

RECENT INVESTIGATIONS IN THE EARLY CHALCOLITHIC SETTLEMENT OF BALȘ – LA BRIGADĂ (ROMANIA)

BY

DIANA-MĂRIUCA VORNICU*, ANDREI ASĂNDULESEI**, DUMITRU BOGHIAN***,
FELIX-ADRIAN TENCARIU****

Abstract:

This paper presents the results of the investigations in the Early Chalcolithic settlement from Balș – La Brigadă. The site was surveyed in two instances: once in the 80s and recently in 2017 in order to assess its chronological framing, as a contribution to understanding the diachronic movement of the Precucuteni communities in the Bahlui River Basin. We estimated the surface of the site to cca 1 ha. The geomagnetic prospections helped at demarcating the eastern limits of the settlement. In the test trench were revealed the collapsed walls of a burnt dwelling, which allowed us to sample bones for the ¹⁴C dating of this specific building. The archaeological materials from the site, through their technology and typology, indicate an earlier beginning of the settlement than previously thought and probably the existence of at least two phases of inhabitation in the Early Chalcolithic. Artefacts and features from other periods were also revealed during the investigations.

Keywords: *Early Chalcolithic Precucuteni culture; geomagnetic survey; chronological and phase framing; pottery technology; lithic assemblage; anthropomorphic and zoomorphic representations.*

The emergence of the Chalcolithic inhabitation in the Bahlui River basin in the first half of the Vth millennia BC is considered to be marked by the spread of the Precucuteni - Trypillia A communities. Of the 34 known Early Chalcolithic settlements, 13 have a more or less precise chronological framing¹. Only the site from Târgu Frumos was investigated in an extensive manner, being the only settlement for which ¹⁴C dating were obtained: 5830±100 BP², 5590±40 BP (Poz 84428), 5490±30 BP (Poz 84429) and 5480±40 BP (Poz 84427)³.

In this scarcity of data, it is difficult to understand the diachronic flow of the beginning of the Chalcolithic in the Bahlui basin; thus, a systematic work for a proper chronologic assessment of all sites is needed. In this context, a thorough investigation was initiated in the Valea Oii⁴ basin, where only four settlements belonging to the Early Chalcolithic are recorded: Boureni – *Bejeneasa*, Balș – *Bejeneasa I/La Brigadă*, Balș – *Valea Părului II-III*, Băiceni – *Pod*⁵. One of them – Balș – *Bejeneasa I/La Brigadă* – constitutes the subject of our most recent research.

* Institute of Archaeology, Romanian Academy, Iași; mariucav@gmail.com.

** Interdisciplinary Research Department-Field Science, Arheoinvest Platform, "Alexandru Ioan Cuza" University, Iași.

*** Faculty of History and Geography, "Ștefan cel Mare" University, Suceava.

**** Interdisciplinary Research Department-Field Science, Arheoinvest Platform, "Alexandru Ioan Cuza" University, Iași.

¹ VĂLEANU 2003: 135.

² URSULESCU, BOGHIAN, COTIUGĂ 2005: 220.

³ The last three listed dates were recently obtained through the PN-II-PT-PCCA-2013-4-2234 project: *Non-destructive Approaches to Complex Archaeological Sites. An Integrated Applied Research Model for Cultural Heritage Management (PROSPECT)*.

⁴ Valea Oii – a brook referred by the local people also as Recea, Filiași, Băiceni, Trestiana – is a left tributary of Bahluiet, the main tributary of Bahlui River.

⁵ CHIRICA, TANASACHI 1985: 415-416; NICU 2016: 59-60.

METHODOLOGY

The site Balș – *Bejeneasa I/ La Brigadă* is located within the Moldavian Plain, on a cuesta reverse on the left side of the Valea Oii brook (at 200 m north of the water stream), at the base of a smooth slope⁶, with a south-east exposure (Pl. I). It is settled near the contact area of Valea Oii and Măgura brooks, very close to the other two Precucuteni settlements: at 1.5 km SE of Balș – *Valea Părului III*⁷, and 1.7 km NW of Boureni – *Bejeneasa*⁸ (where very Early Chalcolithic materials were found - Precucuteni I?). From an administrative point of view, the location is situated south of Balș village, Balș commune, Iași County, north-eastern Romania (Pl. I).

The site was discovered by D. Boghian and C. Mihai and surveyed in 1981-1983 and 1985. It is mentioned in the archaeological repertoire of Iași County: “Bejeneasa I – La Brigadă. South of the village, at 200 m from the Tîrgu Frumos-Hîrlău road, south of S.M.A Brigade and behind the gardens of the residents Romaniuc M. and Romaniuc V., Vercican, Boancă, Toma Const., a Criș settlement overlapped by others of Precucuteni II-III type and Late Hallstatt”⁹. An accurate description of the location of the site, relating to the current anthropic features would be: at 200 m from the Tîrgu Frumos - Hîrlău road (E58/DN28B), south – east of the former S.M.A. (= station of agricultural machinery) Brigade building, in the gardens of the above listed residents, on the left banks of an artificial channel.

The evaluation of the extension in time and space of the Precucuteni settlement was made both through field and laboratory work. The field tasks were both non-invasive (field surveys and geomagnetic prospections) and invasive (test trenches for verifying the preservation of the settlements, for obtaining stratigraphic data and artefacts for a proper chronologic framing and sampling for ¹⁴C dating). The laboratory work meant the analysis of the materials gathered in field (both from the '80s and from the new investigations) in terms of technology and typology.

Since the focus of this paper is the chronological framing of the Early Chalcolithic material, the pottery coming from later Ages discovered in the site will be discussed in a subsequent work.

RESULTS

THE MATERIALS FOUND IN THE OLD SURVEYS

In the '80s, during the field research of East of SMT Brigade, were found materials specific for the second and third phase of the Precucuteni culture, some of Precucuteni I tradition¹⁰ and artefacts from the Early Latène with late Hallstatt influences (V-III centuries).

It must be stated that the habitation of the site by the Neolithic Criș communities was supposed only on the basis of the existence, in this location, of ceramics decorated with the so-called *pinch of Criș tradition*. This decorative element is also present in the Precucuteni material culture (in all phases), being of a particular compositional, technological, typological and decorative stability (as result of standardized functionalities). Thus, it can be considered, with caution, until the contrary is proven, that in this site, the ceramics decorated with pinches originates from the Precucuteni habitation. Therefore, at the current stage of the investigations, it is no longer possible to support the existence of a Criș habitation at Balș - *La Brigadă*.

⁶ Since the hill on which the site is located is not denominated Bejeneasa, we consider necessary the renunciation of the name Bejeneasa I and denominate the site just as Balș – *La Brigadă*.

⁷ CHIRICA, TANASACHI 1985: 416, LXXIX.2.C and LXXIX.2.D.

⁸ CHIRICA, TANASACHI 1985: 416, LXXIX.3.A.

⁹ Although materials from the site were not illustrated in CHIRICA, TANASACHI 1985, some of them were presented at the Annual Session of Scientific Reports from the Botoșany County Museum, in November 1983, in the paper: V. Chirica, D. Boghian, C. Mihai, *Noi descoperiri arheologice la contactul dintre Podișul Sucevei și Câmpia Moldovei*. Unfortunately, the article in which the materials were gathered was not included in the *Hierasus* journal (1985) as it appears cited in the Repertoire.

