIII et XV* type was also found at the site, and one is inclined to think that the *Vexil(lationes) II (duae) K(arnuntinenses)* stamp refers to the same two legions, the *legio XIIII Gemina Martia Victrix* and the *legio XV Apollinaris*. According to our present knowledge, these two legions were not stationed in Carnuntum contemporaneously; there were two brief periods (between AD 97 and 101 or around AD 114/118), however, when these two legions could

¹⁰⁰ Dobosi 2021, with extensive literature about tile production in Pannonia.

¹⁰¹ Dobosi 2021.

have stayed at the same time in Carnuntum. Consequently, the stamped tiles can be dated to either of these periods.

The vast majority of the workshop's products were *tegulae* (217 pieces), but other types of bricks and tiles were also found at the site: 57 *imbrices*, 11 *lateres*, four floor tiles, two *tegulae* with circular holes in the middle, and a *tubulus*.

The excavated part of the legionary tilery of Brigetio was part of a huge pottery workshop on the eastern side of the legionary fortress, known as Kurucdomb and Gerhát pottery workshops. The exact size and topography of the workshop complex are still unknown, but valuable information could be gained by assessing available data from past excavations or by conducting new on-site research in the area.

Intensive archaeological research in the legionary fortress of Brigetio has been going on since 2016. The excavations revealed a hitherto unknown quantity of stamped tiles. More than a thousand brick stamps were collected, including those of the *legio XI Claudia*, *legio XXX Ulpia Victrix*, *legio I Adiutrix*, *cohors VII Breucorum*, *Lupicinus tribunus*, and *Terentianus tribunus*. The combined results of the old and new excavations will rewrite our understanding of the brick production of Brigetio and the construction phases of the legionary fortress.

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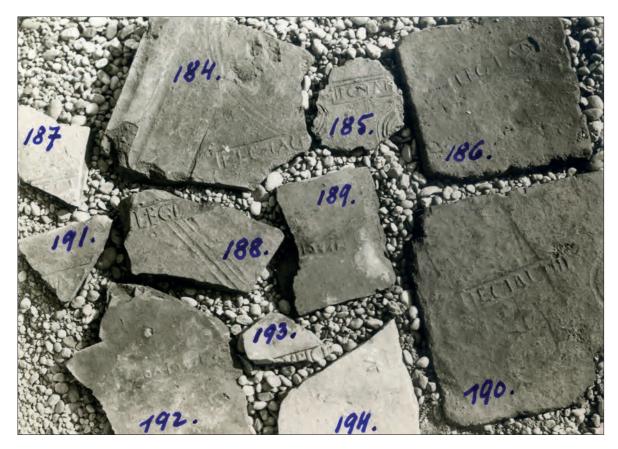


Fig. 16. Photo "A.1." Brick stamps cat. nos 184–194



Fig. 17. Photo "A.2." Brick stamps cat. nos 195–210

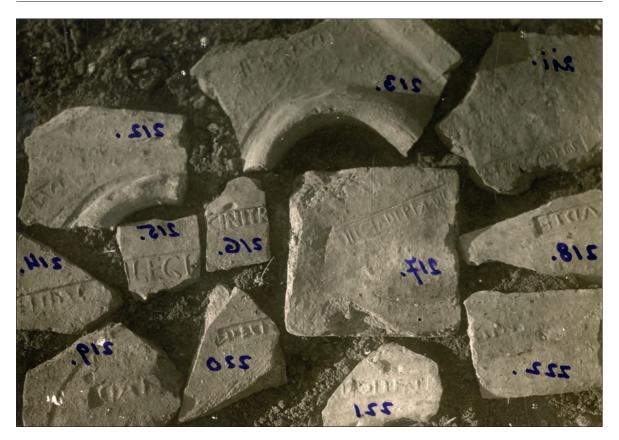


Fig. 18. Photo "A.3." The photo was developed in reverse; therefore, "rossz" [bad] has been written on the frame above. The photo is now flipped. Brick stamps cat. nos 211–222

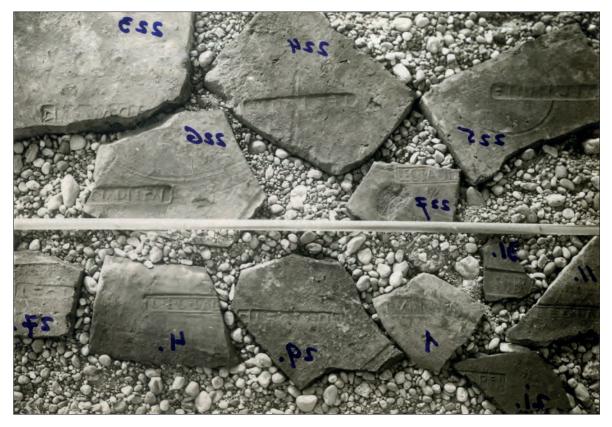


Fig. 19. Photo "A.4." The photo was developed in reverse; therefore, "rossz" [bad] has been written on the frame above. The photo is now flipped. Brick stamps cat. nos 1, 4, 11, 21, 27, 29, 31, and 223–227



Fig. 20. Photo "A.5." Brick stamps cat. nos 62a, 64, 69, and 240–248



Fig. 21. Photo "Vex. 1." Brick stamps cat. nos 82–113



Fig. 22. Photo "Vex. 2." Brick stamps cat. nos 114–121 and one without a number (see after no. 114 in the catalogue)



Fig. 23. Photo "Vex. 3." Brick stamps cat. nos 122–134, 228–239, and three floor tiles (see end of catalogue)



Fig. 24. Photo "Fazekastelep 1." Brick stamps cat. nos 387–408, and one without number (see end of catalogue)

