



JOURNAL OF ANCIENT HISTORY AND ARCHAEOLOGY

Institute of Archeology and Art History of
Romanian Academy Cluj-Napoca
Technical University Of Cluj-Napoca



JAHA
JOURNAL OF ANCIENT HISTORY
AND ARCHAEOLOGY

Journal of Ancient History and Archaeology

DOI: <http://dx.doi.org/10.14795/j.v8i3>

ISSN 2360 266x

ISSN-L 2360 266x



Scopus®



**Clarivate
Analytics**



Central and Eastern European Online Library



No. 8.3 /2021

CONTENTS

STUDIES

ANCIENT HISTORY

Tobias HOFSTETTER

D(IS) M(ANIBUS) S(ACRUM) – An Overview
of Funerary Behaviours on the Territory
of Present-day Switzerland
from Late Protohistory to Early Medieval Times
Through the Study of Material Remains,
Textual Sources and Funerary Inscriptions 5

Haggai OLSHANETSKY

DO WE REALLY HAVE ARCHAEOLOGICAL EVIDENCE
FOR JEWISH GLADIATORS? 61

NUMISMATICS

Ivo TOPALILOV

THE ΜΕΛΣΑ COINS IN THRACE 69

Cristian GĂZDAC, Vlad-Andrei LĂZĂRESCU, Sorin COCIȘ, Sergiu-Traian SOCACIU

COINS IN ARCHAEOLOGICAL CONTEXT (II).
THE CIVILIAN BATHS OF THE AUXILIARY FORT
FROM SUTOR (ROMANIA, SĂLAJ COUNTY) 74

ARCHAEOLOGICAL MATERIAL

Beatrice CIUTĂ

ARCHAEOBOTANICAL EVIDENCE
REGARDING THE DIET OF GAVA CULTURE
FROM TELEAC HILLFORT (ROMANIA) 102

Vitalie BÂRCĂ

THE MIRROR WITH THICKENED RIM AND
NAIL-SHAPED HANDLE FROM THE GETO-DACIAN
SETTLEMENT OF POIANA (GALAȚI COUNTY, ROMANIA).
NOTES ON ITS ORIGIN AND DATING 112

Ceren ÜNAL, Zeynep ÇAKMAKÇI

VIEWS ON THE SYMBOLIC USE
OF TWO RARE BONE FINGER DISTAFFS
WITH DOG REPRESENTATION
FROM HALUK PERK MUSEUM IN ISTANBUL 135

Alireza KOOCHAKZAEI

IDENTIFICATION OF FIBERS AND WEAVING TECHNOLOGY
IN THE REMAINS OF FABRICS DISCOVERED FROM KUH-E
KHWAJA, A PARTHIAN ARCHAEOLOGICAL SITE
IN SISTAN, IRAN 148

ARCHAEOLOGICAL TOPOGRAPHY

Florin-Gheorghe FODOREAN

MAPPING ROMAN DACIA. SEVERAL DATA REGARDING
THE ROMAN ROAD CONNECTING DROBETA
WITH ULPIA TRAIANA SARMIZEGETUSA 156

Dan ȘTEFAN, Maria-Magdalena ȘTEFAN

LIDAR VIEWS OF BRONZE AND IRON AGE HILL-TOP SITES
IN THE SOUTH-EASTERN CARPATHIANS 167

Constantin Viorel MARIAN, Mihaela IACOB, Nicolae GOGA

THE INTERACTIVE DIGITAL MAP - A MODERN APPROACH
FOR ARCHAEOLOGICAL HERITAGE MANAGEMENT 215

Design & layout:
Petru Ureche

Studies

NUMISMATICS

COINS IN ARCHAEOLOGICAL CONTEXT (II). THE CIVILIAN BATHS OF THE AUXILIARY FORT FROM SUTOR (ROMANIA, SĂLAJ COUNTY)

Abstract: The present paper is presenting a case study of a rescue archaeological investigation following the building of a motorway. The research area revealed the civilian baths complex of the Roman auxiliary fort of *Optatiana* in the province of Dacia (today, Sutor, Sălaj County, Romania). The analysis of coin finds, issuers, types, denominations, within the archaeological contexts they were found in, reveal the fact that only one-two coins may lead the archaeologist into a chronological pitfall, while a group of more than five single finds with similar dating elements (e.g. same issuer or his successor(s) from the same context/phase may be a true help in understanding the development of an archaeological complex.

Keywords: *Archaeological context, Roman single coin finds, Sutor, Roman Dacia.*

INTRODUCTION

In a previous study, we have presented both benefits and limits of the numismatic evidence provided by the contexts of an archaeological complex.¹

The rescue excavations following the building of a segment of the motorway A3, Braşov-Borş, has led to the discovery of the civilian baths of the auxiliary fort from Sutor (hypothetically identified with the ancient *Optatiana* mentioned also by Peutinger's Tabula).

The accurate archaeological investigation with precise location of the artefacts within contexts, was an excellent first step for a new case-study of coins in archaeological contexts. Apart from the technical aspects, a tricky procedure was used in order to avoid the 'traditional' dating of the context according with the coin minting date. On the basis of stratigraphy, the archaeologists were establishing the number of building-use phases of the complex without knowing the coin issuer.

THE SITE

The Roman site at Sutor (Sălaj County) is well-known in the archaeological literature in the context of the military auxiliary camp mentioned here starting with the late 19th century. Starting with K. Torma in 1864, who has based his research on the discovery of several tile stamps

¹ GĂZDAC/COCIŞ 2020, 42-52.

Cristian GĂZDAC

Institute of Archaeology and Art History Cluj-Napoca
cgazdac2000@yahoo.co.uk

Vlad-Andrei LĂZĂRESCU

Institute of Archaeology and Art History Cluj-Napoca
lazarescu_vlad@yahoo.com

Sorin COCIŞ

Institute of Archaeology and Art History Cluj-Napoca
scocis@yahoo.com

Sergiu-Traian SOCACIU

Babeş-Bolyai University Cluj-Napoca
socaciu.sergiu@yahoo.com

DOI: 10.14795/j.v8i3.666

ISSN 2360 – 266X

ISSN–L 2360 – 266X

and inscriptions,² all the following archaeologists interested in the site positioned the Roman fort roughly in the same area, namely at the place known as “Gura Căpușului”.³ However, the few inscriptions found here, together with the reconstructed name of the main unit stationed here (*Numerus Maurorum Optatianensium*)⁴ made reference also to a civilian settlement identified with ancient *Optatiana*, a site mentioned also by *Tabula Peutingeriana*.⁵

Despite being known for a long time, the site received little attention and it was only in 2001 that systematic works were carried out here.⁶ With that occasion, the main stratigraphy of the site and its chronological span were established. Apart from the structures belonging to the Roman period, two other settlements were discovered, one belonging to the Bronze Age and the other one to the Early Medieval Period (7th-8th century AD). Right from the beginning, the aim of the archaeological research was to determine in a first stage the exact position and extent of the Roman fort and the civilian settlement and afterwards to establish as much as possible their inner structure.⁷ Beginning with 2006, the team involved in the excavations at Sutor successfully managed to establish the exact position and extent of the fort, concluding that the military garrison was 165 x 220 m wide.⁸ Due to the technical advance in the field of near-surface geophysics, such non-invasive surveys proved to be highly efficient in the case of this site. A first series of geophysical surveys coupled with aerial imagery was performed in 2010 being able to pinpoint the location of the *principia*⁹ followed by massive surveys (magnetometry, ERT and GPR) covering both the area of the fort and civilian settlement starting with 2012 up to date.¹⁰ Fortunately, these recent surveys have highlighted both the extent, position and inner structure of the Roman fort discovered here. The identification of a smaller earth and timber fort in the north-western corner of the larger stone camp discovered based on the geophysical results came as a surprise, this reality being further investigated also archaeologically in order to establish the chronological relations between the two structures.¹¹ (Fig. 1)

The fact that the site at Sutor is part of the UNESCO World Heritage Tentative List¹² dossier for the Dacian *limes* together with the A3 highway project gave a real bolster to the research of the site. The rescue excavation performed this year focused primarily upon the civilian part of the site that was not very well documented until now. Apart from few excavations in the military baths of the site,¹³ not much was known concerning the spread, structure, chronology,

habitation and function of the military vicus that naturally developed in the shadow of the Roman camp. In February 2021 a massive rescue excavation campaign started at Sutor in order to assess the impact that the A3 highway infrastructure works (a massive project that covers an area of approx. 8.8 ha) would have upon the Roman site.

The geophysical surveys performed in the area of the A3 highway highlighted the existence of an intense habitation area situated north-east from the Roman fort, this reality being also confirmed by the archaeological excavations that covered a total of 1.1 ha (Fig. 2). We managed to document a densely populated area comprising both stone and timber structures despite the fact that the pedological studies performed recently showed that during the Roman time this region had the aspect of a swampy area especially due to the general aspect of the Almaș river that had several meanders that shaped the local landscape. Basically, we can imagine that the military vicus's spread was determined by the topographical aspect of the landscape that created a sort of “island” type of habitation that could be still observed by studying the Austrian military maps elaborated in the late 18th century. We were able to determine that the civilian habitation had a more linear development, being situated on a SW-NE axis determined by the Almaș river. (Fig. 3)

Over 850 archaeological contexts were documented ranging from a chronological point of view from the Bronze Age (only a few features most of them consisting in garbage pits) to the Early Medieval period (the contexts belonging to this timeframe are clustered in the northern part of the investigated area). Out of these, the great majority belong to the Roman period, that is best represented here. The most interesting features discovered with this occasion refer to several stone and timber buildings, two intersecting roads, one being represented by the Imperial road from *Napoca* to *Porolissum* and the other one intersecting with the first, connecting also the Roman fort at *Bologa*, an area situated in the northern part of the site associated with pottery production activities and the civilian baths.

