

THE ROMAN KILNS GROUP FROM POTAISSA AND ITS DATING

MARIANA PÎSLARU

Abstract: The archaeological research performed in 2005 and 2006 on “Dealul Zânelor” (“Zânelor Hill”) evidenced the extensive operation of the pottery workshops, with many kilns abandoned and turned into waste pits. Since most frequent types of common wares manufactured in Dacia date to the 2nd-3rd centuries AD, we shall attempt herein a more complex analysis of all identified artifacts for a more restricted chronological framing. Given the extended circulation period of the coins in Antiquity, we shall correlate the issuer and the wear state with brooch dating, stratigraphy contexts and the workshops’ layout. The archaeological excavations performed in the kilns area yielded 10 coins and three brooches, while from the previous excavations in the same area resulted other 51 Roman coins and four brooches. The kiln group - workshop 2 - located just near the water source seems to be earlier than workshop 1, which lies ca. 50 m westwards, where a well was in fact examined too. It is not excluded that the workshops operated concurrently, nonetheless, the grouping of certain coins from Iulia Domna and Traianus Decius with a knee brooch found in workshop 1 evidences it was functional by mid 3rd century AD. If the 2nd century-coins found in workshop 2 may be related to chance, nevertheless the *terra sigillata* vessel with a lion protoma of type Drag. 45, imported from central Gaul after mid 2nd century, found in the mortar of a stone wall foundation of a building in workshop 1 reinforces our observation.

Keywords: pottery workshops; phase; *terra sigillata*; coins; brooch.

Rezumat: Cercetările arheologice de pe “Dealul Zânelor” din 2005 și 2006 indică o funcționare intensă a atelierelor ceramice, cu numeroase cuptoare abandonate și transformate în gropi de deșeuri. Ca urmare a faptului că cele mai frecvente tipuri de vase de uz comun produse în Dacia se datează în secolele II - III p. Chr., pentru o încadrare cronologică mai restrânsă vom încerca o analiză complexă a tuturor artefactelor descoperite. Având în vedere perioada lungă de circulație a monedelor în antichitate, vom corobora emitentul și starea de uzură cu datarea fibulelor, contextele stratigrafice și planimetria atelierelor. Din zona cuptoarelor cercetate arheologic provin 10 monede și trei fibule, iar din vechile descoperiri din această zonă se cunosc alte 51 de monede romane și patru fibule. Grupul de cuptoare - atelierul 2 - amplasat în imediata apropiere a sursei de apă pare să fie mai timpuriu decât atelierul 1, aflat la cca 50 m spre vest, unde s-a cercetat și o fântână. Nu este exclus ca atelierele să fi funcționat concomitent, totuși, gruparea unor monede de la Iulia Domna și Traianus Decius cu o fibulă cu genunchi descoperite în atelierul 1 indică funcționarea acestuia la mijlocul secolului al III-lea. Dacă monedele din secolul al II-lea descoperite în atelierul 2 pot fi puse pe seama hazardului, totuși fragmentul de vas *terra sigillata* cu protomă de leu de tipul Drag. 45, importat din Gallia centrală după mijlocul secolului al II-lea, găsit în mortar, în fundația unui zid din piatră aparținând unei construcții din atelierul 1, întărește observația noastră.

Cuvinte cheie: ateliere ceramice; faze de funcționare; *terra sigillata*; monedă; fibulă.

Located along the imperial road, Potaissa is one of the most important towns of Roman Dacia, whose evolution and economic development is closely related to the stationing of Legio V Macedonica in the fortress on “Dealul Cetății” (“Fortress Hill”) for ca. 100 years.

By the periphery of the town at Potaissa, on the south-eastern slopes of “Dealul Zânelor”, developed a genuine industrial centre where pottery was made and which also contained stone or bronze casting and bone processing workshops. An impressive quantity of artifacts (common wares, terracotta, toys, lamps, potter’s tools, brooches, coins, small bronze and bone objects) come from the finds by the end of the 19th century and early 20th century, but especially from the archaeological surveillance of 1964 and our own research carried out in 2005 and 2006. The 20 pottery kilns investigated insofar at Potaissa seem to group into two workshops¹.

Our concerns on the matter resulted until now in two studies², presenting various moulds that the potters used and the various categories of workshop scrap. Our goal herein is to identify the phases of the workshops and to frame them chronologically.

From previous information and chance finds over the time, it was hypothesized that the Roman *vicus* was actually located on “Dealul Zânelor” just after the conquest of AD 106³, or that an auxiliary fort⁴ was built there. For the lack of archaeological sondages in the area, it is difficult to argue in favour or against on either the civil or military nature of the inhabitancy. Our research has though shown that by the base of the mentioned hill and on its south-eastern slopes operated only pottery workshops, without any record of previous inhabitancy levels.