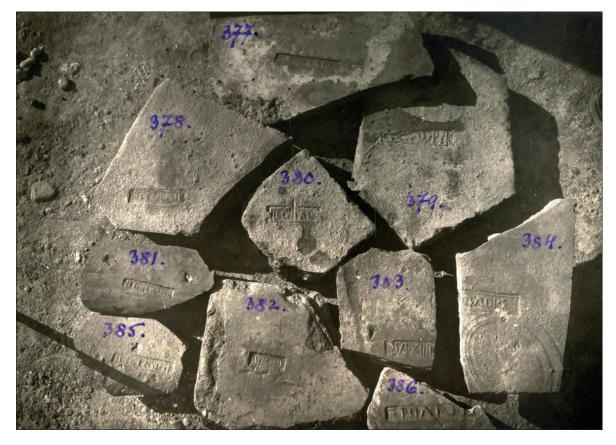


Fig. 25. Photo "Fazekastelep 2." Brick stamps cat. nos 377–386



Fig. 26. Brick stamps cat. nos 293, 297, 304, and 312



Fig. 27. a – Brick stamps cat. nos 2 (with number 19 on photo), 9, 10, 16, 21, 22, and the without number (above right, see end of catalogue), b – Brick stamps cat. nos 4, 53, and 55, c – Brick stamps cat. no. 321, and two pieces without number (see end of catalogue), d – Brick stamps cat. nos 308, 310, 316, 317, and without number (below left; see end of catalogue)



Fig. 28. a – Brick stamps cat. nos 44, 45, 54, and 64, b – Brick stamps cat. nos 294 and 303, c – Brick stamps cat. nos 315 and 311 (the latter upside down), d – Brick stamps cat. nos 301, 309, and 318



Fig. 29. a – Brick stamp cat. no. 60, b – Brick stamp cat. no. 302, c – Brick stamp cat. no. 305 (upside down), d – Brick stamp cat. no. 306



Fig. 30. a – Brick stamp cat. no. 314, b – Brick stamp cat. no. 319, c – Brick stamp cat. no. 320, d – Brick stamp cat. no. 324



Fig. 31. Nineteenth-century cast relief portrait of Heinrich Rose at the Eötvös Loránd University (photo by L. Borhy)

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Appendix

Sketch		OLECTADE.	闽	L.E.C.I.AD	[TEC	[5-]	(No	TC I VOY
Photo	Fig. 19	Fig. 27.a in middle with nr. 19	no photo	Fig. 19 and Fig. 27.b middle	no photo	no photo	no photo	no photo
Depth (m)		0.25	0.65			0.4-0.5	1.3	0.4
Find spot	Kiln II	Kiln II, spot ʻi'	Kiln II, spot 'a'	Kiln II	Kiln II	Kiln II, spot 'g'	Kiln II, spot 'h'	Kiln II, spot 'ï'
Type of tile	imbrex	tegula	tegula	imbrex	tegula	tegula	tegula	tegula
Size of tile (mm)								
Notes		in tabula ansata	in tabula ansata			retrograde D	in tabula ansata	in tabula ansata
text	[Co]ḥ(ors) VII ?	Leg(io) I Ad(iutrix)	[Leg(io) I Ad(iutrix) P(ia)] F(idelis) ?	L° e° g(io)° I° Aḍ(iutrix) []	Leg(io) []	[Leg(io) I A]d(iutrix)	Ļ[eg(io)]	[L]eg(io) I Ad(iutrix)
OZ	1 (i.2)	2 (19)	(8)	4 (i.4)	5 (i.10)	6 (13)	(9)	8 (22)

CANACTA	ECTADIBL	LECIAL	INITAD	ABGHAD!	INIT	DON	LEGEORY		ATECIANS
Fig. 27.a bottom left	Fig. 27.a bottom right	Fig. 19	no photo	no photo	no photo	no photo	Fig. 27.a middle left	no photo	Fig. 27.a top right
9.0	0.3		0.55	0.4-0.5	0.3	0.4			
Kiln II, spot 'f'	Kiln II, spot ʻi'	Kiln II	Kiln II, spot 'b'	Kiln II, spot 'g'	Kiln II, spot 'g'	Kiln II, spot 'i'	Kiln II, spot 'f'	Kiln II	Kiln II
tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula		tegula
	in tabula ansata	in tabula ansata				in tabula ansata	in <i>tabula ansata,</i> AD ligature		in tabula ansata
[Teren]ţianuş Trj(bunus)	[L]eg(io) I Adi(utrix)	Leg(io) ° I ° Aḍ(iutrix)xx	[Lupic]ini tṛ(i)þ(uni)	Leg(io) I Ad(iutrix) []	Lupi[cini tr(i)b(uni)]	[Leg(io) I] Ad(iutrix)	Leg(io) I Âd(iutrix) P(ia) F[(idelis)]	no documentation	Leg(io) I A(iutrix) P(ia) F(idelis)
9 (11)	10 (20)	11 (i.3)	12 (6)	13 (16)	14 (18)	15 (21)	16 (12)	17 (i.)	(i)

VITRE	0	MIND	ALEGIA.	E	EQ.	3	3.1. A OF	1000	CEC	MATACIA
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0.45			0.4-0.5	0.45	1	0.6 m	0.6 m	ı	1	ı
Kiln II, spot 'b'	Kiln II	Kiln II	Kiln II, spot 'g'	Kiln II, spot 'a'	Kiln II	Kiln II, spot 'a'	Kiln II, spot 'i'	Kiln II	Kiln II	Kiln II
tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula
			in tabula ansata				in tabula ansata	in <i>tabula ansata</i> , "yellow"	retrograde	in tabula ansata
[Lupici]ņi tr(i)b(uni)	[Leg(io) I A]d(iutrix)	[Leg(io) I A]ḍ(iutrix) P(ia) F(idelis) A(ntoniniana)	Leg(io) ° I ° A[d(iutrix)]	[Leg(io)] ! A[d(iutrix)]	Ļeg(io) []	Lu[picini tr(i)b(uni)]	[Le]g(io) ° I ° Ad(iutrix)	Leg(io) J [Ad(iutrix)]	Leg(io) ! [Ad(iutrix)]	Ļeg(io) Į Ąd(iutrix)
19 (5)	20 (i.7)	21 (i.5)	22 (15)	23 (3)	24 (i.8)	25 (7)	26 (23)	27 (i.12)	28 (i.9)	29 (i.6)

