

Viktor I. Klochko, Aleksander Koško

WEAPONS FROM SOFIEVKA TYPE CEMETERIES

There are three categories of objects made of flint, stone, horn, and copper that can be unquestionably identified as weaponry, or rather as weaponry and signs of social position („insignia”). These are: (a) small arrowheads (identified here as a symptom of the bow-arrow, or possibly arrows-quiver set), (b) axes and hammers, and (c) knives and daggers. The present paper will deal with their typological and genetic characteristics. It will also offer a preliminary interpretation of their socio-organizational function [cf. also genetic and raw material characteristics given in V.F. Petrougne, Petrographical. . . in this volume].

1. TYPOLOGICAL AND GENETIC IDENTIFICATION

Bow - arrowheads. Collection of flint arrowheads from the cemeteries includes 121 examples (Krasny Khutor - 48, Sofievka - 32, Chernin - 28, Zavalovka - 13). Most of them are triangular in plan, with a straight concave base (types 22111-22112 after Budziszewski) [cf. Budziszewski, Flint. . . , in this volume]. Another type has equilateral triangular form (types 22121-22122 after Budziszewski). The third type - with barbs, is new for the Tripolye culture. Unique are the leaf-like arrowhead from Zavalovka and the leaf-like arrowhead with haft from Sofievka.

There are between 1 and 10 arrowheads in different graves [according to the interpretation of graves by Y.Zakharuk and others - cf. Videiko, Archaeological. . . , in this volume]. In one grave there are different types of flint arrowheads. Such is typical for Yamnaya and early Catacomb cultures of the Early Bronze Age. Later in the Catacomb and the Corded Ware cultures the number of arrowheads increased to 15-20 examples in one grave.

At Krasny Khutor cemetery, in grave 145 was recorded a hypothetical small copper arrowhead [cf. in this volume: Budziszewski, Flint. . . and Klochko, Copper. . .], an incidental form difficult to interpret genetically.

Axes - hammers. Collection of stone axes - hammers consists of 29 different examples found in Sofievka (15), Krasny Khutor (13) and Chernin (1) [cf. Videiko, *Archaeological. . .*, in this volume]. In this collection, three types, markedly different both in terms of form and origins, can be distinguished (1-2 - axes, 3 - hammer), Fig.1.

Type 1 - „Sofievka”: with short proportions and separated blunt side (11 artefacts in Sofievka - graves 8, 12, 34, 44, 64, 111, 114-115-116 and from surface and 10 in Krasny Khutor - graves 12, 33, 84, 105, 118-119, 123, 127, 167 and from surface). Most of them display an imitation of the casting seam (Fig.1:2,3). One axe, from Krasny Khutor (grave 12), has a faceted body.

Type 2 - „Balkan”: boat-like axes (2 in Sofievka, graves 19, 83 and 3 - in Krasny Khutor, grave 120 and from surface), Fig.1:4.

Type 3: hammer bean-like in plan (2 in Sofievka, grave 65 and 88), Fig.1:5.

This list can be supplemented with a single horn axe recorded in grave 80 in Chernin whose functional identification, however, is not clear.

Axe-hammers most vividly display extratripolyan traditions of „Sofievka” weaponry. This is especially visible in types 1 and 3.

Type 1. Sofievka type axes are the only form of a battle axe within the Tripolye culture that is absolutely peculiar to it. However, its range of occurrence is restricted to one regional group. Its typological definition [cf. preliminary formulation: Zakharuk 1952] needs specifying to guarantee a correct genetic analysis.

Taking into account the 13 best-preserved forms from among those recorded in „Sofievka” cemeteries, the morphological description of the type can be presented as follows: a pentagonal axe in horizontal projection, with a short ($L1:L3 = 3.5 - 7.0$, Fig.1:1) and wide ($W1:W2 = 1.3 - 1.7$) butt with a longitudinal „casting seam” along the back (75%) in the form of a ridge or rarely a „strip” (two cases); rectangular or slightly trapezoidal (isosceles trapezoid) in side view, with sometimes slightly marked asymmetry, a „droop”, at the cutting edge (two cases) or the butt-end (one case). The main distinguishing feature of this type is undoubtedly the horizontal projection correlated with the symmetry of the side view. These two characteristics best set apart the forms in question from the rest of battle axes of the East European and Balkan-Central European provinces. This applies both to the proportions and to the presence of the „seam”. These distinguishing characteristics are best visible in objects classified as subtype A. The others, classified as subtype B, show a greater susceptibility to extra-sofievkian analogies (description of the differentiation Fig.1:1).

