Bowls With Everted Rim From Stubline – An Emblematic Vessel Type Of Late Vinča Culture

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Sklede z uvihanim ustjem so razprostranjene po celotnem območju centralnega Balkana kot eden izmed najbolj pogostih tipov Vinča D naselbin. Najverjetneje so bile uporabljane kot sklede oziroma krožniki za postrežbo tekoče ali trdne hrane. Skupno je bilo analiziranih 160 skled iz pozno vinčanskega naselja Stubline z namenom izpeljave možnih trendov interpretacije tipoloških, funkcionalnih in prostorsko-časovnih vidikov skled z uvihanim ustjem pozno vinčanske kulture. Rezultati analize so bili statistično kvantificirani z namenom preverbe možnih trendov v izdelovanju tovrstnih posod.

Ključne besede: sklede z uvihanim ustjem, Stubline, neolitik, vinčanska kultura

Bowls with everted rim are distributed over the vast territory of Central Balkans, as one of the most frequent bowl type from numerous Vinča D settlements. They were probably used as consumption bowls or plates for consuming of both liquid and solid food. Total number of 160 bowls from Late Vinča culture site of Stubline was analysed in order to mark possible trends in interpretation of typological, functional and spatiotemporal aspects of bowls with everted rim from Late Vinča culture. Analysis results were statistically quantified in order to check whether there are possible trends in production of bowls with everted rim.

Key words: Bowls with everted rim, Stubline, Neolithic, Vinča culture

The archaeological site Crkvine at Stubline (Republic of Serbia) rests on an elongated plateau of about 12.5 hectares, at an altitude between 100 m and 120 m (Crnobrnja 2012; Spasić 2012a; Spasić 2013; Crnobrnja 2014). The dimensions of the plateau, measured from the outermost points, reach approximately 620×380 metres (Figure 1). In the Neolithic, the flat plateau was surrounded by two stream beds on the north and south side. The watercourse to the north is today dry, while the south side of the site is still enclosed by the small river of Trstenica. The two watercourses joined in the south-western part of the settlement, where the terrain sloped steeply down into a large denivelation. In a broader geographical context, Stub-

line lies in the micro-region called Drenski Vis, located in the Posavina-Tamna region, which was marked by dense population in the Late Neolithic. Within a range of only a few dozen kilometres from Stubline, a significant number of settlements that belonged to the Vinča culture have been identified. Judging by their material culture, these settlements must have existed simultaneously at least for a short period of time between 4800 BC and 4600 BC.

The first archaeological explorations at Stubline were undertaken in 1967 by Jovan Todorović, the curator of the Prehistoric Collection of the Belgrade City Museum (Todorović 1967; Spasić, Živanović and Stojić 2016). On that occasion, a small probe measuring 16 m² was in-

Figure 1. Aerial photography of the Neolithic site at Stubline (Photo: Aleksandar Sivački)

vestigated in the farthest south-eastern section of the settlement. Two settlement strata that had belonged to the Vinča culture were allegedly identified: a later stratum, containing remains of houses above the ground, and an earlier one, with pit-houses and semi-pit-houses (Todorović 1967). Revision of material and documentation from the first excavations carried out at Stubline has shown that pits that were originally identified as pit-houses are in fact waste pits (Spasić, Živanović and Stojić 2016). The systematic archaeological excavations at Stubline began in 2008, and they are still under way. During this period, three houses were fully investigated, as well as the double trench systems around the older and younger parts of the settlement, a number of waste pits and an area surrounded by a group of houses in the northwestern part of the settlement (Crnobrnja, Simić and Janković 2009; Crnobrnja 2012; Spasić 2012a; Spasić 2013; Spasić, Živanović and Stojić 2015; Spasić, Živanović and Stojić 2016).

Simultaneously with the excavations, a detailed non-destructive geomagnetic and geo-

physical prospection of the site was carried out between 2007 and 2011. The total area explored using geomagnetic prospection was about eight hectares, while the geo-electrical measurements of geophysical resistivity revealed vertical profiles reaching 1125 meters in length through the layers at the site.

In a very simplified and concise matrix, the stratification of cultural layers at Stubline reveals four chronological phases in the use of the site (Spasić 2013). The horizon Stubline I corresponds to a Late Vinča culture settlement, Stubline II can be associated with the Baden culture settlement, Stubline III with an Avar necropolis (?), whereas Stubline IV is a horizon with graves from the late Middle Ages. Such a stratigraphy should be taken with a reserve for several reasons. Previous excavations have shown that it is impossible to establish a single stratigraphic system for the whole site because different parts of the site were used in different periods. Accordingly, it is not realistic to expect this stratigraphic scheme to be applicable to all areas of the site.

