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# THE FIRST RECORDS ON LATE ROMAN AND BYZANTINE FORTIFICATIONS ON THE DUNAVĂȚ PROMONTORY, MURIGHIOL COMMUNE, TULCEA COUNTY (RO). CONSIDERATIONS ON LOCALIZATION AND USED LITHIC MATERIALS

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**Abstract:** Cartographic research and remote sensing investigations within the Murighiol Archaeological Project (started in 2020) allowed the completion of the documentation with some records from the end of the 19<sup>th</sup> century: research on the Zaporozhian settlement in Dunavățu de Sus and a report and plans kept in the archives of the topographic engineer Pamfil Polonic. The results of their evaluation were corroborated with the results of the field projects dedicated to local resources and lithic materials used in the Roman strongholds in the area of the Dunavăț Promontory, making possible clarifications and corrections on the location of ancient sites and the archaeological research of the 20<sup>th</sup> century at Dunavățu de Jos and Dunavățu de Sus.

**Keywords:** Roman strongholds, Murighiol, Dunavăț, lithic materials, spolia.

## INTRODUCTION

When considering the start of new projects, topography and localization of settlements mentioned in ancient sources, and recovery of early visited/mentioned sites and finding spots are among the particularly relevant and essential issues for archaeologists and historians of antiquity, especially in the very remote area of northern Moesia Inferior province, later Scythia (Fig. 1). Cartographic research and remote sensing investigations lead, in some cases, to quite a fruitful outcome, especially if the evidence covers several decades or even centuries. Little was known about how fortunate the area of the Dunavăț Promontory would show itself to be, as the basic documentation within the Murighiol Archaeological Project (started in 2020) was carried out.

The area is known to be marked by many archaeological sites and features, taking into account the topography of the Promontory, with several heights providing good signaling and surveillance points over the surrounding areas (Fig. 2), and its strategic position at the end of the Danube river, near its



Fig. 1. Map of Scythia (modified by C.-G. Alexandrescu, after OPAIȚ *et alii* 2020, Fig. 1).

Delta and its southern Branch, where in antiquity the junction line between river and the Black Sea was significantly nearer to the ancient sites than it is today.<sup>1</sup>

However, for a long time during the 18<sup>th</sup> and 19<sup>th</sup> centuries, the region was not documented by means of cartography, cadaster, or systematic registration of settlements and population.<sup>2</sup> Thus, the toponymy and settlements, which changed quite often, brought some confusing elements that

need to be clarified. One episode in the history of the area was that of the Cossaks, with their characteristic way of life and settlement, which failed to be known after their settlement ceased to exist, in the first decades of the 19<sup>th</sup> century. However, stories about those people and their actions remained imprinted in the local folktale and toponymy all over the Dunavăț Promontory. Hence, the names “Cetatea Zaporojenilor” and “Cetatea Sici” came up and, by the end of the 19<sup>th</sup> century, as historians and cartographers started to investigate this remote region, found their way into the official documentation, without further need for clarification. From the beginning (see, for example, Fig. 3), of higher

<sup>1</sup> SUCEVEANU *et alii* 2003, 14–18; ZAHARIADE 2011; ZAHARIADE 2011a; HIMMLER 2011, 74–75; ROMANESCU *et alii* 2015; GIAIME *et alii* 2019; SIMEONOV 2021.

<sup>2</sup> PETERS 1867, 130–135; IONESCU 1904; ARBORE 1935, 33–34.

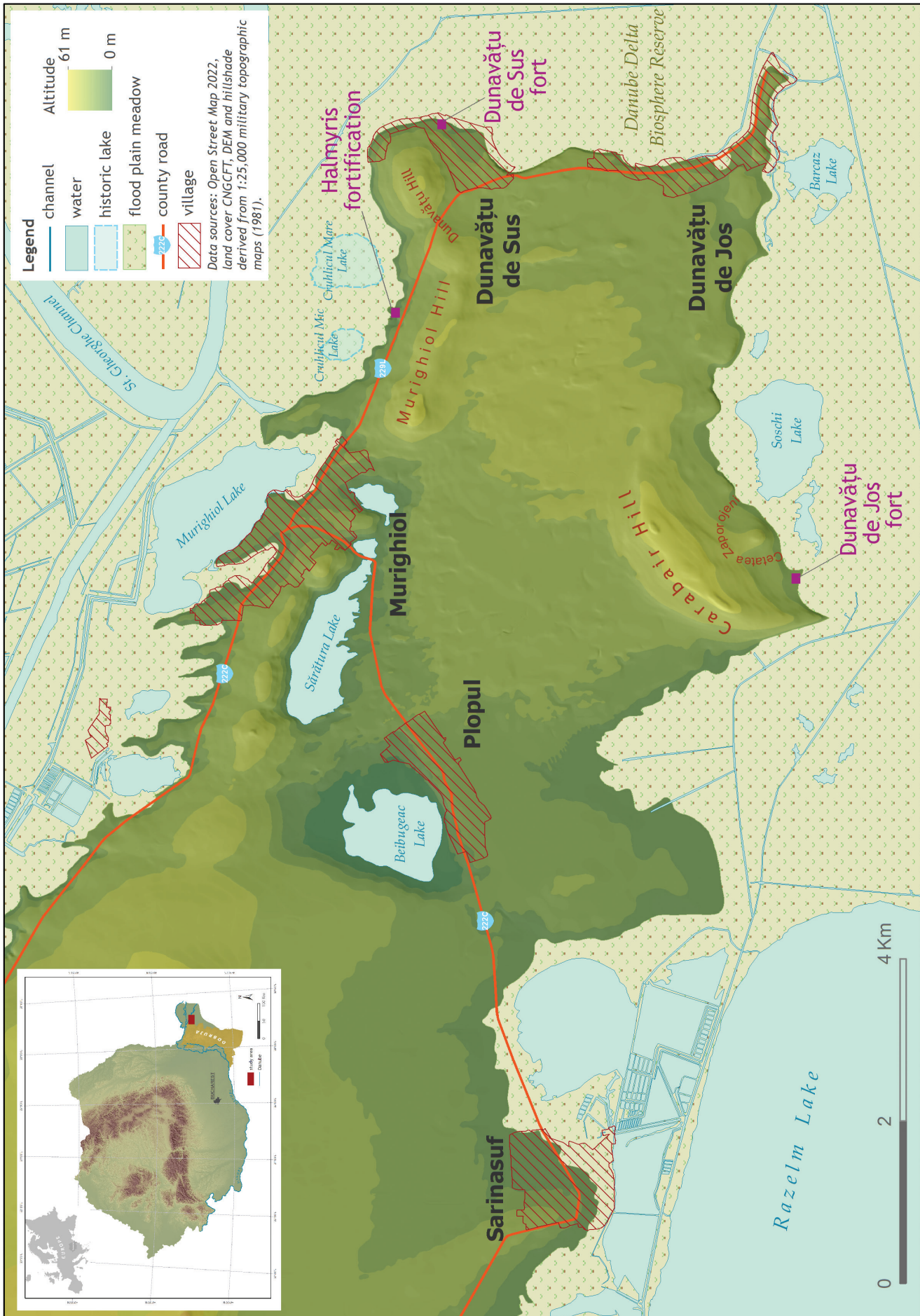


Fig. 2. Dunavăț Promontory, with the three ancient sites under discussion (© C.-G. Alexandrescu / B. Olariu).

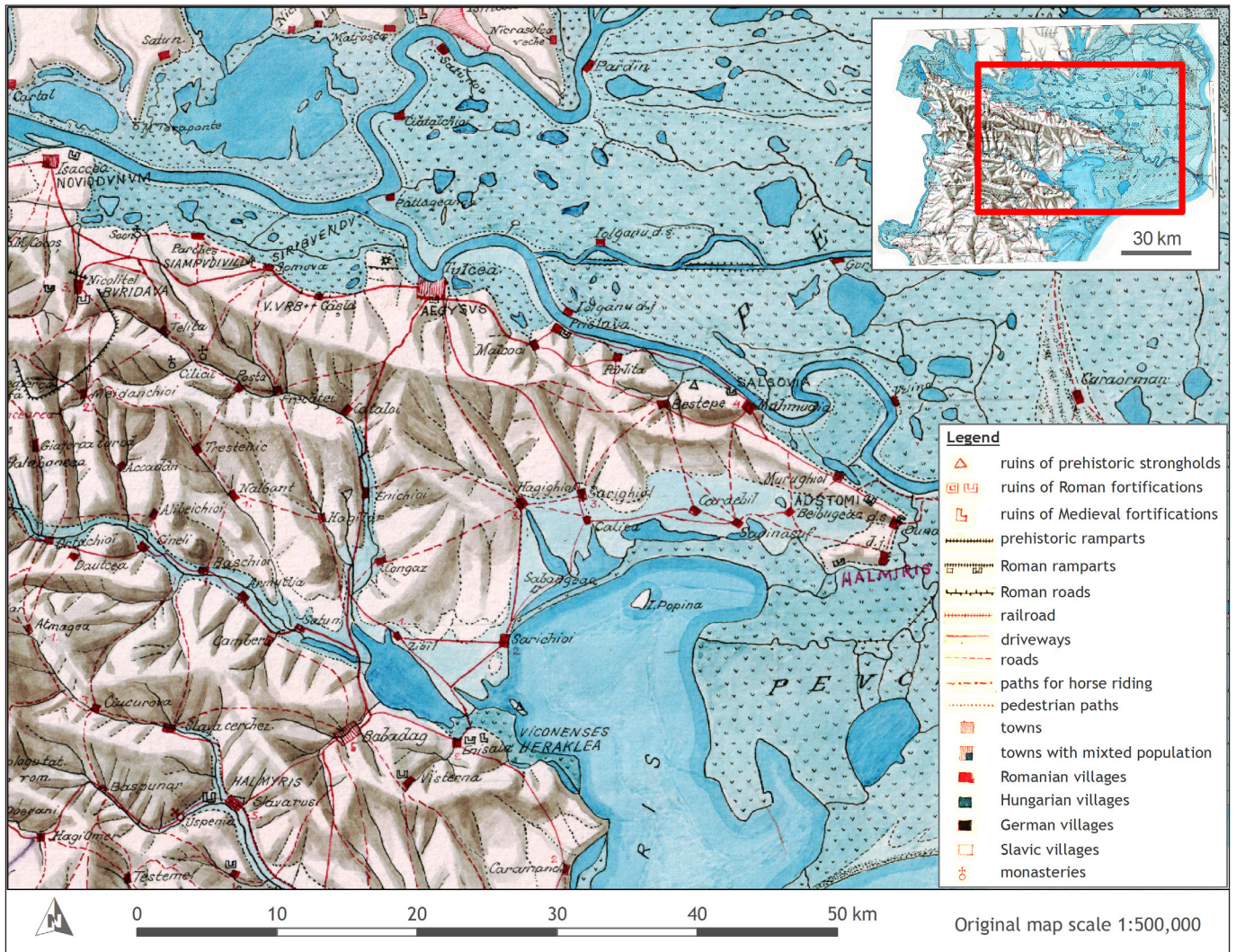


Fig. 3. Map of P. Polonic 1918, sheet 10 – detail, with the insertion of the legend from sheet 21 (© C.-G. Alexandrescu / B. Olariu).

interest was obviously to localize the names of strongholds mentioned by ancient sources (Halmyris, Ad Stoma, Gratiana etc.), a vivid discussion, with rich bibliography, that will not be tackled here.<sup>3</sup>

Thus, the data collection started with the evaluation of the usual cartographic materials available for this region, especially the Romanian military maps under ‘Lambert-Cholesky’ projection system (Fig. 4), with the negative result of not finding all the sites of interest mapped. It was more successful to revisit the archival materials of Pamfil Polonic, kept at the Library of the Romanian Academy in Bucharest. P. Polonic, a topographic engineer, worked at the National Museum of Antiquities in Bucharest between 1892 and 1902.<sup>4</sup> One of his projects was the documentation, as a gazetteer, with maps and plans, of the ancient sites along the Danube and the Black Sea shores. He visited the area of the Dunavăț Promontory presumably on more than one occasion and drafted a field research report dated 1898 (Appendix II). The documentation for the Romanian military maps under

‘Lambert-Cholesky’ projection system (“Planurile Directoare de Tragere”) was made about a decade earlier (Appendix I).

Several visitors of the sites in the early 20<sup>th</sup> century, interested in Roman strongholds, such as the archbishop R. Netzhhammer and C. Moisil,<sup>5</sup> relied on Polonic’s observations (unpublished at that time, but disclosed by the author during personal discussions). It should be stated that the scholars, starting with Gr.G. Tocilescu, used some of the information provided by Polonic, mainly the dimensions of the forts, but not his entire documentation. Polonic himself published a very short version of his gazetteer and a synthesis map.<sup>6</sup> Therefore, his texts and plans are presented here as appendices (Appendix II/a and b) and illustrations (Fig. 6, 15 and 24).

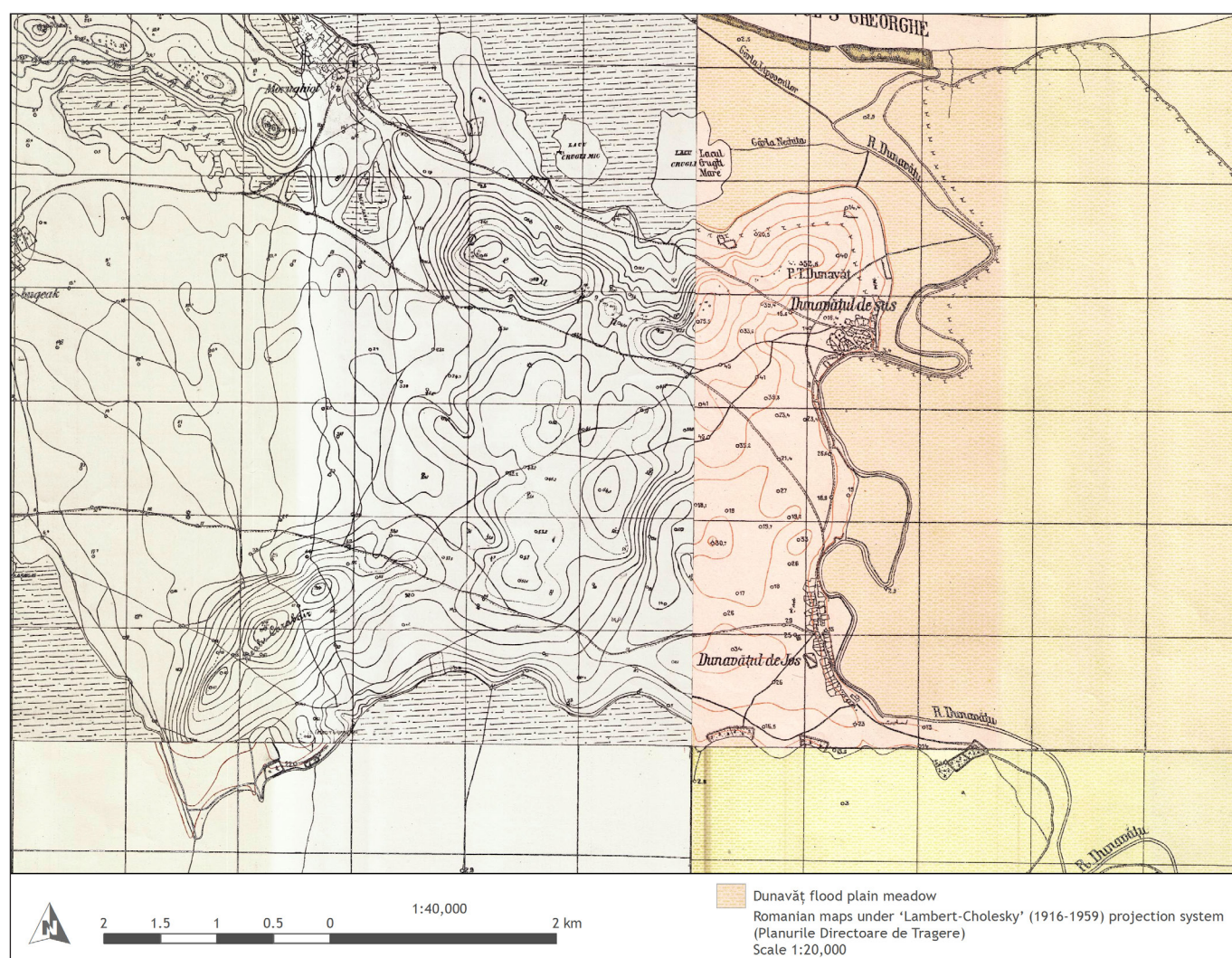
The information on one of the settlements from the early 19<sup>th</sup> century in the area of today’s Dunavățu de Sus village revealed a surprising find, not turned to account in the earlier archaeological literature (Fig. 5). The reason for this might be, that the publication was known mainly as a translated summary in the journal *Analele Dobrogei*, which did not include the illustrations in the original paper. The highly

<sup>3</sup> See, for example, SUCEVEANU/ZAHARIADE 1987; SUCEVEANU *et alii* 2003, 21–22; ZAHARIADE 2011a; ZAHARIADE 2011b.

