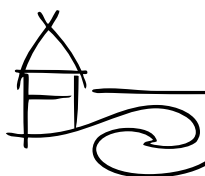




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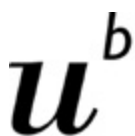
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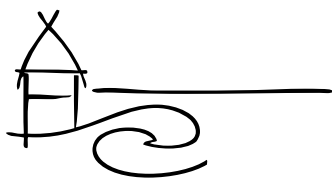
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Prehistoric Networks in Southern and Eastern Europe. Collection of scientific works. P. Shydlovskiy (ed.). – VITA ANTIQUA, №10. – Kyiv: Center for Paleoethnological Research, 2018 – 212 p.

The collection of scientific works is devoted to contemporary research on development and interaction of prehistoric networks in the Holocene Europe. Chronologically, the collection covers the final phases of the Stone Age and the beginning of the age of early metals. Particular attention is paid to the process of Neolithization and interaction between different societies in Southern and Eastern Europe.

The proposed collection will be useful for anyone interested in the prehistory, archaeology and geography of Europe – archaeologists, prehistorians, specialists in local history, ethnographers, museum workers, cultural heritage researchers and students of higher educational institutions.

Первісні спільноти Південної та Східної Європи. Збірка наукових праць. П.С. Шидловський (відп. ред.). – VITA ANTIQUA, №10. – К.: Центр палеоетнологічних досліджень, 2018. – 212 с.

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Pavlo Shydlovskiy¹

Lithic Assemblages of Early Agricultural Communities in Middle Dniester: comparative study

Flint products are the most massive material on the sites of early-agricultural groups and demonstrate the traditional component, which is less responsive to external influences, as opposed to other categories of material culture. Tools are directly related to the provision of food production and therefore in the most vivid form demonstrate the cultural adaptation of the group to the requirements of the type of farming. In order to determine the degree of affinity between the two early-agricultural communities of Middle Dniester which are traditionally considered evolutionarily related, a comparative analysis of technical and typological features of the two lithic assemblages was conducted: Yosypivka I (LBK) and Bernashivka I (Precucuteni-Trypillia A). Both collections are rather representative and come from residential areas of settlements. Despite some similarity in their typological and statistical indexes, a detailed analysis reveals a significant difference between technological features, the nature of raw materials provision and microlithic set. Significant difference in technology between two settlements is a consequence of different economic orientation, different level of interaction of groups and different sources of both industries. In general, the lithic assemblage of Trypillia A does not reveal an evolutionary affinity with the assemblages of LBK, Boian and the classic Krish of Balkans. Largely, early Tripillian materials are closer to those of the late BDK and Krish of Moldova, which manifests in the use of local deposits of raw materials, using a regular blade as a blank for insets. However, the use of microburin technology for making microliths is a striking feature of Bernashivka, which distinguishes this settlement from among other early-agricultural sites. It is possible that such character of the Trypillian A industry indicates a certain isolation of groups in the conditions of migration. Features in flint processing may be explained by the fact that migrants often form a narrow group, which is not a carrier of a full set of characteristics of the "mother" culture.

Key words: Neolithic, Linear-band ceramic culture, Precucuteni-Trypillia A, lithic assemblage, tools, microliths

Introduction

Given the need to clarify the nature of the interaction of prehistoric societies and the disclosure of processes that are reflected in the archaeological material, the study of the relationship between cultural communities in the Neolithic era is currently a very relevant topic. One of the problems of Ukrainian archaeology, from our point of view, is the observance of established evolutionary concepts, the main thesis of which is the "logical" growth of certain cultural phenomena from chronologically earlier ones. Such a conceptual paradigm makes researchers to look in the previous cultural-chronological phenomena for signs that become important in subsequent periods, neglecting the issues of interruptions in the historical process and the multivariate development of culture, even in one ecological niche.

Among the examples of the search for features in previous cultures in order to prove the gradual development of them is the question of the availability of agriculture in the Bug-Dniester culture, the genetic origins of the Cucuteni-Trypillian cultural complex, the development of the Trypillia culture itself. Thus, the appearance of the earliest

Cucuteni-Trypillia sites (Prekukuteni, Trypillia A) traditionally associated with a number of Balkan-Danube communities, among which the special role is played by the sites of Boian-Giulești type, along with the late monuments of Linear band ceramic culture (LBK) of Prut and Dniester regions (Zbenovich, 1989: 176-178; Dergachev, 1999: 179-181; review of bibliography: Ryzhov, 2007: 446). The Trypillia B1 complex is traditionally considered as the further development of those features of material culture that were formed in the early Tripillian times with sufficiently strong influence of neighbouring cultures (Dumitrescu, 1963).

To prove this graduality in the neo-chalcolithic archaeology, the analysis of the ceramic complex is traditionally used, taking into account technology, morphology and ornamentation of pottery. To a much lesser extent, an analysis of flint inventory is used, despite the fact that in early-agricultural cultures, flint products are often more massive material than ceramics. For the study of pre-ceramic communities, the technical and typological analysis of lithic products is the main source for establishing the degree of similarity between the monuments and their cultural and chronological attribution. The neglect of such a category

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of material culture as a flint inventory is caused by several factors, the main among which should be called the imperfect methodology of study of sites. When in the process of study the most massive material was perceived as "ordinary", and the attention of researchers concentrated primarily on the most representative objects and artifacts, namely: ceramic forms, dwellings, buildings, art objects, etc. Significant fluctuations in the statistics on the flint products from various sites and in the relations between the categories of lithics are a results of this imperfection. Small in size, but cultural-determining objects (microliths, microburins and points) are often simply lost during the study of the site.

But in recent years there has been a tendency to increase the attention of researchers to the development of lithic assemblages in early-agricultural cultures of the Carpathian-Dniester region (Zalizniak and Tovkailo, 2007; Dergachev and Larina, 2015; Crandell and Vornicu 2015; Kiosak 2016; Vornicu 2017). Among the reasons for such attention, we can mark the higher methodological level of studies of prehistoric sites. In this regard, during the investigation attention is given to all materials without exception, which is an absolute requirement for modern archaeological research. Thanks to the works of the Dniester Complex Expedition of the Institute of Archaeology NAS of Ukraine (headed by D.K. Chernovol) in recent years the study of multicultural early-agricultural sites of the Middle Dniester on the modern methodological level was conducted, which made it possible to obtain significant collections of flint artifacts. Among these monuments are Yosypivka I (LBK), Bernashivka I (Trypillia A), Ozheve-Ostriv (Trypillia B1), the lithic assemblages of which look the most studied and give the opportunity to conduct a complete technical and typological analysis in order to establish the degree of similarity between different Neo-Chalcolithic cultural-chronological phenomena (Shydlovskiy, Radomskiy, 2016; Shydlovskiy, Radomskiy, Zhelaga, 2017).

Today, communities such as LBK, Trypillia A and Trypillia B1 are considered to have gradually replaced each other in the Middle Dniester region. So, dates of LBK sites of Volhynia-Podillia (Rivne I, Bilshivtsi, Holyshiv, Hirka Polonka, Hnidava) are in frames of 6570-5850 BP, which corresponds to calendar years of 5470-4300 Cal BC. Settlements of Precucuteni-Trypillia A are dated within the limits of 5820-5540 BP, which corresponds to 4700-4400 Cal BC. The duration of Trypillia B1 for a number of dates is 5690-5350 BP (4500-4200 Cal BC) (Rassamakin, 2012). There is a chronological overlapping of sites of different cultural formations, which can testify to the graduality of cultural interaction and creates the impression of a certain evolutionary continuity within a separate region of the Middle Dniester. However, it should be emphasized that

the parallel existence of different communities in a single geographic region is, rather, a rule, and not an exception for the prehistoric era. In addition, radiocarbon dates, especially received in one – Kyiv laboratory (as in the case of LBK in Ukraine), not able to clarify the real historical processes – the dynamics of settlement by migration waves and interaction of newly arrived inhabitants with the aboriginal population.

In this article, as well as in the article by I.S. Radomskiy (in this volume) the comparative study of the flint collections of the marked sites is given and generalized conclusions on the technological originality of various early-farming communities on the territory of the Middle Dniester are made.

Lithic assemblage of Yosypivka I LBK settlement

Within the boundaries of Ukraine, the monuments of LBK are known in the forest-steppe zone from the Prypiat Polissia in the north to the Northern-Pontic steppes to the south, and from Seret, the Carpathians and the Western Bug in the west to the Bug-Dnieper interfluvium – in the south-east. According to the ceramic ornament, scientists distinguish three phases of development of the Eastern LBK: older "pre-note" phase; younger "note" phase; the youngest – Zhelizovsky phase. Previous studies have quite well described the flint assemblages, which originate from a number of sites of LBK from the territory of Eastern Europe. Separately should be noted monograph studies by O.V. Larina (1992), H.V. Okhrimenko (2001), the dissertation work by D.L. Haskevych (2003), dedicated to the flint assemblages of Neolithic cultures of Ukraine and work by O.V. Larina and H.V. Okhrimenko on the development of LBK in the Eastern Europe (2007).

Sources for the analysis of the lithic industry of the LBK on the territory of the Volhynia-Podillia Plate were the assemblages of such settlements as Hnidava (95 units), Hirka Polonka (509 units), Rivne I (630 units), Medynia-Karier (895 units), Holyshiv 2 (1102 units). Despite the significant number of known sites of LBK in Ukraine (about 90), the overwhelming majority of them were investigated by surface gathering and partial shurfing, which led to a significant difference both in the number of products in general and in percentage relation between the different categories of products. Thus, the percentage of tools from the abovementioned sites varies from 8.9% (Rivne I) to 49.5% (Hnidava) which can testify to the functional features of the monuments (workshops) or/and distorted as a result of research sampling. At some settlements (Rivne I, Hirka Polonka), microlithic inventory is not in collections at all, while others are represented by single trapezes (Okhrimenko, 2001: 85).

One of the sites of this culture, where complete stationary research was conducted, is the settlement of Yosypivka I situated in Busk district of Lviv region; 15 km to the south of which is the Hologoro-Kremenets Ridge – a watershed between the basins of the Dniester, Southern Bug and Prypiat. By the excavations of the Rescue Archaeological Service (Lviv) under the direction of T.R. Myliian in 2007, the remains of a long mud building and adjoining territory were completely investigated. Taking into account the availability of residential building, field objects, fragments of ceramic products and a significant lithic assemblage, in the course of research, the area of one household – the territory of the residence of one social group – was discovered. In the absence of radiocarbon dating, the chronological position of Yosypivka I remain unclear. However, the nature of ceramic products, namely the absence of “note” ornament, the site should be attributed to the early “pre-note” stage (Chernovol, Pichkur, Shydlovskiy, Diachenko, 2009). Taking into account the geographical location – in the watershed area of the two major river systems of Eastern Europe – the Dniester and the Prypiat, the site was left by the population, which is genetically linked with the Central European LBK and functioned before the division into two territorial groups – the Volhynia and Dniester-Prut. The preliminary results of the study of flint and stone products were partially published (Myliian, Pichkur, Shydlovskiy, 2007), lithic assemblage is valuable for carrying out typological and statistical calculations and is suitable for further comparative analysis.

The total amount of flint and stone artifacts from the excavation of the site is 1311 units, which is the largest collection from one settlement of LBK in Ukraine now. The highest concentration of flint products was observed within the remnants of housing and in the deepening-ditch on one of the long sides of the dwelling. In addition, within a single pit in the surrounding area, in a compact concentration there were 14 flint products, among which there are both blanks and products with retouching. The preforms are represented by 11 two- and three-faceted regular blades made from the same colour and quality raw material – light gray high quality chalk flintstone (Fig. 1: 1-6). A retouched blade, one sickle insert on a regular blade (Fig. 7: 9) and one medium-width trapeze represent tools. Given the nature of the materials and the presence of two core-like fragments directly next to the concentration, this object is the place for operations for the initial processing of flint – the production of blade blanks and tools from them. Within the second concentration, there were six massive specimens of debris of flint raw material among which three are fragments of chalky flint nodules of dark gray colour, and three more have the character of pre-cores with negatives of pre-

vious knapping. This kind of concentration can be interpreted as a storage object for the raw material for further processing.

Thus, it can be argued that on the settlement there was a full cycle of raw material processing. The nature of the objects allows us to reconstruct the stages of working: transportation of raw material from the natural deposits and the storage of nodules and precores in the territory of the settlement; initial processing of raw material and selection of the most suitable blanks; the manufacture of tools and their utilization in the process of using within the household complex.

All flint products from the settlement of Yosypivka I are made of high-quality Volhynia Cretaceous grey flint, translucent, sometimes with smoky dark gray divisions inside and with a chalky crust from the outside. The raw materials used were flint nodules, pebbles and massive concretions. Such flint is widespread in Volhynia and partly in Podillia, whose geological and lithological characteristics are described in detail in the special literature (Petrin, 2004). The highest qualities inherent in it caused its widespread use by LBK carriers and transportation of this raw material for long distances. The population of LBK did not use poor-quality raw material and, if necessary, transported flint and obsidian over huge distances, which has been repeatedly confirmed archaeologically (Konoplia 1999, 132; Haskevych 2003, 53). The use of high-quality raw materials was due to the specifics of the lithic industry of LBK in general and the population of Yosypivka I in particular. In spite of the fact that flakes represent the largest amount of debitage, the blades are dominated as the main blank for tools manufacturing. Cores show two directions in the primary processing of the flint – flake and blade.

