Some observations on the Vidra type axes.  
The social significance of copper in the Chalcolithic

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Abstract: The author discusses in this article about an important category of objects from the south east European Chalcolithic, namely the Vidra type copper axes. In addition of chronology, distribution area and origin of these copper pieces, other aspects are also very important: the context of their discovery and the attitude towards copper of the prehistoric man. Although precisely such context, essential in archaeological interpretation, is often unclear, copper axes are present in houses, sometimes under their floor, which could lead us to think at possible foundation deposits.

Rezumat: Autorul discuta în contribuția de față o categorie foarte importantă de piese din eeneoliticul sud-est european, și anume topoarele de tip Vidra. În afara origini, ariei de răspândire și a cronologiei acestor piese din cupru, foarte importante sunt contextul descoperirii lor și atitudinea omului preistoric față de cupru. Deși uneori tocmai aceste contexte, esențiale în interpretarea descoperirilor arheologice, sunt destul de neclare, se poate observa prezența topoarelor în locuințe, uneori sub podeaua acestora, mai ales la nordul Dunării, lucru ce ne poate duce cu gândul la posibile sacrificii de construcție.

Keywords: Chalcolithic, Gumelnita, copper, axe, Vidra type, social significance, chronology, context.

Cuvinte cheie: eeneolitic, Gumelnita, cupru, topor, tipul Vidra, semnificație socială, cronologie, context.

Copper objects were playing a very important part in Chalcolithic societies, the proof being their presence in various contexts: domestic, funerary and, sometimes, in special places such as sanctuaries, like the one from Mărgineni – “Cetățiuia”, Neamț county (D. Monah 1997, p. 36). Among such objects, the shaft-hole axes are the most widespread and varied in the Copper Age from the typological point of view, having two main variants: axe-hammer (the Pločnik and Vidra type) and two cross-shaped edge axe (axe-adze), with their several subtypes and variants (Al. Vulpe 1973).

The area where the Vidra type axes can be found includes Muntenia, Moldova and north-eastern Bulgaria. Isolated items were also found in Ukraine, Serbia, Hungary and Poland (fig. 1). The way in which this type of object was manufactured raised many controversies among specialists. On the occasion of the discovery of the axe in Vidra the idea of its being manufactured by means of the “lost wax” method was discussed, and later the idea that a monovalve mould had been used. Based on the metallographic analyses and the observations made on such objects, the use of two methods for their manufacturing was ascertained: the “lost wax” and the bivalve mould (E. Comşa 1983, p. 27-28). The copper axes were imitating most probably the ones made of polished stone, produced since the beginning of the Neolithic age (Al. Vulpe 1975, p. 16), between the temperature necessary for painting graphite vases and the beginnings of metallurgy existing most certainly a relationship (D.W. Bailey 2000, p. 227).

For the establishment of the Vidra type axes chronology the context of their discovery is very useful, especially for the items connected to the habitat. In the Gumelnita-Karanovo VI area such items were discovered in settlements belonging to the last phase of this culture, sometimes even in houses (Teiu, Vidra, Bucșani, Gabarevo, Hotnica), and in the Cucuteni area especially in settlements belonging to phase A3 (Cucuteni, Lupești, Izvoare, probably Reci), but A2 phase also (Mărgineni- “Cetățiuia”). Globally, phase B of the Gumelnita culture fits approximately in the 4250-3950/3900 BC interval, phase A2 of the Cucuteni culture between 4500-4150 BC, and phase A3 of the latter one between 4350/4325-4050 BC interval (C. Bem 2000-2001, p. 37, 43), leading to the conclusion that the Vidra type axes circulated in the above mentioned area during the last third of the Vth millennium and in the first century of the IVth millennium BC.

