

ARCHAEOLOGICAL RESEARCH AT PIETROASA MICĂ – GRUIU DĂRII (2019–2020). THE LATE ENEOLITHIC PERIOD

Laurențiu GRIGORAȘ^a, Roxana MUNTEANU^a, Daniel GARVĂN^a, Valentin DUMITRAȘCU^b

^a Buzău County Museum, Buzău, Romania; e-mails: g_11973@yahoo.com, roxmunteanu@gmail.com, daniel.garvan@gmail.com

^b "Vasile Pârvan" Institute of Archaeology, Bucharest, Romania; e-mail: validumitrascu@yahoo.com

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Abstract: *During 2019–2020, the research of the Eneolithic layers took place in Trench 11 (S11), located in the NW part of the site of Pietroasa Mică – Gruiu Dării. Ten Eneolithic archaeological features were identified and investigated: C113 and C295 (remains of burnt wattle and daub structures); C295a ("agglomeration" of archaeological materials); C298 (group of stones laid out in circular pattern); C296–297 and C299–302 (pits and/or depressions). During these two seasons, several other features cutting some of the mentioned Eneolithic contexts were also investigated: C293 (pit identified in square C), C275 (foundation ditch observed along the entire length of S11 and entering the NE and SW profiles) – both attributed to the Bronze Age; C204 (square D) and C229 (square B) – pits attributed to the Iron Age.*

Within the Eneolithic layer, two levels were discerned (N.1 and N.2), each with an average thickness of approx. 35–45 cm. Features 113, 295, 295a and 296 were identified in N.1 (the upper Eneolithic layer) and features 297–302 were noticed at the base of N.2 (the lower Eneolithic layer).

Numerous and varied archaeological materials were discovered in the Eneolithic depositions of S11: pottery sherds (Cucuteni B₂ and alike Cernavoda I₂); vessels; zoomorphic and anthropomorphic plastic art; loom weights; tools made of hard materials (stone, bone and antler); adornments and/or pendants; various items of uncertain functionalities. The Eneolithic layers also contained animal osteological remains, scattered deposits or agglomeration of stones and a very large amount of burnt adobe, all mixed up with the abovementioned artifacts.

The excavations produced 1380 animal bone remains, respectively 889 from layer 1 and 491 from layer 2. The archaeozoological material is typical of household waste (Tab. 1), with traces of cutting, burning, carnivore activity and rodent teeth marks. Except for a few bird fragments, the material is represented by mammals, mostly domestic. Among the domestic species, ovicaprids and domestic cattle predominate on both levels. Pig and dog contribute with very few skeletal remains. Wild animals are present with rare fragments from red deer, roe deer, wild boar, fox, hare and a small rodent, probably the European ground squirrel. In addition to the mammalian bones, 15 bird bones were also discovered, most of them large, indicating goose or bustard. The livestock economy was focused on ovicaprids and cattle, with pigs playing a very small role. There is evidence that the dog was also consumed. Hunting is poorly represented.

Cuvinte-cheie: *Pietroasa Mică – Gruiu Dării, Eneolitic târziu, Cernavoda I, Cucuteni B, ceramică cu scoică pisată*

Rezumat: *În cursul campaniilor din anii 2019–2020, cercetarea nivelurilor eneolitice s-a desfășurat în secțiunea 11, situată în partea de NV a sitului de la Pietroasa Mică – Gruiu Dării. Au fost identificate și cercetate zece complexe arheologice eneolitice: C113 și C295 (resturi de construcții incendiate); C295a („aglomerare” de materiale arheologice); C298 (grupare de pietre dispuse circular); C296–297 și C299–302 (gropi și/sau alveolări). În cele două campanii a fost continuată și finalizată cercetarea unor complexe pre- și protoistorice care au secționat câteva dintre amenajările eneolitice menționate: C293 (groapă identificată în caroul C), C275 (șanț de fundație observat pe toată lungimea S11 și care intră în profilele de NE și SV) – ambele atribuite epocii bronzului; C204 (caroul D) și C229 (caroul B) – gropi atribuite epocii fierului.*

Observațiile stratigrafice au evidențiat existența, în cadrul depunerii eneolitice, a două niveluri (N.1 și N.2) cu o grosime medie de cca. 35–45 cm. În N.1 (nivelul eneolitic superior) au fost identificate complexele 113, 295, 295a și 296, iar la baza N.2 (nivelul eneolitic inferior) au fost observate complexele 297–302.

În depunerile eneolitice din S11 au fost descoperite materiale arheologice numeroase și variate: fragmente ceramice (Cucuteni B₂/laolaltă cu Cernavoda I₂); recipiente întregi sau întregibile; plastică zoomorfă și antropomorfă; greutatea din lut; unelte din materii dure (piatră, os și corn de cervide); podoabe și/sau pandantive; piese diverse cu funcționalități incerte. Nivelurile eneolitice mai conțineau, amestecate cu artefactele amintite, resturi osteologice de animale, depuneri răslețe sau aglomerări de pietre și o cantitate foarte mare de chirpici arși.

Au fost prelevate 1380 de resturi scheletice de animale, respectiv 889 din nivelul 1 și 491 din nivelul 2. Materialul arheozoologic este tipic resturilor menajere (Tab. 1), cu urme de tranșare, ardere, dinți de carnivore și de rozătoare. Cu excepția câtorva fragmente ce provin de la păsări, materialul este reprezentat de mamifere, preponderent domestice. Dintre speciile domestice, predomină, în ambele niveluri, ovicaprinele și vita domestică. Porcul și câinele contribuie cu foarte puține resturi. Animalele sălbatice sunt prezente cu puține fragmente ce provin de la cerb, căprior, mistreț, vulpe, iepure și un rozător de talie mică, probabil popândău. Pe lângă oasele de mamifere, au fost descoperite și 15 oase de păsări, majoritatea de talie mare, din categoria găștei sau dropiei. Economia animalieră era axată pe ovicaprine și vite, porcul având un rol foarte mic. Sunt dovezi că și câinele era consumat. Vânătoria este slab reprezentată.

INTRODUCTION

The archaeological site at Pietroasa Mică – Gruiu Dării (village of Pietroasa Mică – formerly Ochiul Boului, commune of Pietroasele, Buzău County) is located in the north-eastern piedmont area of Wallachia. Considering the

long research activity (1973–1989/2001–2021, with some interruptions) and the amount of data already published¹, this study is not going to resume other general information about of the site.

¹ Dupoi, Preda 1977; Dupoi, Sîrbu 2001, p. 46–48, fig. 8, 117; Sîrbu et alii 2005; 2011; Munteanu 2017; Grigoraș et alii 2018; Grigoraș 2018; 2019.

During 2019–2020, the research of the Eneolithic deposits was carried out in Trench 11 (S11), located in the NW part of the “plateau” which represents the central area of the site (Pl. I). This trench adjoins to the south-east with S12, where the research was completed during the 2018 campaign² (Pl. I–II). Originally, between S11 and S12 a 50 cm wide baulk was left. It was disassembled upon finishing the research of S12, due to the degradation/caving occurred as a result of the long time passed from opening of the said area until completion of the research (2002–2018).

S11 was 4 × 4 m and was divided into four 2 × 2 m squares noted anticlockwise from A to D. Two 25 cm wide baulks were left in the Eneolithic deposits: one to verify the stratigraphic relationship between features 295 (burnt structure) and 295a (“agglomeration” of archaeological materials) and the second (approx. 1.5 m long) in order to identify any potential correlations between contexts 295 and 113 (burnt structures).

Similar to all the areas examined so far at *Gruia Dărij*, S11 revealed the existence of an “occupation layer” with Bronze Age and Eneolithic³ archaeological materials. It has an approximate 10 to 15 cm variable width, it was found at depths between 1.65 to 1.78 m (towards SE, squares A–B) and 2.35 to 2.44 m (towards NW, squares C–D) and most likely ensued with the creation of some Bronze Age features (see C275).

The Eneolithic deposits lie on an incline descending from the SE towards the NW and from the SW towards the NE, the average level difference noted between the S11 extremities being approximately 35–45 cm, respectively 16–21 cm.

ENEOLITHIC FEATURES

During the 2019 and 2020 field research, the following Eneolithic archaeological features were documented:

C295 (Pl. III; X/2) – remains of a burnt wattle and daub structure found at the depths of 2.07 to 2.14 m (SE) and 2.48 to 2.53 m (NW). The rest of the destroyed structure covers roughly the south-western quarter of the research area, measuring approximately 2.70 × 3.30 m.

