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NEW SPONDYLUS FINDINGS AT VINČA–BELO BRDO: 1998–2001 CAMPAIGNS AND REGIONAL APPROACH TO PROBLEM

Abstract. – Distribution of spondylus findings on prehistoric sites is remarkable and encompasses the whole European continent except West Mediterranean and North Europe. Approximately two hundred sites with spondylus findings are known in Europe ranging from the Early Neolithic to the Late Eneolithic. A long lasting interest for these findings results out of spondylus exotic origin as well as peculiarity of artifacts themselves that are mostly limited to decorative forms. The inventory of type-site of the Vinča culture – Belo brdo is especially important in this respect, but there are only few data published about spondylus findings from Belo Brdo. New research showed that we should expect them in large quantity. It is the aim of this paper to present spondylus items found during last research campaigns (1998, 1999, 2001) at Vinča – Belo Brdo, to fulfil emptiness in apprehending exotic materials from the site, as well as to point to some particularities and further research directions in regard to this kind of findings on the Vinča culture sites.

Key words. – Spondylus ornaments, Central and North Balkans, Neolithic, exchange.

Various species of oysters belonging to the genus *Spondylus* have wide geographical distribution and considerable geological age. They have existed since Jurassic (before 190 million years) until today in warm seas worldwide¹. The massive shell is made up of two unequal valves, hinged by an elastic ligament. In the hinge area there are large dental sockets and hinge teeth. The animal lives attached to solid substrate by cementation of the lower (right) valve. The shell is milk-white, purple or yellowish-brown colored and ornamented by strong radial ribs and large, irregular spines. Due to unequal size of the valves and attachment to the ground, there is great variability of shells by their shape, color and ornamentation.

SPONDYLUS² IN EUROPEAN PREHISTORY: TIME, SPACE AND CONTEXT

During last hundred years several important attempts were realized in order to view the importance and role of spondylus shell in the life of prehistoric communities on European continent through synthetic reviews on distribution, chronology of use and artifact

type.³ A long lasting interest for these findings results out of spondylus exotic origin as well as peculiarity of artifacts themselves that are mostly limited to decorative forms (bracelets, pendants, and beads). These researches were especially intensive during several last decades when the expansion of natural sciences and their influence to the archaeology enabled taking of more exact conclusions and solving of some enduring dilemmas. One of them certainly was origin of spondylus items that are found on archaeological sites. The origin was previously determined according to the concentration of the findings, so the Black Sea⁴ and fossiliferous deposits in the various parts of the Central Europe were recognized as locations of prime importance for initial distribution of spondylus. But, strontium isotope analyses showed that fossil shells were not used⁵, and that cold water of the Black Sea is not a

¹ Arduini & Teruzzi 1986.

² The name of the genus is written in italic, but when mentioned as the shell itself, or raw material for ornament manufacture, the word spondylus is written normally.

³ Clark 1952; Vencl 1959; Willms 1985; Müller 1997.

⁴ Chapman 1981.

⁵ Shackleton and Elderfield 1990.

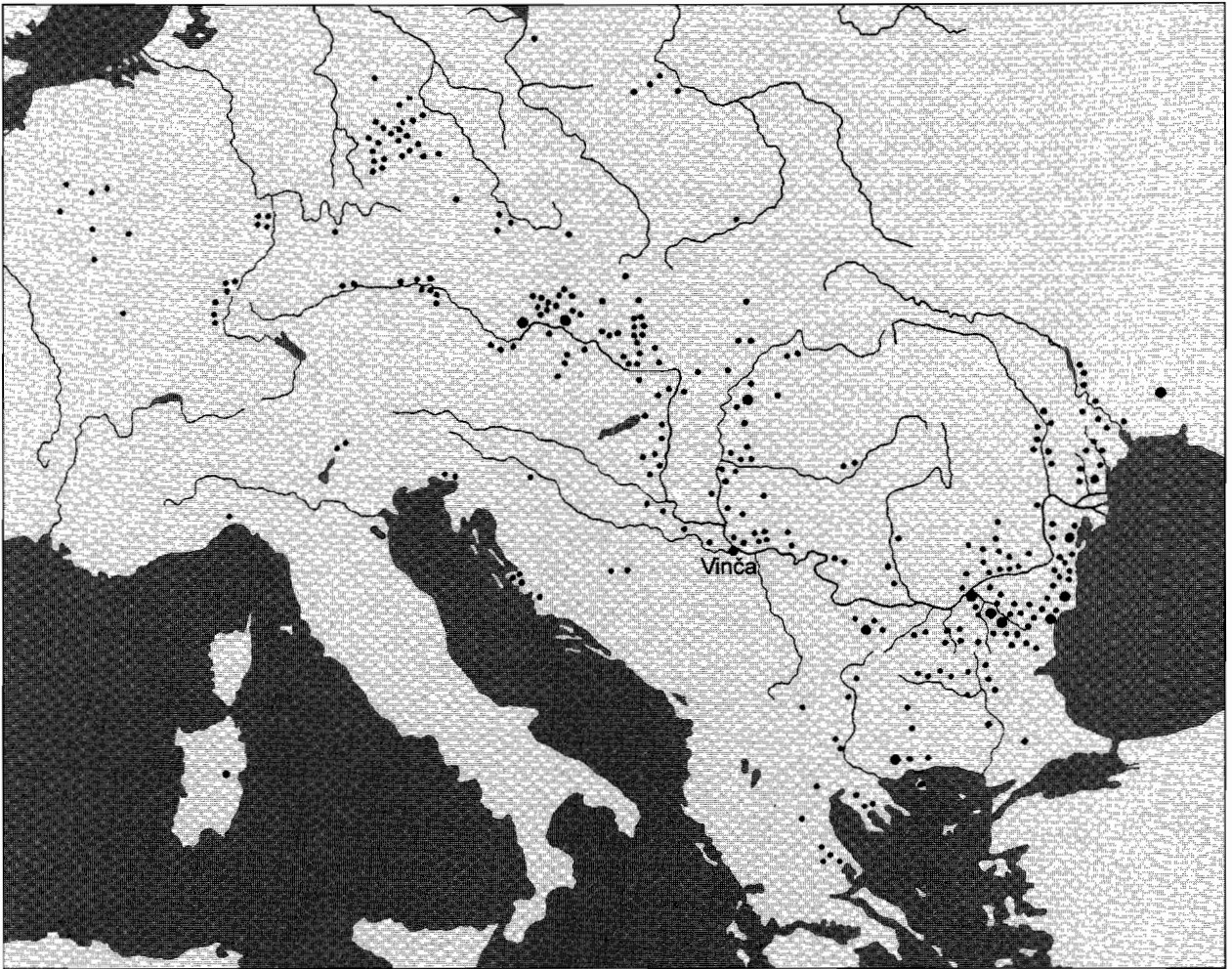


Fig. 1. Distribution of *Spondylus* (including *Glycymeris*) findings across the Europe (after Todorova 2000, modified by V. Dimitrijević and B. Tripković)

suitable environment for *Spondylus* development.⁶ On the other hand, results of these analyses indicate to the Mediterranean as its natural environment, consequently Aegean and Adriatic should be considered indispensably as the very place from where distribution of spondylus started.

