

## ***Preliminary Report about the Investigation in the Énlaka/Inlaceni castellum in 2019***

## **Raport preliminar asupra investigațiilor din castrul de la Énlaka/Inlaceni din 2019**

Zs. Visy<sup>1</sup>

**Cuvinte cheie:** *Dacia superior, limes roman, Inlaceni, castru, castru cu zid de piatră*

**Keywords:** *Dacia superior, Roman limes, Inlaceni, castellum, stone fort*

### ABSTRACT

The investigation of the Roman military site at Énlaka/Inlaceni goes back to one and a half century. Following the full geophysical investigation of the fort and the bigger part of the vicus at Inlaceni/Énlaka in 2016 the excavation could be started in 2019 on the basis of a five years' research plan of the fort. This year the eastern wall and the area of the south gate could be excavated. It could be proved that the preliminary evaluation of the geophysical investigation needs a correction. The outer line proved to be a runoff ditch, the inner line the via sagularis of the stone fort. Only the middle, maybe double stone line could be interpreted as wall of the fort. They are the earlier and later phase of the stone fort. In lack of datable finds they could be erected in the middle and in the second half of the 2nd century AD.

The investigation of the Roman military site at Énlaka goes back to one and a half century. The first scientific description is to be thanked to I. Paulovics<sup>2</sup>, and excavations have been executed by Z. Székely<sup>3</sup> and M. Macrea<sup>4</sup>. A monographic evaluation was prepared by M. Gudea<sup>5</sup>, and the latest summary by A. Popa and his team<sup>6</sup>. With the support of Professor Friedrich Lüth, Zentrale des Deutschen Archäologischen Instituts in Berlin für Kulturgüterschutz und Site Management,

Rainer Komp and Ingo Petri, fellows of the German Archaeological Institute, could carry out the full geophysical investigation of the fort and the bigger part of the vicus at Inlaceni/Énlaka in 2016<sup>7</sup>. The extension of the area measured was 11 ha, bigger than that of the previous one<sup>8</sup>. The investigation could be extended also to parts of the fort that could not be measured earlier, and also the difference in the sensitivity of the equipment between the two campaigns is relevant. According to R. Komp the fort had at least two main periods. The earliest earth and timber fort could not be identified, but it was followed by a stone fort that had two main

<sup>1</sup> Professor emeritus der Universität Pécs, Department of Archaeology. visy.zsolt@pte.hu

<sup>2</sup> Paulovics 1944.

<sup>3</sup> Székely 1946, 39-43; Székely 1956, 31-40; Székely 1961, 185-186.

<sup>4</sup> Macrea et alii 1951, 285-311; Macrea 1960, 339-352.

<sup>5</sup> Gudea 1979, 149-273; Gudea 1997, 59-60.

<sup>6</sup> Popa et alii 2010, 110-112.

<sup>7</sup> Multi-sensor geomagnetic survey system Magneto MX v2 manufactured by Sensys GmbH.

<sup>8</sup> Gudea 1997, 60; Popa et alii 2010, 101-128.

phases  $\beta$  and  $\gamma$ . The outer fort with loose stone signs is the fort  $\alpha$  that could be the earliest<sup>9</sup>. The extensions are as follows:

stone fort  $\alpha$ : 167-171 x 160-177 m  
 stone fort  $\beta$ : 150-155 x 148-158 m  
 stone fort  $\gamma$ : 140-143 x 143-153 m.

This interpretation of R. Komp was taken over by me in my preliminary report on the 2016 investigation<sup>10</sup> as a probable solution, although the earlier investigations brought other periodization: one earth- and rampart fort and a stone fort, with periodic restoration<sup>11</sup>. The outer stone fort  $\alpha$  with different measures had not been identified. Following, the main task of the 2019 research was to clarify the situation, to take a final decision about the periods of the fort at Énlaka. The best place to do it was the Eastern front of the fort in the territory in the *decumana dextra* quarter. The three defence lines as given on the geophysical map could be cut through with a one 40 m long and 2 m wide trench (A – B in fig. 1). The other investigation of the three main periods took place in the area of the *porta principalis sinistra* as given in the map. The 20 m long and 1 m wide trench (C-D in Fig. 1) could be partially investigated.

The coordinates of the North ends of the section are as follow (fig. 1):

UTM	Y		X
A	5143411,63		355474,88
B	5143420,46		355513,95

<sup>9</sup> Komp 2017, 249-258. Visy, 2017, 252-253.

<sup>10</sup> Visy 2017, 229-248.

<sup>11</sup> The excavations of Z. Székely, Székely 1956; See Also Gudea 1997, Marcu 2009.

