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NEW DATA ON THE CULTURAL HORIZON OF EARLY NEOLITHIC POLYCHROME POTTERY IN TRANSYLVANIA. THE 432A COMPLEX FROM THE LIMBA-OARDA DE JOS-SITE (ALBA COUNTY)

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Abstract: Starting from the premise of its highly strategic position as a major intersection of several natural communication routes linking large geographic units (Transylvania, Banat, Oltenia, Muntenia), the present study addresses issues arising from the re-evaluation of older painted materials discovered within the early Neolithic deposits at the Limba-Oarda de Jos site, alongside the analysis of other materials uncovered during recent excavations carried out in the course of constructing the A10 Sebeş-Turda Highway (2016–2017). What in 2002, at the time of publishing the initial early Neolithic surface dwelling (Starčevo-Criş IIIB), appeared to be merely a working hypothesis regarding the Limba site's location and significance within the development of Neolithic cultures in the Mureş Valley, has since become much more evident. This has occurred through the scientific analysis of other contemporary habitation complexes. Thus, a series of materials presented now, belonging to the so called *polychrome painted pottery cultural horizon*, revealed through the thorough analysis of complexes in the *Bordane* sector during the 2016 excavation campaign, support a possible historical reality: that within this area, we might document evidence of cohabitation between Starčevo-Criş communities – which had strong connections with regions south of the Carpathians – and the Vinča communities, newly arrived from the west along the Mureş Valley.

Keywords: *Early Neolithic, Mureş Valley, polychrome painted pottery, Starčevo-Criş, Vinča, cultural and chronological synchronism.*

LOCATION AN CHARACTERISTICS

About the Ensemble of Prehistoric Archaeological Sites at Limba-Oarda de Jos, which entered the specialized bibliographic circuit of Transylvanian Neolithic studies early on, a series of studies and articles have been previously published¹. These publications followed the resumption of systematic research by the Centre for Pre- and Protohistoric Research in Alba Iulia in 1995², but especially after the preventive archaeological investigations

¹ BERCIU, BERCIU 1949, 1–43; REPALBA 1995, 92–93; CIUGUDEAN 1978, 39–53.

² ALDEA/CIUTĂ 1996; PAUL *et alii* 1997; PAUL *et alii* 1998; PAUL *et alii* 1999; PAUL/CIUTĂ

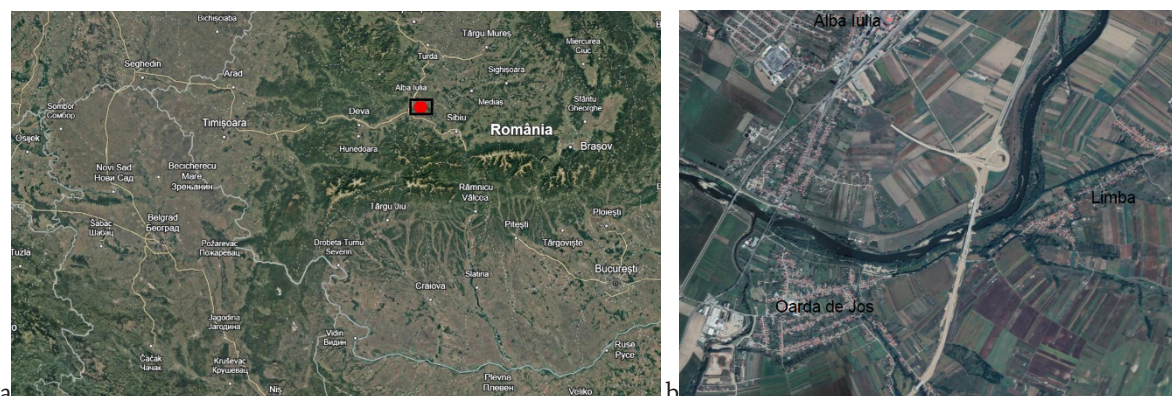


Fig. 1. The location of the Limba-Oarda de Jos site within the major landform units (a); detailed placement (b).

prompted by the infrastructure work on the A10 Sebeș-Turda Highway³. Over time, with the accumulation of archaeological data and information, the richness of the Neolithic deposits at this site has been revealed, analysed, and interpreted, proving to be truly significant for the Early and Developed Neolithic in the middle Mureș Valley.

The research area, covering over 50–60 hectares, is located in southeastern Transylvania within the middle Mureș River basin, on the left side of the river, approximately 2 km south-southeast of the centre of the city of Alba Iulia. It is situated on a high, flat, flood-free terrace (with an elevation ranging from 10 to 20 meters), about 2 km upstream from the confluence of the Sebeș River and approximately 500 meters downstream from the confluence of the Ampoi River (Fig. 1–2). In effect, due to its location, the site's perimeter sits at the intersection of several natural communication routes (the Mureș, Sebeș, and Ampoi rivers), positioned precisely at the junction of the eastern edge of the wide gorge-like Mureș Corridor (Couloir) – formed by the river between the Meridional Carpathians to the south (Șureanu Mountains) and the Western Carpathians to the north (Metaliferi Mountains) – with the Transylvanian Depression. This corridor facilitates connections westward to the Banat and Pannonia regions, and south-

westward, via the Hateg and Caransebeș depression corridors, to the Danube's Iron Gates region. From this location, a wide range of possibilities for advancing opens up: towards the north of Transylvania (along the Mureș River), towards the east (towards the Secașelor Plateau and the Târnavel Plateau, following the Târnavă Valley), or towards the south and southeast (through the valleys of Sebeș, Secașul Mare, and Cibin), extending towards Ocna Sibiului, the Olt Gorge,

2001; CIUTĂ/GLIGOR 1999; RUSTOIU/CIUTĂ 2001.

³ Within this project, the overlapping infrastructure perimeter within the site has been designated under the title: "Site No. 6" (CIUTĂ *et alii* 2016).

and the Făgăraș Depression (Fig. 1, Fig. 15). This is why we consider that the fact that the A10 Highway currently crosses the site exactly through the median area of the site is not a coincidence (!). All communication routes, conditioned by the low-lying forms of access to and from the Transylvanian Depression, make it obligatory to pass through this important nodal point, a major junction (Fig. 1; Fig. 15).

We used the term "ensemble of archaeological sites" because it refers to multiple segments (fragments) of the terrace – delineated by seasonal watercourses (streams that flow from south to north: Școalei stream, Ghișorilor stream,



Fig. 2. Sectorization of the Limba-Oarda de Jos site (after CIUTĂ 2009).

Bordane stream), differentiated by morphology and even by toponymy – located between the towns of Limba (formerly Dumbrava) to the east, and Oarda de Jos (formerly a separate village, now a district of the municipality of Alba Iulia) to the west. Each of these segments is archaeologically distinct, characterized by the specific complexity of the succession of archaeological deposits, in separate sectors⁴ (Fig. 2).

Recent research has documented the morphological

⁴ We are thus dealing with the following sectors, which can also be considered as actual sites: *În Coasta*, *Vărar*, *Vărarăria*, *Bordane*, *Șesu' Orzii* etc. (CIUTĂ 2009; CIUTĂ 2009a) The terrace continues, after the interruption caused by



Fig. 3. Details from the documentation of the L3/1998 dwelling (a-b). (after CIUTĂ 2002).

changes that have affected the terrace over the last 8,000 years, providing evidence of both anthropogenic interventions and natural developments⁵.