The structure is sectioned off along approximately 2.60 m by a narrow ditch of variable width and depth ($w = 20/27$ cm; $d = 50/60$ cm), oriented on a NE–SW axis (Pl. III; X/2). The back-fill of the ditch comprised numerous stones marking the line of the feature 275 (attributed to the Bronze Age) as well as Eneolithic pottery fragments. The ditch contour is more clearly delimited in the areas where it cuts through the level of the destroyed Eneolithic structure. The ditch filling appears to be different from the

surrounding Eneolithic level (C295) by the slightly darker colour and the more intense pigmentation with fine “grains” of coal and ash. The research of C275 was completed in the course of the 2020 season, when it reached the ditch bottom at 2.34 m (SW) and 2.72 m (NE) depths.

Completion of the research of C275 led us to finding potential correlations between this feature and the stones on the edge of previously investigated context (C276 in S12). The similar features (alignments of stones), similar positioning within trenches (NE–SW), parallel layout and the steep incline between the two features make them appear as the result of some earthworks achieved in the area (Pl. IV) during the Bronze Age. Even if, unlike the structure of C275, in C276 no foundation ditch was found, we deem the aforementioned assumption much more consistent than the initial opinion about C276⁴ and, implicitly, we find different approaches of the two features would be unsuitable.

In the NW corner of square D over an approximately 60 × 65 cm area, feature 295 is cut across by a pit ascribed to the Iron Age (feature 204) entering the SW profile of S11 (Pl. XV). The same pit was partially identified in S12 as well.

The C295 destruction level consists of clusters of burnt chunks of adobe, some to vitrification (such as those identified in square D, near to and entering the SW profile), and dusty areas with burnt clay pigmentation.

The remains of C295 were investigated during the 2019 and 2020 seasons. The destruction layer occupied an area larger than the actual layout of the structure which covered about 4 sqm, between depths of 2.29/2.34 m (SE) –2.65/2.73 m (NW).

A nearby structure (C276), located some 25–30 cm to the SE from C295, belongs to the same layer⁵. In C276, elements of a possibly temporary structure (stake pits, hearth) have been identified, and within such perimeter several millstones have been found. These findings, as well as the particularities of the component elements of the deposits in the mentioned areas, are useful observations on how habitation was organized within the Eneolithic community established on the hillock (*grui*), which might provide arguments to assume potential functional relationships between the mentioned layouts.

A large number of Cernavoda I_c and Cucuteni B₂ ceramic fragments (both styles with shell-tempered wares) are trapped in the destruction along with other archaeological materials. Several fragments of Cucuteni B₂ (painted and unpainted, some of them with crushed shell and/or pebbles in the paste) and Cernavoda I_c (fine and semi-fine ceramics of fawn-brown, greyish-brown and blackish-grey colour; semi-fine and coarse ceramics with rich inclusions of crushed shell and/or pebbles featuring

² Grigoraș 2018; 2019; Grigoraș et alii 2018; Sirbu et alii 2020, p. 281–282.

³ Sirbu et alii 2011, p. 11.

⁴ Grigoraș et alii 2018, p. 71–73.

⁵ Grigoraș et alii 2018, p. 71–73.

decoration made with string and/or incisions/alveoli laid out, exclusively, on the rim) were identified.

In square B, near the SE boundary of C275 and partially included in the back-fill of the Bronze Age ditch, a concentration of ceramic fragments was identified at a depth of 2.11–2.20 m, compactly lying over a small area (Pl. V/1). From these ceramic fragments it was possible to refit a storage vessel (Pl. V/2) with the following dimensions: H = 54 cm; Dmax. = 51 cm; Dmouth = 25 cm; Dbottom = 19 cm. It was most likely broken during the fire that caused the destruction of C295. The vessel has a flat base; tapering lower body and rounded, semi-globular upper part; straight, short neck; rounded and slightly flared rim. In the area of the maximum diameter, it has a cone-shaped, vertically perforated handle.

Another vessel found in C295 and worth mentioning is the bowl identified in square D, at a depth of 2.44 m (Pl. V/3–4). The characteristics of this vessel correspond to the criteria that pleaded for establishing and defining the so-called “Monteoru variant” ceramic category: unrestricted shape, carinated body, taller lower part, flared rim, plastic decoration applied on the line of the maximum diameter, consisting of two conical protrusions next to each other – *paired buttons*; the outer surface is covered with fine, polished engobe.

C295a (Pl. III; VI; X/2) stands out in square A and partly in square B as an area with a higher density of archaeological material identified immediately below the Bronze Age level at depths of ca. 2.00 m (SW) and 2.11 m (NE). C295a lies slightly above the level occupied by C295, in the immediate vicinity of its SE boundary. To follow the stratigraphic relationship between the two features, a 25 cm wide baulk was left, drawn (SE–NV) through the areas occupied by them (squares A–D).

The archaeological materials belonging to C295a occupies a 1.40 × 1.00 m quasi-rectangular area.

The investigation of C295a led to the identification of a large number of ceramic fragments. In the central area of this cluster, ceramic fragments from a very large vessel decorated on the rim with rows of wide and deep alveoli/indentations were identified. Fragments from the upper part of the vessel were found in a secondary position. Another element of plastic decoration consists in an additional highly profiled band applied to the vessel neck, right under and along the rim thereof, subsequently impressed by fingertip (Pl. V/5–6).

A part of a *Bovidae* skull with the mandible in a secondary position was found next to the vessel (Pl. VI/2). From the same cluster of archaeological materials, several unburnt osteological fragments were recovered.

During the research of C295a very few fragments of burnt adobe were identified.

The positioning of C295a in the immediate vicinity of features 295 (burnt Eneolithic structure) and 275 (ditch attributed to the Bronze Age) and the identification of

archaeological materials in secondary positions in the cluster belonging to C295a led us, initially (2019), towards a possible explanation of how C295a was formed. Thus, in that intermediate stage of the research, it was considered that the excavation of the ditch cutting through C295 could have led to the formation of a cluster such as that represented by C295a.

The completion of the research (2020) and the processing of archaeological materials revealed that the initial interpretation of C295a no longer stands. The insignificant amount of burnt adobe in C295a compared to the abundance thereof in C295, the presence of unburnt bones and the fact that no artifact was reconstructed from parts found in both contexts, are conclusive arguments in favour of distinct treatment thereof.

A similar dating of the two features could be ascertained on basis of the ceramic styles.

The research of feature 295a was completed during the 2019 season, at the 2.09 m (SW) –2.16 m (NE) depths, and the following year saw the recovery of the archaeological materials left in the baulk in the area occupied by the feature.

C296 (Pl. III; VII; X/2) is a circular shallow pit, ca. 1.10 m in diameter, identified in square B at a depth of about 2.28 m. At first it was delimited due to a concentration of flat stones and ceramic fragments found within the mentioned perimeter. Subsequently, during the emptying of the pit fill, differences could be noticed in the colour and pigmentation of the soil inside C296 compared to that around it. The back-fill is hard and of dark, fawn-brown colour, with pigmentation of fine “grains” of burnt clay and charcoal. It differs from the light-fawn soil with yellow-greenish hues of the layer in the SE part of the trench.

Feature 296 cuts the burnt out Eneolithic structure (C113), as well as the layer beneath it, consisting of soil in which many osteological animal remains were identified (Pl. 10/2). To the SE, C296 is sectioned by C229 (pit attributed to the Iron Age).

The archaeological materials of C296, highly fragmented and reduced in quantity, belong to the same cultural span that covers the Eneolithic deposits at *Gruia Dării*.

The C296 fill was emptied out during the 2019 season. Small ceramic fragments and osteological remains were identified up to a depth of 2.37 m. The dark fawn-brown soil and dense charcoal pigmentation, without other archaeological material, continues to the maximum depth of 2.40 m.

C113 (Pl. III; VIII–IX; X/1–2) represents the remains of a burnt structure identified at depths of 2.24 m in square B (SE) and 2.59 m in square C (NW). The context was visible along the NE section of S11, covering in compact manner an area of approx. 3.50 m length and variable width of ca. 60–70 cm. As with C295, the C113 destruction layer sits on

a slope with a level difference of ca. 35 cm between the SE and NW boundaries of the feature.

The destruction level identified in squares B and C is documented on the NE section of S11 (Pl. IX/2). Remains of the same structure were first identified during the 2005–2006⁶ on 3.40×1.20 m in the south-western part of the neighbouring S13 (Pl. X/1). Thus, the dimensions of the area occupied by C113, as determined and noted in S11 and S13 are, at this stage of the research, approx. $3.40\text{--}3.50$ m long and approx. $2.30\text{--}2.40$ m wide. Given that the remains belonging to C113 continue beyond the SE limit of S13, extended research in this area will certainly led to a change in the dimensions of the abovementioned perimeter and to determining the total extent of the area covered by this feature.