¹⁰ Note of D. Boghian.

The Early Chalcolithic materials discovered in the site¹¹ were various. The chipped stone collection is composed of small sized (2-5 cm) fragmentary blades, endscrapers and borers, cores and hard-hammers, made of flint originating in the deposits from the Prut River and a small blade from smoky translucent obsidian. The polished stone tools are shaped as axes/adzes, made of bituminous shale, with post-depositional cracks. A fragmentary pointed bone tool was also recovered.

The Precucuteni pottery (Pl. IIA) was made from clay in which grog was added as temper. The coarse ceramics is decorated with both organised and un-organised barbotine and pinches of Criș tradition, burnt to brick-brown and brown-grey. The decoration of fine and semi-coarse ceramics was realised through different techniques. First of all through *digging/removing* clay from the walls of the vessels, were achieved incised and excised motives: wide and deep stripes (3-5 mm), parallel horizontal grooves, and specific motives as the so-called “garland” and “wolf-teeth”, possible with a white/red paste infill, sometimes associated with fine flutes, reminding of the decoration motives of the Precucuteni I phase (Pl. IIA.2-4).

Geometric and spiral motives were incised on the walls of the vessels. A notched tool was used to create parallel, horizontal and oblique “jagged” lines, and parallel rows of rectangular “dots”, inlaid, perhaps with white paste (Pl. IIA).

A fragmentary anthropomorphic figurine was also discovered (Pl. IIA.1)¹². Its hips were shaped in an evident manner and an abdominal belt was realised by incising parallel lines and rows of points/alveoli. It belongs to the type of representations depicted in sitting position, with conically shaped legs and “split” through an incised line. The item was made of fine paste, fired to light brown/grey-brown.

THE MATERIALS FROM THE NEW FIELD SURVEYS

During the recent field surveys from 2017¹³ it was observed that the surface artefacts had a high density, spreading on an area of almost one hectare. The most numerous were the pottery fragments, with decoration typical for the Early Chalcolithic: incision (Pl. III.2-4,6,10, VII.1-5), imprints (Pl. III.1,5,9) and flutes. The decorative elements are specific both for the second and the third phase of the Precucuteni culture. Of all the fragments, three seemed more diagnostic for the beginning of the second phase, through their very wide incisions (Pl. VII.2,4-5)¹⁴. Several shards with the so-called Criș-pinches were also found (Pl. III.7).

All the ceramic shards discovered at the site were made of fine paste clay, with grog in its composition. Their colours range from dark-grey to black. The outer surface of the vessels was covered with a slip, while the inner surface was well smoothed, in some cases burnished. The base of a pot presents non-indented imprints, with a rotational pattern caused by the fact that the vessel was rotated on an irregular surface while it was manufactured (Pl. III.8). Three clay artefacts of a special significance were found: a fragment from a *hora* type vessel (Pl. VII.3), a miniature throne (Pl. III.11) and an upper fragment from a crown-shaped vessel¹⁵ (Pl. III.10).

Other materials found during the field survey are represented by nine chipped stone items (of which worth mentioning a bladelet core, two blade fragments and four endscrapers: Pl. III.12-14), three polished stone axes (Pl. III.15-16), daub, bones and *Unio* shells.

THE GEOMAGNETIC RESEARCH

The location of the investigated Chalcolithic settlement, in the upper basin of Valea Oii brook, in a space inhabited during the last hundred years has made our initiative of non-invasive prospection not an easy one since the site has undergone countless anthropic interventions and arrangements. The presence of the

¹¹ The materials are deposited in the *Constantin Mihai Museum at Ion Neculce Theoretical High School* in Târgu Frumos.

¹² Published in BOGHIAN 2000: 224; Fig. 1.2, 2.2.

¹³ The investigations were run under the Authorisation for Archaeological Diagnosis no 250/05.09.2017 issued by the Cultural Heritage Directorate from Ministry of Culture and National Identity in Romania.

¹⁴ URSULESCU 2008.

¹⁵ For a debate on this type of vessels see GARVĂN 2007.

constructions, household annexes and gardens on the surface of the gentle slope where the archaeological remains are spread, made this endeavour a difficult one, especially because of the disturbances presented in the area. This can be considered as a direct threat signalling the irreversible destruction of the settlement by the anthropic factor. The first thought of our team was to identify the archaeological structures that could provide clues about the extent of the settlement.

The efficiency of the magnetic method in cases like the present one, where most of the buried features consist of strongly burnt structures, pits or ditches, has been the main reason for establishing the methodological workflow for this project. A five probe Sensys gradiometer was used connected with differential GPS in order to cover the entire accessible area without gridding the surface, a task hard to accomplish in the given context. We will not insist here on the field acquisition methodological aspects, more extensively presented on other occasions¹⁶.

In an area of around 0.5 hectares (Pl. II.B, IV), several features that exhibit a high contrast of magnetic susceptibility (those of large size exceeding 20 nT, going up to values above 50 nT or even close to 100 nT) were found (Pl. IV). It is quite clear that we are dealing with a single consistent cultural level, the present anomalies being fairly well individualized, not superimposing one another. The high values of the magnetic signal intensity advocate for their classification in the category of burned dwellings. The explicit thermoresistant magnetism that characterizes these identified structures is another argument that supports the previous statement. Two of these features, which seem to be preserved quite well, are rectangular in shape and approximately 100 m² and 150 m², respectively. The orientation along their longitudinal axis appears to be in the NNE-SSV direction. Another dwelling, chosen for the test trench, is about 75 m² and is not as well preserved as its disturbed areas are obvious. The orientation is no longer the same as the other two, which may suggest belonging to another Precucuteni phase of habitation.

In the eastern side of the measurements, there are also present several burned structures, indicating the existence of some strongly disturbed dwellings or coming from possible household annexes. All three well-identified dwellings have several pits in their vicinity, the filling of which displays a weak magnetic signal (possible clay extraction or storage pits which contains organic infilling) or with a greater intensity (possible garbage pits) (Pl. IV).

The data obtained through the magnetic surveys leads us to suppose that the scanned area represents the eastern limit of the settlement, although it is not explicitly identified by any delimitation or fortification ditch. A positive anomaly that can be attributed to a ditch is visible in the southern part of measured area (it's less probably to be part of site planimetry) (Pl. IV). Comparing its orientation in respect with the rest of identified features, we believe that it belongs to another chronological range.

Throughout the entire prospected area, but especially in the NE, numerous small pieces of metal, expressed by an obvious magnetic dipole, can be seen, visible on the surface or located at shallow depths, probably as a result of the garbage spread by the villagers.

THE INVASIVE RESEARCH

In order to evaluate the preservation of the Precucuteni settlement and its absolute/relative chronology, an intrusive diagnosis was undertaken. The test trench (SI) was placed on a magnetic anomaly interpreted as being the burnt remains of a Chalcolithic construction. The trench was oriented on the NNE-SSV direction, transversally cutting the dwelling (Pl. IV).

The trench was initially 10 m long (lengthened to 10.20 m until the end of the excavation) and 1.5 wide. The artefacts discovered during the excavations prove that site was populated/visited by human communities in several periods: Chalcolithic, Bronze Age (Noua Culture), Iron Age and Medieval Period (Dridu culture).