The geomagnetic prospecting and excavations have confirmed that it was only in the Late Neolithic that the entire area of the site was used. The communities of the Baden culture also used, in some way, the entire area of the plateau, as indicated by the presence of the Baden ceramics in all of the investigated probes at the site. Avar and medieval graves have so far been found in the westernmost section of the site and they were dug into the layers that belonged to the Vinča culture (Bugarski et al. 2013).

At least two construction phases can be traced in the vertical stratigraphy of the Vinča culture settlement at Stubline. Both phases are to be associated with late horizons of the Vinča culture – Vinča D1 and Vinča D2 (Spasić 2013). Therefore, based on the results of the excavations carried out so far, the Neolithic horizon at Stubline could be divided into two phases: Stubline Ia (Vinča D1 phase in the eastern part of the plateau) and Stubline Ib (Vinča D2 phase throughout the plateau), with the possibility for further subdivisions. The fact that the previous analysis of the entire corpus of material culture (especially pottery) indicates that the life of the Vinča culture settlement spanned a chronological range not much longer than 200 to 250 years (4850/4800–4650/4600 BC) seems to be exceptionally important for the analysis of the horizons and the understanding of the dynamics of activities and space production at Stubline.

The earlier settlement was built during the Vinča D1 period (ca. 4850/4800 BC) in the eastern section of the plateau and it included about 120 houses (Spasić 2013). With the present body of knowledge, it is impossible to hypothesize where the primary zone of origin of the settlement, whence it later spread, had been located. It is unlikely that all of the houses in the earlier part of the village were built at the same time and it seems more realistic to assume that the village was “growing” around the primary core. At a certain period, the earlier settlement was protected by a system of double deep trenches. As time was passing, the Vinča community at Stubline was growing. And the settlement was grow-

ing, too. In the last decades before the settlement began to spread to the west, houses had occupied the almost entire eastern area of the plateau. The population growth required for conquering new areas and the double system of trenches surrounding the primary village was buried so that the settlement may spread into the western part of the plateau. Over time, about eighty houses were built in the new area and the new settlement, which then covered the entire plateau, could have had, at one point, more than two hundred houses (Spasić 2013).

So far Neolithic site of Stubline gained much of the scholar attention mainly due to the exceptionally elaborate ground plan of the settlement observed on the geomagnetic plan (Crnobrnja 2014), as well as owing to remarkable group find of 43 figurines (Crnobrnja 2011; Spasić 2014) and other so called cult finds (Spasić 2012a; Spasić 2012b). Elaborate publication of house inventories and structures from Stubline significantly contributed to the Vinča/culture household archaeology (Crnobrnja, Simić and Janković 2009; Crnobrnja 2012; Spasić 2012a; Spasić 2012b; Spasić 2013; Spasić and Živanović 2015; Spasić, Živanović and Stojić 2015; Spasić, Živanović and Stojić 2016).

Pottery Production At Stubline

Fragmented and whole vessels makes the greatest part of the collection of objects originating from the excavations at Stubline. This part of the collection includes more than 200,000 fragments (Spasić 2013). The corpus of pottery from Stubline is exceptionally uniform in terms of style and typology, with pottery types that show only slight typological divergence and variations. Metric analyses also reveal the uniformity in terms of the dimensions of individual types of vessels. All these facts could indicate a certain level of standardization in pottery production, as already observed in the analyses of pottery originating from other Vinča-culture sites.

A macroscopic analysis of the pottery reveals the existence of two somewhat different pottery technologies at Stubline (Spasić 2013).

Although they shared some features, these technologies differed in certain technological processes and they seem to have belonged to two different phases of life at Stubline. Ochre, grey and dark grey pottery with an exceptionally large amount of inorganic impurities, fired under conditions of complete and incomplete oxidation, prevailed in the later phase (Stubline Ib). The pottery from the earlier phase (Stubline Ia) was considerably finer in facture, with a smaller amount of inorganic impurities, dark gray and black in colour and usually baked under conditions of reduced oxidation. The presence of pottery with an exceptionally large amount of inorganic impurities and vessels baked under different conditions is not directly associated with a specific type or function of a vessel. In the latest phases, inorganic ingredients (crushed stone of varying granulation and sand) in pottery amounted to between 20% and 30% of the total weight (Spasić 2013). Accordingly, it may be claimed with great certainty that at a point in time a change occurred in pottery technology. All aspects of a technology are generally assumed to be one of the fundamental, very rigid and unvarying elements of the tradition of prehistoric communities. Technological changes in the pottery production at Stubline should therefore be analysed in the context of other changes in the economic and socio-cultural matrix of the Vinča community.

