CULTURAL AND CHRONOLOGICAL CHARACTERISTICS OF THE PREHISTORIC SITE BELOGRADETS, NORTHEASTERN BULGARIA

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Cuvinte-cheie: *neoliticul târziu, chalcolithicul timpuriu, faza de tranziție de la neoliticul târziu la eneoliticul timpuriu, nord-estul Bulgariei, cultura Sava, cultura Polianița.*

Keywords: *Late Neolithic, Early Chalcolithic, the transition phase from the Late Neolithic to the Early Eneolithic, North-eastern Bulgaria, Sava culture, Polyanitsa Culture.*

Rezumat: *Situl arheologic Belogradeț este situat în nord-estul Bulgariei, în partea de sud a platoului Stana, lângă satul Belogradeț, regiunea Varna. Acesta a fost cercetat prin săpături arheologice de salvare în cursul anului 2020. Pe o suprafață de 3.700 m² au fost înregistrate 15 complexe arheologice, în principal gropi săpate în nivelul antic și în steril. Ceramica descoperită în sit prezintă o combinație de elemente caracteristice perioadei finale a neoliticului târziu cu elemente noi, tipice pentru ceramica eneolitică timpurie. Aceste caracteristici, precum și absența decorului cu grafit, permit încadrarea cronologică a sitului Belogradeț în faza de tranziție de la neoliticul târziu la eneoliticul timpuriu (4954–4722 cal. BC.). Orizontul cronologic reprezentat la Belogradeț acoperă perioada tranziției de la Boian-Giulești la Boian-Vidra la nord de Dunăre, de la Usoe II la Sava în regiunea Mării Negre și reprezintă probabil primele faze nestudiate ale culturilor Sava și Polianița.*

Abstract: *The Belogradets archaeological site is located in North-eastern Bulgaria, in the Southern part of the Stana plateau, close to the village of Belogradets, Varna region. It was researched through rescue archaeological excavations in 2020. On an area of 3.700 sq.* m., *15 archaeological features were registered, mainly pits dug into the old land surface and the virgin soil. The pottery represents a combination of previous Late Neolithic elements and nascent Early Chalcolithic traditions. These marks, together with the lack of graphite decoration, indicate that the archaeological site Belogradets existed during the transition from the Late Neolithic to the Early Chalcolithic (4954–4722 cal BC). The chronological horizon present in Belogradets covers the time of the transition from Boyan-Giuleşti to Boyan-Vidra on the northern bank of the Danube, from Usoe II to Sava in the Black Sea region, and probably represents the understudied first phases of the Sava and Polyanitsa cultures.*

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The archaeological research of the Neolithic and Chalcolithic periods in North-eastern Bulgaria dates back to the second half of the 20th century and with greater or lesser intensity continues to this day. An important place in these studies is occupied by the Belogradets archaeological site. It complements the cultural and chronological characteristics of this still poorly studied region in terms of the changes occurring with the transition to the Chalcolithic era at the beginning of the V millennium BC.

Geographical characteristics

The archaeological site is situated within the territory of the village of Belogradets, Varna region and is located in the Southern part of the Stana plateau. The plateau is 25–28 km long from North to South and is 10–12 km wide (**Fig. 1**), consisting of Lower Cretaceous marls and limestone. Its altitude is 441 m. Its Western and Southern slopes descend steeply towards Provadiyska river and its left tributary, Kriva river. To the Southeast it smoothly lowers to the valley on Zlatina river (left tributary of the Provadiyska river), and to the East it connects with the Dobruja plateau. To the North the plateau gradually towards the Ludogorie plateau[1].

History of investigations and stratigraphy

Archaeological excavations took place in 2020 in connection with the construction of a gas pipeline, a part of the extension of the gas transmission infrastructure of the Republic of Bulgaria. The site was registered due to the presence of concentrations of burnt daub, ceramic fragments and numerous flint concretions, revealed after the removal of the surface layer, which has a thickness of 30–40 cm. The studied area is 3700 sq. m.

