ARCHAEOLOGICAL EXCAVATIONS AT THE ROMAN FORT BĂNEASA IN THE SUMMER 2017

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SĂPĂTURI ARHEOLOGICE ÎN CASTRUL DE LA BĂNEASA ÎN VARA ANULUI 2017

După o primă scurtă campanie informativă în 2016, în anul următor ne-am concentrat eforturile la colțul de NE al castrului roman mare de la Băneasa. Săpătura a probat existența unui șanț de apărare relativ mare, cu obstacol de lemn la ieșirea din șanț. Berma este neobișnuit de lungă (10 m), făcând imposibilă vizibilitatea dinspre palisadă către mijlocul șanțului. Palisada este realizată din stâlpi de lemn, nu foarte adânc îngropați, nici foarte bine solidarizați, valul de sprijin fiind scund și scurt. Baraca începe la doar doi metri de palisadă, fără a exista deci loc pentru un turn sau pentru un *intervallum* sau o *via sagularis*. Construcția a fost realizată pe structură de lemn, cu pereți integral din chirpici, iar acoperirea era vegetală. Ca urmare, baraca a fost mistuită de un foc violent dar foarte probabil scurt. Din structură nu au fost găsite nici măcar fragmente ale structurii de rezistență, fiindcă lemnul care nu a ars a fost recuperat.

Seria faptelor neobișnuite, din acest castru, continuă cu relativa absență a cuielelor de construcții, cât și cu evidenta raritate a tegulelor, ceea ce ne-a atenționat că problema combustibilului era una vitală, într-o zonă cu caracter semi-stepic, cu vegetație săracă.

Săpătura a traversat în diagonală capătul nordic al unei barăci. Inventarul recuperat este tipic, cu materiale aparținând echipamentului militar. Datarea este asigurată de cele patru monede găsite în dărâmătura barăcii, toate din primul sfert al secolului al III-lea.

CUVINTE CHEIE: *limes*, castru, șanț apărare, baracă, materiale de construcții.

KEY WORDS: *limes*, fort, defensive ditch, barrack, construction materials.

The large fort¹ from Băneasa (Salcia commune, Teleorman County) got our attention within the research project *Limes Transalutani* (2014–2017), oriented mainly on landscape archaeology. The reasons to switch from a surface quest to systematic diggings were fully exposed in our previous report,² recalling here only the fact that at Băneasa stands the largest fort on the entire length of this frontier (over 400 km). Our first excavation campaign here (September 2016) was a short one, of only ten days, aiming only to fulfil an evaluation of the site's conservation status in the most endangered corner of it, the south-western one. The main conclusion was that although the palisade have been lost – due to erosion – the two Roman phases were still observable in the inner part of the fort, thus justifying a systematic digging.

GEOPHYSICAL INVESTIGATION

The 2017 summer excavation campaign targeted the opposite corner of the fort, the north-eastern one, hoping to get more data about the defensive system. Geophysical investigations performed in 2016 and 2017 by magnetic methods (magnetometry) had already revealed the fingerprint of the fort's defensive system (**FIG. 1**) while Electrical Resistivity Methods (ERT) performed in 2017 had evidenced the main features (structures) in the area (**FIG. 2**) prior to setting up the surface to be dug.³

¹ Which is not a 'large' fort (130 × 130 m), but it is anyway the largest on *Limes Transalutani*, a frontier made late, in the beginning of the third century.

² Teodor 2016.

³ Geophysical investigations carried out at the large Roman fort from Băneasa are to be published in a future study along with other geophysical and remote sensing investigations conducted in the area. We present here only the main conclusions.

FIGURE 1:
Magnetometry of the large fort from Băneasa, having marked the location of the excavations in 2016 (southwest) and 2017 (northeast). Plan heading north, Stereo 70 projection. Graphic scale for 50 m.