The structure that makes the object of this study is represented by the civilian baths complex identified and entirely excavated and documented. The baths were ranged to the south of the Imperial road *Napoca - Porolissum* at approx. 8 m, accounting for the connectivity and access inside the structure (Fig. 4). It is worth mentioning that both roads have buildings carefully ranged and clustered in connection to the road network giving thus a quasi-urban aspect to the settlement. From a chronological point of view, we have identified two main phases of the civilian settlement at Sutor: an initial phase characterized by large timber structures and a second phase in which some of these structures are enlarged and/or refurbished with stone bases. A clear and direct relative chronological relationship in this respect was observed in several cases where some of the initial wooden structures were dismantled and afterwards, in a second stage, replaced by stone structures or enlarged with a stone base portico aligned to the main road network. These observations are backed also by several well-dated artefact recovered from different overlapping contexts. By far, the most spectacular discovery made with this occasion

² TORMA 1864, 10-11.

³ PANAITESCU 1932, 89; RUSSU 1968, 459-461; GUDEA 1997, 101-102.

⁴ MARCU 2009, 114; PISO/DEAC 2016, 281-282 with the literature.

⁵ FODOREAN 2014, 99-115.

⁶ ILIEȘ *et alii* 2002; ILIEȘ *et alii* 2002a.

⁷ ILIEȘ *et alii* 2007.

⁸ ILIEȘ *et alii* 2009.

⁹ CUPCEA/MARCU 2010, 94-95.

¹⁰ Most of the results are unpublished due to the attempt to present a comprehensive study that would encompass all the non-invasive results. Few information concerning especially the magnetic surveys reached the scientific community, see COCIȘ/ONOFREI 2019, 88-89.

¹¹ COCIȘ *et alii* 2014.

¹² <https://whc.unesco.org/en/tentativelists/6447/>

¹³ COCIȘ *et alii* 2015; COCIȘ/ONOFREI 2019, 89-91.

at Sutor were the civilian baths positioned in a densely built area situated at approx. 165 m from the Roman fort, outside its the military buffer zone (Fig. 5). The baths cover a total surface of 384 m² (27.2 x 14.6 m) having an architectural ratio of 1:2 between their width and length. From a relative chronological point of view, we have identified 4 phases, the structure and functionality of the 12 rooms being constantly in change as is generally the case with such bath complexes.¹⁴ (Fig. 6) Despite the fact that the baths are exceptionally well preserved, the collapsed tile-roof being preserved *in situ*, no tile-stamp was recovered arguing together with their topographical position inside the *vicus*, for the civilian use of this structure. If this is to be true, we are faced with the first entirely documented civilian bath complex in Dacia, enhancing their archaeological potential significantly.¹⁵ Several partitioning, adjoined rooms, and/or blocked entrances contributed along with the inner stratigraphy of the complex (Fig. 7) to the phasing of this bathing complex, accounting thus for successive structural and functional changes of the rooms. Another important structural element that unfortunately in most of the cases remained undocumented refers to the *praefurnium* which we have identified and documented accordingly in south-eastern outside area of the baths. This functional element was however disabled during the 3rd phase of the baths complex when the southern wall of room G that made the connection between the baths complex and the *praefurnium* was blocked, corresponding with the erection a partition wall dividing the room in two (G1 and G2) allowing for a change in the room's functionality. Through time several important structural and functional changes marked the main phases of the baths complex, the most important being the successive changes of room H during the 1st to the 3rd phase (Fig. 8) and the adjoining of room I during the 4th phase (Fig. 6).

NUMISMATIC COMMENTS

During the archaeological campaign at the baths complex, 14 coins were found (see catalogue; Fig. 9). Due to their state of preservation, thirteen of them were precisely catalogued and one piece was left as unidentifiable coin (see catalogue). According to the field methodology, each coin was labelled with the technical details of the archaeological context it came from (see catalogue).

The coin evidence reveals the following numismatic spectrum: Hadrian – 1 plated denarius; Antoninus Pius for Faustina I (Diva) – 1 sestertius; Lucius Verus – 1 denarius; Septimius Severus: 4 denarii (2 genuine, 2 plated); Septimius Severus for Julia Domna – 1 plated denarius; Elagabalus: 2 denarii (1 genuine, 1 plated); Severus Alexander: 3 denarii (2 plated, 1 potin); unidentified plated denarius (see catalogue).

The above list reveal three main aspects:

1. the large majority of the coin finds (10) depict emperors from the first decades of the 3rd centuries AD: Septimius Severus (including the coin bearing the portrait of Julia Domna), Elagabalus and Severus Alexander;

2. except for the sestertius of Antoninus Pius for Faustina I (Diva) the rest of the coins are denarii;
3. a strong presence of plated coins. Eight out of thirteen denarii show evidence of the silver foil covering a copper core. (see catalogue and photos).

All three aspects are reflecting – from numismatic point of view – general patterns of the Roman monetary policy at the beginning of the 3rd century AD, especially regarding the military payments. While Herodian states explicitly that Caracalla, in AD 212, increased the payment of praetorians by 50%,¹⁶ Dio Cassius suggests that all army payments have been doubled.¹⁷ According to M.A. Speidel, in AD 212 a basic legionary would receive 3,600 sestertii/year (900 denarii) while an infantryman from the *auxilia* 3,000 sestertii/year (750 denarii)¹⁸. Certainly, at the first sight, one should think also about the inflationary effect after AD 194 when the official silver bullion content of 46% seemed to be stated throughout the Roman Empire.¹⁹ As it has been demonstrated, most likely, this coinage debasement under Septimius Severus came with no inflationary consequences²⁰ as, probably, the number of the requested denarii for payments were divided 'into the amount of silver bullion available, which had been dropping because of the reduced silver supply coming from the mines'.²¹ However, for the emperors succeeding Caracalla, Macrinus, Elagabalus, Severus Alexander the pressure of army expenditure remained inexorable. "The emperor needed the soldiers' support first of all to sustain himself in power and therefore he had to ensure that they were content."²²

The literary evidence is confirmed by the coin finds. the number of denarii in the site-finds records an increase for the reign of Septimius Severus for all the provinces of Pannonia and Dacia. The majority of the sites revealed that the denarii of Septimius Severus form more than 60% in Pannonia and 80% in Dacia of the coins of all denominations of this emperor. Moreover, at some of the sites, especially the rural settlements or less researched sites, Septimius' denarius is the only denomination which has been found for this emperor.²³ This increase of denarii-finds for Septimius Severus and the emperors after him is connected with the increase of denarius-production at the end of the Civil War in AD 197/198.²⁴ At the same time, the decrease in the quantity of bronze coins under Septimius Severus has been interpreted by some authors as a possible interruption or diminution in the bronze supply by the government.²⁵

Therefore, the large presence of denarius finds within this site comes as a logical consequence of a general pattern within the Roman Empire.

¹⁶ Herodian, III.8.4.

¹⁷ Dio Cassius, LXXVIII.36.3-4.

¹⁸ SPEIDEL 1992, 106.

¹⁹ BURSCHE 1993, 300-301.

²⁰ GITLER/PONTING 2003, 26.

²¹ GITLER/PONTING 2003, 26. For similar opinions see CRAWFORD 1975, 562-563; HOWGEGO 1992, 8-9; HARL 1996, 83.

²² CAMPBELL 2002, 84.

²³ GĂZDAC 2010, 96, 147.

²⁴ DUNCAN-JONES, 1994, 142; GĂZDAC 2010, 96.

²⁵ WALKER 1988, 299; CLAY 1989, 219-220; DUNCAN-JONES 1994, 108; GĂZDAC 2010, 116.

¹⁴ BURKHARDT 2016; BURKHARDT 2020, 141-163.

¹⁵ BURKHARDT 2020; ȚENȚEA/BURKHARDT 2020.

| Issuer | Area | Phase |
|---|------------------------------------|--------------|
| Hadrian (cat. 1) | Room G | Phase II/III |
| Antoninus Pius: Faustina I (Diva) (cat. 2) | Room G | Phase II/III |
| Septimius Severus (cat. 7) | Room B | Phase II/III |
| Septimius Severus (cat. 5) | Room F | Phase II/III |
| Septimius Severus (cat. 6) | Room G | Phase II/III |
| Lucius Verus (cat. 3) | Peripheral wall | Phase IV |
| Septimius Severus (cat. 4) | Roof debris, room E | Phase IV |
| Septimius Severus: Julia Domna (Augusta) (cat. 8) | Roof debris, room D | Phase IV |
| Elagabalus (cat. 9) | Room H | Phase IV |
| Elagabalus (cat. 10) | Peripheral wall | Phase IV |
| Severus Alexander (cat. 11) | Roman layer near the baths complex | Phase IV |
| Severus Alexander (cat. 12) | Room I | Phase IV |
| Severus Alexander (cat. 13) | Peripheral wall | Phase IV |
| Unidentifiable coin | Excavated ground | Phase IV (?) |

On the same line, the strong mentioned presence of plated denarii found at this archaeological complex is another epidemic phenomenon known for the Roman monetary policy at the beginning of the 3rd century AD.

Despite severe legislation against counterfeiting²⁶ the counterfeited coins were found at a large scale in Roman Dacia.

The comparison between military and civilian sites indicates that the plated coins were used for the payments of the troops (mainly the auxiliary ones?). The situation is not a particular one for Dacia as such a situation has already been suggested for the similar finds from Augusta Raurica.²⁷ The large-scale outbreaks of copying Roman coins cover a wide area of the empire. Moreover, according to Dio Cassius, the plated coins were sometimes furnished to the people even by the official mint. Thus, Caracalla was blamed to have manufactured a coinage of a lead core plated with silver and a coinage of a copper core plated with gold.²⁸ The outbreak of copying Roman coinage in Dacia is similar with the western frontier provinces where the largest number of the false coins belongs to those pieces depicting the emperors of the period AD 193–238.²⁹ At the same time, it seems that this phenomenon was closely associated with the army.³⁰

Thus, the dominance of plated coin finds – bearing portraits of 3rd century AD issuers – at the baths complex under study is a normal characteristic for a site located within a military environment.