The cultural layer was investigated exhaustively only in the northern side of the trench, on a length of three meters. The stratigraphy presents itself as (Pl. V.A):

¹⁶ ASĂNDULESEI 2017.

- a) at the top: 0.20 m of black chernozem, tillable soil;
- b) from -0.20 m to -0.40/0.45 m: a dark grey, loose soil, with materials coming from the post-Eneolithic periods;
- c) -0.40/-0.45 m to la -0.90/1.00 m: thick layer of dark brown soil, quite compact, with various bioturbation, in which were found the features from the Chalcolithic period;
- d) from -0.90/1.00 m downwards: yellow clay, specific for the Pleistocene.

Five archaeological features were uncovered. The first (Cx1: at a depth of -0.35/-0.40 m from the topsoil) was lying on two meters length and belongs to a post-Chalcolithic period, being an agglomeration of stones, animal bones and ceramics (Pl. V.B). However, the feature was disturbed at some point since some of the ceramic fragments and the anthropomorphic statuette (Pl. IX.1) are typical for the Precucuteni culture.

The second archaeological feature (Cx2) lies on one meter in length; it was revealed in the southern part of the test trench at the depth of -0.40 m and consisted of an agglomeration of bones and ceramics (both Chalcolithic and post-chalcolithic).

The third archaeological feature (Cx3) represents the remains of a Chalcolithic dwelling (Pl. V.C), being, in fact, an agglomeration of burnt clay/daub coming from the walls of a building, on a surface of 6x1.5 m, between the meters 3.80 – 10 of SI, at a depth of -0.45 m on its upper part and at -0.60 m on its lower part. Two types of daub were observed: one of clay mixed with chaff, light, with a thickness up to 35 mm, burnt to brick red, and another one, more dense, with no chaff in its admixture, thicker (40-50 mm) burnt to reddish-pink. Usually, the first kind of daub is typical for the walls of the dwellings, one such fragment being well smoothed and covered with an extra layer of very thin clay (Pl. VI.1). The second type of daub is mainly encountered in the floors or other architectural elements inside the dwellings. The imprints of the wooden substructures were rare and, since the daub was not dismantled, not much can be said about the construction system of the dwelling. The mass of clay was interrupted (as it can also be seen on the magnetic scan) on a surface of 1.5x0.5 m in the squares 8 and 9 of the Trench probably due to an ulterior derangement. After the remains were well cleaned, they were documented and preserved, without dismantling them.

In the north of the dwelling, bones and pottery fragments were revealed, but without forming a compact mass; a tibia from a *Boss sp.* was chosen as sample for ¹⁴C dating.

Features 4 & 5 investigated in 2017 are two pits that were originating in the Chalcolithic layer. Feature 4 (Pit 1/2017) is a small pit visible on the NNW-WSW profile of the S I on a length of 0.60 m. From its digging level it descended in the yellow clay soil for another 0.20 m, having thus a total depth of 0.60 m. Its filling was composed of ceramic fragments, bones and a zoomorphic statuette (Pl. IX.3).

Feature 5 (Pit 2/2017) was situated in the northern side of the dwelling. Due to its shape and location, this pit can be related with the dwelling, as a post-hole, part of the wall resistance structure, or of an external structure for the building (a veranda).

THE ARTEFACTS

The artefacts revealed in the 2017 test trench are not very numerous.

Most of the **pottery** is specific for the Early Chalcolithic period; only a few shards are typical for later periods. No artefacts that might be related to a Starčevo-Criş habitation of the site were discovered.

The Precucuteni ceramic assemblage, characterized by a high degree of fragmentation, consists of around 200 diagnostic and non-diagnostic shards.

The colours of the pottery¹⁷ provide some information on the firing procedures. While most of the potshards have a black or very dark grey (SYR3/1) core, the surface colours are lighter, varying within the range of light grey (10YR7/1), grey (SYR6/1), dark grey (SYR4/1) pale brown (10YR6/3), brown (7.5YR5/4), reddish yellow (5YR6/6), yellowish red (5YR5/6), reddish grey (5YR5/2) (Pl. VI.2-16). Often the colours vary significantly on the same shard, which, combined with the dark cores, indicates that

¹⁷ The colour codes are according to MUNSELL 2009.

the pottery was most probably superficially fired in piles (open or pit firings), in direct contact with the fuel and flames, in a mixed atmosphere (neutral or reduced, with short periods of oxidation). The lighter and reddish/pinkish colours are the result of a second firing occurred during the burning of the dwelling.

Regarding the fabric description of the clay body, it is obvious that the dominant inclusions consist in grog grains, angular and sub-angular, with sizes varying from 100 µm and 1-2 mm.

Referring to the surface treatments and decoration, there is a category of roughened pottery, obtained either by not finishing at all the surfaces after forming or by applying a rough layer of clay on the exterior of the pot – barbotine, both in organized and non-organized manners. The pottery shards with plain, smooth surfaces are mostly covered with a thin slip, sometimes burnished (especially the interior surfaces). Their decorative motives were made through techniques that were largely employed by the Early Chalcolithic communities: fluting, impress and incising.

The flutes are always horizontal and surrounding the parts of the vessels on which they were applied, either the foot, the shoulder or the body of the vessel (Pl. VI.9, 14; VII.6).

Impresses made with a notched tool are disposed in lines, some originating from the base of the vessel (Pl. VI.16), others applied on the body. The pinches made by nail, of Criş tradition, are decorating the walls of the coarse pottery (Pl. VII.7,9).

A flare lip coming from a vessel of an unknown shape is decorated with small dots in a zigzag pattern (Pl. VI.15).

The most often used technique for decoration of the vessels is the incision (Pl. VI.6-8,10-11, VII.6,8,10), used on all the parts of the vessels either as simple horizontal lines, either for suggesting shapes. Some of the incised lines are very wide, others superficial.

A red-brownish paint was applied in two lines on a vessel; the secondary firing of the shard helped at the fixation of the paint on the ceramic surface (Pl. VI.13).

As for the shapes of the pots, their high fragmentation prevents us from elaborating a detailed typology. However, a few shapes were recognised: goblets (Pl. VII.6), in their almost bi-tronconical variant with a flared-lip¹⁸, cylindrical pedestal vessels (Pl. VII.10), pans (Pl. VI.2), discoid lids (Pl. VII.11), pear shaped vessels.

The collection of **chipped stone artefacts** discovered during the 2017 excavations comprises 20 items (Pl. VIII)¹⁹. The main raw material of this category of artefacts is the flint originating in the Cenomanian deposits from the Prut River. These artefacts can be divided, from a technologic point of view, as: blank products (four flakes and four blades), retouched items (five endscrapers) and debris (Pl. VIII). One of the blanks has a strong macroscopically visible polish which under the microscope has the characteristics of a wear resulting from the use of the tool in cereal harvesting (Pl. VIII.8). The five endscrapers are made on small flakes, all having a convex *front de grattoir*. The small metric characteristics (not exceeding 50 mm in length and 20 mm in width), the use of flakes as supports for endscrapers, the regularity of the edges and profile of the small blades, all these are characteristics for the Precucuteni II lithic assemblages.