The vast terrace, within which the prehistoric settlements are located, is characterized by an extremely favourable ecosystem for human habitation, providing the necessary

Neolithic deposits⁷, beneath the successive layers and levels of early Vinča settlements (Vinča A and B phases), with early Neolithic deposits (Starčevo-Criș, Precriș⁸) being identified. In 1998, in the *Bordane* sector, in *Section X/1998*, at a depth of 1.80–1.90 m, beneath a Vinča surface dwelling (L2/1998), a compact assemblage of ceramic materials, river stones, fragments of burned clay, fragments of plastered hearths, fragments of grinding stones, numerous faunal remains, charred wood, and ash, etc., was revealed during excavation. After full exposure, it was determined to be a surface dwelling (L3/1998)⁹ (Fig. 3–4).

The material inventory of the dwelling, including the specifics of the ceramics (fabric, shapes, decoration, ornaments – Fig. 5), along with the stratigraphic position of the complex (located 20–30 cm below the surface dwelling, early Vinča – L2/1998, Fig. 4), led us to attribute the settlement complex to the Early Neolithic, more specifically to phase IIIB of the Starčevo-Criș cultural complex¹⁰.

Moreover, the revealed stratigraphic situation, which, as previously mentioned, showed another surface dwelling above it – Vinča A L2/1998 (Fig. 3–4) – led us at that time to

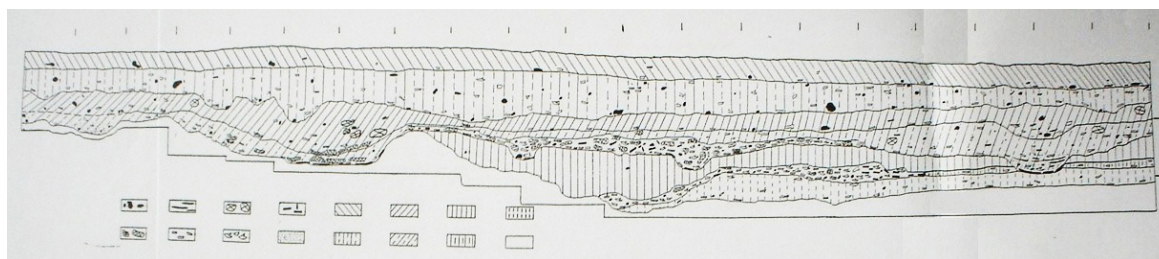


Fig. 4. The northern stratigraphic profile of SX/1998. (after CIUTĂ 2002).

resources for communities based on animal husbandry and agriculture, typical of the Neolithic period. The fertile lands, the presence of numerous drinking water springs, the proximity of the Mureș River –with all the resources it can provide – the favourable exposure position within the area, the presence of useful mineral deposits (salt, flint, sandstones, rocks of various types etc.), and the (still present!) forests in the immediate vicinity, constitute solid arguments that justify the exceptional intensity (over 2.5 meters of archaeological layer thickness) and the considerable extent of human settlements in this sector of the Mureș River⁶.

The 1995–2001 campaigns revealed in the *Bordane* which had provided the most complex stratigraphic succession of

consider that there might have been a chronological hiatus between the Starčevo-Criș settlement and the early Vinča settlement. This hiatus was represented by the layer situated between the two settlement complexes, consisting of loess-like sand, which lacked archaeological materials.

Undoubtedly constituting the richest and most representative material discovered within the settlement complex, the ceramics served as the main support for study and analysis in order to interpret its functionality and establish its cultural and chronological context.¹¹ The fine pottery is characterized by a well-made paste, well-homogenized, made from decanted clay that has been cleaned of impurities and lithic residues, tempered with quartzitic sand, and supplemented with chaff or plant residues in a smaller proportion. The firing is of very good quality, uniform, though not strong enough to completely eliminate the black core. The predominant colour of this type is brown-gray, with a wide range of

the locality of Oarda de Jos, with the terrace sector on the left side of the Sebeș River, known by the name: Dublihan.

⁵ We estimate that the Mureș River, through its strong erosion of the southern bank, has affected about 5–10% of the northern boundary of the site, and in some areas, anthropogenic interventions from the 18th–19th centuries, aimed at straightening and levelling the terrace boundary, have led to modifications in the morphological characteristics of the northernmost area.

⁶ PAUL/CIUTĂ 2001.

⁷ PAUL *et alii* 1999, 56; PAUL/CIUTĂ 2001.

⁸ ALDEA/CIUTĂ 1996.

⁹ CIUTĂ 2002, PAUL *et alii* 1999, 56–58; PAUL/CIUTĂ 2001.

¹⁰ CIUTĂ 2002.

¹¹ CIUTĂ 2002, Fig. 5–4–15.

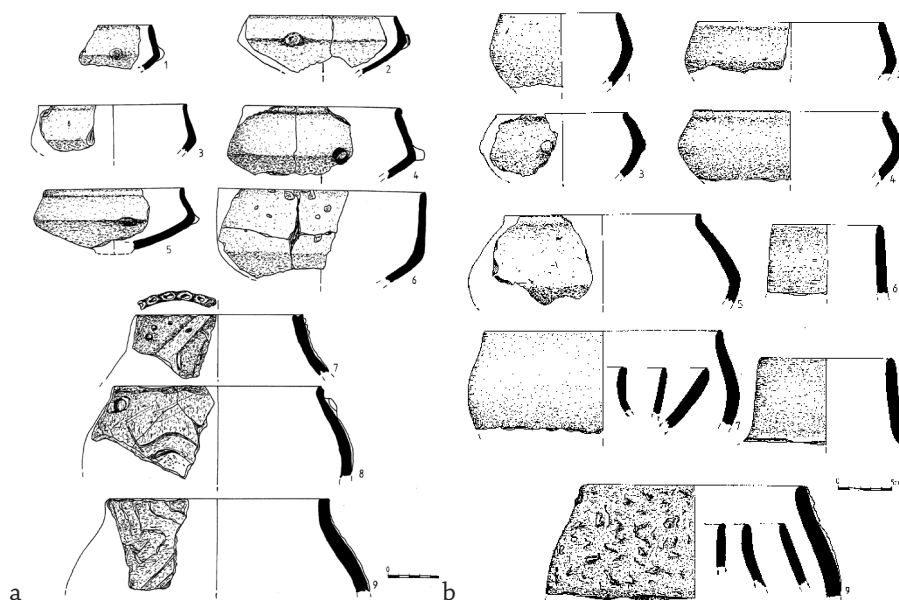


Fig. 5. Ceramic materials from L3/1998. (after CIUȚĂ 2002)



Fig. 6. Painted ceramic fragment with dark brown on a brownish-gray background (after CIUȚĂ 2002, Fig. 11/2).



Fig. 7. Painted fragment with brown bands on a beige background (after CIUȚĂ 2002, Fig. 17/5).

shades, although brown, chestnut, and other similar tones are also present. In our 2002 study, we emphasized a particular aspect, namely the burnishing, which, in the case of fine pottery, proved to be of very good quality. The slip has a specific sheen both on the outer and inner surfaces, acquiring slightly metallic hues with a pseudo-graphited appearance (*urfirnis*). In the case of fine pottery, we note the

predominance of bitronconic shapes¹², with some of them even featuring very sharp angles, somewhat atypical for this phase. Furthermore, in the case of some vessels belonging to the fine pottery category, we observe the presence of horizontal grooves beneath the rim (*lippenrand*) (Fig. 5)¹³.