Coming back to the topic of the present study coins in archaeological context –, one can easily note, as previously mentioned, the strong presence of coins of issuers of the first decades of the 3rd century AD. Ten out of fourteen pieces depict the portraits of Septimius Severus (and Julia Domna),

²⁶ GĂZDAC/GĂZDAC-ALFOLDY 2001, 138-139.

²⁷ PETER 1990, 74-96.

²⁸ Dio Cassius, 78.14.4.

²⁹ KING 1996, 246.

³⁰ GĂZDAC 2009, 1495.

Elagabalus, and Severus Alexander (see catalogue). At the same time, we should not ignore the fact that the denarius with Hadrian's head on obverse is plated, which means a *terminus post quem* from the time of issuing the genuine prototype. The fashion of minting plated or cast denarii at the beginning of the 3rd century AD with portraits of Roman emperors from the 1st and 2nd centuries AD is a well-known fact nowadays.³¹ A similar hypothesis can be taken into account also for the unidentifiable plated denarius (catalogue no. 14).

Following the stratigraphic approach – and before the coin restoration and cataloguing processes – four phases of activity have been established for the baths complex from Sutor. After the identification of coins was completed the following table of coin distribution by phases was available (Table; Fig. 7):

The analysis of this synoptic table reveals some interesting aspects that may be of high interest while understanding the development of this Roman architectural complex from Sutor. The two phases, II/III and IV, show two different numismatic spectra. Phase(s) II/III show a higher frequency of Septimius Severus coins – three out of five – while phase IV is dominated by the coins of later emperors, Elagabalus and Severus Alexander, – five out of eight. Furthermore, again, we must point out, that, most likely, the plated denarius depicting Hadrian's head could have been also minted at the beginning of the 3rd century AD.

At the same time, it must be mentioned here, that the contexts associated with phases I and II were only identified as structural and functional changes especially in room design (see room H and H1 – Fig. 8) and access from one room to another, aspects that were subjected to a systematic cleaning and levelling process followed by building activities associated to phase III of this complex that ultimately set the final plan of the civilian baths (Fig. 8a-b).

³¹ GĂZDAC/OARGĂ/ALFOLDY-GĂZDAC 2015, 10, with references.

Corelating the stratigraphy with the numismatic evidence it appears, that the phase III of the military baths complex from Sutor was built and in use starting with Septimius Severus while phase IV suggests another development some 15-20 years later. This apparently late dating is also can also be backed by some stratigraphic aspects that highlighted the fact that prior to phases I and II of the civilian baths, on that precise spot the initial timber phase of the site was documented, the buildings belonging to this chronological timeframe being leveled and the land prepared for the construction of the bath complex (Fig. 8c).

Certainly, we must keep in mind that the coins offer the possibility of a relative chronology and not an absolute one. On this line, the best examples are also offered by three coin finds provided by the site under study. The sestertius issued by Antoninus Pius for his deceased wife, Faustina I (post AD 141) was found in a context dated in the same phase as three pieces of Septimius Severus (AD 193-211) while a genuine denarius of Lucius Verus, minted in AD 162-163, comes from a layer belonging to phase IV that comprise coins of Severus Alexander (AD 222-235).

This new case study on coins in archaeological context indicate that one single coin may mislead us in the chronology of archaeological context/complex/site while a group of single coins of issuers with close reigns will definitely help on this matter.

The association of the numismatic evidence with other datable artefacts (e.g. brooches) confirms, so far, this conclusion. From context no. 1647 comes a bronze brooch with returned foot that can be included in Cociş type 37a8b1a1, a type characterized by its head-knob, a half-rounded body and two other knobs positioned at the extremities of the spring.³² Recently, these types of brooches were tied with the Wielbark and Przeworsk Germanic tribes, their diffusion into Dacia Porolissensis being linked with the movement of these tribes southwards.³³ From a chronological standpoint, despite being dated in the C1a-C2 stages in the barbarian Germanic milieu of the Przeworsk culture,³⁴ we can argue for a later date in Dacia, as suggested by our study, where this type of brooch was found in an archaeological context associated with the last phase of the civilian baths (Phase IV ending with a coin from Severus Alexander), as well as another item at Porolissum discovered dated during a similar late phase ending this time with an even later coin issued during the reign of Philip the Arab.³⁵ Arguing for the same cultural and chronological aspects as highlighted above, is another bronze brooch, this time not recovered from the civilian baths, that can be attributed to the type Cociş – Bârcă A VII/I/B2a1a1³⁶ that can be dated during the stages B2/C1b.³⁷

There is no reason for surprise concerning the reconstruction phases of the Roman baths in Dacia during the

Severan dynasty given that during their reign the province of Dacia was somehow privileged due to the support that it has previously given to Septimius Severus. Such a reality can be seen both in the massive rebuilding works performed at several Roman forts as well as in the urbanism policy, various settlements being granted the statute of *municipium* for example. It is in this context that massive investments were made also in re-building and/or re-furbishing Roman baths in Dacia and maybe the best analogy concerning such late works can be attested at Micia, where we can account for a similar re-building strategy during the reigns of Septimius Severus and Severus Alexander.³⁸ The popularity of public bathing grew in time³⁹ and it in the context of the growth of this *vicus* due to its strategic position at the crossroads of two roads together with its potential role of a logistic hub being placed at an relatively equal distance between the two main centers of Dacia Porolissensis: *Napoca* and *Porolissum*, that the need for such civilian baths emerged.

REFERENCES

ANDRZEJOWSKI 2017

Andrzejowski, J., Dwuczęściowe zapinki z podwinięta nóżka I górna ciecwi. Wariant Sychówko-Drozdowo. In: Droberjar, E./Komoróczy, B., *Římské a Germánské spony ve střední Evropě (Archeologie barbarů 2012)*. Brno: Archeologický ústav AV ČR, 347-361.

BURKHARDT 2016

Burkhardt, B., Reflecting on the Typological Analysis of Roman Provincial Baths and Bathhouses, *Ziridava* 30, 149-158.

BURKHARDT 2020

Burkhardt, B., *Balnea militaria. Băile fortificațiilor auxiliare din Dacia romană* (unpublished PhD dissertation).

BURSCHE 1993

Bursche, Al., Pourquoi les denarii frappés après 194 étaient absent dans le Barbaricum? In: Moucharte, G./Hackens, T., *Proceedings of the XIth International Numismatic Congress: organized for the 150th anniversary of the Société Royale de Numismatique de Belgique, Brussels, September 8th-13th 1991*, vol. 2. Louvain-la-Neuve: Association Professeur Marcel Hoc, 297-303.

CAMPBELL 2002

Campbell, B., *Warfare and Society in Imperial Rome, c. 31 BC - AD 280*. London: Taylor & Francis.

CLAY 1989

Clay, C., The Supply of Bronze Coins to Britain in the Second Century AD, *Numismatic Chronicle* 149, 209-224.

COCIŞ 2004

Cociş, S., *Fibulele din Dacia romană / The Brooches from Roman Dacia*. Cluj-Napoca: Editura Mega.

COCIŞ/BÂRCĂ 2013

Cociş, S./Bârcă, V., *The workshops and production of "sarmatian" brooches (Almgren Group VII, Series I), Dacia N.S.* 57, 161-175.

COCIŞ/BÂRCĂ 2014

Cociş, S./Bârcă, V., The "Sarmatian" brooches (headknob and full catchplate variant, Almgren Group VII, Series I) in

³² COCIŞ 2004, 145; 394, Pl. CXL/1935-1936; 395, Pl. CXLI/1937-1939.

³³ ANDRZEJOWSKI 2017; OPREANU/COCIŞ/LĂZĂRESCU 2020, 82-84.

³⁴ ANDRZEJOWSKI 2017; OLEŃDZKI/ZIĘTEK 2017, see type A162c = Cociş 37a8b1a1.

³⁵ OPREANU/COCIŞ/LĂZĂRESCU 2020, 81, Fig. 15.

³⁶ COCIŞ/BÂRCĂ 2014, 197; COCIŞ/BÂRCĂ 2020, 140-141.

³⁷ SCHULTE 2011, 165-166; OPREANU/COCIŞ/LĂZĂRESCU 2020, 81, Fig. 15.

³⁸ IDR III/3, 45-46.

³⁹ FAGAN 1999, 40-84; MARÉCHAL 2020, 10-33.