<sup>4</sup> MĂGUREANU 2013.

<sup>5</sup> NETZHAMMER 1909; MOISIL 1909.

<sup>6</sup> POLONIC 1935.



**Fig. 4.** Detail of the mosaic of the Romanian maps under 'Lambert-Cholesky' projection system, sheets 5951, 5851 and 5850 (© C.-G. Alexandrescu / B. Olariu).

interesting publication presented a report of the investigations, interviews, and visit in the search for the Sich (=fortified settlement) of the Zaporozhian Cossacks, known to have existed in the early 19<sup>th</sup> century in the area of today's Dunavățu de Sus.<sup>7</sup> The sketch of the settlement (Fig. 5), with its particular surrounding rampart and specific structure, of the environs and, also of great relevance, the description and depiction of the Dunavăț Creek at the end of the 19<sup>th</sup> century, as the author visits the region, i.e. before the layout of the Dunavăț Channel by regularization of the stream of the Dunavăț Creek.<sup>8</sup> Despite some inconsistencies in the names of the highest points in the area, the publication of 1883 can be recognized as the first plan with the representation of the stronghold near the village of Murighiol, i.e. the one named today "La Cetate"/Halmyris (see below). The fort is depicted as having a rectangular shape. Further on, it allows the identification of the ramparts documented on the Romanian military maps under 'Lambert-Cholesky' projection system (Fig. 4) in Dunavățu de Sus as the rampart surrounding the Zaporozhian settlement and one further feature in the north

of the village. The latter is, in our opinion, safe to recognize as the remains of the rampart and ditch of another ancient fort (Fig. 16). P. Polonic (Appendix II, sheet 95/recto) describes also the 1,200 m long rampart and the ditch surrounding the western side of the village.<sup>9</sup> This feature is also described and sketched by F. Kondratovich (Fig. 5),<sup>10</sup> although the accuracy of the given dimensions cannot be appreciated.

From Pamfil Polonic's documentation, three plans of ancient military structures he identified in the area (Fig. 6, 15 and 24) were preserved. They provide scarce information on the surroundings or hints on the location within the settlements/villages existing around 1897/1898 (the report is dated 21.04.1898 – Appendix II). The same as other visitors to the region, he used the information provided by the locals (in his case, by one of the priests). Polonic particularly mentions him in the case of the Roman fort in Dunavățu de

<sup>9</sup> POLONIC 1935; see also Appendix II. – IONESCU 1904, 328–329 and 403.

<sup>10</sup> KONDRATOVICH 1883. The original publication appears to have been printed in the same year as a separate offprint/booklet. A.P. Arbore used it for his 1935 paper, referencing pages from this offprint with a new page numbering. Since we cannot access the text in Ukrainian, we will cite Kondratovich based on Arbore's references: ARBORE 1935, 68–69 quotes as KONDRATOVICH 1883, 99–100.

<sup>7</sup> KONDRATOVICH 1883.

<sup>8</sup> See also IONESCU 1904, 219.

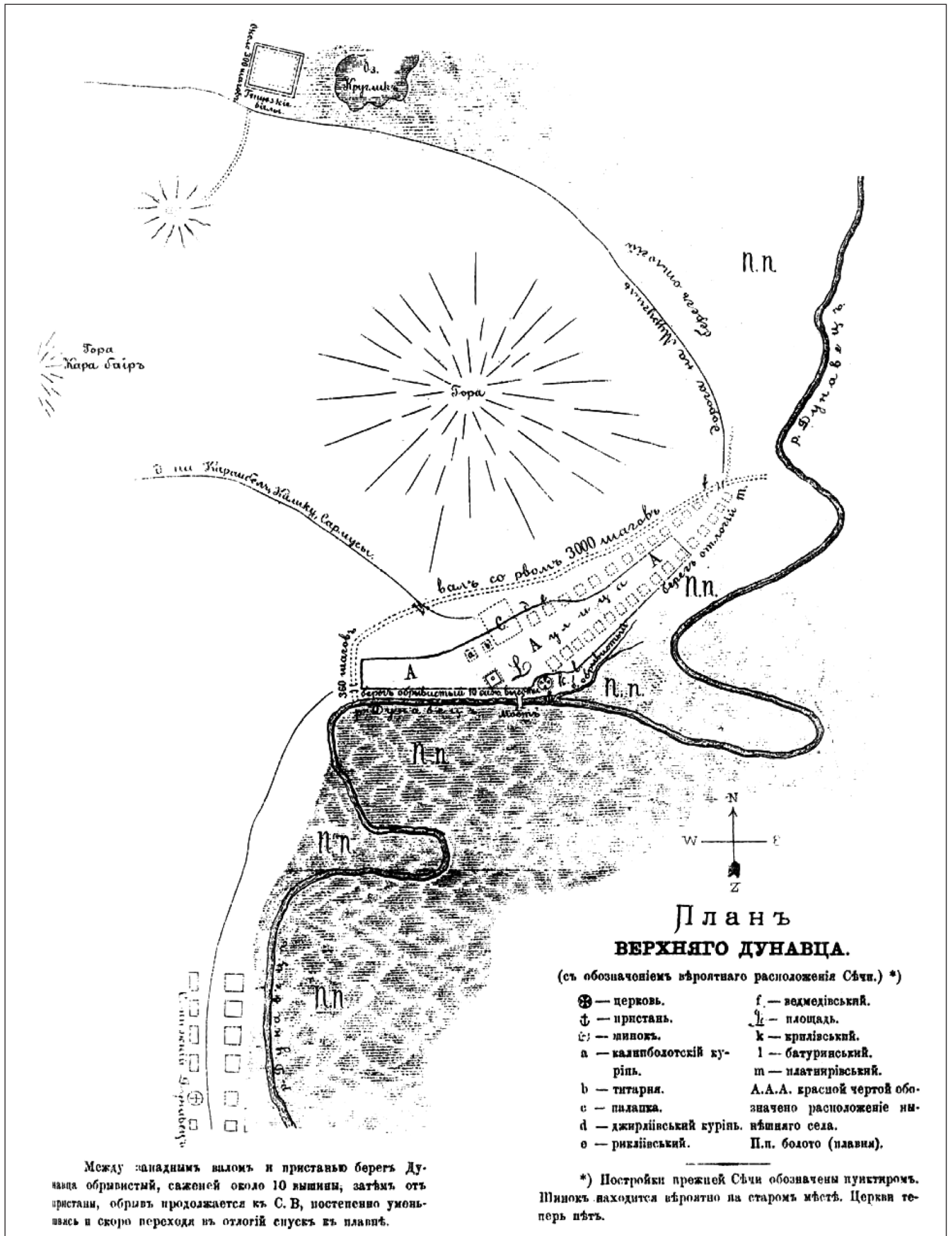
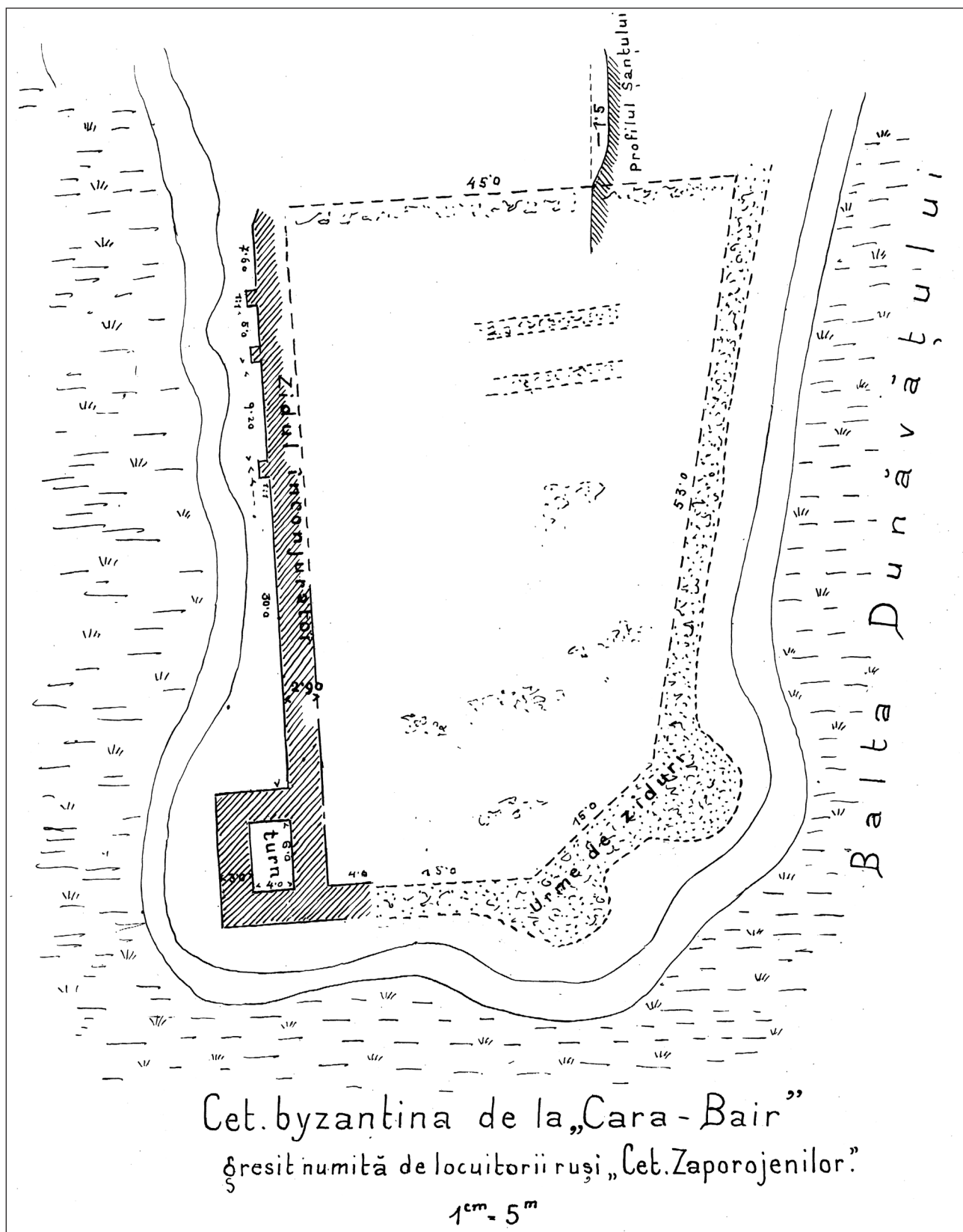


Fig. 5. Sketch with the Cossack settlement at Dunavățu de Sus and its surroundings (after KONDRATOVICH 1883).



**Fig. 6.** Dunavățu de Jos fort: plan by P. Polonic (1897), after the plan preserved in the Library of the Romanian Academy, Manuscripts collection, Archive Pamfil Polonic, Varia II, sheet 154-2.

Sus. He described and drew the plan for a third fort in the region, not mentioned by previous maps or publications,<sup>11</sup>

<sup>11</sup> DESJARDINS 1868, 267 does not mention this stronghold, only a possible location for ancient sites – cf. ZAHARIADE 1999, 204 and, probably following him, BĂJENARU 2010, 132.

5 km west of the village of Dunavățu de Jos, not far from an inselberg called Cetatea Zaporojenilor. On its plan (Fig. 6), he pointed out that the fort near the Carabair Hill was erroneously called “Cetatea Zaporojenilor”, although the Zaporozhian settlement existed earlier, as already

mentioned, in Dunavățu de Sus. However, the correction is not included in the report (Appendix II, sheet 94/verso).

At this point, it is necessary to mention that the present paper needed to be restructured, i.e. extended, from its initial objective and content, to clarify some further existing errors in the localization of ancient sites and the early phases of the archaeological investigation of the forts in Dunavățu de Sus and Dunavățu de Jos. Thus, the three main Roman forts on the Dunavăț Promontory will be presented shortly, following the order in Polonic's gazetteer and highlighting the main issues that need further investigation. Furthermore, one particular aspect of their making and implicitly their investigation – the lithic materials used – will be approached to clarify some of the arguments for the corrections made in this contribution.

### LITHIC BUILDING MATERIALS

K. Peters did not visit the entire area of interest.<sup>12</sup> He mentions the ruins from Murighiol ("La Cetate"/Halmyris fortification). Furthermore, based on some blocks used for building some fountain in the Popu village, he identified the source of the so-called black Carabair limestone<sup>13</sup> (Fig. 2). Further investigations on the lithic materials used for building purposes in the area of interest are rather general.<sup>14</sup>

The new studies on the lithic materials used in the fortification from "La Cetate"/Halmyris<sup>15</sup> also identified this limestone among the sedimentary rocks of Triassic to Upper Jurassic-Lower Cretaceous ages as one of the main materials used in the Roman, Late Roman and Byzantine fortifications, together with the greyish limestones of the Murighiol Formation and the Dunavăț sandstone. All the materials were quarried within a radius of maximum 5 km from the fortification.

Thus, identifying the small fortification from Dunavățu de Jos with one built in 369 AD in the presence of Emperor Valens, as described by Themistios,<sup>16</sup> is not ruled out. However, the argument of the difficult access to lithic building material<sup>17</sup> is highly disputable. The analyzed rocks from the fortification in Dunavățu de Jos are Triassic black Carabair limestones,<sup>18</sup> available at less than 500 m from the building site (Fig. 2). The fourth main kind of stone used was identified as the Turonian rock from the Dolojman Formation, i.e. limestones and sandstones used either as especially cut ashlar/building blocks of different sizes or as slabs cut out of former monuments (funerary stelai, sarcophagi, votive altars), re-used as spolia.