Feature 113 is in the form of an area covered with “clumps” of burnt adobe, many of which retain visible and well-preserved wattle imprints (Pl. IX). Among and in addition to these massive pieces of burnt adobe, various archaeological materials were discovered, the most numerous being ceramic fragments and faunal osteological remains.

The surface covered with deposits ascribed to C113 is sectioned by several features (Pl. X/2): C293 (Bronze Age pit), C275 (Bronze Age ditch – see above), C296 (Eneolithic pit) and C229 (Iron Age pit). In all the features sectioning C113, archaeological materials typical of the affected Eneolithic level was discovered.

Between features 113 and 295 there is a narrow space of ca. 70–80 cm variable width in which no burnt adobe fragments were identified and very little archaeological materials was found, all in advanced state of fragmentation. This quasi-hiatus in the deposits between the two features led us to treating them as separate structures. The stratigraphic relationship led to the outlining of a more coherent and useful picture, in terms of understanding the organization of the Eneolithic settlement at Pietroasa Mică – *Gruia Dăriei*. By correlating the data acquired from the examination of combined research units (S11–13: total area of ca. 50 sqm) we obtained a wider image. It provides the possibility of noting and reinforcing important information on the layout of the dwellings within the settlement and the possible functional relationships existing between them and other various structures.

Much fewer compared to C295, the archaeological materials found in C113 are similar to those from the Eneolithic features documented so far at Pietroasa Mică.

The research was finished during the 2020 season, at the ca. 2.45 m (SE) and 2.80 m (NW) depths, where the archaeological sterile soil begins.

C297 (Pl. XI–XII) is a pit identified immediately below the burnt structure C295, at depths of ca. 2.75–2.81 m. About two thirds of its back-fill was removed during

research, as this feature was identified towards the western corner of S11. C297 has an oval shape with dimensions of ca. 1.07×0.70 m. In the upper part of the pit there was a massive stone block, ceramic fragments, powdery pieces of burnt adobe of scarlet or yellowish-reddish colour and areas of charcoal pigmentation. Several ceramic pieces, highly fragmented, were found beneath these materials. Fewer ceramic fragments appeared in the lower part of the pit, however with increased amounts of heavily burnt adobe. As the fill was emptied out, a significant widening of the lower part of the pit was observed in comparison to the upper area. The maximum depth of the pit is ca. 0.90 m, most of which being excavated in the archaeological sterile soil. Among the archaeological materials identified in the pit fill there a millstone, flint flakes and tools, as well as a fragmentary zoomorphic figurine.

C298 (Pl. XII/1) is a group of four large stones laid out circularly, on an area with ca. 0.54 m diameter. C298 was identified at a depth of 2.71 m and lies immediately below the level of C295, on the NW limit of S11.

C299 (Pl. XII–XIII) is a circular pit with ca. 0.40 m diameter located at the NE limit of square D. It was identified at a depth of 2.87 m and differs from the sterile soil (yellow-reddish) where it was observed by the grey-greenish colour of the fill. The bottom of the pit reached 3.05/3.08 m of depth, only four very small ceramic fragments having been found in the fill.

C300 (Pl. XII; 13/2) is a pit positioned approximately in the centre of S11, in square C, at 2.63 m depth, being partially observed in the SW-NE baulk. The feature was identified on the archaeological sterile soil level, from which it differs by the darker colour of the fill. At the top, C300 is ovoid in shape, with ca. 0.63×0.47 m dimensions. The context was closed by a medium-sized stone at a depth of 2.50 m. While the pit fill was emptied out, a gradual narrowing of the pit was noted, starting at the depths of 2.75/2.78 m, down to a diameter of ca. 0.22 m. At the bottom of the pit, at ca. 2.90 m depth, another flat, medium-sized stone was found.

C301 (Pl. XII–XIII) is a circular shallow pit with the diameter of ca. 0.42 m. C301 was identified after disassembling the SW-NE baulk, when it appeared between ca. 2.50 m and 2.98 m of depths. C301 lies beneath C295 and very close to C299 and C300. In the pit fill, several large ceramic fragments made of fine paste from a Cucuteni vessel with a scarlet-coloured outer surface were found.

C302 (Pl. XII–XIII) is a circular pit with ca. 0.50 m. diameter. C302 was identified after disassembling the baulks. C302 was noticed on the sterile soil level, below feature 295, at ca. 2.75 m depth and it reached 3.06 m.

⁶ Sîrbu *et alii* 2011, p. 19.

STRATIGRAPHY

General stratigraphy of S11 (Pl. XIV/1)

Between 0 m–0.12/0.18 m: at present greyish-black, crumbly topsoil containing archaeological materials;

Between -0.12/0.18 m–1.28/1.65 m: thick Second Iron Age depositions in which five levels have been identified reflecting the occupational dynamics on the hillock (*grui*) in that period⁷;

Between -1.28/1.65 m–1.78/2.35 m: archaeological deposition consisting of two levels corresponding to the Early and Middle Bronze Age;

Between -1.78–2.08 m (SE) and 2.44–2.78 m (NW): deposition consisting of two levels attributed to the Late Eneolithic;

Below -2.08 m (SE) and -2.78 m (NW): yellowish-reddish, miry, hard clay free of anthropic materials, archaeologically sterile.

Stratigraphy of Eneolithic depositions in S11 (Pl. XIV–XVII)

The archaeological Eneolithic depositions are of variable thickness, with a maximum range of ca. 35–45 cm, being identified between -1.78/-2.26 m (SE) and -2.40/-2.90 m (NW). They are lying on a slope descending, on average, by ca. 35–55 cm from SE to NW and by 16–21 cm from SW to NE.

In the SE, SW and NE profiles of S11, two levels with Eneolithic depositions can be observed, labelled (from top to bottom) with the initials N.1 (upper Eneolithic level) and N.2 (lower Eneolithic level). The same stratigraphic sequence was previously documented in S12⁸.

The upper Eneolithic level (N.1) forms a relatively loose, brown-grey layer with burnt adobe and coal-coloured pigmentation. A large amount of diverse archaeological materials was identified: ceramic fragments (many of which are large); stone; bone and antler tools; massive pieces of burnt adobe; faunal osteological remains and stones. The average thickness of this layer is 20–22 cm maximum. Features 113, 295 (burnt structures), 295a (“concentration” of archaeological material) and 296 (pit) were attributed to this level (Pl. 3/1; 10/2).

The lower Eneolithic level (N.2) differs in colour and texture from the upper one, being compact and hard with a greyish-fawn colour, with very few burnt adobe pigments. The analysis of the archaeological materials identified on this level shows the presence in smaller amounts of fine and/or painted Cucuteni pottery and an increased number of black or greyish-black ceramic fragments. The average

thickness of this layer is ca. 20–24 cm. Towards the bottom of this level, C298 (group of stones) was identified, as well as five pits (C297; C299–302) excavated mostly in the archaeological sterile soil (Pl. XII).

Considering that the C113 and C295 burnt structures continue into the NE and SW sections of S11 respectively, we find it useful to present a brief description of the stratigraphy of the Eneolithic depositions noted on these profiles:

Stratigraphy of the SW section (Pl. XV; XVII/2)

The stratigraphic contact level between the base of the deposits attributed to the Bronze Age and the upper part of the Eneolithic levels lies between -1.65/-1.78 m (SE) and -2.35/-2.44 m (NW).

The upper Eneolithic level (N.1) ranges from -1.78/-1.88 m (SE) to -2.44/-2.60 m (NW), with a variable thickness and a maximum width between 12 and 24 cm. Feature 295 was identified on this level. The length of C295 noted on this profile is ca. 2.86 m. It is sectioned by Features 275 (Bronze Age) and 204 (Iron Age).

The lower Eneolithic level (N.2) has a variable thickness between 14 and 22 cm. N.2 is cut by the same later features sectioning N.1. A pit marked C297 has been identified on this level. This feature continues into the section and “cuts across” the sterile soil to a depth of ca. 3.66 m. The archaeological sterile soil begins at depths of 2.08 m (SE) and 2.78 m (NW).

Stratigraphy of the NE section (Pl. XIV/2; XVI)

The stratigraphic contact level between the base of the Bronze Age deposits and the upper part of the Eneolithic levels is located between -1.90/-1.98 m (SE) and -2.30/-2.40 m (NW).

The upper Eneolithic level (N.1) lies between -1.98/-2.10 m (SE) and -2.40/-2.60 m (NW), with a variable thickness and a maximum width between 12 and 20 cm. Feature 113 was identified on this level. It covers the entire length of the profile (ca. 4.80 m), being sectioned by features 275, 293 (Bronze Age) and 229 (Iron Age).

The lower Eneolithic level (N.2) varies in thickness between 20 and 24 cm. It is affected by the same features sectioning the upper level (N.1). Immediately below this level, at depths of 2.26 m (SE) and 2.90 m (NW) the archaeological sterile soil begins.