The main defensive structure visible after the interpretation of the magnetic map is the outer ditch, defending a palisade. The ditch appears as filled with magnetic matters (could be both burned and highly organic). The palisade did not leave a continuous mark, being visible here and there (darker shades along the green lines at the FIG. 1), suggesting that it had been burned (as proved by the 2016 digging), but not everywhere. Other tracks of magnetic matter are visible inside the fort, mostly immediately behind the palisade.⁴

The strongest and largest three circular magnetic anomalies were caused by the poles of an electric line crossing the site from southeast to northwest; unfortunately, one of them is standing just in front of the eastern gate. The gate is depicted in the oldest plan known for Băneasa,⁵ but not at the half length of the side, being located then closer to the south-eastern corner. Therefore, we have now a problem with the orientation of the main fort (first phase). Another two gates are located – following both the old plan published by Grigore Tocilescu and the magnetometry made by us – on the northern and southern sides, symmetrical on the half way between the corners. Previously we thought that *porta praetoria* was looking south, towards the ravine named Rusca Fundaților,⁶ but now we have three gates on the axes of symmetry.⁷ A *porta praetoria* looking east would be yet the most natural solution, as long as the boundary barrier is to be found in that direction, at about 400 m. West of the most southern electric pole there is an intense magnetic structure, possibly a burned gate, although the elongated plan does not fit very well the chronology (early third century), as it is fully protruded in front of the palisade line.

⁴ The palisade position at the FIG. 2 is suggested with green lines. Those lines were drawn guided by the topographical analysis, looking on top heights for each spot.

⁵ Tocilescu 1900, 131, Fig. 74. The drawing is depicted in LT Breviary, s.v. Băneasa, Roman forts, FIG. 1.

⁶ Teodor 2016, 108, FIG. 1.

⁷ There is no gated westward, but the steep slope explains it well enough.

Another defensive ditch is visible – although less intense – cutting the fort in two halves. It represents a second phase of the fort, when the garrison was diminished, therefore the fort was shrunk. The line of the late palisade was known, following topographical data, but the location of the ditch was not obvious at all. Our older guess was that the ditch would be located west of the palisade (see again **FIG. 1**), due to the better proportions (139×76 m, ratio 1.83), but the magnetometry proved the contrary; therefore, the late fort, shrunk in the western part of the site, would have measured 139×62 m, with a not very usual ratio (2.24), especially for a place without physical constraints.

The north-eastern corner of the camp was further investigated using the Electrical Resistivity Tomography along a 60 m profile aligned with the diagonal of the camp. The electric model along the ERT profile (with altimetry) is shown in **FIG. 2**.

The interpretation of the ERT model revealed also the large defensive ditch previously known from the magnetic map. The ditch measures 6 m in width and it is located between meters 22 and 28. As a novelty, a small electrical anomaly was noticed between meters 16 and 18, being interpreted as a possible secondary ditch. The palisade is likely to be found around the meter 38, where the place is higher, expecting burned matters inside the fort (visible on the ground anyway).

FIGURE 2. ERT along the archaeological trench, before excavation.

The digging grid (at 2 m) shows the correlation with the excavation. For the location of the trench, see the figures 1 and 3.

THE EXCAVATION

The outcome of the geophysical investigations carried out both by magnetometry and ERT made us decide to open a longer trench than initially intended.

The archaeological trench made in 2017 was marked from the outer position, far enough to catch the second defensive ditch, if any (**FIG. 3**), progressing up to the inner part of the fort, being 50 m long and 2.5 m wide⁸. The archaeological grid, made at 2 m, has the origin outside the fort, in order to be able to make extensions towards southwest, if necessary. Trying to keep the right balance between the available manpower (around 10 people) and the surface effectively worked at a certain time, in order to prevent excessive dehydration of the soil (because it turns too hard to be worked), the designed length of the trench was split in sections opened one by one: the central section was the first, from the palisade to the defensive ditch; came next the grids 1–7 from the north-eastern end, but only on 2 m wide, enough for a smaller ditch; afterwards was opened the surface from the inner part of the fort, and finally a supplementary surface of 10×2 m, as a secondary trench (not planned), in order to understand better things related to the palisade.

⁸ As Romanian archaeologists know already, we have to tell it for the foreigners: the digging funds were as low as the equivalent of a little more than 5000 Euros, therefore the planned digging has to be as small as possible, or, in this case, the width of the trench.

FIGURE 3:

Detail of the general plan of the fort, containing dug surfaces from 2017. Terrain model of high resolution (0.2 m). Altitudes within the frame between 94.5 m (blue) and 95.7 m (brown).

The defensive ditch has appeared where it was expected, including in its dimensions: an opening of approx. 6.25 m and a depth of 2.85 m (from the antique layer of digging; see **FIG. 4**). The profile is relatively symmetrical, slightly arched due to decay of the original work, mostly on the upper part, slid to the bottom. The lower part of the ditch – which preserves better the initial shape – has a 62° slope,⁹ meaning that someone could jump in (breaking the legs), but could go out only climbing a ladder. It was then effective; but not for long. The tip of the ditch was filled firstly by the sides sliding down, then by the pluvial water and the hydrophilic vegetation, making an organic layer. This way the ditch lost almost one meter of its depth by neglecting maintenance, in only two or three decades.