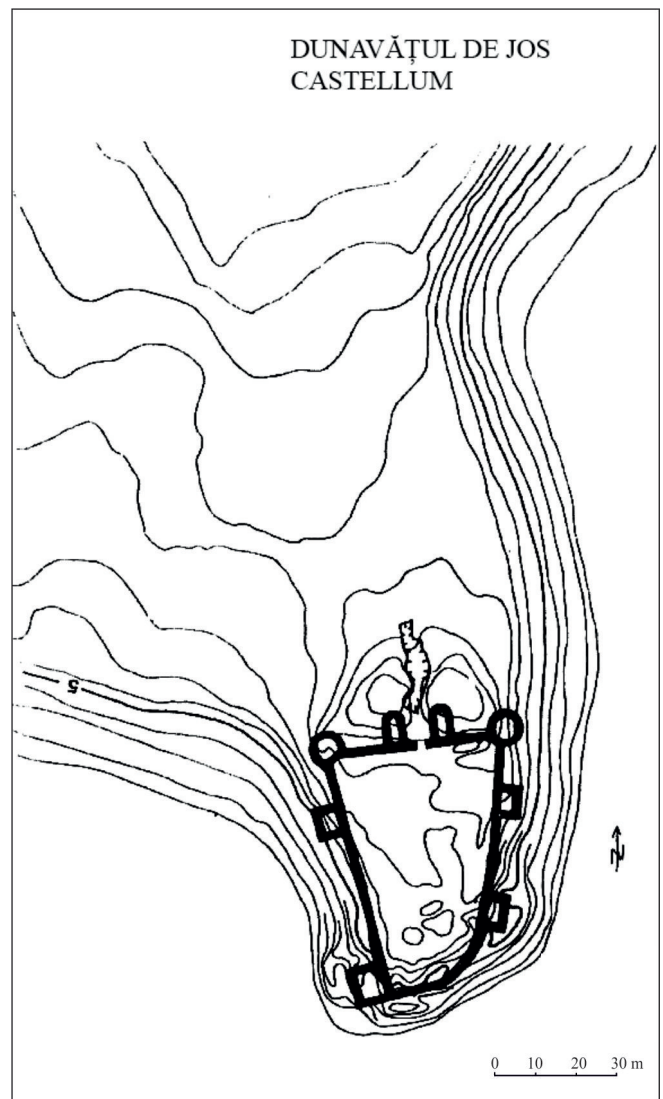


Fig. 7. Dunavățu de Jos: Plan 2005 (A. Barnea), after IONESCU/PAPUC 2005, Fig. 19.

### THE FORT IN DUNAVĂȚU DE JOS (NAR 160948.01; TL-I-S-A-05775)

The information collected by P. Polonic (Appendix II) on the stronghold west of the Dunavățu de Jos village has been selectively used in the literature up to now.<sup>19</sup> Already in 1897, on the plan of the fort (Fig. 6), he pointed out the error of naming this fortification after one of the inselberg nearby, "Cetatea Zaporojenilor". Despite this endeavor, the confusion persisted,<sup>20</sup> probably maintained also due to the registration on usual maps, like the Romanian military maps under 'Lambert-Cholesky' projection system (Fig. 4) or the Austrian maps from the second half of the 19<sup>th</sup> century, for example.

Worth mentioning is that Polonic documented and described only the western side of the fortification (without information on the date and author of the excavations), while also presenting the trenches within, along with visible details. Polonic gave the dimensions of the visible sides

<sup>12</sup> PETERS 1867.

<sup>13</sup> PETERS 1867, 114 and 140.

<sup>14</sup> See, for example, RĂDULESCU 1972, 186; SUCEVEANU *et alii* 2003, 18–19.

<sup>15</sup> ALEXANDRESCU/BALTRES forthcoming.

<sup>16</sup> THEMISTIOS, *OR. X* (Ἐπὶ εἰρήνης Οὐάλεντι), 136–137 (ed. L. Dindorf, Leipzig 1832); ZAHARIADE 2011a, 145–148.

<sup>17</sup> ZAHARIADE 2011a, 147.

<sup>18</sup> ALEXANDRESCU/BALTRES forthcoming.

<sup>19</sup> ZAHARIADE 2011a, 145. – Not mentioned in Polonic's publication (POLONIC 1935, 25)

<sup>20</sup> VULPE 1935, 192; POPESCU 1976, 180; IONESCU/PAPUC 2005, 113 (with literature); ȚENȚEA *et alii* 2019, no. 23.



**Fig. 8.** Dunavățu de Jos: Georeferenced detail from an aerial photograph in 1968 (L-35-119-Ab, image 12926-68, from the Archive of the “Vasile Pârvan” Archaeological Institute Bucharest) (© C.-G. Alexandrescu / B. Olariu).

of the irregular shape of the fort: 45 m (N side), 63.9 m (W side), 53 m (E side) and 19 m (S side). The rectangular tower in the SW corner of 6 × 4 m was investigated more, as its thickness of 3 m was uncovered. Further, Polonic pointed out that the tower was adjacent to the fortification wall. The latter was well-preserved, with a visible height of 1.8 m. Another tower, described as rectangular, was mentioned on the western side. On the southern side, the wall had a rounded course, and two round towers on the eastern side were mentioned. The northern side of the fort was not yet uncovered at that point in time.

C. Moisil described the ruins as “impressive walls”,<sup>21</sup> a stone fortification with an arch-shaped side towards the marshes and two rectangular towers in front. The uncovered walls were about 3 m wide, made of stones and bricks, with some of the slabs of up to 2 m long.<sup>22</sup> The coin finds seen by Moisil were Byzantine and Medieval.<sup>23</sup>

<sup>21</sup> MOISIL 1909, 90–91.

<sup>22</sup> Here, Moisil references the contribution of R. Netzhhammer, which was published shortly after their visit to the site and later included in his 1909 book: NETZHAMMER 1907; NETZHAMMER 1909, 202–203.

<sup>23</sup> Regarding the coin finds and their recording in different collections (not the finds made during excavations), there seems to be a problem in the fact that there is not always a differentiation between the two localities Dunavățu de Sus and Dunavățu de Jos: cf. CUSTUREA 2019, 81 and 124.

Despite the existing observations from the late 1960s (Fig. 8), it is only after the beginning of the systematic archaeological excavations at the fortification near Murighiol village, identified as the ancient Halmyris,<sup>24</sup> that A. Barnea and M. Zahariade made several small-scale excavations in Dunavățu de Jos as well.<sup>25</sup> Only very short reports were published and it was not possible to locate the documentation of the campaigns in 1987, 1989, 1990 and 1991.<sup>26</sup> Their main results, summarized by A. Barnea (Appendix III), were the dimensions of the fort,<sup>27</sup> the identification of three phases of construction and use, the localization of a dock on its south-western side, as well as of a settlement in the surrounding area. Based on Barnea’s information, Fig. 12 presents a restitution of the archaeological trenches from 1987 to 1991.

The participating archaeologists seem however to have discussed over the years with other colleagues investigating

<sup>24</sup> SUCEVEANU/ZAHARIADE 1987; SUCEVEANU/BARNEA 1991, 190.

<sup>25</sup> BARNEA 1989; BARNEA 1990; BARNEA 1991; BARNEA 1992; SUCEVEANU/BARNEA 1991, 191; ZAHARIADE 1999, 204.

<sup>26</sup> C.-G. Alexandrescu is grateful for the kind support of Iuliana Barnea in this search. She found the manuscript pages of the published reports by A. Barnea (see Appendix III), which provide some additional information, especially on the size of the excavation trenches.

<sup>27</sup> BARNEA 1989, 300: 46 m (N side), 66 m (W side), 56 m (E side) and 28.15 m (S side).



**Fig. 9.** Dunavățu de Jos: Georeferenced detail from Google Earth satellite image capture 2016 (© C.-G. Alexandrescu / B. Olariu).



**Fig. 10.** Dunavățu de Jos: Orthophoto plan 2021 (© C.-G. Alexandrescu / B. Olariu).

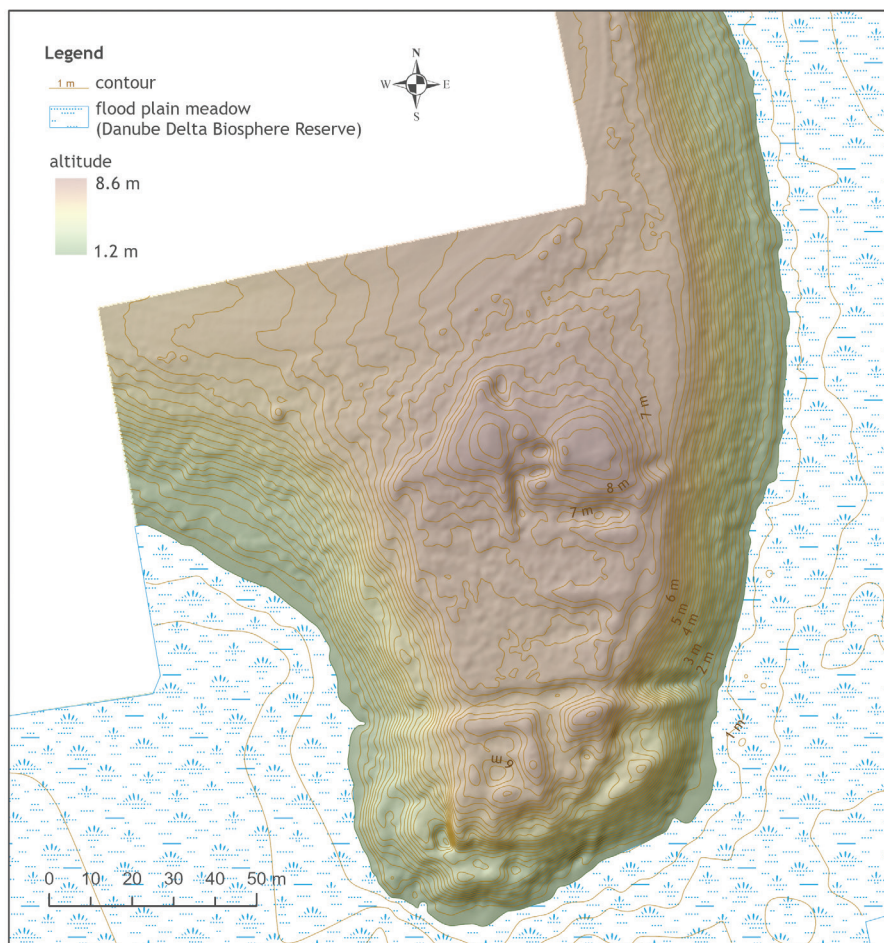
relevant research topics for the fort from Dunavățu de Jos. The fort entered into the literature especially after its plan (Fig. 7) was published in 2005,<sup>28</sup> supposedly authored by A. Barnea, without further details. It should be pointed out that this plan was neither published nor mentioned by A. Barnea or M. Zahariade and, thus, it cannot be directly related to their campaigns.

C. Băjenaru considered that this fortification was a *castellum* of polygonal shape, completely adapted to the terrain and representative for the military structures during the reign of Valens.<sup>29</sup> In his opinion, the presence of the massive U-shaped gate-towers was a reminiscence of the military architecture in the Diocletian–Constantine period.<sup>30</sup>

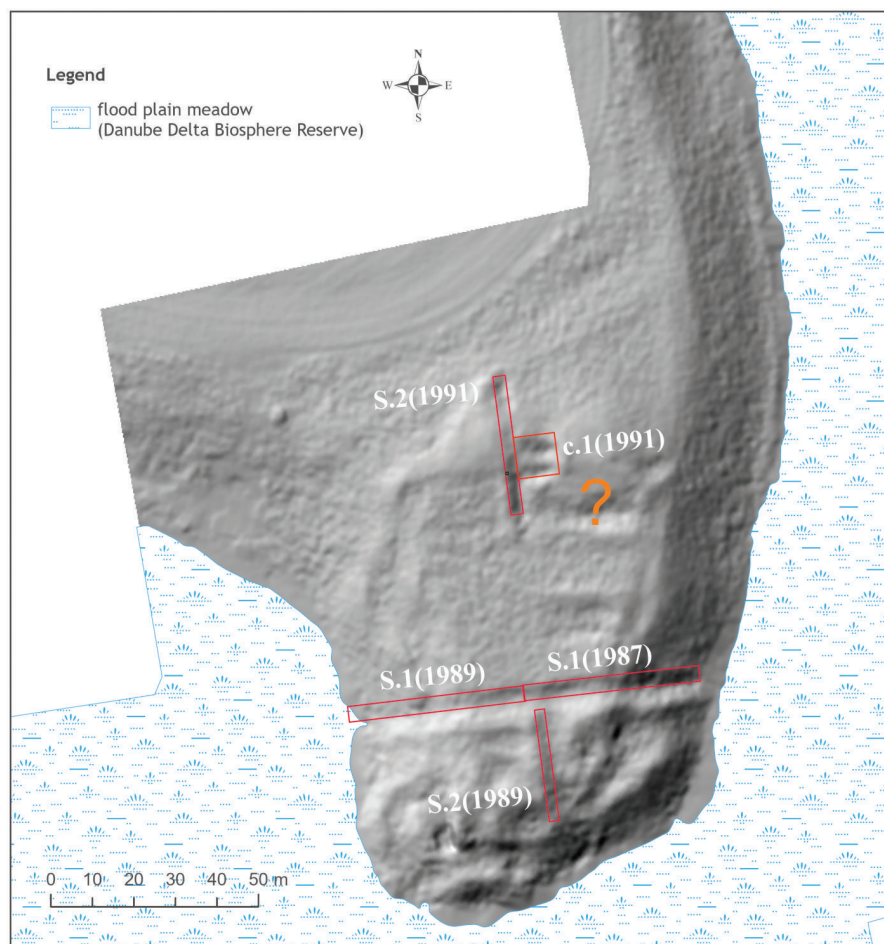
<sup>28</sup> IONESCU/PAPUC 2005, Fig. 19. – For prior discussions, see ТОРБАТОВ 2002, 164–165; SUCEVEANU *et alii* 2003, 15.

<sup>29</sup> BĂJENARU 2010, 181.