As a result of the research, the following stratigraphy was recorded (from bottom to top):

– Virgin soil – in the Southern part of the site it is located at a depth of 30–40 cm and contains flint concretions. To the North, it is at 1–1.20 m depth and the flint concretions gradually decrease and disappear.

– Gray–brown thick layer of about 30 cm thickness-it represents the old land surface in which the archaeological features were dug into. It contains flint concretions and lacks archaeological materials.

– Dark brown surface layer, between 40 and 60 cm thick, which covers the archaeological remains. The upper part of this layer (30–40 cm) is affected by modern agricultural activity.

Archaeological features

Fifteen archaeological features were excavated – mainly pits dug into the old land surface and the virgin soil. They are grouped in two separate concentrations located at the two ends (Southern and Northern) of the investigated area (**Fig. 2**). The distance between the two groups is about 40 m.

The pits in the Southern, higher, part of the site have round or oval openings,

[1] MICHEV *et alii* 1980, p. 465.

the sizes of which vary from 1.20 to 4.80 m. Their walls are sloping and their bottoms, up to 1m in depth, are uneven. Feature No. 4 is peculiar and it consists of three hollows (**Fig. 4.1, 4.2, 4.3**). Flint concretions and various flint artefacts have been found around and inside the hollows, while ceramic fragments and small clay and bone objects are very few in number.

Only the northernmost feature of the Southern group represents a concentration of massive burnt daub, which probably marks a building. Its outline and boundaries were not found and its Eastern part extends beyond the planned exploration area. The layer containing the burnt daub and the layer beneath it, containing archaeological materials, have a total thickness of 40–50 cm. The burnt daub pieces are poorly preserved; however, some of them show traces of split timbers, stakes and rods.

The pits in the Northern part of the site have oval openings measuring from 1 to 1.80 m. Their walls are sloping and their bottoms are uneven. The depths vary from 0.65 to 1 m. An exception is a large oval pit (feature no. 7). It has an area of around 60 sq. m and dimensions of 7.5 × 8 m. Five smaller hollows were excavated in the bottom. They contain a large quantity of ceramic fragments, flint artefacts and small finds.

The Northern group of pits is distinguished from the Southern group by the presence of burnt daub in their contents, together with ceramic fragments, animal bones and flint artefacts were discovered along with the it. Presence of flint concretions, characteristic of the Southern part of the site, was not noticed here.

Pottery

In general, the pottery from all excavated archaeological features shows similar traits. It presents both Late Neolithic elements and details typical of the Early Chalcolithic (according to the Bulgarian chronology). It is the decoration of the vessels that preserves the Late Neolithic tendencies, while the forms indicate early Chalcolithic changes. Typical example of the presence of characteristics from both periods is the complete absence of graphite ornamentation, on the one hand, and the prevalence of lily-shaped vessels, on the other.

The most characteristic Late Neolithic element is the channelled decoration, which consists of parallel straight or arched lines (**Fig. 3.1–5; 5.3**). Late Neolithic traditions are also visible in the lines of parallel piercings (**Fig. 3.9**), the staggered incised squares (**Fig. 3.8; 5.2**), as well as the combination of parallel channels and a double line of alternating piercings (**Fig. 3.6**). Channelled and pierced decoration flourished during the Late Neolithic period and continued into the Early Chalcolithic in new variants and combinations with other decorative techniques. Analogies can be pointed out in the pottery of various Late Neolithic cultures. The closest parallel is phase II of the Usoe culture, also defined as Protosava, because of the first appearance of elements that are typical of the Early Chalcolithic Sava culture[2]. It was then in the eponymous settlement of the culture that the shape defined as a lily vessel appeared[3].

[2] TODOROVA, VAJSOV 1993, dwgs. 76–77, 128.

[3] TODOROVA, VAJSOV 1993, dwg. 76. 3.