- the Dacia province and the Barbarian environment of the Tisza River Basin, *Dacia N.S.* 58, 189-214.
- COCIȘ/BÂRCĂ 2020
Cociș, S./Bârcă, V., Brooches of type Almgren Group VII, Series I, Variation with Headknob and Vertical Catchplate, from East and South-East Romania (the Barbarian World), *Ephemeris Napocensis* 30, 137-180. DOI: <https://doi.org/10.33993/epnap.2020.30.137>
- COCIȘ/ONOFREI 2019
Cociș, S./Onofrei, C., Cohors I Brittonum on a tile stamp found at Sutoru. In: Farkas, I.G./Neményi, R./Szabó, M., *Artificem ommendat opus - Studia in honorem Zsolt Visy* (Pécs: CLIR Research Center), 29-36.
- COCIȘ et alii 2014
Cociș, S./Blaga, D./Opreanu, C.H./Lăzărescu, V.-A./Tamba, D./Onofrei, C./Mihai, A./Ferencz, Sz./Zolya, L., Castrul roman de la Sutoru. In: *Cronica Cercetărilor Arheologice din România, Campania 2013* (București: Institutul Național al Patrimoniului), 144.
- COCIȘ et alii 2015
Cociș, S./Opreanu, C.H./Lăzărescu, V.-A./Tamba, D./Onofrei, C./Blaga, D., Castrul roman de la Sutoru In: *Cronica Cercetărilor Arheologice din România, Campania 2014* (București: Institutul Național al Patrimoniului), 134-137.
- CRAWFORD 1975
Crawford, M., Finance, Coinage and Money from the Severans to Constantine. In: Temporini, H./Haase, W. (eds.): *Aufstieg und Niedergang der römischen Welt. Geschichte und Kultur Roms im Spiegel der neueren Forschung*, vol. II/2 (Berlin/New York: de Gruyter). 560-593.
- CUPCEA/MARCU 2010
Cupcea, G./Marcu, F., Geophysical Surveys on Sites in Dacia. Main Features, *Transylvanian Review* 19. Supplement No. 5.1: *Recent Studies on Past and Present. I. Human Heritage and Community. Archaeology in the Carpathians and Lower Danube Area from Prehistory to the Early Medieval Age*, 89-97.
- DUNCAN-JONES 1994
Duncan-Jones, R., *Money and government in the Roman Empire* (Cambridge: University Press).
- FAGAN 1999
Fagan, G. G., *Bathing in Public in the Roman World* (Ann Arbor: The University of Michigan Press).
- FODOREAN 2014
Fodorean, F., *Pannonia, Dacia și Moesia în izvoarele geografice antice* (Cluj-Napoca: Mega).
- GĂZDAC 2009
Găzdac, C., The distribution of silver counterfeited coins in the forts from Roman Dacia. Fraud or monetary policy?. In: *Limes XX. XXth International Congress of Roman Frontier Studies, León (España), Septiembre, 2006* [Gladius 13, vol. 1] (Madrid: Polifemo), 1487-1498
- GĂZDAC 2010
Găzdac, C., *Monetary circulation in Dacia and the provinces from the Middle and Lower Danube from Trajan to Constantine I (AD 106-337)* [Coins from Roman Sites and Collections of Roman Coins from Romania 7] (Cluj-Napoca: Mega Publishing House).
- GĂZDAC/ALFÖLDY-GĂZDAC 2001
Găzdac, C./Alföldy-Găzdac, Á., The Roman law against counterfeiting between theory and practice: the case of Roman Dacia, *Acta Musei Napocensis* 38/1, 137-154.
- GĂZDAC/COCIȘ 2020
Găzdac, C./Cociș, S., Coins in archaeological context. Are they useful to the archaeologist? A case study from the former town of Napoca in Roman Dacia, *Journal of Ancient History and Archaeology* 7/2, 42-52. DOI: [10.14795/j.v7i1.516](https://doi.org/10.14795/j.v7i1.516)
- GĂZDAC/OARGĂ/ALFÖLDY-GĂZDAC 2015
Găzdac, C./Oargă, O./Alföldy-Găzdac, Á., *It was supposed to be silver! The scrap coin 'hoard' Apulum VI* [Coins from Roman Sites and Collections of Roman Coins from Romania 5/2] (Cluj-Napoca: Mega Publishing House).
- GUDEA 1997
Gudea, N., Der Dakische Limes. Materialien zu seiner Geschichte, *Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz* 44, 101-102.
- GITLER/PONTING 2003
Gitler, H./Ponting, M., *The Silver Coinage of Septimius Severus and His Family, (193-211 AD). A Study of the Chemical Composition of the Roman and Eastern Issues* [Glaxu 16] (Milano: Ennerre).
- HOWGEGO 1992
Howgego, Ch., The Supply and Use of Money in the Roman World 200 BC to AD 300, *Journal of Roman Studies* 82, 1-31.
- HARL 1996
Harl, K.W., *Coinage in the Roman economy, 300 B.C. to A.D. 700*. (Baltimore/London: Johns Hopkins University Press).
- ILIEȘ et alii 2002
Ilieș, C./Cociș, S./Marcu, F./Tamba, D./Matei, Al., Raport privind cercetările arheologice de la Sutor, *Studia Universitatis Babeș-Bolyai, Theologia Greco-Catholica Varadiensis* 47/1, 131-151.
- ILIEȘ et alii 2002a
Ilieș, C./Cociș, S./Marcu, F./Tamba, D./Matei, Al., Săpăturile de la Sutor din 2001. In: *Cronica Cercetărilor Arheologice din România, Campania 2001* (București: Institutul Național al Patrimoniului), 302-304.
- ILIEȘ et alii 2007
Ilieș, C./Cociș, S./Mustață, S./Tamba, D./Matei, Al.V./Marcu, F./Ștefan, D./Duțescu, M., Săpăturile de la Sutoru, com. Zimbor, jud. Sălaj, Punct: La Cetate. In: *Cronica Cercetărilor Arheologice din România, Campania 2006* (București: Institutul Național al Patrimoniului), 355-356.
- ILIEȘ et alii 2009
Ilieș, C./Cociș, S./Mustață, S./Matei, Al.V./Tamba, D./Marcu, F./Cupcea, G./Petiș, I., Sutoru, com. Zimbor, jud. Sălaj. In: *Cronica Cercetărilor Arheologice din România, Campania 2008* (București: Institutul Național al Patrimoniului), 208-209.
- KING 1996
King, C., Roman copies. In: King, C./Wigg, D. (eds.): *Coin finds and coin use in the Roman world. The 13th Oxford Symposium Coinage Monetary History* [Studien zu Fundmünzen der Antike 10] (Berlin: G. Mann), 237-263.
- MARCU 2009
Marcu, F., *The Internal Planning of Roman Forts of Dacia* (Cluj-Napoca: Mega).
- MARÉCHAL 2020
Maréchal, S., *Public baths and bathing habits in late antiquity: a study of the evidence from Italy, North Africa and Palestine A.D. 285-700* (Leiden - Boston: Brill).
- OLĘDZKI/ZIĘTEK 2017
Olędzki, M./Ziętek, Typologia, i chronologia

rozprzestrzenienie fibula typu A. 162 na terytorium kultury przeworskiej. In: Droberjar, E./Komoróczy, B., *Římské a Germánské spony ve střední Evropě (Archeologie barbarů 2012)* (Brno: Archeologický ústav AV ČR), 363-381.

OPREANU/COCIȘ/LĂZĂRESCU 2020

Opreanu, C. H./Cociș, S./Lăzărescu, V.-A., Barbarian brooches in Roman context. Analysis of the finds from the frontier marketplace at Porolissum (Romania). In: Rubel, A./Voss, H.-U. (eds.), *Experiencing the Frontier and the Frontier of Experience: Barbarian perspectives and Roman strategies to deal with new threats* (Oxford: Archaeopress), 67-93.

PANAITESCU 1932

Panaitescu, E., Monumente inedite din Largiana, *Anuarul Comisiunii Monumentelor Istorice. Secția pentru Transilvania 1930-1931* (1932), 81-116.

PETER 1990

Peter, M., *Eine Werkstatt zur Herstellung von subaeraten Denaren in Augusta Raurica* [Studien zu Fundmünzen der Antike 7] (Berlin: G. Mann).

PISO/DEAC 2016

Piso, I./Deac, D., *Inscriptiones Daciae Romanae. Appendix I. Inscriptiones Laterum Musei Zilahensis* (Cluj-Napoca: Mega).

RUSSU 1968

Russu, I.I., Note epigrafice. Inscriptii din Dacia Porolissensis, *Acta Musei Napocensis* 5, 451-470.

SPEIDEL 1992

Speidel, M.A., Roman Army Pay Scales, *Journal of Roman Studies* 82, 87-106.

TORMA 1864

Torma, C., *Adalek Északnyugati Dacia Föld- és Helyiratához* (Budapest: A Magyar Tudományos Akadémia évkönyvei).

ȚENȚEA/BURKHARDT 2020

Țențea, O./Burkhardt, B., Bath and Bathing in Dacia (1). Current State of Research of the Balnea, *Journal of Ancient History and Archaeology* 7/3, 12-21. DOI: [10.14795/j.v7i3.559](https://doi.org/10.14795/j.v7i3.559)

WALKER 1988

Walker, D., *Roman Coins from the Sacred Spring at Bath. The Temple of Suli Minerva at Bath. vol. 2. The Finds from the Sacred Spring* (Oxford: University Press).

CATALOGUE

HADRIANUS



1. Denomination: denarius, plated
 Metal: AR+AE
 Axis: 5; D: 18.7 x 17.5 mm; W: 2.41 g.
 Mint: uncertain
 Dating: post 120-121
 Obv: ...N HADR...
 Head of Hadrian, laureate, right.
 Rv: inscription erased
 Aequitas standing left, holding scales and cornucopia.
 Catalogue: cf. RIC II.2, 385.
 Inv.no. temp: S.F. 177
 Finding date: 25.05.2021
 Context: Sutor, Motorway Area 2, civilian baths, room G, context 1617.
 Phase: II/III

ANTONINUS PIUS: Faustina I (Diva)



2. Denomination: sestertius
 Metal: AE
 Axis: 1; D: 30 x 28 mm; W: 21 g.
 Mint: Rome
 Dating: 141

Obv: [di]VA – FAV[stina]

Bust of Faustina I, draped, right, hair elaborately waved and coiled in bands across head and drawn up at back and piled in a round coil on top.

Rv: inscription erased; S - C

Silhouette of Ceres (?) standing, left, holding two corn-ears downwards in right hand and long torch, vertical, in left.

Catalogue: cf. RIC III, 1116.

Inv.no. temp: S.F. 243

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room G, structure 3, context 1617.

Phase: II/III

MARCUS AURELIUS: Lucius Verus (Augustus)



3. Denomination: denarius

Metal: AR

Axis: 6; D: 17.1 mm; W: 2.20 g.

Mint: Rome

Dating: 162-163

Obv: IMP L VERVS AVG

Head of Lucius Verus, bare, right.

Rv: PROV - DEOR TR P III COS II

Providentia, draped, standing left, holding globe on extended right hand and cornucopia in left hand.

Catalogue: RIC III, 491.