Two **anthropomorphic statuettes** (Pl. IX.1-2) were discovered during the excavation. Their paste was well mixed and lacks any temper. As a common ornament they both have incised triangles on their bellies. One is a fragment (from the abdomen down to the thighs) of a figurine depicting a sitting woman that has her legs opened. Similar items of such a type²⁰ were found in other Precucuteni settlements, mainly

¹⁸ See 1b1 variant from MARINESCU-BÎLCU 1974: 68, 78.

¹⁹ Since the techno-tipologic and use-wear analysis of the stone assemblage is the subject of a study which is in preparation, we will not discuss here all the aspects related to the chipped stone collection from the site.

²⁰ Probably the *b type* at POGOŠEVA 1985.

from the second (and less from the third) phase at Larga Jijia²¹, Alexandrovka²², Isaiia²³, Sabatinovka II²⁴, Târpești²⁵, etc. Two small holes, made before firing, were observed on its body (Pl. IX.1). The other anthropomorphic figurine is just a fragment, representing a left leg (Pl. XI.2).

A **zoomorphic representation** was made of a clay paste negligently modelled; its surface was not smoothed (Pl. IX.3). Since its head and two of its legs were not preserved, it is impossible to tell what animal it depicts.

Two small table legs made of clay, of conical elongated form, one more rounded than the other, were also discovered (Pl. IX.4-5).

Worth mentioning is a **pendant/spoon handle** made of well-sorted clay, covered with a white slip. Its shape is that of a truncated pyramid; it has a transversal perforation that was made with a straw (as the imprints from the interior walls of the perforation show: Pl. VI.17).

The bone artefacts discovered during the excavations are represented by a Chalcolithic pointed object (Pl. VI.18) and an arrowhead typical for the Noua culture²⁶ (Pl. VIII.11).

DISCUSSIONS AND CONCLUSIONS

The recent investigations and the re-evaluation of the materials discovered in the old surveys from Balș provided new data for understanding the emergence of the Chalcolithic in Valea Oii and Bahlui basins. At the moment, the surface of this specific Precucuteni settlement can be estimated at one hectare. One important aspect of the research from 2017 is the fact that a clear demarcation of the eastern limits of *La Brigadă* site was possible through the geomagnetic survey. However, only the completion of the geomagnetic survey will reveal the actual surface occupied by the Prehistoric communities.

Of major impact was also the re-evaluation of the materials coming from the old surveys; their corroboration with the artefacts uncovered during the recent investigations suggests an earlier beginning of the Precucuteni settlement than previously thought²⁷.

When assessing a settlement to a specific phase of evolution of the Precucuteni culture, the main features to be analysed are the decorative elements of the pottery, to which, sometimes, it can be added the specificity of other artefacts (the anthropomorphic representations and the tool assemblage). This proved to be a difficult task for the Balș settlements because of the high fragmentation of the pottery.

The fabric analysis of the pottery showed that grog was present in the paste of all vessels, in various degrees. The use of grog can be considered as a specific feature of the whole Precucuteni-Trypilla A area, regardless of phase²⁸.

The evidence from the ceramics discovered both in the old and the new research indicate that the first occupation of the site occurred at the beginning of the second phase of Precucuteni culture. This was determined based on the analysis of the decorative techniques and motives from the ceramics: the excision technique through which the *wolf teeth* were realised, the very wide incisions²⁹, the frequent use of the *Criș pinches*, the lack of the sophisticated incised decorations from anthropomorphic statuettes. The association of the excision and incision techniques is a characteristic of the second phase of Precucuteni, as it was noticed

²¹ ALEXANDRESCU 1961: Fig. 8.11.

²² POGOŠEVA 1985.

²³ URSULESCU, TENCARIU 2008: Fig. 5.3.

²⁴ ZBENOVICH 1989: Fig. 72.14.

²⁵ MARINESCU-BÎLCU 1974.

²⁶ Type 2A at DIETRICH 2013.

²⁷ This is also supported by the ¹⁴C data obtained for the bone from the settlement. The data was obtained at the Poznan Radiocarbon Laboratory, as part of a larger set of samples from various Precucuteni and Cucuteni settlements from Romania and Republic of Moldavia, set which will be published separately.

²⁸ MARINESCU-BÎLCU 1974; ZBENOVICH 1989; ELLIS 2005; URSU, APARASCHIVEI 2014.

²⁹ URSULESCU 2008: 210 considers the wide incisions as widespread mainly at the beginning of the second phase (IIA).

for the materials from Larga Jijia³⁰, Trifești³¹, Florești I³². In terms of morpho-technological features the chipped stone collection (although very low as number) can be linked to those from Isaiia³³, Trifești³⁴ and Larga Jijia³⁵.

However, the ceramics also has elements of transition to the Precucuteni III phase, IIIa, with analogies at Târpești³⁶ and Târgu Frumos (the oldest layer)³⁷. Thus, it cannot be excluded the fact that both from a spatial and stratigraphic point of view, the site can represent a succession of Precucuteni habitations (with or without intermittence), both from the initial stages of the second phase and from the third stage of the culture. This is also suggested by the different orientation of the investigated dwelling in relation to the ones from its proximity.

Based on the artefacts uncovered during the 2017 investigations and on the re-evaluation of the materials discovered during the XXth century it is clear that the Neolithic Starčevo-Criș communities did not occupy this site situated in Valea Oii basin. The materials found in the site come from: Early Chalcolithic (phases Precucuteni II and Precucuteni III), Bronze Age (Noua Culture), Late Hallstatt/Early Latène and Medieval times (Dridu culture). Future research planned for the following years will provide information on the extent of the site towards its western limits but will also be focused on understanding the internal stratigraphy of the Precucuteni settlement.

ACKNOWLEDGEMENTS

The authors of this paper are grateful to people that made this research possible: to Vasile Romaniuc for allowing us to excavate the test trench on his property, to C. Vornicu and A. Țerna for their involvement in the field work and to the Balș Cityhall that offered their help at the conservation of the site.

Authors' contribution: D.-M. V. initiated and organised the research of the Balș – *La Brigadă* site, conducted the excavations, processed the archaeological finds and wrote most of the article, A.A. performed and interpreted the geomagnetic scan and wrote the *The geomagnetic researches* chapter, D.B. discovered the site, participated at the excavation of the test trench and wrote *The materials found in the old surveys* chapter, F.-A. Tencariu participated at the field researches, analysed the fabric of the ceramic material and wrote the considerations on this specific subject.

³⁰ ALEXANDRESCU 1961.

³¹ ICONOMU 1998.

³² PASSEK 1960.

³³ VORNICU 2017.

³⁴ ICONOMU 1998.