The first is represented by discoid and amorphous cores. The high percentage of flakes (838 units – 78% of debitage) should be also explained by the operations of preparing the nodule for its transformation into a core and its subsequent renewal. Among the flakes, flakes with crust, “tablets”, and crested flakes represent a large part. Among the flakes, 36 items have the traces of use. The flake blanks were obtained using the hard hammer, as evidenced by the morphology of the flakes and the negatives on discoid and amorphous cores.

Hammers form a large group (29 items). As the latter have been used prismatic cores and core fragments (11 items), regular cores (8 items; Fig. 1: 7-8), stone pebbles (2 items) and 7 flint hammers of round shape with a characteristic clogging on the surface.

Retouched flakes are the most numerous in the tool assemblage, which is 30% of all implements (72 items). Among this category of products, predominate lamellar specimens with irregular

retouching on the dorsal surface (22 items). The scrapers on the flake blanks are represented mainly by the end scrapers (16 samples), including nail-shaped forms (Fig. 2: 1-3) and products on massive blanks. The vast majority of these products are made on prismatic flakes with the preservation of a bulb. A group of scrapers classified into a series of macrolithic (3 samples), produced on massive "tablet", crested flake and on the fragment of the regular one-platform core formed by abrupt high retouching (Fig. 2: 9-11).

A small series (8 items, 3%) represented by axes, which include macrolithic products formed on massive flakes with a flat ventral retouching (Fig. 3: 5-9). Among these products, we can admit the typical axe-tranche with trapezoidal shape made by the bifacial processing (Fig. 3: 5). The category of perforators includes tools with a "sting" formed by abrupt dorsal or alternate retouching (10 items, 4%). Half of the products in this category are made on flakes (Fig. 8: 28).

One-platform pyramidal and regular cores for obtaining qualitative blades represent the second direction in the primary processing. The forming of core, the preparation of the platform and ribs done mainly with the help of a hard hammer. In the vast majority of cases, the cornice of the cores did not reduce before the impact, but quite often used the faceting of striking platform. In the process of knapping the core platforms repeatedly corrected. In order to obtain prismatic blades, a soft hammer and a pressure (or mediator) were used. Among the cores for blades, one platform pyramidal with a horizontal striking platform and regular negatives of blades prevail (11 items; Fig. 1: 7-8). Two-platform cores of bipolar (4) and alternate (1) knapping are also characteristic (5 items).

The purpose of operations on the reducing of prismatic cores was to obtain regular wide and medium-width blades (superblades and blades) – 182 lamellar blanks, 16,9% of waste. Width of blades was reduced during the process of core utilization and its treatment was stopped when the minimum requirements for received blanks were reached. A good example of such blanks is a set of blades (one of which has a retouching) from a pit near the dwelling (Fig. 1: 1-6). In addition, in the assemblage there are lamellar products related to the preparing of cores – with crust (19 items) and crested blades (17 items). The largest number of lamellar artefacts is mid-width blades (1.2-2.0 mm wide) and their fragments (95 items, 52% of blade blanks). To a lesser extent, bladelets in width 0.7-1.2 mm are represented (66 items, 36% of blade blanks). The collection contains only 12 items of superblades with a width of more than 2.0 mm and 9 pieces of microblades (up to 0.7 mm wide). However, it should be noted that a significant number of tools made on the superblades, therefore, a small

amount of these products in wastes indicates the complete selection of these blanks for the purpose of operations for secondary processing. Instead, the instruments on the microblades are not inherent to the assemblage as a whole and there are no cores for the production of these blanks. Therefore, the presence of a microblades is more likely to result of unsuccessful impacts or technological chips and do not constitute a separate type of a blank. The main form of the blank for most types of tools was a regular blade with straight edges and a parallel faceted of the dorsal surface. However, to obtain different categories of tools, a selection of blanks of the most suitable in shape and size was carried out.

Retouched lamellar products presented in the assemblage in a great number (38 items, 16% of tools). The overwhelming majority of them have a regular retouching of the edge of the blank (25 items; Fig. 5: 8-16, 19-21). There are a series of truncated products (13 items; Fig. 5: 1-7, 17-18, 22-23), represented by blades (8 items), superblades (3 specimens) and bladelets (2 items) processed mostly on a distal part of the blank. Certainly, that part of the retouched lamellar products and their fragments was used as the attachments to the sickles (Fig. 5: 1, 5, 8, 17, 19-21).

One of the most numerous categories is the end scrapers and two double scrapers on the blades (28 items, 12% of tools) (Fig. 6). Among them there are small on the bladelets, on medium-wide blades and on superblades. Most relate to low forms and only single products are made by steep high retouching (Fig. 6: 5, 17-18, 23, 25-26). In general, for the manufacture of scrapers used blades with a sufficiently wide range of width within 1.2-2.3 cm, but the bulk made on blanks of width 1.3-1.7 cm.

Enough numerical (18 items, 8% of tools) of the category of products with retouching are the sickle inserts (Fig. 7). This category of products consists of two distinct groups. Inserts of the first group (10 items) are trapezoidal and segmental products on lamellar blanks, with obliquely truncated by the abrupt and semi-abrupt retouching ends (Fig. 7: 1-9). Such inserts are made mainly on blades 1.3-2 cm in width, the length of non-fragmented specimens varies within the range of 3.2-5.0 cm. Typically, such products are polished only from one corner of the tool, which indicates their use in the set sickles of so-called "Karanovo type". The second type inserts (8 items) are the rectangles made predominantly on superblades of width 2.5-2.8 cm and a length of 5.5-7.5 cm (Fig. 7: 10-11, 13-15). The working edge of these products is formed by small denticulate retouching, some products are backed by abrupt retouching the opposite edge.

Quite a small series are burins, the vast majority of which made on blades (8 items, 2,7% of tools). Among them 4 items are the burins on trun-

cation and 4 items are angle burins (Fig. 3: 1-4). It should be noted the morphological instability of the products with a burin spall and the absence of clearly defined series.

A fairly representative series (23 items, 10% of tools) is presented by the microlithic inventory, which consists of two distinct groups. The most numerous group is a variety of trapezes, made at the intersections of blades (18 items; Fig. 8: 1-18). They are represented mainly by medium-sized forms (9 items), high (4 items), and also 2 samples of low trapezes. By the nature of retouching, one can define: retouched on both ends of the dorsal side (Fig. 8: 1-8), alternately retouched (Fig. 8: 9-10, 17-18), and retouched on one end and broken – on the other (Fig. 8: 11-16). The sizes are presented as rather small specimens with a width of up to 1 cm, and massive products about 2 cm in width. The second group of microlithic products is a series of non-geometric projectile points on the bladelets (5 items, Fig. 8: 19-23). Among them there are 4 willow-leaf shaped items, 2 of which have a distinguished stalk, formed by abrupt retouching on the dorsal surface, and flat retouch on the ventral (Fig. 8: 21-22), which brings these products closer to the Swidrian-type points.

Such technological features as receiving regular blades, together with a microlithic assemblages represented by trapezes and insets, are quite characteristic of the Neolithic early-agricultural cultures of the Balkan-Danube circle. However, in the Yosypivka I assemblage there is an orientation towards the production of a wide superblade, first of all, for the production of sickle insets. Macrolithisation of lamellar blanks is usually associated with the development of agriculture (Nuzhnyi, 1992; Giry, 1997: 149-150). A small amount of regular macroblades among waste products is indicative of the deliberate selection of these blanks for tools manufacture.

It is necessary to note two distinct groups of sickle inserts – segmentoid tools with angular polishing and truncated superblades with polishing throughout the edge. Both types of insets were fixed also on other LBK settlements of the Upper Dniester and Volhynia – Ulychne, Holyshiv II, Hirka Polonka, which finds analogies in the assemblages of Malopolska and Kujaw (Konoplia, 1999, 131; Okhrimenko, 2001, 90-91). While unprocessed sections of blades with angular polishing are found on the LBK sites of Middle Dniester and Moldova (Haskevych, 2003).

The microlithic inventory of the settlement, represented by trapezes and projectile points, looks quite unified. If the symmetrical trapezoid is the most common type of microlith in early-agricultural cultures of the Balkan-Danube circle, then a small series of swidrian-like points on the bladelets is of some interest. Perhaps in this case

we have evidence of the interaction of an indigenous Mesolithic population with Central European migrants, which manifested itself in the reproduction of the morphology of the projectile point in the conditions of using a more progressive pressure technique for obtaining the blades.

Lithic assemblage of Bernashivka I Trypillia A settlement

One of the Trypillia A classic sites is the Bernashivka I settlement, discovered during the works of the Middle-Dniester expedition of the Institute of Archaeology AS of the USSR in 1969. The site is located on the cape of the first floodplain terrace of the left bank of the Dniester River at the confluence of the Zhvan River (Mohyliv-Podilsk district, Vinnytsia reg.) (Yevdokimov, Zbenovich, 1973). The result of the processing of materials from the V.G. Zbenovich excavations 1972-1975, was the publication of two monographs devoted to the early stage of Trypillia culture in the Dniester valley (Zbenovich 1980, 1989). The new study of the settlement was started by Dniester expedition under the guidance of D.K. Chornovol in 2009 in connection with the construction of the Dniester hydroelectric unit (Chornovol, Pichkur, Diachenko *et al.* 2009). Bernashivka I received a series of radiocarbon dates in the range of 4702-4526 cal BC (OxA 22516), which at the moment is the oldest site of Trypillia A – Precucuteni in Ukraine (Rassamakin, 2012: 22-23).

The lithic assemblage that discovered during the research of the object under the name "Platform 8" deserves special attention, given the number of products, as well as the specifics of the object itself (Pashkevych, Chornovol, 2015). Flint products make up the majority of the existing collection, which is not surprising for the settlements of the Middle Dniester, due to the large amount of local raw materials. Preliminary results of the study of producing inventory, including the flint assemblage from the latest research partially set out in several articles (Sliesarev, Radomskiy, Shydlovskiy, 2014; Shydlovskiy, Sliesarev 2015a).

The assemblage of flint products shows a complete cycle of raw materials processing – in the collection, there are pre-cores, cores in the last stages of utilization, tools and microlithic inventory. For the manufacture of flint products inhabitants used mainly local, rather low quality flint, originating from Cretaceous (Cenomanian) layers, as well as rebuilt crushed rock, river pebbles and boulders. Upper Cretaceous deposits lays directly under the cultural layer of the settlement and were fixed at 1.35-1.5 m from the surface (Yevdokymov, Zbenovych, 1973: 62). It should be noted the presence of fragments of flint pebbles directly on the floor of the object. This raw material is marked by limestone crust, gray and light gray inside and a significant amount of limestone inclusions in its compo-

sition. A small part of the products is made of light, whitish flint, more granular in structure, but without inclusions. Quite low quality of raw material on the one hand, and its availability on the other, has caused some negligence in the initial processing, which manifests itself in a significant number of nucleated debris and unsystematic flakes. Some products, in particular those defined as sickle insets on regular blades, made of high quality light brown flint, the outcrops of which do not occur in the Middle Dniester area.

Cores are represented by several types, among which there are one and two-platform prismatic for flakes and blades (Fig. 10: 1-2), amorphous for flakes and regular «pressure» for blades (Fig. 10: 3-4; 15). The presence of different types of cores means the parallel existence of «irregular» and «regular» lines of procurement in the initial technique of Bernashivka I. The first one was aimed at obtaining flakes and irregular blades from prismatic and amorphous cores using a hard hammer. The collection contains a large number of cores and debris, which were used as hummers and flakes from the latter (0.8% of the flakes) as well as pebbles with characteristic stellate clogging of the ends (Fig. 9).

The design of cores began from the processing of a pebble in the form of biface and the formation of a striking platform. Flakes with cortex make up 14% of the number of flakes. Thus, two ribs were formed, from one of which began the process of removing the blanks. Crested blanks make up 5.3% of all flakes. The assemblage is characterized by unipolar parallel knapping: cores, except for amorphous, are represented mainly by single-platform (27 units). Some items are two-platform bipolar (10 items, 8% of cores), which are the result of the reduction of the first. This is evidenced by a rather high percentage of longitudinal flakes – 50%, while secondary flakes of other types are 28% and bipolar only 3% of the flakes. Flakes and irregular lamellar blanks were used as workpieces for the production of the basic amount of tools – retouched flakes and blades, scrapers, axes, knives, perforators. The percentage of tools on flakes is 66%.

Lamellar blanks (25% of waste), divided into superblades (width more than 2 cm), medium-wide blades (from 1.2 to 2 cm), bladelets (from 0.7 to 1.2 cm) and microblades (width up to 0.7 cm). Superblades (10.5% of the blade blanks) have amorphous irregular shape, often with unsystematic facets and rests of the crust on the dorsal surface. The largest number of blade blanks (43%) are medium-sized blades, to a lesser extent the bladelets are available (33%). The peculiarity of the assemblage is a certain amount of microblades (13.5%). In general, lamellar blanks, mostly longitudinal, are divided into regular and irregular.

The most numerous category of tools is retouched flakes – 153 items, 28.5% of tools. Among

the latter, a series of massive irregular flakes (2.5% of retouched flakes), with a sloping two-stage retouching of the working edge, is defined. On these implements, there is often an accommodation element on the opposite side to the working edge (Fig. 11).

Next one is scrapers on flakes – 28% of products with retouching, which vary widely in the way of manufacturing. The vast majority are side-scrapers, end-side scrapers and double-side scrapers (66% of scrapers), to a lesser extent, end (25%) and rounded scrapers (6%) are presented (Fig. 12). The peculiarity of scrapers on the flakes is the use of a rather sloping retouching of the edge of the blank, only on some products there is a high abrupt retouching.