The scarce import *terra sigillata* at Potaissa⁵, in both previous excavations as well as our own, provide few chronological landmarks. The most frequent types of common wares produced in Dacia have a broad dating, namely the 2nd–3rd centuries AD. Given the long circulation period of the coins in Antiquity, we shall correlate the issuer and the wear state of the coin with the chronological framings provided by brooches or other artifacts coming from the same stratigraphic contexts, with further reference to the workshops’ layout evolution.

The previous chance finds on “Dealul Zânelor” include 51 Roman coins and four brooches⁶, however where precisely they were found is unknown, while the kiln area

¹ Bărbulescu 1994, 110 – most definitely there were several potter’s workshops, on both Zâna Mare or Zâna Mică hills, as well as on Șuia hill; Pîslaru 2011, 169.

² Pîslaru 2007, 151–157; Pîslaru 2011, 167–182.

³ Bărbulescu 1994, 35 – the area of the Roman *vicus* in the first decades of the 2nd century is hard to delimit, given the continuous inhabitancy and the fact that most archaeological finds, like pottery, tools, various objects do not allow a more restricted dating to a few decades. Appealing to the horizontal distribution of the coin finds, the grouping of Traianus – Hadrianus issues on Zânelor Hill and Sând valley is noteworthy. Hence, the first Roman settlement overlapped only partially the Dacian settlement.

⁴ Nemeti 1999, 194–204 – the military equipment items underlie this hypothesis.

⁵ Bărbulescu 1994, 126 – “the explanation would consist in the gap between the time when Potaissa became a military and urban centre and the flourishing period of certain workshops making this pottery and from where Dacia commonly got its supplies”; Căținaș 1997, 25 – the stamped pottery produced at Potaissa makes up for the *terra sigillata* imports.

⁶ Pîslaru 2009, 250–254, nos. 1162–1170, 1172–1180, 1182, 1184–1186, 1188, 1190–1195, 1197–1209, 1212–1217, 1219, 1221–1222; two brooches came from the collections of Téglás István, being described and drawn in his journals, while other two brooches come from field walks, being today in the collection of the History Museum of Turda; see for this Cociș 2004, 195, no. 1055, type 19a6b1b, 209, no. 1559, type 25j1; Bajusz 2005, 730, 36/20/3, 734, 39/161/1; for the brooch with inv. no. 16420 see Nemeti 1999, 204, Pl. III/6; Cociș 2004, 193, no. 1004, type 19a6a1a, while for the novel item with inv. no. 15577 see analogies at Cociș 2004, type 19b (Traianus, the third quarter of the 2nd century).

yielded 10 coins and three brooches. Although the coin grouping may be accidental, nevertheless, one may hypothesize based on certain associations.

The research evidences the intensive operation of several pottery workshops on an area of ca. 2500 sq. m (Pl. I), with numerous kilns disused and changed into waste pits or overlapping (Pl. III). The area covered by this “artisanal” quarter is much vaster, as proven by the abundant pottery fragments discovered in the topsoil of the gardens in the area.

Workshop 1. The grouping of several kilns, the foundation of a large stone building, a well and a drainage ditch and several waste pits compel us to assume that they are part of the same group and represent one of the potter’s workshops. The identification of prints of red burnt clay overlapped by construction elements or the print of a timber wall evidence at least two phases⁷. We do not however know if all the four kilns we identified only at print level, operated concurrently. It is certain though that once with the extension of the workshop and the rebuilding of the stone walls, these kilns were completely dismantled. Therefore, we may agree that to the first stage belong at least four kilns, two being placed not far one from the other – in S 01 and S 08 (Pl. II), near a borrow pit, later changed into a waste pit, while the other two kilns were more scattered – S 08 – S 06 and S 05 (Pl. II). The print of a timber wall in S 01, trenches 19–23 (Pl. II), oriented NE–SW, was identified at -1.40 m deep. In its eastern corner, on the northern profile of S 01 (m. 20–21) is also noticeable the print of two posts stuck in the geological soil. Based on the location of the kilns, the workshop in this stage had either a different orientation than the one in the stone phase or was smaller. A *sestertius* from Antoninus Pius issued for Faustina II (Pl. V/9)⁸ was found towards the westward end of the timber wall print, at -0.95 m deep. Compared to the other coins, the *sestertius* is well preserved, with few wear traces, hence less used. An *as* from Antoninus Pius (Pl. V/10)⁹ moderately well preserved and worn was found at -1.20 m deep, not far from the print of one of the mentioned kilns – S 08, m. 2 (Pl. II). Without other absolute dating elements, the workshop operation in a first phase may be placed after mid 2nd century, as evidenced by the two bronze coins.

Near the burnt clay prints a well was researched down to 4 m deep, most likely covered with beams, rotten over time (Pl. II/B)¹⁰. Given the water need and distance to the Sând stream, we suppose that the well was excavated once with the kilns of the first phase, remaining in use after their disuse.