Inv.no. temp: S.F. 163

Finding date: 22.05.2021

Context: Sutor, Motorway Area 2, civilian baths, room B, testing excavation 2, context 1556, baths peripheral wall debris (context 1047)

Phase: IV

SEPTIMIUS SEVERUS



4. Denomination: denarius

Metal: AR

Axis: 11; D: 16.99 mm; W: 3.11 g.

Mint: Rome

Dating: 195-196

Obv: [I sep]T SEV P[ert aug i]MP VII

Head of Septimius Severus, laureate, right

Rv: ARAB ADI[ab cos ii p] P

Victory, winged, draped, advancing left, holding wreath in extended right hand and trophy against left shoulder in left hand

Catalogue: RIC IV.1, 64.

Inv.no. temp: S.F. 198

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room E, structure 3, testing excavation 1, context 1646, roof's debris.

Phase: IV

SEPTIMIUS SEVERUS



5. Denomination: denarius, plated

Metal: AR+AE

Axis: 6; D: 17.7 mm; W: 1.51 g.

Mint: uncertain

Dating: 193-211 or post

Obv: inscription erased.

Silhouette of Septimius Severus' head, right.

Rv: inscription erased.

Vague silhouette standing.

Catalogue: -

Inv.no. temp: S.F. 189

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room F, structure 3, context 1616.

Phase: II/III

SEPTIMIUS SEVERUS



6. Denomination: denarius

Metal: AR

Axis: 6; D: 17.8 mm; W: 2.07 g.

Mint: uncertain

Dating: 193-211 or post

Obv: inscription erased.

Silhouette of Septimius Severus' head, right.

Rv: inscription illegible.

Vague silhouette standing.

Catalogue: -

Inv.no. temp: S.F. 237

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room G, structure 3, context 1617.

Phase: II/III

SEPTIMIUS SEVERUS

7. Denomination: denarius, plated

Metal: AR+AE

Axis: 12; D: 18 mm; W: 2.41 g.

Mint: uncertain

Dating: 193-211 or post

Obv: inscription erased.

Silhouette of Septimius Severus' head, right.

Rv: erased.

Catalogue: -

Inv.no. temp: S.F. 297

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room B, structure 3, context 1612.

Phase: II/III

SEPTIMIUS SEVERUS: Julia Domna (Augusta)

8. Denomination: denarius, potin, plated

Metal: AR+AE

Axis: 6; D: 16.4 x 15.2 mm; W: 2.23 g.

Mint: Rome

Dating: 196-211 or post

Obv: inscription erased.

Bust of Julia Domna, hair waved and coiled at back, draped, right.

Rv: inscription erased.

Juno, veiled, draped, standing left, holding patera in extended right hand and sceptre in left hand; at feet, left, peacock.

Catalogue: cf. RIC IV.1, 369.

Inv.no. temp: S.F. 261

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room D, structure 3, context 1647, roof's debris.

Phase: II/III

ELAGABALUS



9. Denomination: denarius

Metal: AR

Axis: 5; D: 16.5 x 15.5 mm; W: 2.58 g.

Mint: Rome

Dating: 220

Obv: IMP ANTONINVS AVG

Bust of Elagabalus, laureate, draped, right.

Rv: P M TR P III – COS III P P

Jupiter, naked to waist, seated left, holding Victory in extended right hand and sceptre in left hand; at feet, eagle.

Catalogue: RIC IV.2, 27.

Inv.no. temp: S.F. 251

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, room H, structure 3, context 1673, debris.

Phase: IV.

ELAGABALUS



10. Denomination: denarius, potin, plated

Metal: AE+AR

Axis: 11; D: 20.4 x 18.6 mm; W: 1.74 g.

Mint: uncertain

Dating: 218-222 or post

Obv: [imp antoninus] PIVS AVG

Bust of Elagabalus, laureate, draped, right.

Rv: [laet]I[tia] - PVBL

Laetitia, draped, standing left, holding wreath in extended right hand and rudder set on globe in left hand.

Catalogue: cf. RIC IV.2, 95b.

Inv.no. temp: S.F. 352

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, structure 3, context 1047, baths peripheral wall debris (context 1047)

Phase: IV

SEVERUS ALEXANDER



11. Denomination: denarius, plated

Metal: AE+AR

Axis: 12; D: 20.2 x 18.2 mm; W: 1.79 g.

Mint: uncertain

Dating: 222-228 or post

Obv: IMP C M AVR [sev alexa]ND AVG

Bust of Severus Alexander, laureate, draped, right.

Rv: FIDES - [militum]

Fides, draped, standing right, holding standard in right hand and vexillum in left hand.

Catalogue: cf. RIC IV.2, 139A.

Inv.no. temp: S.F. 206

Finding date: 2021

Context: Sutor, Motorway Area 2, civilian baths, testing excavation 2 - extension, Roman layer baths area, context 1046.

Phase: ?

SEVERUS ALEXANDER



12. Denomination: denarius, plated
 Metal: AE+AR
 Axis: 6; D: 17.9 x 17.2 mm; W: 2.16 g.
 Mint: uncertain
 Dating: 222-228 or post
 Obv: [imp c m] AVR SEV ALEXAND AVG
 Bust of Severus Alexander, laureate, draped, right.
 Rv: inscription erased
 Vague silhouette standing.
 Catalogue: -
 Inv.no. temp: S.F. 232
 Finding date: 2021
 Context: Sutor, Motorway Area 2, civilian baths, room I, structure 3, context 1648, debris.
 Phase: IV.

SEVERUS ALEXANDER



13. Denomination: denarius, potin, fragmentary
 Metal: AE+AR
 Axis: 4; D: 18.2 mm; W: 1.65 g.
 Mint: uncertain
 Dating: 222-231 or post
 Obv: [alex]AND AVG
 Bust of Severus Alexander, laureate, right.

Rv: erased.

Catalogue: -

Inv.no. temp: S.F. 175

Finding date: 22.05.2021

Context: Sutor, Motorway Area 2, civilian baths, testing excavation 2, context 1556, baths peripheral wall debris (context 1047).

Phase: IV

Unidentified coin



14. Denomination: denarius, plated

Metal: AE+AR

Axis: 6; D: 18.5 mm; W: 1.72 g.

Mint: -

Dating: 2nd-3rd centuries AD

Obv. and Rv.: erased.