It should be noted the morphological instability of products with burin spall. Among them, there are two dihedral, one – on truncation, and one angle burin (Fig. 13: 1-3). Quite interesting were the findings of two large «cutters» – massive elongated flakes with burin spall on the ventral surface, and with a transverse retouching of the opposite edge in order to create an accommodation element. There are traces of polishing from use on the edges of these implements (Fig. 13: 4-5).

Quite a large number of products on flakes are tools with notches (5.6% of tools). Another category of products – axes (2%), made on massive flakes and debris with the design of the edge of a rapid, often denticulate retouching. Irregular blades were used for the manufacture of various categories of tools – retouched and truncated blades, perforators, end scrapers (Fig. 14).

In order to provide the need for regular blade blanks, mainly for specific categories of tools – microliths and sickle insets – the pressure technology used. The essence of which was the use of one-platform pressure cores for medium-size blades and bladelets. The size of such cores vary in the range of 6-9.5 cm in length, mostly one-sided, with a faceted platform. The technical aspect of obtaining the blades assumed a certain fixation of cores, in connection with which the back side flashed. Although the vast majority of cores are one-sided, conical specimens with a circular withdrawal around the perimeter of the platform, also present (Fig. 15).

Among superblades regular are practically absent. Significantly, their number is found among blades and bladelets, with a peak value in the range of 0.9-1.7 cm in width which is 33.6%, from all blade blanks. These products were the blanks for the manufacture of various types of tools – microliths, sickle insets and perforators. Of course, some of the blades and bladelets were used without additional processing, as evidenced by polishing the edges of some products. This is especially true for

medial parts of regular blanks, which could well be used as insets of cutting tools.

Sickle inserts were made mainly of medium-width blades and bladelets in the sizes of 1.1-1.7 cm in width by fragmentation, the separation of the distal and proximal parts of the workpiece (Fig. 16: 15-27). The length of the inserts is often controlled by the transverse truncation of one of the ends of the medial part (Fig. 16: 15-21). However, much of the inserts were not subjected to secondary processing, and is determined by the presence of macroscopic traces from the use – micro-retouching and polishing of the edges. It should be noted that bright polishing are observed on a very small number of products, but where it is possible to trace, it has angular location.

Among the products with secondary processing should be noted perforators (3% of tools) made mainly on the bladelets (Fig. 16: 1-14). Abrupt retouching, often alternate, at distal ends of the blanks, usually forms the working part of these tools.

The microlithic inventory of site (about 10% of products with retouching) looks very unified, represented by microliths, waste from their production and fragments. The waste of production are microburins, which are mainly distal, to a lesser extent proximal parts of the bladelets, in the amount of 18 items (Fig. 17: 1-15). Asymmetric rhomboids, their fragments and two trapezes represent a set of microliths, which were made on the medial parts of the bladelets 1.0-1.3 cm in width.

Asymmetric rhomboids have one pointed angle and another angle formed by a diagonal truncation of the blank (Рис. 17: 25-37). The pointed part is located predominantly on the distal end of the bladelet, but in rare cases – on the proximal one. Whole arrowheads vary greatly in length from short enough tips to elongated ones. The ends of microliths are formed by the use of microburin technique, as evidenced by a series of microburins, fragmenting both distal and proximal ends of blanks. The microburin facet on a microlith was later retouched, so it can be traced only to individual items. Part of the microliths has traces of damage – facets on the ventral surface, or broken ends. Some products may be attributed to unfinished microliths – with partial retouching of the edge of the workpiece, or with the formed distal part of the microlith (Fig. 17: 40-45). In the collection there are only two medium-width trapezes made by a semi-abrupt retouching of regular bladelets (Fig. 17: 38-39).

The uniqueness of this complex lies in the fact that in one object a series of microliths and blanks were found at various stages of production, and direct evidence of the production of microliths in place – the presence of microburins. Such a unification of the microlithic assemblage can be explained

by functional necessity in the manufacture of this type of tip, or a fully integrated assemblage with developed technological and cultural standards.

Discussion

Based on the study of technological features of the two brightest lithic assemblages belonging to the first agricultural cultures of the western Ukraine, it is possible to note both the common, and the distinctive features in their lithic technology (Table 1). In both cases, we are dealing with the progressive technique of obtaining regular blades. However, given the complexity of this technique of initial processing of flint, striking technique for obtaining irregular flakes and blades, used in parallel.

The technique of secondary processing may be characterized as "late microlithic" which is characterized by the use of various insets for manufacturing various tools (Danilenko, 1974: 10). The term «microlith» refers to a certain category of attachments made by combining the blunt-retouched surfaces with a sharp edge of prismatic blank acting as the working edge of the tool (Nuzhnyi, 2008: 7).

Similar economic needs have caused similar tool-kit set in both assemblages, which consists predominantly of retouched flakes and blades, scrapers, attachments to sickles, microlithic inventory and perforators. In both assemblages, the burins do not make up the stable series, and the products with burin spall vary considerably between themselves by the type of blank and the nature of the design of the working edges. However, despite the general similarity of the percentage ratio of the main categories of products, it is possible to notice the cardinal differences in the technology both in the initial and in the secondary processing.

In the assemblages of the Volhynia and Dniester LBK, attention is drawn to the orientation towards obtaining a universal blank for harvester tools – a wide blade of 2.0 cm wide, which is not typical of Tripillia A sites. Attachments for sickles in the Danube tradition – parts of the wide blades, often with truncated ends, or in the form of wide segments made from blades 2-3 cm in width. The manufacture of other tools – scrapers, burins, microliths – was subordinated to the main tendency and their design was the gradual utilization of wide blades. Microliths – medium-width trapezes, made from blades 1-2 cm in the intersection (Comsa, 1974: fig. 15-19; Mylian, Pichkur, Shydlovskiy, 2007). Thus, if we turn to the flint assemblages of those cultures that are traditionally considered as ascending to Trypillia A – Boian-Giulesti Complex, based on the culture of Boian and LBK (Zbenovich, 1989: 176-178; Dergachov, 1999: 179-181) then it should be noted the fundamental difference in their technology compared with Bernashivka.

Table 1. Lithic inventory of Yosypivka I (LBK) and Bernashivka I (Trypillia A) settlements. Flake and blade sequences.**Flake sequence**

YOSYPIVKA I			BERNASHIVKA I	
Cores for flakes	27	2,5% of waste	106	4,1% of waste
precores			7	5,5% of cores
1-platform			16	12,6% of cores
2-platform	1	1,9% of cores		
Multi-platform	4	7,4% of cores		
amorphous	2	3,7% of cores	17	13,4% of cores
debris	9	16,7% of cores	66	52% of cores
Hammers on cores	11	20,4% of cores		
Flakes	838	78% of waste	1832	70,5% of waste
With cortex	97	11,6% of flakes	253	13,8% of flakes
tablets	43	5,1% of flakes	40	2,2% of flakes
crested	11	1,3% of flakes	97	5,3% of flakes
Simple flakes and fragments	687	82% of flakes	1442	78,7% of flakes
WASTE (flake sequence)	865	80,5% of waste	1938	74,6% of waste
Retouched flakes	72	30,4% of tools	153	28,5% of tools
Scrapers on flakes	20	8,4% of tools	149	27,7% of tools
End scrapers	16	33,3% of scrapers	38	24,7% of scrapers
Side scrapers	4	8,3% of scrapers	55	35,7% of scrapers
End-side scrapers			47	30,5% of scrapers
rounded			9	5,8% of scrapers
Notched	11	4,6% of tools	30	5,6% of tools
Axes	8	3,4% of tools	12	2,2% of tools
Perforators	5	2,1% of tools	3	0,6% of tools
Burins	1	0,4% of tools	5	0,9% of tools
TOOLS ON FLAKES	117	49,4% of tools	352	65,5% of tools

Blade sequence

YOSYPIVKA I			BERNASHIVKA I	
Cores for blades	27	2,5% of waste	21	0,8% of waste
1 platform pyramidal	8	14,8% of cores	4	3,2% of cores
1 platform regular	3	5,6% of cores	7	5,5% of cores
2 platform	5	9,3% of cores	10	7,9% of cores
debris	3	5,6% of cores		
Hammers on regular cores	8	14,8% of cores		
Blade blanks	182	16,9% of waste	640	24,6% of waste
microblades	9	4,9% of blade blanks	86	13,4% of blade blanks
Bladelets	66	36,3% of blade blanks	213	33,3% of blade blanks
blades	95	52,2% of blade blanks	274	42,8% of blade blanks
superblades	12	6,6% of blade blanks	67	10,5% of blade blanks
WASTE (blade sequence)	209	19,5% of waste	661	25,4% of waste
Blades with retouch	38	16% of tools	88	16,4% of tools
retouched	25		68	
trunkated	13		20	
Sickle insets	18	7,6% of tools	26	4,8% of tools
On blades	10			
On superblades	8			
End-scrapers on blades	28	11,8% of tools	5	0,9% of tools
Burins on blades	8	3,4% of tools		
Perforators on blades	5	2,1% of tools	14	2,6% of tools
Microlithic assemblage	23	9,7% of tools	52	9,7% of tools
microburins			18	
trapezes	18		2	
rhomboids			14	
Projectile points	5			
Backed fragments			6	
fragments			9	
workpieces			3	
TOOLS ON BLADES	120	50,6% of tools	185	34,5% of tools
WASTE total	1074	81,9% of assemblage	2599	82,9% of assemblage
TOOLS total	237	18,1% of assemblage	537	17,1% of assemblage
TOTAL	1311	100%	3136	100%

N. Burdo, analyzing the Trypillia A ceramic assemblage also pointed out that the most analogies for Bernashivka I ceramics (especially the kitchen, which represents a traditional element of culture) can be traced to sites of Dudeshti type and Vincha circle in Carpathian Romania. Most of the features of the Precucuteni ceramic complex cannot be connected with either the LBK or the materials of the Boian-Giulesti phase. In general, the Bernashivka I ceramic assemblage looks very syncretic, in which traces the manifestations of various cultural communities of the Carpathian-Danube region (Burdo, 2002: 152-155). In contrast, the Bernashivka I lithic assemblage is highly unified both in technological terms and in microlithic inventory. This again raises the question of the degree of informativeness of various categories of material culture and the use of various cultural features when attributing materials to one or another tradition.

The peculiarity of Bernashivka I assemblage is the use of the pressure technique for the production of lamellar blanks of thinned dimensions (0.9-1.7 cm wide), which were used as workpieces for microliths and perforators. A similar scheme of the production of tools can be reproduced for other Trypillia-Precucuteni sites (Sorokin, 1992: 108-109). Rhomboid microliths are found in the settlements Isakovo II on Prut, Sabatinovka II, Oleksandrivka on Dniester and Haivoron on Southern Bough, which materials require a separate study (Danylenko, Makarevych, 1956: 137; Danilenko, 1974: 11; Skakun, 1978: 16; Sorochin, 2000: 51-52).

Some features brings Trypillia A assemblages closer to other cultures of the south-west of Eastern Europe, namely the Hrebenyky, Bug-Dniester and Criș of Moldova. There is a considerable similarity in the technology of flint processing with sites of Bug-Dniester culture, especially with the middle and late stages of its development, when kukrekian elements disappear in the BDC lithic assemblages. At the late BDC sites, the proportion of microblades and cores for their production is significantly reduced, as is characteristic of Bernashivka assemblage. Products with retouching of BDC are also represented mainly by scrapers and retouched flakes, with a small percentage of burins and microliths. With regard to the latter, in the middle and late stages of the BDC (Pugach and Hard sites), there is an increase in the proportion of rhomboids along with the use of microburin techniques with domination of mid-width trapezes as the main type of microliths (Haskevich, 2003; Tovkaylo, 2008: 145-148; 2010: 209-223). An interesting feature is that the presence of rhomboids corresponds with the early-Trypillian imported ceramics in the materials of the BDC sites.

Taking into account the chronological and territorial proximity of these communities, which is confirmed by the presence of Early Trypillian ma-

terials on the BDC sites (Shaposhnikova, Tovkaylo, 1989) the question arises of the interconnection of the two cultures. There are three hypothetical options for solving the issue of this interaction, the result of which could have manifested itself in the lithic assemblages of both communities:

1. Early-Tripillian technology, which looks quite formed with a standardized set of tools and techniques, without any elements of the Hrebenyky-Kukrek origin, influenced BDC technology, especially in the late stages of its development, or

2. BDC technology has become one of the sources of formation of Trypillia A assemblages, which are an evolutionary extension of BDC traditions. Formerly V.N. Danilenko and V.I. Markevich has come to the conclusion about the main role of the BDC in the formation of various categories of Trypillia A material culture (Danilenko, 1974: 25; Markevich, 1974: 165).

3. Both technologies have common origins in previous Neolithic assemblages.

From our point of view, a common ancestor for the technology of BDC and Trypillia A, which directly influenced the general trends in flint processing of both communities is possible (Shydlovskiy, Sliesarev, 2015b: 208-210). Common sources can be found in the complexes of the final Criș community, which existed in Danubian region in the previous epoch. D.L. Haskevych believes that in the formation of the BDC lithic industry, the decisive factor was the Criș culture, "which was manifested in a similar character and synchronicity of changes in the composition of the sets of Criș settlements and the Bug-Dniester sites of Southern Bough and Dniester regions..." (Haskevych, 2003: 149). N.B. Burdo claims the possibility of the existence of the final Criș sites on the northeast shores of the territory of this early-farming culture, as well as points to the Criș elements in the ceramics of Bernashivka I (Burdo, 2002: 152-154). The last settlements in Criș are dated 5300-5200 cal BC (Ehrich, Bankoff, 1993: 381), although the only one date from the settlement of Sakarivka 1 – 5480-5440 cal BC (Bln 2425) – relates it to a more early time (Larina, Okhrimenko, 2007: 99).