(00)		CINP	CLTCA D	(M)	TITLE		TO	EC 17k)	1	RB	合小
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no photo	Fig. 19	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo
0.4-0.5 m	I	0.35 m	0.35 m	1	1.6 m	I	ı	I	I	ı	1
Kiln II, spot 'g'	Kiln II	Kiln II, spot 'a'	Kiln II, spot 'g'	Kiln I	Kiln II, spot 'b'	Kiln II	Kiln II	Kiln II	Trench B	Trench B	Trench B
tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	imbrex	imbrex	imbrex
					l=350						
retrograde	BR ligature		retrograde, "faint"			"nothing!"	retrograde	in tabula ansata			
[Leg(io) I] Ad(iutrix) ?	[coh(ors) VI]! Br(eucorum) A[(ntoniniana)]	[Le]g(io) ° I A(diutrix) P(ia) F(idelis)	Leg(io) I Ad(iutrix)	[Leg(io) I] Ad(iutrix)	[Vex]il(lationes) III	no documentation	[L]eg(io) ! A[d(iutrix)]	Leg(io) [1] Aḍ(iutrix)	Lup[icini tr(i)b(uni)]	[Lupicini t]r(i)b[(uni)] ?	Lup[icini tr(i)b(uni)]
30 (14)	31 (i.1)	32 (2)	33 (1)	34 (10)	35 (17)	36 (i.11)	37	38	39	40	41

PICINITRB	121TIS	LEGTAR BOANA	LEGI	APP	PLEGI	VEGINOT.	ALECINOS	(19CIVIC)	IN EC
no photo	no photo	Fig. 28.a left	Fig. 28.a middle	no photo	no photo	no photo	no photo	no photo	no photo
1	I	1	ı	ı	1	I	ı	ı	ı
Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B
imbrex	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula
	"grey, flat"		in tabula ansata	in tabula ansata	in tabula ansata		retrograde in <i>tabula ansata</i>		in tabula ansata
[Lu]picini tr(i)b(uni)	[] P ? ITR Lupicini tribuni?	Leg(io) I Aḍ[(iutrix)] / Bomṃ[]	Leg(io) ° Į [Ad(iutrix) – – –]	[Leg(io) I] A(diutrix) P(ia) F(idelis)	Leg(io) I [Ad(iutrix)]	Ļeg(io) I Adi[(utrix)] or Ļeg(io) I Ad(iutrix) P(ia) [F(idelis)]	Leg(io) I Ad(iutrix)	[Le]g(io) I Ad(iutrix) P(ia) F(idelis)	Leg(io) []
42	43	44	45	46	47	48	49	50	51

ETI-1X	THE OVER	ALFGIM!	MIEGIADPE	(LEGIND)	S. FCI VOM	KEGIAPPH		(FEININ)	FI	MECTAD
no photo	Fig. 27.b left	Fig. 28.a top	Fig. 27.b top right	no photo	no photo	no photo	no photo	Fig. 29.a	no photo	Fig. 20 but stamp not visible on photo
1	ı	I	1	I	I	I	I	I	"deeper layer"	"deeper layer"
Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B	Trench B
tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	imbrex	tegula
									l=105	w=170
	AD ligature, "thick"	in tabula ansata	in tabula ansata, "thick"	retrograde D	retrograde, in tabula ansata	in tabula ansata	in tabula ansata			in <i>tabula ansata</i> with animal foot- print
[Leg(io) I] Adi(utrix) P(ia) F(idelis)	Leg(io) ° I Âd(iutrix) P(ia) F(idelis)	Leg(io) I A[d(iutrix)]	Leg(io) I Ad(iutrix) P(ia) F(idelis)	Leg(io) I Ad(iutrix)	Ļeg(io) I Ad(iutrix)	Ļeg(io) I A(diutrix) P(ia) F(idelis)	Leg(io) ° []	Leg(io) I Aḍi(utrix)	[Le]g(io) I Aḍ[(iutrix)]	Leg(io) ° I ° Ad(iutrix)
52	53	54	55	56	57	58	59	09	61 (B.1)	62 (B.2)

	M	OIC IMP		1757	11	12 2	COPP		LECIAPRE
Fig. 20	no photo	Fig. 20 and Fig. 28.a bottom right	no photo	no photo	no photo	no photo	Fig. 20	no photo	Fig. 21 and Fig. 4
"deeper layer"	"deeper layer"	deeper layer	deeper layer	I	1	1	1	upper layer	"under the layer" 1.6 m
Trench B	Trench B	Trench B	Trench B	"Above the watchtower walls, near Kiln II"	Trench B	Trench Vexillation			
imbrex	tegula	tegula	imbrex	tegula	tegula	imbrex	tegula		imbrex
l=135	w=165	l=165	l=135	l=110	I=135	I=225	I=70		w=170
AD ligature, "missing"	in tabula ansata		retrograde			in <i>tabula ansata</i> "red"	"missing"	on	in <i>tabula ansata</i>
[Le]g(io) I Âd(iutrix) P(ia) F(idelis)	[Leg(io) I Ad]i(utrix) ?	Ļeg(io) I° Aḍ(iutrix) []	L[eg(io)]	Leg(io) I [Ad(iutrix)]	Le[g(io)]	[L]eg(io) [I A]d(iutrix)	Lup[icini tr(i)b(uni)]	"poor stamps"no documentation	Leg(io) Ī A(diutrix) P(ia) F(idelis)
62.a (B.3)	63 (B.4)	64 (B.5)	65 (B.5.1)	99	29	89	69	70-81	82

		TEGT	CC.I.an	KINECTA			SOPIEM S	Coll Apple
Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4 as nr. 98	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4
1	I	ı	I	I	I	ı	ı	1
Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation
tegula	tegula	tegula	tegula	tegula	tegula	tegula	imbrex	tegula
l=190	l=155	06=1	w=150	w=110	l=185	l=140	w=250	w=195
in tabula ansata	"yellow"			in <i>tabula ansata</i> "yellow"	PF ligature, "yellow"	in tabula ansata	in tabula ansata	
[Leg(io) I] Ad(iutrix) P(ia) F(idelis)	[Le]g(io) j̄ A̞d(iutrix) P̂(ia) F(idelis)	Leg(io) ° J [Ad(iutrix)]	[L]eg(io) ° I ° Ad(iutrix)	Ļęg(io) JĀ[d(iutrix)]	[Leg(io)] ! ° Ad(iutrix) f⁄(ia) F(idelis)	[Leg(io) I A]ḍ(iutrix) P(ia) F(idelis)	[Leg(io) I] Ad(iutrix) Pi(a) Fi(delis)	[Le]g(io) ° I Ad(iutrix) P(ia) [F(idelis)]
83	84	85	98	87	88	68	06	91