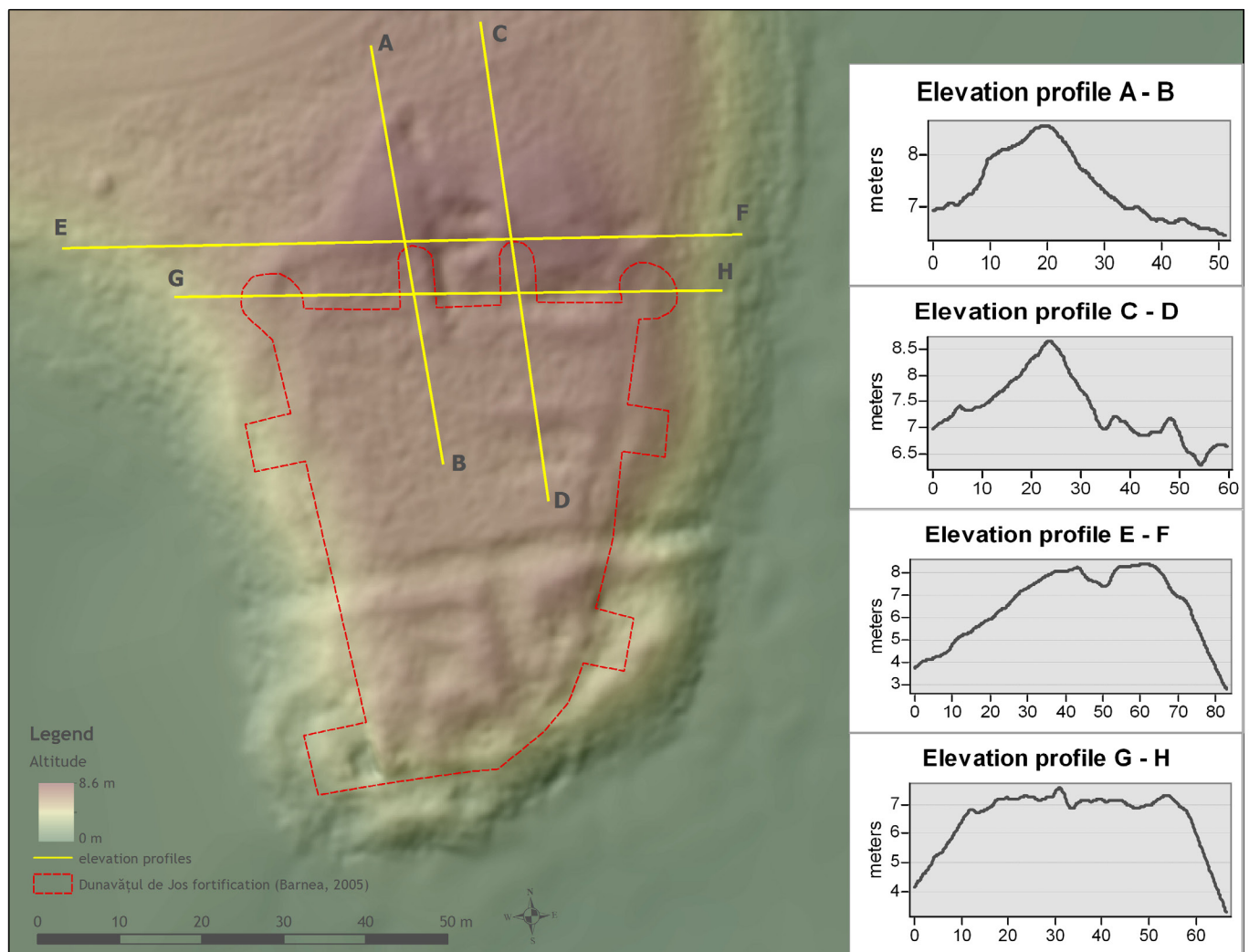
<sup>30</sup> C. Băjenaru (BĂJENARU 2010, 132) also introduces additional data (only descriptive) on one of the small finds, already mentioned in the report published in 1992: BARNEA 1992; ZAHARIADE 1999.



**Fig. 11.** Dunavățu de Jos: Relief after the orthophoto plan 2021, with contour lines (© C.-G. Alexandrescu / B. Olariu).



**Fig. 12.** Dunavățu de Jos: Hill shades after the orthophoto plan 2021, with restitution of the location of the archaeological trenches from 1987-1991 (© C.-G. Alexandrescu / B. Olariu).



**Fig. 13.** Dunavățu de Jos: Overlapping of the published plan of the fort, with elevation profiles pointing out the differences and errors, particularly on the north front (© C.-G. Alexandrescu / B. Olariu).

However, the plan's accuracy (Fig. 7) is debatable, especially as the investigated parts of the fort are very small, the structure thus being rather hypothetically restituted. The possible explanation, in our opinion, is that the plan is more likely a restitution based on aerial photographs, such as, for example, that from 1968 (Fig. 8). Similar investigations published by A.S. Ștefan for the fortification from Murighiol ("La Cetate"/Halmyris)<sup>31</sup> are also known. Furthermore, the gate, with its two U-shaped towers, is located south of the higher points of the area (Fig. 9 and 10). These are exactly the two towers, as recognizable on different aerial images of the area (Fig. 9–12) as well as on its digital terrain model (Fig. 13). The plan displays two round corners on the northern front of the fort, which seem rather problematic to be identified in reality. Also, the two rectangular towers on the eastern side need clarification. That can only be provided through a dedicated architectural survey of the ruins, which is only possible under low vegetation conditions and appropriate prior clean-up of the surfaces.

<sup>31</sup> ȘTEFAN 1984.

### THE REUSED FUNERARY STELA (MNA L 167) FROM THE DUNAVĂȚU DE JOS FORT

The epitaph of Nepotianus, a *principalis*, and his family (Fig. 14), dated to the late third century-early fourth century AD,<sup>32</sup> reused as building material in the fortification at Dunavățu de Jos, entered the literature soon after its discovery in the late 19<sup>th</sup> century. Its provenance was however erroneously published at first, then corrected and most certainly neglected, as younger publications, especially those dealing with other topics than strictly epigraphy, are easily overlooked. Thus, one of the objectives of this paper is to clarify all the available data on the finding spot of this monument by publishing P. Polonic's report (Appendix II, sheet 95/recto).

The first publisher, Gr. G. Tocilescu,<sup>33</sup> mentioned the surroundings of Babadag as its provenance, followed by Emilian Popescu.<sup>34</sup> The latter author reconsidered soon after the documentation for his corpus on Late Greek and Latin

<sup>32</sup> Dimensions: preserved height 181 cm; width 76–77 cm; depth 14–17.5 cm. – For the dating see POPESCU 1975, 178–179; POPESCU 1976, 180; ALEXANDRESCU 2024, 140–141.

<sup>33</sup> TOCILESCU 1896, 91–92, no. 34.

<sup>34</sup> POPESCU 1975, 178–179.



**Fig. 14.** Stele of Nepotianus, MNA L 167: photograph and drawing (C.-G. Alexandrescu, after the photograph on the inventory card in the MNA Archive and POPESCU 1976, no. 168).

inscriptions from Romania, and mentioned there the correct provenance of the monument.<sup>35</sup> It is Emilia Doruțiu who made the corrections possible, due to her work with the archival documentation on the inscriptions from Dobruja.<sup>36</sup> However, the information on this find has been of little interest for the scholars up to now.<sup>37</sup>

In his report (Appendix II and Fig. 6) P. Polonic gave a quite accurate description of the monument and its finding spot: in the south-western tower of the fort from Dunavățu de Jos (Fig. 6). His description of the decoration (a crater between two wreaths) was inaccurate, as he mentioned that it was in the niche bearing inscription and not above (Fig. 14). The epitaph ensured a *terminus post quem* for the dating of the fortification.<sup>38</sup> The *principales* in the Late Roman province are a special discussion topic,<sup>39</sup> as are the Late Roman grave-stones from Scythia,<sup>40</sup> and will not be tackled in this paper.

C. Moisil mentioned the up to 2 m large slabs used in the walls of this fortification,<sup>41</sup> as well as the preservation of the walls up to a height of 1.8 m. Furthermore, he presented a local saying about the finding of a large inscribed and sculpted stone, depicting a two horse-drawn cart, driven by a man, while before the cart walked another man, leading the way.<sup>42</sup> The accuracy of this description, as well as its interpretation by Moisil, is not behind doubt given the rarity of such depiction on the funerary reliefs of the province,<sup>43</sup> and particularly in its northern part.

However, particularly relevant is the fact that the stele, carved in a Turonian spongolite, was used as one block, in its almost entire length. This practice of reuse was observed

in the region, particularly in the north gate of the fortification of “La Cetate”/Halmyris, where two complete stelae of Turonian cherty sandstone were reused for the threshold. The architectural study dated the gate in the third building phase (late third century AD).<sup>44</sup> At Halmyris the spolia, especially the large funerary monuments carved in Turonian stones, seem to have been reused more than once; for the second or third time the large slabs were cut into two or three pieces.<sup>45</sup> The fort in Dunavățu de Jos needs further investigation, in terms of both its building materials and its stratigraphy, in order to ensure certainty about its dating and the postulated phases of use and construction.<sup>46</sup>

### DUNAVĂȚU DE SUS (NAR 160948.02; TL-I-S-A-05779)

The ancient ruins in Dunavățu de Sus are mentioned only by Pamfil Polonic.<sup>47</sup> It is however difficult to locate the plan drawn by Polonic in 1897 (Fig. 15), recently published by C. Balla,<sup>48</sup> within the village, given the lack of usable hints. The Dunavăț Creek was modified in 1906. The data collected in 1883 for the Romanian military map under ‘Lambert-Cholesky’ projection system (Fig. 4 and 16) should have documented its previous state.<sup>49</sup> The georeferencing of the sheets of interest produced however not very precise results. M. Zahariade mentioned some trial archaeological trenches made in the 1980s, but without a plan or further details on their localization.<sup>50</sup> The only additional information is that the trenches did not reach the virgin soil and only two levels dated to the 6<sup>th</sup> century were confirmed.<sup>51</sup>

Both Polonic and the old Cossack, interviewed in 1881 and 1882, mentioned the ditch and earthen rampart surrounding the village of Dunavățu de Sus<sup>52</sup> and considered it to be a reminiscence of earlier settlements, before the Cossack one. The defensive system is featured on Kondratovich’s sketch<sup>53</sup> (Fig. 5) and also on the contemporary military maps (Fig. 4 and 16). It seems to have been nearly destroyed by the modern village, as only some short segment in its northern part can be recognized on the topographic map of 1969 (Fig. 17). Kondratovich and Ionescu noticed the destruction of the structure.<sup>54</sup>

<sup>44</sup> MĂRGINEANU-CĂRSTOIU/APOSTOL 2015, 70–71. – On the spolia see ZAHARIADE/ALEXANDRESCU 2011.

<sup>45</sup> See ALEXANDRESCU/BALTRES, forthcoming.

<sup>46</sup> BARNEA 1992; ZAHARIADE 1999; BĂJENARU 2010, 131–132.

<sup>47</sup> Appendix II, sheet 95/recto; POLONIC 1935, 25.

<sup>48</sup> BALLA 2022, Fig. 53, without further comments.

<sup>49</sup> Described by PETERS 1867, 101.

<sup>50</sup> ZAHARIADE 1999, 204; SUCEVEANU *et alii* 2003, 15; BĂJENARU 2010, 131; ZAHARIADE 2011, 145. – Our inquiries in the archival materials of M. Zahariade and S. Baraschi (also mentioned to have been involved in the research) brought no further information.

<sup>51</sup> See also CUSTUREA 2019, 39; BALLA 2022, 104–105.

<sup>52</sup> ARBORE 1935, 39 and 68.

<sup>53</sup> Kondratovich mentions that his main interview partner, the 120-year-old Cossack, was illiterate, so all his knowledge is based on oral communication and his personal experience (ARBORE 1935, 36 quotes as KONDRATOVICH 1883, 10). F. Kondratovich was most likely a historian, meaning that his sketch/plan cannot be expected to be as accurate as that of a topographic engineer, for example. He collected information from other locals as well, some of which were present at his visit of the sites (ARBORE 1935, 44 and 67–68 quotes as KONDRATOVICH 1883, 10 and 97–98).

<sup>54</sup> ARBORE 1935, 68–69 quotes KONDRATOVICH 1883, 99–100;

<sup>35</sup> POPESCU 1976, 180–182, no. 168.

<sup>36</sup> DORUȚIU 1964, 132, no. 7.

<sup>37</sup> The publications on the inscription finds from Murighiol only quote the data from POPESCU 1976: SUCEVEANU *et alii* 2003, 123–124, no. 19, fig. 57 (referring to DORUȚIU 1964); ZAHARIADE/ALEXANDRESCU 2011, 50–51, no. 28, fig. 71 (with seemingly erroneous information on its finding date).

<sup>38</sup> SUCEVEANU *et alii* 2003, 80; BĂJENARU 2010, 132; BALLA 2022, 106.

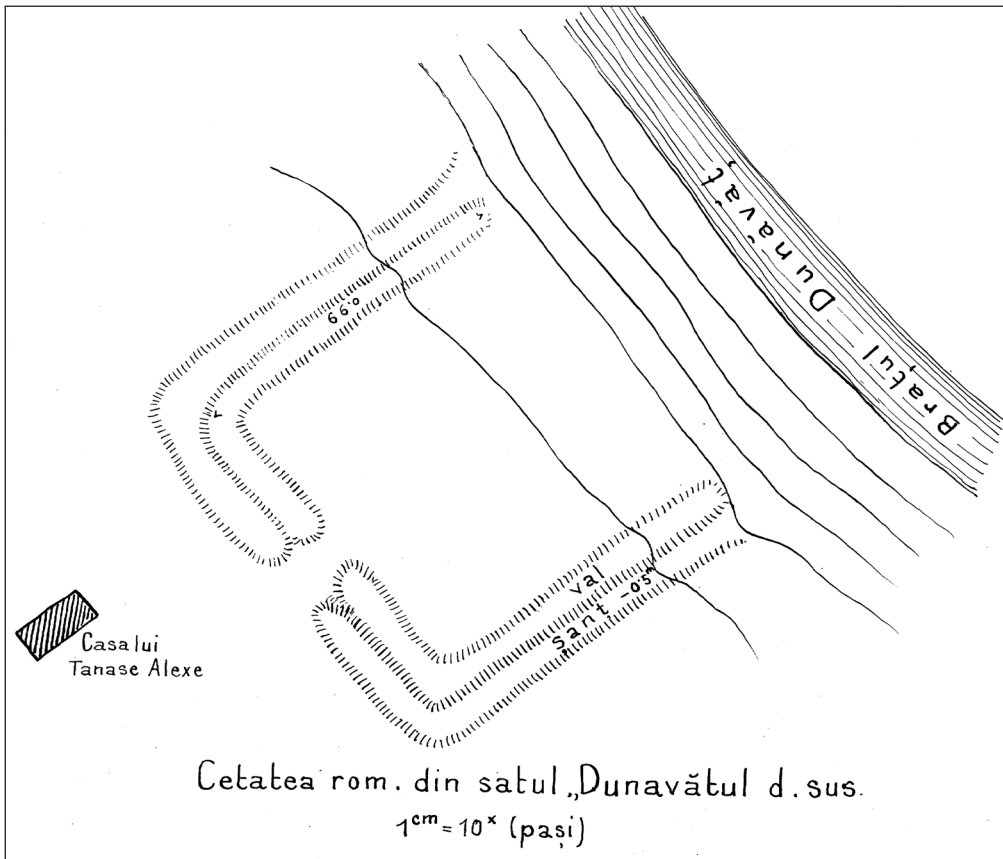
<sup>39</sup> SUCEVEANU/BARNEA 1991, 260–261.

<sup>40</sup> ALEXANDRESCU 2024.