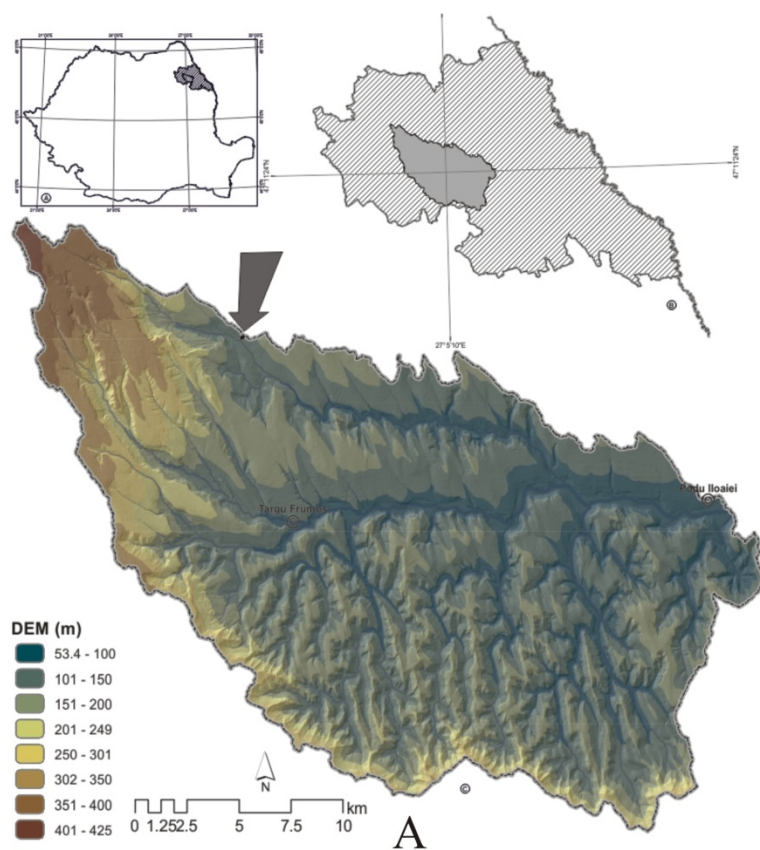
³⁵ ALEXANDRESCU 1961; PĂUNESCU 1970.

³⁶ MARIENSCU-BÎLCU 1974.

³⁷ URSULESCU, BOGHIAN, COTIUGĂ 2005.

BIBLIOGRAPHY

- ALEXANDRESCU 1961 Alexandrescu, A., *O vtoroi faze dokukutenskoj kultury*, in: *Dacia. Revue d'archéologie et d'histoire ancienne*, 5, 21-37.
- ASĂNDULESEI 2017 Asăndulesei, A., *Inside a Cucuteni Settlement: Remote Sensing Techniques for Documenting an Unexplored Eneolithic Site from Northeastern Romania*, in: *Remote Sensing*, 9(1), doi 10.3390/rs9010041
- BOGHIAN 2000 Boghian, D., *La plastique du complexe Précucuteni-Cucuteni dans le bassin de Bahlui*, in: *Studia Antiqua et Archaeologica*, 7, 221-244.
- CHIRICA, TANASACHI 1985 Chirica, V., Tanasachi, M., *Repertoriul arheologic al județului Iași*, vol. 2, Ed. Universității "Al. I. Cuza", Iași.
- DIETRICH 2013 Dietrich, L., *Projectile weapons of the Late Bronze Age in the Eastern Europe. The case of the Noua-Sabatinovka-Coslogeni cultural complex*, in: *Satu Mare. Studii și comunicări. Seria Arheologie*, 29(1), 181-198.
- ELLIS 2005 Ellis, L., *Analysis of Precucuteni Ceramics from Târgu Frumos, Romania*, in: Spinei, V., Lazarovici, C.-M., Monah, D. (eds.), *Scripta Praehistorica. Miscellanea in honorem nonagenarii magistri Mircea Petrescu-Dîmbovița oblată*, Ed. Trinitas, Iași, 261-270.
- GARVĂN 2007 Garvăn, D., *Un nou tip de vas precucutenian de cult*, in: *Memoria Antiquitatis*, 24, 221-238.
- ICONOMU 1998 Iconomu, C., *Cercetări arheologice în așezarea precucuteniană de la Trifești-Iași*, in: *Arheologia Moldovei*, 21, 5-27.
- MARINESCU-BÎLCU 1974 Marinescu-Bîlcu, S., *Cultura Precucuteni pe teritoriul României*, Ed. Academiei R.S.R., București.
- MUNSELL 2009 MUNSELL SOIL CHARTS, 2009, Grand Rapids.
- NICU 2016 Nicu, C., *Hydrogeomorphic Risk Analysis Affecting Chalcolithic Archaeological Sites from Valea Oii (Bahlui) Watershed, Northeastern Romania. An Interdisciplinary Approach*, Springer, Heidelberg New York Dordrecht London.
- PASSEK 1960 Passek, T. S., *Rezultaty arkheologichieskykh raskopok u c. Floreshty v Moldavii*, in: *Materialy I issledovaniia po arkheologii iugo-zapada SSSR I Rumynskoi narodnoi respubliki*, 1960, 49-58.
- PĂUNESCU 1970 Păunescu, A., *Evoluția uneltelor și armelor din piatră cioplită descoperite pe teritoriul României*, Ed. Academiei R.S.R., București.
- POGOȘEVA 1985 Pogoșeva, A. P., *Die Statuetten der Tripolie Kultur*, in: *Beiträge zur allgemeinen und Vergleichenden Archäologie*, 7, 95-241.
- URSU, APARASCHIVEI 2014 Ursu, C.-E., Aparaschivei, C., *A few considerations on some of the ceramic vessels decorated with stylized anthropomorphic representations, from Precucuteni-Tripolye A area*, in: *Brvkenthal Acta Mvsei*, 9(1), 19-55.
- URSULESCU 2008 Ursulescu N., *Modèles d'organisation de l'espace aux habitations de la culture Précucuteni entre Siret et Prut*, in: Chirica, V., Văleanu, M.-C. (eds.), *Établissements et habitations préhistoriques. Structure, organisation, symbole. Actes du colloque de Iași 10-12 décembre 2007*, Ed. Pim, Iași, 207-238.
- URSULESCU, BOGHIAN, COTIUGĂ 2005 Ursulescu N., Boghian, D., Cotiugă, V., *Problèmes de la culture Précucuteni à la lumière des recherches de Târgu Frumos (départ. de Iași)*, in: Spinei, V., Lazarovici, C.-M., Monah, D. (eds.) *Scripta praehistorica. Miscellanea in honorem nonagenarii magistri Mircea Petrescu-Dîmbovița oblată*, Ed. Universității "Al. I. Cuza", Iași, 217-260.
- URSULESCU, TENCARIU 2008 Ursulescu N., Tencariu, F.-A., *Observații privind condițiile de descoperire a plasticii antropomorfe precucuteniene în așezarea de la Isaiia (jud. Iași)*, in: *Acta Musei Tutovensensis*, III, 44-67.
- VĂLEANU 2003 Văleanu, M. C., *Omul și mediul natural în neo-eneoliticul din Moldova*, Ed. Helios, Iași.
- VORNICU 2017 Vornicu, D.-M., *The chipped stone assemblage from the Early Chalcolithic settlement at Isaiia – Balta Popii*, in: *Materiale și cercetări arheologice, Serie Nouă*, 13, 191-211.
- ZBENOVICH 1989 Zbenovich, V. G., *Rannij etap Tripol'skoj Kul'tury na territorii Ukrainy*, Naukova Dumka, Kiev.