Here one should pay attention to certain transformations in the technology of flint processing in the Criș community itself, the existence of which involved a significant territorial and temporal space. Northeast assemblages of this culture on the last stages of development (Satmar, Criș of Moldova) are characterized by the orientation on the use of local flint and obsidian raw materials, the predominance of flakes, the quantitative predominance of scrapers among tools, the use of pressed cores for bladelets, their further utilization as attachments to the sickles and the production of microliths – symmetrical, asymmetric trapezes

and rhomboids (Dergachev, Larina, 2015: 65-105). The authors of the study of this phenomenon used the term “mediolithic” for the characterization of assemblages with such features of flint processing (Kaczanowska, Kozłowski, 2008: 15-16). But if there is a certain similarity to the late Criș assemblages in the primary processing and tool set, then the originality of Bernashivka I manifests itself in the microlithic inventory – receiving a series of rhomboids with the help of microburin technique.

An even more striking contrast is the assemblage of the settlement with the sites of Gumelnitsa and the Trypillia B, in which there is an orientation towards receiving regular superblades with the help of the enhanced pressure. For the developed Trypillia there is a mass production of large superblades, which served as blanks for sickle insets and were one of the main objects of exchange operations between different Tripillian groups. Moreover, the manufacture of other tools is often associated with the gradual utilization of large attachments to sickles (Budziszewski, 1995: 167-170; Skakun, 2005: 71-72; Pichkur, Shydlovskyi, 2005: 116 – 118). Such a reorientation of the whole process of flint processing, the purpose of which was to obtain a qualitative wide blade, is associated with the high role of agriculture in the communities of developed Trypillia. At the same time, to compensate the need for arrowheads, started using flat retouching, which made it possible to obtain a qualitative bifacial point from blank of any type (Nuzhnyi, 1992: 20-21; Radomskyi, 2015: 226-227).

Conclusions

Lithic technology of Eastern European LBK is based on the receipt of regular large-size lamellar blanks from high quality types of flint, which means extensive exchange links of the population, transportation of raw materials at long distances, living economic group inside a network connection with other related groups. This allowed to maintain bright agricultural orientation, while other branches of the economy were subordinated.

Microlithism in the Trypillia A lithic processing allowed the group to use local flint deposits, increasing the autonomy of the economy of the group. On the other hand, it affected on the reduction of the role of agriculture in contrast to other sectors of the economy. According to the analysis of faunal remains from Bernashivka I, the bones of wild animals are dominate (Zbenovich, 1980: 141-144).

The lithic assemblage of Early Trypillia does not reveal an evolutionary affinity with the assemblages of LBK, Boian and the classic Balkan Criș. To a greater extent, Tripillia A materials are similar to those of the late BDC and Criș of Moldova. However, the use of microburin technology for the performance of microliths is a striking feature of Bernashivka I, which distinguishes this settlement from among other early-agricultural sites.

It is possible that such a character of the industry of Trypillia A – Precucuteni testifies to a certain isolation of groups in the conditions of migration. Features in flint processing may be explained by the fact that migrants often form a narrow (marginal) group that is not a carrier of a complete set of characteristics of the “mother” culture.

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Крем'яні комплекси ранніх землеробських спільнот Середнього Придністров'я: порівняльна характеристика

Для вирішення питання взаємозв'язку між різними культурними спільнотами в первісну епоху важливим є використання техніко-типологічних даних по крем'яним комплексам пам'яток. Крем'яні вироби є наймасовішим матеріалом і демонструють традиційну складову культури, що в меншій мірі реагує на зовнішні впливи, на противагу іншим категоріям матеріальної культури. Знаряддя праці безпосередньо пов'язані з забезпеченням харчового виробництва і тому в найбільш яскравій формі демонструють форми культурної адаптації групи до вимог типу ведення господарства.

З метою визначення ступеню спорідненості між двома ранньоземлеробськими спільнотами Середнього Подністров'я, які традиційно вважаються еволюційно спорідненими, проведено порівняльний аналіз техніко-типологічних особливостей двох крем'яних комплексів – Йосипівки I (КЛСК) та Бернашівки I (Прекукутені-Трипілля А). Обидві колекції є досить представницькими та походять з житлових ділянок поселень. Не зважаючи на певну подібність за своїми типолого-статистичними показниками, детальний аналіз виявляє значну відмінність між технологічними особливостями, характером забезпечення сировиною та мікролітичним комплексом. Значна різниця в технологічних показниках між двома поселеннями є наслідком різної господарської орієнтації, різним рівнем взаємодії господарських груп та різними генетичними витоками носіїв обох індустрій. Загалом, крем'яний комплекс раннього Трипілля не виявляє еволюційної спорідненості з крем'яними комплексами КЛСК, Боян та класичного Кріш Балкан. В більшій мірі ранньотрипільські матеріали виявляють схожість з крем'яними комплексами пізньої БДК та Кріш Молдови, що проявляється у використанні місцевих покладів сировини, використанні регулярної пластини в якості заготовки для вкладенів. Однак використання мікрорізцевої техніки виконання мікролітів є яскравою особливістю Бернашівки, що вирізняє цю пам'ятку з поміж інших ранньоземлеробських пам'яток.

Можливо, що такий характер індустрії раннього Трипілля – Прекукутені свідчить про певну ізоляваність груп в умовах міграції. Особливості у кременеобробці можливо пояснити тим, що мігранти часто складають вузьку групу, яка не є носієм повного набору характеристик «материнської» культури.

Ключові слова: *неоліт, культура лінійно-стрічкової кераміки, Прекукутені-Трипілля А, крем'яний комплекс, знаряддя праці, мікроліти*

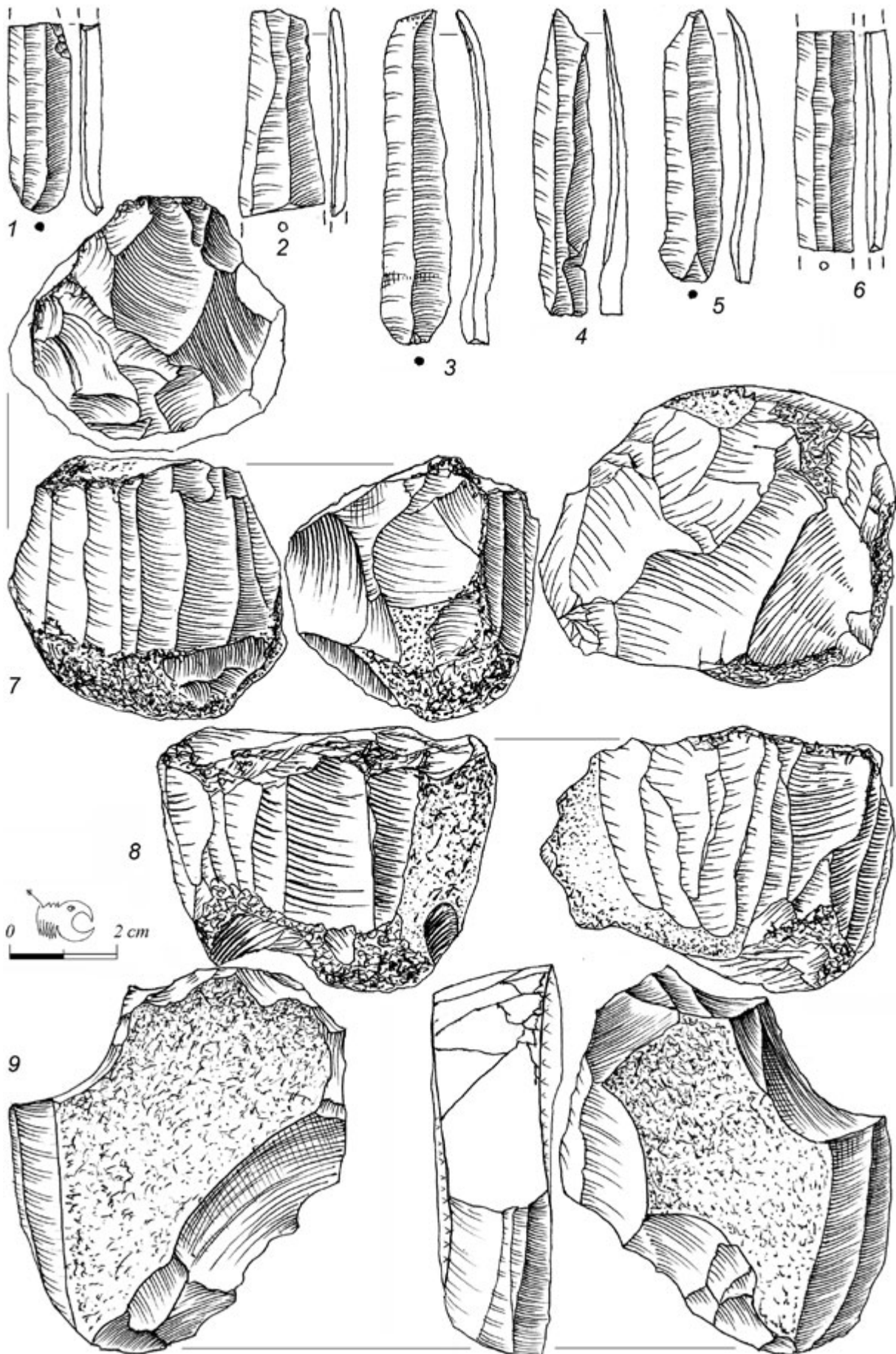


Fig. 1. Yosypivka I. 1-6 – regular blades; 7-9 - regular cores.

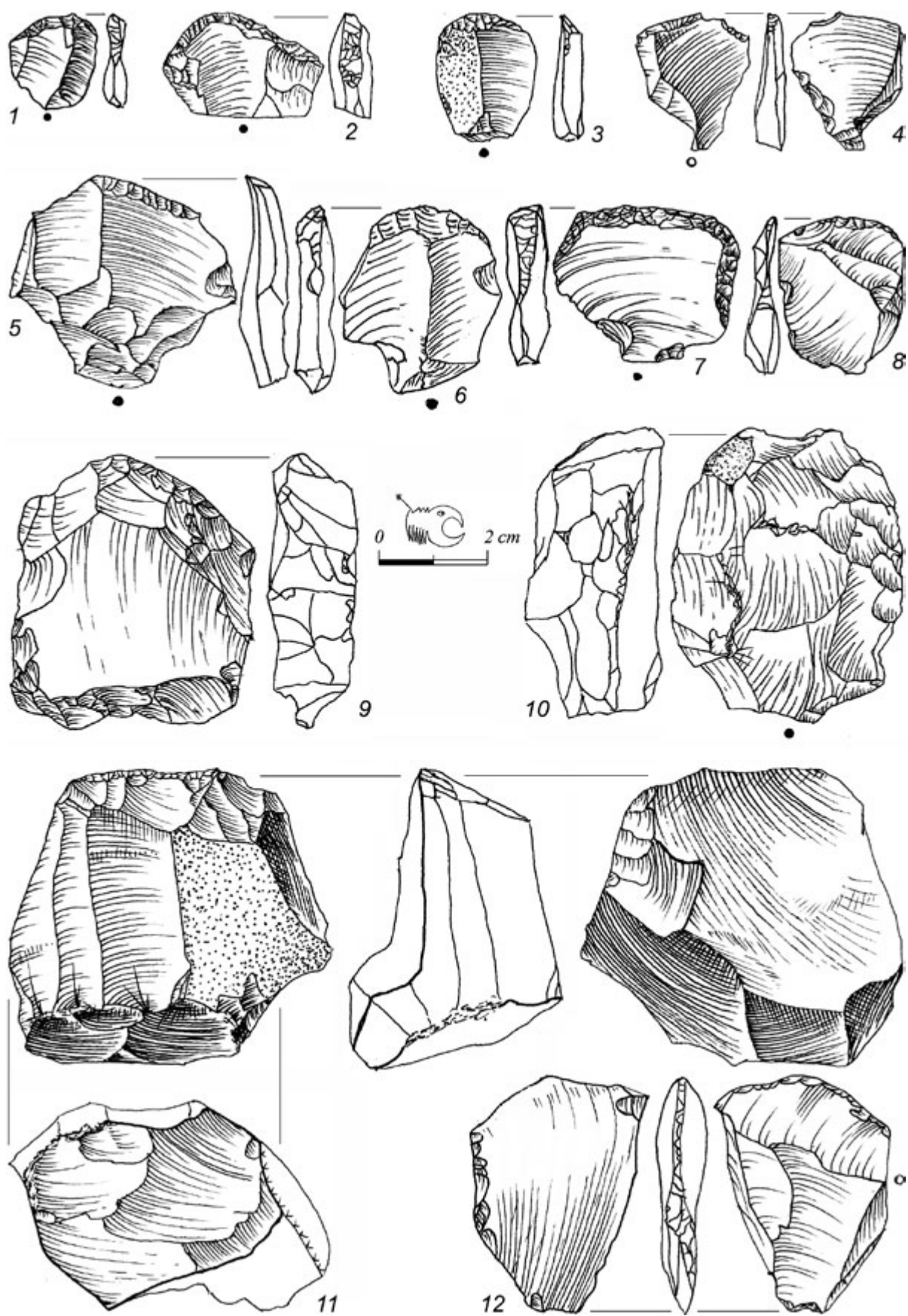


Fig. 2. Yosypivka I. Scrapers on flakes.