ARCHAEOLOGICAL MATERIALS

The Eneolithic archaeological materials discovered in S11 during 2019–2020 are numerous and diversified morphologically, typologically and functionally: predominantly ceramic fragments and a few whole or

⁷ Sîrbu *et alii* 2011, p. 12, pl. 30/1–7; 31.

⁸ Grigoraş *et alii* 2018.

wholly refitting vessels; zoomorphic and anthropomorphic plastic art; perforated loom weights; stone, bone and antler tools; adornments and/or pendants; miscellaneous objects of uncertain functionality; animal bones and a very large quantity of burnt adobe. The research confirmed earlier observation on the associations of the Eneolithic deposits at *Gruia Dării*; in S11 was also observed the mixture of Cucuteni B₂ (painted and unpainted) and Cernavoda I_c ceramic fragments (Pl. XVIII) – both those with crushed shell and/or pebbles present in the paste and decorated with notches and/or alveoli made on the rim, and fine black, greyish or brownish-fawn ceramics.

THE FAUNAL ASSEMBLAGE

Materials and methods

The animal bones were studied in the Laboratory of Archaeozoology of the “Vasile Pârvan” Institute of Archaeology, using the comparative anatomy collection and the required equipment (callipers, magnifying glasses etc). We tried to identify the animal skeletal remains as close as possible to the species level. The fragments that could not be identified to that level (long bone shafts, skull, ribs and vertebrae fragments) were assigned to two size classes: Medium Sized Mammals and Large Sized Mammals (Tab. 2). The relative abundance of the faunal collection was quantified as NISP (Number of Identified Specimens) and as MNI (Minimum Number of Individuals)⁹. The measurements were taken according to von den Driesch¹⁰ (see the Biometry annex). The observed bone modifications (cut marks, burning, tool making or animal activity) were registered also (Tab. 3).

Description of the material

The archaeozoological material was distributed among the two cultural layers (N.1 and N.2), as well as among the different archaeological features (C133, C295, C295a and C296) (Tab.1).

Domestic animals provided the most bone remains (95.19% for N.1 and 85.91% for N.2). For both cultural layers, as NISP, ovicaprines (51.60% for N.1 and 44.12% for N.2) and cattle (32.35% for N.1 and 35.88% for N.2) predominate, with a higher share for the ovicaprines. These two species are followed at a distance by pigs (5.08% for N.1 and 2.35% for N.2) and dogs (6.15% for N.1 and 3.53% for N.2), the latter having a slightly higher percentage.

Given that the skeletal parts of the main domestic animals (sheep, goat, cattle and pig) are represented in normal proportions, we conclude that they were butchered and consumed within the site (Tab. 4).

As most of the identified bones come from two main groups (ovicaprines and cattle), we consider that the unidentified bone remains from the medium and large categories can also be attributed to these taxa. In fact, the percentages between the two categories of non-identifiable fragments follow the same pattern as those identified.

Ovicaprines and cattle are clearly dominant as number of remains (NR) (more than 80% in each layer) among domestic animals. It seems that people were mainly interested in their secondary products (milk, wool, perhaps draught/burden), as it is shown by the low number of young animals that were slaughtered for meat before they reached the first year (under 20%). In layer 1, two large *Bos taurus* horn cores were discovered from different male individuals. Within the ovicaprines category, two *Capra hircus* and *Ovis aries* adult individuals were identified based on cranial fragments.

Dog bones indicate small animals, comparable to foxes. Most of the elements come from the head and spine, followed by a smaller amount of fragmentary long bones. There are cut marks on a dog's atlas caused by the disarticulation of the skull – decapitation, probably produced during the butchering of the animal for consumption.

Pigs are almost similar as NR and MNI to dogs. In both layers, adult individuals are prevalent (about 60%) over the very young ones. Among the adults from N.1, an adult male and an adult female were identified, based on their upper canines.

Hunting is very poorly represented as NISP and number of species. Red deer, fox, hare, and large unidentified bird bones the size of a goose or bustard are present on both cultural layers. The bird bones could not be precisely identified, as they consist mainly in long bone shafts. Except for antler fragments, red deer is represented by two metatarsals and a scapula, all three fragmented. From the fox we have elements from the head and metapodials (parts that can remain attached to the fur), but also fragments of pelvis, scapula and humerus. This fact can indicate that the foxes were butchered on the site. There are no clear indications about their consumption. The hare is represented by two ulnae and a pelvis.

Roe deer is present only in layer 1 (an antler fragment) and wild boar only in layer 2 (a canine and a metacarpal). Also, in layer 2 there is a rodent humerus, possibly from the European ground squirrel.

Bone modifications

The most common anthropic modifications are the burning traces (particularly in layer 1) followed by cut marks and tool making. Among the modifications produced by animals, on the first place are the carnivorous tooth marks, most likely dogs, given their presence in the bone assemblage. Two fragments with carnivore digestive

⁹ Klein, Cruz-Urbe 1984; Lyman 1994.

¹⁰ von den Driesch 1976.

corrosion were also identified, and a fragment of red deer antler with traces of rodent tooth marks (Tab. 3). There are fresh breakages on red deer and roe deer antlers, as well as cut marks, indicating their initial preparation for tool making.

CONCLUSIONS

In the NW area of the site, S11 documented rich Eneolithic deposits. Ten archaeological features were identified: the remains of two burnt structures (C113 and C295); a “cluster” of archaeological material (C295a); a group of circularly laid stones (C298) and six pits and/or depressions (C296–297 and C299–302). During 2019–2020, research continued and was completed on the pre- and protohistoric features that sectioned the Eneolithic levels and structures: C293 (pit identified in square C and sectioning C113), C275 (foundation ditch observed along the entire length of the NE–SW axis of S11 and “cutting across” C113 and C295) – both attributed to the Bronze Age; C204 (square D) and C229 (square B) – pits attributed to the Iron Age and sectioning C295, C113 and C296 respectively.

Within the Eneolithic deposit in S11, stratigraphic observations revealed the existence of two levels (N.1 – upper Eneolithic level and N.2 – lower Eneolithic level), differentiated both by the anthropic content and by the morphological and color characteristics of the soil. The variable thickness of the Eneolithic levels has an average range of ca. 35–45 cm (N.1: 20–22 cm; N.2: 20–24 cm). Features 113, 295, 295a and 296 were identified in N.1 and features 297–302 were observed at the base of N.2.

Numerous and varied (morphologically, typologically and functionally) archaeological materials were found in the Eneolithic deposits of S11: ceramic fragments (Cucuteni B₂ and alike Cernavoda I_c); whole or completely refitting vessels; zoomorphic and anthropomorphic plastic art; perforated loom weights; tools made of hard materials (stone, bone and antler), adornments and/or pendants, as well as other pieces of uncertain functionality. The Eneolithic levels also contained faunal osteological remains, scattered deposits or agglomerations of stones and a very large amount of burnt adobe, all mixed up with the mentioned artifacts.

Archaeozoological determinations indicate that animal husbandry is the main practice in faunal exploitation. Among domestic animals, sheep/goat and cattle are the most important livestock, followed by dog and domestic pig. There are indications for the consumption of dog.

Hunting was not a significant activity compared with domestic animal breeding. The hunted species are the wild boar, red deer, roe deer, fox, hare, possibly ground squirrel and big sized wild birds, as the goose or the bustard.

The animal remains shows evidence of typical fresh bone breakage or green fractures, butchery marks and part of them are burned in different degrees. A significant amount is gnawed by carnivores, most probably dogs. All these are indications that the faunal assemblage represents typical domestic waste.

Bone and antler craft is attested, in the form of finite bone objects and antler fragments in course of preparation.