In the case of two fragments belonging to the fine species, we encounter painting as a decoration technique. The first of these features parallel bands of dark brown colour, arranged horizontally, parallel to the rim of the vessel (in garlands), connected to each other, on a chestnut-coloured, well-polished background (Fig. 6). The second fragment consists of curved brown bands placed on a light beige slip-coated background. This latter fragment belongs to the type of bi-conical vessel with an upper part curved outward, resembling what is sometimes referred to in some studies as a 'cup' or 'goblet,' occasionally with a tall cylindrical foot. The decorative motif appears to be spiral (Fig. 7).

The comparative analysis of the ceramics, specifically the forms, decoration techniques, and ornamental range, as well as other present artifacts, made it possible to attribute the early Neolithic dwelling at Limba-Bordane to the Starčevo-Criș cultural complex¹⁴. In the case of ceramic materials, the closest analogies in the area delimited by the Mureș Valley and the Secașelor Plateau are those from the sites at: Ghirbom-*La Ghezuini*¹⁵, Galda de Jos¹⁶, Hăpria-*Lisu' Străjii*¹⁷, Dumitra-*Gurguleu*¹⁸, Lancrăm¹⁹, Ocna Sibiului-*Triguri* (the third level III²⁰), Balomir-*Gura Văii Cioarei*²¹, Tărtăria-*Gura Luncii*²², Sebeș-*Casa Jampa*²³, Orăștie-*Dealul Pemilor-punct X8*²⁴, Vinerea-*Tăbăriște*²⁵,

¹² CIUȚĂ 2002, Fig. 4/1, 3, 8; 5/2, 4, 5; 6/1-6; 11/2, 11; 14/1, 3.

¹³ CIUȚĂ 2002, Fig. 5/3-5; 6/4-5; 14/3-4, 8.

¹⁴ CIUȚĂ 2002, 3-33.

¹⁵ ALDEA 1972, 3-16; DRAȘOVEAN 1981; 35, 42, notes 20-21, 126; 1989; LAZAROVICI 1984, 66; REPALBA 1995, 98-100; CIUȚĂ 2002.

¹⁶ DRAȘOVEAN 1981, 35, 39 note 19, Pl. I/1; LAZAROVICI 1984, 66; REPALBA 1995, 95-96; CIUȚĂ 2002.

¹⁷ MITROFAN 1964, 93; DRAȘOVEAN 1981.

¹⁸ DRAȘOVEAN 1981, 34, 41.

¹⁹ DRAȘOVEAN 1981, 35, notes 25, 39; REPALBA 1995, 101; LAZAROVICI 1984, 66.

²⁰ PAUL 1995, 47.

²¹ VLASSA 1966, 17; 1967, 404-407; 176, 117; DRAȘOVEAN 1981, 34, 42-44; LAZAROVICI 1977, 20; LAZAROVICI 1979, 69; LAZAROVICI 1984, 68-70; POPA 2000, 17-19; CIUȚĂ 2002.

²² VLASSA 1966, 16; DRAȘOVEAN 1981, 35, notes 33-34; LAZAROVICI 1984, 68-70; POPA 2000, 26-30;

²³ DRAȘOVEAN 1981, 35, 37, 39-42; REPALBA 1995, 167.

²⁴ LUCA *et alii* 1998.

²⁵ POPA 2000, 18-19.

Hunedoara-Cimitirul reformat²⁶. In Transylvania and Crișana, we have analogies with the materials presented at: Zăuan²⁷, Iernut-Bideșcutul Mare²⁸, Gura Baciului (the third level III²⁹), Morești³⁰, Suplacu de Barcău³¹, Leț-Varhegy³², Sf-Gheorghe-Bedeaza³³; and in Banat: Dubova-Cuina Turcului³⁴, Beșenova (Dudeștii Vechi), Gornea-Căunița de Sus, Liubcova-Ornița and Ostrovu Golu³⁵.

As for the painted ceramic fragments, we noticed analogies at: Lancrăm³⁶, Sebeș-Casa Jampa³⁷, Hunedoara-Cimitirul reformat³⁸. Analogies for the painted materials were also observed in sites located at longer distances: Cârcea-La Viaduct³⁹, Leț-Varhegy⁴⁰, Lunca-Poiana Slatinei⁴¹.

Considering all the characteristic elements presented, and the analogies with materials from similar (contemporary) settlements and/or habitats, whether neighboring or more distant, belonging to the early Neolithic, we opt for classifying the surface dwelling (and the settlement level it belongs to) within the developed (classic) stage of the Starčevo-Criș culture's evolution. More precisely, according to the evolutionary system proposed by Gh. Lazarovici, it corresponds to the second stage (B) of the third phase (III) of its evolution⁴². The polychrome painted ceramics, the bi-conical forms with *lippenrand*, the texture of the ceramics (especially the fine ones), the vessels with tall feet, the incised decorations, etc., support the affiliation of the discussed settlement complex to the cultural synthesis component emerging from the contacts between the *Starčevo-Criș culture* itself and the first elements of the migratory phenomenon, referred to by the generic term "*Balkan-Anatolian Chalcolithic*", which is considered to have a definite southern origin⁴³.

According to the opinion expressed by Gh. Lazarovici, in phase/step IIIB, we witness "*the first impulse of the Vinča type within the northern Danube areas, concurrently with the Neolithization of southeastern Transylvania and Moldova, with some communities even surpassing the Prut River line*"⁴⁴. Based on the study of the polychrome ceramics, analogies were made with the South Balkan, Greek, and even Asian

regions⁴⁵. *The Vinča elements are strong and evident (especially in the case of fine ceramics), demonstrating strong ties with the early Vinča stages (A1, A2), which evolve during the same period in the Banat region*⁴⁶. Based on these ideas, it was accepted that the area where these contacts occurred (late Starčevo – early Vinča) should be sought in the Danube region as well as in the Banat area. However, the way these contacts unfolded remained unclear, just as it remained unclear how, in the middle Mureș Valley, at Limba, there was a Starčevo-Criș level with polychrome ceramics (already influenced by the "Vinča impulse"), followed chronologically by a distinct Vinča A settlement. However, such relations were judiciously documented at Liubcova-Ornița, where *levels V and IV* captured the interactions between the two Neolithic communities⁴⁷.

With the preventive excavations prompted by the construction of the A10 highway (2016–2017), during the dismantling of DJ 107C, which demarcates the southern sectors of *Bordane* and *Vărăria*, a dipped (sunken) complex (feature Cpx. 584) was revealed, belonging to the same chronological cultural horizon as the one documented in L3/1998⁴⁸. The typological-stylistic and technological analysis of the ceramics from this complex led to the identification of new decorative types, superior manufacturing technologies compared to the "traditional" early Neolithic ones (especially regarding surface polishing, sand tempering, and high-quality firing), as well as the same high frequency of bi-conical forms with sharp angles and *lippenrand* (Fig. 8)⁴⁹. There were new arguments that confirmed the fact that the early Neolithic human group that inhabited the terrace at Limba had thoroughly adopted a series of Vincian cultural and technological elements.

However, the 2016 preventive excavation revealed a previously unknown stratigraphic reality, shedding entirely new light on the Neolithic settlement sequences at Limba. In the proximity of the *Bordane* sector, at its eastern extremity, as well as in the *Vărăria* sector, Vinča complexes were documented that, through the materials they contained, belonging to the oldest Vinča horizon from Transylvania – with strong Vinča A1 and A2 elements (!) – proved to be earlier than those from the surface dwelling investigated in 1998 (L2/1998), located above the Starčevo-Criș one⁵⁰!