A fragment ornamented with a row of incised triangles deserves special attention (**Fig. 3.7; 5.4**). Similar decoration is well represented in the pottery of the Boyan–Giuleşti type. The presence of a chess ornament on a rectangular field (**Fig. 3.8; 5.2**), executed by removing the clay, also points to a similar analogy (Giuleşti, Gălăţui–Movila Berzei)[4]. It is important to note that both decorative motifs continued to be used and developed during the Boyan-Vidra phase.

The characteristic features of the Early Chalcolithic dominate the pottery from Belogradets. Regarding the forms, these are the lily-shaped dishes (**Fig. 4.1, 4; 5.6**), the bowls with cylindrical mouth and rounded or biconical lower part (**Fig. 4.10**) and the necked shouldered bowls (**Fig. 4.6, 11, 13**). The pottery assemblage contains also stands for dishes (**Fig. 4.7**), hollow pedestals (**Fig. 4.12; 5.8**) and bottoms from biconical cups. In terms of ornamentation, incised decoration is present (**Fig. 4.1–2, 6–9, 12**) and a development of the motifs executed by incising and removing the clay, as well as a continuation of the use of white inlay, is found. Single fragments are decorated with alternating triangular stabs connected with a horizontal incised line (**Fig. 4.5; 5.1**). Motifs with alternating incised bands and bands of the original vessel surface are well represented. Their combination with the chess ornament, in which the arrangement of the squares has different variants can also be seen. A typical motif is the diagonal row of squares with the original surface of the vessel against the background of stripped bands (**Fig. 4.14; 5.5**). An additional decorative element is the colouring with red ochre on the inner part of the mouth of the vessels, as is the case with the fragment of a cup (**Fig. 4.2**).

Corresponding analogies for the pottery from Belogradets, can be found in the finds from a number of sites from the beginning of the Chalcolithic. It is important to emphasize, however, that the indicated analogies are of a general nature, since for the chronological horizon in which Belogradets is located there is not yet enough research to provide the possibility for comparison. The presented comparisons refer to published material from a later period, when graphite was well represented in the decoration of pottery.

Lily-shaped vessels were found in the tell near Provadia[5], Golyamo Delchevo, IInd horizon[6] and Bourgas from the Black Sea region[7]. They are also distributed in the Maritsa culture area. An example of this is the Racheva mound, Yambol region[8]. Similar shapes of bowls, cups, necked shouldered bowls, hollow pedestals and stands are characteristic for the pottery assemblages from the tell at Polyanitsa and Radingrad–Polyanitsa culture[9] and from the settlements near Bogata and Vidra-Boyan–Vidra culture[10]. Parallels with the mentioned settlements are partially established for the decorative techniques and motifs used in Belogradets. Both to the North and to the South of the Danube, the motifs of cut strips, crossed sometimes

[4] COMŞA 1957, fig. 2–3; NEAGU 2003, p. 100, pl. XLVIII.
[5] NIKOLOV, LYUNCHEVA, SAMICHKOVA 2021, fig. 32. 2.
[6] TODOROVA 1975, taf. 11. 12; 15. 5.
[7] KLASNAKOV 2011, fig. 9.1; 10.
[8] TODOROVA 1986, pl. 13.
[9] NAIDENOVA 2011–2012, fig. 3–7.
[10] COMŞA 1974, fig. 33–34.

by a row of squares, as well as the various motifs in the form of the Bulgarian letter "Г" are known[11].

The decoration on one vessel fragment, consisting of strips with alternating stamped squares (**Fig. 4.3; 5.7**) deserves attention. A similar ornamental motif is known from the pottery of the Maritsa culture in the Drama–Merdjumekia tell[12].

Chronology

The combination of previous Late Neolithic elements and nascent Early Chalcolithic traditions, as well as the lack of graphite decoration characteristic for the pottery presented, indicate that the Belogradets site existed during the transition from the Late Neolithic to the Early Chalcolithic. This dating is supported by six radiocarbon dates, AMS measurements on animal bones[13]. Radiocarbon ages were calibrated using calibration curves IntCal20[14] and calculated to calendar age ranges using OxCal v4.4.4. dataset (**Fig. 6**).