The distribution of spondylus findings on prehistoric sites is remarkable and encompasses the whole European continent except West Mediterranean and North Europe.⁷ The detailed recognition and comprehending of geographical conditions with significant certainty enable determination of directions, via which the exchange was practiced (fig. 1). Distribution inside the Balkans was likely directed along river valleys confirmed as communication arteries in prehistory (valleys of Vardar, Struma, Mesta, Marica and Neretva), and was not limited only to the continental hinterland, but it naturally continued along the river Danube and Tisa

into the whole Carpathian Basin until the western Europe.⁸ Additionally, it is intriguing that majority of sites with spondylus findings are located in the Black Sea region, Carpathians, and further in the Central Europe while, against expectations, a small number of findings is encountered in Mediterranean, in the immediate vicinity of *Spondylus* life environment. This significantly differs spondylus items distribution as compared to other types of exotic articles (for example obsidian) that are concentrated in the region of raw material origin, and declines in amount of findings in relation to the increasing of distance from the source area.⁹

⁶ Renfrew and Shackleton 1979.

⁷ Willms 1985; Müller 1997.

⁸ Seferiades 1995; Willms 1985.

⁹ Renfrew and Bahn 1991; Tykot 1996.

This is a little bit strange that majority of spondylus findings is related to sites and cultures that have no direct contact with *Spondylus* natural environment, and so neither the possibility of their simple and easy supply. It is obvious that wide distribution is achieved only in the cultural-historical periods characterized by complex mechanisms of exchange and socio-economic systems that could support it. But, this exchange is accompanied by categories of meanings that are not exclusively limited to practical use, nor can they be simply explained by evident inclination to esthetics and utilitarian value of spondylus. A good example of the role and meaning of spondylus articles is given by B. Malinowski¹⁰ in his brilliant ethnographic study of exchange on the Trobrian Islands in Polynesia. There, spondylus necklaces were included in ceremonial exchange, they represented both symbol and status attribute, but at the same time had practical importance since they influenced on keeping and intensifying contacts through which the exchange of goods for every day consumption was also carried out. Regardless to the fact that this kind of exchange is uneasy to transfer into the other time, and to the other continent, still this ethnographic example remains as one of the most important for the explanation of the context of spondylus objects exchange.

Approximately two hundred sites with spondylus findings are known in Europe ranging from the Early Neolithic to the Late Eneolithic.¹¹ By establishing precise chronology for particular regions, two cultural zones within which those articles circulated were also approximately determined. Namely, except the findings of unmodified spondylus that have been recorded in Aegean and Adriatic region even since 7th millenium BC, it is noticeable that artifact chronology between those two regions shows certain divergence¹². Regarding the Adriatic area, including its continental hinterland as well as the central and north Balkans, ornaments made of spondylus have appeared since 5500 calBC, while distribution towards the central Europe began somewhat latter, around 5400 calBC. In the Aegean and at west coast of the Black Sea appearance of spondylus ornaments is chronologically unique and happens around 5100 calBC. In both regions findings definitely disappear after 4300 calBC. Because of partial difference in time use, it is justified to distinguish two cultural cycles, i.e. two trade networks for the exchange of spondylus and ornaments made of spondylus. The first one includes the central and the west Balkans, Carpathians and the central Europe, while the second covers the Aegean region and the west coast of the

Black Sea. Dividing on these two regions becomes even more obvious if we take into the consideration that the particular types of spondylus items are limited to a single distribution zone and not appearing in the other.¹³ Although this division may look correct and has its confirmation in the chronology and typology of artifacts, there are plenty of reasons why we need not to fully reject notion that during 5th millenium BC the limited exchange of spondylus also existed in those two regions.

Spondylus items do not have wide assortment of designs. Mostly we are dealing with the basic forms of ornaments: bracelets, necklaces and pendants. Pendants are found in several shapes while particular types are limited to only one region, in contrast to beads and bracelets that are universal categories of ornaments and show slight differences between two distinguished zones. Contexts in which those objects are deposited also significantly vary, as they are found in settlements, in the cultural layers or within hoards, in isolated graves or in necropola. In the Aegean region and on the eastern cost of the Adriatic spondylus items are found almost exclusively in settlements¹⁴. On the west coast of the Black Sea they are often deposited in graves¹⁵, while in the central Europe the importance of ornaments made of spondylus is reflected by their exclusive use in burial practice, thus accentuating prestige status of deceased.¹⁶ By analyzing of contexts we can actually see that spondylus value increase according to the growing distance from the area of origin. In areas where this distance represented barrier heavy to surmount it is most obviously manifested in the deposition of spondylus items in graves, as goods or some pieces of personal belonging of deceased. But, why spondylus items are more common in regions distant from the Mediterranean? What initiated their participation in exchange? What concrete motives it was caused by? These are only few questions that we may ask. Answering, on the other side requires different kind of analyses which will equally review cultural and social factors, and ethnographic facts, but firstly the complete presentation of findings from museum collections and from new excavations must be done.

¹⁰ Malinowski 1979.

¹¹ Willms 1985; Müller 1997.

¹² Müller 1997.

¹³ Müller 1997.

¹⁴ Müller 1997; Benac 1971: 97–100.

¹⁵ Todorova 1978: 44–47; Todorova and Vaisov 1993: 227–229.

¹⁶ Korek 1989: 54–56; Seferiades 1995.

**BELO BRDO: NEW FINDINGS
(CAMPAIGNS 1998–2001)**

There are a few data about spondylus findings from the type-site of the Vinča culture. In the field report of 1908. M. Vasić publishes nine fragments of bracelets made of shells.¹⁷ Although the shell species is not mentioned in the text, on the base of presented photographs it can be accepted that the larger part of them is made of spondylus.¹⁸ Unfortunately, the similar objects are not published in the reports on later campaigns. In his monograph on the Vinča culture Chapman¹⁹ points to the pendant earlier presented in M. Vasić' publication, but in the authentic publication M. Vasić speaks about it as plaque which bears traces of red color, and even mentions that it is made of marble.²⁰ Identical observation in relation to this pendant is expressed by D. Antonović, supporting M. Vasić's opinion, in her detailed review of objects made of polished stone from Vinča.²¹ In the survey of bone made implements and ornaments from this site, meanwhile, findings of spondylus are also mentioned, although it is not specified on which objects these notes are related.²² The presentation of spondylus items found during last research campaigns (1998, 1999, 2001) therefore has an aim to fulfil emptiness in apprehending exotic materials from this site, as well as to point to some particularities and further research directions in regard to this kind of findings on the Vinča culture sites.

CATALOGUE

98/62 (Plate I: 9)

Sector II, block E III, square 1, locus 2

The length of the fragment along outer curve 64 mm, width 7.5 mm, thickness 7.4–3.4 mm. In places observable shell structure (growth lines) and in places original purple color preserved. Perforation on the thinnest preserved bracelet part.

99/155 (Plate I: 15)

Sector II, block D IV, square 2, locus 1.

Length of the fragment along outer curve 35 mm, width 8.2 mm, thickness 7.0 mm. On inner curve dental sockets of the shell hinge.

99/283 (Plate I: 3)

Sector II, block E III, square 1, locus 12

Length of the fragment along outer curve 77 mm, width 2.6–9.0, thickness 6.3–8.6.

Yellowish–brown colour, growth lines observable in places, shell structure vitrified by heating

01/80 (Plate I: 10)

Sector II, block D III, square 3, locus 12

Length of the fragment along outer curve 58 mm, width 6.6 mm, thickness 2.6–6.4 mm.