In other words, the Vinča culture surface dwelling L2/1998 (Vinča A3?), situated at approximately 10–25 cm, above the Starčevo – Criș surface dwelling (L3/1998), it didn't belong to the oldest Vinča habitation from Limba-Oarda de Jos! In these circumstances, the question addressed by the authors of this study aims to: "*the possibility that the transfer of technologies between the two communities should have taken place in the most natural conditions, through their cohabitation inside*

²⁶ DRAȘOVEAN 1981, 35, 39–41, Pl. I/11–14; LAZAROVICI 1984, 68.

²⁷ LAZAROVICI 1984, 68–69; LAZAROVICI 1988; 1993; LAZAROVICI/MAXIM 1995, 5, 64–65.

²⁸ VLASSA 1966; 1966a; 1967; DRAȘOVEAN 1981, 42; LAZAROVICI 1984.

²⁹ VLASSA 1972, 23; 1978; LAZAROVICI/MAXIM 1995, 93–100.

³⁰ HOREDT 1959; VLASSA 1966; 1967; DRAȘOVEAN 1981, 41; LAZAROVICI 1984, 68.

³¹ LAZAROVICI 1984, 68; IGNAT 2001, 69–89.

³² ZAHARIA 1962; 1964; LAZAROVICI 1984, 68–71; LAZAROVICI, SZÉKELY 1995; CIUTĂ 1997, 11.

³³ HOREDT 1956; DRAȘOVEAN 1981, 41; LAZAROVICI/SZÉKELY 1995; CIUTĂ 1997, 11–12.

³⁴ PĂUNESCU 1979, 41–65; LAZAROVICI 1984, 68.

³⁵ LAZAROVICI 1984, 67–68; LUCA 1991, 143–152.

³⁶ DRAȘOVEAN 1981, 35, 42.

³⁷ DRAȘOVEAN 1981, 35, 42, note 30, Pl. I/2, 5; LAZAROVICI 1984, 68.

³⁸ DRAȘOVEAN 1981, 35, 42, notes 23–24, Pl. I/4; II/14; LAZAROVICI 1984, 68.

³⁹ NICA 1977, 26 sqq; 1995, 11–28; LAZAROVICI 1984, 66–68.

⁴⁰ ZAHARIA 1962, 5–51; ZAHARIA 1964, 19–44.

⁴¹ DUMITROAIA 1994, 7–82.

⁴² LAZAROVICI 1977, 37–42; LAZAROVICI 1979, 64–69; LAZAROVICI 1984, 66–68; LAZAROVICI 1993, 245.

⁴³ LAZAROVICI 1984, 66; LAZAROVICI 1988, 17–28; LAZAROVICI 1993, 244–245.

⁴⁴ LAZAROVICI 1984, 66–70; URSULESCU *et alii* 2001; COTIUGĂ 2000, 131–156.

⁴⁵ LAZAROVICI 1977, 37–40; LAZAROVICI 1979; 1984, 68; cf. NICA 1977, 36–39.

⁴⁶ LAZAROVICI 1984, 65–73; LAZAROVICI 1988, 17–28; LAZAROVICI 1993, 245; DRAȘOVEAN 1989, 9–47.

⁴⁷ LUCA 1991, 1–14.

⁴⁸ CIUTĂ/TUDORIE 2021, 108–120.

⁴⁹ CIUTĂ/TUDORIE 2021, 108–120.

⁵⁰ The careful analysis of the stratigraphy of the northern profile of SX/1998 revealed that the yellow loess layer was not a marker of the hiatus between the two complexes, but rather a land preparation carried out by the Vinča people before the construction of the dwelling!



Fig. 8. Ceramic materials from Cpx 584 (after CIUTĂ/TUDORIE 2021).



Fig. 9. Aerial photograph of the *Bordane* sector, with the following features: Cpx 432A (1); L3/1998 (2); Cpx. 584 (3).

the settlement of *Limba-Oarda de Jos*⁵¹. This topic remains to be clarified during the thorough analysis of the materials obtained from the complexes excavated thru the 2016–2017 campaign.

During the processing of these materials, special attention was drawn to the materials obtained from Complex 432A (Cpx. 432A), excavated in UC 36 of the *Bordane* sector, located 12 meters northeast of L3/1998. As revealed during the scraping, the complex that provided the painted ceramic materials was disturbed by a Vinča dipped feature (Cpx. 432), which affected about half of the surface of the Starčevo-Criș complex⁵², more precisely its southern half (Fig. 10–11).

⁵¹ CIUTĂ/TUDORIE 2021, 119–120.

⁵² As previously demonstrated (CIUTĂ *et alii* 2016; CIUTĂ/TUDORIE

During the processing of the ceramic materials from the early Neolithic pit, among other typical ceramic products, a series of fragments belonging to the category of painted ceramics were identified, with various colors on different chromatic backgrounds (Pl. 1–2). The batch of painted ceramic materials from complex 432A, consisting of 10 fragments, is a special one, as it represents the most comprehensive collection of this type from the entire cultural horizon of polychrome painted ceramics in the middle Mureș Valley and even in all of Transylvania. Moreover, the diversity of decorative motifs, chromatic combinations, and techniques of applying the painted decoration place us in the presence of a unique situation, when compared to the previously proposed periodization systems of the Starčevo-Criș cultural complex⁵³.

In Cpx. 432A from *Limba-Oarda de Jos* (*Bordane*) 10 painted ceramic fragments were discovered and 3 of them belonged to the same pot (Pl. 2). As a general remark regarding the conservation of these fragments, especially of the painting, we have noticed that for seven of them (all from Plate 1) the painting wasn't so well preserved. This is the reason why we have added here a duplication of Plate 1 (Pl. 1a) where we have applied a chromatic reconstruction for the patterns.

In what concerns the other three fragments, from Plate 2, we noticed that the painting was in good conservation state, so we didn't consider for a chromatic reconstruction to be necessary in this case. From the 10 fragments mentioned above, three of them were *rims* (Plate 1/2, 6, 7) and for two of them it was possible to have a reconstruction of the superior part of the pot (Plate 1/6, 7). There is a fragment of a *bottom* (Plate 2) along with two other fragments from the same pot, that were broken during the ancient period and couldn't be reconnected now. Other four fragments of painted pottery that were part of the *belly* belonged to this feature (Plate 1/1, 3, 4, 5).

In what concerns the type of painting, there are two

2022), the majority of early Neolithic complexes in the *Bordane* sector were intersected by Vinča complexes (pit featured). A simple analysis of the aerial photograph taken at the end of the preventive research reveals the heavily altered appearance caused by prehistoric anthropic interventions, indicating intense habitation (Fig. 9).

⁵³ We refer primarily to the S. Dimitrijević system (*Linear A, Linear B, Ghirlandoid, Spiraloid*) and the Lazarovici system (for discussions, see CIUTĂ 2005, 9–17).



Fig. 10. Details from the documentation and excavation of Cpx. 432A (a-c). The chromatic difference between the filling of Cpx. 432 (Vinča B, left), and that of Cpx. 432A (Starčevo-Criş IIIB, right), can be observed on the cross-section profile (a-b).