Stereo 70	X	Y
A	509286.043	547688.202
B	509324.906	547696.753

UTM	Y	X
C	5143291,5	355419
D	5143262,4	355425

Stereo 70	X	Y
C	509233.255	547565.445
D	509239.989	547536.508

The excavation has been carried out by Hungarian and Romanian colleagues and students in August 2019<sup>12</sup>.

### I. Section A-B (Fig. 2)

The supposed stone fort  $\alpha$  was excavated in the Eastern part of the section. Under the 50-60 cm deep upper earth layer appeared the yellowish organic clay level. Three objects could be observed. Two pits in the eastern end of the section, only partially inside. Beside some stones debris they were empty. West from them, a ditch could be observed that ran in North-South direction in the line where the wall of the stone fort  $\alpha$  had been given, but after its excavation it proved not to be a *vallum* of a fort. Its direction and width was not regular, and it was very shallow. However, it was of Roman origin, because a *tegula* fragment was found in its dark fill material. As it could not be a

<sup>12</sup> The Scientific consultants were S. Cocis, Sz. Pánczél and K. Sidó. The finds and the documentation were given the Molnár I. Museum in Cristuru Secuiesc/Székelykeresztúr. The excavation possessed the permission of the Ministerul Culturii și Identității Naționale, Direcția Patrimoniului Cultural (Nr. 88/06.05/2019) and has been financed by the *Corpus limitum imperii Romani* International Academic Research Centre at the University of Pécs. For several days also M. Szabó (University of Pécs, Aerial Archaeological Archive) and I. G. Farkas (CLIR Centre) and K. Sidó archaeologists joined the team. The author expresses his thanks for their support and to the students at different universities and institutes in Hungary and Romania for their work: D. Kovács, M. Kántor, K. Szabó, P. Pillér, Á. Morvay, S. Deák (pensionist); M. Galambos, M. Mocsári, J. Heissler, O. Szilágyi, B. Tökölyi).

fort ditch, the plausible solution is that it served as a runoff ditch in order to divert the water away that came from the above hillside towards the *decumana* front of the fort (Fig. 3-6).

However, the question of *castellum* α (see map) is not fully solved with this statement, because it was represented on the geophysical map in its totality. All the four gates with big gate towers are drawn, but it is almost impossible for an early fort that it could have had protruding gate towers like here the *porta decumana*. It is also a general phenomenon that – when troops of similar strength changed each other – the earlier fort is less than the later one or identical in size with it. Such a *castellum* could be found during the previous excavation, and it could be identified also in the new geophysical measurement as *castellum* γ. The existence of an earlier, bigger fort cannot be excluded, but not with protruding *decumana* gate towers like given in the map, and not with a ditch that cannot be accepted as a fort ditch. It means that stone fort α has to be deleted from the possible forts at Énlaka.

In addition, the existence of the *castellum* δ is questionable. A kind of a wide stone package could be observed both by A. Popa and R. Komp in long sections inside the fort, in different distance from the wall, not fully parallel with it<sup>13</sup>. We have excavated it in the western part of the AB section, in the place where it was mapped in the geophysical map (Fig. 7-8). However, instead to find a wall and a ditch only a 3 m wide stone package was found 30 cm under the surface. The first possibility is to see the *via sagularis* in it. Its direction is almost the same as that of the two side gates and the *via principalis*. The question is, whether the stone layer served as the basement of the earth rampart of a fort or it was the *via sagularis*. Regarding its

thickness and irregular distance from the wall Komp declined to evaluate it as an earlier fort, possibly element of the early earth-and-timber fort<sup>14</sup>. It could be observed on the northern and eastern side in the geophysical map, and only partially on the western and southern ones.

The stones lay in loose order, there was no connection between them. Among the stones here and there mortar pieces could be found. After its documentation, the mainly loose stones without any connection were partly taken out, and it was cut through in a 60 cm wide section. It could be observed that the stone surface had only one layer and was not more than 40 cm wide. Under this layer untouched geological clay layer was found. No trace of a ditch could be found on the eastern side of it (Fig. 9).

A plausible solution would be to identify it with the *via sagularis*, but it is not easy. If so, pebbles and little stone pieces should have been found among the stones which was however not the case. Although according to its width it could be accepted as the *via sagularis* of *castellum* β, but its direction not exactly, because it doesn't run always parallel with the wall of the stone fort. R. Komp identified a building near the eastern wall of the fort, south of the *via decumana*<sup>15</sup>. According to his interpretation it is probable that the stone level ran under this building. It means that it was made earlier than the building, and R. Komp proposed that this stone layer represents the earliest phase of the fort. However, it is almost impossible that a building could have been built tight to the *agger*. Such solutions were applied in the limes fortifications only in the 4th century, as this *castellum* together with Dacia was already abandoned. Accordingly this building cannot be taken

<sup>13</sup> Popa et alii 2010, 112, fig. 15; Komp 2016, 253.