In places shell structure observable (growth lines) and well preserved original purple color.

01/82 (Plate I: 1)

Sector II, block D III, square 3, locus 12.

Length of the fragment along outer curve 87 mm, width 10 mm, thickness 4.7 mm.

In places shell structure (growth lines) and traces of original purple color observable.

01/105 (Plate I: 11)

Sector II, block D IV, square 1, locus 22.

Length of the fragment along outer curve 60 mm, width 6.6 mm, thickness 3.2–7.2 mm.

In places shell structure observable (growth lines) and in places original purple color preserved.

01/106 (Plate I: 5)

Sector II, block D III, square 3, locus 12.

Length of the fragment along outer curve 92 mm, width 5.1–5.9 mm, thickness 5.4–8.0 mm. Traces of original purple color of the shell are observable.

01/113 (Plate I: 4)

Sector II, block D III, square 1, locus 10.

Length of the fragment along outer curve 75 mm, width 5.8–7.5 mm, thickness 2.2–4.5 mm. Well preserved structure (growth lines) and original purple color of the shell.

01/122 (Plate I: 6)

Sector II, block D IV, square 1, locus 6.

Length of the fragment along outer curve 39 mm, width 11.6 mm, thickness 5.9 mm.

Original yellowish-brown color of the shell preserved and dental sockets of the hinge area; in places growth lines of the shell observable.

¹⁷ Vasić: 1910: 28.

¹⁸ Vasić: 1910: Pl. 10, b.

¹⁹ Chapman 1981: 318.

²⁰ Vasić 1932: 38, Pl. XV, fig. 62.

²¹ Antonović 1992: 17–18.

²² Srejšović and Jovanović 1959.

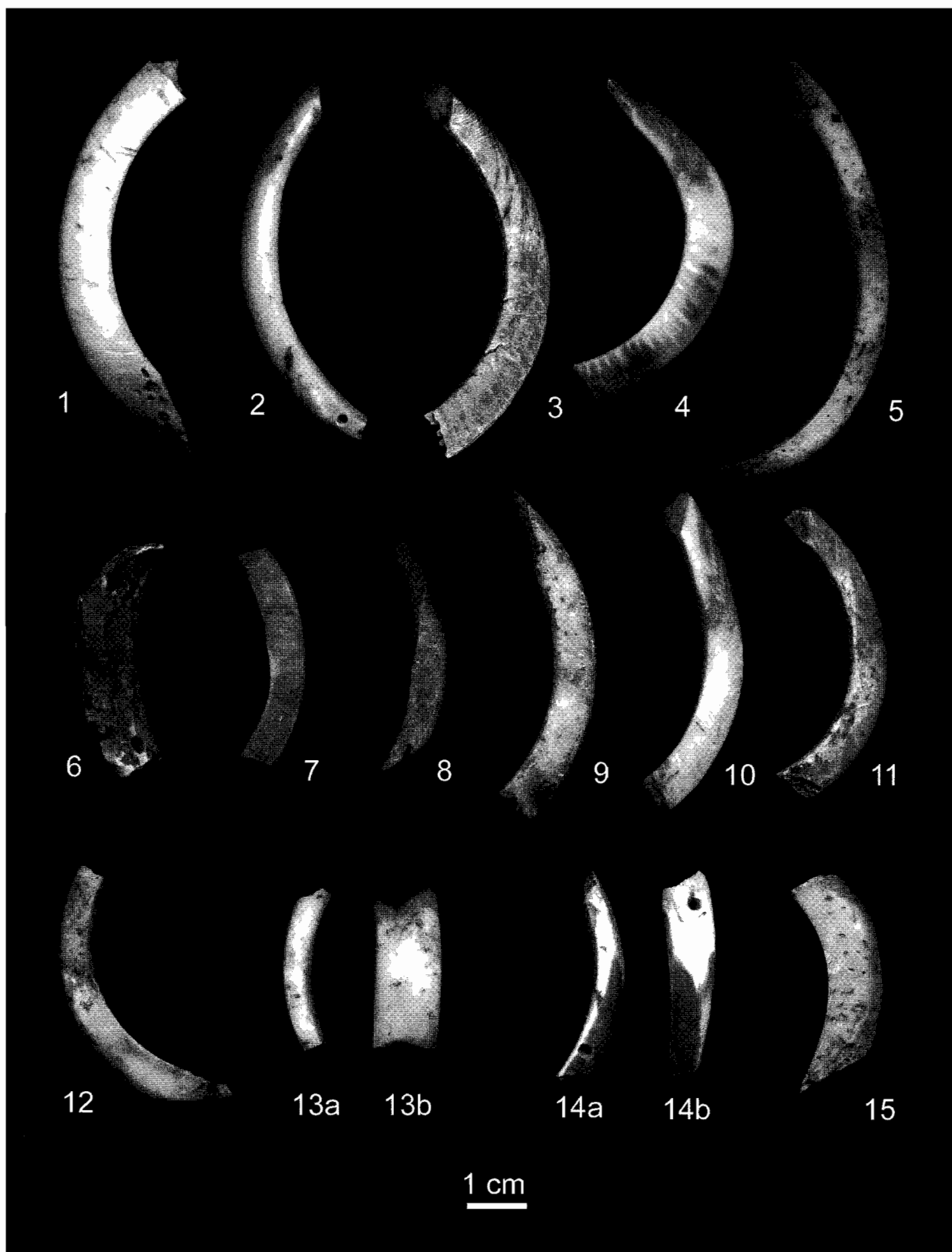


Plate 1. Spondylus findings from 1998-2001 campaigns at Vinča - Belo Brdo

Two perforations in the middle of the bracelet width, diameter 2 mm, in between distance 25 mm.

01/132 (Plate I: 2)

Sector II, block D III, square 3, locus 11.

Length of the fragment along outer curve 73 mm, width 5.7–107 mm, thickness 2.5–5.0 mm.

Traces of original purple color of the shell.

Perforation on the narrowest and thinnest part of the fragment, diameter 1.5 mm.

01/179 (Plate I: 12)

Sector II, block D III, square 3, locus 16 and 17.

Length of the fragment along outer curve 59 mm, width 7.7 mm, thickness 2.2–7.7 mm.

Original purple color of the shell in traces, sockets on the inner curve, which are part of hinge area of the shell.

01/211 (Plate I: 8)

Sector II, block D III, square 3, locus 11 and 16.

Length of the fragment along outer curve 46 mm, width 6.8 mm, thickness 6.6–7.2 mm.

01/218 (Plate I: 13 a, b)

Sector II, block D III, square 3, locus 14.

Length of the fragment along outer curve 31 mm, width 11 mm, thickness 4.9 mm.

In places growth lines of the shell observable.

01/236 (Plate I: 14 a, b)

Sector II, block D IV, square 3, locus 11.

Length of the fragment along outer curve 41 mm, width 5.4–8.3 mm, thickness 4.7 mm.

Well observable growth lines of the shell and in places original purple and yellowish-brown color. One perforation on broader end part of the fragment, and another one on the narrow end part. Diameter of both wholes approximately 2 mm.

01/238 (Plate I: 7)

Sector II, block D IV, square 3, locus 11.

Length of the fragment along outer curve 41 mm, width 6.4 mm, thickness 3.5 mm.

Shell structure observable in places (growth lines) and original purple and yellowish-brown color preserved.