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Taxon	Layer 1 (C 113)		Layer 1 (C 295)		Layer 1 (C 295a)		Layer 1 (C 296)		Layer 1 (Cultural layer)		Layer 1 Total		Layer 2	
	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%
	MNI		MNI		MNI		MNI		MNI		MNI		MNI	
<i>Bos taurus</i>	30	41.10	29	65.91	25	58.14	4	5.97	33	22.45	121	32.35	61	35.88
	2	22.22	3	37.5	2	28.57	1	11.11	2	16.66	10	22.22	3	17.65
<i>Ovis / Capra</i>	31	42.47	11	25	14	32.56	51	76.12	86	58.50	193	51.60	75	44.12
	4	44.44	2	25	2	28.57	4	44.44	3	25	15	33.33	6	35.29
<i>Sus domesticus</i>	5	6.85	-	-	2	4.65	1	1.50	11	7.48	19	5.08	4	2.35
	1	11.11	-	-	1	14.28	1	11.11	2	16.66	5	11.11	1	5.88
<i>Canis familiaris</i>	6	8.22	1	2.27	-	-	5	7.46	11	7.48	23	6.15	6	3.53
	1	11.11	1	12.5	-	-	1	11.11	1	8.33	4	8.88	1	5.88
Total domestics	72	98.63	41	93.18	42	95.36	61	91.05	141	95.92	356	95.19	146	85.91
	8	88.89	6	75	5	71.44	7	77.78	8	66.68	34	75.58	11	64.72
<i>Cervus elaphus</i>	-	-	-	-	1	2.32	-	-	2	1.36	3	0.80	6	3.53
	-	-	-	-	1	14.28	-	-	1	8.33	2	4.44	1	5.88
<i>Sus scrofa</i>	-	-	-	-	-	-	-	-	-	-	-	-	2	1.17
	-	-	-	-	-	-	-	-	-	-	-	-	1	5.88
<i>Capreolus capreolus</i>	-	-	-	-	-	-	-	-	1	0.68	1	0.27	-	-
	-	-	-	-	-	-	-	-	1	8.33	1	2.22	-	-
<i>Vulpes vulpes</i>	-	-	-	-	-	-	6	8.95	2	1.36	8	2.14	3	1.76
	-	-	-	-	-	-	2	22.22	1	8.33	3	6.66	1	5.88
<i>Lepus europaeus</i>	1	1.37	-	-	1	2.32	-	-	-	-	2	0.53	1	0.58
	1	11.11	-	-	1	14.28	-	-	-	-	2	4.44	1	5.88
Rodentia (<i>Spermophilus?</i>)	-	-	-	-	-	-	-	-	1	0.68	1	0.27	-	-
	-	-	-	-	-	-	-	-	1	8.33	1	2.22	-	-
Aves indet.	-	-	3	6.82	-	-	-	-	-	-	3	0.80	12	7.05
	-	-	2	25	-	-	-	-	-	-	2	4.44	2	11.76
Total wild	1	1.37	3	6.82		4.64	6	8.95	6	4.08	18	4.81	24	14.09
	1	11.11	2	25		28.56	2	22.22	4	33.32	11	24.42	6	35.28
Total identified	73		44		43		67		147		374		170	
	9	100	8	100	7	100	9	100	12	100	45	100	17	100
Unidentified medium sized mammals	69	-	34	-	54	-	30	-	105	-	292	-	178	-
Unidentified large sized mammals	57	-	44	-	27	-	4	-	91	-	223	-	143	-
Total unidentified mammals	126	-	78	-	81	-	34	-	196	-	515	-	321	-
TOTAL	199	-	122	-	124	-	101	-	343	-	889	-	491	-

Table 1. Taxonomical distribution of animal remains as NISP (Number of Identified Specimens) and MNI (Minimum Number of Individuals) for the two layers and the features of N.1.

Element	Unidentified medium sized mammals							Unidentified large sized mammals						
	Layer 1 (C 113)	Layer 1 (C 295)	Layer 1 (C 295a)	Layer 1 (C 296)	Layer 1 (Cultural layer)	Total Layer 1	Layer 2	Layer 1 (C 113)	Layer 1 (C 295)	Layer 1 (C 295a)	Layer 1 (C 296)	Layer 1 (Cultural layer)	Total Layer 1	Layer 2
Cranium							1		5	9		7	21	
Vertebrae	15		3	2	5	25	5	5	6			5	16	21
Ribs	18	12	11	15	23	79	50	31	12	11	1	41	96	55
Long bone shaft	36	22	40	13	77	188	122	21	21	7	3	38	90	67
Total	69	34	54	30	105	292	178	57	44	27	4	91	223	143

Table 2. Distribution of the unidentified bone fragments distributed among the two size classes.

Bone modification	Layer 1 (C 113)	Layer 1 (C 295)	Layer 1 (C 295a)	Layer 1 (C 296)	Layer 1 (Cultural layer)	Total Layer 1	Layer 2
Cut marks	1	1	1	-	-	3	2
Bone tools	-	1	2	-	-	3	-
Burning	4	12	8	2	5	31	4
Carnivore tooth marks	8	5	2	2	11	28	18
Carnivore digestion	1	-	-	-	1	2	
Rodent tooth marks	-	-	-	-	-	-	1

Table 3. Number of bones presenting particular human and animal modifications.

Element	Bos taurus							Ovis / Capra						
	Layer 1 (C 113)	Layer 1 (C 295)	Layer 1 (C 295a)	Layer 1 (C 296)	Layer 1 (Cultural layer)	Total Layer 1	Layer 2	Layer 1 (C 113)	Layer 1 (C 295)	Layer 1 (C 295a)	Layer 1 (C 296)	Layer 1 (Cultural layer)	Total Layer 1	Layer 2
Horn core	1	1	3	1	2	8	2					1	1	1
Cranium and upper teeth	1	4	6		2	13	9	2	1	1	2	9	15	10
Mandible and lower teeth	6	6	1		3	16	9	7	3	1		9	20	19
Hyoid														1
Atlas		1			1	2								
Axis		1				1					2		2	
Vertebrae			2		1	3	5				7	10	17	
Sacrum	2					2								
Sternum					1	1								
Scapula	3	4	1		6	14	6	4		1	2	3	10	9
Humerus	3	1	1		1	6	2	1		1	1	5	8	6
Radius		2		1	1	4	4	3		2	3	8	16	5
Ulna	1		2	1	1	5	4				1	2	3	2
Carpal/Tarsal		1	2		2	5	4							
Metacarpal	1		1		2	4		1		1	9	6	17	2
Coxal	5			1	2	8		1	1		6	6	14	4
Femur		1			1	2	1	2		2		1	5	2
Tibia	2		2		1	5	2		2	3	3	5	13	4
Astragalus	1	2			1	4	3	1	1		2		4	
Calcaneus			1		1	2	1				2	1	3	
Cubonavicular			1			1	1				2		2	
Metatarsal	2	3	2		1	8	2	6	1	2	6	13	28	5
Phalanx 1		1			1	2	2	3	2		1	5	11	5
Phalanx 2	2				1	3	4				2	2	4	
Phalanx 3		1			1	2								
Total	30	29	25	4	33	121	61	31	11	14	51	86	193	75

Table 4. Body part distribution of cattle and ovicaprids anatomically identifiable bone remains from layers 1 and 2.

BIOMETRY

<i>Bos taurus</i> – horn core	45	46
Layer 1 – C 133	66.69	58.45

<i>Bos taurus</i> – mandible	7	8	9	10L	10B	15b
Layer 1 – C 133	-	88.52	-	38.24	16.94	-
Layer 1 – C 295	158.59	100.68	83.21	-	-	57.96

<i>Bos taurus</i> – scapula	GLP	LG	BG
Layer 1 – C 133	76.16	64.63	56.01
Layer 1 – C 133	-	-	65.38

<i>Bos taurus</i> – humerus	BT
Layer 1 – C 133	80.8

<i>Bos taurus</i> – Layer 1 – C 295	BFp	Bp	Bd
Radius	82.41	87.88	-
Radius+ulna	-	-	85.63

<i>Bos taurus</i> – astragalus	GLI	GLm	DI	Dm	Bd
Layer 2	71.41	64.76	40.73	40.39	48.44
Layer 2	69.35	63.05	39.59	36.47	47.04
Layer 1	76.45	71.51	41.02	40.99	45.71

<i>Bos taurus</i> - centrotarsale	GB
Layer 1 – C 133	69.75

<i>Sus domesticus</i> - humerus	Bd
Layer 1 – C 296	38.73

<i>Sus domesticus</i> - pelvis	LAR	SH
Layer 1	39.84	27.19

<i>Canis familiaris</i> – upper P4	18L	18a-GB
Layer 1	19.36	10.18

<i>Canis familiaris</i> – mandible	4	5	11	12	13L	13B	14	15L	15B	17	19	23	24
Layer 1	86.8	81.9	28.7	25.2	19.9	8	18.3	8.2	6.1	10.4	16.1	118.9	119.6

<i>Canis familiaris</i> – atlas	Lad	BFcr	BFcd
Layer 2	13.13	32.2	24.37

<i>Vulpes vulpes</i> – maxilla	15	16	17	18	18a	19	20L	20B	21L	21B
Layer 1	57.24	14.53	43.64	14.84	6.2	12.59	11.16	11.56	4.95	8.59

<i>Vulpes vulpes</i> – mandible	4	5	6	7	9	10	12	13L	13B	14	19	20	23	24
Layer 1 – C 296	100.1	94.3	97.8	68.4	57.5	26.5	30.6	15	6.06	14.4	15.1	12.2	134.1	137.7