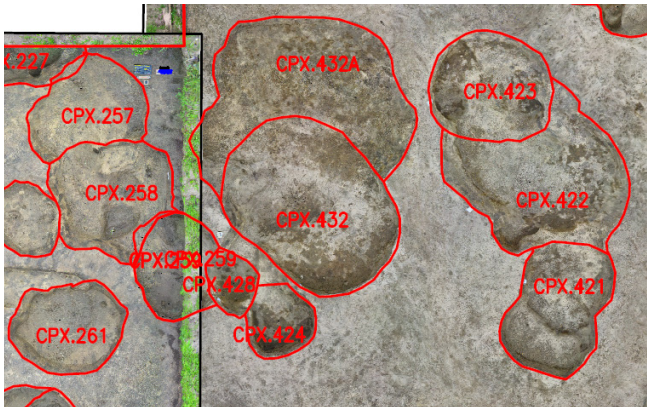


Fig. 11. Detail from the photogrammetry carried out at the end of the *Bordane* sector excavation.

categories: *monochrome painting* and *polychrome painting*. Four of the fragments were painted in only *one colour* (Plate 1/1, 2, 4, 5) from which three were painted with black (Plate 1/1, /4, 5) and one with whitish colour (Plate 1/2). Regarding the pattern used for decorating these pots we notice that stripes displayed vertically on the surface of the pot were used and some zigzags (Plate 1/5).

In regards the *polychrome painted sherds*, we have six fragments (Plate 1/3, 6, 7 and Plate 2). For these pots the patterns are more complex: black strip displayed oblique, starting from the right superior side toward the left side of the fragment and with white small dots, displayed around the black strip (Plate 1/3); meandric patterns and on the second register the black-painted ornaments are being displayed vertically, including, on the right side of the fragment, a vertical strip and on the left side there are oblique interconnected strips, with reddish paint inside the black strips (Plate 1/6); black rhomb patterns with white paint inside and outside these patterns, black thin horizontal strip and three large, curved strips, horizontal strip white painted dots on the inferior part of the first and second curved strips (Plate 1/7); black and cream-colored paint, displayed in a meandric pattern of large cream-colored stripes, framed by black, thinner, ones (Plate 2).

The group of painted pottery discovered in Cpx. 432A was analysed taking into consideration the following coordinates: category, exterior and interior colour (of the fired clay, not painting), temper, surface treatment and firing. All the fragments belong to the fine category. In what concerns the colour, they are light colours, specific for the Early Neolithic pottery from this area: light-brow, reddish-brow, brown and orange. All the fragments were tempered with chaff and

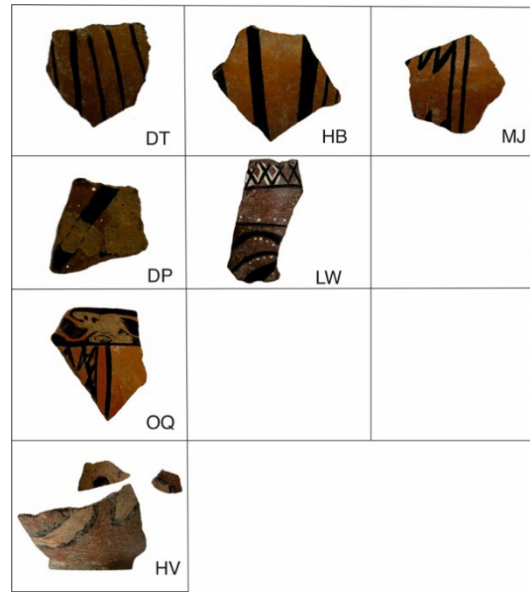


Fig. 12. Additions to the typological catalogue of Starčevo-Criş painted pottery.

sand (either fine sand or large grained sand), but we must add that, from the macroscopic analysis, we have notice that the fragment no. 5 from Plate 1 had a consistent amount of sand, we believe higher in percentage that chaff in its composition. In what concerns the three fragments from Plate 2, there was a minimum amount of fine sand used, mostly chaff. Regarding the surface treatment, although, as we have mentioned above, most of the fragments were in a poor conservation state, one can notice that the person that made them was very careful in this regard, all of them having a slip applied, 9 of 10 polished slip. In what concerns the firing, fragment no. 5 from Plate 1 and the three fragments from Plate 2 were surprisingly good fired, considering the technology used at that moment.

The shapes of the pots are specific for Starčevo-Criş culture: round-shaped (Plate 1/5) or even globular (Pl. 2), opened-shaped (Plate 1/2) or with bended rims (Plate 1/6-7). Besides fragment 2 from Plate 1, for all the others we have couldn't identify them in the catalogue of painted Starčevo-Criş pottery elaborated by Zoia Maxim⁵⁴ and so we added new codes for the ones discovered at Limba (Fig. 12).

Regarding the relative chronology of this feature, all the fragments are to be framed in the so-called *Balkan-Anatolian Chalcolithic period*⁵⁵. For the relative chronologic system and

⁵⁴ KALMAR MAXIM 1999, Fig. 35-38.

⁵⁵ LAZAROVICI 1979, 48.