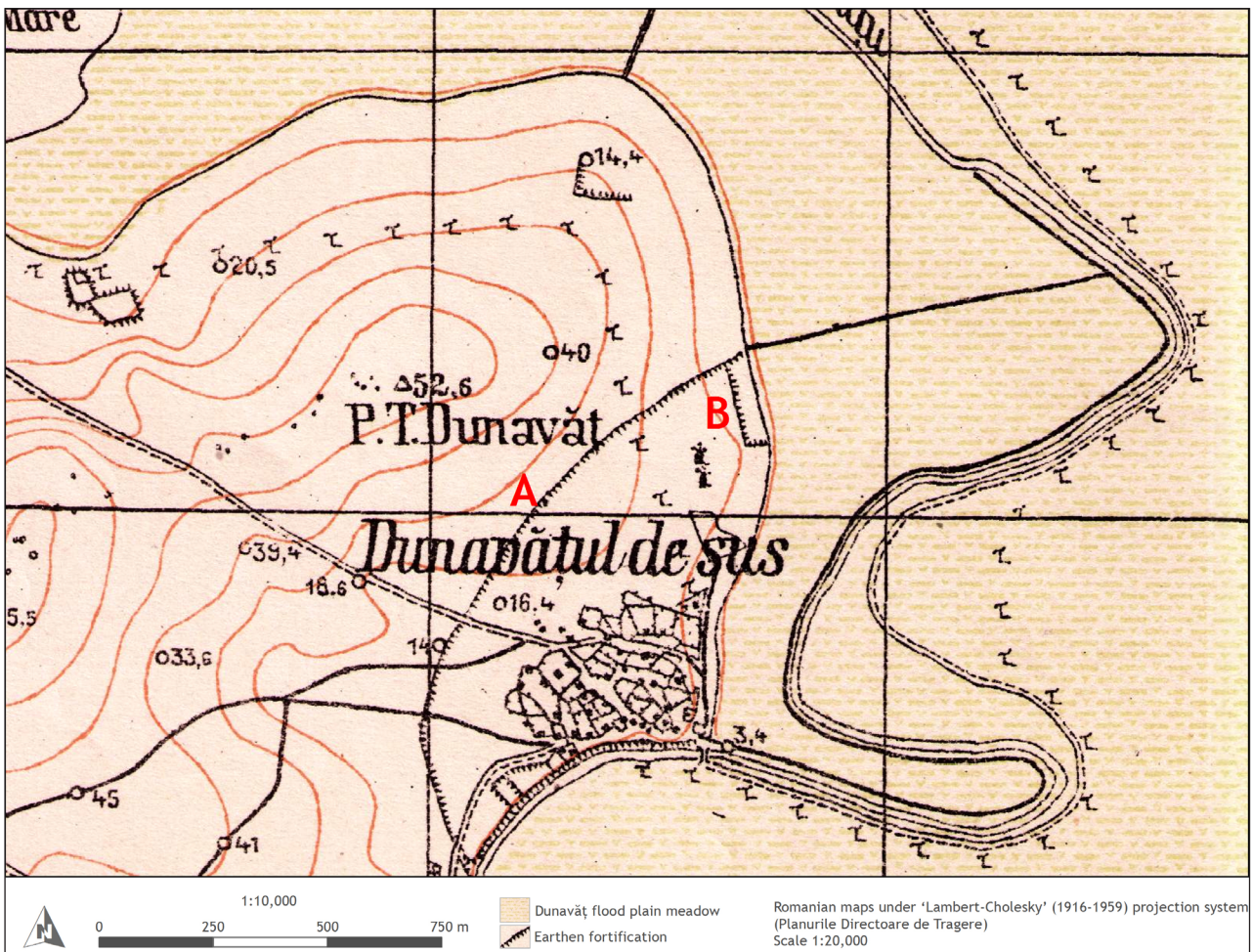
<sup>41</sup> MOISIL 1909, 90.

<sup>42</sup> MOISIL 1909, 90.

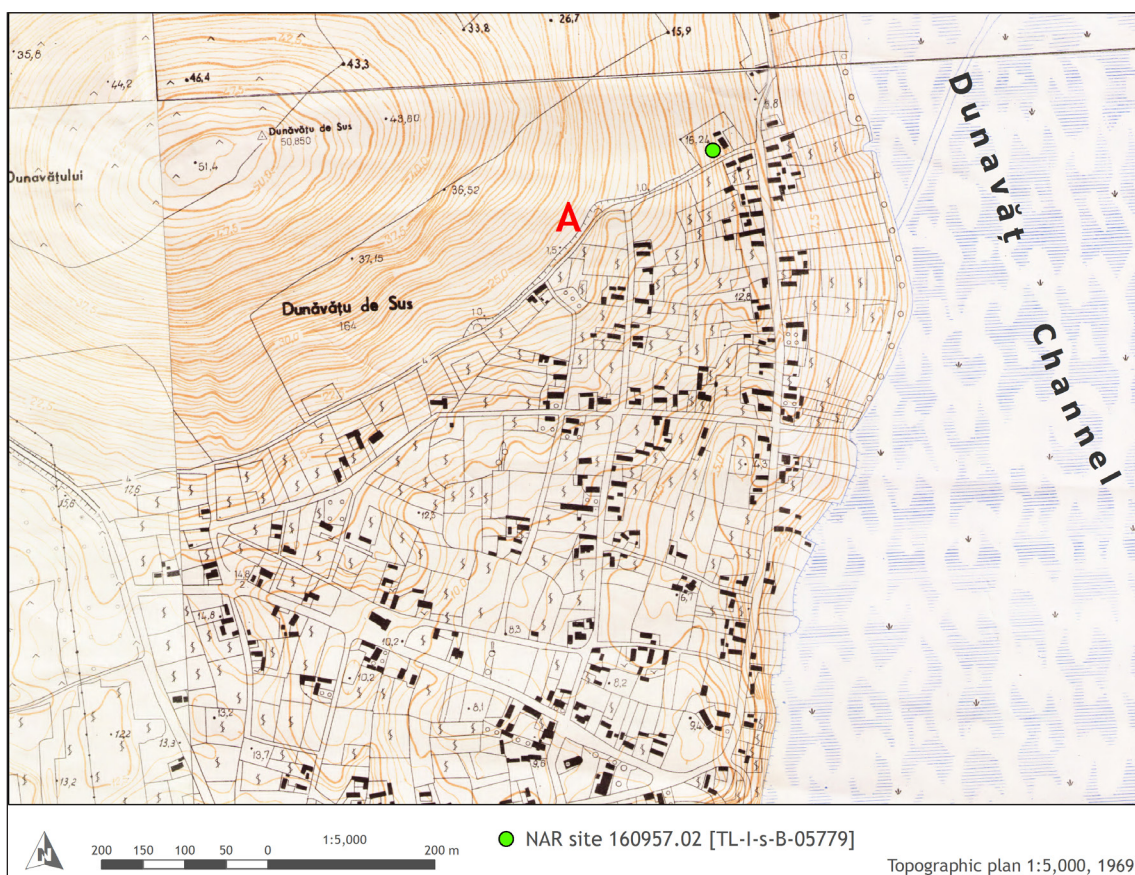
<sup>43</sup> CONRAD 2004, 90–91.



**Fig. 15.** Dunavățu de Sus fort: plan by P. Polonic (1897), Library of the Romanian Academy, Manuscripts collection, Archive Pamfil Polonic, Varia II, sheet 216-39.



**Fig. 16.** Dunavățu de Sus: detail from the Romanian map under 'Lambert-Cholesky' projection system, sheet 5951, with indication of the relevant features A and B (© C.-G. Alexandrescu / B. Olariu).



**Fig. 17.** Dunavățu de Sus: detail from the topographic map 1:5,000 (published 1969), with the area recorded in NAR as Dunavățu de Sus fort and the remains of feature A in Fig. 16 (© C.-G. Alexandrescu / B. Olariu).



**Fig. 18.** Dunavățu de Sus: georeferenced detail from an aerial photograph in 1977 (Archive of the National Heritage Institute Bucharest), with the area recorded in NAR as Dunavățu de Sus fort (© C.-G. Alexandrescu / B. Olariu).



**Fig. 19.** Dunavățu de Sus: georeferenced detail from the orthophoto map 2009 (ANCPI), with the area recorded in NAR as Dunavățu de Sus fort (© C.-G. Alexandrescu / B. Olariu).

Due to the selective citation and re-citation of P. Polonic's information – most likely limited to what was published<sup>55</sup> – some confusion has emerged. Thus, in the National Archaeological Repertory and the youngest publications<sup>56</sup> the small rectangular fort is located in a rather challenging spot. When analyzing the aerial photographs, orthophoto and topographical maps of the area (Fig. 17–19), the identified feature from the National Archaeological Repertory is more likely only a house with garden from the second half of the 20<sup>th</sup> century.

The structures described and documented by P. Polonic (Fig. 15 and Appendix II) were oriented towards the marsh/creek. The rectangular fort was of 49.5 × 46.5 m,<sup>57</sup> with a 1.1 m high rampart and a ditch (0.5–1 m deep, 10 m wide). Most probably, it is the area represented on the military topographic map in the northern part of the village, within the defensive system (Fig. 16/A and B). Polonic also mentions

IONESCU 1904, 403.

<sup>55</sup> POLONIC 1935, 25.

<sup>56</sup> IONESCU/PAPUC 2005, 113; ZAHARIADE 1999, 204; ȚENȚEA *et alii* 2019, no. 22.

<sup>57</sup> Polonic (POLONIC 1935, 25) published the dimensions 50 × 47 m. Zahariade (ZAHARIADE 1999, 204) gives the dimensions 49.5 × 49.5 m. The exact dimensions from the manuscripts are given by Băjenaru (BĂJENARU 2010, 131), without further mentions on the sources used.

that, at the time of his visit, the area was in the gardens of two households. On the aerial photograph in 1977 and the topographic map of 1969 some of the gardens in the area seemed to also have hybrid vineyards (Fig. 20 and 21).

For the time being, worth noting is the correct localization of the ancient site within today's village (Fig. 20), as well as the necessary protection of its still existing remains. The 19<sup>th</sup>–20<sup>th</sup> century households seriously damaged the southwestern part of the fort, as observable in Fig. 21–23.

Kondratovich's text also offers valuable insights.<sup>58</sup> He described the site thought to be the remains of an old church, providing a detailed account of its features. He noted the similarities with the structures of the so-called Genoese fortification near Murighiol (=“La Cetate”/Halmyris) and emphasized the differences from the rampart and ditch surrounding Dunavățu de Sus.<sup>59</sup>

Following those descriptions, the sketch of P. Polonic and some observations on aerial photographs and Google Earth images, we visited the village in late spring 2023 and located the very scarce remains of the fort in the eastern part of today's village, with exposure to the marshes (Fig. 21–23). The visibility conditions were bad due to vegetation. On site,

<sup>58</sup> ARBORE 1935, 68 quotes KONDRATOVICH 1883, 100.

<sup>59</sup> ARBORE 1935, 69 quotes KONDRATOVICH 1883, 100–101.



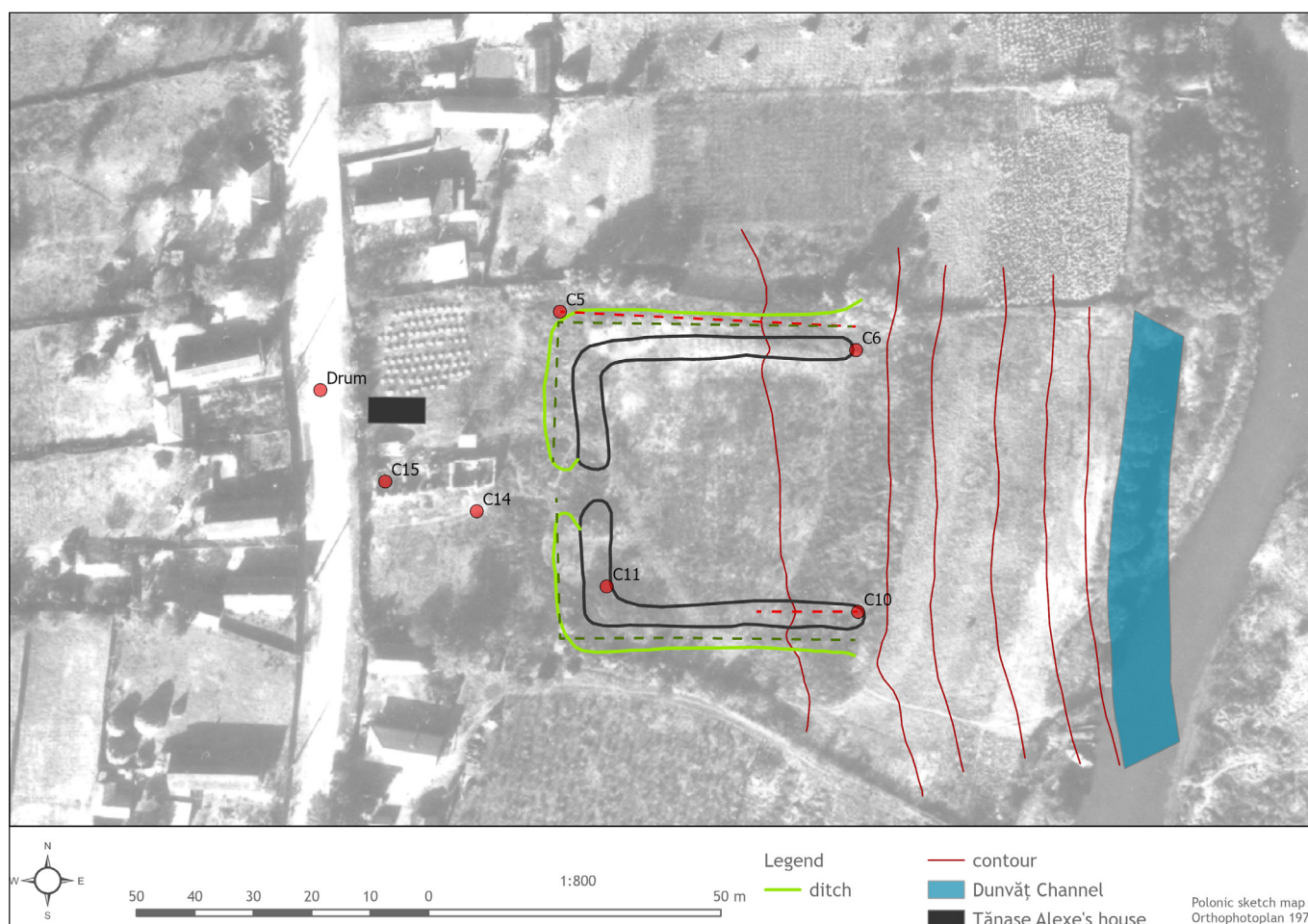
**Fig. 20.** Dunavățu de Sus: detail from the topographic map 1:5,000, with the correct location of Dunavățu de Sus fort (green dot) and the NAR record (red dot) (© C.-G. Alexandrescu / B. Olariu).



**Fig. 21.** Dunavățu de Sus: georeferenced detail from an aerial photograph in 1977 (Archive of the National Heritage Institute Bucharest), with the correct location of Dunavățu de Sus fort (© C.-G. Alexandrescu / B. Olariu).



**Fig. 22.** Dunavățu de Sus: georeferenced detail from Google Earth satellite image capture 2020, with the correct location of Dunavățu de Sus fort (© C.-G. Alexandrescu / B. Olariu).



**Fig. 23.** Dunavățu de Sus fort: Polonic's plan (1897) from Fig. 15 placed on the detail in Fig. 21 (1977), with the verified still existing features (with GPS points – red dots) from 2023 (© C.-G. Alexandrescu / B. Olariu).

we observed in the north and south parts of the fort built structures, made of grey Murighiol limestone, Dunavăț sandstone and small pieces of Turonian limestone, bounded with mortar with shard inclusions (Fig. 23, points C6 and C10). Further on, some building ceramic fragments were observed. No additional observations useful for the dating were possible. Polonic mentioned a coin of Constantine (Appendix II, sheet 95/recto), without further details on its finding spot, if he found it or if someone informed him about it.

The exact course of the Dunavăț Creek, followed by the works done for the Dunavăț Channel, need to be further investigated. Polonic's fort plan offers, in our opinion, an additional hint on its function. Certainly, further archaeological research is necessary in the near future in order to really identify the characteristics of this fort. Despite the advanced deterioration of the ruins, based on Polonic's plan, it can be assumed that the fort in Dunavățu de Sus is similar to what can be classified as "fortified landing places" in C. Băjenaru's study on small fortifications, finding analogies on the river frontiers in the western part of the Empire.<sup>60</sup>

### THE FORTIFICATION AT MURIGHIOL – "LA CETATE"/HALMYRIS (NAR 160920.02; TL-I-S-A-05844)

At "La Cetate"/Halmyris, the Early Roman fort was replaced by a new fortification (182 × 142m), the construction of which started during the Aurelian–Probus period (with the classic U-shaped towers), but whose final plan dates from the time of the Tetrarchy, as shown by the foundation inscription discovered during the excavations.<sup>61</sup>

K. Peters<sup>62</sup> and E. Desjardins<sup>63</sup> seem to have made the earliest mention of the ruins, followed by that of the 1882 interviewed old Cossack in Dunavățu de Jos.<sup>64</sup> The assumptions on the dating of the ruins located outside the village of Murighiol, on the way to Dunavățu de Sus, near the Cruhlicul Mare Lake (Fig. 2 and 5), varied from Roman to Genoese or uncertain. Relevant are the observations on the used building materials, dimensions and shape, although further research proved them more or less erroneous. K. Peters<sup>65</sup> pointed out, as an exceptional feature, that he had not observed any bricks in the (visible) fortification walls.