<sup>14</sup> Komp 253 proposed that it was either the *Via sagularis* or part of the earlier earth-and-timber fort.

<sup>15</sup> Komp 254.

into consideration in the question of the interpretation of the stone layer.

Its interpretation as a stone fundament for the earth rampart of fort  $\delta$ , which occurred in the Roman military praxis<sup>16</sup>, would be possible, but the lack of a ditch on its outer side is against it. The only possibility is then to assume that this stone package served as the *via sagularis* of the stone fort *castellum*  $\gamma$ . The existence of „*castellum*  $\delta$ ” and the existence of its gate towers as given in the map, can be excluded. It means that the stone fort  $\delta$  has to be deleted from the possible forts at Énlaka.

In the western end of the AB section a pit could be partly unearthed. Its loose filling material contained several ceramics and also some iron fragments, among other some shoe nails<sup>17</sup>.

In the middle part of the AB section the wall of the stone fort  $\gamma$  and its ditch could be identified and excavated. The big blocks of the wall were partially found in their original placing so high that they were regularly carved at ploughing. The wall was 160 cm wide (Fig. 10).

On the outer side of the wall big rectangular blocks were laid, also the inner face of the wall was equipped with bigger blocks, while in the inner part of the wall also smaller, not regular stones were put. In the western side of the wall some traces gave a hint to assume the existence of the *agger*. Small stones pieces and pebbles represented this layer. It was 4 m wide and its western side lay deeper than the eastern one at the wall (Fig. 11).

Near to the eastern side of the wall a layer full of mortar and little stone pieces could be identified. This mortar had a yellowish colour, different from the one of the wall. Although it was not possible to make an extensive work to find its exact measurements without destroying the wall, it surely belonged to the earlier the

stone fort  $\beta$ , as it is represented on the geological map. Seemingly, its stone material was taken out and used during the building of the fort  $\gamma$  (Fig. 12).

The wall could stand for a long time, because its big stone slabs lay not in the deepest part of the ditch but higher, and also in the upper level of the ditch near the wall. The axe of the ditch proved to be 4,6 m from the outer face of the wall. It had a depth of 175 cm from the present surface. It was cut in V-form, but during its regular cleaning the sharp V form changed its form for a slight U-shape. The eastern side of the ditch is steeper than the western one. The finds from the ditch are very scarce. Apart from little ceramic pieces and tile fragments there were no finds in the ditch. Its dark black material gives a hint that its filling was a long process (Fig. 13-14).

## II. Section C-D (Fig. 15)

The other place of activity was at the southern side of the fort, in the line of the western gate towers of the fort. The side gates of the stone forts are in different distances from the eastern corners: 75 m on the northern and 80 m on the southern side<sup>18</sup>. This section was planned to be 30 x 2 m, but because of the shortage of time it could not be fully excavated. It could be investigated in a length of 15 m in a width of 1 m. A 2 m wide section could be opened only in its southern part, but not fully excavated (Fig. 16).

The archaeological find was the western tower of the *porta principalis sinistra* of the fort  $\gamma$ . The section went through its axe; therefore, the northern 3 m long part of the section was totally empty from any remains. It could be identified as the inner

<sup>16</sup> Breeze 2006, 71-75.

<sup>17</sup> The finds will be evaluated by K. Sidó.

<sup>18</sup> It is to be assumed that the mapping of the U-form wall in front of the *principia* is not right (Komp 254), because no other line with the same orientation is visible on the geological map. This wall could be belonging the *principia* that circled the courtyard. If this conjecture will be proven, the full *principia* can be reconstructed.

part of the tower or as the northern outer territory. South of it, however, the wall of the tower was found and identified. It proved to be 3 m wide and had more splits. The surface of the wall proved to be quite compact but being near to the surface the agricultural work harmed it. In the southern part of the section layers full of stone pieces and mortar were excavated. The wall of the tower split in more lines, and they prove that the tower has slipped down to the South<sup>19</sup>. This phenomenon provides an explanation to the fact that this gate and the adjoining wall has a curve in their line, which could be clearly not built in this form. The clay subsoil provides a slippery bottom, and here, where there is a steep surface also in the present time, the wall could move together with the gate towers. The same process can be assumed also in the south-eastern corner of the fort (Fig. 17-18).