TEC	ALEG IN		SILV DIES	SI II TE	WIXII-II-K	(NO 10-11 M)	ANNI IIA		MXM
Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4
lion	rion	rion -	- rion	lion -	rion -	tion	Lion Lion	- Lion	- tion
tegula Trench Vexillation	imbrex Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation	tegula Trench Vexillation
w=185 teg	l=135 imb	l=140 <i>teg</i>	teg	teg	teg	teg	teg	teg	teg
in tabula ansata "yellow"	in tabula ansata	in <i>tabula ansata</i> "yellow"	in tabula ansata						
Leg(io) []	Ļęg(io) I° Ą[d(iutrix)]	Le[g(io)]	[Le]g(io) ° Ī ° Ad(iutrix) P(ia) F(idelis)	[Vex]il(lationes) II (duae) K(arnuntinenses)	Vexil(lationes) ° II (duae) ° K(arnuntinenses)	[V]exil(lationes) ° II (duae) K(arnuntinenses)	Vexil(lationes) II (duae) K(arnuntinenses)	Vex[il(lationes)] II (duae) K(arnuntinenses)	Vexil(lationes) []
92	93	94	95	96	26	86	66	100	101

	NOON NOOM	WEXILII-M		SALK LOUNT	ALC: II-IZ				WAS COURT
Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 21 and Fig. 4
1	I	I	I	I	I	I	I	I	I
Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation
tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula
[Vexil(lationes)] II (duae) ° K(arnuntinenses)	[V]exil(lationes) ° II (duae) ° K(arnuntinenses)	Vexil(lationes) II (duae) ° K(arnuntinenses)	Vexil(lationes) II (duae) K(arnuntinenses)	Vexil(lationes) ° II (duae) [K(arnuntinenses)]	[Ve]xil(lationes)° II (duae)° K(arnuntinenses)	V[e]xil(lationes) II (duae) [K(arnuntinenses)]	Vexil(lationes) ° II (duae) ° K(arnuntinenses)	Ve[xil(lationes)] II (duae) K(arnuntinenses)	Vexil(lationes) ° II (duae) K(arnuntinenses)
102	103	104	105	106	107	108	109	110	111

M. M. M. M.	VEXIL III	No 20 7 1	S. I.S	AL COLOR	D 101 101 10			SI-II NOXI
Fig. 21 and Fig. 4	Fig. 21 and Fig. 4	Fig. 22 and Fig. 4	Fig. 22	Fig. 22 and Fig. 4	Fig. 22 and Fig. 4	Fig. 22 and Fig. 4	Fig. 22 and Fig. 4	Fig. 22
1	ı	ı	ı	1	I	1	ı	1
Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation
tegula	imbrex	tegula	tegula	tegula	tegula	tegula	tegula	tegula
		l=110	08=1	l=130	06=1			
			"light colour" "missing"	double stamp in <i>tabula ansata</i>		double stamp		
[Ve]xil(lationes)。II (duae)。 K(arnuntinenses)	Vexil(lationes) ° II (duae) ° Ķ(arnuntinenses)	L · e · g(io) []	[Le]g(io) ° Ī Ā[d(iutrix)]	Leg(io) ° ΰ Aḍ(iutrix) [] [Leg(io) ° ΰ] Ad(iutrix) P(ia) F(idelis)	[Leg(io) I] Adi(utrix) P(ia) F(idelis)	Vexij(lationes) [II (duae) K(arnuntinenses)] [Vex]ij(lationes) II (duae)° K(arnuntinenses)	Vexil(lationes) ° II (duae) Ķ(arnuntinenses)	[V]exil(lationes)。II (duae)。 K(arnuntinenses)
112	113	114	no nr.	115	116	117	118	119

Mall-111X	VEX of Model	TESECOUNDS			100 P		W. XOL IOR	CorxIII on m
Fig. 22 and Fig. 4	Fig. 22 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4	Fig. 23 and Fig. 4
I	ı	1	ı	ı	ı	1	ı	ı
Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation
imbrex	tegula	tegula	tegula	tegula	tegula	tegula	tegula	tegula
						in tabula ansata	"broke after pho- to was taken"	
[Ve]xil(lationes)。II (duae)。 K(arnuntinenses)	Vexil(lationes) II (duae) ° K(arnuntinenses)	L° e g(io)° I Adi(utrix) []	L ° e[g(io)]	[L]eg(io) []	[] tr(i)b(uni)	[Leg(io) I A]d(iutrix) P(ia) F(idelis)	Vexil(lationes) II (duae) K(arnuntinenses)	Vęxil(lationes) ° II (duae) K(arnuntinenses)
120	121	122	123	124	125	126	127	128

VEXIO DI DI		VEX III III III	(INEXIL . NI)	JUN - MUSS 0	COLDINA			(LEG. TAD)	MEZ IND
Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	no photo	no photo	Fig. 16	Fig. 16
1	ı								
Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench Vexillation	Trench A	Trench A
imbrex	imbrex	tegula	tegula	tegula	tegula			tegula	tegula
						tation			w=125
						" with no document	documentation ps"	retrograde D	
Vexil(lationes) II (duae) Ķ(arnuntiensnes)	Vexil(lationes) []	Vexil(lationes) II (duae) ° K(arnuntinenses)	Vexil(lationes) ° II (duae) [K(arnuntinenses)]	[V]exil(lationes) ° II (duae) [K(arnuntinenses)]	[Le]g(io) ° I Ad(iutrix)	"Stamps of the legio I adiutrix" with no documentation	"Vexillation stamps" with no documentation and "some illegible short stamps"	Leg(io) ° I Ad(iutrix) []	Leg(io) I Ad(iutrix) []
129	130	131	132	133	134	135- 142	143-	184	185