Fossil shells of the genus *Spondylus* are found in Cretaceous and Tertiary deposits in the region²³. But, for the manufacture of the bracelets discovered on the site of Belo Brdo, beyond doubt fossil shells were not

used. Their color testifies to this – milk white on some specimens, honey-yellow and brownish on the others, while on some specimens characteristic purple like color of the outer shell layer in traces is preserved, which does not occur in fossils. These observations are additionally confirmed by the results of the strontium isotope analyses worked out on the spondylus samples from this particular site, from previous research campaigns, indicating their Mediterranean origin²⁴.

In 1998–2001 campaigns fifteen fragments of spondylus bracelets in total are found (fig. 2). In the process of the bracelets manufacture, a curvature of the valve is used: a band to form a bracelet is cut out bellow the hinge and along the as possible maximal diameter on the valve width. In the upper half of valve the bracelet band is perpendicular to the diameter, while in its middle it spirally curves and continues into the horizontal position – parallel to the valve diameter. The spiral curving is a particular reason for an attractive and recognizable appearance of the bracelet. Another feature, due to which spondylus primary attracts attention, is its color – purple color of the outer shell layer. This color is well preserved in some specimens (Plate I: 4, 10), while in others it is noticeable in traces or missing. Shell growth lines are also observable on some bracelets fragments on the longitudinal and cross-sections (for example Plate I: 1, 14), as well as dental sockets of the hinge area (Plate I: 6). Except for minor differences in the thickness and width, all fragments belonged to bracelets of similar shape and »cut out« of valve in similar manner.

There are carefully bored perforations on four bracelet fragments. In two cases perforations are made in the thinnest part of the bracelet band parallel to diameter (Plate I: 2, 9). The other two fragments bear two perforations each. On one there are two perforations on perpendicular part of the band (Plate I: 6), and on another one perforation is situated on perpendicular while another is on horizontal band part (Plate I: 14a, b), thus their axes form right angle. There are no traces of remaking on any fragment, which might signify that there were attempts to repair broken bracelets, or modify their fragments into the pendants or other kind of ornaments. Breaks on all fragments are old, which is presumable that we are dealing with broken ornaments, uninteresting for further use, and thus rejected. This kind of treatment of spondylus artifacts can be consi-

²³ Milovanović and Pantić 1987.

²⁴ Renfrew and Shackleton 1979: 185–186.

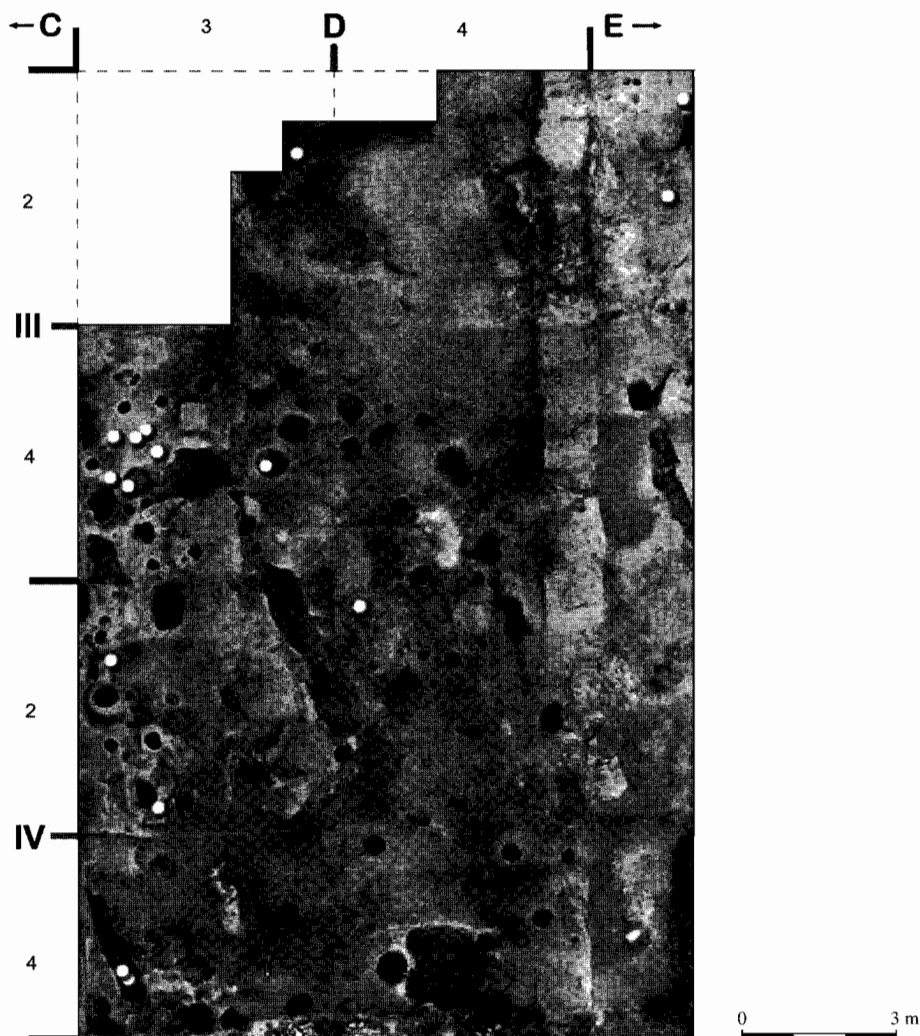


Fig. 2. Vinča, Belo Brdo, distribution of spondylus bracelets across the area excavated 1998–2001
(Field documentation – courtesy Nenad Tasić)

dered unusual, since their value was based on difficult conditions of supply, while further possibility of secondary use still existed. Direct confirmation of the maximal use and prolonged duration of those objects on other sites can be illustrated by an example of »repair« of the bracelet in the grave 43 in Varna²⁵, or »remake«, as it was the case on the site Hirsova in Romania (Gumelnica culture), where the beads were made out of the broken bracelets.²⁶

SPONDYLUS IN THE REGION OF CENTRAL AND NORTH BALKANS: SITES AND CONTEXTS

The central and north Balkans represents the zone of dividing of the Adriatic region and Carpathian Basin.

Consequently, Neolithic communities of the region probably acted as intermediaries in supply and further distribution of spondylus towards the North. By discoveries on the sites Obre I²⁷ and Obre II²⁸ in the central Bosnia the continuous line of exchange was established on relation Adriatic coast (Danilo) – central Bosnia (Kakanj, Butmir) – lower Danube area (Vinča) – Carpathian Basin. The period between the first appearance of the spondylus artifacts (around 5500 calBC)²⁹ and their definite disappearance from the culture inventory of the prehistoric communities (around 4300 calBC),

²⁵ Seferiades 1995: 241.

²⁶ Comsa 1973: 67.

²⁷ Benac 1973: 44.

²⁸ Benac 1971: 97–100.

²⁹ Müller 1997.