The stratigraphy of the defensive ditch is completed, from bottom to top, by the next layers:

- a destruction layer, rolled over to the bottom of the ditch by pluvial water, 0.99 m in height, containing a homogenous mixture of soils, mainly clay (from the sides), broken bricks, pottery and diverse burned matters; here was collected one of the few tile sherds, but very poor burned (waste?);
- an abandon layer, 0.78 m in height, relatively organic, greyish-black, containing accidentally tiny artefacts; a special note worth a modern sealing ring, of a very modest condition (**FIG. 7/10**), suggesting the reoccupation of the area after many centuries;
- an older ploughing layer, with many burned matters (mainly clay), rolled by tilling from the upper land of the fort to the small depression of the ditch; the frequency of burned clay bits is higher near the escarp (c. 15% from the mass) than on the opposite side, where they appear only sporadically (under 5%);
- a recent ploughing layer, covering all the working area, 0.27 m thick over the ditch; the granulation of the burned matters is smaller than in the previous case, but the density is greater, looking reddish-grey.

⁹ On the escarp, and 58° on counter-escarp.

FIGURE 4: North-western bank of the main trench, between grid units 9 and 13 (grid spacing at 2 m), depicting the section through the defensive ditch.

At the edge of the escarp, where the berm begins, have been collected relatively many chips of decayed wood, partly turned into charcoal, at a depth around 0.9 m contained by the transitional layer, where the artefacts are found only accidentally. The fact could not be documented stratigraphically, so the arrangement was either not continuous, either not preserved the same. About the functionality, we can only speculate that it as a ‘threshold’ between the berm and the escarp, a supplementary obstacle for the besiegers, as it could be some small, spiky bushes. As we shall see, the visibility from the palisade to the bottom of the ditch was null anyway, with or without those bushes (or else).

The second defensive ditch could not be found. The grids 1 to 7 have had the same stratigraphy, of four strata of no archaeological relevance. From top to the bottom they are the next:

- recent ploughing layer (0–0.2 m);
- dark grey sediment, organic, with just a few pigments of burned adobe, from –0.2 to –0.5 m; its lower limit is transitional, with no obvious border;
- light yellowish-grey sediment, with an organic compound related to the crop roots, as transition to the bedrock (–0.5 to –0.8 m);
- clayish sediment, pale-yellow, with small and rare bits of carbonates and artefacts only from infiltrations; bedrock (–0.8 to 1 m, the limit of the digging).

Looking back on the **FIG. 2** one can see that the relationship between the line of the palisade and the defensive ditch is not even, the distance being smaller on the northern side (7.7 m) and greater on the eastern side (9.8 m). The consequence of this asymmetry is that the turn of the ditch is not located along the diagonal of the fort, but east of it. The diagonal itself was calculated following the corners of the topographical deducted palisade, not looking at the corners of the ditch,¹⁰ because we were interested mainly in the corner tower, if present. The archaeological trench proved later to fall west of the turn of the palisade, caught as a relatively straight line, on all the width of the digging (6.7 m, crossing both the main and the secondary trench, see **FIG. 5**).

The relationship between the line of the palisade and the inner constructions is not typical for a Roman fort from the early third century. The gap between the barrack and the palisade, along the northern side of the fort, is only 2 m, and along the eastern side couldn’t be much larger.¹¹ Consequently, there is no corner tower, although the position is exposed, facing a flat plain along the both adjacent sides (north and east). Of course, there is no *via sagularis* either, as well as no *agger*. The sole level used by Romans inside the fort has an average tilt of 2.5°, decreasing towards southwest, but this is the natural slope, not an altered issue; the same tilt one can see for Hallstatt layer or for the clayish bedrock. The palisades poles have been buried relatively shallow, and then strengthen by a small rampart, measurable on 0.42 m in height, and no more than 0.6 m in a possible restitution. In the outer side this rampart is decayed and looks flattened, but in the inner side it was conserved by the barrack’s debris, which covered it.

¹⁰ At the time, the magnetometric job was not completely done (missing largely the central area) and a small shift in positioning the north-eastern geophysical grids (as in Teodor 2016, FIG. 2) was not noticed. As a result, although the intention was right, the error in location made the archaeological trench to slide 1 m westward.