Vinča culture pottery corpus from Stubline includes all characteristic Vinča D vessel types (cf. Nikolić 2008; Spasić 2011). Three basic functional types include: 1. Food preparation vessels; 2. Storage vessels; 3. Tableware. In terms of typology there are seven most characteristic vessel types: bowls, cups, pots, caserolas, amphorae, pithoi and lids. Observed chronological differences in pottery technologies from earlier and later settlement phases coincide to some degree with certain chrono-typological variations. Two settlement phases could be also seen as the times of the two bowl types. Biconical bowls with pronounced and/or thickened shoulder are characteristic for earlier settlement phase, while

bowls with everted rim are typical shape for later phase. Decoration techniques and ornamental patterns are typical for Late Vinča culture pottery production also. Most characteristic ornamental motifs are simple channelled multiple slanting or vertical lines organized into horizontal band on the upper part of the vessels, and burnished vertical or slanting lines on the lower vessel parts. Finger impressions and applied straps are typical ornaments for coarser pottery.

Bowls With Everted Rim

Bowls represent the most common tableware type at the majority of Vinča culture sites and are considered as secure chronological index for relative dating. Bowls with everted rim were recognized as Late Vinča culture *Leitfossils* very late in terms of long history of traditional cultural-historical archaeology (cf. Garašanin 1973, 94, 95; Garašanin 1979, 179). They are distributed over the vast territory of Central Balkans, as one of the most frequent bowl type from numerous Vinča D settlements (cf. Madas 1988; Nikolić 2008; Spasić 2011; Vuković 2011; Jovanović 2015). Their chronological position and strong prevalence in ceramic inventories within late Vinča D period is superbly confirmed in statistical analysis of pottery from multi-layered site of Grivac in Central Serbia, where bowls with everted rims have more than 25% share of bowls in Grivac VI horizon (Nikolić 2008, 197, fig. VI).

Bowls with everted rim represent typical Vinča culture tableware. They were probably used as consumption bowls and/or plates for consuming of both liquid and solid meals. The number of discarded bowls with everted rim is very high as well as their number in house inventories, which speaks in favour of claim that such vessels were used individually. They were often used, broken, damaged and replaced with new ones which also sustain the thesis that they were common and suitable vessel form.

Initial information from the first systematic field survey carried out at Stubline during 1966 was that surface finds collected from the site include clay balls, bowls, axes, and other ma-

Figure 2. J. Todorović's note from the first systematic field survey in Stubline during 1966 (Belgrade City Museum archive)

terial typical for Vinča-Pločnik phase. The note was accompanied with hand drawing of the profile of typical bowl with everted rim (Figure 2). Sample from Stubline is chosen arbitrarily, based on the presence of important parts of the bowls essential for typological, metrical and stylistic analysis. It doesn't tend to project the analysis results as model neither for Stubline corpus nor for broader regional or chronological index. Rather, discussion of analysis results of Stubline sample aims to mark possible trends in interpretation of typological, functional and chronological aspects of bowls with everted rim from Late Vinča culture.

Total number of 160 bowls with everted rim was examined macroscopically. Each fragment was analysed using uniform methodology in order to inspect metrical, typological and stylistic diversities of the corpus. Later on, results

were statistically quantified in order to check whether there are possible trends in production of bowls with everted rim. Additionally, we conducted contextual analysis seeking to find conceivable patterns in their use and discard.

Morphology

Bowls with everted rim represent one of the most solid morphological types in the Vinča culture pottery inventory. There is endless number of formal variations based on typological parameters. However, our typology was not burdened with numerous subtypes and varieties which would blur the overall image of formal uniformity of bowls with everted rim. Rather, we selected three basic types which probably correspond with function of the vessel. Majority of the studied bowls belong to the first type with conical or rounded body and everted rim (Figure 3). Nu-

Figure 3. Basic types of the bowls with everted rim (Belgrade City Museum archive)

merous varieties based on the shape and/or size of the rim, lip and shoulder of the bowls could be observed. Most important varieties of the first type include: 1. Bowls with small and rounded

upper part (Figure 3/T1/1; also finds 1–44); 2. Bowls with small and sharp upper part (Figure 3/T1/2; also finds 45–49); 3. Bowls with longer upper part (Figure 3/T1/3; also finds 50–53); 4. Bowls with thickened rim (Figure 3/T1/4; also finds 54–59). Two other types of bowls with everted rim are far less present in the corpus from Stubline. Second type is characterized by the very shallow recipient and everted rim (Figure 3/T2; also finds 60–63). Only five such bowls were analysed from Stubline. Those vessels could be sought as real plates. Third type of the bowls with everted rim is actually a small-sized and miniature vessel that resembles the form of the original (Figure 3/T3; also finds 64–68). There are six such bowls with rim diameter smaller than 11 cm. Function of those small vessels was probably different than those of the regular sized ones, or their principal users were not the same also (i.e. children?).