Five of the radiocarbon values outline the chronological interval 4954–4722 cal BC (**Fig. 6**). Apart from them, one date (SUERC–96467, 4616–4455 cal BC, *91.5% probability*) stands out from the general picture, as it is related to the beginning of the Late Chalcolithic. It does not match the relative chronology of the pit in which it was found (feat. 13). This intrusive sample ended up in the pit as a result of modern farming activities and derives from archaeological features from the beginning of the Late Chalcolithic, located nearby, but outside the studied area. Another date originating from the same pit (SUERC–101412, 4906–4888 cal BC, 88.3% probability), falls within the general interval and confirms the proposed relative dating.

Conclusion

Given the limited amount of pottery and the small number of radiocarbon measurements, it is difficult to definitively determine whether there is a gradual chronological development of the Belogradets archaeological site. This possibility can be confirmed or rejected by future studies with more archaeological material and a larger series of dates.

The study of the Belogradets archaeological site points toward the existence of a local community group that developed at the very beginning of the Early Chalcolithic, when there was a continuation of Late Neolithic traditions and a transition to new Chalcolithic trends, while graphite decoration was not yet in use. Combining elements from the Late Neolithic and the Early Chalcolithic can also be noted in the pottery from the neighbouring site of Gradishte, located to the West, and whose chronological interval of 5036–4714 cal BC includes the end of the Late Neolithic[15]. The chronological horizon presented in Belogradets and Gradishte covers the time of the transition from Boyan- Giuleşti to Boyan–Vidra on the northern

[11] COMȘA 1959, fig. 2–3.

[12] Fol *et alii* 1989, taf. 4.1.

[13] They were prepared at the Radiocarbon Laboratory, Scottish Universities Environmental Research, Centre AMS Facility, Scotland (SUERC).

[14] REIMER *et alii* 2020.

[15] PETROVA, NAYDENOVA 2022, p. 11–12.

bank of the Danube, from Usoe II to Sava in the Black Sea region. Based on all the data known to up to present, it can be assumed that this horizon represents the understudied first phases of the Sava and Polyanitsa cultures.

The established, although quite general, analogies define the cultural characteristics of the Belogradets archaeological site as a synthesis of influences from the South, North and the West. The Stana Plateau was a contact area whose inhabitants developed a local flint production and maintained active relations with the neighbouring communities.