The length of the axes for which we have available information varies between 10 and 25 cm, no special standard being observed in their manufacturing from this point of view (fig. 2). A certain standard can be observed in respect of the form of such objects, three subtypes being established south of the Danube (H. Todorova 1981, p. 37-39). Even if it becomes quite obvious that every “type” is a creation of the researcher, a convention established by him for the purpose of ordering the huge quantity of archaeological material, a common representation system of the prehistoric manufacturers in creating certain objects can not be denied1. Interesting observations could have been made by

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1 In our case the Vidra type axes, which, without being identical, share however several morphological criteria. A very useful discussion on this topic in A.-D. Popescu 2006, p. 431-432.
comparing the weight of such objects, the PBF volumes, in which the majority of axes of this type are grouped, containing unfortunately no such information.

In respect of the origin of the Vidra type axes, things are far from being clarified. Items from the cucutenian area were considered clear „imports”, due to the lack of evidence regarding their production within the area of this culture (VI. Dumitrescu 1968, p. 44; I. Mareş 2002, p. 56-61). On the other hand, metallographic analyses seem to indicate that items discovered in Reci and Vidra were produced using copper from Transylvania (D. Popovici 1983, p. 15). Until a decisive series of analyses is made on all the existing Vidra type axes and such information is correlated with a possible deposit in Transylvania or in another place, things will remain just a hypothesis. Regarding the items in Bulgaria, some of them may be connected with the mine in Al-Bunar, Stara Zagora, while others seem to be manufactured using copper from Rudna Glava, in Serbia (H. Todorova 1981, p. 37).

If we return to the contexts in which this type of axe was found we may observe that there are several differences among areas north and south of the Danube. For example, in areas north of the Danube this type of items are present in several settlements and houses but never in burial places², while in areas south of the Danube items found in burial places prevail (fig. 3). This probably reflects a difference between social groups present in the two previously mentioned areas, in the sense that a more pronounced stability of Chalcolithic communities is to be found north of the Danube (J. Chapman 1983, p. 33).

Contexts in which the Vidra axes were discovered are very important if we consider their symbolic significance. We already mentioned previously the presence of such an item in a possible sanctuary in Mărgineni „Cetăţuia”. We consider it very important to mention also the fact that the axe was „caught in the clay floor and covered by the crumbling walls” (Monah 1997, p. 36, 255; fig. 3/4 and 257, fig. 5).

The item in Bucşani may also gain a special significance, if we think that it was discovered forced through the floor of the house, a situation that was recently related to the symbolic “death” of the respective house (Al. Dragoman, S. Oanţă-Marghita 2007, p. 116). Unfortunately, the context of the Bucşani item is only mentioned in the technical literature, without being clearly stated as such, so that a certain reserve regarding such an interpretation is therefore necessary under the circumstances. Such axes have been previously discovered in Chalcolithic houses, unfortunately their exact position being however not mentioned in the literature. An interesting situation was discovered in the Junacite settlement in Bulgaria. Here two Pločnik type axes were found under the floor of a house, placed side by side, with their top in opposite direction one from the other (V. Mazanova 2004, p. 394, fig. 1). An interpretation thereof as simple objects in the respective house inventory seems too simple taking into consideration their position and the fact that they were placed under the floor of the house. Most probably it seems to be a voluntary placement, related to the building of the respective house (a short discussion in S. Oanţă-Marghita 2005, p. 382). On the other hand, foundation deposits are relatively widespread in south-eastern Europe, the custom being also mentioned in popular ballads (M. Eliade 2000, p. 40-41). A voluntary positioning also seems to be the answer in the case of the Jászládány type axe in Reşca, Olt county. The item was discovered at the basis of the defense wall of a Sâlciuţa III settlement, having probably a consecratio role for the respective wall (Al. Vulpe 1973, p. 234, note 63)³.