LEGIAN			MEGI	LECTADOR	D Way		CE DITATION OF) I K	MLEC"
Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 16	Fig. 17
Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A
complete T	tegula	tegula	tegula	complete 1	tegula	tegula	imbrex	tegula	imbrex
200×200×75	l=150	l=200		265×275×95	w=100	w=310	<u> </u> =110	I=235	l=155
			in <i>tabula ansata,</i> retrograde			retrograde		in tabula ansata	in <i>tabula ansata</i> , "red"
Leg(io) I Aḍ(iutrix)	Ļęg(io) I [Ad(iutrix)]	Leg(io) ° I A[d(iutrix)]	Leg(io) I [Ad(iutrix)]	Leg(io) I Adj(utrix) P(ia) F(idelis)	[Leg(io)] ļ ° Aḍ(iutrix) [[Le]g(io) I Ad(iutrix)	Ļupic(ini) ṭ[r(i)b(uni)]	L[eg(io)]	Leg(io) Į [Ad(iutrix) – – -]
186	187	188	189	190	191	192	193	194	195

WLEG!		ECIVOS	CIAMP AND	AEGTAD)	INDPF	MLECIADA MLECIADA	8018	ALEGIA	
Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 17	no photo	Fig. 17	Fig. 17
				0.5 m					
Trench A	Trench A	Trench A	Trench A	"1.1 m east of Kiln I"	Trench A	Trench A	Trench A	Trench A	Trench A
imbrex	tegula	tegula	tegula	"very large brick"	tubulus	imbrex	imbrex	imbrex	tegula
l=200	I=200	l=200	w= 160			l=345		w=135	w=125
in <i>tabula ansata,</i> "red"		in <i>tabula ansata</i> retrograde	in <i>tabula ansata,</i> NT ligature	retrograde D		double stamp in <i>tabula ansata</i> "red"	in tabula ansata	in <i>tabula ansata,</i> "red"	in tabula ansata
Leg(io) I [Ad(iutrix)]	Leg(io) []	[L]eg(io) I Ad(iutrix)	[Le]g(io) I Adi(utrix) P(ia) [F(idelis)] Añt(oniniana)	Ļęg(io) I Ad(iutrix)	[Leg(io)] I Ad(iutrix) P(ia) F(idelis)	Leg(io) I [Ad(iutrix)] Leg(io) I Ad(iutrix)	[Leg(io) I] Aḍ(iutrix)	Leg(io) ° I Aḍ(iutrix)	Leg(io) ļ [Ad(iutrix)]
196	197	198	199	200	201	202	no nr.	203	204

TECTAD!	IMITAB	LICTA D	ECTAD			LEGIO IN ELL	UND	LEGIACI	SIGNE
Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 17	Fig. 18	Fig. 18	Fig. 18	Fig. 18
				0.5 m	0.5 m				
Trench A	Trench A	Trench A	Trench A	"1.1 m east of Kiln I"	"1.1 m east of Kiln I"	Trench A	Trench A	Trench A	
imbrex	tegula	tegula	imbrex	tegula	tegula	tegula	tegula with large, circu- lar hole	tegula with large, circu- lar hole	tegula
I=230	l=165	I=280	I=175			I=280			
			retrograde D	retrograde			retrograde D	retrograde D	retrograde
<u>[</u> eg(io) ° I ° Ad(iutrix) [− − −]	[Lupic]ini tr(i)b(uni)	Leg(io) I Ad(iutrix)	[L]ęg(io) I Ad(iutrix)	[Leg(io) I] Aḍ(iutrix)	Le[g(io)]	Leg(io) I [A]d(iutrix) P(ia) F(idelis) S(everiana)	[Leg(io)] I Ad(iutrix)	Leg(io) I Ad(iutrix)	[Leg(io)] I Adi(utrix) Ĥ(ia) F(idelis)
205	206	207	208	209	210	211	212	213	214

LEGI	KINITE	MECHANTPEANT	TADIE	GAI	DE COL	(T)33.F3	MOIPFN	A BURN
Fig. 18	Fig. 18	Fig. 18	Fig. 18	Fig. 18	Fig. 18	no photo	Fig. 18	Fig. 18
			"under "under the fallen wall by the Dan- ube"					
Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A
tegula	tegula	complete later	tegula	tegula	tegula	tegula	imbrex	imbrex
l=95	w=110	200×200×80	l=200		l=175	l=195	l=145	l=175
			PF ligature	retrograde	in <i>tabula ansata,</i> retrograde	in <i>tabula ansata</i> retrograde	ANT ligature	ANT ligature
Leg(io) I [Ad(iutrix)]	[Lupi]cini tr[(i)b(uni)]	Leg(io) † Adi(utrix) P(ia) F(idelis) Ant(oniniana)	[Leg(io)] I Adi(utrix) P(ia) F(idelis)	[Leg(io)] I Ad(iutrix)	Leg(io) I A[d(iutrix)]	Leg(io) I A[d(iutrix)]	[Le]g(io) ! Adi(utrix) P(ia) F(idelis) Ânt(oniniana)	[Leg(io) I Ad]i(utrix) P(ia) F(idelis) Âût(oniniana)
215	216	217	218	219	220	no nr.	22.1	222

ADD SILLA	recipois	leci VDIE	KIADIPEN	LEGINADIA	ECI VD	TECIN
Fig. 19	Fig. 23	Fig. 23				
Trench A "at the prae-furnium in the southern wall of Kiln I".	Trench A "at the prae- furnium in the southern wall of Kiln I"	Trench A "at the prae- furnium in the southern wall of Kiln I"	Trench A "at the prae- furnium in the southern wall of Kiln I"	Trench A "at the prae- furnium in the southern wall of Kiln I"	Trench A	Trench A
later	later	later	tegula	tegula	tegula	imbrex
=285 t=80	=265 t=80	l=270 t=75	I=250	09=1	w=190	l=195
in <i>tabula ansata</i> retrograde D	retrograde, PF ligature	retrograde, PF ligature	ANT ligature		retrograde	"light colour"
Ļę[g](io) I Ąd(iutrix)	Leg(io) I Adi(utrix) P̂(ia) F(idelis)	Leg(io) I Adi(utrix) Î ^o (ia) F(idelis)	[Le]g(io) I Adi(utrix) P(ia) F(idelis) Âûţ(oniniana)	Leg(io) ° ΰ Ad(iutrix) P(ia) F(idelis)	[L]eg(io) I Ad(iutrix) []	Leg(io) I Ą[d(iutrix)]
223 (K.3)	224 (K.5)	225 (K.7)	226 (K.2)	227 (K.1)	228	229