Metric Analysis

Considering metric parameters Stubline corpus represent uniform class of vessels. Three standard measures were taken, rim diameter, base diameter and height of the vessel. There were 145 bowls whose rim diameter could be measured. Diameter was taken from the inner part of the

Figure 4. Analyzed measures of bowls with everted rim (Belgrade City Museum archive)

rim lip (Figure 4). Rim diameters are clustered in five solid metric groups, and three more with only one present specimen (Figure 5). Majority of bowls with everted rim fall in the 16–20 cm

Figure 5. Histogram showing the share of different rim diameters of bowls with everted rim from Stubline (Belgrade City Museum archive).

diameter class range (53 specimens), 39 bowls have rim diameter from 20–24 cm, 36 of them have 12–16 cm rim diameter, while remaining 17 examples have untypically small or big rim diameter (Figure 5). Calculated mean rim diameter is 17.63 with standard deviation 3.91. Only 18 bowls had been sufficiently preserved so that their height could be measured. Six of them fall in the 4–5 cm and seven in the 6–7 cm height class. The mean value is 5.49, with 1.16 standard deviation. Although the sample of bowls with both measurable rims and height is rather small (18) statistical plot shows that densest grouping is represented by seven bowls whose height varies from 6 to 7 cm with 14–18 rim diameters (Figure 12).

Technology

Bowls with everted rim were handmade using traditional Neolithic pottery techniques. They were certainly modelled using coiling and pinching techniques. Moulding was not directly attested, although, based on the intra-site shape and metric uniformity, it could be assumed that great number of the bowls with everted rim were made using some kind of mould. It has been suggested that bowls with everted rim from Vinča

site were most likely made out of two previously shaped cones, with the possibility that the lower cone has been made using some kind of mould (Vuković 2011, 95). Vessels from Stubline were made from local clay tempered with local admixtures, such as crushed river stones and other types of rocks and minerals, sand and crushed pottery. Granulation of admixtures varies from 0.1 cm to 0.4 cm. Quantity of added temper is also variable, from very small amount to very high percentage of admixtures. In general terms, later examples both in the chronologic and stratigraphic sense, have coarser paste with higher share of temper to clay ratio. There are three main fabric types which correspond to type, granulation and quantity of admixtures and clay refinement quality. Bowls with fine fabric dominate the corpus with 69.6%, bowls with intermediate fabric have share of 25% share, while coarse fabric bowls with everted rim are the least common with 5.4% share.

Both outer and inner surfaces of the bowls were carefully burnished and smoothened prior to firing. Bowls were fired in reducing atmosphere, which resulted in typical grey and black surface colour (Figure 6). Only few examples were probably fired in oxidizing atmosphere resulting in light ochre colour, while majority of ochre to reddish coloured bowls were secondary burnt (Figure 6). Thus, majority of bowls with everted rim from Stubline are grey or dark grey colour. Secondary burning resulted in colour modification of some examples with uneven coloration of the walls, from grey to ochre, and reddish tones. Bowls with everted rim from Vasić's excavations at Vinča are either black or dark red, as he reports and publishes them as a part of his corpus of *bucchero* bowls (Vasić 1936, 113). Bowls with everted rim from Gomolava necropolis are also exclusively of grey colour (Jovanović 2015), while examples from Divostin houses are of brick-reddish colour due to the secondary burning along with other objects in the burnt houses (Madas 1988). Majority of the bowls with everted rim at Stubline have slightly altered appearance of the inner and outer surfaces. Significant

Figure 6. Bowls with everted rim from the houses 1_2008 (1, 2) and 1_2010 (3). Note use-wear traces on the bowl 1 (photo: Branko Jovanović)

part of Vinča vessel fragments from the uppermost stratigraphic layers has severely damaged or torn out surfaces caused by multiple post-depositional factors (i.e. land erosion, agriculture...). Likewise, some of the younger bowls with everted rim from Stubline exhibit same surface degradation process, especially ones with thinner cross-sections and finer fabric whose surface was once smooth and well burnished.

Ornamental Techniques And Motifs

Bowls with everted rim are mainly undecorated, with 76% of our sample. Leading ornamental technique is channelling represented with 82% examples from the corpus of ornamented bowls (finds 5, 10, 11, 16, 17, 22, 25, 35, 38, 40–42, 50, 53, 64 and 65). Channelling was executed before firing, using stone pebble, bone, antler or ceramic tool. Short slanting or vertical channelled fields were organised in horizontal rows around vessel's shoulder or rim. Sometimes slanting or arched ornaments on the rim of the bowls resembles famous Hallstatt bowls with torced rim (finds 16, 20, 26, 50, 55 and 58). The rest of the

ornamented fragments represent modest corpus of seven fragments decorated with incised lines (find 37), and small lenticular impressions. Linear incised marks of unknown design were executed on the outer surface of two bowls (find 37). Such incised marks are usually referred to as Vinča culture signs (cf. Garašanin 1979, 181). Incised signs on bottoms and on the walls of the bowls with everted rim are known from other Vinča culture sites also, such as Gomolava, Banjica and Vinča (Todorović and Cermanović 1961: T. XXXII/30; Vuković 2011, 90; Jovanović 2015, T. XIII/3). There were only two fragments with ornamental composition executed in more than one decorative technique. Slanting channelled fields forming horizontal row around the shoulder of the bowl was interrupted with slanting row of lenticular impressions on one example (find 31), while on the other one vertical channelled fields were combined with plastically applied rib with lenticular impressions (find 32). Only two bowls have small, decorative and/or functional applications under the rim, one in the form of circular knob, the other one having