From our notes, yet also the specialty bibliography, we found that the kilns construction or dismantle etc. was frequent in a potter’s workshop, which hinders any association with accurately dated phases. In the case of workshop 1 at Potaissa we may though identify also a second phase. During the first decades or even towards the mid 3rd century AD, the workshop is extended and rebuilt in stone walls. In the stone wall, fallen in the mortar there was discovered a fragment of *mortarium* Drag. 45 (Pl. IV/1), decorated with a lion head spout (“tête de lion-déversoir”, “Löwenkopfschale”). Such *sigillata* are specific to eastern-Gallic workshops (Rheinzabern, Trier, Lavoye,

⁷ Pislaru 2007, 154.

⁸ Pislaru 2009, 252, no. 1187.

⁹ Pislaru 2009, 251, no. 1183.

¹⁰ On the southern side of the well, a print filled with dark earth and pottery fragments is noticeable.

Avocourt etc.), yet they were also produced in central Gaul (Lezoux, Gueugnon). The production of *mortaria* Drag. 45 commenced by the end of the 2nd century, continued in the 3rd century especially in the first half, however the shape still preserved occasionally by the end of the 3rd century or even the 4th century¹¹. Shape Drag. 45 was unnoticed in Dacia insofar. The emergence of this vessel at Potaissa (where, overall, import *sigillata* are few)¹² proves the importance of the pottery workshop and the owner's standing, who bought the *mortarium* for his/her house or its use as model. Damaged, the vessel reached the mortar used for the construction of the stone wall foundation, which ensures the wall's dating to the 3rd century, more likely towards its middle.

In this stage operated the two kilns found south the workshop wall - C 1 and C 2 in S 09 (Pl. II). The platform made of rocks was likely the area where the clay was battered. From the area near the kilns come many artifacts, among which also count two silver coins. We note that from an upper layer, from -0.70 m comes a cast *denarius* from Iulia Domna (Pl. V/9), while from the same perimeter, yet from -1.00 m comes an overstruck *antoninianus* from Traianus Decius (Pl. V/6)¹³. Without being able to specify the time when the *denarius* from Iulia Domna was copied by casting (revealed by the casting marks), it must have been lost towards mid 3rd century, as proven by the entire stratigraphic context. Of the three identified brooches¹⁴ only the knee brooch (Pl. V/12)¹⁵ provides dating chronological indices until the first decades of the 3rd century.

The surface level in the stone walled workshop was built with a layer of yellow clay over the print of the disused kilns and was paved here and there with bricks. From inside the building - S 06 (Pl. II), at -0.60-0.70 m deep, where the lower part of a lamp mould¹⁶ was also identified, there were collected also ca. 30 pavement elements, shaped as number eight (sponge fingers). Therefore, it is possible that the potter's house or that of the workshop's owner existed beside the proper workshop.

The well, incorporated inside the workshop during a second phase, was abandoned at a certain time and filled with earth and pottery fragments. Many tiles, shingles and wall stones were collected from the upper side of the well (down to -2.70 m deep from the vegetal layer). In fact, roof elements (tiles and shingles) and wall stones, yet also a limestone fragmentary profile were found in the entire investigated area. Since the wall identified in S 01, S 06, S 08 and C 9 (Pl. II) measures at least 9 m, we may estimate that building sizes were impressive. A few bricks stamped LEG V MAC were found near the kilns and the drainage. The presence of the legionaries is also recorded by a few military equipment pieces (buckle tongues, enamelled applique) and a *pilum*

¹¹ Oswald, Pryce 1920, 231, Pl. LXXIV; Mitard 1965, 151; Mitard 1979, 90; Bémont, Jacob 1986, 141 (Lezoux), 166 (Gueugnon), 200 (Lavoye).

¹² Bărbulescu 1994, 126.

¹³ Pîslaru 2009, 254, no. 1220.

¹⁴ Two bronze brooches with strongly profiled body come from workshop 1 - S 01 and S 07 (Pl. II): inv. no. 17031 (Pl. V/13), sizes: 4 × 2.2 cm, analogies at Cociş 2004, type 21b2b and inv. no. 17029 (Pl. V/11), sizes: 5.2 × 2.3 cm, analogies at Cociş 2004, type 8a8b.

¹⁵ Inv. no. 17030, missing the pin, sizes: 3.2 × 2.1 cm, analogies at Cociş 2004, 19a6a (mid 2nd century and first decades of the 3rd century).

¹⁶ Pîslaru 2007, 151-152, Pl. I.

heel, discovered in the kilns area – S 09. A fish-decorated tray (Pl. IV/3) comes from the same area, while a few fragments were found in the waste pit in S 01. Although this decoration was also used during the 2nd century¹⁷, the context where the vessel was found in S 09 at -1.20 m (Pl. II), comprising sufficient dating elements by early 3rd century, shows it was made during the second stage of the workshop's existence.