PECINO)	LECIAD	" L L I V D	(DAI JEL)	LE CINP	HIEGIND	L'AD PPS	din Ecolon		
Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23	Fig. 23
						"deeper layer"			
Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A
imbrex	imbrex	imbrex	imbrex	tegula	tegula	tegula	tegula	tegula	tegula
l=230	I=225	I=155	l=185	w=225	w=220	w=170	w=235	w=170	w=200
retrograde D	retrograde D	retrograde	retrograde "yellow"	in <i>tabula ansata</i> , "light colour"	in <i>tabula ansata</i> , retrograde D, "bright red"		in tabula ansata		in <i>tabula ansata</i> , PF upside down, DP ligature, "light colour"
[L]eg(io) I Ad(iutrix)	Leg(io) I Ad(iutrix)	Ļęg(io) I Ad(iutrix) []	Leg(io) I Ad(iutrix)	Leg(io) I A(diutrix) P(ia) [F(idelis)]	Leg(io) ° I ° Ad(iutrix) []	[Leg(io)] I Ad(iutrix) P(ia) F(idelis) S(everiana)	[L]eg(io) ° I Ad(iutrix)	Lęg(io) ! [Ad(iutrix)]	[Leg(io) I] Ad(iutrix) P(ia) F(idelis)
230	23.1	232	233	234	235	236	237	238	239

LECTAMERA	SIBOTADA.	HADRIE	MIECTADIFIC	ILECTA	MITTER
Fig. 20	Fig. 20	Fig. 20	Fig. 20	Fig. 20	Fig. 20
2.3 m	2.3 m	2.3 m	m 6.0	0.9 m	c. 2.0 m
Trench A "between the outer and inner walls of the watchtow-er"	Trench A "between the outer and inner walls of the watchtow- er"	Trench A "between the outer and inner walls of the watchtow- er"	Trench A "near Kiln I, over the thick brick slabs"	Trench A "near Kiln I, over the thick brick slabs"	Trench A
tegula	imbrex	tegula	tegula	tegula	imbrex
l=225	l=230	l=220	l=290	l=250	I=250
in tabula ansata	in <i>tabula ansata,</i> GI ligature, "red"	in <i>tabula ansata</i>	in tabula ansata		in tabula ansata
Leg(io) Ī Ad(iutrix) P(ia) F(idelis)	Leg(io) Ī Aḍ(iutrix) P(ia) F(idelis)	[Leg(io)] Į Ad(iutrix) P(ia) F(idelis)	Ļeg(io) Ī Ad(iutrix) P(ia) F(idelis)	Leg(io) Ī A[d(iutrix)]	Ļeg(io) Į Ą[d(iutrix) –––]
240	241	242	243	244	245

ECTAPF	ADPE-	[LCG	OFEC 111	<u> </u>	CIAD	1	CECIVE	1	FOU	MECY
Fig. 20	Fig. 20	Fig. 20	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo
c. 2.0 m	c. 2.0 m	c. 2.0 m	2.2 m	0.9 m			1.6 m			
Trench A	Trench A	Trench A	Trench A "near the Danube"	Trench A "near Kiln I, over the thick brick slabs"	Trench A	Trench A	Trench A "at 7.30 m"	Trench A	Trench A	Trench A
imbrex	imbrex	tegula	tegula	imbrex	tegula		tegula		tegula	tegula
l=175	w=125	l=140	l=165	<u> </u> =185					I=140	I=205
in <i>tabula ansata</i> , AD ligature	in tabula ansata	"red"	in <i>tabula ansata,</i> retrograde	AD ligature			retrograde		in <i>tabula ansata,</i> retrograde	in tabula ansata
[L]eg(io) ° Ī Âd(iutrix) P(ia) F(idelis)	[Leg(io) I] Ad(iutrix) P(ia) F(idelis)	Leg(io) []	Leg(io) I A[d(iutrix)]	[Leg(io) I] Âd(iutrix) []	[Le]g(io) I Ad(iutrix)	no documentation	Leg(io) I Aḍ(iutrix) []	no documentation	[Leg(io) I] Ad(iutrix)	Leg(io) ļ [Ad(iutrix)]
246	247	248	249	250	251	252	253	254	255	256

LANDER!	/ ECIAD	VECINDIE	- ADI	Em 1 C	140	ı	和	正子公司	(FECTIVE)	LADP M
no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo
1.6 m	1.5 m						c. 2.0 m			
Trench A "at 7.50 m"	Trench A "at 7.10 m"	Trench A "at the praefurni- um in the southern wall of Kiln I"	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A	Trench A
imbrex	imbrex	tegula	tegula	tegula	tegula		imbrex	imbrex	tegula	imbrex
I=205		l=270 t=80		l=360	l=285		l=165	l=170	w=265 t=80	I=205
in tabula ansata	"first letters are faint"	retrograde, PF ligature		retrograde D	retrograde D		in tabula ansata		retrograde	"dark red"
[Le]g(io) I Ad(iutrix) P(ia) F(idelis)	Leg(io) ° I ° Ad(iutrix)	Leg(io) I Adi(utrix) P(ia) F(idelis)	[Leg(io) I] Ad(iutrix)	[L]¢[g](io) I Ad(iutrix) []	[Leg(io)] I Ad(iutrix)	no documentation	Le[g(io)]	Leg(io) ! [Ad(iutrix)]	Leg(io) I Ad(iutrix) []	[Le]g(io) ! Ad(iutrix) P(ia) F(idelis)
257	258	259 (K.4)	260	261	262	263	264	265	266	267