Figure 7. Excavated trenches with number of analyzed bowls with everted rim plotted on the geomagnetic plan and aerial photography (Belgrade City Museum archive)

purely decorative spiral application. Only one reconstructed bowl from 2008 excavations is decorated in typical manner for such bowls from Vinča site and Gomolava necropolis (cf. Vuković 2011; Jovanović 2015). Rim is decorated with slanting channelled fields while interior of the vessel is ornamented with burnished parallel lines that were probably organized in four meiotic fields (Figure 6/3).

Based on the published data, significant number of the bowls with everted rim from other Vinča culture sites is decorated. Such bowls

alongside with biconical bowls with rounded shoulder are the only Vinča culture vessels that are most commonly decorated both on the inner and the outer side of the recipient (cf. Jovanović 2014; Jovanović 2015). Bowls with everted rim from Gomolava necropolis are lavishly decorated with ornamental compositions consisting of burnished and polished zones forming cross-like motifs surrounded by zones with slanting burnished lines (cf. Jovanović 2015, T. IV/5, T. XVII/4, 5). Similar ornamental compositions are found on the bowls from the site

of Vinča (Vuković 2011, 89, 90). Majority of the bowls with everted rim from Divostin (Madas 1988) and Motel Slatina (Vuković 2011, 90) are undecorated as are the examples from Stubline.

Contextual Data

Bowls with everted rim were collected during every excavation campaign carried out at Stubline (Figure 7). The most numerous are finds from the trenches investigated during 2008 and 2017–2018, while the smallest sample comes from trenches excavated during the 2015 season. Such finding circumstances are affected by the size of investigated area,¹ and by the different date of the excavated feature.² There are two main contexts of find for bowls with everted from Stubline. Majority of them were found in fragmented condition, discarded and deposited in waste pits, or were secondary used along other recycled material for padding and packing of oven and house floors, etc. The share of such context find for Stubline sample is around 90%. High number of specimens from single waste contexts implies that bowls with everted rims were often discarded and replaced with new once. On the other hand their common appearance as fill material along other domestic waste in ditches signals that they were one of the most used tableware shapes.

Bowls with everted rim were found inside houses also, in their original place of use, or near it. Examples from house 1_2008 are most instructive for contextual analysis since seven of them were found inside. Bowls were almost entirely preserved, and are secondary burnt. They were placed either near the oven, or near the outer house wall. One miniature bowl was found near the oven in the house 1_2014 also (Figure 8; Spasić, Živanović and Stojić 2015, 33, 39, Fig. 17/1, Fig. 28), while additional two specimens were recovered from the stock of consumption vessels found near the eastern wall, outside of the house,

Figure 8. Miniature bowl with everted rim *in situ* with other vessels from the house 1_2014 (Belgrade City Museum archive)

in the vicinity of the hearth (Spasić, Živanović and Stojić 2015, 32, 39, Fig. 17/14, 15, Fig. 28). Occurrence of several bowls within the single house could speak in favour of claim that they were used individually.

Bowls with everted rim are mostly associated with houses at other Vinča-culture sites also. Seven whole and fragmented bowls were found in house 2/79 at Banjica (Tripković 2007, 185). Two houses from the late Vinča-culture settlement of Divostin in Central Serbia contained more than ten bowls with everted rim (Madas 1988).

The only example of non-settlement context find comes from Gomolava necropolis where bowls with everted rim have been found in graves 2/2973, 3/1976, 7/1976, 8/1976, 10/1976,

¹ Trench excavated during the 2017–2018 campaign is up until now the largest one with area of 15x15 meters.

² Waste pits investigated during the 2015 season were filled with chronologically older material, which resulted in the low number of collected bowls with everted rim.

12/1976, 20-22/1976, 25/1977 (Jovanović 2015). Two bowls from Gomolava grave 25/1976 are exceptional craft products, made of finely refined clay, with smooth surfaces, and lavishly ornamented outer and inner walls (Jovanović 2015, T. XVII/4, 5). The bowls were placed near the head of the adult male along with two other vessels, flint tool and ground stone chisel (Jovanović 2015, 27, 28), and were certainly important social markers.