Foundation deposits benefited of the specialists’ attention since the end of the XIX-th century. In a study dedicated to this phenomenon, the spreading and type of various offerings are analyzed, as well as causes and purposes of such items (P. Sartori 1898, p. 1-54). Purposes of foundation deposits were of 4 types: 1) as a proper offering; 2) for the obtaining of a guardian angel; 3) protection magic; 4) sympathetic magic (P. Sartori 1898, p. 28-46). The latest contribution in this area (I. Beilke-Voigt 2007) contains some useful remarks on this topic. Thus, inter alia, the author stresses the central role of the hearth, wich in traditional folklore was the abode of various spirits (fire demons, ancestral and house spirits) and therefore was related with numerous cults (I. Beilke-Voigt 2007, p. 122). In this context we wish to emphasize that the axe of Teiu was founded near a hearth (I. Nania 1967, p. 17).

² With the observation that Gumelnita type necropolis north of the Danube are fewer, there existing a clear lack of research for this segment. We need to point out that axes exist in the funerary inventory of this culture north of the Danube, but they are made of rock instead (C. Lazăr 2001).

³ The respective item is only mentioned in the literature, there existing no other evidence of the context in which it was found (drawings or photographs), which would have been very useful for our study.
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The Pločnik type axes benefited quite recently of a fairly well documented study (Govedarica 2001, p. 153-164)⁴. From the total of 52 items belonging to this type, 16 have a clear context and 15 come from hoards (Govedarica 2001, p. 157). In respect of the chronologic relation between the two axe types (Pločnik and Vidra), it seems that they overlap for a short period of time, but their spreading areas exclude each other (compare fig. 1 with Govedarica 2001, fig. 1), as it was observed almost four decades ago (Al. Vulpe 1973, p. 225-226).

An essential aspect is represented by the attitude of the prehistoric man towards copper, even if studies in this field are rather few. An exception is the excellent contribution of Joanna Sofaer Derevenski (2000, p. 389-406), who analyses various associations between copper objects and age and gender groups in tombs belonging to the Tiszapolgár and Bodrogkereszti cultures, proving in this way permanent changes in the structure of the life course of people along final Neolithic in Hungary. Due to the absence of well investigated Chalcolithic necropolis at the Lower Danube, such type of analysis may be difficult. Varna could be an exception for this matter, but until today this important archaeological monument was not correctly published. On the other hand, most of the Vidra type axes in this necropolis were found preponderantly in cenotaphs, so that a possible statistical analysis correlated with their age group or gender may become impossible, but the special symbolic value of this particular type of artefact is clearly pointed out.

In relation with this last aspect, a paragraph in Mircea Eliade (1996, p. 143-144) seems to us relevant, and we shall consequently quote it here entirely: „But it is evident that a thinking dominated by the cosmologic symbolism created a completely different «experience of the world» than the one of the nowadays modern man. For the symbolic thinking, the world is not only «alive», it is also «open»: an object is not only a presence in itself (as it happens in the case of modern conscience), but also the sign or the gathering place of something further, a reality transcending the level of the respective object manifesting itself. We shall give only one example: the ploughed land is more than a simple strip of land, it is the body of Mother Earth; the digging shovel is a phallus, without ceasing to be a tool used in agriculture; ploughing the land is at the same time a «mechanic» work (done with man made tools) as well as a sexual union ordered for the hierogramic fecundation of Mother Earth."

Some answers regarding the social value of copper seem to become available from the ethnographical research of pre-colonial Africa. Thus, it was observed that both archaeological and artistic written sources suggest four main categories: a) a means of exchange; b) adornments; c) signs of social power and status; d) worshipping objects. Some indications in this respect have reached us also through legends and myths. For example in the middle Niger area copper was explicitly related to a water god as well as to several creation myths (E. Herbert 1973, p. 179-194). In India, high purity copper was considered superior to any alloy, copper objects being used in contexts related to the rituals. Copper manufacturers were also considered superior to the ones producing various other alloys⁵ (N. Lahiri 1995, p. 116-132; A.-D. Popescu 2006, p. 449). There is also information coming out of the study of the traces existing on the respective copper axes from the times they had been used. In Bulgaria such analyses pointed out that less than 10% of the total number of such items bear use traces, which would lead us to the conclusion that such objects were not manufactured in order for them to be used, but more probably in order to be exhibited and deposited (D.W. Bailey 2000, p. 214). Returning to pre-colonial Africa, ethnographical and archaeological research lead to a number of conclusions regarding the social role played by metals. Copper and gold were, first and foremost, rare and expensive metals, being used in order to show wealth or the high social status; secondly, the mysterious transformation from ore into metal, usually related to the human process of gestation and birth, helped metals acquire symbols of fertility and productivity; thirdly, the physical properties of metals – colour, brilliance, flexibility – clearly influenced their symbolic and functional potential (S. Terry Childs, D. Killick 1993, p. 331).