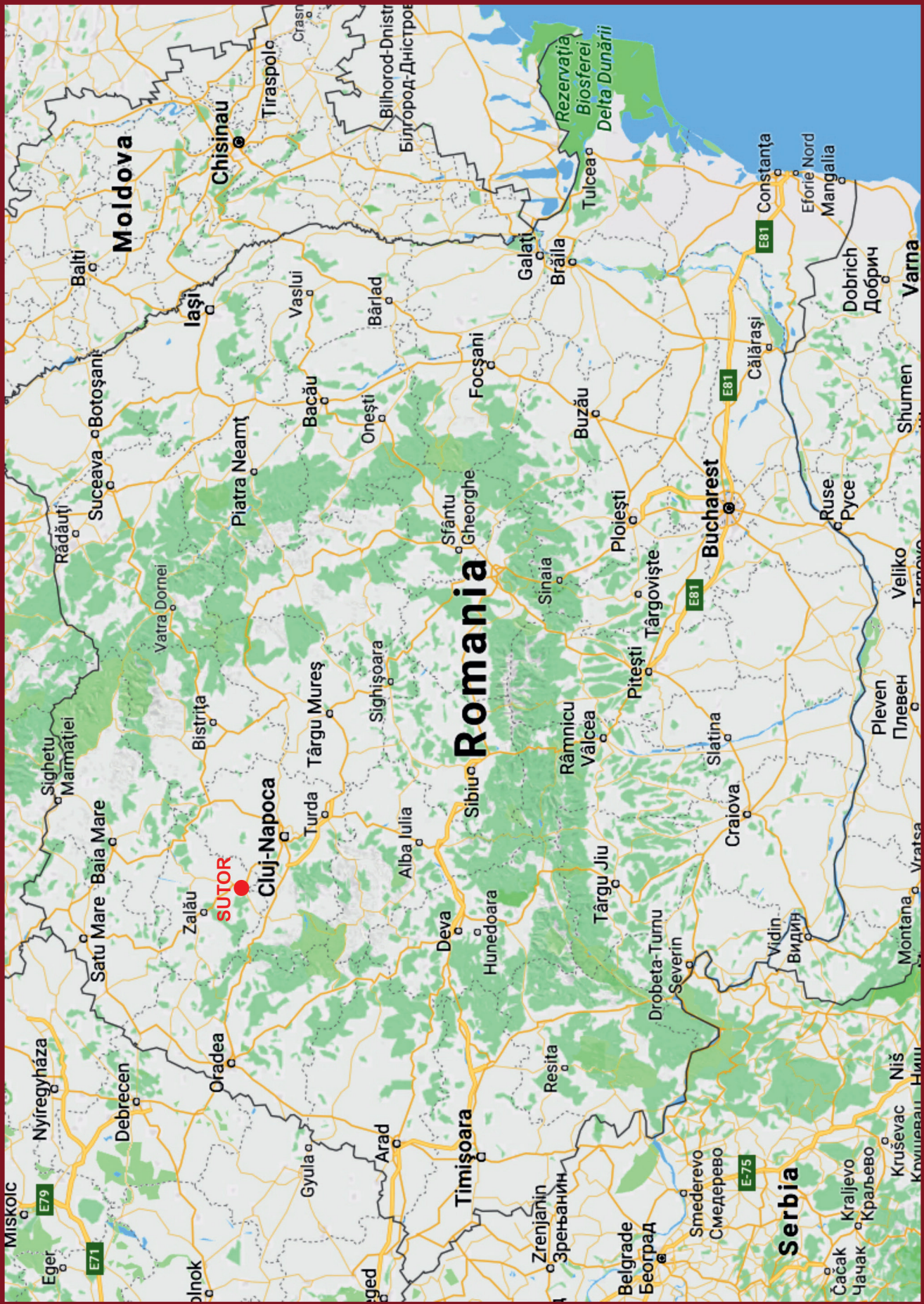
Catalogue: -

Inv.no. temp: S.F. 178

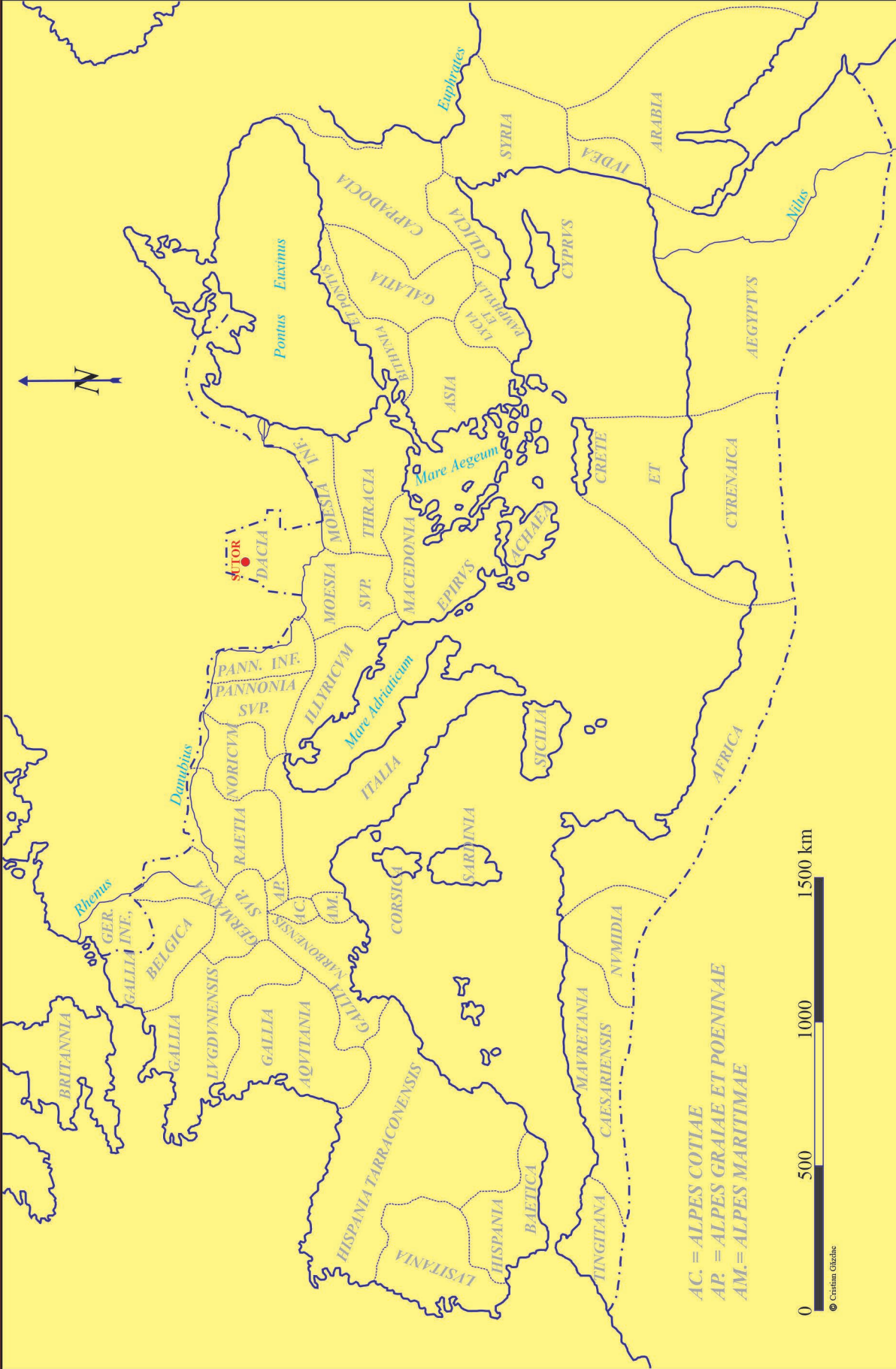
Finding date: 22.05.2021

Context: Sutor, Motorway Area 2, civilian baths, testing excavation 2.

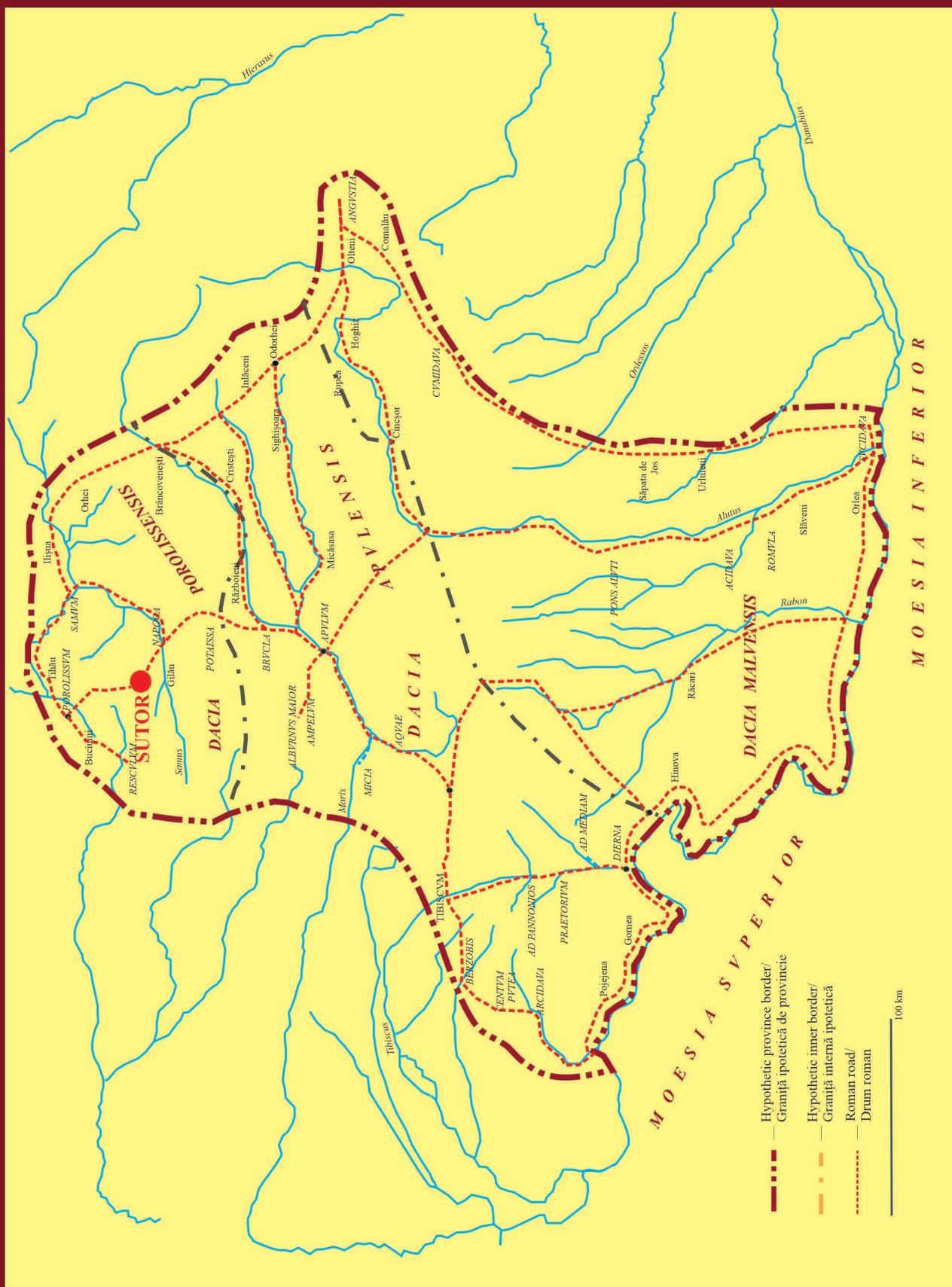
Phase: IV?



Map 1. Romania, the location of Sutor (Google Maps).



Map 2. The Roman Empire, mid-2nd century AD, pointing the location of Sutor.



Map 3. Roman Dacia, pointing the location of Sutor.



Fig. 1. Geophysical surveys at Sutor (2013-2021).