Discussion

Bowls with everted rim are conceived as iconic type index of Late Vinča culture pottery. Still, up to very recently, there was not a single indebt analysis dealing with any aspect of their production, function or circulation. J. Vuković's paper on pottery standardization from 2011 is the only serious study devoted to this type of bowls. Her analysis shows remarkable results based on statistical analyses of a big sample from Vinča (367 fragmented and whole vessels), and modest sample from Motel Slatina consisting of 47 examples (Vuković 2011, T. 1, 2). In comparison with Stubline sample, bowls with everted rim from Vinča site have 17.59 mean value of the rim diameter, which coincides with Stubline data with mean value 17.63. Standard deviation for Vinča rim diameters is 2.40, while for Stubline it is much higher-3.90. J. Vuković has published statistical data for same values from the Vinča culture site of Motel Slatina, also. Mean value for rim diameter of bowls with everted rim from Motel Slatina is 21.25, while standard deviation is 3.0 (Vuković 2011, 92, T.2). We have calculated mean values for Divostin sample, using the same methodology. Thus, mean value for rim diameter for Divostin bowls is 16.61, while standard deviation is 2.42 (Figure 9). Higher values for standard deviation of Stubline rim diameters is probably the result of blurring, since we included miniature and small sized vessels that were not included in other calculations (rim diameter less than 10 cm), and exceptionally big ones

Figure 9. Histogram showing the share of different rim diameters of bowls with everted rim from Divostin (Belgrade City Museum archive)

Figure 10. Histogram showing the share of different rim diameters of bowls with everted rim from Stubline (excluding miniature and large size vessels) (Belgrade City Museum archive)

(rim diameter larger than 24 cm)³. If we exclude such objects from calculation, then standard de-

3 Divostin sample of the bowls with everted rim (36 examples) is the only one that has been published with raw data, and there is not a single example of our bowls that have rim diameter smaller than 10cm, and larger than 24 (cf. Madas 1988). Although 11 bowls from Gomolava represent modest sample bowls with such rim diameters haven't been recorded (Jovanović 2015).

Figure 11. Map of the Central Balkans with marked Neolithic sites discussed in the text (base map courtesy of M. Milinković)

viation of rim diameter for Stubline sample is 2.84, whereas mean value is also somewhat different—17.47 (Figure 10). Third statistical parameter that was included in J. Vuković's study is coefficient of variation (CV) which should signal whether, and to what extent, pottery production standardization existed (Vuković 2011). Following the same methodology CV for rim diameter for Stubline bowls is 16.29 excluding miniatures and exceptionally large ones. We have calculated that CV for Divostin sample is 14.56 (36 examples - cf. Madas 1988), which is in harmony with J. Vuković's analyses for Vinča corpus—13.67, and for Motel Slatina—14.11 (Vuković 2011, 91, 92, T. 1–3). Although Gomolava sample is too small for such analysis (11 examples - cf. Jovanović 2015), it is interesting to see that calculated rim diameter CV for 11 bowls with everted rim from Gomolava is 11.66.

Chronological position of bowls with everted rim has not been established properly in earliest studies of Vinča-culture pottery. Profes-

sor M. Vasić published only few such bowls in his four volume monographs (Vasić 1936, 113, T. LXVI/191b, T. LXVII/191c), although we know that they dominate the corpus from the latest horizon at Vinča site. V. Miložić hasn't signaled out this type of bowl as being of any importance for Vinča culture chronology, although he published several finds as typical for his Vinča D period (Miložić 1949, Taf. 34/3). In his published doctoral thesis M. Garašanin also didn't consider this type of bowls as being important as chronological index for late phases of Vinča (Garašanin 1951, 51, 52). It is only in his later works that he acknowledged that bowls with everted rim are typical for his Vinča-Pločnik IIb phase (Garašanin 1973, 94, 95; Garašanin 1979, 179, sl. 13/33). Strong association of bowls with everted rim with the latest phase of Vinča culture has been fully acknowledged only after the publication of pottery from Vinča D sites at Divostin, Grivac and Crkvine-Mali Borak where such shapes almost absolutely dominate the corpus

(Madas 1988; Nikolić 2008; Spasić 2011). Rare occurrence of our bowl type within the repertoire of vessels from multilayered site of Belovode in Eastern Serbia is rather conspicuous (cf. Arsenijević and Živković 1998, 203, fig. 1).

In the terms of regional distribution bowls with everted rim are present on majority of Late Vinča culture settlements in Central Balkans (Figure 11). Their circulation roughly corresponds with the area of Vinča D pottery distribution (cf. Whittle et al. 2016, 39, Fig. 36). Gomolava is the northernmost Vinča culture site with such bowl shapes reported (Jovanović 2015), and Valač being the southernmost (Tasić 1959–1960, T. VIII/1, 3, 5, 6). Westernmost finds of bowls with everted rim have been recently uncovered at the number of Central Bosnian sites, such as Gornja Tuzla, Donje Moštre and Okolište (Čović 1961, 96, 97, 11, Sl. 12a, T. XII/3–5; Hofmann 2013, Taf. 70/11; Hofmann and Müller-Scheeßel 2013, Taf. 1). Easternmost sites are situated in Romanian Transylvania such as Alba Iulia-Lumea Nouă (Gligor 2009, Pl. CXXXVII/1, 2, 5–7, 9, 13, 15).