The excavation of the C-D section could not be finished, the work will be continued later.

Only few finds came to light. The section A-B provided only some ceramics and iron shoe nails, almost all of them were found in the pit in the far western end of the section. Some interest finds were found, however, in the section C-D. Apart from ceramics a great number of pieces of *tegulae* and *imbrices* became known. There were found also two stamped ones of the *coh(ortis) IIII Hisp(anorum)*<sup>20</sup> (fig. 19), and a third century bronze brooch (fig. 20). It is supposed that the first garrison of the earth-and-timber fort had been the *cohors VIII Raetorum c(ivium) R(omanorum) equitata*<sup>21</sup>, while the builder and the garrison of the stone fort γ, built in the middle of the 2nd century AD, was the *cohors IIII Hispanorum equitata*<sup>22</sup>. In the building of the military bath<sup>23</sup> of the fort the *cohors prima Alpinorum* took part<sup>24</sup>, but this unit was stationed in the fort at Sărățeni. The *cohors IIII Hispanorum equitata* was then the garrison of the fort at Inlăceni from the middle of the 2nd century until the end of the Roman occupation.

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<sup>20</sup> To the auxiliary army of Dacia see Petolescu 2002, to the *cohors IIII Hispanorum equitata* Ardevan 2018, 533-542.

<sup>21</sup> Macrea 1960, 343.

<sup>22</sup> Gudea 1979, 170-174.

<sup>23</sup> Gudea 1979, 157-170.

<sup>24</sup> Székely 1956, 41; Gudea 1979, 157-170.

<sup>19</sup> Gudea 1979, 149 gave the same explanation, while Komp 2017, 252 thinks that it was constructed intentionally this way.

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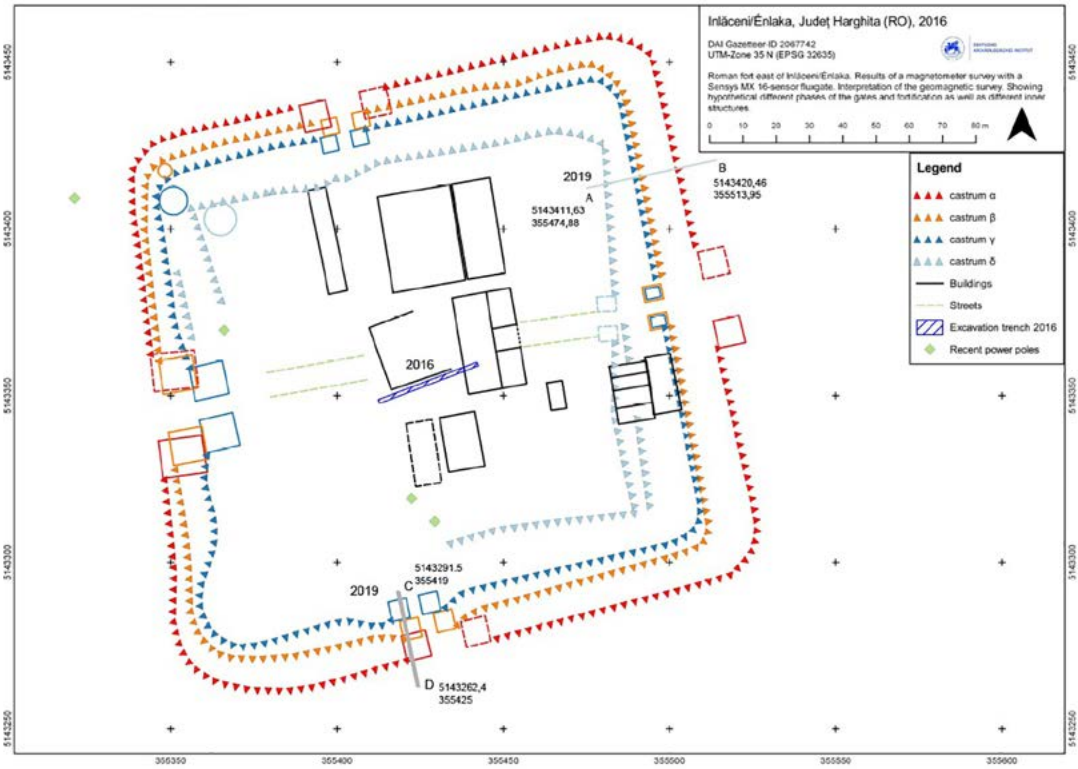
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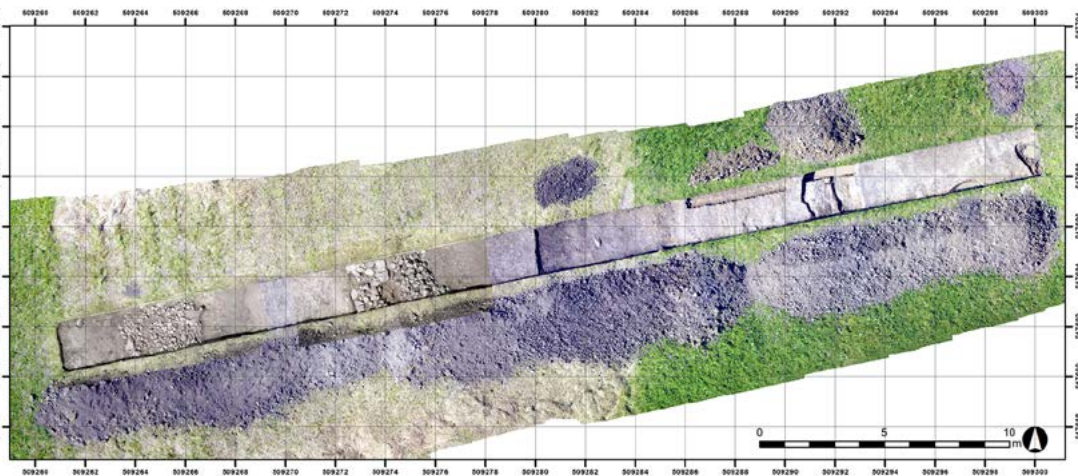
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**Fig. 1** Sections AB and CD of the 2019 excavation with the indication of the 2019 sections.