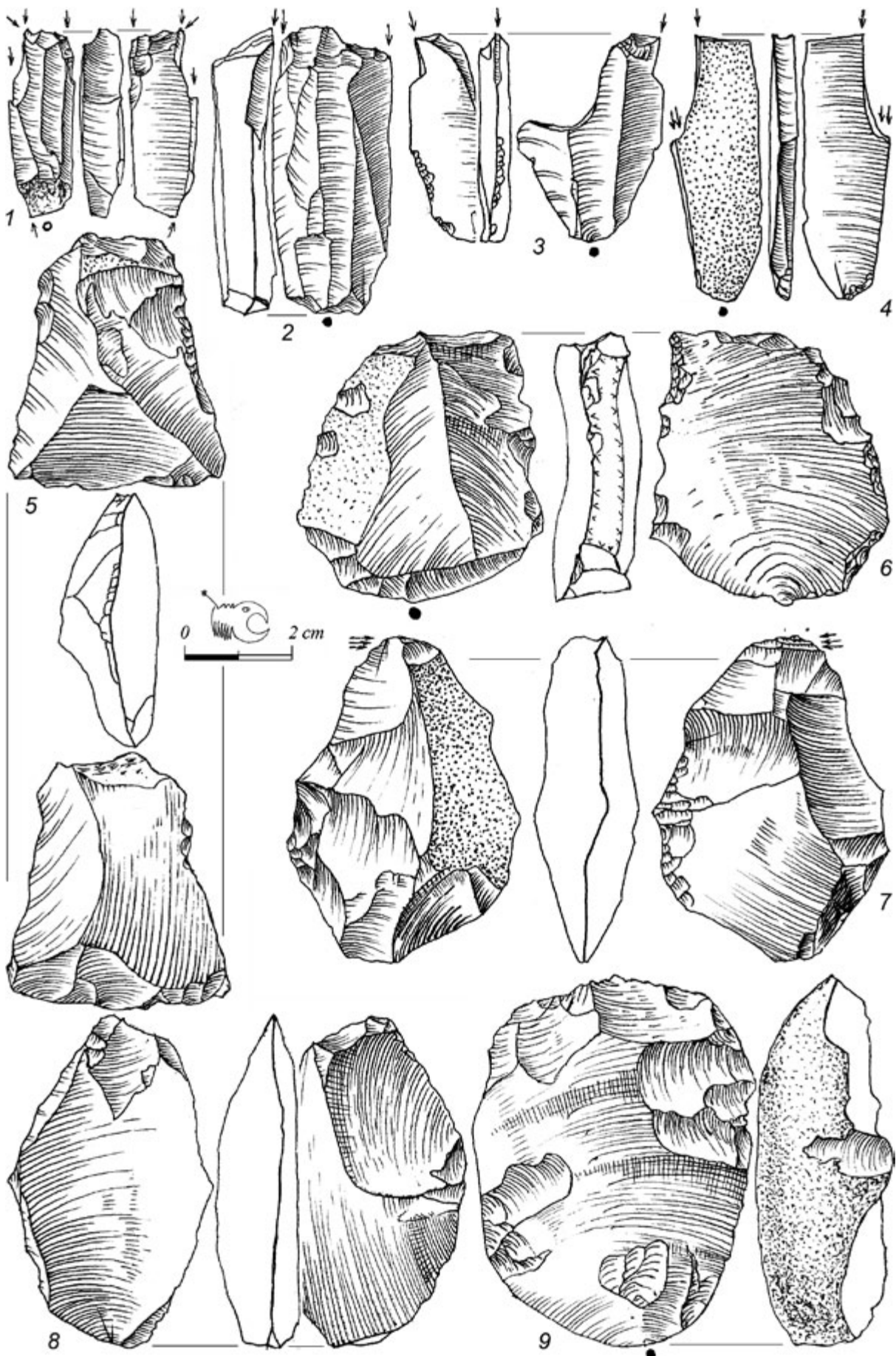


Fig. 3. Yosypivka I. 1-4 – burins; 5-9 – axes.

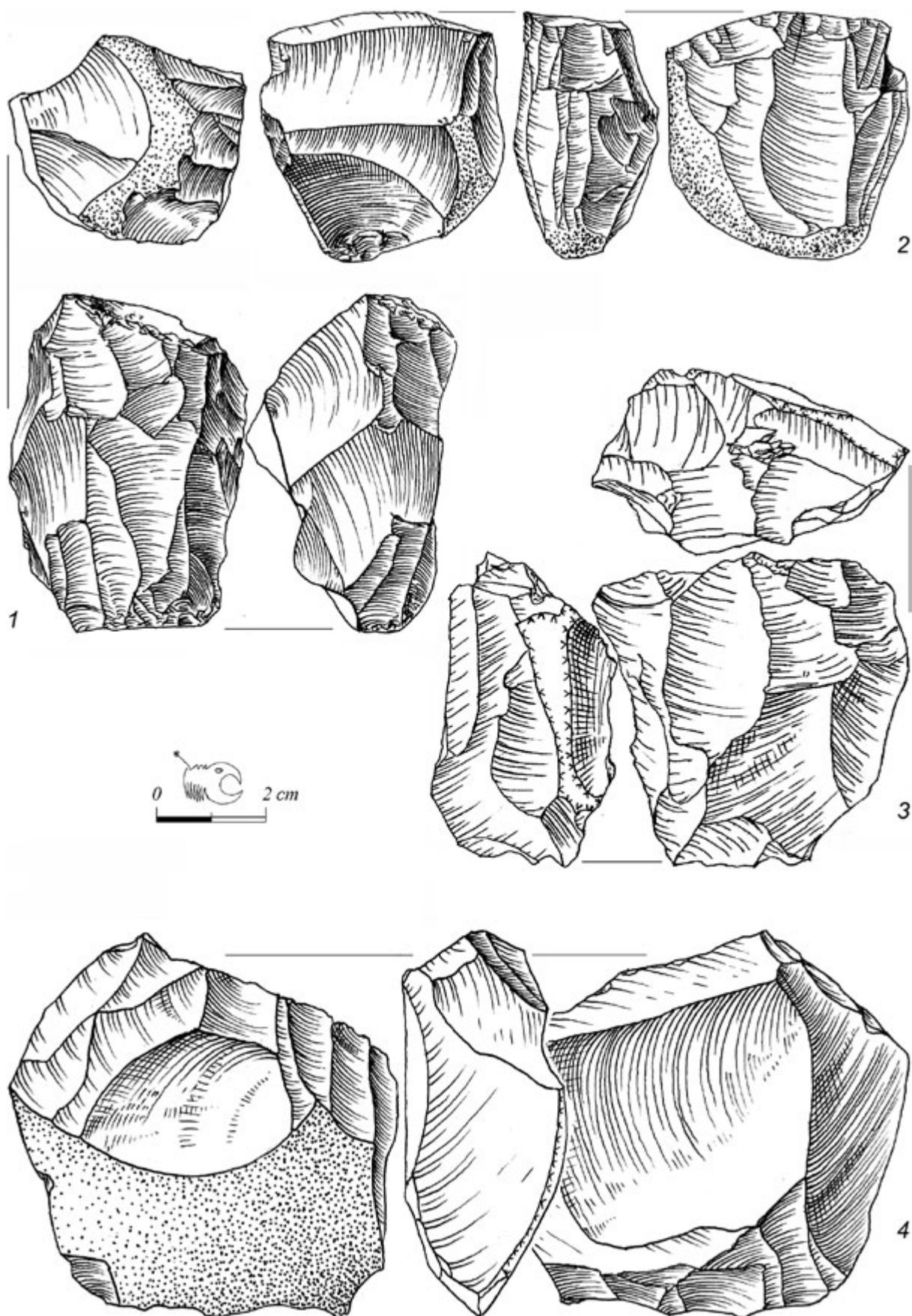


Fig. 4. Yosypivka I. Prismatic cores.

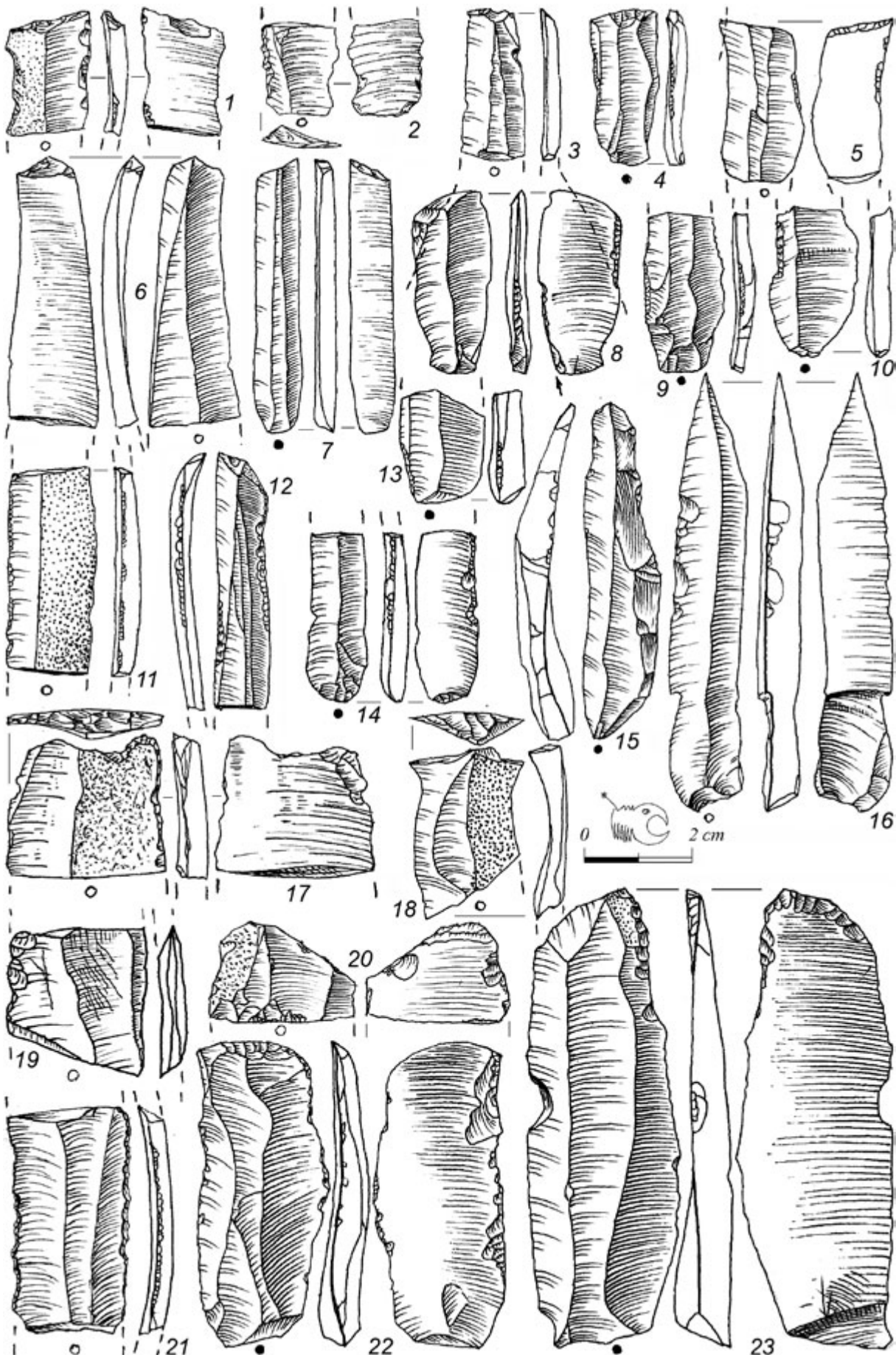


Fig. 5. Yosypivka I. Truncated and retouched blades and fragments.