¹¹ At the opposite corner of the fort, looking southwest, the same distance was estimated at 3.5 m, but the bottom line is the same: there was no room for a corner tower (Teodor 2016, 114).

FIGURE 5: Plan and sections for the digging of the 2017 campaign, between the grid units 15–25 (spaced at 2 m). The brown lines represent the most likely restitution of the barracks' plan.

Interesting to note, this small “*agger*” (strengthening the palisade's poles) contains no clay, but vegetal soil removed from the upper layer of the defensive ditch. Where is then the matter removed from the ditch, at depths greater than 0.5 m? Apparently it was deposited elsewhere, in order to be used for other jobs, like building the barracks.¹²

Although our expectation was to see a strong burned palisade,¹³ on the researched length of it (6.7 m) we were able to find only one post hole slightly burned, powdered with a reddish coat (**FIG. 6**). The tilled layer is suggesting that some of them could be burned also, affecting yet only their part above the ground. The alignment of the palisade was reconstituted only following the stratigraphy, attentively studied on trenches' sections. The shallow depth of the post holes made them difficult to spot, mainly because below the Roman formed layer is standing a Hallstatt layer, but also due to bioturbations, affecting large parts of the site.¹⁴

¹² The villagers from Băneasa are still aware about the fact that the slightly reddish and sandy clay, standing about one m below the foot level, is the best for building with adobe.

¹³ As happened in the previous campaign (Teodor 2016, 113, FIG. 6), but also suggested by the reddish burned matters spread in the plough land.

¹⁴ The stratigraphic rendition from the Fig. 5 is ignoring bioturbations, in order to keep it readable.

FIGURE 6: Snapshot against the south-eastern bank of the main archaeological trench, in the grid units 15–18. White arrows for the slightly burned edges of a palisade's pit pole; blue arrows – the inner side of the crumbled wall of the barrack; green arrows – the same for the outer face. The stakes have marks for each 15 cm.

The only Hallstatt contexts identified in digging are a hearth within the grid units 19–20 (cut by the south-eastern bank of the trench), and a relatively large pit, in the secondary trench (cut by the north-western bank of the excavation). The hearth was lying at the depth of 0.88 m, separated by the Roman layer by a thin abandon layer. It was built on clay levelling, was used multiple times, having a thick whitish crust, very tough. On the hearth or around no artefact was collected. The Hallstatt pottery came up from the large pit, although it is not a trash container, being more likely connected with a ritual. Its shape in plan is more or less round, seen at the depth of 1 m. Below –1.4 m it was strangely widening (more than usual), reaching a maximum diameter of 1.34 m. Its bottom (1.8 m below the foot level of our days, and 0.86 below the own level of excavation) has been covered with a relatively thick layer of ashes and charcoals, containing also some pot sherds. Interesting to note, the pit was not filled back after the ritual, staying opened for a while, parts of the pit sides falling on the bottom. All the filling process seems natural.

The stratigraphic analysis showed also other anomalies due to prehistoric activities in the area. Most of them could be seen on the north-western bank of the secondary trench (grid units 19–20) and on the south-eastern bank of the main trench (grid units 16–18), all proximal to the mentioned ritual pit. In these areas, although no artefacts have been seen, relatively many animal bones were collected (still not evaluated), at depths too low to be connected with the Roman fort.

It have been found also 5 flints, either cores or chopped splints, from two different sorts (beige and dark-red), on all the length of the excavation, but not at the expected depth, thus more likely in secondary positions (due to the rodents?).

Inside the palisade there is only one definite Roman occupation layer, strongly burned. Technically speaking, inside it could be seen an abandon layer, mostly from the grid unit 20 onwards. We have anyway only one obvious construction phase, ended in a big – but probably short – fire. This layer is thicker in the area next to the palisade, decreasing towards the centre of the fort. The layer of burned matters is thick up to the 0.52 m, made mainly from small bits of excessively heated adobe, having in average the size of a nut, larger pieces being rare, always near a wall. The general picture of the burned layer is suggesting a roof made of branches (covered with clay), burning quickly and falling on the floor. Interesting to note, there have been identified no traces of the structural pillars, which very likely were recovered for another use. The researched ruin is therefore fully disturbed, with artefacts mainly in secondary positions.