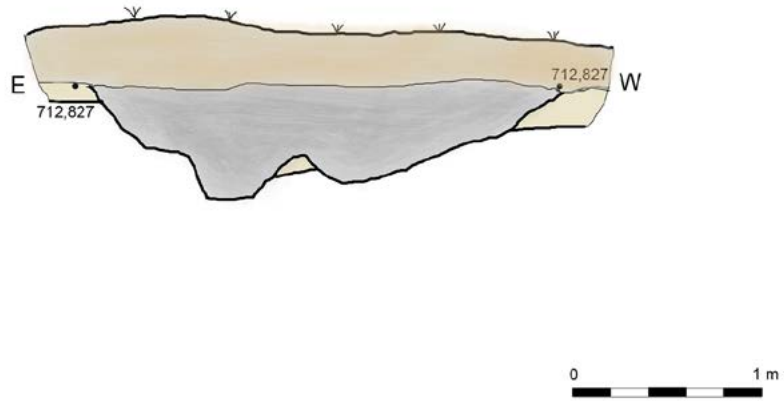
**Fig. 2** Photogrammetric representation of the A-B Section.



**Fig. 3-4** Runoff ditch.

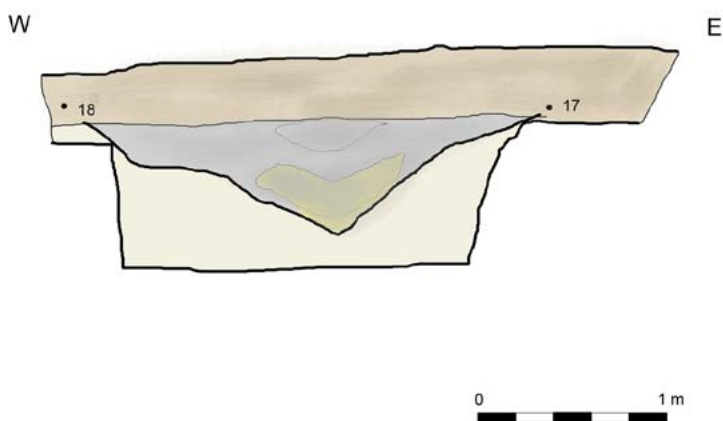


Fossa I South profile

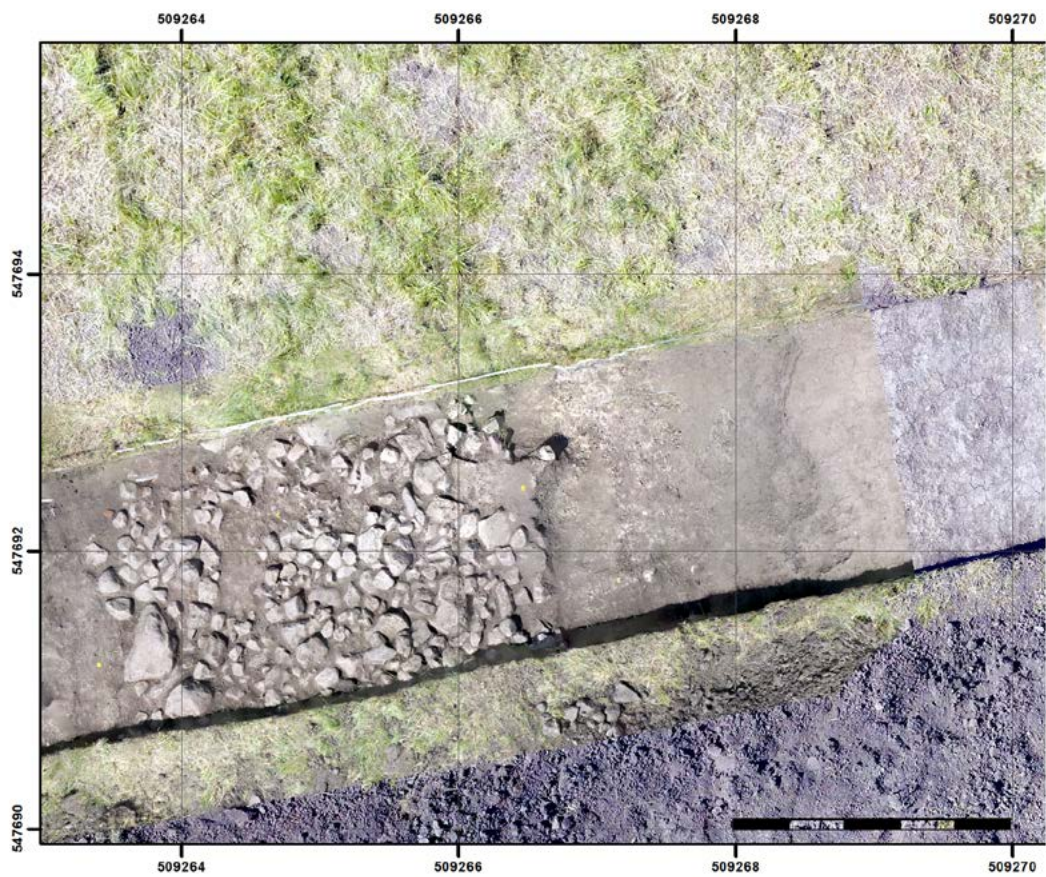


**Fig. 5** The south profile of the runoff ditch.

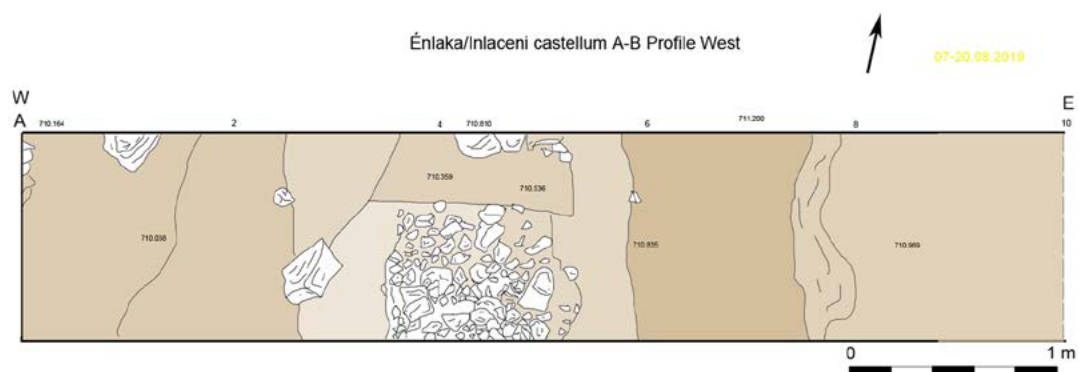