When it comes to function, bowls with everted rim are typical Late Vinča culture tableware and were most probably used as consumption vessels. Their main morphological characteristic (everted rim) most likely signals that they were used for liquid food consumption since such rim profilation efficiently prevents spilling of the vessel content. Everted rim of these bowls could to some degree point to certain Vinča culture food ways practices and habits also, i.e. such vessels could safely be used directly from hand, or from lap without risk of spilling the content out of the bowl. Although there is strong evidence for existence of clay tables in numerous Vinča culture houses (cf. Spasić and Živanović 2015) bowls with everted rim could speak in favor that food was consumed both from vessels held in hands or rested on lap or on tables. The fact that high quantity of bowls with everted rim were recovered from single Vinča culture households, e.g. 15 complete and broken ones from house 13 (Bogdanović 1988, fig. 6.3) and 13 from

house 14 (Bogdanović 1988, fig. 6.6) at Divos-tin could also speak in favour of their frequent use for food consumption. On the other hand, it has been argued that bowls with everted rim may have been used as measuring cups (Vuković 2011, 96). There are visible traces of abrasive attritions on the interior of several bowls from Stubline. Most common are linear scratches caused by stirring or scraping the content of the bowl with some kind of tool (Figure 6/1).

It is interesting to notice that bowls with everted rim from Bulgarian site of Provadia were exclusively connected with salt production (cf. Stojanova 2008). Main characteristics of these bowls are significantly larger diameter of the rim (32–56 cm) and very slim, 3 to 6 mm thick walls. Similar observation has been made for bowls with everted rim from Central and Eastern Bosnia and Herzegovina. Such bowls usually rest on one or several cylindrical or conical foot and were often interpreted as vessels for salt evaporation or containers used for salt storage or transport (cf. Bakalović 2004; Bakalović 2005, 13, 14).

Along with issue of use and function one more aspect of bowls with everted rim could be addressed. It is a question of their symbolic meaning and capacity for transmission of ideas and messages that were important on wider social scale. Up to now the only indication that bowls with everted rims were used as strong symbolic metaphors is the fact that they were buried along with other grave goods at Vinča culture necropolis of Gomolava (cf. Borić 1996; Jovanović 2015). It is important to notice that all buried individuals from Gomolava necropolis are males of various ages (Borić 1996; Stefanović 2008). Also, judging by the published anthropological analyses bowls with everted rim were buried as in graves of both very young and adult age males. Thus, very simple, undecorated small sized bowl with everted rim appears in the grave 8 of one-year-old boy (Stefanović 2008, 95, T. 11.1; Jovanović 2015, 15, 16, T. VIII/3). Our bowls were also laid in the graves of elderly males, i.e. senior adults, as in grave 2/75 where 50–59 years old male was buried, and in grave 20/76 with

51–55 years old male (Jovanović 2015, T. IV/5, T. XIII/3). Intriguing fact is that bowls with everted rim from infant and sub-adult graves are undecorated (cf. Jovanović 2015, T. VIII/3, T. IX/1), while bowls lavishly decorated with complex burnished ornaments on both inner and outer side of the vessels were recovered from graves of adult males older than 30 years (Jovanović 2015, T. II/2, T. XVII/4, 5), but also from elderly seniors older than 50 years (Jovanović 2015, T. IV/5).

Vinča culture bowls with everted rim, as shown, were vessels important both on the symbolic and functional level. They were one of the most commonly used vessels among Late Neolithic communities of Central Balkans. As such, bowls with everted rim were important social agents, also. Analysis conducted by J. Vuković has shown that production of this type of bowl from Vinča and Motel Slatina sites was fairly standardized (Vuković 2011). On the other hand analysis of Stubline sample shows somewhat different results, with probably lesser degree of standardization (Figure 12). This could imply that bowls with everted rim from Stubline were used differently than those from Vinča and Motel Slatina or that there were more craftsmen that produced such vessel type in Stubline. Also it could be suggested that bowls from Stubline come from contexts of different phases. Although, the sample from Gomolava site is too small (11 examples) it is rather intriguing to find that CV point indicates that this is the site with highest degree of specialization of bowls with everted rim from all five sites with analysed metric parameters. Statistical plot of rim to height relationship from Gomolava shows coherent grouping with less variability than Stubline (Figure 12). Could it be that higher degree of pottery production specialization is to be sought among bowls that were intended to be buried as grave goods or other spatiotemporal and social factors affected such material culture patterning? Buried individuals belonged to the same male lineage (Stefanović 2008), and they were probably buried in smaller time span, up to 70 years (cf. Borić 2009, 199, 227, Tab. 5), while bowls from

Figure 12. Plot showing rim to height relationship of bowls with everted rim from Stubline, Divostin and Gomolava (Belgrade City Museum archive)

all other sites originated from diverse contexts with larger time span. The same could be stated for Divostin sample also, where bowls with everted rim were collected from rather contemporary houses (Borić 2009, 198, 220, 221, Tab. 4). Dense grouping of the bowls with similar height to rim diameter relationship from Divostin points to single craftsman or workshop since majority of vessels come from houses (Figure 12).