At a distance of ca. 50 m north-eastwards, near Sând stream, another kiln group was investigated, which we designated as workshop 2, with several phases. Both its location and the artifacts suggest an earlier dating of this kiln group. Still, until the research of the given perimeter is completed, such statements are far fetched. An example to this effect is the chance find of an overstruck *antoninianus* from Phillip the Arab (Pl. V/7)¹⁸, at only -0.30 m deep, in the garden between the two workshops. Without being able to associate this coin with any of the contexts, we notice that from near the kilns in workshop 2 come five bronze coins, all of the 2nd century AD, poorly preserved: an *as* from Traianus (Pl. V/4)¹⁹, two *sestertii*, one from Antoninus Pius and the other from Commodus (Pl. V/5, 1)²⁰, a *dupondius* with the effigy of an empress with a small bun in the back of the head on the obverse, who might be either Faustina II, Lucilla or Crispina (Pl. V/2)²¹ and an undetermined *sestertius* (Pl. V/3)²². The *dupondius* is strongly worn, which proves that the coin was lost after long usage.

The red burnt earth prints of the two kilns dismantled by the Romans – C 5 and C 8 (Pl. III) are likely the earliest kilns investigated in workshop 2. The stone wall foundation, identified in S 5, marks another phase, namely the kilns disuse and the workshop's construction, since it is less likely that kiln 8 was built inside the workshop. The stratigraphic context in this section, but also in S 3, evidences a third-phase, identified by the outline of a large waste pit stopping precisely by the stone wall. Unfortunately, the *as* from Traianus, strongly corroded, found somewhere near the wall (to the outside), provides no chronological criteria for dating any of the mentioned phases. Instead, the HS from Antoninus Pius might provide a *terminus post quem* for the construction of the two limestone slab rows parallel to the stone wall and over the waste pit. By the end of the row identified during our research, the slabs reach the wall of kiln 6, which evidences concurrent operation by mid 2nd century. There are no chronological landmarks available for the second group of kilns in this workshop, at least not until the study of the ware types etc. is completed. All the four kilns were abandoned and changed into waste pits, and the fact that two kilns were overlapping – C 3 and C 7 (Pl. III) evidences different operation phases. Currently, it is difficult to chronologically frame the noted phases. The *sestertius* from Commodus, though found by chance in the kilns area, provides a *terminus post quem* by the end of the 2nd century.

Therefore, for the dating of workshop 2 are significant the grouping of the 2nd century bronze coins, the absence of artifacts dated with certainty to the 3rd century

¹⁷ See Mitrofan 1991, 177, note 32, Fig. 20/2; Mitrofan 1999, 170.

¹⁸ Pişlaru 2009, 254, no. 1218.

¹⁹ Pişlaru 2009, 251, no. 1171.

²⁰ Pişlaru 2009, 251, no. 1181 and 252, no. 1196.

²¹ Pişlaru 2009, no. 1189.

²² HS – very worn, 28 × 29 mm, ↑. Av. laurelled effigy to the right. Rv. animal (red deer?) standing to the left.

as well as the *terra sigillata* Drag. 35 decorated with slip (Pl. IV/2)²³ found inside the stoke hole of one kiln – C 4 (Pl. III). The current state of research in workshop 2 did not yield any tile materials stamped LEG V MAC or other artifacts of military nature. In fact, precisely the location of the workshop just near the stream by the base of “Dealul Cetății” and “Dealul Zânelor” hills plead for dating the archaeological complex by mid 2nd century until the last quarter of this century (maybe even prior to the arrival of the legion to Potaissa in 170). The legion’s transfer to Potaissa impacted the town’s economic life, noted by the extension of the industrial area and increased workshop activity, which seem to have produced for both the civil and the military environments. Chronologically workshop 2 seems to precede the existence of workshop 1. However it is untimely to argue that workshop 2 was abandoned in the 3rd century.