One of the relatively recent contributions analyses objects from a very interesting point of view, namely that of their biography. The basic idea is that, as people and objects become older, they circulate more and become the object of trading, undergoing constant transformations. Such transformations of both persons and objects are closely related to one another (C. Gosden, Y. Marshall 1999, p. 169). A crucial matter is represented by the distinction that needs to be made between gift and exchange good. What in the eye of an European may seem an economic

⁴ The settlements in Goliţa-Delcevo, Vinica and Glina belong in fact to the Gumelnita-Karanovo VI complex and not to the Cucuteni culture, as they erroneously appear in Govedarica (p. 159).

⁵ About the status of the forgers in various pre-industrial societies in the excellent contribution made by Mircea Eliade, Făuurari și alchimisti, București, 1996.
transaction, in a society based on kinship relations may be in fact an act related to the „production” of social atmosphere, by means of creating and maintaining social relations. Exchange goods are manufactured in order to be traded without creating special relations between the persons implicated in giving and receiving them; gifts however, as a difference, will always maintain a relationship between the person producing and the other social actors receiving them (C. Gosden, Y. Marshall 1999, p. 173). For this topic, the anthropologic research made by Marilyn Strathern in Melanesia is of utmost importance. Even if such research is valid only for Melanesia and cannot be generalized, a number of conclusions drawn in this work may be useful for our study also. For Strathern the identity of persons and objects at a certain moment derives from their current relations’ network. While for Europeans objects exist from and by themselves, for Melanesians they represent parts detached from people, which circulate in various ways through the social body. Thus, a person’s act may have effects at considerable distance from the body of the respective individual and may continue to have an effect also after the death of such person. In Melanesia people may be at the same time subject and object, may find themselves in one place or scattered around in several places, acting directly or influencing things from the dark, according to their ever changing position in the network of social relations. This is not valid however for the way in which Europeans perceive themselves, leading therefore to a radical disruption between the two conceptions on life. Implications for the concept of objects’ „biography” are important: artifacts no longer represent the measure of an internal life, people and objects have common „biographies”, which do unravel themselves in culturally conditioned ways (C. Gosden, Y. Marshall 1999, p. 173).

An interesting approach seems to us the one belonging to Ian Hodder, regarding the opposition domus-agrios in the south-eastern European Neolithic age. The previously mentioned author associates the concept of domus with the feminine gender, the house, the stove, ceramics decoration, food preparation and storage, weaving and figurines, and the one of agrios with the masculine gender, tombs, hunting, axes, copper, masks, trading, weapons, the manufacturing of stone tools and animals (I. Hodder 1990, p. 69, fig. 3/5). Exhibiting, like any structural approach, a rather schematic structure, this may be however one of the ways to be considered in order to try to understand, even if only in part, this world highly impregnated by the sacred of the prehistoric man.

Catalogue of discoveries:

1. **BEREZOVSKAIA**, Kirovgrad region, Ucrania; b) discovered in a tripolian house; c) L = 13 cm; M = 0,700 kg; d) V. G. Zbenovici 1969, p. 135-142, fig. 1/1 şi 2/3.
3. **CONEVO**, Varna, Bulgaria; a) collections of the Varna Museum; b) discovered in the tell settlement; c) L = 18 cm; d) H. Todorova 1981, p. 37, pl. 6/102.
4. **CUCUTENI – „Cetăţuie”**, Iaşi county; a) collections of the National History Museum; b) discovered in the Cucuteni A3 settlement at Cucuteni – „Cetăţuie”; c) L = 20,1 cm; d) M. Petrescu-Dămboviţa 1965, p. 161, fig.3; Al. Vulpe 1975, p. 22, pl. 3/26.
5. **DĂRZĂNOVEC**, Razgrad region, Bulgaria; a) Razgrad Museum collections; b) discovered randomly at the edge of the settlement in the place called „Praştanica”; c) L = 15,9 cm; d) H. Todorova 1981, p. 37, pl. 7/108.
6. **DRAGOMIREŞTI**, Neamţ county; a) Piatra Neamţ Archaeology Museum collections; b) discovered randomly on the territory of the Dragomireşti village; c) L = 13,5 cm; d) V. Căpitanu 1971, p. 437 and note 7.
7. **GABAREVO**, Stara Zagora region, Bulgaria; a) Stara Zagora Museum collections; b) discovered in Stara Zagora settlement, in the level dated as phase III of the KGK VI complex; c) L = 15 cm; d) H. Todorova 1981, p. 39, pl. 8/128.
8. **GOLJAMO DELČEVO**, Varna region, Bulgaria; a) Varna Museum collections; b) discovered in level XVII of the settlement in Goljamo Delčevo; c) L = 16,8 cm; d) H. Todorova 1981, p. 37, pl. 6/103.
9. **HLUDNO**, Nozdrzec region, Polonia; a) Rzeszów Museum collections; b) discovery made accidentally; c) L = 17 cm; M = 0,457 Kg; d) M. Gedl 2004, p. 20, pl. 1/5.
10. **HOTNICA**, Veliko Târnovo, Bulgaria; a) Veliko Târnovo Museum collections; b) discovered in the upper inhabiting level of the Hotnica settlement, near a skeleton placed under the remains of a
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11. **HOTNICA**, Veliko Tărnovo region, Bulgaria; a) Veliko Tărnovo Museum collections; b) discovered in the Hotnica settlement; c) L = 15,9 cm; d) H. Todorova 1981, p. 37, pl. 7/104.

12. **HOTNICA**, Veliko Tărnovo region, Bulgaria; a) Veliko Tărnovo Museum collections; b) discovered in the Hotnica settlement; c) L = 13,8 cm; d) H. Todorova 1981, p. 39, pl. 8/129.

13. **IZVOARE**, Neamț county; a) Institute of Archaeology "Vasile Pârvan" collections, Bucharest; b) discovered in 1989 in Cucuteni A settlement, inside house no. 4; c) L = 17,5 cm; d) information from Silvia Marinescu-Bîlcu; Dumitroaia 1992, p. 291; Măres 2002, p. 255, 424 pl. 14, fig. 8.

14. **JORDANÓW ŚLAŚKI**, Lagiewniki region, Poland; a) belonged to the Wrocław Museum collections, disappeared; b) isolated find; c) L = 17,5 cm; M = 1,035 Kg; d) M. Gedl 2004, p. 20, pl. 1/6.

15. **KISKÖRE**, Heves, Hungary; a) Local highschool collections; b) accidental discovery; c) L = 24,7 cm; G = 1,724 kg; d) P. Patay 1984, p. 40, pl. 9/156.


17. **MĂRGIENI – „Cetăţuie”**, Neamț county; a) Piatra Neamț Museum collections; b) discovered in a Cucuteni A2 settlement in the place called „Cetăţuie”, in a sanctuary; c) L = 19 cm; d) D. Monah 1978, p. 39; D. Monah 1997, p. 257, fig. 5.

18. **PRUNDU**, Giurgiu county; a) M.N.A. collections, Institute of Arheology "Vasile Pârvan" collections, Bucharest, inv. no. I 22093; b) isolated find; c) L = 14 cm; M = 0,300 kg; d) E. Popușoi 1979, p. 301-302, fig. 1.


20. **RIPANJ**, Serbia; b) isolated find; d) M. Garašanin 1954, p. 64, fig. 1; E. Comșa 1983, p. 24.