There are two directions of topogenetic identification of type 1 „Sofievka”: (a) a direct reference to metal Balkan prototypes, or (b) a tentative reference to the Central European tradition of stone battle axes.

a. It can be argued that axes of type 1 appear as imitations of the copper axes of the previous period. Axes of „Sofievka type” are similar to the copper axes - types

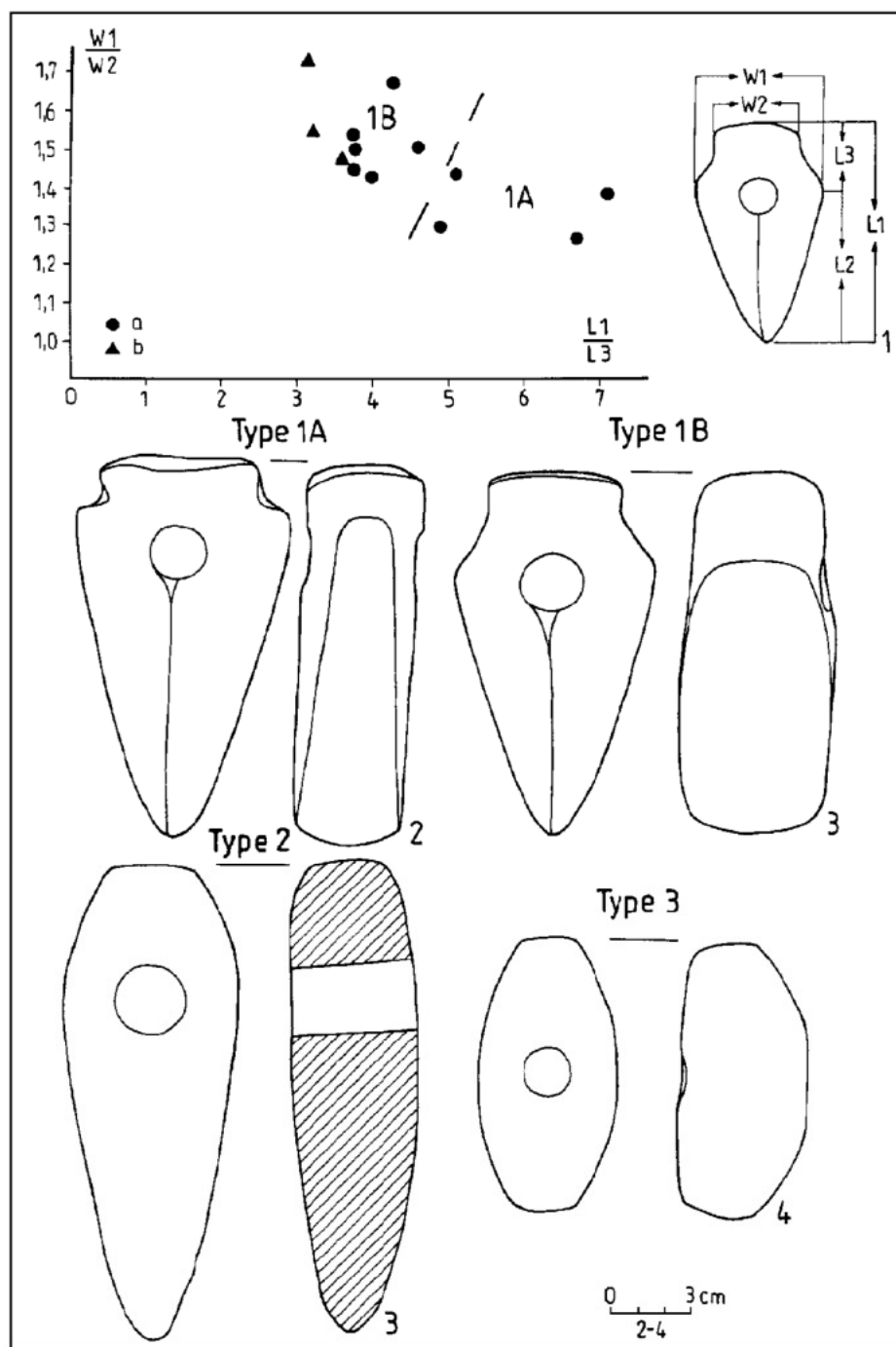


Fig. 1. Review of stone axe-hammer types from Sofievka type cemeteries. 1 - Description of metric identifiers of subtypes (A, B) of type 1 - „Sofievka” (a - forms with a „casting seam”; b - forms without a „casting seam”); 2, 3 - Type 1 - „Sofievka”; 4 - Type 2 - „Balkan”; 5 - Type 3 - hammer.

Szekely-Nadudvar, Handlova and Mezokerestes according to M. Novotná [Novotná 1970:23-24] of Bodrogkeresztúr culture. Axes from Sofievka are nearer to copper prototypes than axes of the Funnel Beaker culture [see types K-VII and K-VIII after M. Zápotocký, which have a flatter body: Zápotocký 1989]. However, a weak aspect of the above identification is a striking time and space discrepancy between „prototypes” and „emulations” i.e., „Sofievka” forms. It also must be mentioned that Polgár features identified in „Sofievka” materials are related to groups lacking any substantial tradition of using copper axes [cf. Kadrow, Koško, Videiko, Pottery. . . , in this volume].

The hypothesis under discussion offers no guidelines for the assessment of the formation chronology of the Sofievka type.

b. On the scale of the main cycle of changes of Central European battle axes, set by the lowland groups of the Funnel Beaker and Corded Ware cultures, „Sofievka” forms should be placed at the point of contact between type X [fol. Jażdżewski 1936; cf. Herfert 1962 - „*die flachen Knaufhammeräxte*”] and Pan-European type A [fol. Glob - Struve; Struve 1955], Fig.2:1.2. An inclination towards the forms of the Funnel Beaker culture is validated by the overall similarity of proportions of the horizontal projection and the symmetry of the side view (as a positively dominant feature). It can be added that in type X of the Funnel Beaker culture „casting seams” are occasionally recorded [cf. Herfert 1962:1106 - „*Brandenburgischer Typ Variante mit Mittelrippe*”]. This, however, concerns areas very distant from the North Pontic region, located west of the Oder. The „seam” and rare cases of asymmetry in side view could suggest connections with type A of the Corded Ware culture.

Looking at the Sofievka type from the perspective of the borderland of the southeastern group of the Funnel Beaker culture and the southeastern borderland of the Corded Ware culture, which is also justified by their assessment in terms of origins and raw materials made by V.F. Petrougne [cf. Petrougne, Petrographical. . .], we notice certain analogies to its subtype 1B distinguished earlier [e.g., Gajewski 1953:161 - Stocki Las, grave V; Bronicki 1991:340 - type III:14, 18]. It also must be noticed that unfinished axe of type 1 was found by N.M. Shmagliy in the Tripolye village of Troyanov (Volhynia region). There were also found clay models of such axes [Arkheologiya 1971:Fig.54]. This type of axe may have been widespread in different late Tripolye monuments - at first of the Troyanov and Sofievka types. They also often occur in the southeastern group of the Funnel Beaker culture [cf. Babel 1980:19-23; Gumiński 1989:109-113]. It is hard to assess the genetic implications of this observation; whether it is a symptom of:

- a state of transformation leading to the formation of a „paragon form” (subtype 1A), or rather
- a state of disintegration of the said „form”.