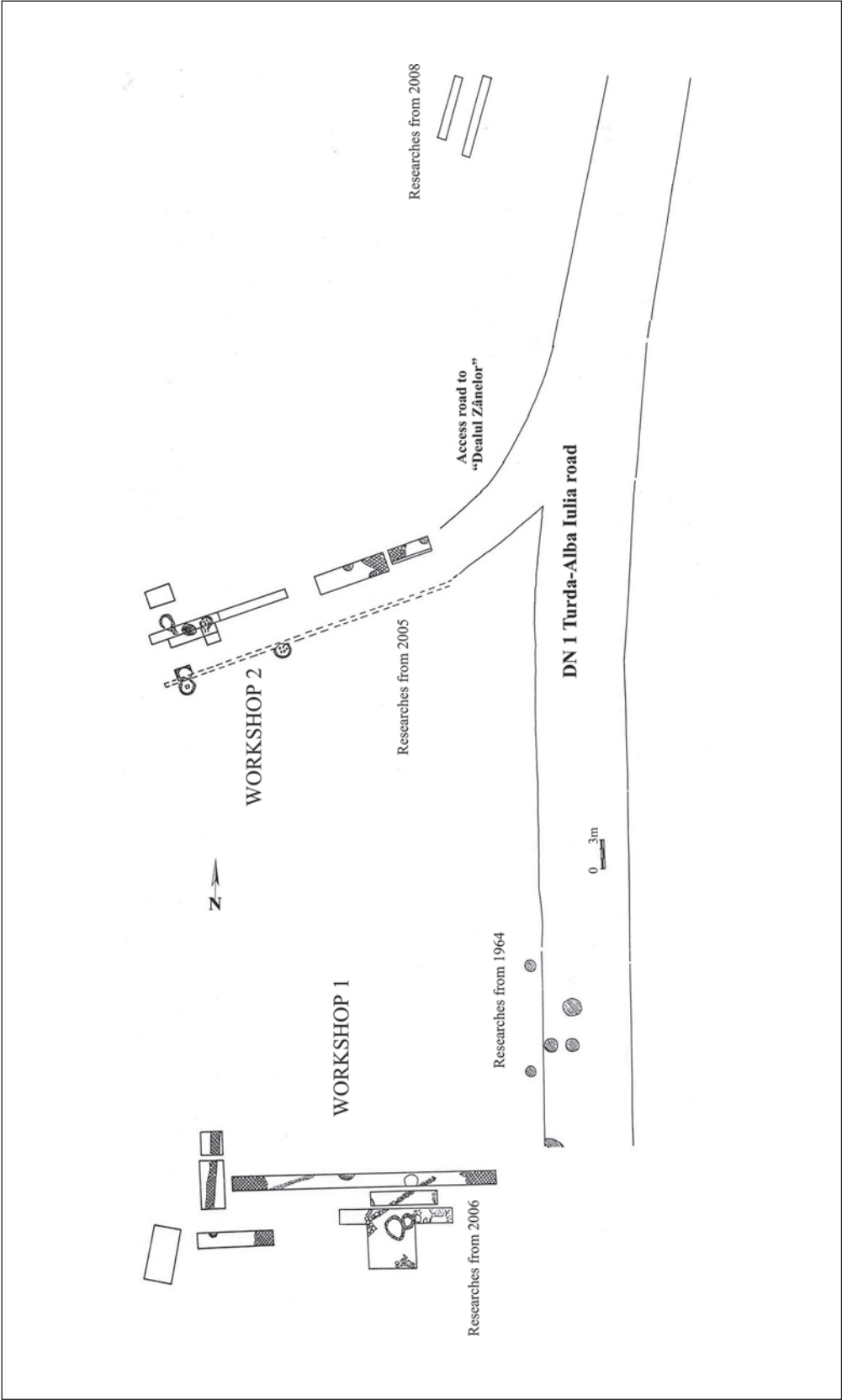
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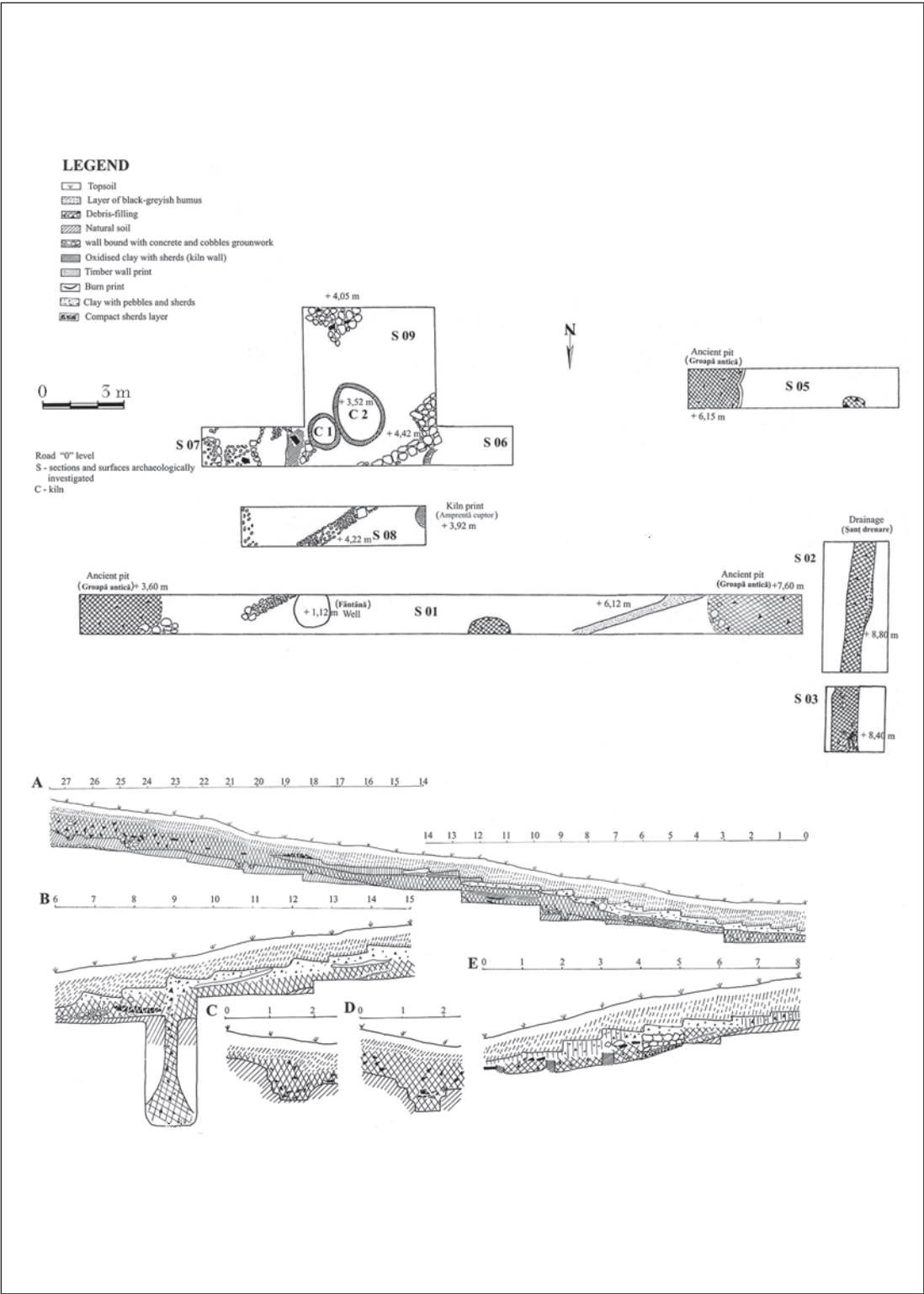
²³ Popilian 1976, 51-52 – the pots discovered in Oltenia come from 2nd century stratigraphic contexts, yet in Moesia Inferior the workshops at Butovo-Hotnița-Pavlikeni seem to have produced slip-decorated pottery until early 3rd century. See also Popilian 1997, 13, Pl. 13-14; Rusu-Bolindeț 2007, 152-156, Pl. XXIII, 94 – the workshops at Rheinzabern supplied the Danubian provinces with a significant quantity of *sigillata* towards the end of the 2nd century and early following century; Ardeț 2009, 46.