Drawing the plan of the barrack was a job far more difficult than expected. The construction system seen in the previous archaeological campaign (on pillars deep buried below surface)¹⁵ was not found again, although the two barracks (from the opposite corners of the fort) are strictly contemporary, at least theoretically. The structural pillars are this time supported by horizontal boards serving as foundation, no deeper than 0.2 m (and only due to compaction), having an average width of 0.3 m (but reaching accidentally 0.45 m). The interval between two separation walls has been superficially levelled, each room having a different level of the floor, due to the natural slope. The only segment of a wall found more or less *in situ*, near the south-eastern bank of the excavation, in the grid unit 21, is no longer than 1 m (see FIG. 5); this is the result of the efforts made by Romans to recover the wood (or other goods) from the ruin, totally disrupting the old structure.

The Roman construction found is – with almost no doubt – a barrack, with two rows of rooms, but there are no solid hints to guess which is *arma* and which would be *papilio*. In order to understand which the facade of the building is, one need to see at least one pillar of the portico; which did not happened. We can presume that the portico was facing the eastern side of the palisade, favouring a very short time to defend the palisade. But the only hint is pointing the opposite solution: in the grid unit 24 and at the sole level of the time (0.7 m lower today) was found a shallow depression filled with pebbles, stretched on around two sq. m, divided in three parts by the walls of the barrack. The western part is suggesting an outer space (as the one under a portico), and the inner part could function as urine-pits (serving two *contubernia*), as recorded in mounted regiments' barracks. Without having any certainty about the interpretation of the context, we just mention it here in order to be further evaluated by later diggings, in other parts of the fort. Such pits have usually drains driving the urine outside, but drains in a clayish soil do not work for long; a pit filled with pebbles seems to us a more practical solution in order to avoid stepping on dirt.

Much more discreet traces of using pebbles were found at the northern end of the building, representing the last repaired floor, superposed directly by the fire's rubbish. Another place where pebbles were used as a construction raw material is located in the grid units 24–25, against the western bank of the digging, immediately below the vegetal layer, this being the unique sign of reusing the area, after the fire; in this case, very likely, it was a road driving at the shrunk fort, located westward.

Most of the artefacts were recovered from the antique sole level. The only area where archaeological inventory was recorded, in larger numbers, from the upper part of the debris layer, is the northern area of the barrack, theoretically the centurion's place. For this area only one can presume a storage facility located much above the ground, being a rack either an attic. Note that the plan of the most northern pair of rooms allows us also imagine a staircase, not usual for a barrack.

There were just a few brick parts on the spot; about 30 small fragments have been found, giving a very low density distributed on about 50 sq. m (or about 35 cubic meters). No fragment preserved the width of the brick and there will be no typology, but the thickness is ranging from 40 to 55 mm, with frequent results around 45 mm. We saw only two tile sherds on the entire worked surface. Obviously, none of the two categories of building materials was not used properly, closing walls or covering roofs, but as improvised meanings for fixing broken things, along the period of using the barrack (maybe two decades).

A compact wall, undisturbed, has been discovered only north of the barrack, where it collapsed during the fire. Made of wood and adobe, still having 0.21 m in thickness (but surely compressed over time), it should have originally around 0.3 m (as the board prints mentioned earlier). The colour is whitish, suggesting that adobe was mixed (or covered) with a sort of lime-wash, not only with the usual organic ingredients. Local available sources of chalk are poor, although existing in geological strata below 2 m, richer at more depth (5–7 m), as limestone concretions (precipitated calcium carbonate), where could make up to 50% of the matter. In the same area were found pieces of white chalk, very fine and strikingly white, in fragments about 200 g (or more); they are natural, hard rocks of chalk, not worked for the white wash, but used instead in the raw estate, possibly stuck on the wall. As such chalk bulks were around 20, they could serve, at most, to make a decorative pattern on the outer face of the

¹⁵ As rendered in Teodor 2016, 114, Fig. 7, south-eastern section.

barrack. The white chalk cannot be found in the plain, being very likely imported from beyond the Danube.

THE INVENTORY

The most relevant artefacts found in the ruin of the barrack were 4 coins. Two of them were lying in the upper part of the debris (overturned by the seekers of reusable objects), but the other two were recovered from the very floor of the barrack (no 4 and 5). Their state of conservation is different, but less depending on the length of the time they were in use, and more on how bad they were burned into the fire (nos. 2 and 5 are the most affected).¹⁶ One could count here also the coin recovered in the previous year,¹⁷ a *denarius* minted by Septimius Severus in AD 208, also found on the floor of a barrack. This numismatic evidence, although still short, recommends for the first phase of the Roman fort a date within the first quarter of the third century.