<i>Vulpes vulpes</i> – pelvis	LAR
Layer 1	15.43

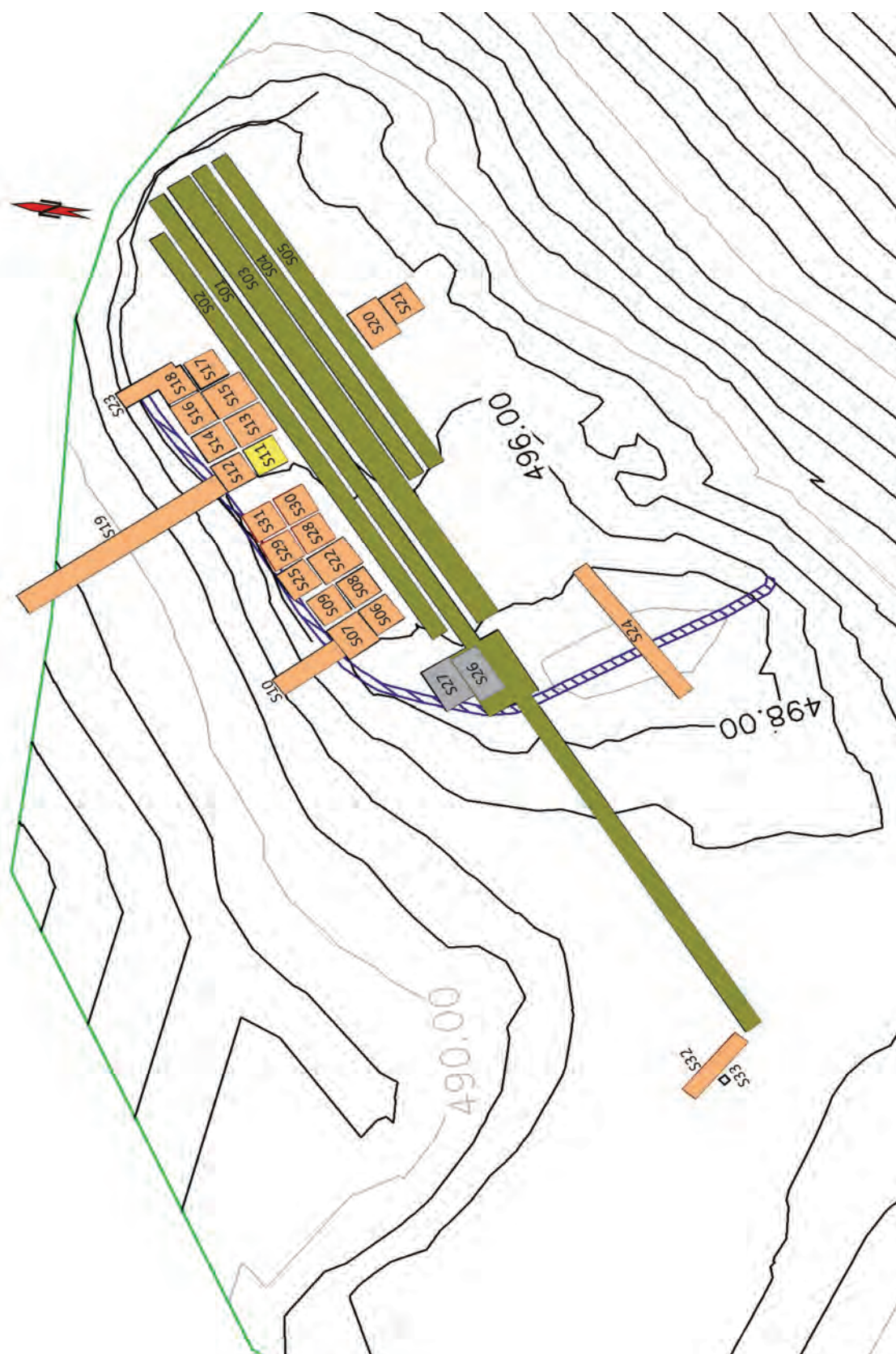


Plate 1. General plan of the trenches investigated between 1973 and 2020 (S11 is marked with yellow).



Plate II. Pietroasa Mică – Gruiu Dării: 1. Satellite view (2014); 2. Photo taken with a drone (S11 and S12 are marked with red).

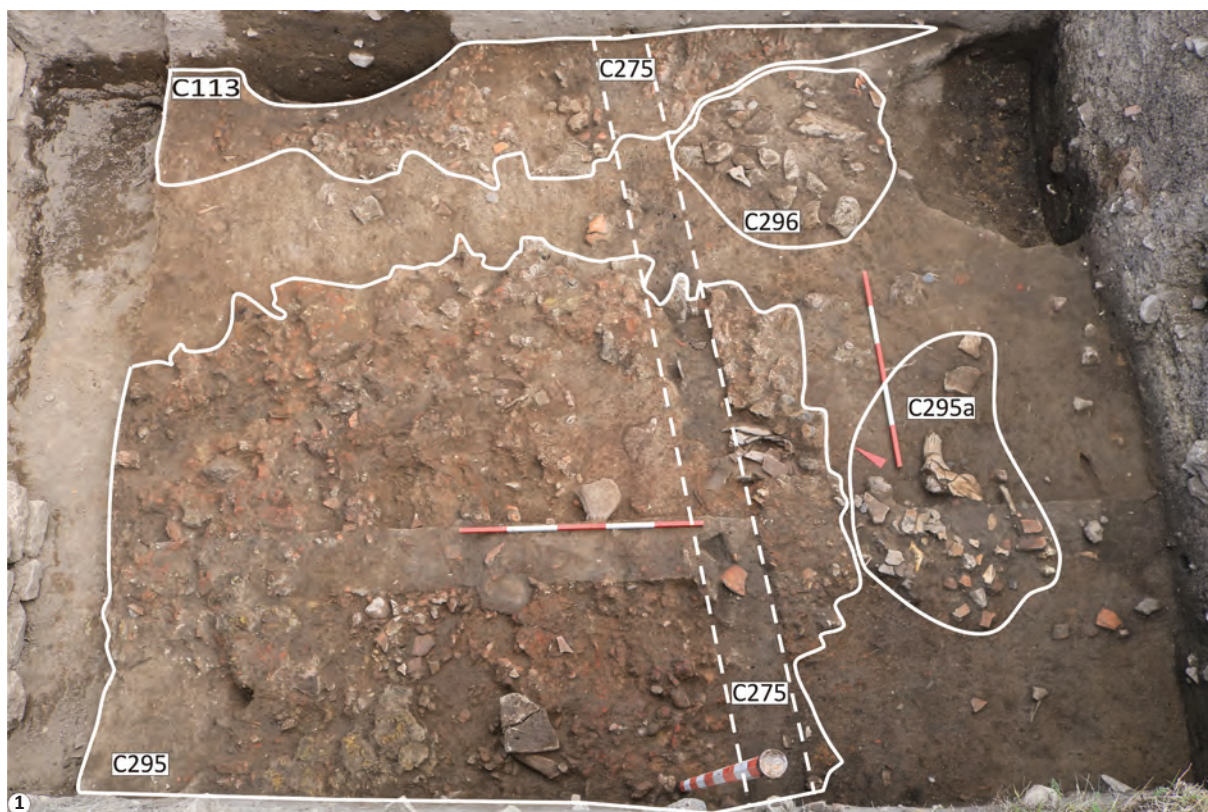


Plate III. S11 (the upper Eneolithic layer – N.1): Overviews of the features 113, 295, 295a, 296 (Eneolithic) and 275 (Bronze Age).

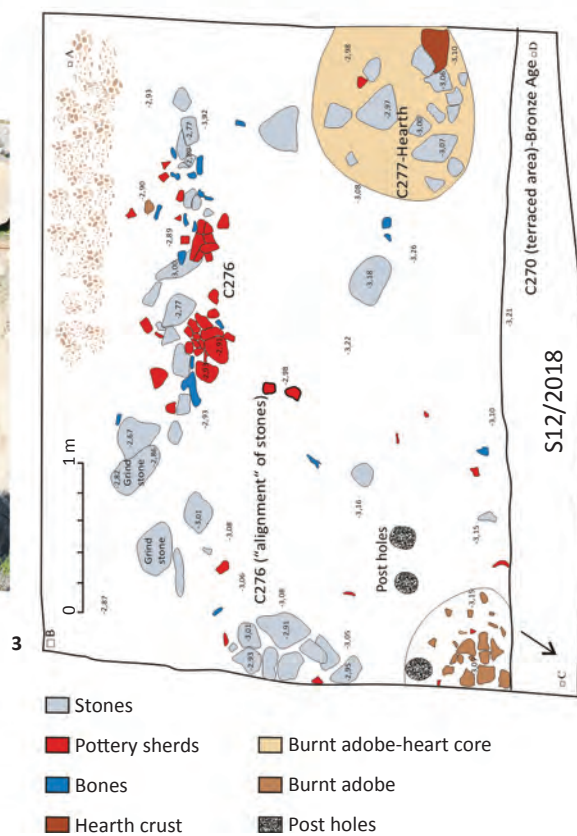


Plate IV. 1. Overview of S11 and S12: “alignments” of stones – C275 (S11) and C276 (S12) are delimited with yellow line; 2. Overview of the feature 276 (S12); 3. S12 plan.