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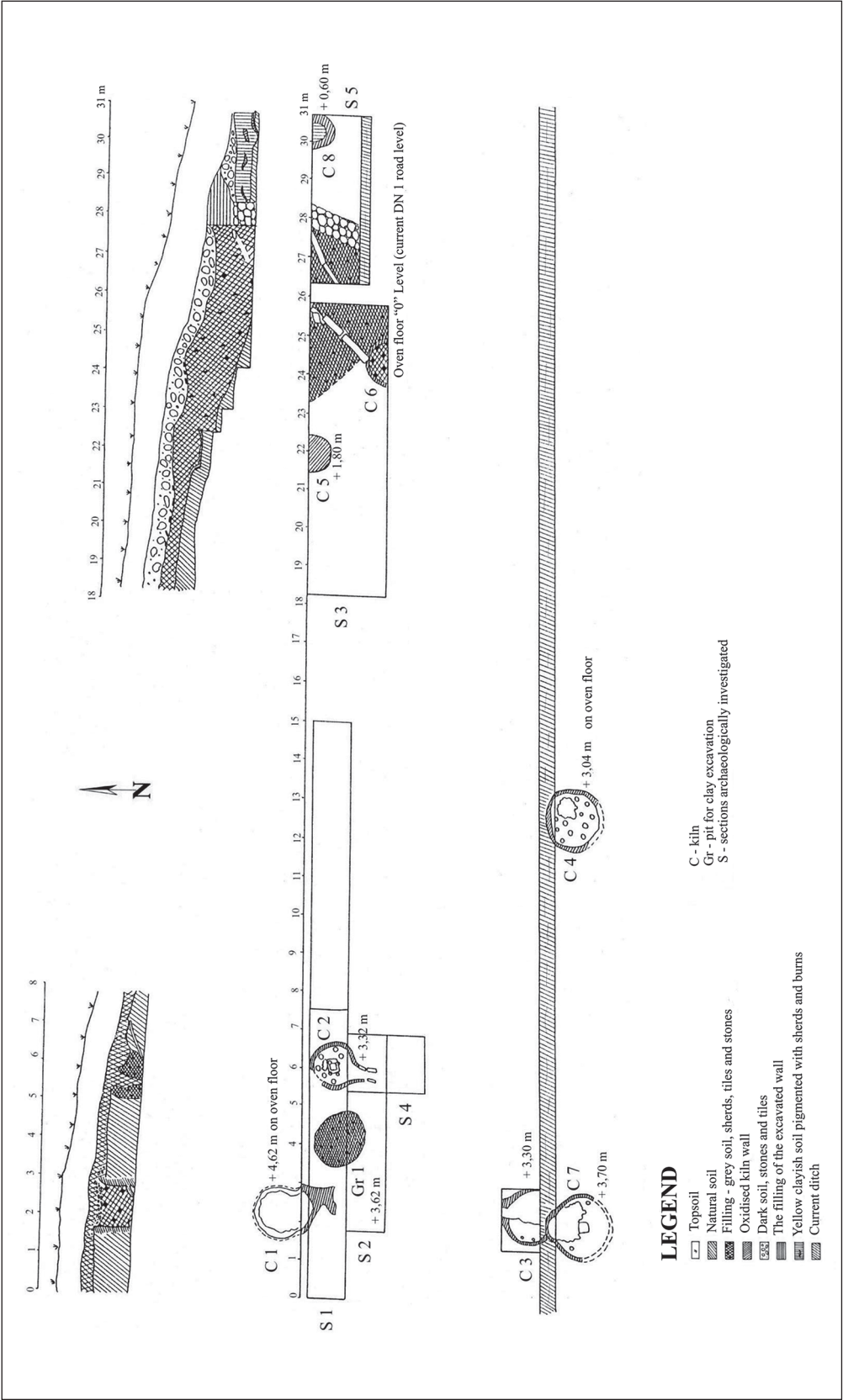
Mariana Pîslaru
History Museum of Turda
marianapislaru11@gmail.com