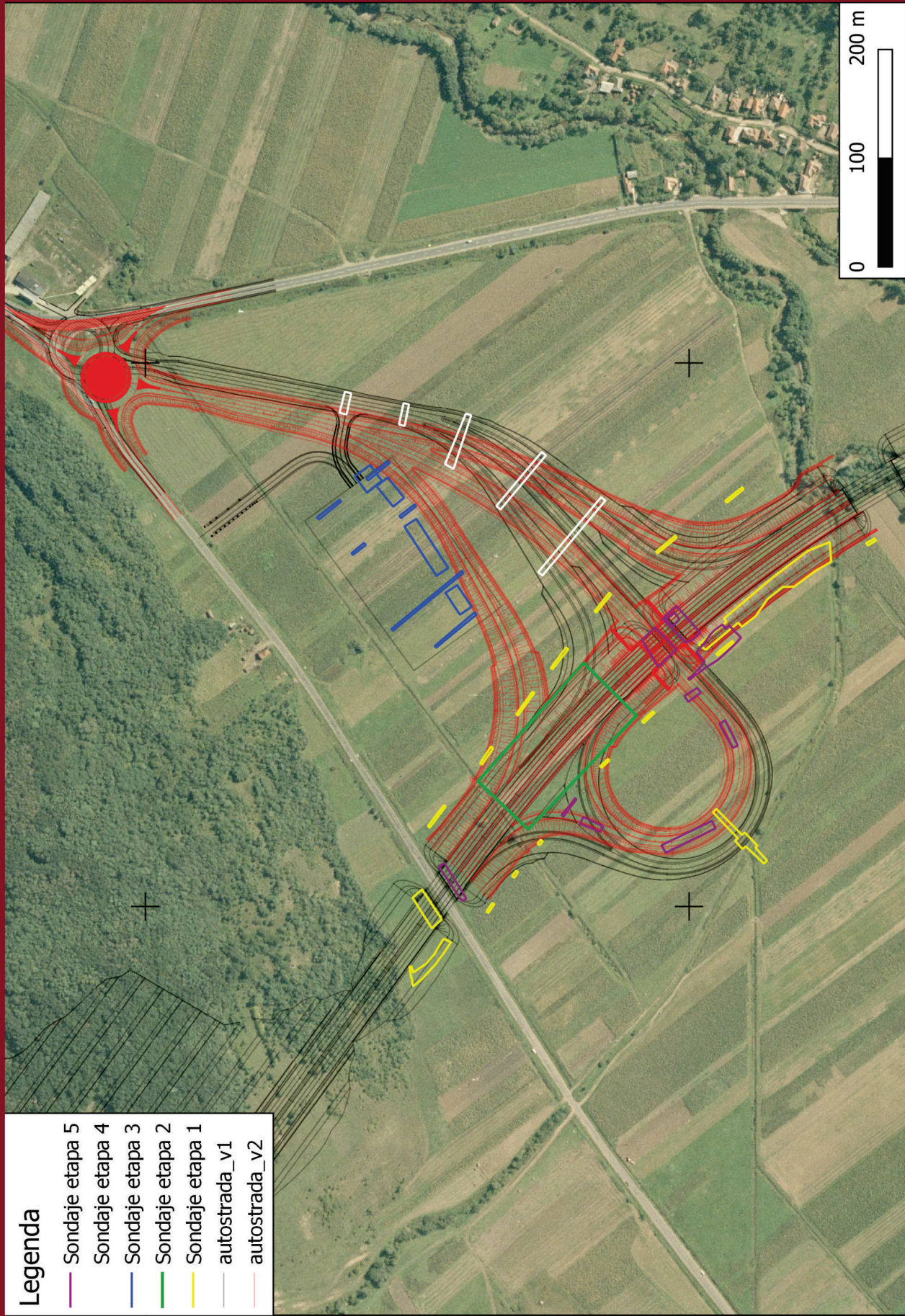


Fig. 2. Map of the rescue excavations at Sutur (2021).



Fig. 3. Old river course of the Agrij River as observed on satellite imagery (2011) and 1st Austrian Topographic Survey.

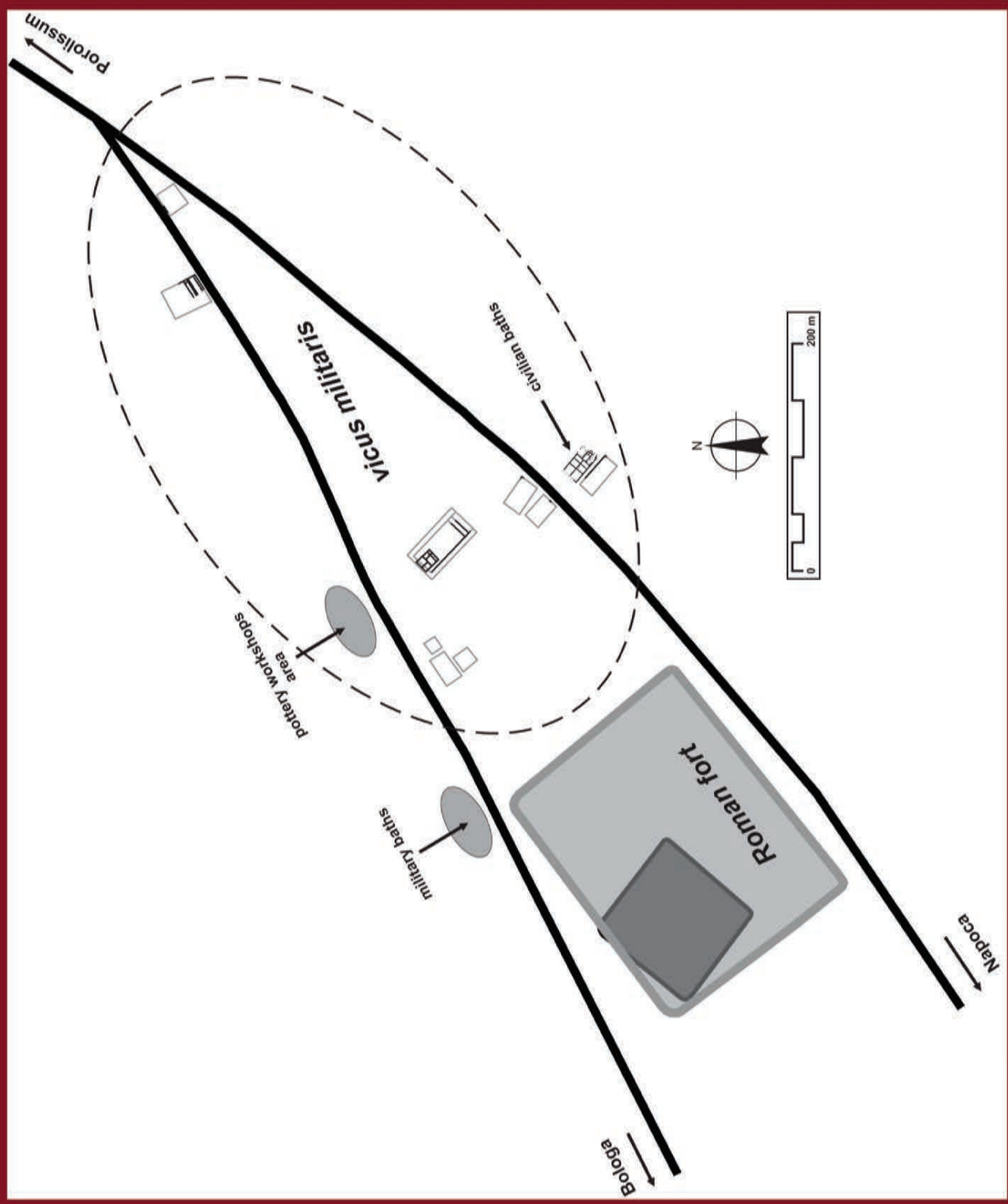


Fig. 4. Map of the archaeological units discovered at Sutor.



Fig. 5. Aerial imagery of the civilian baths: photo documenting the collapsed roof elements (left) and the walking level inside the baths (right).

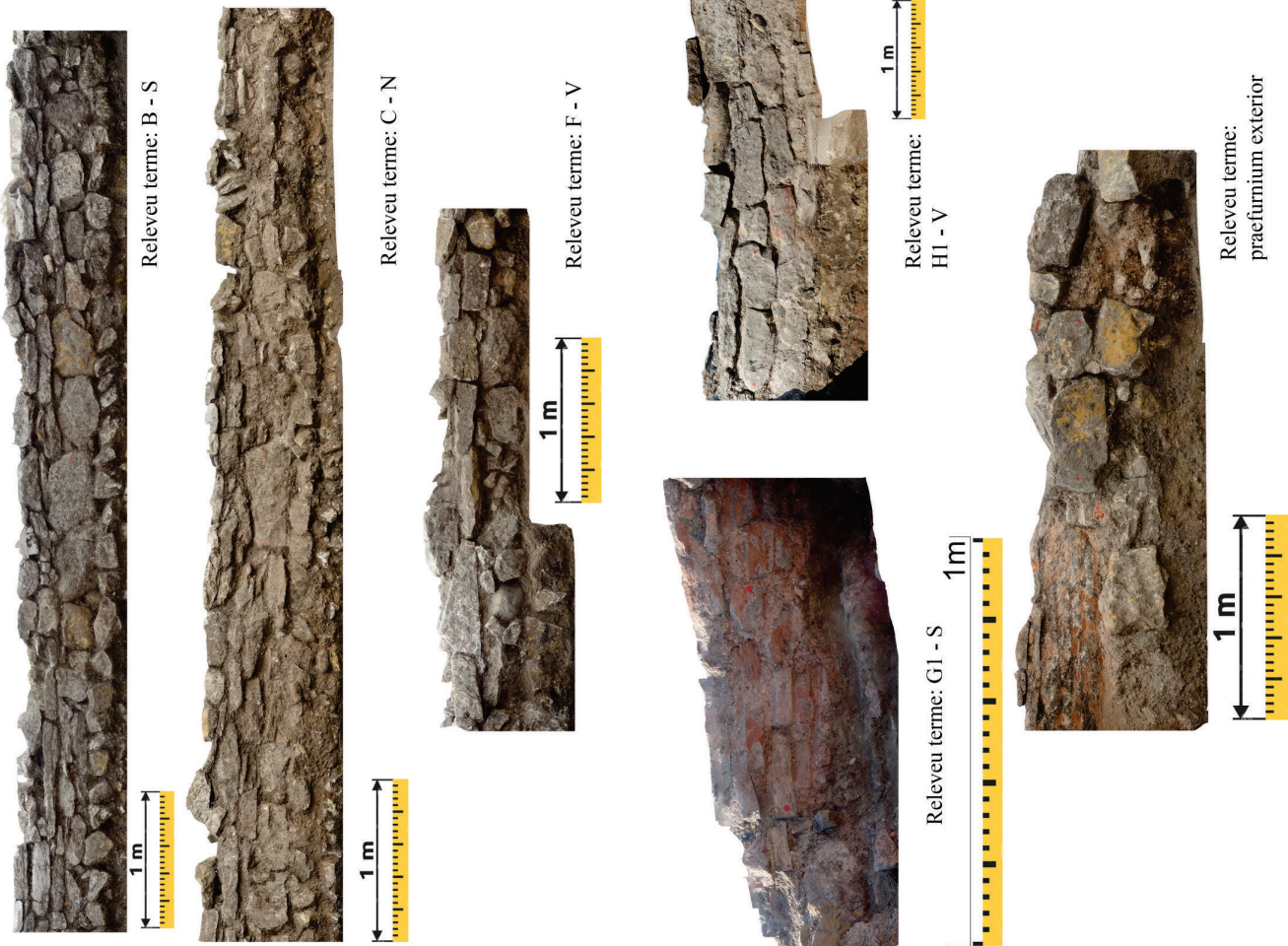
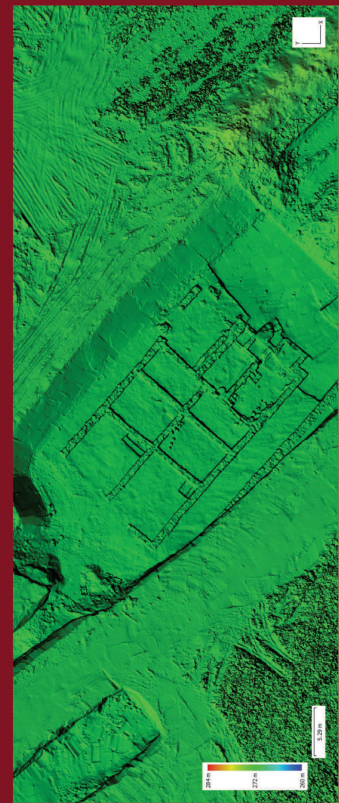