TABLE: Coins from the current campaign

no.	place	identity	issuer, type	picture
1	2008, stray find, County Museum Teleorman	fort surface	Antoninus Pius: Marcus Aurelius Caesar, sestertius, OR years 153–156
2	grid 23, –45 cm	ID 60	Caracalla: Iulia Domna, denar fourré, AE, post 211
3	grid 18, –30 cm	ID 06	Severus Alexander denarius, AR, y. 222
4	grid 20, –76 cm	ID 76	Severus Alexander denarius, AR y. 223
5	grid 23, –72 cm	ID 94	Severus Alexander denarius, billon, y. 222 or 223

¹⁶ All data about the coins are due to our cooperation with Dr Mihai Dima, from the National Bank of Romania. For no 2 we used in the table a photo taken in the intermediary process of restauration, better than that taken at the end. Cleaning the surface of residual products of the fire could damage the coin, as well illustrated by n° 5, although it was used just a couple of years.

¹⁷ Teodor 2016, 123, FIG. 12.

For the large fort from Băneasa we know also previous discoveries of coins, such as those collected in a digging from 1869 by Cezar Bolliac, *denarii* from Antoninus Pius and Caracalla,¹⁸ another mint of Antoninus being discovered several years ago on the surface of the fort (no 1 in the table from above). Obviously, the coins minted in the time of Antoninus Pius, blunt as it looks, cannot count for dating the fort.

Others important inventory items are illustrated at the **FIG. 7**. Except the modern ring (**FIG. 7/10**), recovered from the upper layer of the defensive ditch, all others belong to the crumbled barrack and are connected to the military equipment. Three of them are belt or scabbard fittings having only one rivet conserved,¹⁹ corresponding to varying supports, as the thickness of the contained material is as different as 1.5 mm (**FIG. 7/1**), 2.5 mm (**FIG. 7/3**) and 5.5 mm (**FIG. 7/2**). For the first case we are supposing a thin leader (as the one for *balteus*), the second case could be a suspension loop (for the scabbard? it should have at least two rivets), but the third is suggesting more than a thick leader, but also a wooden support (the scabbard itself?).

FIGURE 7: Photographs at scale (1:2 for the frontal view) for the next: belt fitting (1), scabbard fitting (? 2), suspension loop (3), strap end (4), belt stubs (5–7), ‘knee’ fibula (8), key-ring (9), metal locking ribbon for the belt (? 10), modern ring (11). All bronze, possibly except 10.

All photographs were made soon after the discovery and before restoration.²⁰ As already mentioned, all artefacts from the inventory are more or less affected by the result of the fire. The strap end (**FIG. 7/4**) is the most decayed, the two sheets of bronze being completely merged together; most likely, after restauration it should be seemingly with the analogies from the **FIG. 8**. The front sheet is is

¹⁸ Cantacuzino 1945, 447. Those coins are lost.

¹⁹ The artefacts are not still restored and could make surprises.

²⁰ Which is far from ideal; unfortunately that process is sometime very long (and nobody can tell how long).

broken and its appearance is rather iron-like, although it should be bronze, due to the oxidant agents within the layer of deposition.

At the **FIG. 7** come next three similar artefacts (nos. 5–7), which are belt studs, used as one of the means to close the belt, probably very popular in the third century, but less known archaeologically, as their association with a buckle (elliptical or rectangular) is not obvious, mainly if a modest one, made out from an iron bar. I found very explicit descriptions about the way they were used,²¹ but probably an image reconstructing this type of belt is the most intelligible (**FIG. 9**). We found good analogies, especially for the Western Europe, from the Lower Rhine or *Britannia*,²² with morphological variations which seem just local fashion, still with an obvious common purpose (**FIG. 10**). At the Lower Rhine they are just two washers welded at the ends of a bronze bar. The samples from *Britannia* are fungiform, with a mushroom like end (to be seen outside the belt) and a washer-like at the opposite end; the two welded parts have similar diameters. In our case, at Băneasa, the studs have an inner washer with smaller diameter as the “mushroom” like end; the last has more sophisticated shapes, being either round in plan, either rectangular, some with the outer part decorated with large grooves. Interesting to note, none is identical (there is a fourth artefact of the kind, similar to **FIG. 7/7**, but with no concavity inside), therefore they come from four different belts, meaning that the model was quite popular at the Lower Olt River.

FIGURE 8:

Analogies for the strap belt from **FIG. 10/5–7** (Bishop, Coulston 2006, 183, fig. 18).