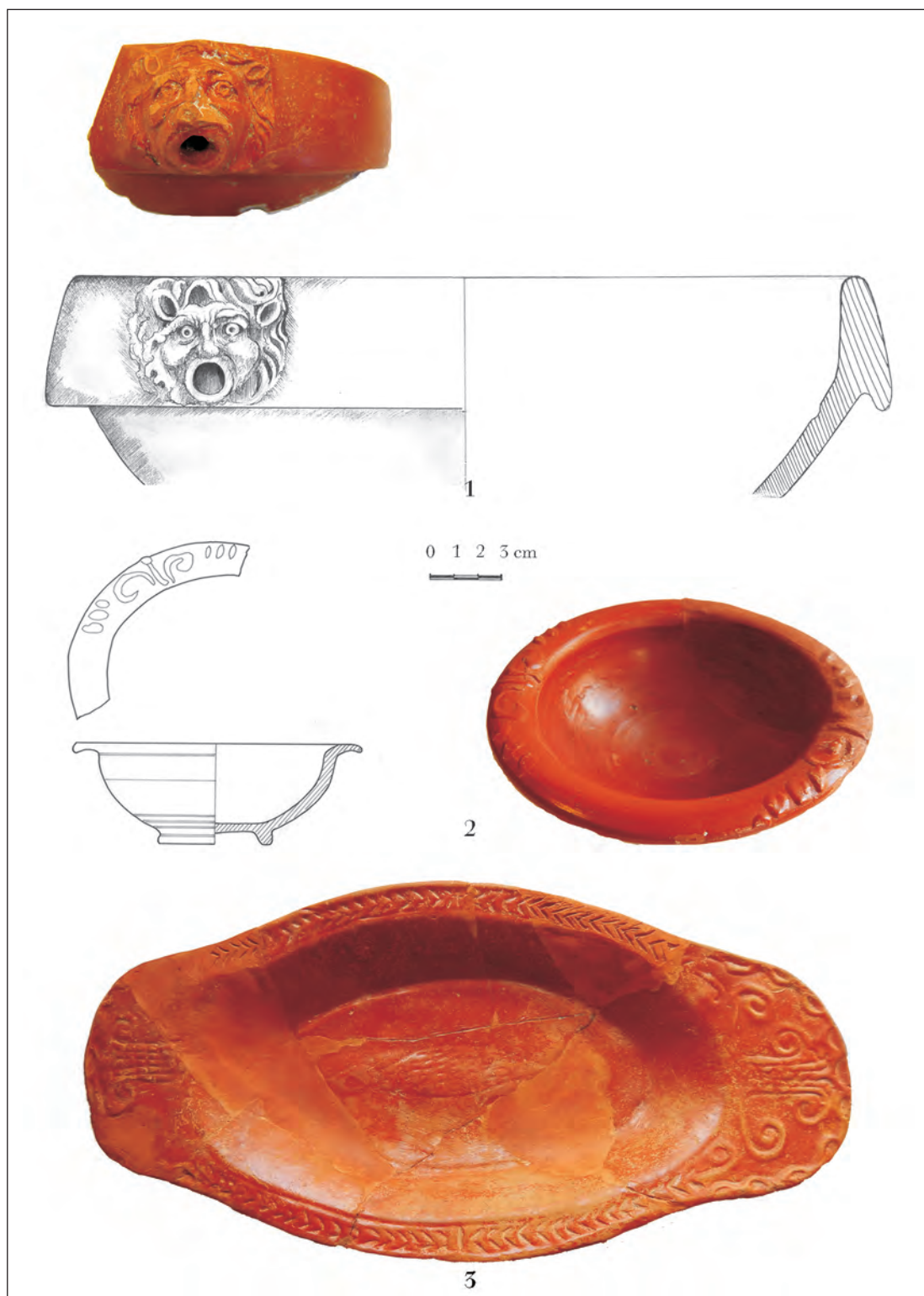
Pl. I. Potaissa. General layout of the pottery workshops on "Dealul Zânelor".