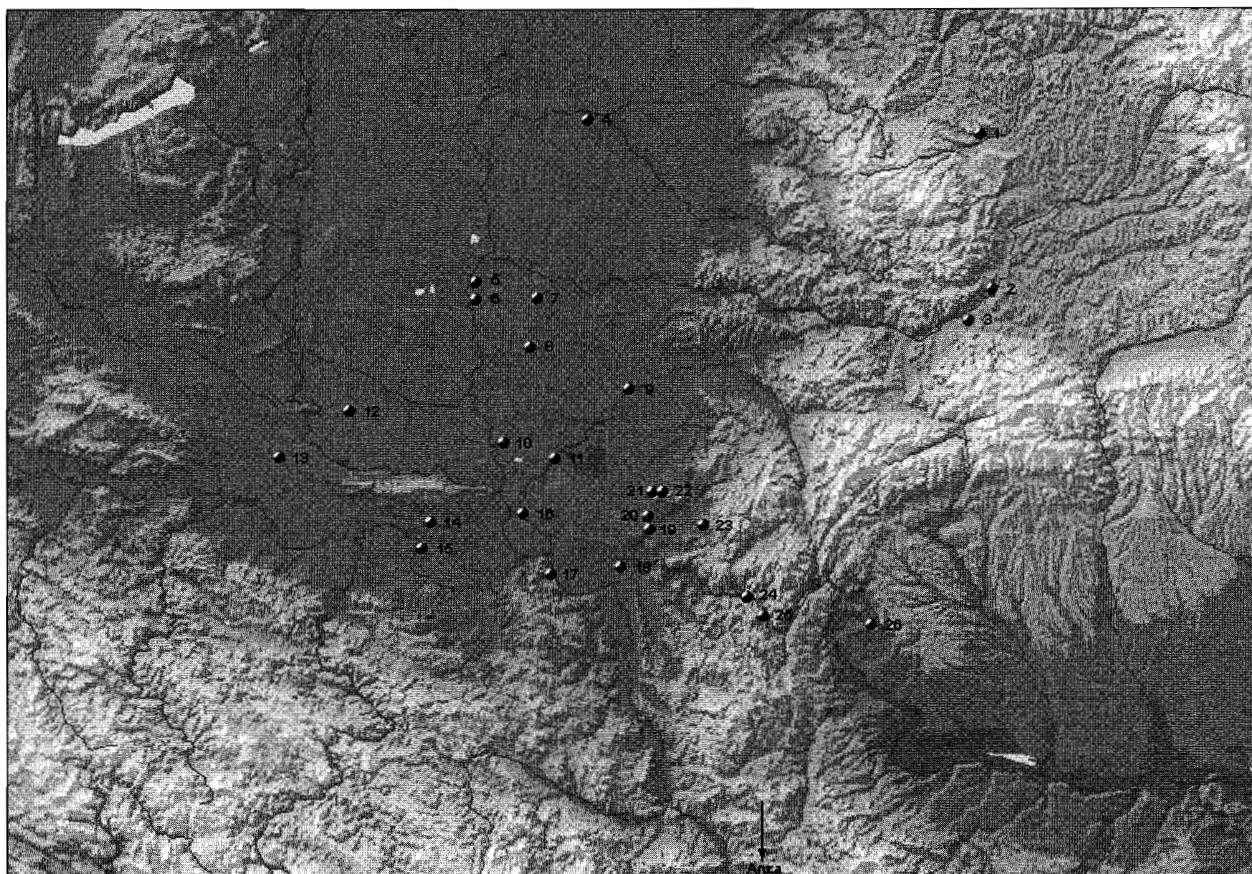


Fig. 3. Distribution of *Spondylus* findings in Starčevo and Vinča cultures. Starčevo culture sites: 1. Gura Baciului, 4. Endröd 119, 5. Srpski Krstur, 7. Besenova Veche, 13. Vinkovci, Tržnica, 14. Ruma, Zlatara, 25. Lepenski Vir; Vinča culture sites: 2. Alba Iulia, 3. Tartaria, 6. Novi Kneževac, 8. Kikinda, 9. Parta, 10. Aradac, 11. Botoš, 12. Odžaci, Mostonga, 15. Gomolava, 16. Opovo, 17. Vinča, 18. Gaj, Čolak, 19. Potporanj, 20. Vršac, Potporanje Granice, 21. Vršac, At, 22. Vršac, Kozluk; 23. Racasdia, 24. Ljubcova, 26. Ostrovul Corbului.

on the central and north Balkans is marked by the end of the Starčevo culture, as well as with the beginning, development and disappearance of the Vinča culture.³⁰

Spondylus findings in the Starčevo culture

In the Starčevo culture spondylus items are not numerous (fig. 3). Their presence is recorded on only few sites, sometimes with interesting accompanying context, but mostly without data on the chronology of findings and sites. There is an evidence of spondylus findings on the Starčevo settlement on the Lepenski Vir site. Related to this site, phase IIIb, a necklace is found made of beads, which are allegedly made of spondylus and paligorskite.³¹ According to the statement of the author, this necklace is found in deeper pottery vessel.

According to J. Chapman, findings are registered also on the sites Srpski Krstur, Besenova Veche and

Anza³², while »amulet« of unknown shape originates from the site Tržnice in Vinkovci.³³ This amulet was found in a child grave, together with two vessels of the Vinča type and fragments of Starčevo pottery. The child was buried in the contracted position in the grave located inside the settlement.

The relation between spondylus and burring ritual is also confirmed on the site Zlatara near Ruma.³⁴ On the edge of the settlement two grave pits are discovered housing three buried individuals. Several spondylus beads are found in the grave of a woman, aging 40–45, who is buried in the contracted position, lied on the left

³⁰ Müller 1997: 95; Gläser 1996.

³¹ Srejšević 1969: 173.

³² Chapman 1981: 319.

³³ Dimitrijević 1979: 241.

³⁴ Leković 1985: 160–161.

side and oriented west east. Burial was practiced with complex ritual what is visible by numerous offerings: pottery fragments, few whole and several fragmented vessels, two stone made axes, two flint blades, two bone points, a clay weight, and several pieces of quartzite. The ritual was improved with over 7000 snail shells of *Helix pomatia* and a large number of domestic and wild animals bones.³⁵

Out of the central Balkans, but within the distribution range of Starčevo–Körös–Kriš complex several more spondylus findings are known. One fragmented bracelet was discovered on the site Gura Baciului, in the layer belonging to the beginning of the Starčevo–Kriš culture.³⁶ This finding might be considered dubious, since the author states that the fossil clam of the genus *Pectunculus* is in question.³⁷ But, similar findings should be expected in future in the Carpathian Basin as pointed by a fragment of the spondylus bracelet found in the rubbish pit on the site Endrod 119.³⁸ So far, this is the most northern finding of spondylus within Starčevo–Körös–Kriš complex. This finding is very difficult to date since the pit it was found in contained material from different periods of Körös culture, including the pottery with white painting from the early phase, but also typical forms of Proto–Vinča.³⁹

These are the only known spondylus findings in Starčevo–Körös–Kriš complex till now. Surveying their distribution and chronology the importance of the sites Anza and Gura Baciului should be pointed out. The first site is located in FRY Macedonia, at the distance of around 45 km southeast of Skoplje, in the region called Ovče polje. It is a multi-layered site, with four distinguished stratigraphic phases. According to the Anglo–Saxon literature the first three phases are included in the pre–Vinča horizon or in the Starčevo culture⁴⁰, although M. Garašanin made distinguish of several akin sites in this region and termed them as the group Anzabegovo–Vršnik.⁴¹ Spondylus ornaments were found in all phases (beads), from approximately 6100 calBC till around 5200 cal BC, while bracelets were discovered only in phases II and IV.⁴² The position of this site situated between southeast zone (the eastern part of the Balkan peninsula), which probably was supplied from Aegean, and northwest zone (west Balkan, Carpathians and central Europe), which was supplied from the Adriatic, offers in addition some other indications and opens new dilemmas. For example, how comes that so deep in continental hinterland spondylus findings originated chronologically much earlier appear that by no means could be coordinated with similar findings in Aegean and Adriatic. V. Miložić

severely criticized the chronology and conclusions made on stratigraphy in his survey of this site monograph.⁴³ But even if we put aside this critique and division on four phases and rely only on presented C 14 chronology, still till now known conclusions on chronology of the spondylus objects use are questionable. Possible assumptions are:

- spondylus in the earlier phases of the Anza settlement originates from the east Adriatic coast. This would mean that chronology of spondylus exchange in the region should be regarded at least 500 years older, and even there is no convincing trace of the manner it was happening. There are no sites with spondylus findings at central and west Balkans from that period and it is not possible to prove this kind of connection for the time being,

- spondylus comes from the Aegean area to which this region naturally inclines. In this case, the absolute dates for the early layers in Anza (around 6100 calBC) would really indicate the exchange whose beginnings would be much earlier than beginnings of the exchange in the northwest circle. But, paradoxically, spondylus findings in this region begin intensively to appear much later, only around 5100 calBC⁴⁴, so this space and geographic relation is not, as in previous case, supported by archaeological evidences.

Further research would certainly settle this dilemma either in one of presented direction, or confirm Miložić's doubt. Until that moment, this dilemma has, for the central and north Balkans, much wider implications. There is a question as whether spondylus in the Starčevo culture arrives through contacts with then contemporary settlements of the Vinča culture, or, on the other hand, this kind of exchange has deeper roots and dates back to the Early Neolithic. Intensive exchange of this article in the north Balkans followed immediately after establishing the Vinča culture in the lower Danube area, and probably manifested also in the particular peripheral regions. This could be especially the case on the borders as places of encounter with surviving

³⁵ Leković 1985: 161.

³⁶ Lazarovici and Maxim 1995: 154, fig. 26, 1.

³⁷ Vlása 1976: fig.14, 11.

³⁸ Makkay 1990: fig.4, 3.

³⁹ Makkay 1992: 127.

⁴⁰ Gimbutas 1976; Chapman 1981.

⁴¹ Garašanin 1979: 84.

⁴² Gimbutas 1976: 243–255.

⁴³ Miložić 1978: 548–559.

⁴⁴ Müller 1997.

tradition of Starčevo type, furthermore characterized by strong exchange mechanisms. Although precise chronology for the majority of the Starčevo culture sites with spondylus findings is missing, it should be supposed that at least some of them are contemporary with the beginning of the Vinča culture. The evidence of fragmented bracelet (made of spondylus?) from Gura Baciului site, in the layer dated to late 7th millennium BC, namely the beginning of the Starčevo culture, shows possibility of other solution. Translated into the regional context, that would mean that spondylus articles trade, though limited in volume, began much earlier than 5500 calBC. This is evidenced by sporadic findings in the Early Neolithic sites of southeastern Europe (Achilleon, Karanovo I, Čavdar).⁴⁵ The real fundamental capacities for such kind of exchange existed in the Starčevo culture⁴⁶, but for its realization the motifs beyond practical and economical requirements were also needed.

Spondylus ornaments on the Vinča culture sites

Difference in relation to the Starčevo culture is easily recognizable since spondylus items are found on more sites and they are much more numerous (fig. 3). However, spatial distribution is not substantially different, for they are still being found on the sites along the Danube banks and northward. Exchange network is not limited only to the north Balkans but is developing deeper in the hinterland of the continent throughout entire Carpathian Basin. This is why the Vinča culture bearers, besides ensuring spondylus for their own need, probably acted as intermediaries in this exchange providing northern population with valuable raw material and taking at the same time something in return on the reciprocity base. Spondylus objects in the Vinča culture are mostly located in the Danube area⁴⁷, but again with the exception of Anza, which is situated much further on the south and stands isolated from the other sites of the Vinča culture with its spondylus findings.⁴⁸ In Anza out of this phase (IV) there are numerous findings (fragmented bracelets and beads), and it seems that this settlement was supplied with spondylus out of the Aegean area.

Concerning Pannonian Vinča sites spondylus items are discovered in various contexts. In the sites Novi Knjaževac, Aradac, Vršac, Potporanj⁴⁹, Gaj-Čolak, Vinča⁵⁰ and Opovo⁵¹ they are generally related to the settlements without closer information on the context. The circumstances are even more uncertain with three bracelets and one necklace from Kikinda⁵², for which it is

not known neither cultural affiliation (the Vinča culture?) nor general references about the sites (settlement, grave, etc.). There are no precise data about findings from Romanian sites Racașdia, Ostrovul Corbului, Ljubcova and Parta, while a hoard with spondylus beads is related to the settlement of Alba Iulia.⁵³

But, there are sites showing significantly different picture and the real value of spondylus is possible to evaluate only on these examples. Such a case is with the findings in the site Živanićeva Dolja, near by the village of Botoš in the Zrenjanin surroundings. Here a large number of the whole and fragmented bracelets were found inside necropolis of the Vinča culture as well as several pendants and necklaces made of spondylus.⁵⁴ But, the most remarkable is the item (pendant, amulet or belt buckle?) which is found in the site Mostonga near by Odžaci in the grave of the Vinča culture member.⁵⁵ The item shows visible traces of use, but it seems that its value for the deceased actually comes out from its six symbolic representations that are arranged in a semicircle and explained by Seferiades as mythogram.⁵⁶ This is, for time being, a unique finding in the frame of spondylus world and to a certain extent the parallel could be made only to famous Tartaria tablets.

The site of Tartaria became famous just because findings of three clay tablets, out of which one depicts the hunting scene while the other two present so-called Vinča symbols. While most of attention was paid to this group of findings⁵⁷, other objects found in the context somehow remained neglected. These tablets are found in a pit together with 26 clay figurines, two figurines made of alabaster, and one bracelet made of spondylus. The pit was filled with ash, and certainly it is important to notify that inside it were found disarticulated human bones (individual age 35–40 years). As it was the case with the unique finding from Mostonga, here the context that yielded spondylus

⁴⁵ Kalicz and Szenaszky 2001: 28.

⁴⁶ Tasić 2000; Tripković 2001.

⁴⁷ Chapman 1981; Willms 1985; Müller 1997.

⁴⁸ Gimbutas 1976.

⁴⁹ Milleker 1938.

⁵⁰ Chapman 1981: 318–319.

⁵¹ Tringham et al. 1992: 368–370.

⁵² Marinković 1998.

⁵³ Comsa 1973: 71.

⁵⁴ Milleker 1938: 113, 148.

⁵⁵ Karmanski 1977: fig. 22.

⁵⁶ Seferiades 1995: 242.

⁵⁷ Vlassa 1963: 485–495.

bracelet is unusual. The analogy to this finding also might be searched in a hoard from the site Kremenjak near Čoka of the Tisa culture.⁵⁸ On this site in one biconical amphora, high around 30 cm, there were fragmented and whole pieces of the spondylus ornaments (bracelets, a pendant, beads), together with 3 marble idols, 105 marble buttons, an ochre lump, as well as several unidentified objects. A fragment of a human bone found inside the amphora gives a special meaning to this finding.