The indicated direction of search for the origins has certain chronological consequences. The time frame of the hypothetical contact (state of transformation) of type X of the Funnel Beaker culture with type A of the Corded Ware culture can be put at 3150 to 2900 BC at the earliest. However, a single analogy to the form „with

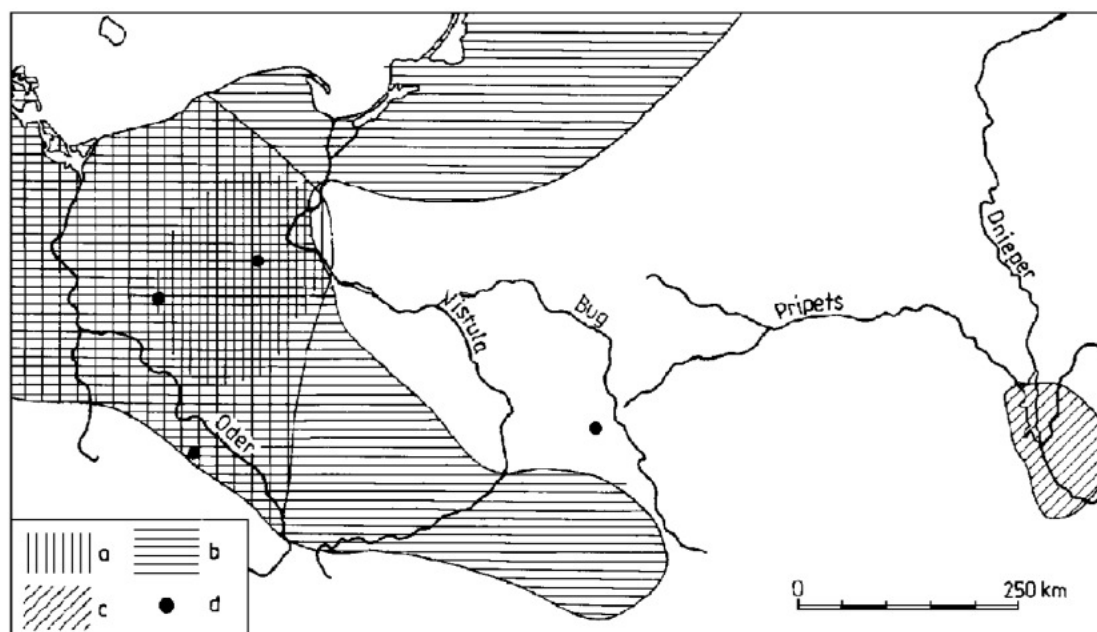


Fig. 2. Central European range of possible „prototypes” of stone axe-hammers from Sofievka type cemeteries - types 1 and 3. a - eastern limit of occurrence of type X axes, fol. K. Jażdżewski (dense hatching marks type X concentration zone); b - eastern limit of occurrence of type A and B-J axes, fol. K.H. Struve; c - Sofievka type cemeteries; d - examples of hammers of type 24.111, fol. A. Koško, M. Zaorski. Following the above mentioned authors and J. Machnik.

cannelure” from Krasny Khutor could be taken as a valuable indicator of the upper watershed of usage. The form was recorded in the layer of the Yamnaya culture, in the village of Mikhailovka which is treated as parallel to Ezero IV, i.e., circa 2700 BC [2180±100 conv BC, Shaposhnikova 1985:340,351]. This is consistent with a relatively late ¹⁴C date for the said „Sofievka” site [2190±110 conv BC, cf. Kovalyukh, Videiko, Skripkin, Chronology, in this volume]. One should not forget, however, about the complex - ambiguous in cases of specific observations - stratigraphy of the Mikhailovka site [Lagodovska, Shaposhnikova, Makarevich 1962].

The above remarks do not exhaust the subject of the topogenesis of the axe form under discussion. Future studies of the subject ought to, in the first place, conduct a full inventory and typologically identify stone materials from the north-western part of the Pontic Plateau. Such an inventory or cartogram should exclude „preforms” and give the actual range of the Sofievka type.

Type 2. The origin of type 2 is connected with the Balkans. Such axes appeared in the period Tripolye A [Zbenovich 1975].