<sup>61</sup> SUCEVEANU *et alii* 2003, 43–64; BĂJENARU 2010, 45; MĂRGINEANU-CĂRSTOIU/APOSTOL 2015.

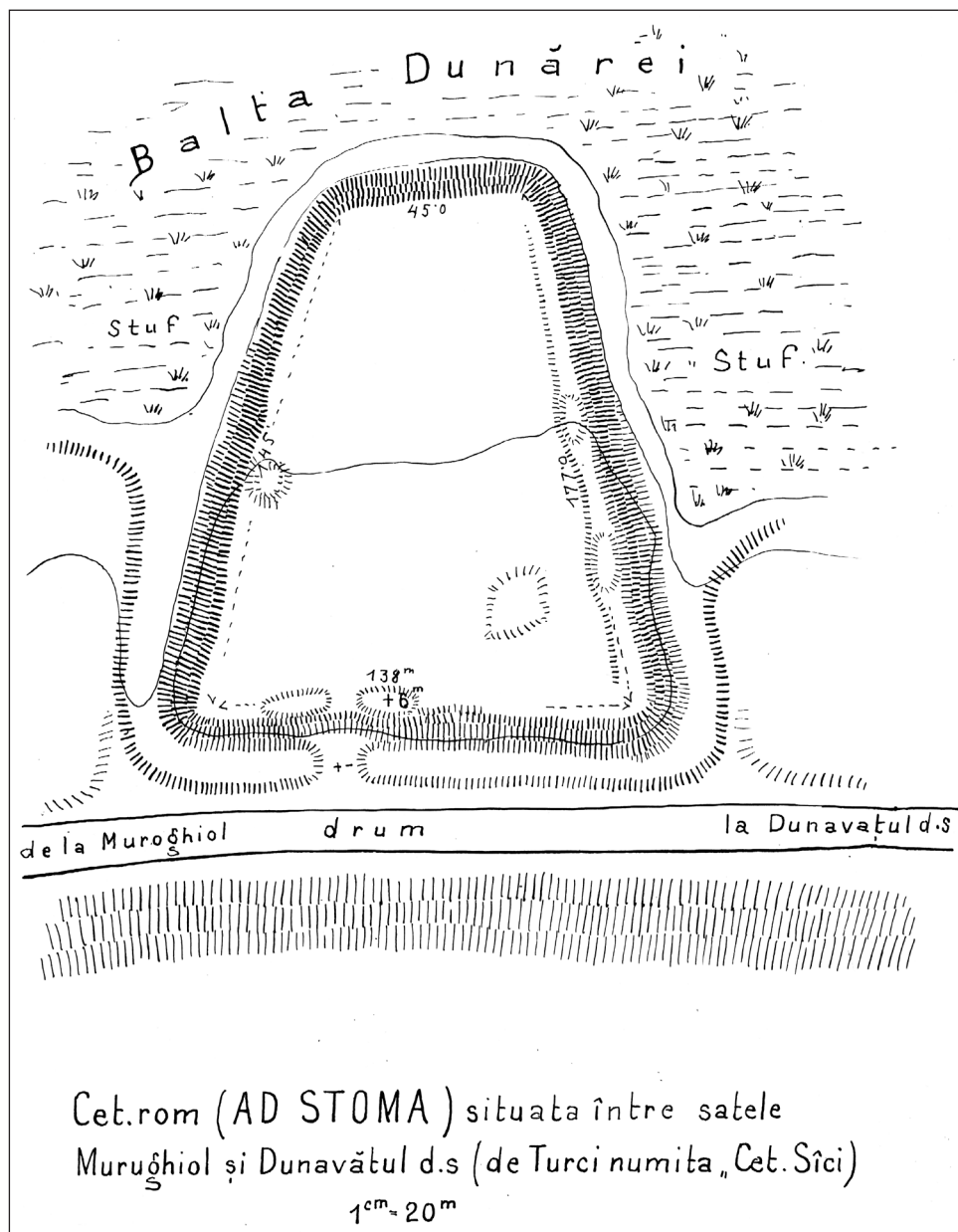
<sup>62</sup> PETERS 1867, 60–61.

<sup>63</sup> DESJARDINS 1868, 267.

<sup>64</sup> ARBORE 1935, 46 and 69.

<sup>65</sup> PETERS 1867, 61.

<sup>60</sup> BĂJENARU 2010, 72–73, pl. 24; HEUKEMES 1981; PRIEN 2020. – See, also, LANDER 1984, 284–289.



**Fig. 24.** Halmyris: Plan P. Polonic (1897), after the plan preserved in the Library of the Romanian Academy, Manuscripts collection, Archive Pamfil Polonic, Varia II, sheet 215-38.

The earliest sketch/plan featuring this stronghold, disregarded up to now, is that made and published by F. Kondratovich in 1882/1883 (Fig. 5). The rectangular shape is quite erroneous, given the more or less contemporary plan by Polonic (Fig. 24). The Romanian military maps under ‘Lambert-Cholesky’ projection system (Fig. 4) feature only the contour line of the (stone) fortification as well as the name of the place.

P. Polonic<sup>66</sup> documented this main stone fortification in Muroșhiol, on a higher place, about 8 m above the Danube level, with natural protection from all sides, but featuring a 0.5–1 m deep and 15–19 m wide ditch on the south-western and eastern sides. Furthermore, he mentioned two gates on the southern and western sides, the latter being still used for access with carriage. Inside the fortification, there are visible traces of stone and brick structures. The fortification wall measures 45 m (northern side), 145 m (western side), 138 m (southern side) and 177 m (eastern side), following the

terrain features.<sup>67</sup> F. Kondratovich<sup>68</sup> describes the ‘rampart’, giving the dimensions (about 225 × 225 m) of its N-S sides and describing the building materials: stones and ashlar with hard mortar. Inside the fort, stone buildings were also visible. It is probable that the fortification, with its northern section/half adapted to the terrain, was seen as a combination of multiple ramparts and ditches, which explains the description of stone-built ramparts. .

M. Ionescu<sup>69</sup> mentioned 16 to 20 towers, placed at 2 to 10 m from one another, as part of the 2–3 m thick enclosure wall made of irregular limestone blocks bound with mortar made with crushed bricks, visible within the trenches of the treasure hunters. He established an area of 180 × 200 m for this fortification, which he considered to be possibly built by the Genoese on a former ancient fort. The rectangular shape documented and described at the end of the 19<sup>th</sup> century is

<sup>67</sup> POLONIC 1935, 25; see also Appendix II.

<sup>68</sup> ARBORE 1935, 46 and 69 quotes KONDRATOVICH 1883, 37 and 99.

<sup>69</sup> IONESCU 1904, 402–403.

<sup>66</sup> POLONIC 1935, 25; see also Appendix II.



**Fig. 25.** Halmyris: detail from the aerial photograph 1977 (Archive of the National Heritage Institute Bucharest) (© C.-G. Alexandrescu / B. Olariu).



**Fig. 26.** Halmyris: detail from orthophoto 2009 (ANCPI) (© C.-G. Alexandrescu / B. Olariu).



**Fig. 27.** Halmyris: orthophoto plan 2021 (© C.-G. Alexandrescu / B. Olariu).



**Fig. 28.** Halmyris: hill shades, after orthophoto plan 2021 (© C.-G. Alexandrescu / B. Olariu).

possibly that of the rampart and ditch on the southern part of the fortification, which were destroyed by the intensive use of the area as a road (see also Fig. 5 and 4).<sup>70</sup>

R. Netzhammer and C. Moisil visited the site, at least once together, in 1907. Their reports on the site are not identical, each one mentioning different details.<sup>71</sup> For his publication, Netzhammer most probably used the information received from P. Polonic and R. Ionescu (from the State Fisheries Administration).<sup>72</sup>

The same site is described by R. Vulpe in his note of 1935,<sup>73</sup> even if he referred to it as the fortification from Dunavățu de Sus. The dramatic use of the site by the local population as a quarry for building materials or treasures, recorded by Vulpe, is still an actual matter two decades later, as reported by E. Bujor<sup>74</sup>: “within the fortification there are several trenches, down to –1.20 m deep”. The trenches are visible on the aerial photographs from the 1970s<sup>75</sup> (Fig. 25) and can be recognized even today (Fig. 26 and 28).

The bibliography<sup>76</sup> on the research history of this fortification since 1981 is quite rich, although no up-to-date publication on the large areas uncovered until 2019 (Fig. 27 and 28) is yet available.

## CONCLUSIONS AND PERSPECTIVES

The present analysis is limited to the main fortifications on the Dunavăț Promontory, considering the amount of information available. The gazetteer on further ancient settlements within the region of interest is much wider and needs further “in the field” investigations in order to be presented as a publication.<sup>77</sup>

Two further aspects would be of interest when dealing with cartographic materials. Firstly, the toponymical evidence, i.e. the localization in the terrain of different ancient sites mentioned by ancient and modern sources. This was actually one of the objectives of the expedition of E. Desjardins (1867–1868).<sup>78</sup> M. Zahariade summarized the main points of the discussion in his papers from 2011.<sup>79</sup> However, one of his arguments can be ruled out based on the recent investigations on the lithic materials.

Secondly, the archaeological localization of sites and their extent and related structures, such as harbours or docking facilities for boats, is only incipient. Although acknowledging

the need for an interdisciplinary approach to the archaeological research,<sup>80</sup> the characteristics of this geographical area make the research endeavor more challenging and complex, as in other regions of the Roman Empire. In order to try to understand the settlement structure and changes over the centuries within the area of the Dunavăț Promontory, it is necessary to approach, in dedicated multidisciplinary projects, the evolution of the landscape, especially the important changes in the course of the Danube and its Delta and of the shoreline of the Black Sea. In fact, this research aim was already formulated by E. Desjardins and is still one of the game-changing objectives, although it has now become much more complex and complicated, due to intense anthropogenic interventions in recent decades that have significantly modified the landscape.

## ACKNOWLEDGEMENTS

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<sup>70</sup> ARBORE 1935, 69 quotes KONDRATOVICH 1883, 100. – The dimensions (written also on Fig. 5) are 300 steps (x 0.75 m) for each side.

<sup>71</sup> MOISIL 1909.

<sup>72</sup> NETZHAMMER 1909, 206–208.

<sup>73</sup> VULPE 1935, 192. – In 1939, R. Vulpe brought the fortifications from “Murighiol and Dunavăț” into attention for possible systematic archaeological excavations, in one of his official letters to C.C. Giurescu, at that time Royal Resident of the “Lower Danube Land” in Galați: National Archives Iași County Service, Fond “Muzeul de Antichități Iași”, File 2/1938, sheet 27 (letter from 13.01.1939).

<sup>74</sup> National Heritage Institute, Archive of the Direction of Historical Monuments, File 6581, Report from 06.10.1955, on the fieldtrip on behalf of the National Museum of Antiquities, Bucharest.

<sup>75</sup> ȘTEFAN 1984, fig. 2, 6 and 7.

<sup>76</sup> SUCEVEANU *et alii* 2003 (with literature); ZAHARIADE 2011a; ZAHARIADE 2011b; ȚENȚEA *et alii* 2019, no 21; MICU *et alii* 2022, 79–81.

<sup>77</sup> See also MOISIL 1909, 91–92; IONESCU/PAPUC 2005, 113–114; SUCEVEANU *et alii* 2003, 86–87; MICU *et alii* 2022, 79–81.

<sup>78</sup> DESJARDINS 1868, 267.

<sup>79</sup> ZAHARIADE 2011a; ZAHARIADE 2011b.

<sup>80</sup> Preliminary works (ROMANESCU *et alii* 2015; GIAIME *et alii* 2019; see also SIMEONOV 2021) made clear the need for extensive investigations, logistically and technically challenging, given the areas to be investigated, such as marshes, former lakes etc.

## APPENDICES

## I. Cartographic materials used in this study

	Map/Image	Author	Year	Scale
1	Planul Director de Tragere (Romanian maps under 'Lambert-Cholesky' projection system), sheet 5851 (Sarinasuf)	Serviciul Geografic al Armatei	1917 (topographic survey 1880–84)	1:20,000
2	Planul Director de Tragere (Romanian maps under 'Lambert-Cholesky' projection system), sheet 5850 (Gura Dunavățului)	Direcția Topografică Militară (reprint)	1953 (topographic survey 1880–84)	1:20,000
3	Planul Director de Tragere (Romanian maps under 'Lambert-Cholesky' projection system), sheet 5951 (Dunavățul de Sus)	Serviciul Geografic al Armatei	1917 (topographic survey 1883)	1:20,000
4	Romania's Archaeological Map (Pamfil Polonic Archive, Romanian Academy's Library, Rare Books and Manuscripts Section, II Varia)	Pamfil Polonic	1918	1:500,000
5	Topographic maps	Institutul de Geodezie, Fotogrammetrie și Cartografie	(topographic survey 1969)	1:5,000
6	Orthophoto plans	ANCP	2009	1:5,000
7	Orthophoto plans	GISBOX Bucharest (data processing Liviu Toma)	2021	
8	Spatial Data/LiDAR web application for spatial datasets acquired for decision support in Danube Delta Biosphere Reserve management [http://85.204.145.163/Lidar/].	The "Danube Delta" National Institute for Research and Development, Tulcea	2012–2013	

**II/a** – Pamfil Polonic manuscript from 21.04.1898, in G.Gr. Tocilescu Mss 5132 (1. Săpături și semnalări arheologice în Dobrogea II. Județul Constanța / Județul Tulcea (urmare) / 2. Cercetări arheologice în Dobrogea: Tomis etc.), sheets 93–102, Romanian Academy's Library, Rare Books and Manuscripts Section: *Cercetările din Dobrogea începând de la Ezerul Babadag pe marginea lacului Razelm spre nord, apoi pe malul drept al Dunărei în sus până la Măcin*; particularly relevant in this study are sheets 94–96; for the illustrative part, see Pamfil Polonic Archive, Romanian Academy's Library, Rare Books and Manuscripts Section: *Desene* (drawings) I, varia (sheet no 154–2, 216–39 and 215–38). (the transcription of the original in Romanian)

[sheet 94/verso]

3. Cetatea Zaprojeni [note on the right column – Planul I]  
Ea este situată la 4,5 km drept spre vest de satul Dunavățul de Jos sau la 6 km spre sud vest de satul Dunavățul de Sus; se află așezată pe un colț de deal, mai bine zis pe malul rădicat lângă stufăriile lacului Razelm. Forma ei este aproape pătrată; numai colțul spre sudost este rotunjit. După formele zidurilor ea este o construcție bizantină; zidul înconjurător, desfăcut prin sepături de către locuitorii care tot caută comori are grosimea de 2,90 m. Partea de nord a cetății, care nu este săpată, are o lungime de 45 m, partea despre west măsoară o lungime de 63,90 m; pe lângă ea se află în colțul despre sud vest, spre înafară, un turn pătrat alăturat zidului înconjurător; el măsoară pe dinăuntru pe lângă zidul înconjurător 6 m, și 4 m lățime; zidurile lui au 3 m grosime; un asemenea turn alăturat am găsit și la cetatea din deal de la Enisala (Eraclea). La 30 m mai spre nord, partea aceasta a castrului are un propriu care, deși dărâmat, legătura lui cu zidul înconjurător încă se mai cunoaște. De aci, la 9,30 m mai spre nord se află urmele unui al doilea turn pătrat, care măsoară prin exterior 5 m (pe lângă zidul înconjurător). Partea de sud măsoară 19 m și are colțul rotunjit și acolo

urmele unui turn rotund; de aici zidul înconjurător face o curbă spre nord unde se văd earăși urmele unui al 3lea turn rotund.