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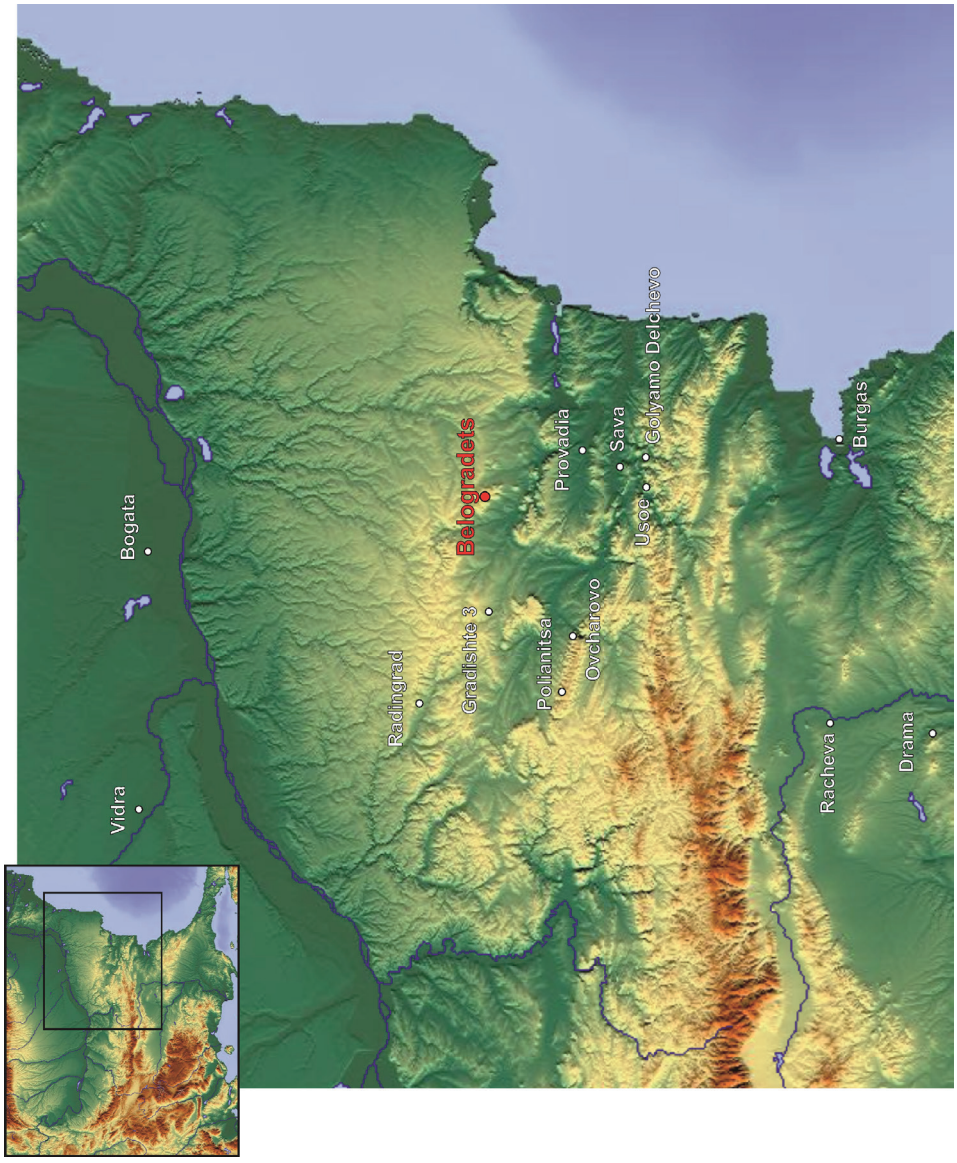

Fig. 1. Map of the sites mentioned in the text.