Fig. 6. Map depicting the inner structure of the civilian baths (with room denominations - upper left), topographic Digital Elevation Model (DEM) of the baths (lower left) and photogrammetric survey documenting the elevation of different walls of the civilian baths.

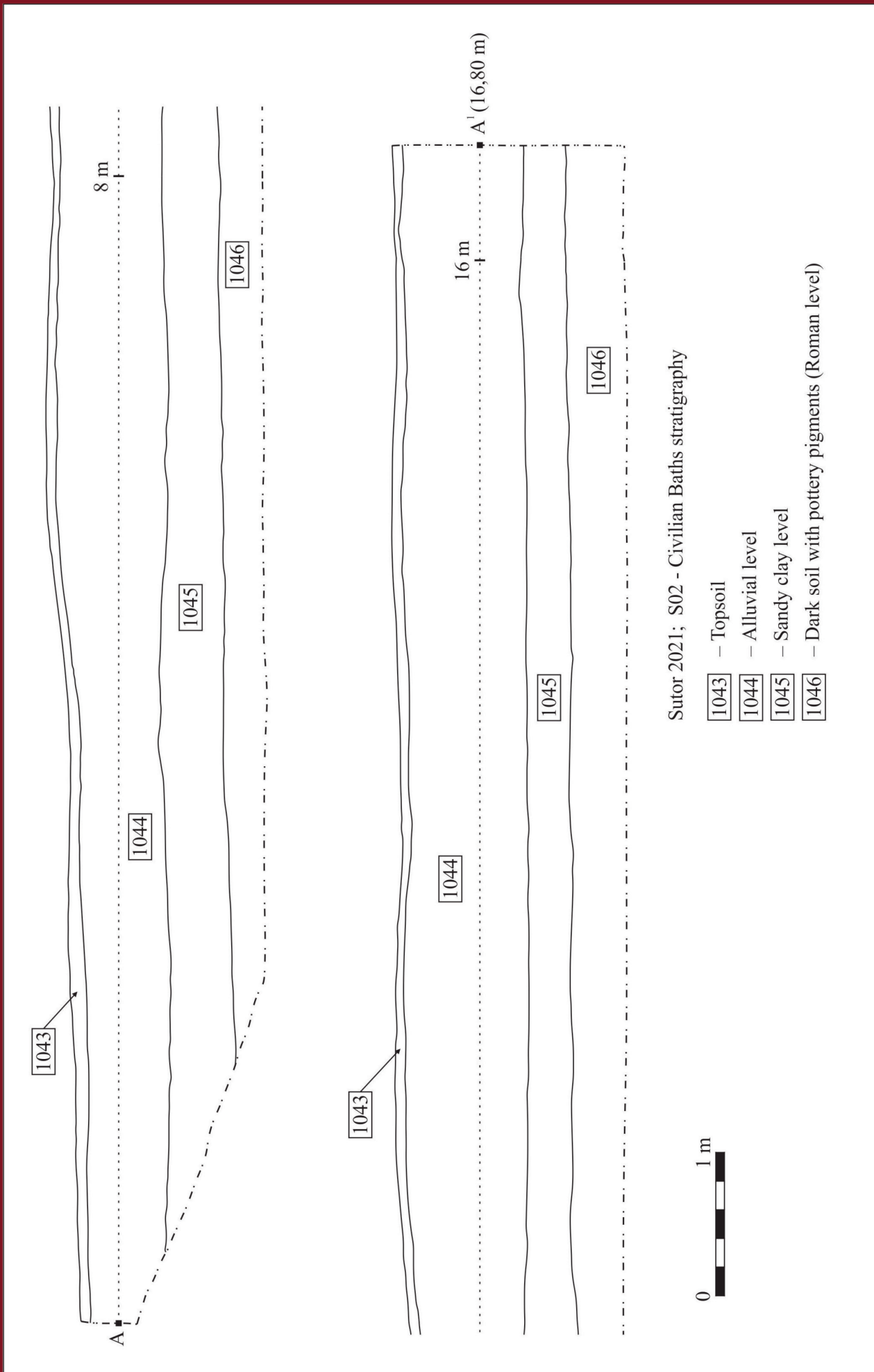


Fig. 7. Stratigraphic map in the area of the civilian baths.



Fig. 8. View of the norther area of the civilian baths:
a) 3rd phase of rooms G and H; b) 1st phase of room H and c) leveling layer for the construction of the civilian baths.

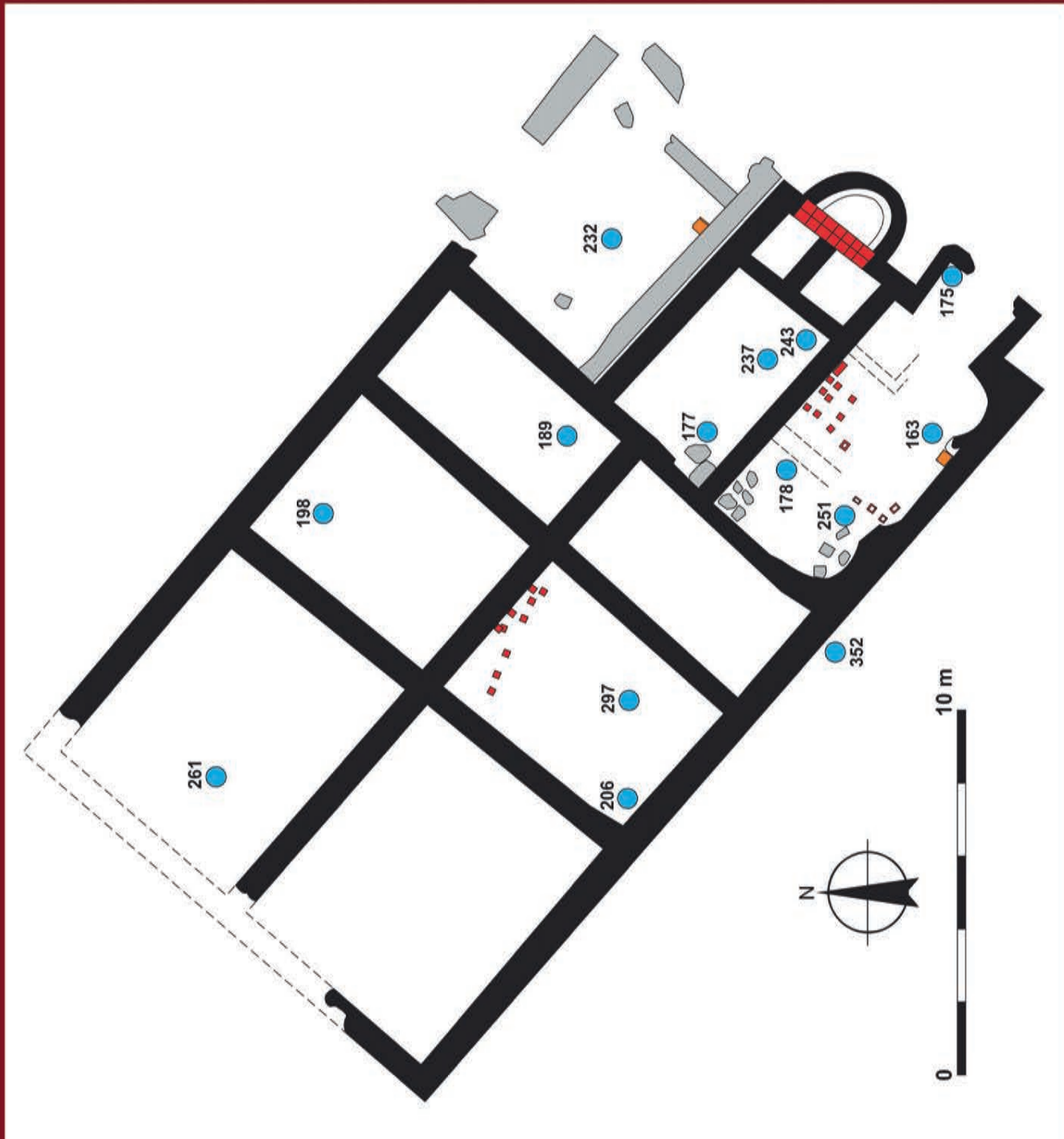


Fig. 9. The civilian baths from Sutor. Coin distribution by rooms.