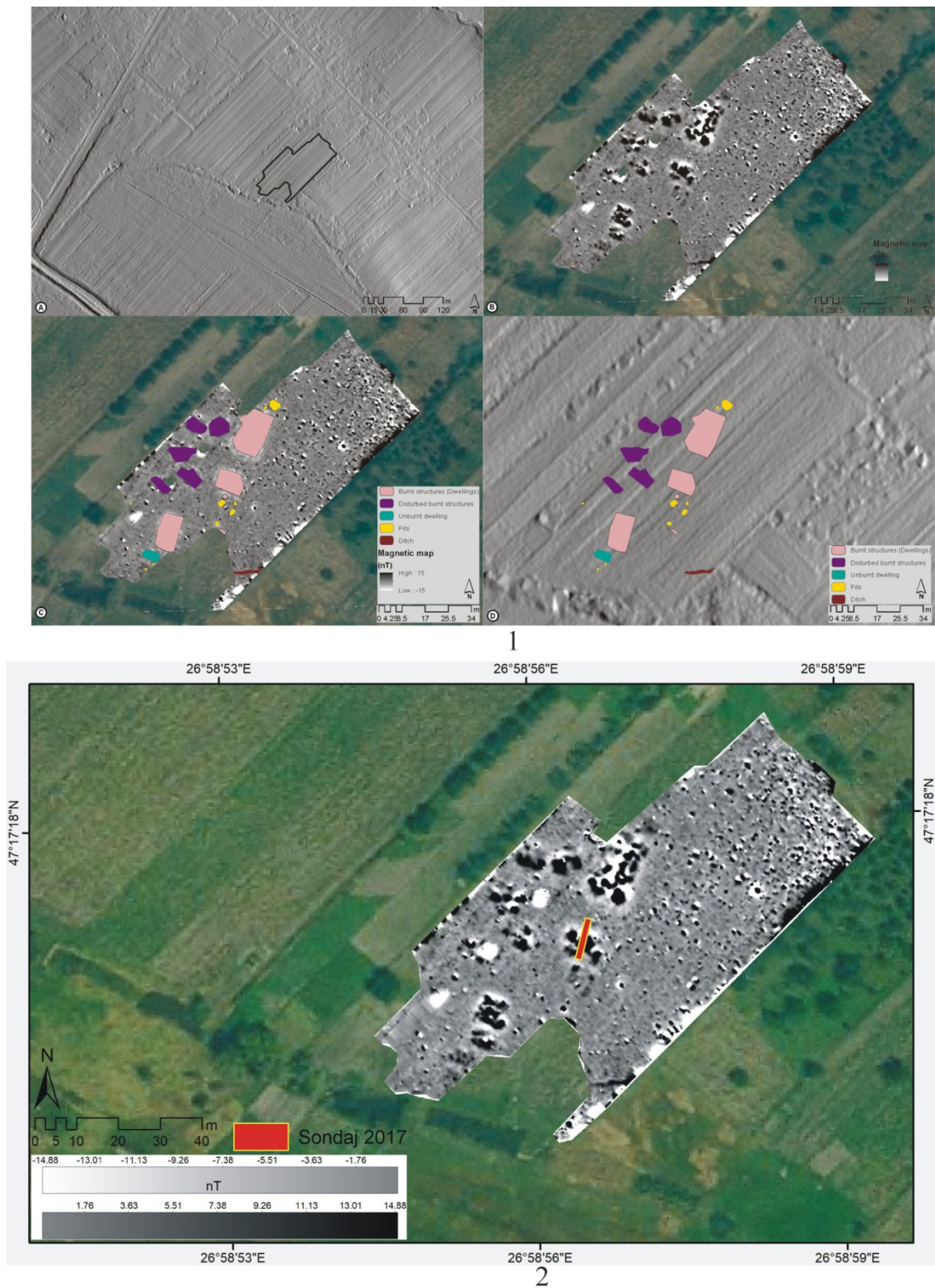


B

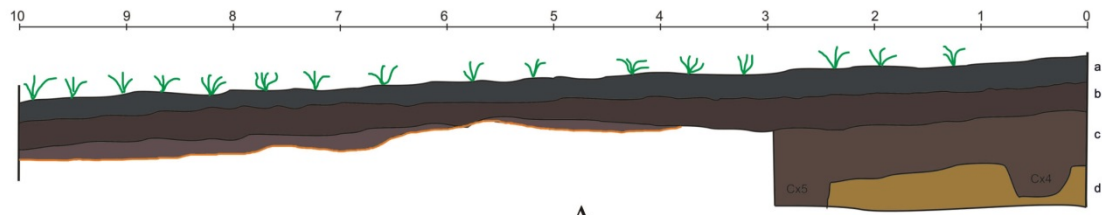
Pl. I. Balș – *La Brigadă*. The location in the Valea Oii basin (as part of Bahluiet basin), in Iași County, Romania (A); view of the site from south-east (B).



Pl. III. Baș – *La Brigadă*. Artefacts discovered during the recent field surveys: 1-9: pot fragments, 10. fragment from a crown shaped vessel, 11. miniature throne made of clay, 12-14. chipped stone assemblage, 15-16. polished stone assemblage.

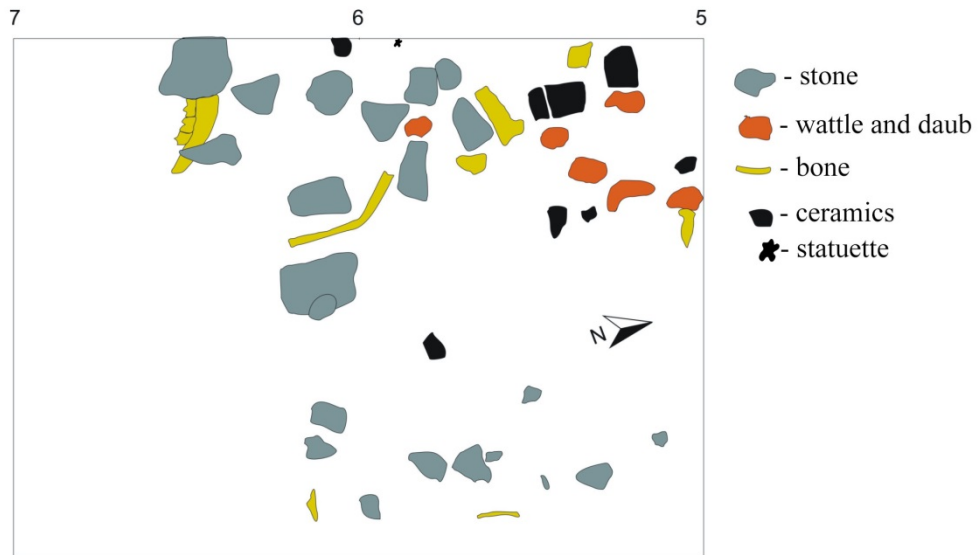


Pl. IV. Balș – *La Brigadă*. The main geomagnetic features: 1A-Location of the site on the DEM (digital elevation model) derived from the LIDAR data; 1B - Magnetometric map (-15/+15, white/black) overlaid over orthographic aerial image; 1C - Interpretation of identified anomalies; 1D - Distribution of detected archaeological structures; 2. positioning of the test trench on one magnetic anomaly.