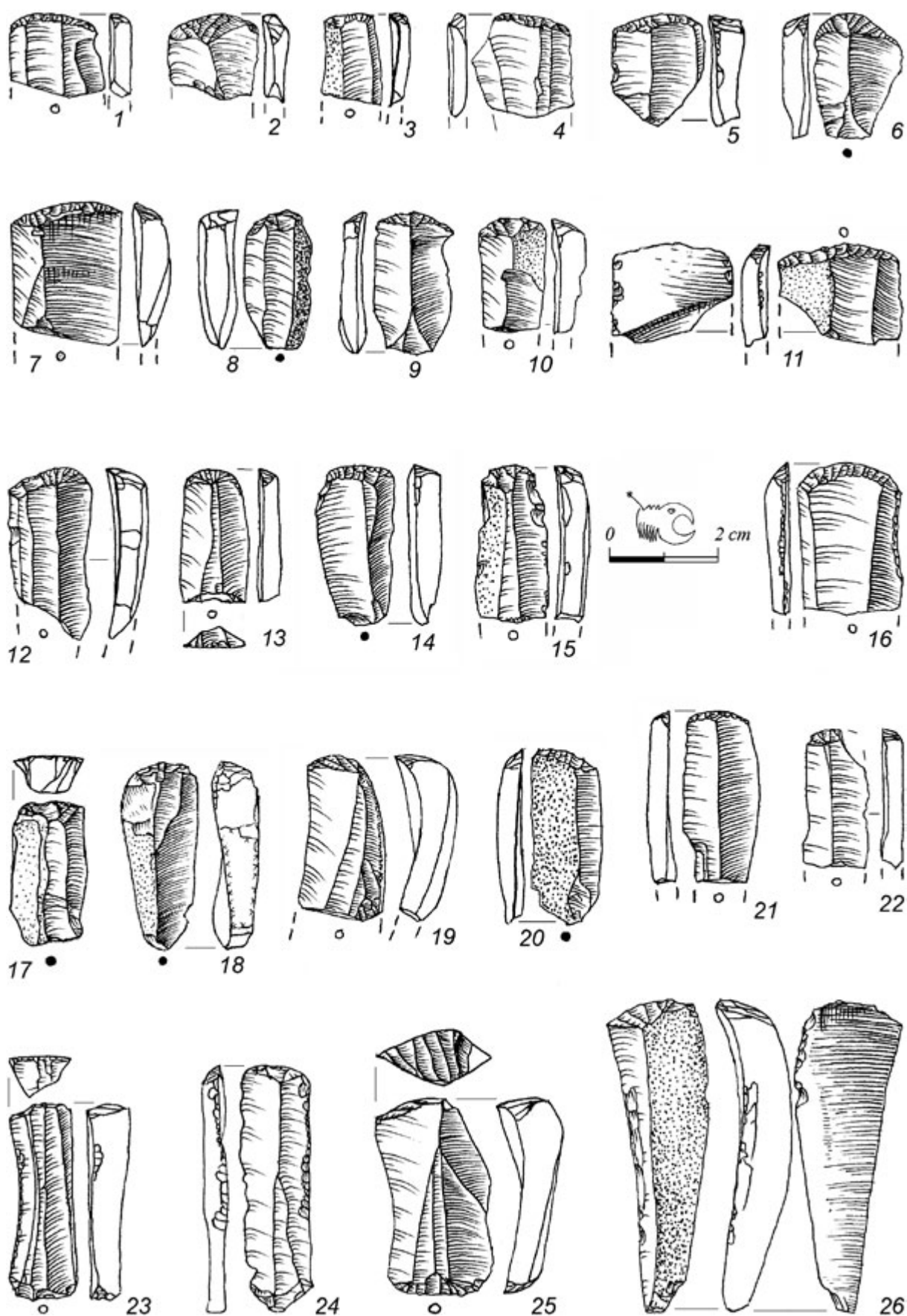


Fig. 6. Yosypivka I. End-scrapers on blades.

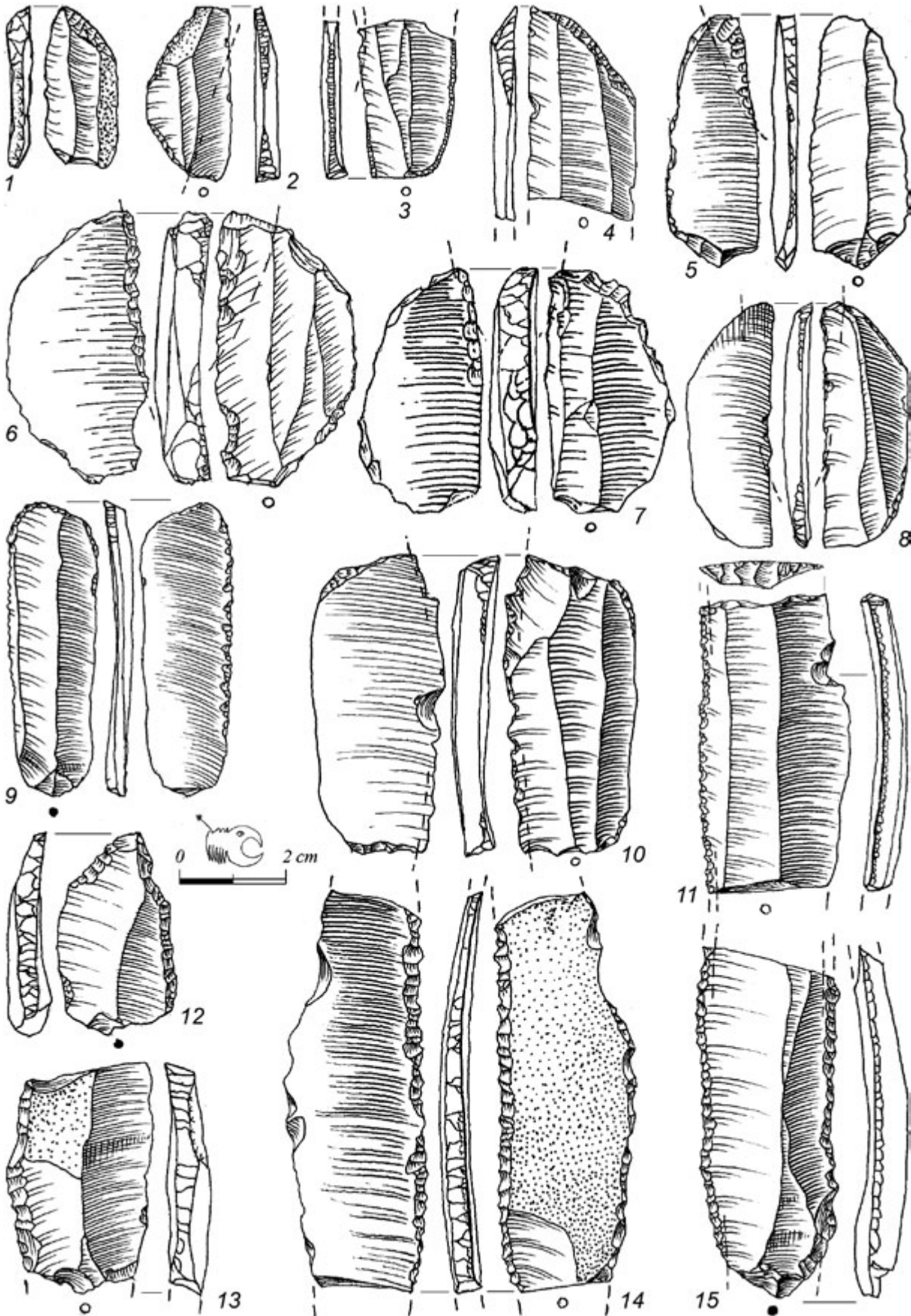


Fig. 7. Yosypivka I. Sickle inserts.

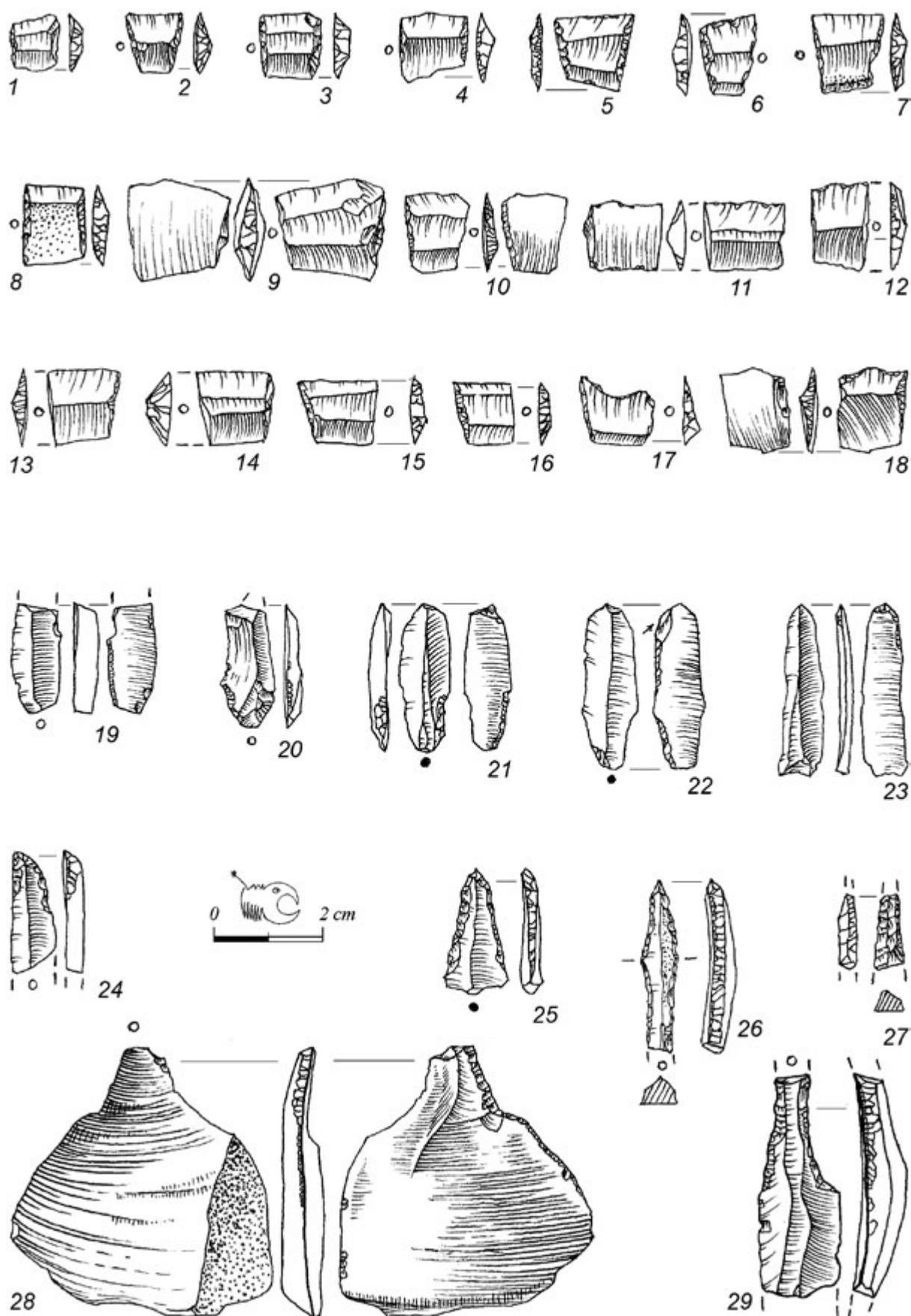


Fig. 8. Yosypivka I. 1-18 – trapezes; 19-23 – projectiles; 24-29 – perforators.

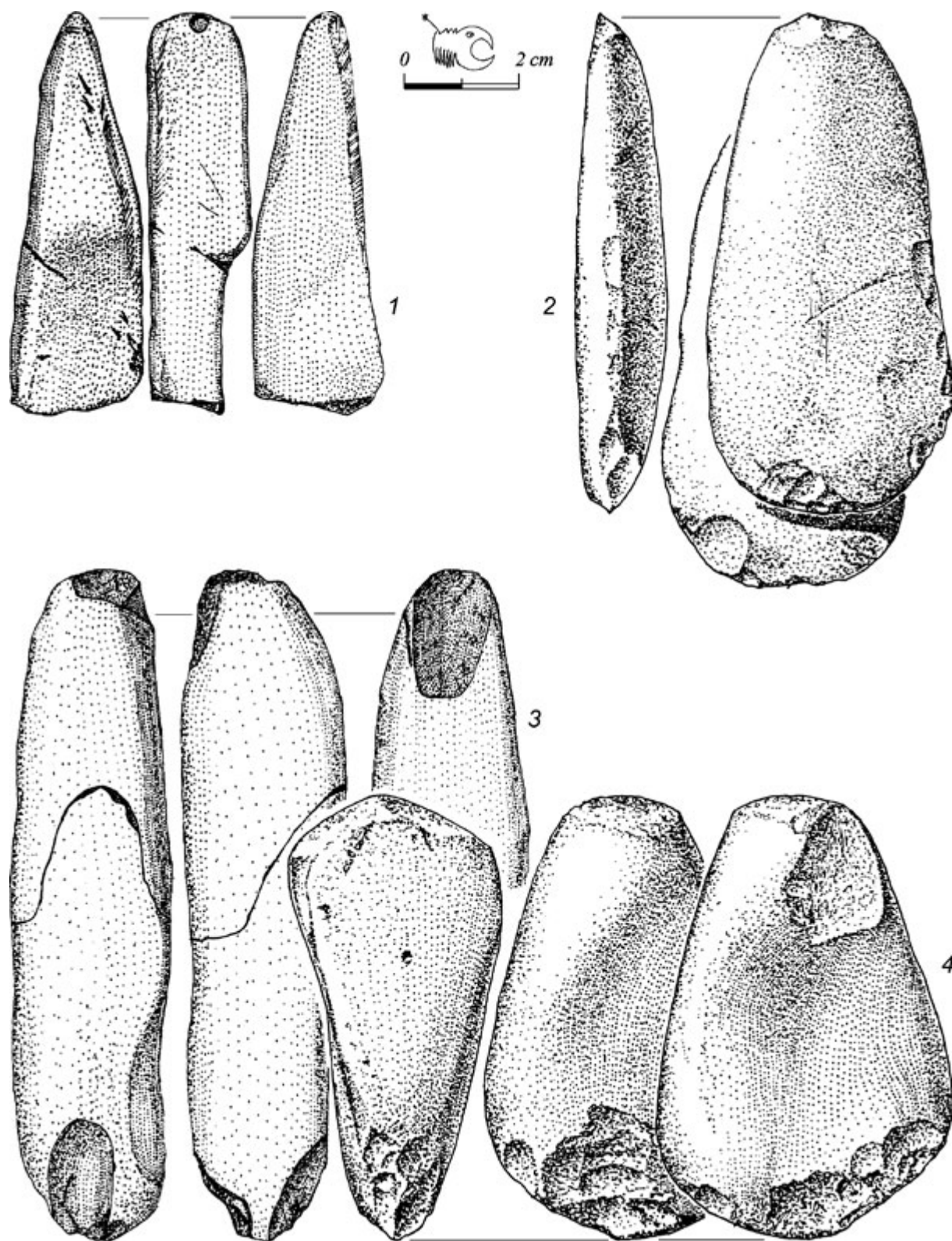


Fig. 9. Bernashivka I. Stone hammers.