Plate V. 1. Storage vessel: image at the time of discovery; 2. Storage vessel: image after restoration; 3–4. Cup decorated with so called “paired buttons”; 5–6. Fragment of vessel with additional band right under and along the rim, impressed by fingertip.



Plate VI. Feature 295a (area with a higher density of artifacts): 1. Overview; 2. Detail image: Bovidae bones.



Plate VII. Feature 296 (pit): 1–2. Overviews.



Plate VIII. Feature 113 (remains of burnt wattle and daub structure): 1–2. Overviews; 3. Detail image.



Plate IX. 1–2. Images of feature 113; 3–4. Burnt adobe (with wattle imprints) from C113 destruction level.

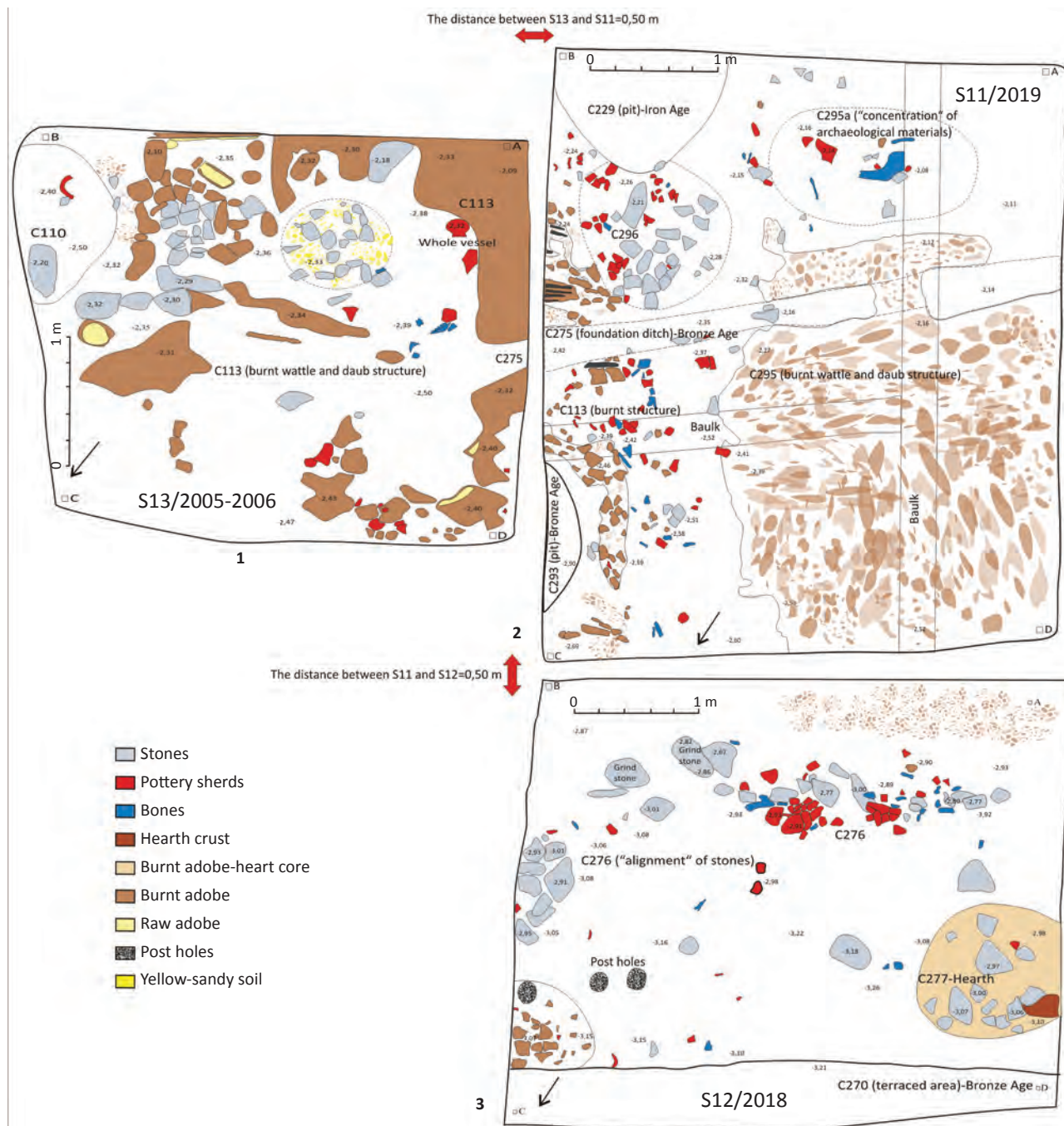


Plate X. Pietroasa Mică – Gruiu Dării. Plans of trenches S11–13.



Plate XI. Feature 297 (pit): Overviews.

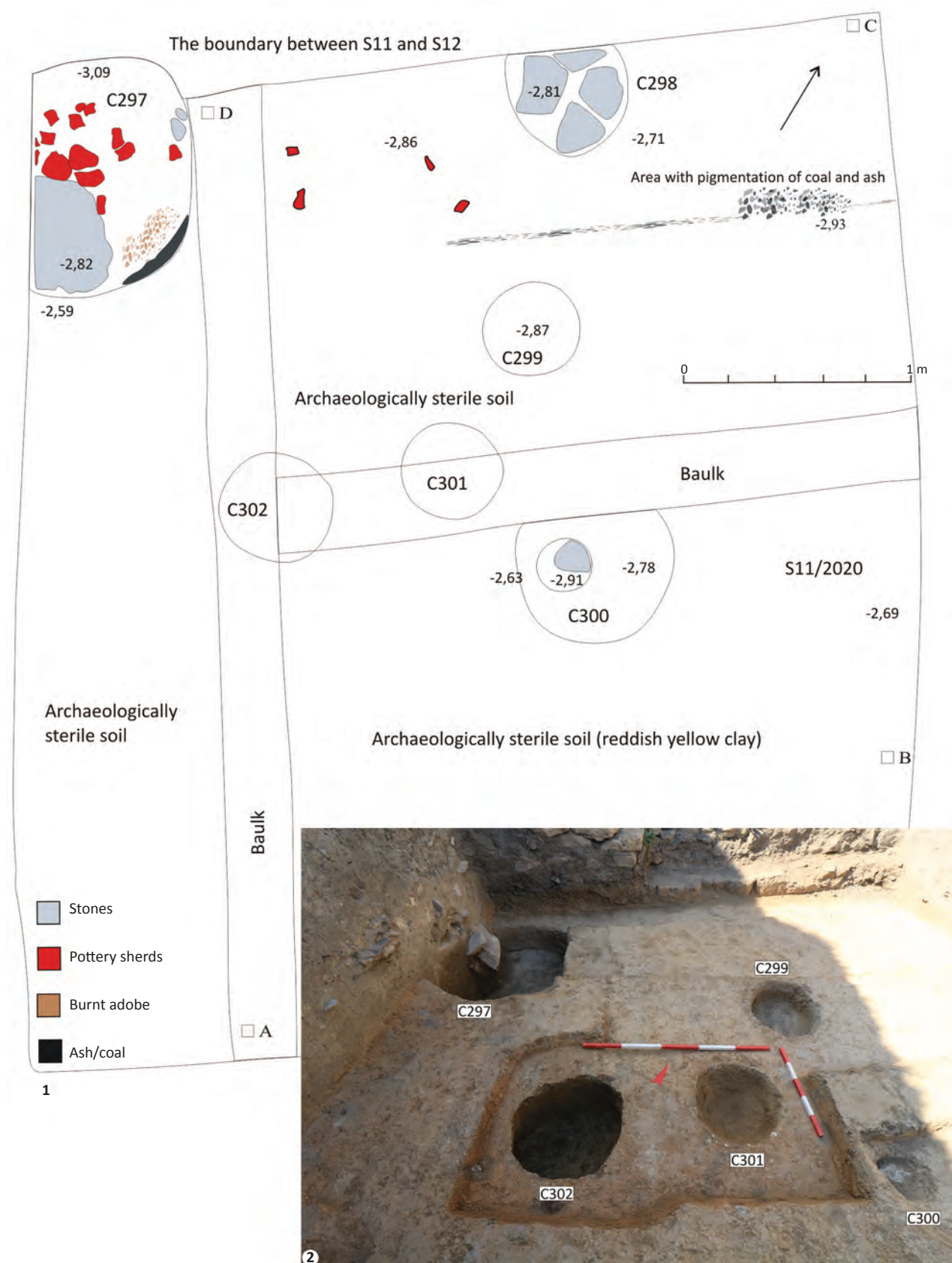


Plate XII. 1. S11 plan (2020 season; the lower Eneolithic layer – N.2): features 297–302; 2. Overview of the features 297; 299–302.