15011		ERCIE	=10mm	(ab)	(H1661:)	1	ILFC T	LIVDA	FIECIA
no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo
c. 2.0 m		1.4 m	2.2 m						c. 2.0 m
Trench A	Trench A	Trench A "at 6.40 m"	Trench A "near the Danube"	Trench A "at the praefurni- um in the southern wall of Kiln l"	Trench A	Trench A	Trench A	Trench A	Trench A
tegula	imbrex	imbrex	imbrex	tegula	tegula		thin walled imbrex	tegula	tegula
l=125	l=150		l=140				I=175	l=195	l=100
retrograde		retrograde	retrograde, PF ligature, "red"	in <i>tabula ansata</i> retrograde D	in tabula ansata	"not identified"		in <i>tabula ansata,</i> retrograde	in <i>tabula ansata</i> , retrograde
Ļęg(io) I Ą[d(iutrix)]	Lę[g(io)]	Ļęg(io) Ī Ą[d(iutrix)]	Leg(io) I Adi(utrix) ÎP(ia) F(idelis)	[Leg(io) I] Ad(iutrix)	Leg(io) I A[d(iutrix)]	no documentation	Leg(io) Ī [Ad(iutrix)]	[Leg(io)] I Ad(iutrix)	Leg(io) I A[d(iutrix)]
268	569	270	271	272 (K.6)	273	274- 275	276	277	278

W E		WLEC.TA_	YIA	1151A1	ि।	031	Fy	AD	CIM	(Tec	Trey
0	0		0	0	0	0	0	0	0	0	0
no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo	no photo
0.5 m		c. 2.0 m	2.2 m		2.2 m		2.2 m	2.2 m	2.2 m	1.6 m	
"1.1 m east of Kiln I"	Trench A	Trench A	Trench A "near the Danube"	Trench A	Trench A "near the Danube"	Trench A	Trench A "near the Danube"	Trench A "near the Danube"	Trench A "near the Danube"	Trench A "at 7.30 m"	Trench A
tegula	tegula	imbrex	imbrex	complete <i>later</i>	tegula	tegula	imbrex	imbrex	tegula	tegula	tegula
	I=130	l=120	w=130	200×200×80	l=145		I=120	l=150	I=140		w=145
		in tabula ansata	in tabula ansata		retrograde	retrograde	retrograde D		retrograde, "red"	retrograde	
[Leg(io) I] Ad(iutrix) ?	[Leg(io) I] Ad(iutrix) P(ia) F(idelis)	Leg(io) ° Ī A[d(iutrix)]	L[eg(io)]	Leg(io) I Ad(iutrix)	Le[g(io)]	Leg(io) []	[Leg(io) I A]d(iutrix) ?	[Leg(io)]	[Le]g(io) ļ Āḍ(iutrix)	Leg(io) []	Ļęg(io) Į [Ad(iutrix) – – -]
279	280	281	282	283	284	285	286	287	no nr.	288	289

LICIVDI	(LEC)	(TECI VDIE	IMIN	DIECIAL		FIGIADA		ALE CLANIES	ILECIAMI PRAMIL
no photo	no photo	no photo	Fig. 26	Fig. 28.b end missing from photo	no photo	Fig. 26	no photo	Fig. 28.d top	Fig. 29.b
2.2 m									
Trench A "near the Danube"	Trench A	Trench A	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop
imbrex	tegula	<i>later</i> one side broken	tegula	tegula		tegula		tegula	tegula
l=245	w=215	l=270 t=85							
"red"		retrograde	in <i>tabula ansata</i> , PF upside down, DP ligature	in tabula ansata		in tabula ansata		in <i>tabula ansata</i> , PF upside down, GI ligature, DP ligature	
Leg(io) I Adi(utrix) []	Leg(io) []	Leg(io) I Adi(utrix) P(ia) [F(idelis)]	[Leg(io)] Ī Ad(iutrix) P(ia) F(idelis)	Leg(io) Ī Ad(iutrix) []	no documentation	Leg(io) I Ad(iutrix)	no documentation	Leg(io) I A(diutrix) P(ia) F(idelis)	Leg(io) I Adi(iutrix) P(ia) F(idelis) Ant(oniniana)
290	291	292	293	294	295– 296	297	298– 300	301	302

EG. J.O. L		MYECLVDH	MIRGIA DRE		FLEGOLAPPI	MI FCIAD	MEGINDER		MEGTADE:
Fig. 28.b left	Fig. 26 end missing from photo	Fig. 29.c number upside down	Fig. 29.d	no photo	Fig. 27.d top left	Fig. 28.d bottom right	Fig. 27.d bottom right	Fig. 28.c upside down	Fig. 26 top left
Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop
tegula	tegula	tegula	tegula		tegula	tegula	tegula	tegula	tegula
	GHigature	in <i>tabula ansata</i> , retrograde	in <i>tabula ansata</i> , Gl ligature		AD ligature	in tabula ansata	in tabula ansata		in tabula ansata
Leg(io) • J • A[d(iutrix)]	Leg(io) Ī Ad(iutrix) []	Leg(io) I Ad(iutrix)	Leg(io) Ī Ad(iutrix) P(ia) F(idelis)	no documentation	Leg(io) ° I Âd(iutrix) P(ia) F(idelis)	Leg(io) I Ad(iutrix)	Leg(io) I Ad(iutrix) P(ia) F(idelis)	Leg(io) I []	Leg(io) ° Ī Ad(iutrix) P(ia) F(idelis)
303	304	305	306	307	308	309	310	311	312