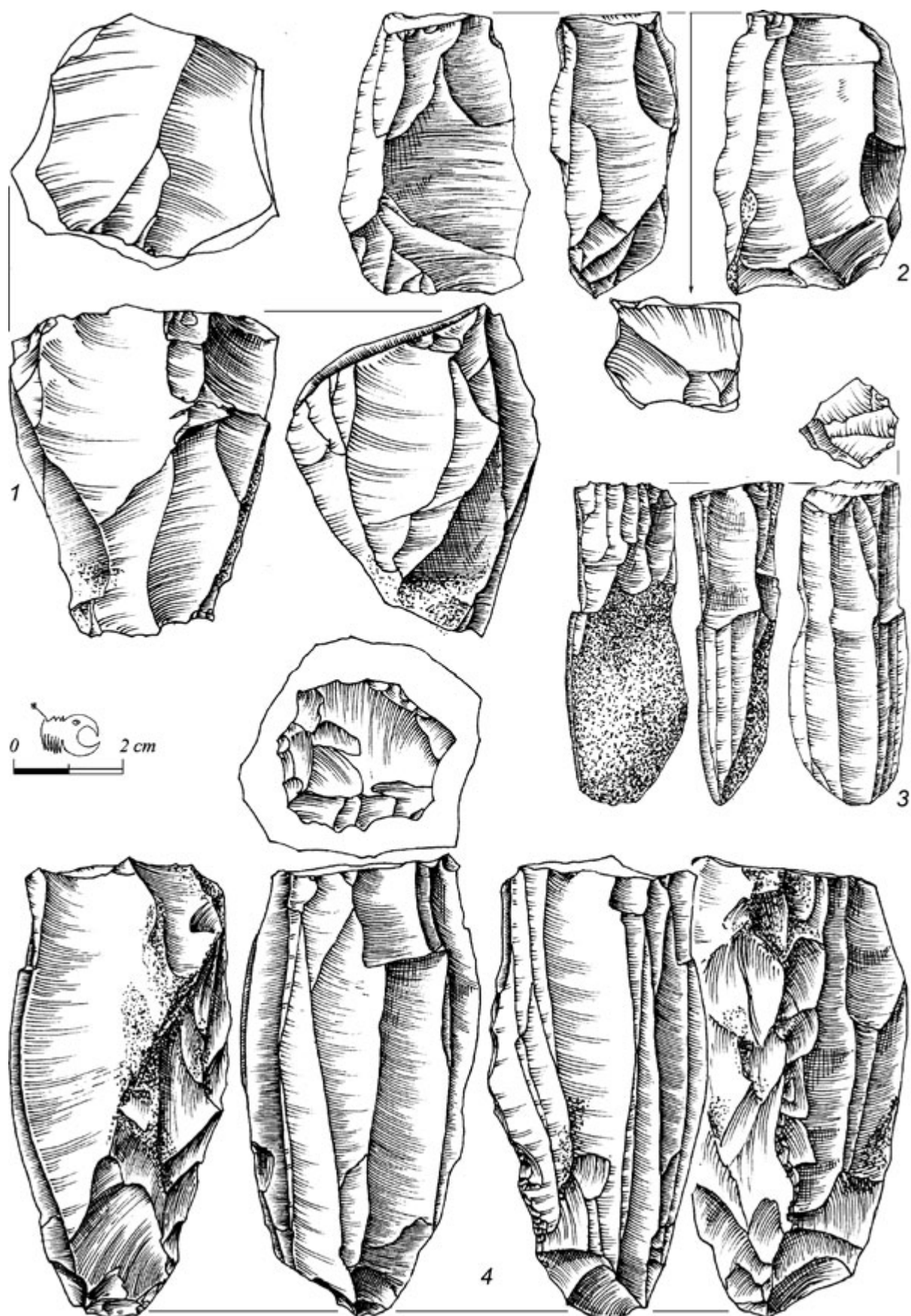


Fig. 10. Bernashivka I. Prismatic cores.

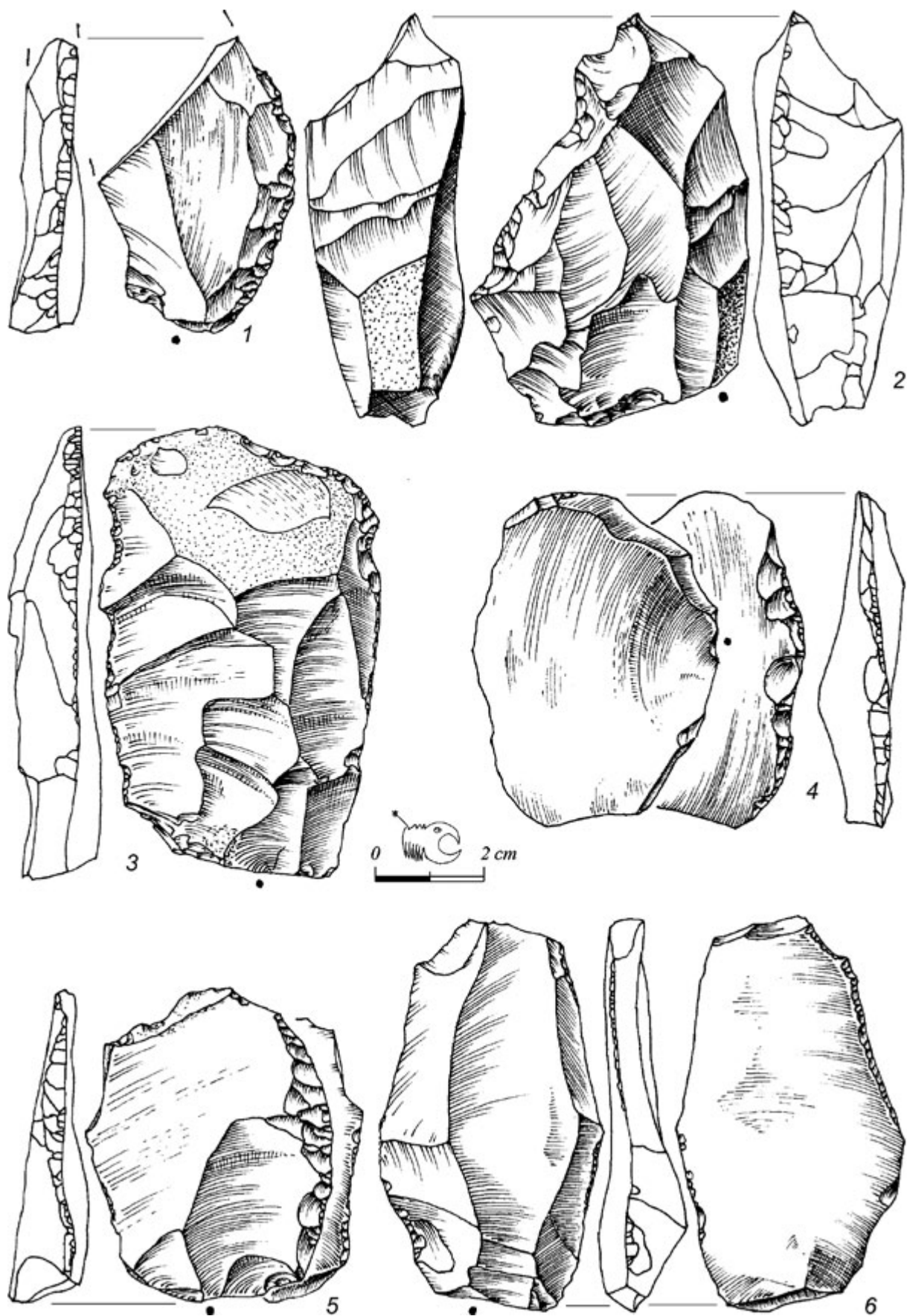


Fig. 11. Bernashivka I. Retouched flakes.

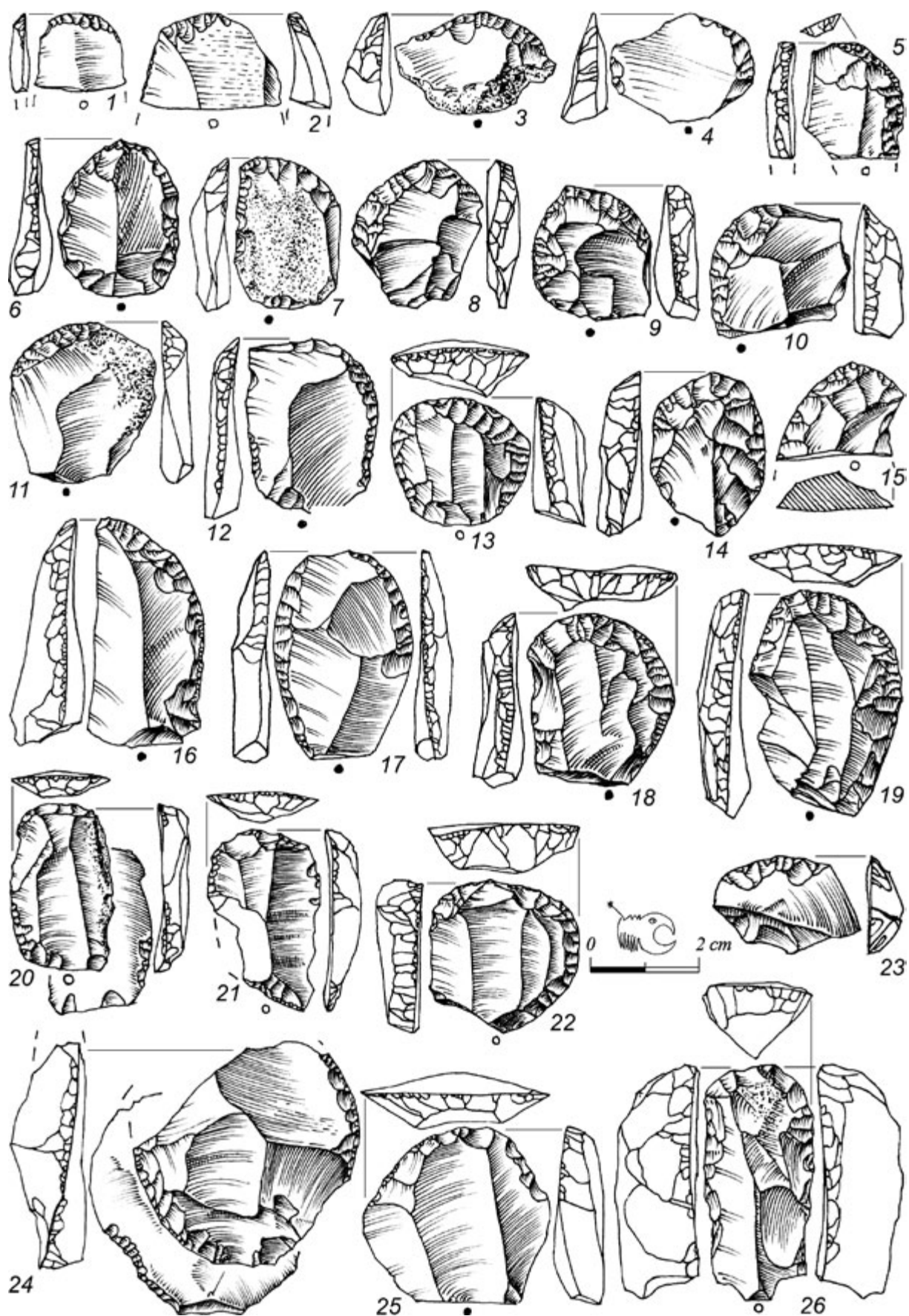


Fig. 12. Bernashivka I. Scrapers.