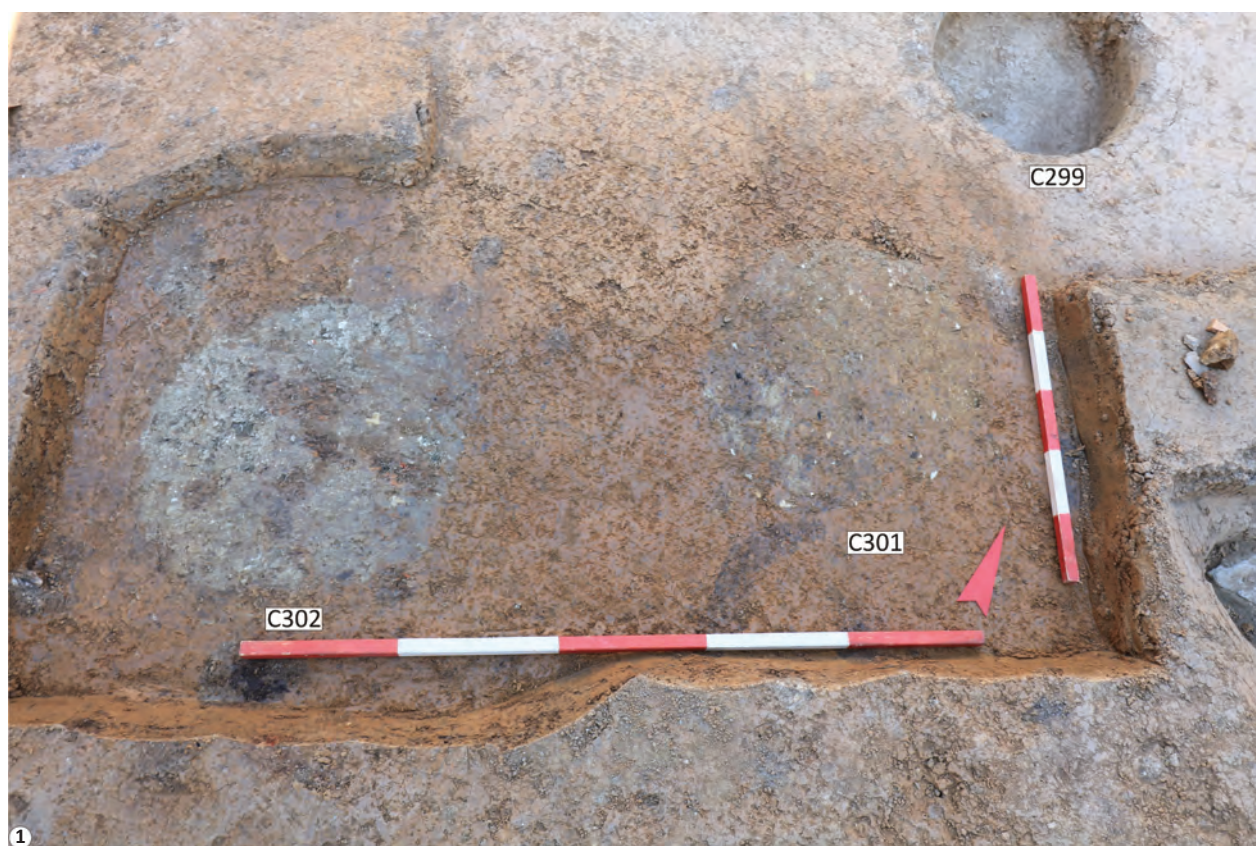


Plate XIII. Features 297; 299–302 (pits): Overviews of the features.



Plate XIV. 1. Overview of SW, SE and NE sections; 2. Image of the NE section.



Plate XV. SW section – the stratigraphic sequence: 1. Topsoil (vegetal); 2–5a. Iron Age; 6–7. Bronze Age; 8–9. Eneolithic; 10. Archaeologically sterile soil.

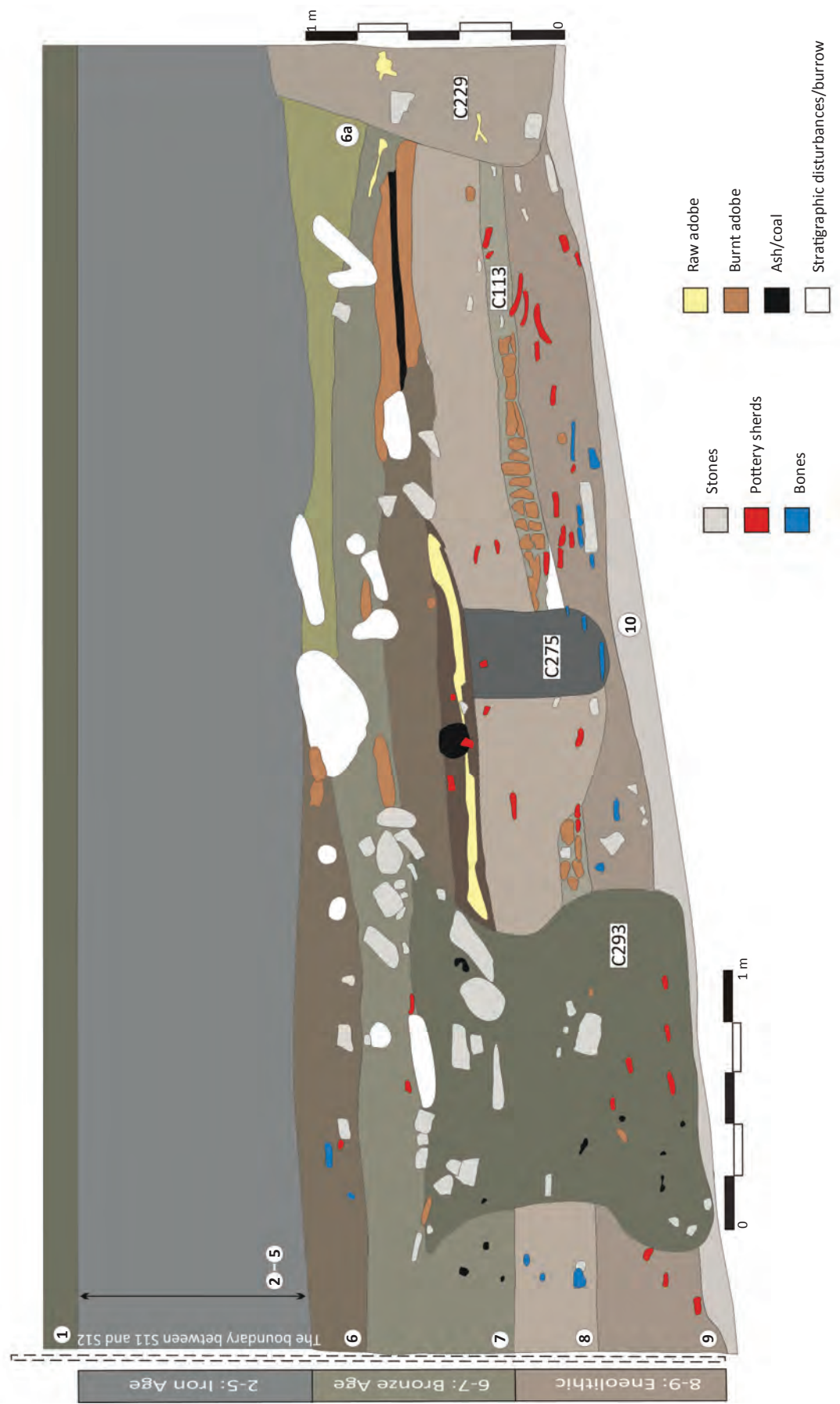


Plate XVI. NE section – the stratigraphic sequence: 1. Topsoil (vegetal); 2–5. Iron Age; 6–7. Bronze Age; 8–9. Eneolithic; 10. Archaeologically sterile soil.



Plate XVII. 1. Image of the SE section; 2. Image of the SW section.



Plate XVIII. Culturally relevant pottery sherds: 1–5. Cucuteni B (1–2. painted; 3–5. unpainted); 6–10. Cernavoda I (6–7. decorated on the rim; 8–10. fine, black or black-greyish ceramics).