21. **RUMANJA**, Sliven region, Bulgaria; a) Nova Zagora Museum collections; b) discovered in the tell settlement in „Bratja Kunčev”, in the habitation level; c) L = 19,8 cm; d) H. Todorova 1981, p. 38, pl. 7/111.

22. „**SIBIU**”, Sibiu county; a) Bucharest Museum of History b) isolated discovery, nearby Sibiu; c) L = 13,8 cm; d) D.V. Rosetti 1934, p. 29, note 80; Al. Vulpe 1975, p. 22, pl. 3/27.

23. **SMJADÓVO**, Šumen region, Bulgaria; a) Šumen Museum collections; b) isolated find, probably in a necropolis; c) L = 16,2 cm; d) H. Todorova 1981, p. 38, pl. 8/126.

24. **ŠUMEN**, Šumen Region, Bulgaria; a) Šumen Museum collections; b) isolated find; c) L = 18,9 cm; d) H. Todorova 1981, p. 38, pl. 7/107.

25. **TEIU**, Argeș county; a) Argeș County Museum collections; b) discovered in Gumelnita B level from the tell settlement, near a hearth; c) L = 15 cm; d) I. Nania 1967, p. 17; Vulpe 1975, p. 22, pl. 2/25.

26. **VARNĂ – „Detski Sanatorium”**, Varna region, Bulgaria; a) collections of the Varna Museum; b) isolated find; c) L = 15,9 cm; d) H. Todorova 1981, p. 37, pl. 7/105.

27. **VARNĂ – „Detski Sanatorium”**, Varna region, Bulgaria; a) collections f the Varna Museum; b) isolated find; c) L = 18 cm; d) H. Todorova 1981, p. 37, pl. 7/106.


33. **VARNĂ**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 39, cenotaph; c) L = 12,3 cm; d) H. Todorova 1981, p. 38, pl. 7/117.

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6 With the remark that the drawing of the axe is wrong.
34. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 53; c) L = 14,7 cm; d) H. Todorova 1981, p. 38, pl. 7/118.

35. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 54; c) L = 15,9 cm; d) H. Todorova 1981, p. 38, pl. 8/119.

36. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 55, cenotaph; c) L = 10,2 cm; d) H. Todorova 1981, p. 38, pl. 8/120.

37. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 57, cenotaph; c) L = 10,2 cm; d) H. Todorova 1981, p. 38, pl. 8/121.

38. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 92, assumed to a man; c) L = 14,1 cm; d) H. Todorova 1981, p. 38, pl. 8/122.

39. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 97, cenotaph, third phase of Varna culture; c) L = 15,9 cm; d) H. Todorova 1981, p. 38, pl. 8/123.

40. **VARNA**, Varna region, Bulgaria; a) collections of the Varna Museum; b) necropolis I, tomb 1, cenotaph; c) L = 17,4 cm; d) H. Todorova 1981, p. 38, pl. 8/124.

41. **VARNA – „Detski Sanatorium”**, Varna region, Bulgaria; a) collections of the Varna Museum; b) isolated find; c) L = 15,3 cm; d) H. Todorova 1981, p. 39, pl. 8/127.


43. **VIDRA**, Giurgiu County; b) discovered probably in the Gumelnita B level from Vidra settlement; c) L = 17,2 cm; d) D. V. Rosetti 1934, p. 29, fig. 42; Al. Vulpe 1975, p. 22, pl. 2/22.

Translated by Monica Nicolaescu

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Fig. 1. The spreading of the Vidra type axes in South-East Europe.
Răspândirea topoarelor de tip Vidra în sud-estul Europei.
Fig. 2. The comparative dimensions of the Vidra type axes. Dimensiunile comparative ale topoarelor de tip Vidra.

Fig. 3. The contexts of Vidra type axe discoveries at north and south of the Danube. Contextele descoperirilor de topoare de tip Vidra la nord și la sud de Dunăre.