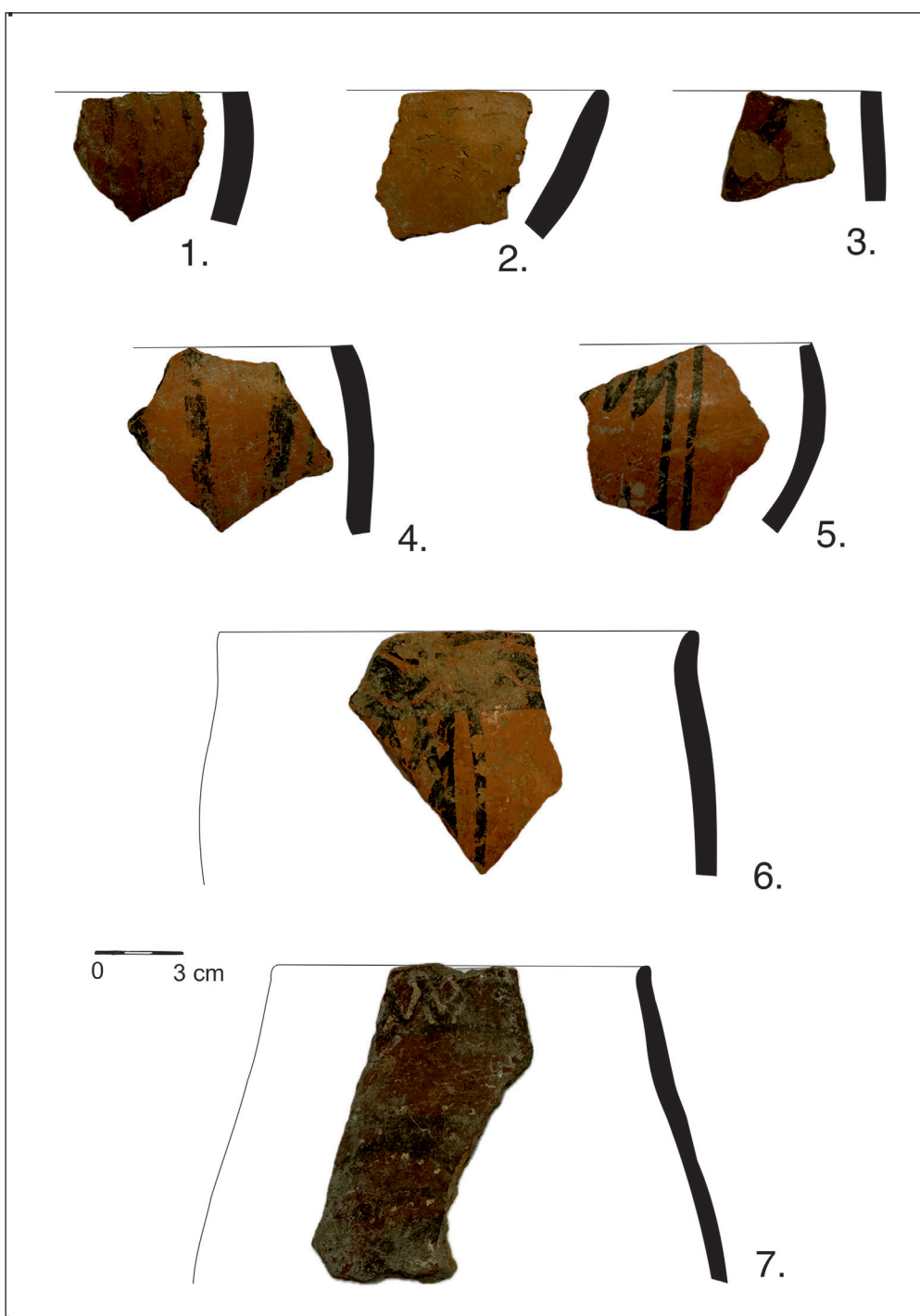


Plate 1. 1. Fragment of belly, category: fine, exterior colour: brown, interior colour: greyish-black, temper: chaff and sand, polished slip, light oxidating firing, decorated with black radial painted strips starting from the superior part of the rim towards the belly. 2. Fragment of rim, category: fine, exterior colour: light brown, interior colour: light brown, temper: chaff and large grain sand, slip, light oxidating firing, decorated with a whitish painted strip displayed oblique starting above the rim towards the belly. Due to fragmentation the pattern cannot be suggested. 3. Fragment of belly, category: fine, exterior colour: brown, interior colour: reddish-brown, temper: chaff and sand, slip, good oxidating firing, painted with black strip displayed oblique, starting from the right superior side toward the left side of the fragment and with white small dots, displayed around the black strip. 4. Fragment of belly, category: fine, exterior colour: orange, interior colour: light brown, temper: chaff and large grained sand, polished slip, light oxidating firing, decorated with black paint displayed radial from the rim towards the belly. 5. Fragment of belly, category: fine, exterior colour: brown, interior colour: brown, temper: sand and chaff, polished slip, good oxidating firing, decorated with black paint, a strip displayed vertically on the right side of the fragment and a complex pattern with horizontal zigzags connected through another stripe. 6. Fragment of rim, category: fine, exterior colour: reddish-brown, interior colour: reddish-brown, temper: chaff and silt, polished slip, light oxidating firing, decorated with black and reddish paint, in a complex pattern (highly exfoliated due to conservation conditions) that starts just above the rim, in a so-called by us the first register of decoration, in meandric patterns and on the second register the black-painted ornaments are being displayed vertically, including, on the right side of the fragment, a vertical strip and on the left side there are oblique interconnected strips. On the "interior" parts of the black patterns reddish paint was added. 7. Fragment of rim, category: fine, exterior colour: reddish-brown, interior colour: reddish-brown, temper: chaff and sand, polished slip, light oxidating firing, decorated with black and white paint, in a complex pattern that starts just above the rim, in black rhomb patterns with white paint inside and outside these patterns. On the inferior part of the fragment there is a black thin horizontal strip and three large, curved strips. On the superior part of the horizontal strip white painted dots are present, also on the inferior part of the first and second curved strips.

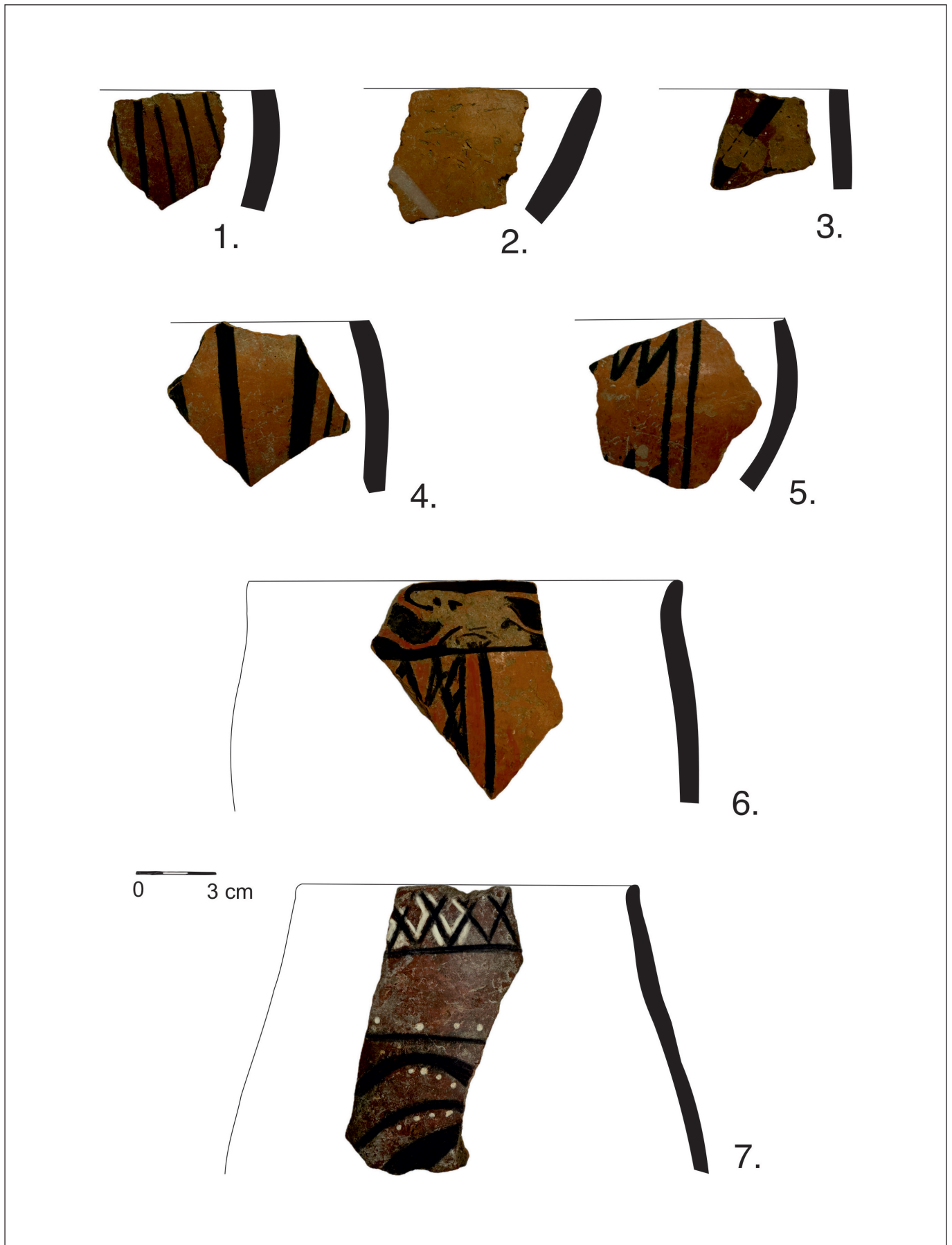


Plate 1a. Polychrome painted ceramic fragments, processed using image editing software.



Plate 2. Three fragments from a pot: one bottom and two fragments of the belly, category: fine, exterior colour: light-brown, interior colour: light-brown, temper: chaff and fine-grained sand, polished slip, good oxidating firing, decorated with black and cream-coloured paint, displayed in a meandric pattern of large cream-coloured stripes, framed by black, thinner, ones. The painting is likely to have covered a large part of the pot.