Fossa I North profile



**Fig. 6** North profile of the runoff ditch.



**Fig. 7-8** Stone package „castellum  $\delta''$  – via sagularis.



**Fig. 9** Stone package „castellum  $\delta$ ” – via sagularis.

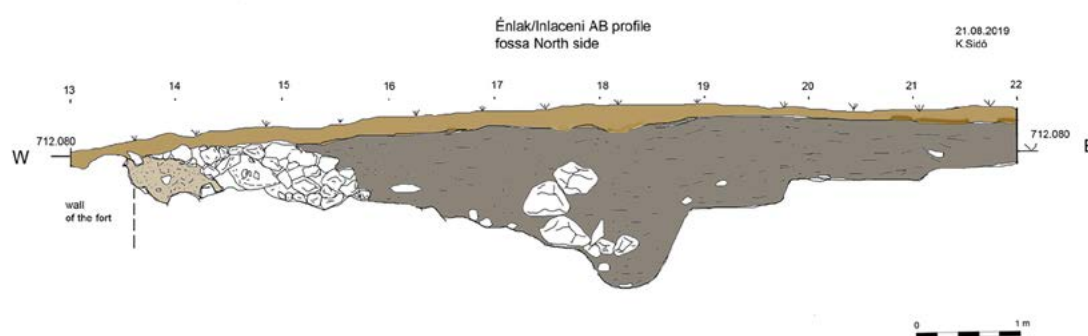


**Fig. 10** castella  $\gamma$  and  $\beta$

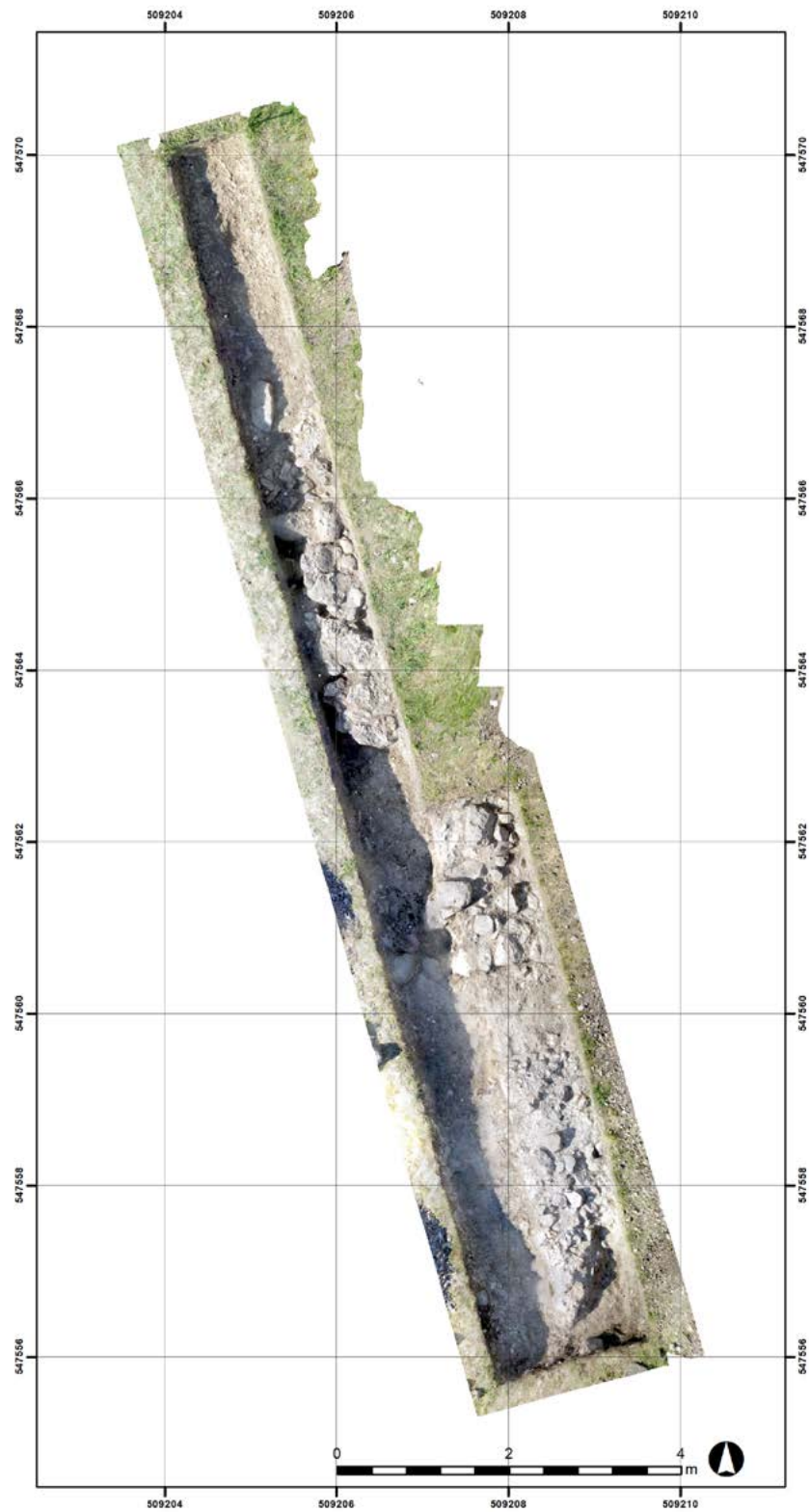