Spondylus findings from the Gomolava site also arise some dilemmas.⁵⁹ Two spondylus items are found near by a pottery pile, in a layer of the phase Gomolava II, which is related to post-Vinča life on the site, and is characterized by the material very similar to that of the Sopot–Lendjel and Tiszapolgar culture. In this period numerous settlements of the late Vinča culture in the eastern Srem and the lower Danube area continue to exist, as well as those of the Lendjel culture in west Srem, Slavonia and Transdanubia. Consequently, spondylus items might come to Gomolava site either through the contacts with the late Vinča or Lendjel culture bearers.⁶⁰ It seems that distribution of spondylus required stabile mechanisms of exchange, which could be established only in the settlements of strong economic potential and developed contacts. The Vinča culture centers in the Danube area, during the long history of their existence had these basic preconditions, above all, due to their location, which itself gave such guaranties. On the other hand, it is more than obvious that spondylus exchange towards north happens until the end of the existence of the large centers of the Vinča culture, and the time when its basic socioeconomic unit become small settlements, probably composed of a few households.⁶¹

FURTHER RESEARCH PERSPECTIVES

The research of the early modes of the trade, the identification of the objects to be exchanged and ways of its happening are certainly some of the most important tasks of prehistoric archaeology. This kind of research consider the items made of spondylus due to their exotic origin and significance of the context within they are found, often analogous with the ethnographic examples out of different parts of the world. The central and north Balkans, the region situated between raw material sources and central Europe, acted as intermediary in the transfer of these items towards the North. But, this was not its mere role. The

cultures that flourished in the Neolithic of this region received these items, as well as knowledge about exotic places of their origin, and took part in creation of their meaning and evaluation in its further transfer toward the North. It is unnecessary to prove value of spondylus in this respect, since the spondylus items presence in the graves certainly indicate the prestige of the buried individuals and their distinction from the other members of the society. It is much more important, in this case, to understand the meaning of the items, i.e. what was the story that made them valuable and initiated the exchange throughout the European continent. So far the territory of the Vinča culture with its spondylus findings is the only one that offers the potential for answering to these questions. An amulet from Mostonga with its symbolic presentations probably hides some more connotations of possible meanings of spondylus, and Seferiades is absolutely right when pays the utmost attention to this item. Though, it is much more uncertain if partially the solution is found in Tartaria tablets. It is to be reminded that these tablets were recovered in a ritual pit, together with other articles of the cult, among which there was a spondylus bracelet. By analyzing the nature and content of the pit it becomes evident that the explanation of the circumstances of its creation, requires mosaic-like composing of all available information about it. The presence of the spondylus bracelet therefore could not be put aside. Coexistence of all the items in the pit indicates that maybe their meanings are complementary. Because of that, it is not too pretentious to point out that Tartaria tablets are not fully understandable without previous comprehending of the role of this spondylus bracelet, neither the opposite approach is possible.

Precisely, in this kind of situation the main obstacle to interpreting spondylus findings could be seen. Its surmounting is however possible, and requires publication and detailed analyses of as much as possible items in the regional context. Presentation of the spondylus findings from the type-site of the Vinča culture has for a goal compensation of these shortcomings. Although we are still in situation not to insist on final solutions, it is evident that findings from this site may direct these researches in other directions. The number

⁵⁸ Kalicz et al. 1990: 150.

⁵⁹ Brukner 1980–1981: 24.

⁶⁰ Brukner 1980–1981: 24–25.

⁶¹ Tringham 1992.

of spondylus findings in the Vinča culture sites significantly varies and we need to establish what made these differences. Belo Brdo, Botoš and the group of sites near Vršac are distinguished by numerous findings, but we do not know whether their nonexistence on the other sites is the outcome of insufficient study, or non-recognition of the material, or they are really missing. A good example is Belo Brdo, from where we have only fragmentary data of spondylus, but new research showed that we should expect them in a large quantity. By directing the attention to this kind of material it

might be solved a dilemma whether they appear in the central Balkans south of the Danube, which would in the same time mean significant widening till now known distribution area of the spondylus findings. According to the published material related to the sites Boljevac⁶², Drenovac⁶³ and Divostin⁶⁴, these indications seem justified, but they have to be confirmed by reexamination of data of the row material kind.

*Translated by:
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⁶² Mrkobrad 1982: 29.

⁶³ Chapman 1981: fig.143, 18.

⁶⁴ McPherson, Rasson and Galdikas 1988: 330, fig. 11.5.

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Резиме:

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**НОВИ НАЛАЗИ ОД СПОНДИЛУСА У ВИНЧИ:
КАМПАЊЕ 1998-2001
И РЕГИОНАЛНИ ПРИСТУП ПРОБЛЕМУ**

Током протеклих стотинак година остварено је неколико значајних покушаја да се кроз синтетичке осврте на дистрибуцију, хронологију употребе и врсту артефаката сагледа значај и улога спондилуса у животу праисторијских заједница на европском континенту. Дуга историја интересовања за ове налазе проистиче из егзотичног порекла шкољке као и из специфичности самих артефаката који су углавном ограничени на декоративне форме (нарквике, привесци, перле). Црно море и фосилна лежишта у различитим деловима централне Европе су дуго времена фигурирала као локације од велике важности за иницијалну дистрибуцију спондилуса. Анализе изотопа стронцијума, урађене током последњих деценија су, међутим, показале да фосилне шкољке нису употребљаване, као и да хладна вода Црног мора не представља биотоп погодан за развој спондилуса. Резултати ових анализа упућују на Медитеран као њихову природну средину те, према томе, Егеји и/или Јадран треба посматрати као место одакле је кренула дистрибуција спондилуса.

Дистрибуција налаза од спондилуса на праисторијским археолошким локалитетима обухвата читав европски континент, сем западног Медитерана и северне Европе. У унутрашњост Балкана је највероватније била усмерена долина река које су у праисторији потврђене као комуникације (долине Вардара, Струме, Месте, Марице и Неретве), али није била ограничена само на континентално залеђе, већ се Дунавом и Тисом природно даље настављала кроз читав Карпатски басен, све до западне Европе. При томе је интересантно да је највећи број локалитета са налазима спондилуса лоциран у црноморској области, Карпатском басену и даље у централној Европи док се, супротно очекивању, мали број налаза среће у медитеранској области, у непосредној близини њихове животне средине. Тиме се налази од спондилус шкољке значајно разликују у поређењу са другим врстама егзотичних роба (нпр. у односу на опсидијан), које показују изузетну концентрацију у региону порекла сировине и значајно опадање у количини налаза са повећањем удаљености од извора.

Помало је чудна ова ситуација да се највећи број налаза од спондилуса среће на локалитетима и у културама које немају директан контакт са природном средином шкољки, па тако ни могућност једноставне и лаке набавке. Очигледно је да велико распрострањење достижу тек у културно-историјским периодима које карактеришу сложени механизми размене и социо-економски системи који је могу подржати. Али, ову размену прате и категорије значења које немају искључиво практични значај нити се могу једноставно објаснити израженом склоношћу ка естетички или употребној вредности спондилуса. Дobar пример улоге и значења предмета од спондилуса дао је Б. Малиновски у сјајној етнограф-

ској студији размене на тробријанским острвима у Полинезији. Тамо су огрлице од спондилуса учествовале у церемонијалној размени, поседовале су симболичку и статусну димензију, али и практичну јер су утицале на одржавање и појачање контаката током којих је размењивана и роба за свакодневну употребу. Без обзира што је овакву врсту размене тешко аналогично пребацити у друго време и на други континент она и даље остаје један од најзначајнијих примера за објашњење контекста размене у којој су учествовали и артефакти израђени од спондилуса.