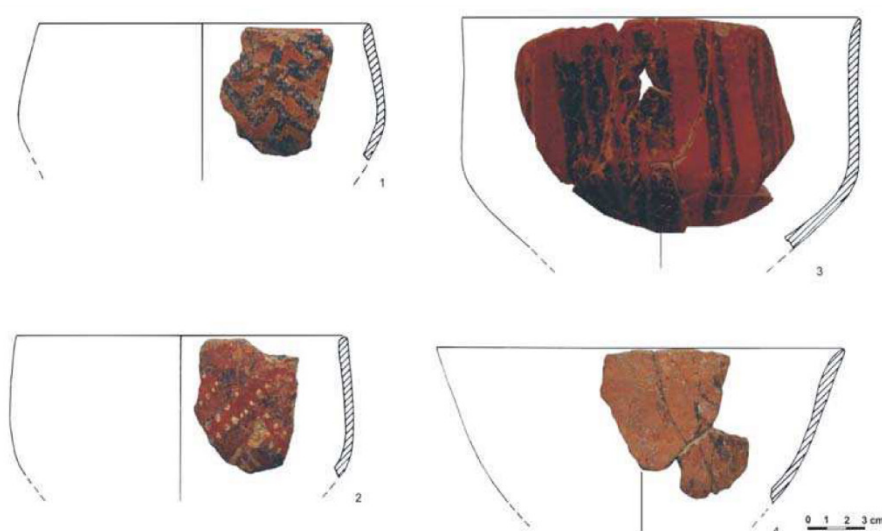


Fig. 13. Polychrome painted pottery from Măgura-Buduiasca (apud MIREA 2005, Fig. 4).

terminology that is in most of the cases used for the Early Neolithic from Romania, it belongs to the IIIB phase of Starčevo-Criș culture, a period when many transformations happening. It is the moment when Vinča communities arrive here and start to influence the Starčevo-Criș ones, as we have already pointed out in a study also based on the materials from Limba⁵⁶. But this is also the period when polychrome painted Starčevo-Criș pottery groups develop⁵⁷, which is the case for the material from Cpx. 432A. More, this period is the correspondent, in what concern the pattern used for decorating the pottery with what Dimitrijević named as *Ghirlandoid*⁵⁸.

Regarding the polychrome painted fragments, we should repeat that the ones discovered at Limba-Oarda de Jos are the most numerous, from a single feature, in Transylvania (12!). There is one discovery at Zăuan of a painted fragment with black and white on a reddish background similar with fragments Plate 1/3 and 1/7 from Limba⁵⁹. The dis-

coveries of polychrome painted pottery from the southern part of Romania, namely from Măgura-Buduiasca⁶⁰, are more consistent also similar with the ones from Limba, especially fragments Plate 1/3 and 1/7. More, the absolute chronology available from the site of Măgura-Buduiasca (6896±61 BP, 6833±53 BP, 6784±56 BP) are very important⁶¹.

CONCLUSIONS

From the perspective of the author of the generally accepted cultural-chronological system for the Starčevo-Criș cultural complex, during stage IIIB (*Spiraloid A* at Dimitrijević), great transformation in the structure of Balkan-Danubian Early Neolithic occur, under the influence of two major phenomena: a local phenomenon of diffusion and retardation or isolation and another, more pronounced migratory phenomenon, generically called “Balkan-Anatolian chalcolithic” (BAC), which is not clearly defined, though⁶². The latter one, an ‘impulse’, of southern origin, is characterized, in turn, on the one hand, by highly polished black pottery, through the ‘blacktopped’ species and the grey Vinča A1 phase pottery, and on the other hand by the formation – without specifying precisely whether because of migration or cultural diffusion – of polychrome painted pottery groups found at Cârcea-“Viaduct”, Leț-„Varhegy” (I–III) and Trestiana in Moldova⁶³. Under the pressure of these “phenomena”, some of the Starčevo-Criș communities populate the areas at the extremities of the area: north-western Transylvania and Moldavia in Romania, Alföld and Transdanubia in Hungary, Bessarabia, while others, closer to the Vinča source (Banat), gradually cease their evolution⁶⁴. Based on the study of polychrome pottery, anal-

⁵⁶ CIUTĂ/TUDORIE 2021.

⁵⁷ LAZAROVICI 1979, 48–49.

⁵⁸ BONSAI *et alii* 2002, 48.

⁵⁹ BĂCUEȚ-CRIȘAN 2007, 33.

⁶⁰ MIREA 2005, Fig. 7.

⁶¹ MIREA 2005, 37.

⁶² LAZAROVICI 1977, 38–39; LAZAROVICI 1984, 66.

⁶³ LAZAROVICI 1979, 47 sqq; LAZAROVICI 1984, 66.

⁶⁴ LAZAROVICI 1984, 67.

ogies have been made with southern Balkan areas, Greek and even Oriental ones⁶⁵. In the southern-influenced sites the ceramic workmanship is excellent. The sand is very fine and mixed with finely chopped straw. The smoothing and polishing is good, mechanical, which gives the pottery a superior appearance. The excellent firing is reminiscent of that of the earliest stages of this civilization, being no inferior to the Vinča one. Similar workmanship is to be found in the south, in the Karanovo group, in the Dimini culture in the early Tsangli and Arapi phases. In all these areas, identical phenomena occur between the Early Neolithic at the height of its development and the new Chalcolithic elements⁶⁶.

At Limba-Oarda de Jos, the Early Neolithic community is connected, through its polychrome painted pottery and polychrome technology, with the world south of the Carpathians, from Oltenia⁶⁷ and Muntenia, and northern Bulgaria. A migration process northward, primarily along the Olt Valley, or along the Jiu River – or even the valleys of or its tributaries – is increasingly evident (Fig. 15). Even so, spatial elements to fully trace these migratory connections are still lacking. It is also possible that the absence of polychrome painted pottery is due to the preservation conditions in the acidic soils of Transylvania. At Limba-Oarda de Jos, the soil in which these fragments – with rather fragile painting – have been preserved is sandy, loess-like, and neutral.

The first Vinča communities appear in Transylvania by the middle of the first phase (Vinca A2) at Romos-*La Făgădău*⁶⁸ and, recently documented, at Limba-*Bordane* and *Vărăria*⁶⁹, along the Mureș Corridor. The penetration is seen as dynamic and powerful, specifically migratory, being better documented at the eastern extremity of the corridor, in Limba-Oarda de Jos and Miercurea Sibiului⁷⁰. By the time of their arrival in the southwestern corner of Transylvania, the cultural phenomena of the Early Neolithic were fully manifest, having entered the so called "starčevisation" phase.

Based on the elements mentioned above: the sharply pointed bitronconical shapes, exceptional firing, high presence of sand in clay, surface treatments (smoothing and pleats), the painted pottery within the material culture of the Starčevo-Criș community at Limba, corroborated with recent stratigraphic data, we are increasingly convinced that the transfer of Vincian technology occurred directly, through the cohabitation of the Starčevo-Criș community with the early Vincian group that recently arrived from the Banat region. The model is accepted by other

scollars⁷¹. Arguments in support of this hypothesis would also include certain Starčevo elements detected in the material culture of the first Vincian group complexes at Limba: the preference for using organised barbotine, the adoption of spherical shapes, and the presence of Starčevo elements in anthropomorphic plastic art⁷².