**Fig. 13** The northern profile of the fossa of the castellum  $\gamma$ .



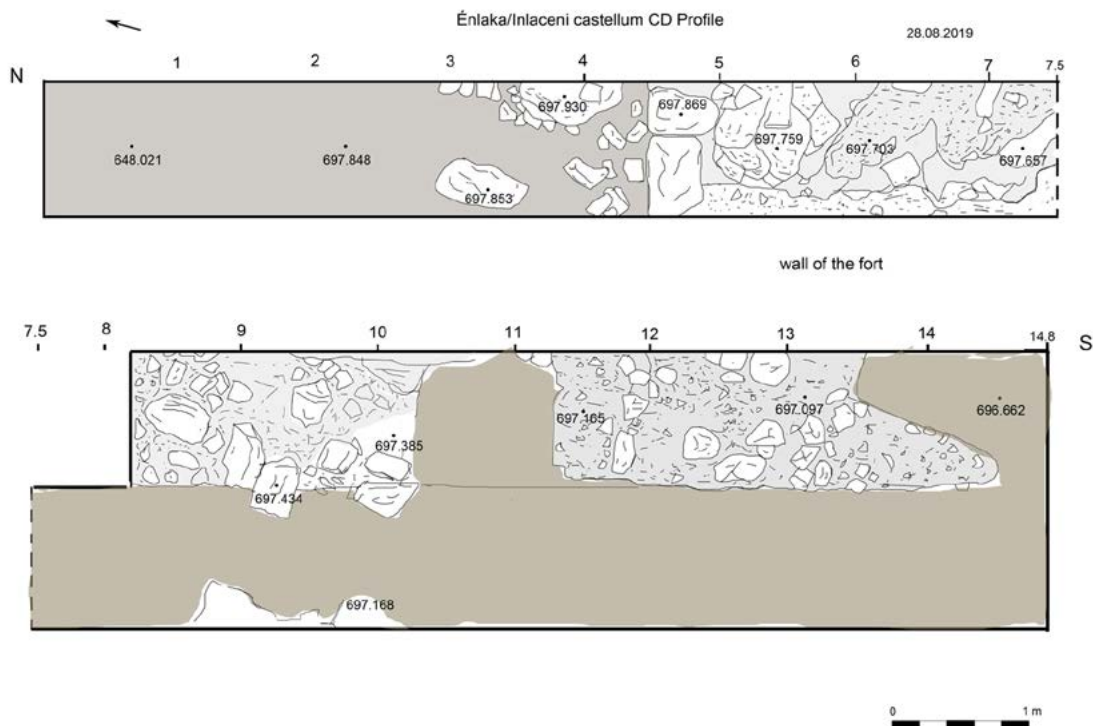
**Fig. 14** The northern profile of the fossa of the castellum  $\gamma$ .



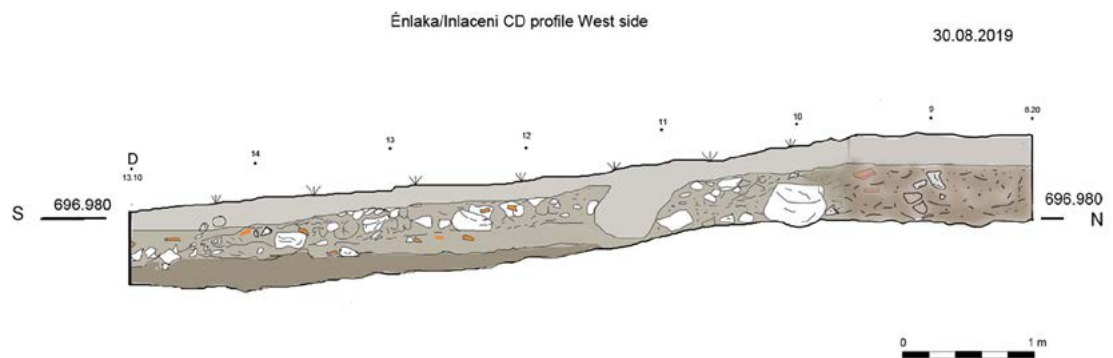
***Figs. 15*** The photogrammetric representation of Profile C-D.



**Fig. 16** Broken wall of the tower *porta principalis sinistra*.



**Fig. 17** Remains of the *porta principalis sinistra* in the Section C-D.



**Fig. 18** The western profile of Section C-D.



**Fig. 19** Fragment of an imbrex with the stamp of [co]h(ors) IIII Hisp(anorum), C-D section 1<sup>st</sup> level.





**Fig. 20** *Bronze bolt fibula, C-D section 1<sup>st</sup> level.*