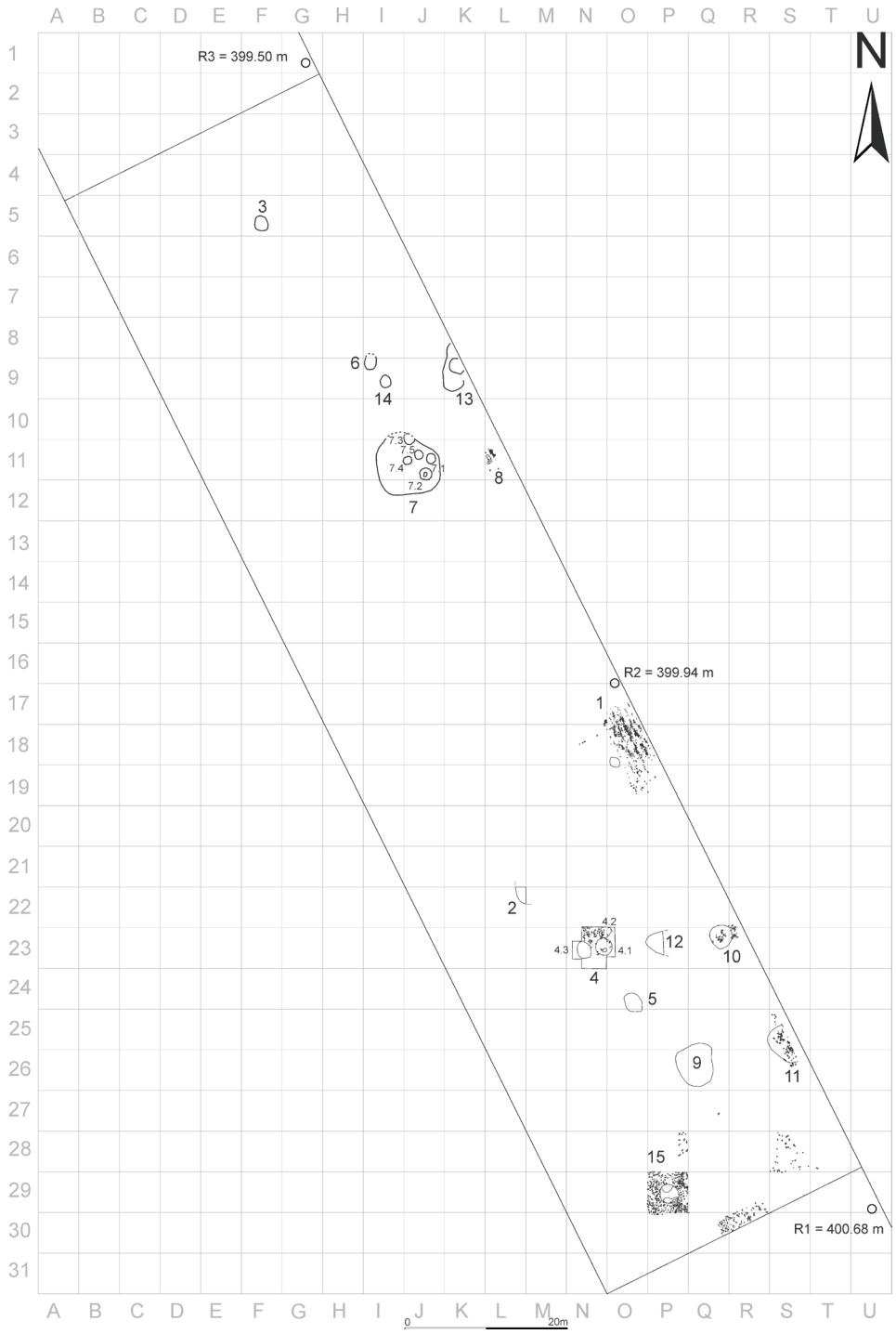

Fig. 2. Plan of the archaeological site Belogradets.

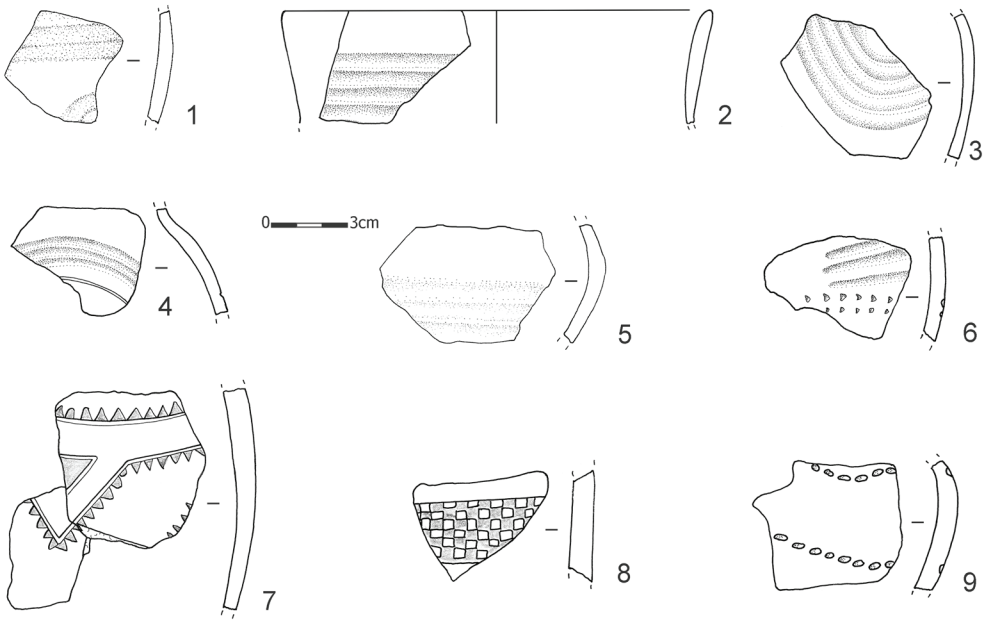

Fig. 3. Late Neolithic pottery. Feature 1 (5), feature 7 (1, 3, 7–9), feature 10 (2, 4), feature 11 (6).