Partea de est are o lungime de 53 m, nu se află nicio urma de turn.

[sheet 95/recto]

Înăuntru castrului s-au făcut, aproape de zidul înconjurător de nord și paralel cu dânsul două șanțuri paralele de către locuitorii care căutau comori. Înăuntru acestor șanțuri se găesc cărămizi romane, dărâmatură, cioburi etc. dar nicio urmă de zid. Zidul înconjurător este foarte bine păstrat și arată încă înălțimea de 1,8 m de la suprafața anterioară a cetății. Aci s-au găsit în zidul turnului pătrat din colțul de sud vest peatra cu inscripție [the following lines are annotated in the left column] o petra întrebuințată ca material de construcție și având următorea inscripțiune (adusă în Muzeul Național). Este de petra de var. Partea superioara formează o fridă (nișă), în care se reprezintă un vas între două corone. Dedesubt inscripția h ce începe cu Artemidora, și care a fost săpată mai târziu. Partea de jos, închisă într-un chenar, conține inscripția a.

Lectura: d.m. memoria Nepotiani / principalis, vixit annis XXXVII, / Victor filius, vixit annis II, / Juli(a)na filia, vixit annis III, / Heracliu frater, vixit annis / III, Vitalis frater, vixit annis / V. Valet lectores.

Apoi sus: Artemidora coniux / sua et filio suo et filia sua / Viventia patri eorum titulum / posuerunt.

Vedem ca Artemidora este soția lui Nepotianus, care Artemidora a supraviețuit cu fiica sa Viventia soțului și celorlalți copii.

4. Cetatea din satul Dunavățul de sus [note on the right column – Planul II]

Cetatea aceasta nu ne era cunoscută, și numai inteligenței preotului Radu Ionescu putem datori această descoperire. Acest

lager este aşezat în partea de nord în sat în grădinile locuitorilor Timosie Alexei și Tarasie Alexei. Zidul înconjurător este bine păstrat, partea de nord-est măsoară 66 pași sau 49,50 m, partea de nord-vest 62 pași sau 46,50 m; are forma regulat pătrată; valul are înălțimea de 1 m pe 10 m lățime, iar șanțul adâncimea de 0,5 m până la 1 m, pe 10 m lățime; partea de nord-est se rezăma pe marginea bălții. Aci s-a găsit o monedă a lui Constantin.

În jurul satului, în partea de vest, se află un val de 1200 m lung, care înconjură către apus tot colțul rădăcat al terenului, extremitatea promontoriului Dealurilor Dobrogei de nord de pe lângă Dunăre. El are șanțul spre vest 1,20 m adânc și 7 m lat, și valul spre est 1,50 m înalt și 7 m lat. Pe val sau făcut alt șanț mai mic: șanțul satului. Acest val avea menirea de a apăra terenul care este între Dunavăț și mlaștinile canalului Sf. Gheorghe, formând astfel în jurul cetății o nouă fortificație. Un asemenea val scurt găsim și la Tulcea – trebuie dar să deosebim două feluri de valuri romane, valuri care având lagerul înăuntru, au frontul spre înafară; și valuri care neavând cetăți înăuntru, au frontul spre inamic. Tendința valurilor din urmă este ca, tăind în linie dreaptă din mal în mal un promontoriu, se pute dobândi linia cea mai dreaptă și mai scurtă de apărare.

[sheet 95/verso]

5. Cetatea de la Morughiol numită și cetatea Sici [note on the right column – Plan III]

Ea are forma dreptunghiulară și este aşezată la 2 ½ km spre est de satul Muroghiol pe marginea bălților Dunărei, pe un colț de deal care este cu 8 m mai rădăcat decât nivelul fluviului. Astfel postată pe un promontoriu, este din toată părțile natural apărată, totuși se vede în partea vest-sud și est urmele unui șanț înconjurător, care este de 15–19 m lat și 0,5 până la 1 m adânc. Această cetate este de zid, ale căror urme sunt vizibile; sunt vizibile două intrări (porți) la latura de sud și la latura de vest, unde numai și acum este posibilă o comunicație cu trăsura. Înăuntru cetății se găsesc urme de construcțiuni solide de piatră și cărămidă. Zidul înconjurător despre nord măsoară în lungimea de 45 m, partea despre vest 145 m și are urmele unui turn și a unei porți. Partea de sud are lungimea de 138 m; aici se vede urma unei porți. Partea despre vest [sic!] este cea mai lungă și măsoară pe val 177 m. Forma cetății, acomodată terenului, este aproape triunghiulară, având vârful spre nord. Castrul este bine păstrat și arată numai puține sepeturi făcute de locuitori. În jurul cetății, mai ales spre sud, se găsesc, prin arături o mulțime de cioburi, cărămizi romane etc. dovadă că aici au fost și un așezământ civile romane.

**II/b** – Pamfil Polonic manuscript from 21.04.1898, in G.Gr. Tocilescu Mss 5132 (1. Săpături și semnalări arheologice în Dobrogea II. Județul Constanța / Județul Tulcea (urmărire) / 2. Cercetări arheologice în Dobrogea: Tomis etc.), sheets 93–102, Romanian Academy's Library, Rare Books and Manuscripts Section: *Cercetările din Dobrogea începând de la Ezerul Babadag pe marginea lacului Razelm spre nord, apoi pe malul drept al Dunărei în sus până la Măcin* [Researches from Dobrogea starting from Ezerul Babadag, on the Razelm lake shore, to the north then on the Danube right bank to Măcin]; particularly relevant in this study are sheets 94–96; for the

illustrative part, see Pamfil Polonic Archive, Romanian Academy's Library, Rare Books and Manuscripts Section: *Desene* (drawings) I, varia (sheet no 154–2, 216–39 and 215–38). (translation into English)

[sheet 94/verso]

3. Zaporozjeni Fortress [note on the right column – Plan I]

It is situated 4.5 km straight west of Dunavățul de Jos village or 6 km southwest of the village of Dunavățul de Sus village, lying on a hilltop or rather on the shore near the reed beds of the Razelm Lake. Its shape is almost square, only the south-east corner is rounded. The shape of the walls shows, it is a Byzantine construction; the surrounding wall, which was uncovered by the inhabitants who keep searching for treasures, is 2.90 m thick. The northern part of the fortress, which is not excavated, is 45 m long, the western part is 63.90 m long; next to it, in the south-west corner, facing outwards, a square tower adjoins the surrounding wall; inside it is 6 m long along the fortification's wall and 4 m wide; its walls are 3 m thick; we also found a similar adjoining tower at the hill fortress of Enisala (Eraclea). 30 m further north, this part of the fort features a buttress, which was dismantled. However, its connection with the surrounding wall is still recognizable. From here, 9.30 m further north, there are traces of a second square tower, measuring 5 m on the outside (along the fortification's wall).

The southern side measures 19 m and has a rounded corner, with traces of a round tower; from here the fortification's wall bends northwards where the traces of a third round tower are also visible.

The east side is 53 m long; there are no traces of a tower.

[sheet 95/recto]

Inside the fort, the locals searching for treasures dug two parallel ditches close to the northern surrounding wall and parallel to it. Inside these ditches there are Roman bricks, rubble, shards etc. but no trace of walls. The fort's surrounding wall is very well preserved and still shows the 1.8 m height from the former level of the fort. Here, in the wall of the square tower in the south-west corner was uncovered an inscribed stone slab [the following are annotated in the left column of the page] a stone slab used as building material and bearing the following inscription (brought to the National Museum) was found. It is of limestone. The upper part forms a niche in which a vessel is depicted between two wreaths. Underneath, there is an inscription (b) beginning with *Artemidora*, and which was carved later. The lower part, enclosed in a frame, contains the inscription (a).

Reading: *d.m. memoria Nepotiani / principalis, vixit annis XXXVII, / Victor filius, vixit annis II, / Juli(a)na filia, vixit annis III, / Heracliu frater, vixit annis / III, Vitalis frater, vixit annis / V. Valet lectores.*

Then above: *Artemidora coniux / sua et filio suo et filia sua / Viventia patri eorum titulum / posuerunt.*

We see that Artemidora is the wife of Nepotianus, which Artemidora survived with her daughter Viventia to her husband and other children.

4. The fort in Dunavățul de Sus village [note on the right column – Plan II]

This fort was not known to us, and we owe this discovery to the intelligence of priest Radu Ionescu alone. This fort is located in the northern part of the village in the gardens of the inhabitants Timosie Alexei and Tarasie Alexei. The enclosing wall is well preserved, the north east side measures 66 steps or 49.50 m, the north west side 62 steps or 46.50 m; it has a regular square shape; the bank is 1 m high by 10 m wide, and the ditch is 0.5 m to 1 m deep by 10 m wide; the north east side rests on the edge of the marsh. A coin of Constantine was found here.

Around the village, on the western side, there is a 1,200 m long bank, which encircles towards the west the whole of the steep corner of the land, the extreme promontory of the northern Dobrogea Hills near the Danube. It's ditch is 1.20 m deep and 7 m wide on the western side, and the rampart towards the east is 1.50 m high and 7 m wide. Another smaller ditch was made on the rampart: the village rampart, with the purpose of defending the land between Dunavaț and the marshes of the St. George Channel, thus forming a new fortification around the fort. A similar short rampart is also found at Tulcea – but we have to distinguish between two kinds of Roman ramparts, that have the stronghold enclosed, facing outwards; and those that have no fort enclosed, those facing the enemy. The tendency of the latter is that, by cutting a promontory in a straight line from shore to shore, the straightest and shortest line of defense can be achieved.

[sheet 95/verso]

5. The fortification in Morughiol also called the Sîci fortification [note on the right column – Plan III]

It has a rectangular shape and is situated 2.5 km east of the village of Morughiol on the edge of the Danube marshes, on a corner of a hill that is 8 m above the level of the river surface. It is thus located on a promontory and is naturally protected from all sides, but on the west-south and east sides there are traces of a surrounding ditch, which is 15–19 m wide and 0.5 to 1 m deep. This fort is built of stone walls, the traces of which are visible; two entrances (gates) are visible on the south and west sides; in the latter case, the passage by carriage is possible nowadays. Inside the fortification, there are traces of solid stone and brick constructions. The fortification wall on the north side is 45 m long, on the west side 145 m and has traces of a tower and a gate. The southern side is 138 m long and has traces of a gate. The western [sic!] side is the longest, measuring 177 m on the bank. The shape of the fortification, adapted to the terrain, is almost triangular, with its peak to the north. The fortification is well preserved and shows only a few excavations made by locals. Around the fortification, especially to the south, there are a lot of shards, Roman bricks, etc., in the fields, which prove the existence of a Roman civil settlement in this place.

**III/a** – A. Barnea mss from the archive of Family Barnea (kind assistance of Iuliana Barnea) – two machine-typed DINA4 manuscript pages, in Romanian (transcript C.-G. Alexandrescu)

[page 1]

Dunavățu de Jos, com. Murighiol, jud. Tulcea, “Cetatea Zaporijenilor”

Alexandru Barnea, IAB; Mihai Zahariade, CSCTIM/IITM; Adrian Popescu, student FIB. Fonduri CSCTIM/IITM.

1987, AB, MZ. Fortificația romană târzie de formă trapezoidală (N, 46 m; S, 28,15 m; E, 56 m; V, 66 m) cu latura de S către apă și cu turnuri rectangulare în aceeași direcție, la capătul laturilor lungi și poartă către N. Secțiune S.1, E-V, cca. 30 × 2 m, perpendiculară pe latura de E; zidul, lat de 2,66 m, din piatră cu mortar, bermă și agger. În afara unui nivel de lut nisipos, nu s-au întâlnit materiale semnificative și nici urme de construcții interioare (AB).

1989, iidem + AP. S-a continuat către V secțiunea S.1 E-V, lată de 2 m, pe o lungime de încă cca. 30 m și peste latura de V. Zidul întâlnit are aceeași structură și grosime cu acela de E. În apropierea imediată a zidului, spre interior, două straturi succesive cu dărâmurile de piatră și moloz, pe o distanță la E de cca. 3 m, cel superior gros de cca. 25 cm iar cel inferior de cca. 2,50 m. Nivelul ultim înregistrabil este cu cca. 10 cm mai sus de soclul zidului, lat de cca. 15 cm. La exterior, zidul era protejat de o bermă din lut bătut, placată inițial cu piatră și lată de cca. 70 cm. De la ea către V, în pantă de cca. 20°, lungă de cca. 8 m, dalaj neregulat de piatră. Fundația zidului se termină, față de cota maximă păstrată, la cca. 4 m. Perpendicular pe S.1, s-a trasat și început secțiunea S. 2, la cca. 26 m V de zidul de E, pe direcția N-S, doar în porțiunea către S, cca. 18 m până la zidul de incintă. Ca și în porțiunea centrală a S.1, în S.2, numeroase intervenții postantice au deranjat depunerile arheologice. Fragmente ceramice diverse, în majoritate din sec. III-IV, precum și din perioada de trecere de la epoca bronzului la Hallstatt. Cercetări de teren în zonă: urme ale unei villa romane către N; ceramică fragmentară La Tène, elenistică, romană din sec. II-VI, alogenă și medievală timpurie etc., în special către V (AB).

1990, AB, MZ. S-a putut urmări, în S.1, profitând de nivelul foarte scăzut al apelor, extensie spre V de zidul de incintă a bordurii de piatră și ținând de amenajarea portuară a fortificației. Dalajul de piatră observat în campania precedentă se încheie la cca. 10,50 m de zid, în panta deja remarcată anterior. Panta pare să se încheie, cel puțin în dreptul secțiunii, cu un fel de prag vertical pe care l-am putut verifica doar până la -0,60 m adâncime, în mълul din presupusul fost bazin. Este și adâncimea la care s-a încheiat verificarea și care corespundea în acel moment cu nivelul de infiltrație a apei (AB).

[page 2]

1991, AB, MZ. Cercetarea anterioară a fost completată prin extremitatea de N a S.2 de 25 × 2 m și caseta c.1 de 5 × 5 m, ambele în zona porții de N (principale și probabil unice către calea rutieră) a fortificației. S-a constatat că turnurile de poartă (sondat a fost cel de V) au formă circulară alungită (de U). S-au înregistrat lângă zidurile turnului, în interiorul incintei, pentru prima dată mai clar, frânturi de depuneri arheologice nederanjate indicând trei niveluri succesive romane târzii. Caseta a surprins și o mică porțiune nedistrusă din pragul interior al porții, chiar lângă turn. Lungime turn, cca. 12 m; grosime zidărie turn, cca. 2,50 m; soclul zidului are lățimea între 10 și 25 cm. Fragmente ceramice romane târzii puțin numeroase și câteva cărămizi; insignă militară din bronz (AB).

Bibliografie: Al. Barnea, SCIVA 40, 1989, 3, p. 300, nr. 26; 41, 1990, 3–4, p.317–318, nr. 11; 42, 1992, 4, p.435, nr. 11; Al. Suceveanu, Al. Barnea, *La Dobroudja romaine*, București, p. 191, 260. (AB).