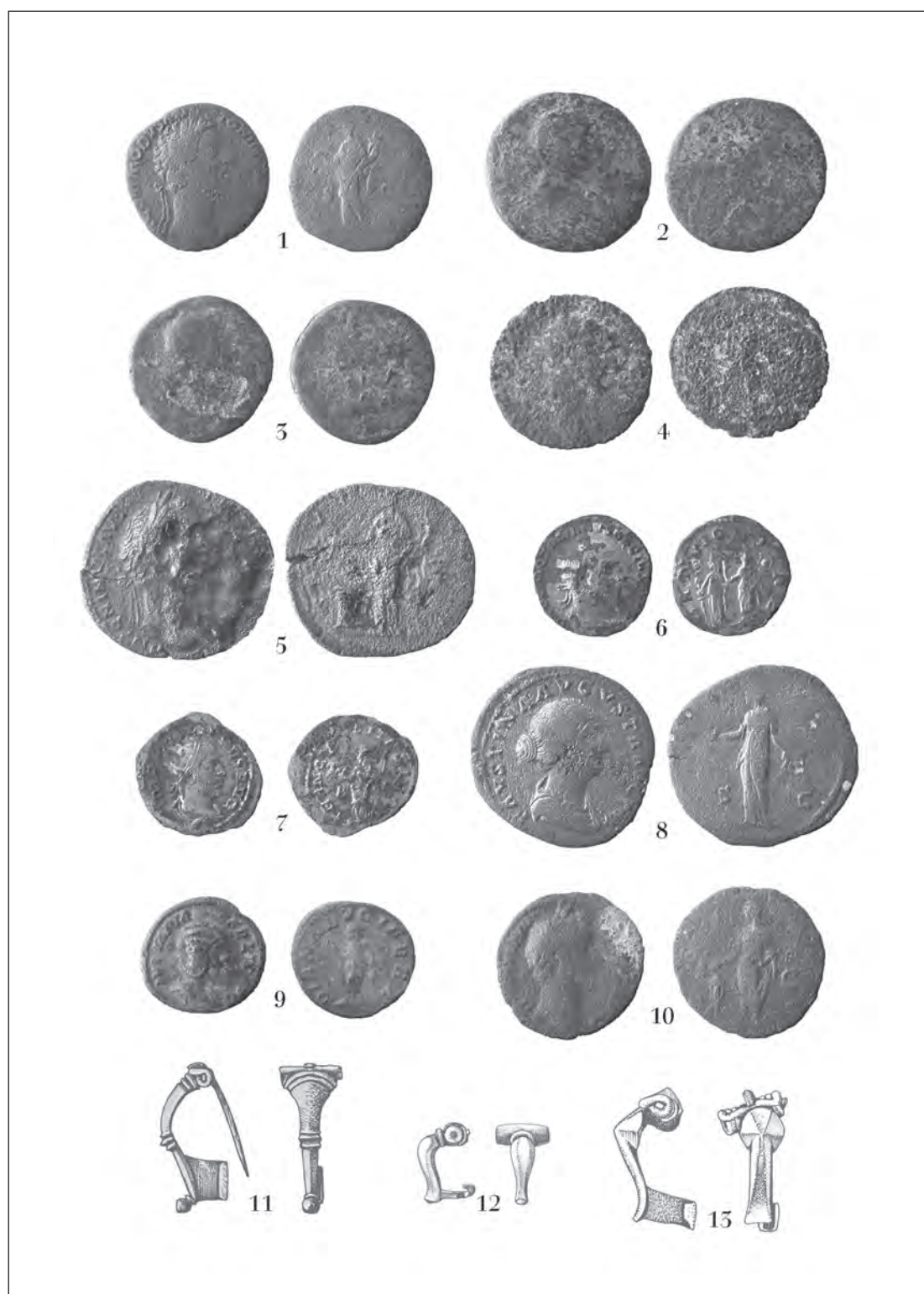
Pl. II. Potaissa. The layout of the kilns in workshop 1. A. S 01; C. S 02; D. S 03 - northern profiles. B. S 01; E. S 06 - southern profiles.



Pl. III. The northern profile, the layout of the kilns in workshop 2, and the acces road to "Dealul Zânelor".



Pl. IV. Wares in the pottery workshops at Potaissa. 1. Mortarium of type Drag. 45 with lion protoma; 2. Restored terrine of type Drag. 35 decorated in the slip technique. 3. Restored tray with the image of a fish (photo M. Pîslaru).



Pl. V. Coins and brooches found in the pottery workshops at Potaissa
(1, 8 photos after Pişlaru 2011, nos. 1187, 1196; 2-7, 9-10, photos M. Pişlaru).