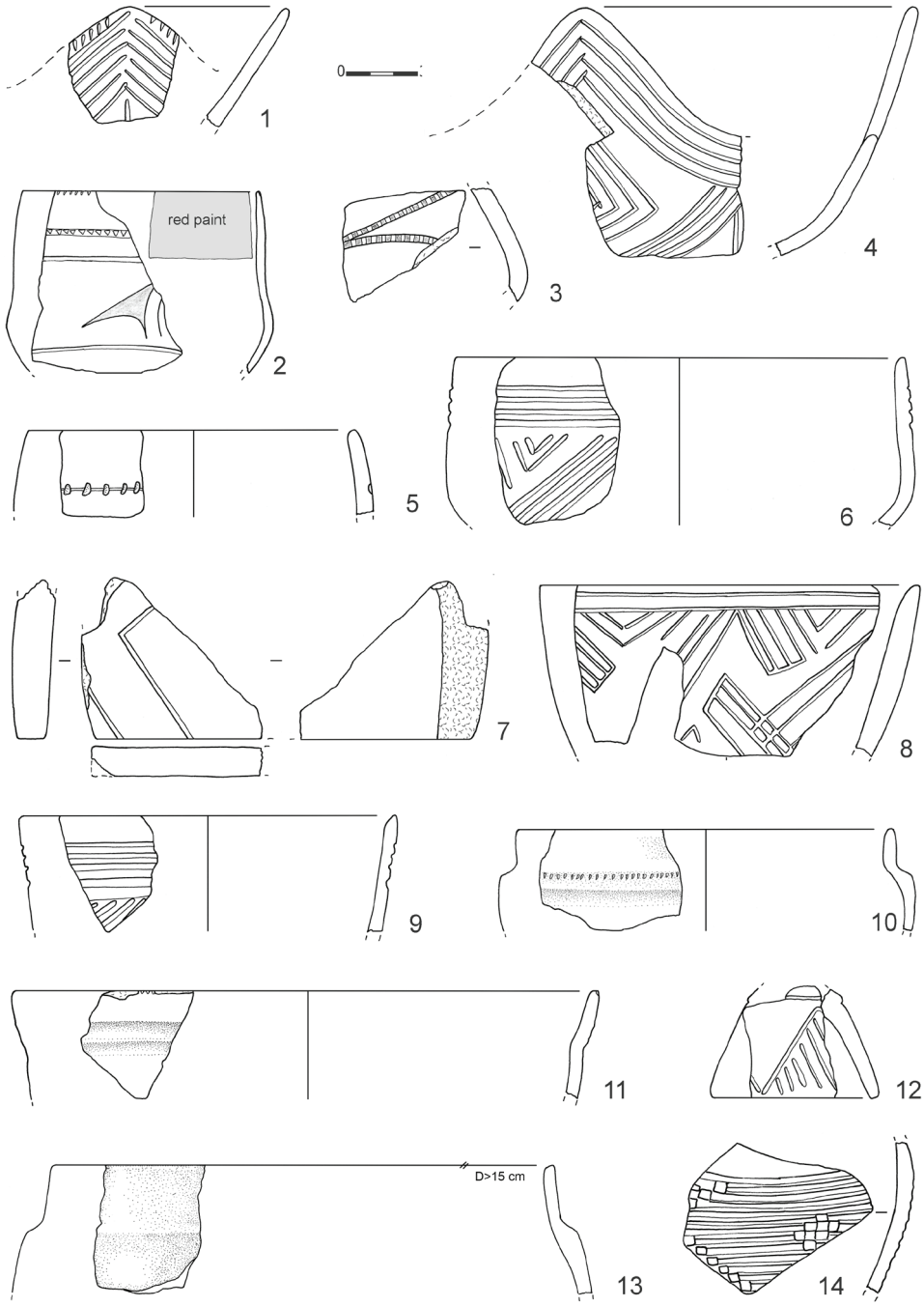

Fig. 4. Early Chalcolithic pottery. Feature 7 (1–2, 5, 7–8, 10–11, 13–14), feature 10 (3, 12), feature 11 (4, 6, 9).