We looked over the artefacts which possibly might be associated with the belt studs. One of them is depicted at **FIG. 7/10**. Similar belt fittings (with a generic shape of clepsydra) we found again in Britain,²³ fixed on the belt with two rivets and with no bent parts, suggesting for the belt a width of 3 cm. Similar belt appliques are to be found in Pleven (Northern Balkans)²⁴, with the same generic clepsydra like shape, but they are also flat and straight, fixed in four rivets, being also larger, suggesting a wider belt and surely a later one. The artefact from Băneasa has the particularity of having no rivets, but two bent ends instead. Although most of the restitutions proposed for a military belt show the end strap of the belt hanging freely, there are yet cases in which the belt, shorter, is caught in a clamp attached to the belt.²⁵ This could be the utility of our artefact from the **FIG. 7/10**. The advantage of such a free clamp, with no rivets, adjustable on the belt, is to fit any sizes of waist or to larger widths. Obviously, it seems to be removed from the belt before the fire. The internal length of the artefact is 28 mm, suggesting that this was the width of the belt.

The buckle for such a belt could be just a ring. We found two associated fragments from a sort or iron ring (deformed, from an oblong shape), with a cross section of 5 mm, the diameter being estimated at 33 mm, but not very safe, as more than of the half of the artefact is missing. The estimation fits a belt 28 mm wide.

²¹ As ‘the tapering belt-ends passed through the ring from behind, then back along the front, and held in place by a stud on each side’ (Bishop, Coulston 2006, 182).

²² Just because the western artefacts are published in publications with better circulation.

²³ Bishop, Coulston 2006, 183, Fig. 118/13.

²⁴ Angelova Traykova 2017, 525, Plate 164/2.

²⁵ Angelova Traykova 2017, 525, Plate 164/1.

FIGURE 9:
Belt with studs, after Nicolay 2007, 35, fig. 2.10.

The most elaborate artefact found in this campaign is the “knee” fibula (**FIG. 7/8**), a nice and almost complete one (missing only the pin). It was recovered near the barrack, where we are supposing the portico (west of the barrack), on the floor level. The artefact is also corroded, mainly because it has stayed so much time in a burned layer. It joins the type 19, subtype a8f, in the classification proposed by Sorin Cociș,²⁶ but it has no exact match. The best analogy is the item known from *Potaissa* (idem, cat. 1167), with the difference that the one from Băneasa has also cogs on the foot disc. The morphology of the side wings is closer to the catalogue no 1175 (an older find from the fort from Răcari, Dolj County). The chronology proposed by the mentioned author is large, along the entire third century, but only due to the unclear conditions of discovery for the group of artefacts; in this case the context is crystal clear and can be safely dated in the first quarter of the same century, mostly to the end of this interval. Another interesting information offered by Sorin Cociș is the fact that this sub-type was made exclusively in the province Dacia, suggesting thus that the troops were equipped locally, somewhere at the lower Olt.

FIGURE 10:
Belt studs, analogies in Western Europe (first three after Nicolay 2007, plate 41;
the last four after Bishop, Coulston 2006, 183, fig. 18, all at unique scale)

Also good looking, but also rare (at least in Dacia) is the key-ring (**FIG. 7/9**). The ring is not cast, as usual, being a flat and relatively thin sheet, with free ends (no marks of welding can be seen, but it is possibly broken). On one of the ends a cast key was welded; the key model is relatively sophisticated, contrasting with the very modest ring, therefore the last could be just a repair. Intended or not, the ring with free ends is a very good solution, as long the ring is still flexible, adjusting easily on very different finger sizes. If we are well informed, the key-rings are quite rare in Dacia.²⁷

²⁶ Cociș 2004, 98, cat. 1159–1177.

²⁷ See yet Teodor, Nicolae 2013, 165, 170 (where the known analogies are mentioned), for a different type, evolved in a pure decorative (and symbolic) ring.

The last artefact illustrated in the **FIG. 7** is another ring, a late medieval (or early modern).²⁸ It is quite a poor piece, made out of hammering a sheet of copper. The bezel has 8 sides and it is decorated with concentric circles and vegetal motives. The deformation of the ring is old.

The only item of weaponry is a catapult bolt, 69 mm long, weighting 22.6 g, of pyramidal section with four edges and socket. It was found in the grid unit 25, at -0.82 m, being outside the barrack (on the porch), but on the sole level. It was standing horizontally, more likely to have been lost than shot against the garrison. At a closer inspection the bolt is missing the tip (at least 3 mm) and it is slightly bent (**FIG. 11**), which make it used ammunition.