**III/b** – A. Barnea mss from the archive of Family Barnea (kind assistance for the research given by Iuliana Barnea) – two machine-typed DINA4 manuscript pages (translation into English, C.-G. Alexandrescu)

[page 1]

Dunavățu de Jos, com. Murighiol, jud. Tulcea, “Zaporojenilor Fortification”

Alexandru Barnea, IAB; Mihai Zahariade, CSCTIM/IITM; Adrian Popescu, FIB student. Financed by CSCTIM/IITM.

1987, AB, MZ. Late Roman fortification of trapezoidal shape (N, 46 m; S, 28.15 m; E, 56 m; W, 66 m) with S side towards the water and rectangular towers in the same direction at the end of the long sides and gate towards N. Section S.1, E-W, about 30 × 2 m, perpendicular to E side; wall, 2.66 m wide, of stone with mortar, berm and agger. Apart from a level of sandy clay, no significant material or traces of internal constructions were found (AB).

1989, iidem + AP. Continued to the W section S.1 E-W, 2 m wide, for a further length of ca. 30 m and over the W side. The wall encountered has the same structure and thickness as that to the E. In the immediate vicinity of the wall, towards the interior, two successive layers with rubble and stone rubble, for a distance to the E of about 3 m, the upper one about 25 cm thick and the lower one about 2.50 m thick. The last recordable level is about 10 cm above the base of the wall, about 15 cm. On the outside, the wall was protected by a berm made of beaten clay, originally faced with stone and about 70 cm. From it to the W, sloping about 20°, about 8 m, irregular stone slab. The foundation of the wall ends at about 4 m. Perpendicular to S. 1, the section S. 2 has been traced and begun at about 26 m V of the E wall, in the N-S direction, only in the portion to the S, about 18 m to the enclosure wall. As in the central portion of S.1, in S.2, numerous post-antique interventions disturbed the archaeological deposits. Various pottery fragments, mostly from the 3<sup>rd</sup>–4<sup>th</sup> century, were found in the area, as well as from the transition period from the Bronze Age to Hallstatt period. Field research in the area: traces of a Roman villa to the N; fragmentary La Tène, Hellenistic, Roman pottery from the 2<sup>nd</sup>–6<sup>th</sup> century A.D., foreign and early medieval, etc., especially towards the W (AB).

1990, AB, MZ. It was possible to trace, in S.1, taking advantage of the very low water level, the extension to the W from the fortifications wall of the stone features, part of its dock. The stone slabs observed in the previous campaign end at about 10.50 m from the wall, on the slope already noted. The slope seems to end, at least on the right side of the trench, with a kind of vertical sill that we could only verify to a depth of -0.60 m, in the mud of the supposed former basin. This is also the depth at which the sondage ended and which corresponded at that time to the water infiltration level (AB).

[page 2]

1991, AB, MZ. Previous research was extended with the N

end of trench S.2 measuring 25 × 2 m and the test pit c.1 measuring 5 × 5 m, both in the area of the N (main and probably only gate to the road) gate of the fortification. The gate towers (the western one was investigated) were found to be U-shaped. Fragments of undisturbed archaeological layers indicating three successive Late Roman levels were recorded near the tower walls, within the enclosure, for the first time. Within c.1 a small undisturbed section of the inner threshold of the gate, right next to the tower, was recovered. Tower length, about 12 m; thickness of tower masonry, about 2.50 m; wall plinth between 10 and 25 cm wide. Sparse Late Roman shards and a few bricks; bronze military badge (aplique? or belt mount?)<sup>81</sup> (AB).

Bibliography: Al. Barnea, SCIVA 40, 1989, 3, p. 300, no. 26; 41, 1990, 3–4, p. 317–318, no. 11; 42, 1992, 4, p.435, no. 11; Al. Suceveanu, Al. Barnea, *La Dobroudja romaine*, Bucharest, p. 191, 260.

## REFERENCES

### Abbreviations

IABVP: “Vasile Pârvan” Archaeological Institute, Bucharest.

MNA: Muzeul Național de Antichități, Bucharest.

NAR: National Archaeological Repertory of Romania

### Modern sources

ALEXANDRESCU 2024

Alexandrescu, C.-G., Late Roman funerary monuments from Scythia. In: Kremer, G./Pollhammer, E./Beutler, F./Kopf, J. (eds.), *Zeit(en) des Umbruchs. Akten des 17. Internationalen Kolloquiums zum provinzialrömischen Kunstschaffen, Wien – Carnuntum 16.–21.05.2022*, Sonderschriften des Österreichischen Archäologischen Instituts 64 (Vienna: Holzhausen Verlag), 133–144.

ALEXANDRESCU/BALTRES, forthcoming

Alexandrescu C.-G./Baltres, A., Roman stone monuments in Northern Dobruja, lithic materials and archaeological contexts: case study of the fortification of “La Cetate”, Murighiol commune, Tulcea county.

ARBORE 1935

Arbore, A. P., Sicia transdunăreană după Th. Condratovici, *Analele Dobrogei* 16, 33–73.

BĂJENARU 2010

Băjenaru, C., *Minor Fortifications in the Balkan-Danubian Area from Diocletian to Justinian*, The Center for Roman Military Studies 8 (Cluj-Napoca: Mega Publishing House).

BALLA 2022

Balla, C., Organizare și strategie militară în Scythia Minor (Iași: Editura Universității “Alexandru Ioan Cuza” din Iași).

BARNEA 1989

Barnea, A., Cronica cercetărilor arheologice efectuate în anii 1981–1988 de Institutul de Arheologie din București, *Studii și Cercetări de Istorie Veche și Arheologie* 40/3, 295–313.

BARNEA 1990

Barnea, A., Cronica cercetărilor arheologice efectuate în 1989 de Institutul de Arheologie București, *Studii și Cercetări de Istorie Veche și Arheologie* 41/3–4, 315–323.

<sup>81</sup> The find was not available to the present authors. The terminology for the translation is thus only hypothetical. – See, however, the additional information by BĂJENARU 2010, most probably using the information from ZAHARIADE 1999, 204 (“a bronze Roman military badge with interesting analogies in the *Notitia Dignitatum* heraldry”).

- BARNEA 1991  
Barnea, A., Cronica cercetărilor arheologice efectuate în 1990 de Institutul de Arheologie din București, *Studii și Cercetări de Istorie Veche și Arheologie* 42/3–4, 255–264.
- BARNEA 1992  
Barnea, A., Cronica cercetărilor arheologice efectuate în 1991 de Institutul de Arheologie din București, *Studii și Cercetări de Istorie Veche și Arheologie* 43/4, 433–440.
- CONRAD 2004  
Conrad, S., *Die Grabstelen aus Moesia inferior. Untersuchungen zu Chronologie, Typologie und Ikonografie* (Leipzig: Casa Libri).
- CUSTUREA 2019  
Custurea, G. G., *Circulația monedei bizantine în Dobrogea (secolele VI–VIII)/ Circulation of Byzantine currency in Dobruđja (6th–8th c. AD)*, (Constanța: Ex Ponto).
- DESJARDINS 1868  
Desjardins, E., Voyage archéologique et géographique dans la région du bas Danube, *Revue Archéologique N.S.* 17 (Janvier à Juin 1868), 254–278 [= *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres Année 1868*, 12, 40–62].
- DORUȚIU 1964  
Doruțiu, E., Precizări topografice despre unele inscripții dobrogene, *Studii și Cercetări de Istorie Veche* 15/1, 131–135.
- GIAIME et alii 2019  
Giaime, M./Magne, G./Bivolaru, A./Gandouin, E./Marriner, N./Morhange, C., Halmyris: Geoarchaeology of a fluvial harbour on the Danube Delta (Dobrogea, Romania), *The Holocene* 29/2, 313–327.
- HEUKEMES 1981  
Heukemes, B., Der spätrömische Burgus von Lopodunum – Ladenburg am Neckar. Vorbericht der Untersuchung von 1979, *Fundberichte zur Archäologie in Baden-Württemberg* 6, 433–473.
- HIMMLER 2011  
Himmler, F., *Untersuchungen zur schiffsgestützten Grenzsicherung auf der spätantiken Donau (3. – 6. Jh. n.Chr.)*, BAR International Series 2197 (Oxford: BAR).
- IONESCU 1904  
Ionescu, M., *Dobrogea în pragul veacului al XX-lea. Geografia matematică, fizică, politică, economică și militară* (Bucharest: Atelierele Grafice I.V. Sococu).
- IONESCU/PAPUC 2005  
Ionescu, M./Papuc, G., *Sistemul de apărare a litoralului Dobrogei romane (sec. I–VII p.Chr.)* (Constanța: Ex Ponto).
- KONDRATOVICH 1883  
Kondratovich, F., *Zadunayskaya sech, Kievskaya starina* 5, (February) 269–300 and (April) 728–774.
- LANDER 1984  
Lander, J., Roman Stone Fortifications. Variation and Change from the First century A.D. to the Fourth, BAR International Series 206 (Oxford: BAR).
- MĂGUREANU 2013  
Măgureanu, D., Pamfil Polonic and the dawn of romanian archaeological cartography, *Caiete Arhitectură, Restaurare, Arheologie* 4, 77–90.
- MĂRGINEANU-CÂRSTOIU/APOSTOL 2015  
Mărgineanu Cârstoiu, M./Apostol, V., La fortification d'Halmyris. Etude architecturale des portes ouest et nord, *Caiete Arhitectură, Restaurare, Arheologie* 6, 37–78.
- MICU et alii 2022  
Micu, C./Carozza, L./Ailincăi, S./Mihail, F./Stănică, A., Le delta du Danube à travers les âges. Le peuplement du delta du Danube de l'Archéologie à l'Histoire. In: Carozza, L./Micu, C. (eds.), *Au-delà de la nature: le bas Danube et son delta durant les huit derniers millénaire* (Cluj-Napoca: Mega Publishing House), 59–119.
- MOISIL 1909  
Moisil, C., Cetăți romane la Dunărea de Jos – pe brațul Sf. Gheorghe, *Buletinul Comisiunii Monumentelor Istorice* 2/2, 85–92.
- NETZHAMMER 1907  
Netzhhammer, R., *Auf dem Razelm. Fahrten durch weltverlassene Gegenden der Dobrogea* (Bucharest: Buchdruckerei Rumänischer Lloyd – Gustav Albrecht).
- NETZHAMMER 1909  
Netzhhammer, R., *Aus Rumänien. Streifzüge durch das Land und seine Geschichte*, I (Einsiedeln, Waldshut, Köln a.Rh.: Verlagsanstalt Benziger & Co. A.G.).
- OPAIȚ et alii 2020  
Opaïț, A./Barnea, A./Barnea, I./Grigoraș, B./Potra, I., Supplying wine, olive oil and fish products to the Lower Danube frontier (2nd–7th century AD): The case of Dinogetia, *Rei Cretariae Romanae Fautorum: Acta* 46, 381–394.
- PETERS 1867  
Peters, K. F., Grundlinien zur Geographie und Geologie der Dobrudscha, *Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse* 27, 83–207.
- POLONIC 1935  
Polonic, P., Cetățile antice de pe malul drept al Dunării (Dobrogea) până la gurile ei, *Natura. Revistă pentru răspândirea științei* XXIV/7 (15 iulie), 18–26.
- POPESCU 1975  
Popescu, E., Zur Geschichte der Stadt in Kleinskythien in der Spätantike. Ein epigraphischer Beitrag, *Dacia N.S.* 19, 173–182.
- POPESCU 1976  
Popescu, E., *Inscripțiile grecești și latine din secolele IV–XIII descoperite în România* (Bucharest: Editura Academiei)
- PRIEN 2020  
Prien, R., Der spätantike Burgus von Ladenburg – eine Neubewertung. In: Prien, R./Witschel, C. (eds.), *LOPODVNVM VII Ladenburg und der Lobdengau zwischen, Limesfall' und den Karolingern*, *Forschungen und Berichte zur Archäologie in Baden-Württemberg* 17, 121–146.
- RĂDULESCU 1972  
Rădulescu, A., Aspecte privind exploatarea pietrei în Dobrogea romană, *Pontica* 5, 177–204.
- ROMANESCU et alii 2015  
Romanescu, G./Bounegru, O./Stoleriu, C. C./Mihu-Pintilie, A./Nicu, C. I./Enea, A./Stan, C. O., The Ancient Legendary Island of Peuce – Myth or Reality?, *Journal of Archaeological Science* 53, 521–535.
- SIMEONOV 2021  
Simeonov, G., The Region of the Danube Delta in the 7<sup>th</sup> to 10<sup>th</sup> Century and the Case of the so-called Lykostomion Maritime Province. In: Preiser-Kapeller, J./Kolias, T. G./Daim, F. (eds), *Seasides of Byzantium. Harbours and Anchorages of a Mediterranean Empire*. Byzanz zwischen Orient und Okzident 21 (Mainz: Verlag des Römisch-Germanischen Zentralmuseums), 233–254.
- ȘTEFAN 1984  
Ștefan, A. S., Cetatea romană tîrzie de la Murighiol. Studiu aerofotografic, *Peuce* 9, 297–310 and 663–674.
- SUCEVEANU/ZAHARIADE 1987  
Suceveanu A./Zahariade M., Du nom antique de la cité romaine tardive d'Independența (dep. Tulcea), *Dacia N.S.* 31, 87–96.
- SUCEVEANU/BARNEA 1991  
Suceveanu, A./Barnea, A., *La Dobroudja romaine* (Bucharest: Editura Enciclopedică).
- SUCEVEANU et alii 2003  
Suceveanu, A./Zahariade, M./Topoleanu, F./ Poenaru Bordea,

- G. (eds.), *Halmyris 1. Monografie Arheologică* (Cluj-Napoca: Nereamia Napocae Publishing House).
- THEMISTIOS, OR.  
Themistios, *Orationes*, Dindorf, W. (ed.) (Leipzig: C. Knobloch, 1832).
- TOCILESCU 1896  
Tocilescu, G. G., Neue Inschriften aus Rumänien, *Archäologisch-Epigraphische Mitteilungen* 19/1, 89–121.
- ТОРБАТОВ 2002  
Торбатов, С., Укрепителната система на провинция Скитея (края на III–VII в.) / *The defence system of the Late Roman Province of Scythia (end of the 3rd – 7th century A.D.)* (В. Търново: Faber).
- ȚENȚEA et alii 2019  
Țentea, O./Opriș, I. C./Matei-Popescu, F./Rațiu, A./Băjenaru, C./Călina, V., Frontiera romană din Dobrogea. O trecere în revistă și o actualizare, *Cercetări arheologice* 26, 9–82.
- VULPE 1935  
Vulpe, R., Noutăți arheologice dobrogene, *Analele Dobrogei* 16, 185–192.
- ZAHARIADE 1999  
Zahariade, M., The Roman Frontier in Scythia Minor (1980–1995). In: Gudea, N. ed., *Proceedings of the XVIIth International Congress of Roman Frontier Studies, Zalău 1997* (Zalău: Publishing House Porolissum), 199–213.
- ZAHARIADE 2011a  
Zahariade, M., Two problems of topography and historical geography in Dobrudja, *Dacia N.S.* 55, 137–148.
- ZAHARIADE 2011b  
Zahariade, M., Towards a Historical Geography of Extrema Scythiae Minoris: A Land Survey of the South-East Shoreline of the Dunavat Peninsula. Results and perspectives, *Pontica* 44, 311–322.
- ZAHARIADE/ALEXANDRESCU 2011  
Zahariade, M./Alexandrescu, C.-G., *Greek and Latin inscriptions from Halmyris. Inscriptions on stone, signa, and instrumenta found between 1981 and 2010*, BAR International Series 2261 (Oxford: BAR).