313	no documentation			Pottery workshop	no photo	
314	Leg(io) XXX U(lpia) V(ictrix)	in <i>tabula ansata</i> , dog footprint above stamp	tegula	Pottery workshop	Fig. 30.a	
315	Leg(io) [I A]d(iutrix)		circular later	Pottery workshop	Fig. 28.c left	
316	Leg(io) ° I ° Ad(iutrix) P(ia) F(idelis)	in <i>tabula ansata</i> , PF ligature	tegula	Pottery workshop	Fig. 27.d top middle	MIEGINDER
317	[L]eg(io) ° J ° Ad(iutrix) P(ia) F(idelis) A(ntoniniana)		tegula	Pottery workshop	Fig. 27.d top right	(FC. N. ADPIA
318	PPIADP?	retrograde	tegula	Pottery workshop	Fig. 28.d left	90. A 199
319	Leg(io) ° I Ad(iutrix)	in tabula ansata	tegula	Pottery workshop	Fig. 30.b	AEGIADE
320	Leg(io) Ī A(diutrix) P(ia) F(idelis)	in tabula ansata	tegula	Pottery workshop	Fig. 30.c	ILEGIAPIE
321	Leg(io) I A[d(iutrix)]		tegula	Pottery workshop	Fig. 27.c right	MECIN
322- 323	no documentation			Pottery workshop	no photo	

II F C [LA.PF			AIIP V	A DPRIX	TIL INDIF		MERT PRIM		TADPE
Fig. 30.d	no photo	Fig. 25	Fig. 25	Fig. 25	Fig. 25	Fig. 25	Fig. 25	Fig. 25	Fig. 25
Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop
tegula	ш. У	tegula F	tegula F	tegula	later?	imbrex	tegula F	tegula	tegula
in tabula ansata			in tabula ansata, PF upside down, DP ligature	in tabula ansata			in tabula ansata	in tabula ansata	GI ligature
Leg(io) ° ΰ A(diutrix) ° P(ia) F(idelis)	no documentation	Ļęg(io) Į Ąḍ(iutrix)	[Leg(io) I] Ad(iutrix) P(ia) F(idelis)	[Leg(io) I] Ad(iutrix) P(ia) F(idelis)	Leg(io) I Adi(utrix)	Leg(io) I Ą[d(iutrix)] Ańt(oniniana)	Leg(io) I [Ad(iutrix)] P(ia) F(idelis)	V(exillationes) ° l(egionum) ° []	[Le]ĝ(io) Ī Ad(iutrix) P(ia) F(idelis)
324	325- 376	377	378	379	380	381	382	383	384

ADI GOAL ON	FLOWIDIE -	PEG RAD	DIECTAD	DEGLADE		LEGIADE	SIFGIAD	CLECTAN
Fig. 25	Fig. 25	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24
Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop
imbrex v	imbrex v	tegula P	tegula v	tegula v	tegula v	tegula v	tegula v	tegula v
in tabula ansata	retrograde, PF ligature		in tabula ansata	in tabula ansata, PF ligature	in tabula ansata	in tabula ansata	in tabula ansata	in <i>tabula ansata,</i> Gl ligature
Lęg(io) I Aḍi(utrix)	Leg(io) I Adi(utrix) P̂(ia) F(idelis)	Ļeg(io) I Ad(iutrix) []	Leg(io) Ī Ad(iutrix) []	Leg(io) ° 1 ° Ad(iutrix) P(ia) i F(idelis)	[Leg(io) I A]d(iutrix) P(ia) i	Leg(io) Ĭ Ad(iutrix) P(ia) F(idelis) []	Leg(io) I Ad(iutrix) []	Leĝ(io) Ī Aḍ(iutrix) []
385	386	387	388	389	390	391	392	393

MICTADIA	To Wolf	TIRGIND!	Colombia	WE BE	ADPIK	CECTND PA	O-POF	LEGIAPFS
Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24
Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop
tegula F	tegula v	tegula v	tegula v	imbrex v	tegula v	tegula P	tegula v	tegula F
in tabula ansata	in tabula ansata	in <i>tabula ansata</i> , GI ligature	in tabula ansata	in tabula ansata	in tabula ansata	in <i>tabula ansata</i>	in tabula ansata	in <i>tabula ansata</i>
	[Leg(io)] ΰ A(diutrix)° P(ia) ° F(idelis)	Leĝ(io) ° Ī Ad(iutrix)	[Le]g(io) ° Ĭ ° A(diutrix) ° P(ia) ° F(idelis)	[Leg(io) I] °A(diutrix) ° P(ia) F(idelis)	[Leg(io)] j̄ Ad(iutrix) P(ia) F(idelis)	Leg(io) Ī Ad(iutrix) P(ia) F(idelis)	[Leg(io) I] ° A(diutrix) ° P(ia) ° F(idelis)	Leg(io) I A(diutrix) P(ia) F(idelis)
394	395	396	397	398	399	400	401	402

6.2			_N1	F	1	A	PENE		A
D. JV. J	REC-INDE	MFFIABR	E 60/10		ECTAD	TECI	LEGIADIPFA	LEG. W.	MILICITA
Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24	Fig. 24 top middle	Fig. 27.d bottom left	Fig. 27.c bottom	Fig. 27.c top left
Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop	Pottery workshop?		
tegula	tegula	imbrex	imbrex	tegula	imbrex	tegula	tegula	tegula	tegula
in tabula ansata						in tabula ansata	in tabula ansata, ANT ligature		in tabula ansata
[Le]g(io) I ° Adj(utrix)	Leg(io) ° I A(diutrix) P(ia) [F(idelis)]	Leg(io) ! A(diutrix) P(ia) F(idelis)	Ļeg(io) I Āḍ(iutrix) []	[Le]g(io) I Aḍ(iutrix) []	[L]eg(io) Ī Ad(iutrix) []	Leg(io) I Ą[d(iutrix) []	Leg(io) I Adi(utrix) P(ia) F(idelis) Âût(oniniana)	Leg(io) ° I A(diutrix) ° P(ia) [F(idelis)]	Leg(io) Ī Aḍ(iutrix) []
403	404	405	406	407	408	no num- ber	no num- ber	no num- ber	no num- ber

no num- ber	no stamp	dog-bone shape	floor tile	Kiln II	0.45 m no	no photo	
no num- ber	no stamp	dog-bone shape	floor tile	Trench Vexillation	Ē	Fig. 23	
no num- ber	no stamp	dog-bone shape	floor tile	Trench Vexillation	ij	Fig. 23	
no num- ber	no stamp	rectangular	floor tile	Trench Vexillation	ĬĬ	Fig. 23	