У Европи је познато око 200 локалитета са налазима спондилуса и то у распону од раног неолита до касног енеолита. Утврђивањем прецизне хронологије за поједине области приближно су одређене и културне зоне у којима су ови предмети циркулисали. Наиме, остављајући по страни налазе необрађених спондилуса који се у јадранској области и у Егеји јављају још у 7. миленијуму п.н.е., приметно је да хронологија артефаката између ове две области показује извесна одступања. На подручју Јадрана, укључујући континентално залеђе као и централни Балкан, накит од спондилуса се јавља од 5500 calBC, док је дистрибуција ка централној Европи започела нешто касније, око 5400 calBC. У егејској области и на западној обали Црног мора појава накита од спондилуса је хронолошки јединствена и дешава се око 5100 calBC. У оба региона налази дефинитивно ишчежавају након 4300 calBC. Услед делимичне разлике у хронологији употребе оправдано је издвајање два културна круга, односно две трговинске мреже за размену спондилуса. Први обухвата централни и западни Балкан, Карпатски басен и централну Европу, док су у други укључени егејска област и западна обала Црног мора. Подела на ова два региона постаје још очигледнија ако се има на уму да су поједини предмети од спондилуса типолошки ограничени на своју дистрибутивну зону и да се не јављају у другој. Мада се ова подела на зоне чини исправна, и мада има своју потврду у хронологији и типологији артефаката, постоје бројни разлози због чега не треба потпуно одбацити ни помисао да током 5. миленијума п.н.е. између ова два подручја постоји ограничена размена спондилуса. Они су углавном социјалне природе и тичу се специфичних услова или околности у којима се размена одиграва, а не мањи доказ су и снажни културни контакти са источним Балканом (преко винчанске културе) као и лака могућност комуникације Дунавом.

Предмети од спондилуса немају велики репертоар облика. У највећем броју случајева су у питању основне форме накита: нарквике, огрлице и привесци. Привесци се јављају у неколико облика и поједини типови су ограничени само на један регион, за разлику од перли и нарквике које су универзалне категорије накита и показују мало разлика између

две дефинисане зоне. Контексти у који су ови предмети депоновани такође значајно варирају па се налазе у насељима, у културном слоју или као оставе, у изолованим гробовима или у некрополама. Кроз анализу контекста се заправо види како вредност спондилуса расте са повећањем растојања од извора. У подручјима где су ове дистанце представљале тешко премостиву баријеру депоновање спондилуса има најконкретнију манифестацију, у гробу, као прилог или власништво преминуле индивидуе. Због чега се спондилуси најчешће јављају у подручјима која су удаљена од Медитерана? Шта је покренуло њихово учешће у размени? Каквим је конкретним мотивима она била изазвана? Ово су само нека питања која је могуће поставити. Одговори на њих, пак, захтевају другачију врсту анализе која ће подједнако узети у обзир и културне и социјалне факторе и етнографске студије, али најпре мора бити урађена комплетна презентација налаза из музејских збирки као и са нових ископавања.

У старчевачкој култури налази од спондилуса нису чести. Њихово присуство је забележено на само неколико локалитета, углавном у подунавској области, понекад у занимљивом контексту (гроб, остава), али углавном без података о хронологији налаза или налазишта. Стога се поставља питање начина дистрибуције и временске припадности ових налаза. Да ли су спондилуси у старчевачку културу доспели кроз контакте са истовременим насељима винчанске културе или, пак, ова врста размене има дубље корене и сеже до самих почетака неолита на овом простору. Основни капацитети за такву врсту размене у старчевачкој култури јесу постојали, али за њено остварење су били неопходни и мотиви изнад практичних и економских.

У касном неолиту централног Балкана, у винчанској култури, спондилуси се срећу на више локалитета и у знатно већем броју. Територијална распрострањеност се, међутим, битније не мења јер се и даље јављају на локалитетима уз обалу Дунава и северно од ње. У ово време мрежа размене није ограничена само на Балкан већ се шири и дубље у унутрашњост континента, кроз читав Карпатски басен. Због тога су припадници винчанске културе, сем обезбеђивања спондилуса за властите потребе, вероватно деловали и као посредници у овој размени, обезбеђујући вредну сировину и за северњачке популације и узимајући од њих нешто на бази реципроцитета. За дистрибуцију спондилуса су били потребни стабилни механизми размене, који су могли бити остварени само у насељима са јаким економским потенцијалом и изграђеним контактима. Центри винчанске културе у Подунављу су током дугог периода свог постојања ове основне предуслове испуњавали између осталог и зато што је њихов положај, сам по себи, гарантовао такве контакте. Сем тога, више је него упечатљиво да се размена спондилуса

према северу дешава све до тренутка када велики центри винчанске културе престају да постоје.

Превазилажење дилема које су у овом раду изнете захтева детаљну анализу и публикавање што већег броја налаза у регионалним оквирима. Преглед налаза од спондилуса са епонимног локалитета винчанске културе има за циљ да део ових пропуста надокнади. М. Васић је у извештају о ископавањима овог налазишта у 1908. години публиковао девет фрагмената наруквица од школки док слични предмети из каснијих истраживања нису објављени. Нова истраживања показују да су на овом налазишту предмети од спондилуса заступљени у великом броју.

Током кампања 1998–2001 укупно је пронађено 14 фрагмената наруквица од спондилуса и сви су, сем једног, везани за простор куће. Овиме се не мисли искључиво на унутрашњи простор грађевине, јер су неки фрагменти пронађени у фундаменту куће и испунама стубова.

За израду ових наруквица нису коришћене фосилне школке о чему сведочи њихова боја – млечно бела на неким примерцима, медно-жута на другим, док се на неким примерцима очувала у траговима и карактеристична ружичаста боја спољашњег слоја љуштуре, која се на фосилима не очува. Овим запажањима су потврђени резултати анализа изотопа стронцијума, урађени на узорцима из ранијих кампања истраживања, према којима је извесно њихово медиотеранско порекло.

У изради наруквица искоришћена је закривљеност капка: трака наруквице исечана је испод браве и по максималном пречнику који допуштају ивице капка. У горњој половини капка трака наруквице је управна на пречник, а у средњем делу се спирално савија и прелази у хоризонтални положај – паралелно пречнику капка. Спирално повијање имало је за последицу атрактиван, посебан и препознатљив облик наруквице. Друга особина, због које је спондилус примарно привлачио пажњу, је његова боја – ружичаста боја спољашњег слоја љуштуре, која је на неким фрагментима очувана у већој мери, а на другима само у траговима или недостаје. На израђеним наруквицама, препознају се местимично и нараштајне пруге које се виде на уздужном и попречном пресеку капка, као и јамиче бравног апарата. Осим мањих разлика у дебљини и ширини, сви фрагменти су припадали наруквицама сличног облика и »изрезаних« из љуштуре на сличан начин.

Презентовање спондилуса, пронађених током последњих кампања истраживања (1998. 1999. и 2001.) има за циљ да попуни празнине у познавању егзотичних материјала са овог налазишта, али и да указе на неке специфичности и даље правце истраживања ове врсте налаза на локалитетима винчанске културе.