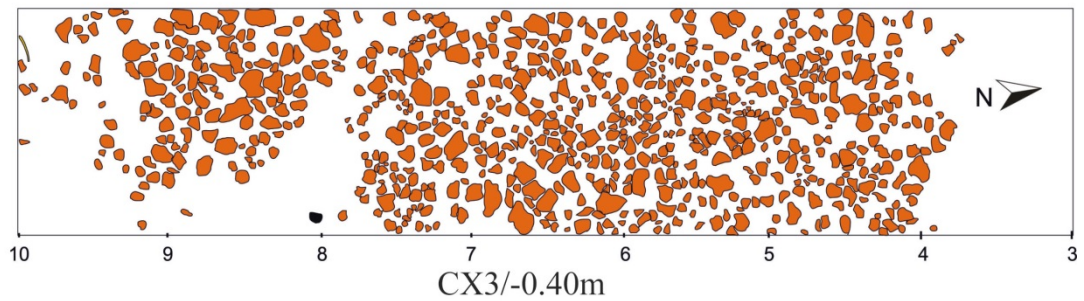


A

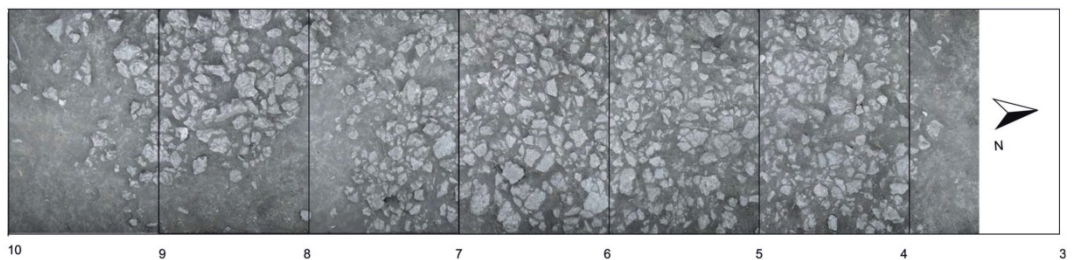
CX1/-0.35-0.40 m



B

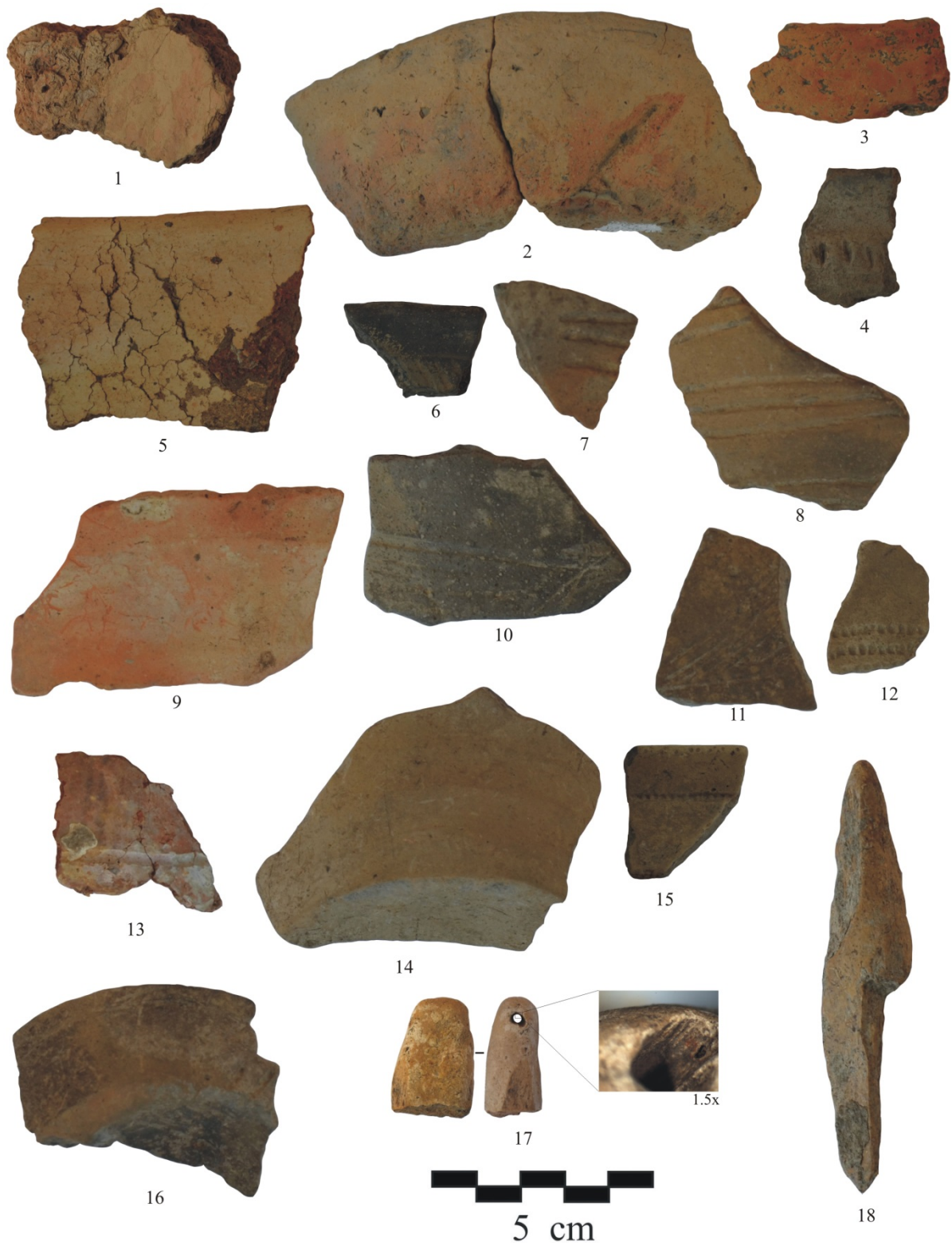


CX3/-0.40m

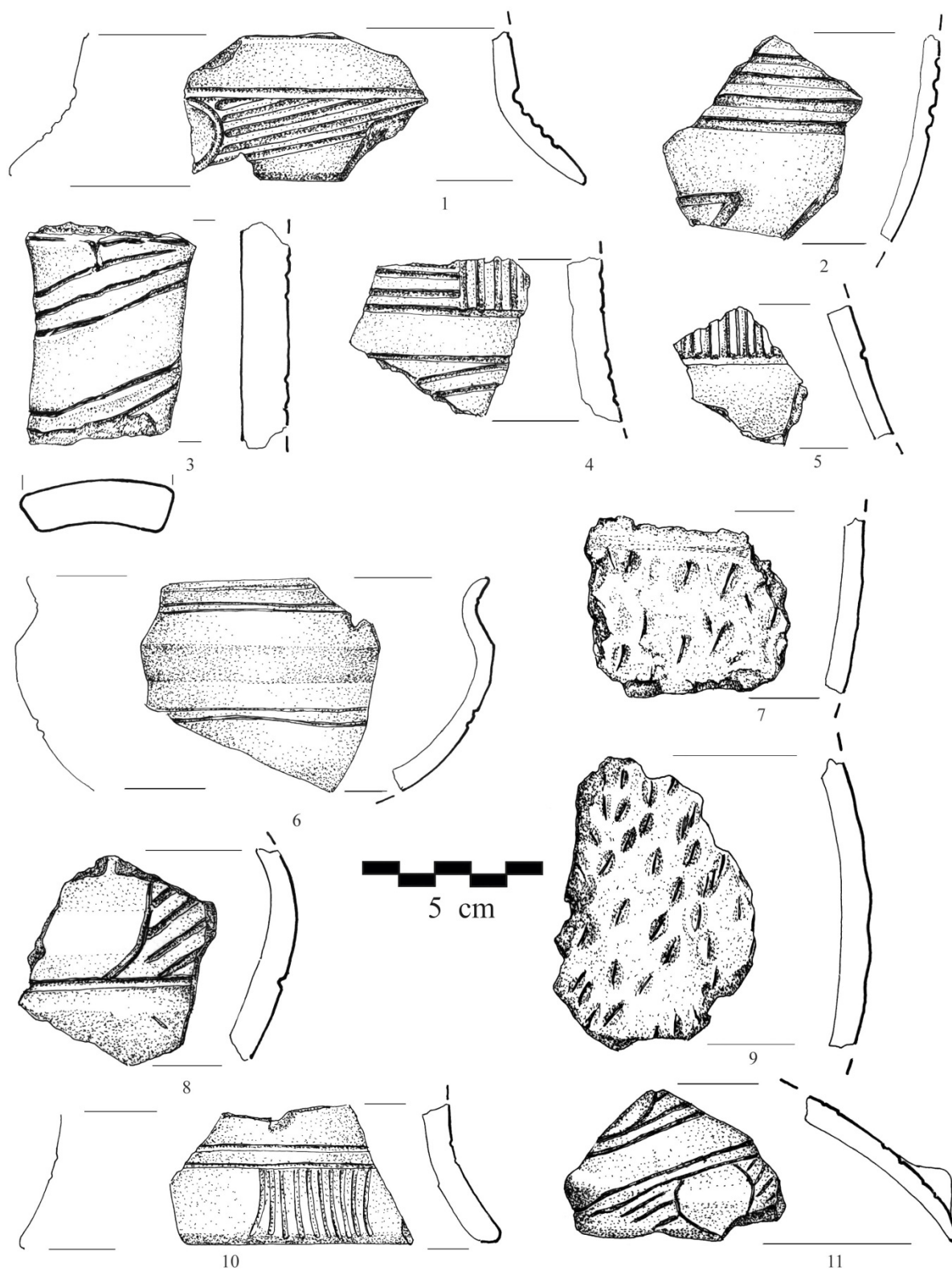


C

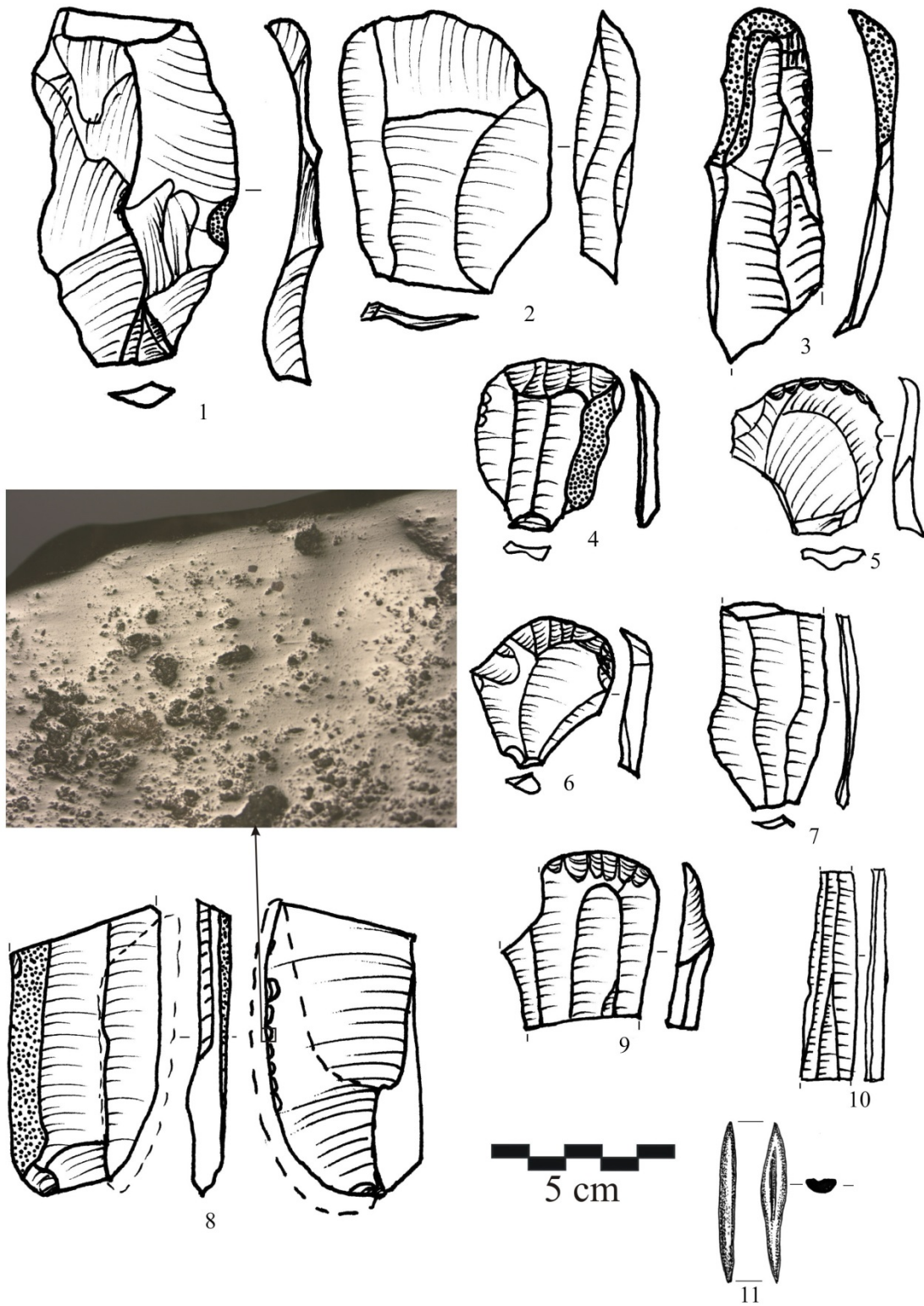
Pl. V. Baș – *La Brigadă*. The stratigraphy of the trench (A), archaeological feature Cx1 (B), the remains of the Precucuteni dwelling: drawing and photography (C).



Pl. VI. Balș – *La Brigadă*. Artefacts discovered during the 2017 investigations: 1. wattle and daub fragment, 2-16. pottery, 17. pendant/spoon handle, 18. bone tool.



Pl. VII. Balș – *La Brigadă*. Ceramic shards discovered during the 2017 investigations.



Pl. VIII. Balș – *La Brigadă*. Precucuteni chipped stone artefacts (1-2. flakes, 3, 7-8, 10. blades, 4-6, 9. endscrapers) and bone arrow typical for the Noua culture (11). The microscopic photography depicts the wear produced by cereal harvesting.



Pl. IX. Balș – *La Brigadă*. Clay objects: 1-2. anthropomorphic representations, one of which bears two holes made before firing, 3. zoomorphic representation, 4-5. miniature table legs.