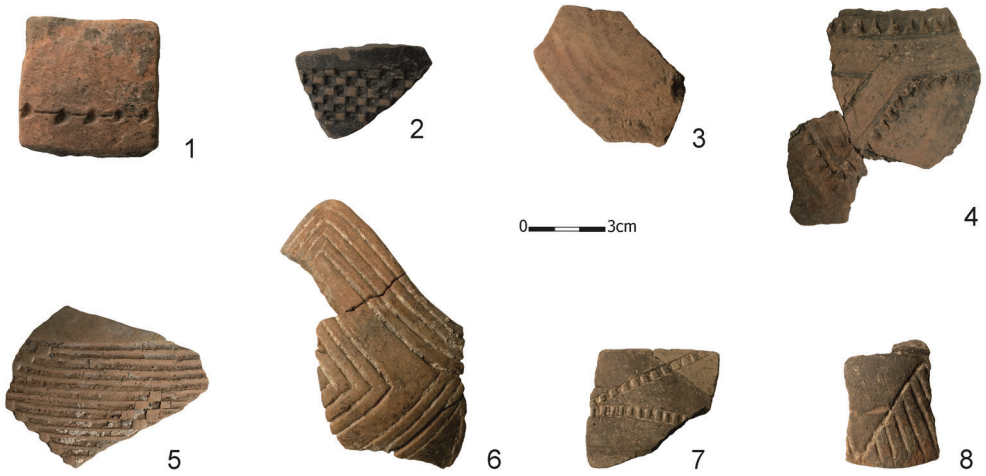

Fig. 5. Pottery. Feature 1 (5), feature 7 (1–5), feature 10 (7–8), feature 11 (6).

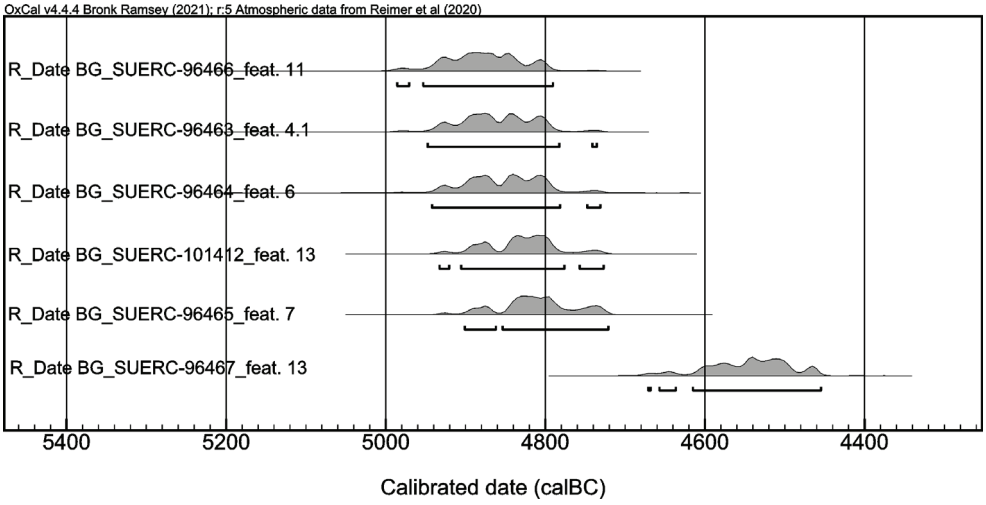

Fig. 6. Radiocarbon data and calibrated age ranges.