Between not illustrated artefacts a very frequent category is made of 22 *caliga* nails, found each one separately, all over inside the palisade. Beyond the conservation status (which varies), they seem to join the same traits: made of iron, up to 14 mm high, with a pommel 10 mm wide, almost all being bent at 90° (or more), thus already used. The thickness of the sole, deducted from the place of the nail bent, is almost 10 mm. Notably, 18 out of 22 shoe nails were found using a metal detector, making clear the fact that such a tool is highly recommended for assisting an archaeological digging, mainly when comes to very small metallic items, as *caliga* nails are.²⁹ Speaking about the usefulness of metal detectors on the digging site, we mention further than 2 out of 4 coins were found the same way.³⁰

FIGURE 11: Catapult bolt from Băneasa.

The pottery collected in this campaign is still in work when the dead-line is approaching. It is just similar to what we have reported for the previous campaign,³¹ and probably it will be published separately, for the next three or four years of digging on the site, in order to provide a better statistical base.

²⁸ Note that the Romanian chronology of the Middle Age is quite different than the western one. “Late medieval” could mean as late as the 18th century, especially speaking about the territories located outside the Carpathian Mountains.

²⁹ The average weight is 0.73 g.

³⁰ We are truly grateful to our colleague from the County Museum Teleorman, Pavel Mirea, which has provided us assistance one day in every week of the campaign, driving 80 km for each, and using the Museum’s metal detector. Weird as it is, we have our own metal detector, bought several years ago, but the management of the National Museum (where we both are employed) prevent its use, imposing procedures beyond the possibility to comply. Add to this the Romanian legislation in the matter, more severe with the professional archaeologists than with the amateur “archaeologists”, and the authorisation procedure, lasting frequently two or three months (but nobody knows how many would be necessary in fact).

³¹ Teodor 2016, 115–122.

CONCLUSIONS

We are concluding the digging report with some short comments. The archaeological campaign, targeting the north-eastern corner of the large fort from Băneasa, has proved the existence of only one, but relatively large defensive ditch. The berm is unusual long (10 m), making the visibility from the palisade to the bottom of the ditch impossible, which is only one of the many exceptions found on this site. There is no *intervallum*, no rampart (as known from many other military sites, 7 m in width and at least one metre high), and the palisade seems under-dimensioned. There is no room for a corner tower, but one can still suspect that the first section of the barrack could have a supplementary floor, possible taking the function of the tower (which is going to the list of weird things). Having the barracks so close to the palisade has obvious disadvantages (the risk of being easily put to fire, between others), but also an unexpected advantage: the fort becomes “larger”, housing without doubt at least a regular regiment.³²

Another striking feature of the fort is the rarefied use of *tegulae*. Not only that the barracks’ walls are made of adobe, but the roofs themselves are improvised by plants at hand, as reed (in the previous campaign) or branches of the trees. One can add here the absence of the construction nails (three fragments in two campaigns!), all suggesting a great problem with the combustible needed for making both bricks or iron implements. The study of the natural conditions in the area proves that the woods were almost lacking in the area, although the need was great.³³

An appealing fact is the culture developed in such an unusual environment, with difficult communication lines, relatively far from navigable streams, therefore with a low ratio of expected “imports”. Most likely the Roman garrisons were closely assisted by local population – recolonized in the plain after the Dacian wars – as suggested by the study of the pottery, which is a particular mix of Roman and local traditions, known in archaeology as Chilia-Militari culture.³⁴

The Hallstatt settlement is stretching relatively far from the terrace (about 150 m), although the height of the layer containing prehistoric artefacts is smaller than recorded in 2016, near the terrace edge. This digging, from the last campaign, is less than 200 m south of the small tumulus, very likely of the same age.

The next proposed target is the eastern gate.

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³² A partly mount one is more difficult. The suggestion offered by the shallow pits filled with pebbles is just something to be kept in mind, in the future, not a “fact”.

³³ Teodor 2018, where the needs themselves are analysed (the frontier palisade, the fort palisade, cooking, warming in the harsh winter, military and civilian buildings’ structures, compulsory handicrafts, like pottery).

³⁴ Teodor 2017; Teodor, Ștefan, Bădescu 2017.

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- FIGURA 11:** Bolț de catapultă.
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