Therefore, we believe we can reiterate the working hypothesis according to which, in the site of Limba-Oarda de Jos, given its strategic position from the perspective of access routes, it is highly likely that we are witnessing a cultural-chronological synchronism between the Starčevo-Criș and Vinča communities, based on the elements of culture mutually adopted. Furthermore, following migration models, we can speculate that we are dealing with direct contact between two migrating entities: the community with polychrome painted pottery coming from the south (Muntenia, Oltenia) and the vincian (CBA) community arriving from the west (Fig. 15). Following the model of acculturation and accepting the fact that the Vinča entity was characterized by dynamism and superior technology, we can also explain why polychrome elements are extremely rare or absent from the Mureș Corridor. We would have said the same about Banat or even the western areas, but a recent discovery at Alsónyék, in Transdanubia, sheds new light on the expansion of this phenomenon, of polychrome pottery. The typological-stylistic analogies of the polychrome painting are remarkable (Fig. 14).

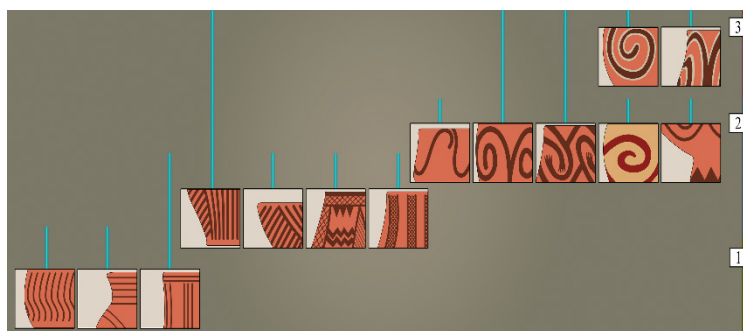


Fig. 14. The Starčevo painted materials at Alsónyék (apud. OROSS *et alii* 2013).

The painted shards discovered from Cpx. 432A in Limba-Oarda de Jos (*Bordane*) provided a rich basis for examining the painted pottery traditions of the *Balkan-Anatolian Chalcolithic*. The diversity of typologies and decorative techniques, where the range spans from simple monochrome painted pottery – some in black, other in whitish hue – to more intricate polychrome pots with complex motifs. This diversity in decoration indicates a sophisticated understanding of ceramic making for this communities and it can highlight the sophistication of these early ceramic traditions.

As mentioned above, the second line of inquiry involved examining the extent connections between the Early Neolithic communities with the ones from southern Romania and Bulgaria. The polychrome pottery from Limba-Oarda de Jos reflects influences and similarities aligned with the ones from the South (Oltenia, Muntenia,

⁶⁵ LAZAROVICI 1977, 37–40; LAZAROVICI 1979, 48–49; LAZAROVICI 1984, 68; Nica 1977, 36–39; DRAȘOVEAN 1989.

⁶⁶ LAZAROVICI 1984, 67.

⁶⁷ It is regrettable that in the past 30 years, Oltenia has not provided new discoveries to clarify the evolution of polychrome painted pottery; the known data remains at the level of 1990 (NICA 1995; NICA 1998). The possible connection routes from Oltenia remain the Olt Valley, or the depression corridors of Jiu, Hunedoara, and Hațeg (Bărbat 2012).

⁶⁸ LUCA, 1996; LUCA *et alii*, 2000; LUCA/SUCIU 2007, 80–86.

⁶⁹ The materials belonging to the earliest Vinča habitation level at Limba are in the process of being published.

⁷⁰ Paradoxically, the eastern and central areas of the Mureș Corridor have not yet provided the connecting links to the Transylvania region. We are convinced that this is an issue related to the current stage of research.

⁷¹ LUCA/SUCIU 2007, 85 in what they named: *the third migration of the early neolithic*, in Transylvania.

⁷² CIUTĂ 2010, 13–22 – Venus from Limba is a clear evidence of reciprocal influences.

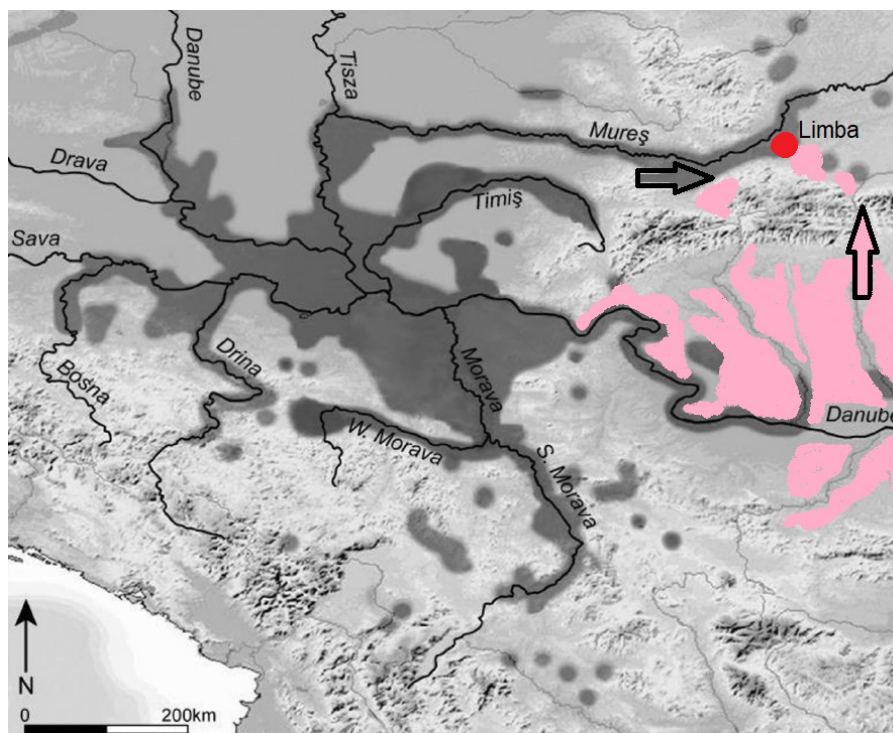


Fig. 15. The areas of migratory development of the Vinča cultural phenomena (dark gray) and polychrome painted pottery (pink), respectively, the possible contacts.

Bulgaria) and even the Near East. It is still to be explained either trade routes, migration, diffusion or other type of contacts could have facilitated the movement of this painting styles. However we view spatial developments of the polychrome painted ceramic, this phenomenon seems to be one of migration rather than diffusion, unfolding in parallel with the Vinča migration (Fig. 15). It is also a matter of discussion how these painted fragments can be related to the subsequent evolution of the so-called Lumea Nouă culture and can be a trace of in what regards the stylistic continuities and transformations that occurred in this area.

The discoveries from Cpx. 432A in Limba-Oarda de Jos (Bordane) made us consider, in this moment, three directions of discussions regarding the painted pottery belonging to the *Balkan-Anatolian Chalcolithic* period from Transylvania. First, it is to be noticed the great diversity of typologies discovered here, starting with the monochrome ones (both with black or whitish paint) and ending with the polychrome ones, which are quite complex in what concerns the typologies and patterns used by these communities. The second discussion regards the connections that the Early Neolithic communities from Transylvania had with the south of nowadays Romania (Oltenia and Muntenia), but also further in Bulgaria⁷³. And, the third observation, relates the fragments presented on Fig. 7 and Plate 2 with the further evolution of Lumea Nouă culture and its painted pottery⁷⁴.

⁷³ GATSOV/BOYADZIEV 2009, 14 (Fig. 3/10), 15 (Fig. 15/3, 4); GREBSKA-KULOW/ZIDAROV 2021.

⁷⁴ This culture has different variants of its name in the Romanian scientific bibliography. For more information regarding this topic see: LAZAROVICI online: https://www.academia.edu/9436811/Cultura_Zau.

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