Type 3. The origin of type 3 is not clear. Similar hammers were found in the Tripolye cemetery of Vykhvatincy - grave 16(9/52), and in the mound - group „Shakhta

Pavlogradskaia", mound 1, grave 7; group 1 v. Sokolovo, mound 6, grave 7 [Dergachev, Manzura 1991:230, Fig.9; Kovalova 1984:31, Fig.5]. In the times of Sofievka type cemeteries, hammers are not typical finds for North Pontic cultural centres. In contrast, a considerable concentration of these forms is found in the circle of Central European Corded Ware cultures or successive cultures of the Danubian Early Bronze Civilization. The hammer from Sofievka fits into the type described here as „loaf-like hammers, with the opening placed symmetrically and of a round-oval cross-section" [Koško 1979:38-39; Zaorski 1989 - type 24, 111]. From the eastern part of the Baltic Sea catchment area (catchment areas of the Oder and Vistula Rivers), four examples of the type in question are known, none of which is precisely dated, however (Goczałków Górny, prov. of Wałbrzych, Zbąszyń, prov. of Zielona Góra, Skarbienice, prov. of Bydgoszcz, Sarniak, prov. of Chełm), Fig.2:3.

It seems highly probable that the origins of the hammer ought to be placed in a sphere spatially and culturally coinciding with the hypothetic originating area of type 1 „Sofievka" axes (Fig.2).

Summing up, it can be suggested that Central European cultural centres made a substantial contribution to the development of stone weaponry/insignia forms used in the Dnieper Tripolye culture. This opinion is supported by considerable evidence of the analysis of design of „Sofievka" pottery [cf. Kadrow, Koško, Videiko, Pottery. . .] and presence of amber beads in graves (Krasny Khutor - graves 8, 53, 170 and Zavalovka - graves 1).

Knives and daggers. Copper and flint knives were found in Sofievka and Krasny Khutor, copper daggers in Krasny Khutor [see Klochko, Copper. . ., in this volume]. One dagger from Krasny Khutor was in a skin scabbard with a whetstone. A similar whetstone came from the Lažňany cemetery [Šiška 1964] and Mayaky cemetery [Patokova et al. 1989:62, Fig.23:7].

Copper forms of knives/daggers appear in the Tripolye culture (in Sofievka and Usatowo types) as „imports", or rather effects of external inspirations from the areas of the Carpathian Basin and Anatolia [cf. Klochko, Copper. . .]. Whereas flint forms can be taken as their local substitutes, or „replicas" [cf. Budziszewski, Flint. . .].

2. THE ISSUE OF SOCIAL STRATIFICATION

Weaponry includes a stone axe („battle axe") - hammer, a bow with arrowheads, and a dagger or a knife (copper or flint). Copper daggers were rare and may have been used as particular markers of a social position.

There are various types of weapons in the Sofievka-type cemeteries, connected with various cultural traditions: Tripolye (triangular arrowheads), Carpathian (type

2 of stone axes, arrowheads - equilateral and with barbs, and leaf-like knives), Central European (type 1 and 3 of stone axes - hammers), Mediterranean (copper daggers). This reveals the wide contacts and „international” character of the Sofievka population.

The large number of weapons in the cemeteries is unusual and may reflect a continual war related to the conquest of the left bank of the Dnieper by the Tripolye populations.

These „political relations” must have had social consequences. At the decline of the Tripolye culture, we find clear manifestations of social stratification on the middle Dnieper, namely the emergence of the stratum of chieftains. This is expressly evidenced by sepulchres that are particularly abundant in weaponry/insignia. The examples are Krasny Khutor - grave 127 (adult man) and Sofievka - grave 19 [cf. Videiko, *Archaeological. . .*]. Having analyzed such data in greater detail, an attempt was made to distinguish in the „Sofievka community” three inventory strata, or types of sepulchres. According to this division 8.9% of graves would belong to tribal/clan „top brass” [Kolesnikov 1993].

It is characteristic that the manifestations of stratification concern only the two cemeteries named above (especially Krasny Khutor) that are commonly believed to be older than others [cf. in this volume: Kovalyukh, Videiko, Skripkin, *Chronology. . .*, Kadrow, *Absolute. . .*, Budziszewski, *Flint. . .*]. In Chernin, only single graves with „chieftain distinctions” were recorded (graves 80, 90) and only with a stone and a horn axe. Zavalovka, in contrast, is deprived of any signs of such distinctions.

Therefore, it is difficult to assess to what extent „Sofievka” socio-organizational traditions were continued on the middle Dnieper after the demise of the Tripolye culture, for instance in the successive Middle Dnieper culture [Artemenko 1967:125-127; Klochko 1994b:186-190].

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