Future endeavors into the question of function of bowls with everted rim should include large-scale physical and chemical analysis of residues observable on the inner surfaces of some vessels, and microscopic investigations of visible traces of use. Fine dating of the contexts of find would contribute to understanding of stylistic and metric variations of vessels from all discussed sites. Final typological and morphological analyses of Stubline corpus showed that although bowls with everted rim seem as stable and quite uniform vessel type, there are numerous subtypes and varieties (cf. finds 1-68), which either points to conclusion that their production wasn't standardized, or that some other metric parameter is more important for their consideration. Recent considerations have already shown that morphological variations like angle of rim break or its thickness doesn't affect the function of the bowls or are not of big concern of craftsman (cf. Vuković 2011, 86). Larger morphological variation of Stubline corpus didn't have to

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affect the capacity of bowls. Since up until now there is only very modest sample of complete and safely reconstructed vessels (18 examples) further volume analysis must wait until sample reaches sufficient number of complete bowls.

Povzetek

Prispevek obravnava morfološka, slogovna in funkcionalna vprašanja enega najbolj tipičnih tipov posodja pozno neolitske vinčanske kulture. Opravljene so bile metrične in statistične analize kakor tudi poglobljene študije različnih tehnoloških in tipoloških vidikov proizvodnje, uporabe in kroženja skled z uvihanim robom. Prispevek povzema vse razpoložljive kontekstualne podatke in opozarja na različna področja njihove razprostranjenosti v različnih pozno neolitskih skupnostih srednjega Balkana. Tako sklede z uvihanim ustjem predstavljajo enega izmed najljubših tipov posodja v pozni vinčanski kulturi (obdobje Vinče D). Najpogostejše so bile uporabljene kot posode za prehrano, odkrite so bile v številnih gospodinjstvih vinčanske kulture. Nekatere izmed hiš so vsebovale tudi več kot 10 takih skled, kar govori v prid njihove široke uporabe. Dejstvo, da so bile sklede z uvihanim ustjem odkrite v več grobovih v Gomolavski nekropoli, priča tudi o njihovi simboli vrednosti. Kombinirane statistične analize so pokazale, da je bila izdelava skled z uvihanim ustjem v različnih vinčanskih kulturnih skupnostih bolj ali manj standardizirana. Korpus skled tega tipa iz najdišča Stubline je ponudil tudi nekatere nove vidike. Izkazalo se je, da je ta vrsta skled v morfološkem in tipološkem smislu veliko bolj raznovrstna, kot se je do sedaj predvidevalo. Čeprav ta vrsta posodja predstavlja »stabilen« tip, obstajajo velike morfološke razlike, ki najverjetneje odražajo raznolikost njihove proizvodnje in uporabe. Obsežne fizikalne in kemijske analize ostankov iz notranjih površin skled z uvihanim robom kakor tudi mikroskopske raziskave vidnih sledi uporabe naj bi v prihodnosti podali bolj verjetne odgovore na vprašanje, v kolikšni meri tipološke spremembe odražajo funkcionalne.

Summary

The paper discusses morphological, stylistic and functional issues of one of the most typical vessel types of Late Neolithic Vinča culture. Metrical and statistical analyses were performed also, as well as in-depth technological and typological study of various aspects pro-

duction, use and circulation of bowls with everted rim. Paper summarizes all available contextual data and points to different areas of their distribution within various Central Balkan Late Neolithic communities. Thus, bowls with everted rim stand out as one of the most favorite vessel type in the Late Vinča culture (Vinča D period). They were most often used as consumption vessels and were found in great number inside Vinča culture households. Some houses contained more than 10 such vessels, which speaks in favor of their wide use. The fact that bowls with everted rim were placed in several graves in Gomolava necropolis speaks in favor of their symbolic value also. Combined statistical analyses showed that production of bowls with everted rim was more or less standardized within different Vinča culture communities. Corpus of this bowl type from Stubline provided new insights about several important issues. It turned out that this bowl type is much more diverse in morphological and typological sense than it was thought up to now. Although this type of vessel represents stable type there are huge morphological differences which most probably reflects variety of their production and use. Large-scale physical and chemical analysis of residues observable on the inner surfaces of some bowls with everted rim, and microscopic investigations of visible traces of use in future should give more plausible answers whether and to what extent does typological variations reflects functional ones.

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