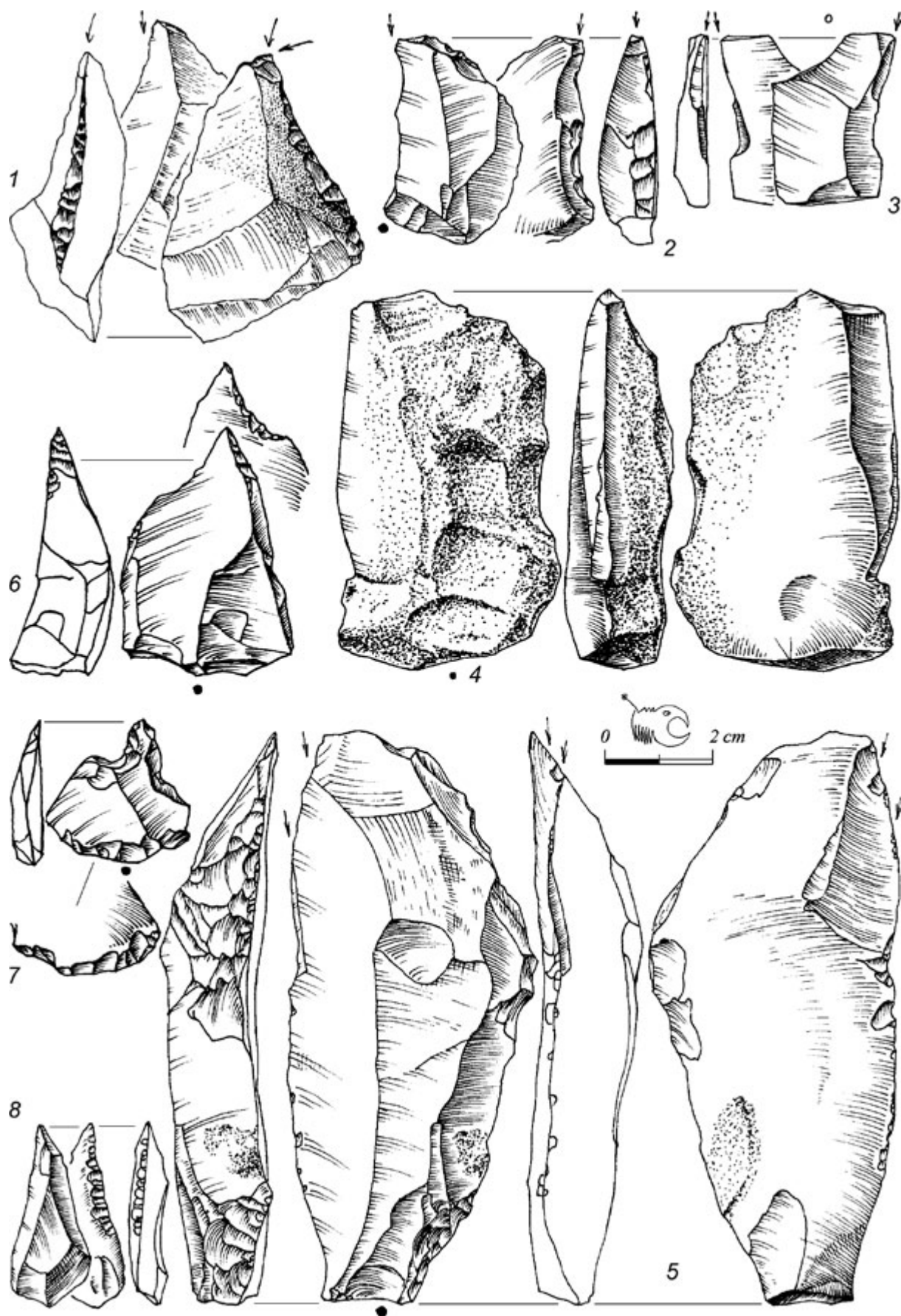


Fig. 13. Bernashivka I. 1-5 – tools with burin spall; 6-8 – perforators on flakes.

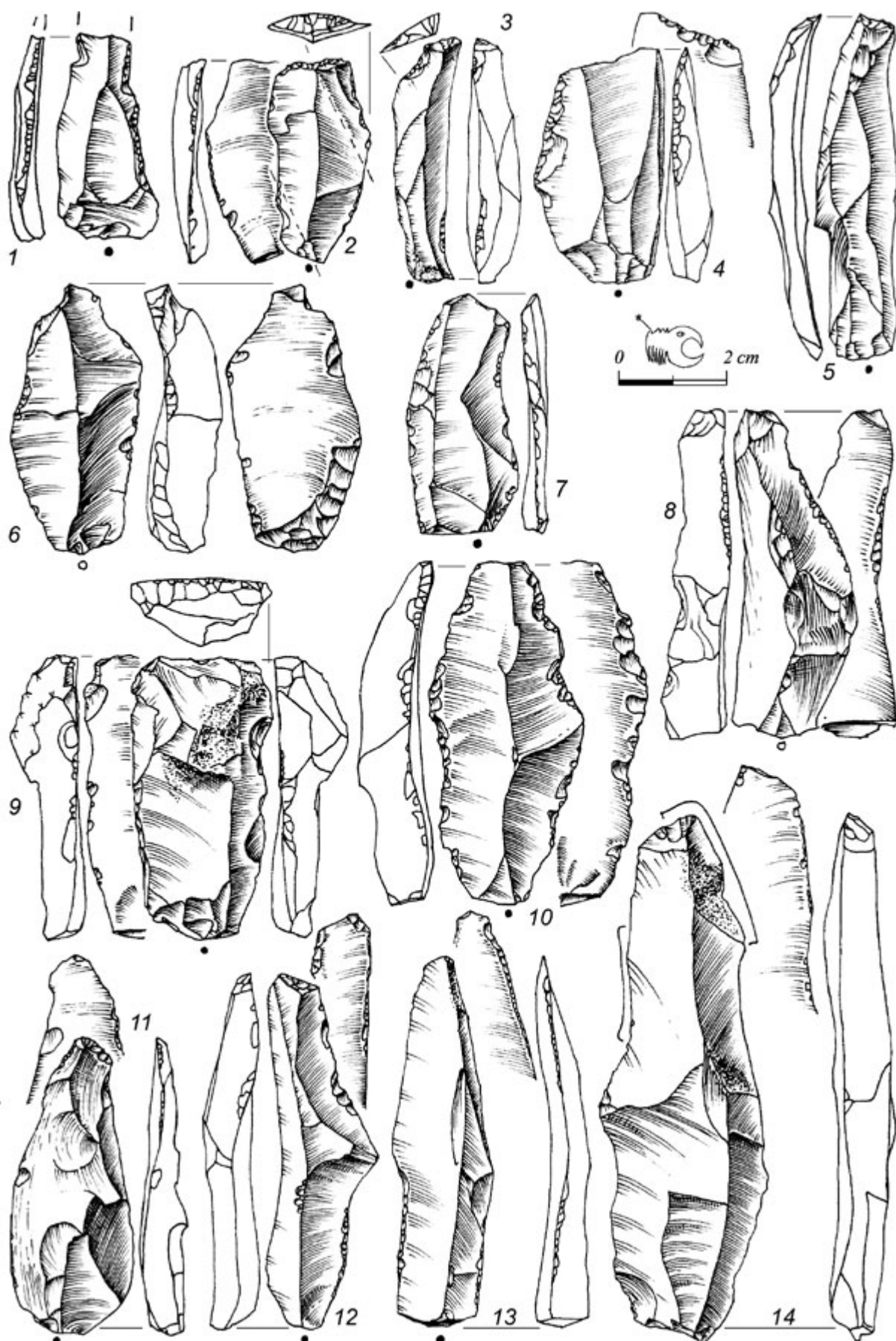


Fig. 14. Bernashivka I. Retouched and truncated unregular blades.

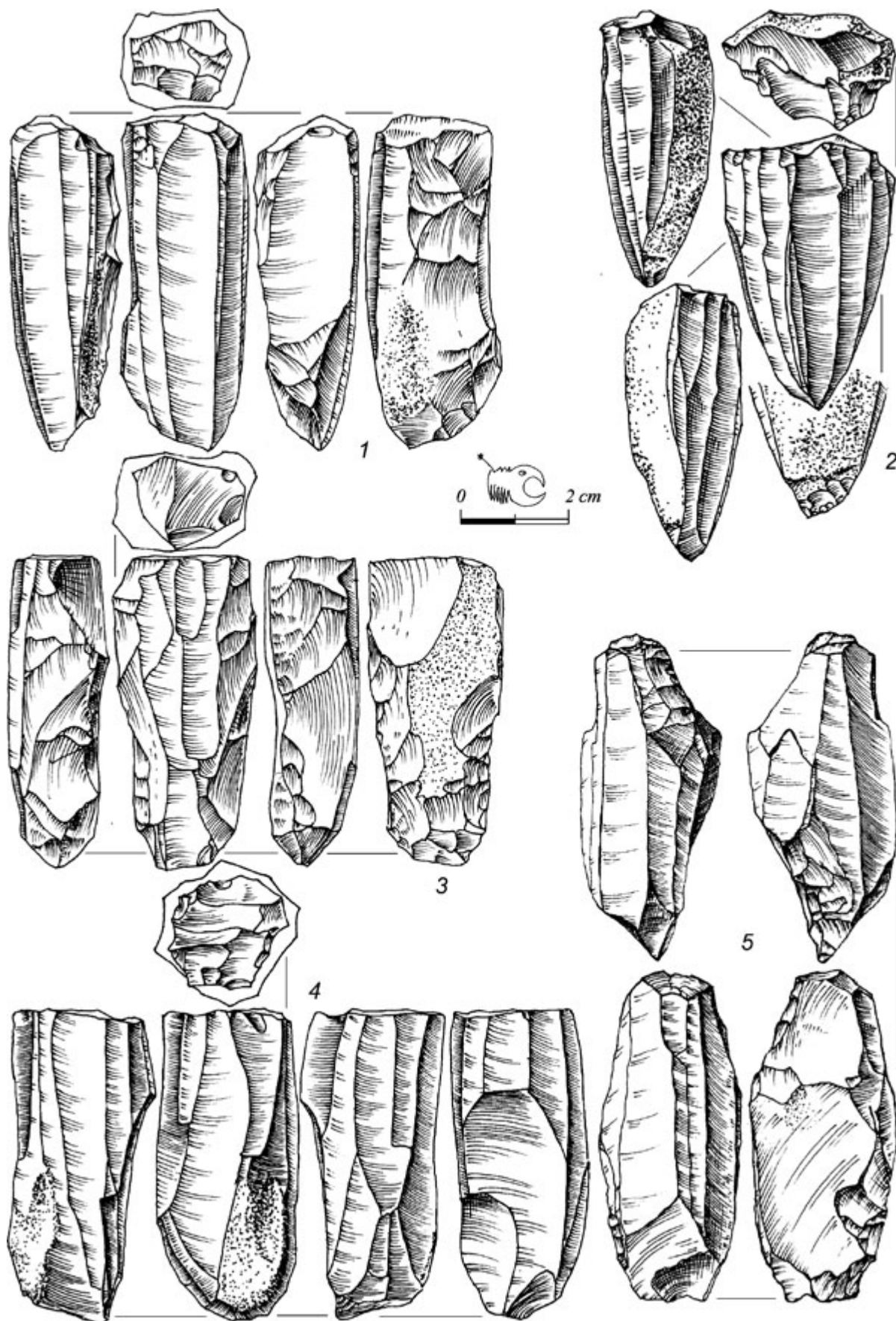


Fig. 15. Bernashivka I. Regular cores.

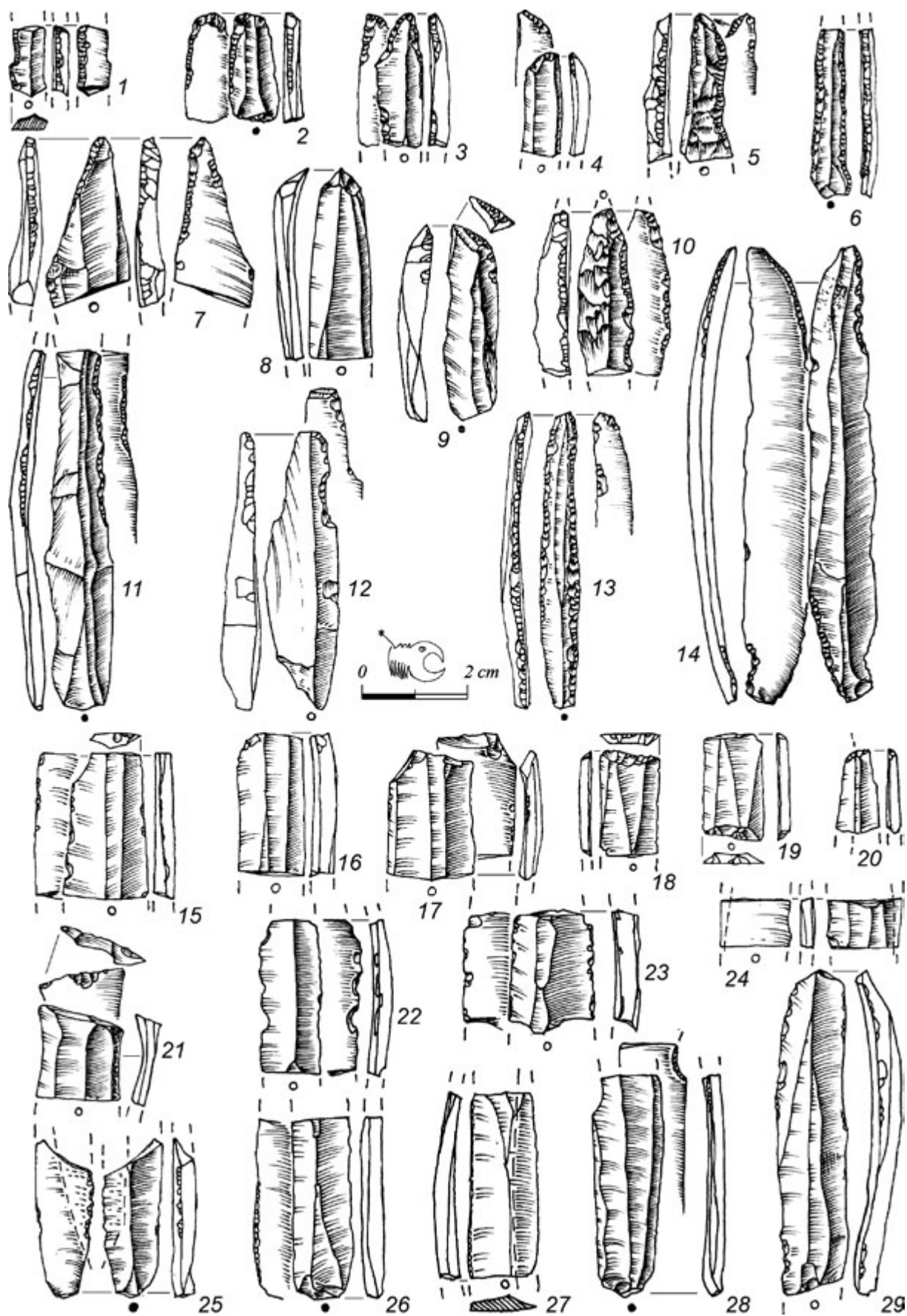


Fig. 16. Bernashivka I. 1-14 – perforators on blades; 15-29 – sickle inserts.

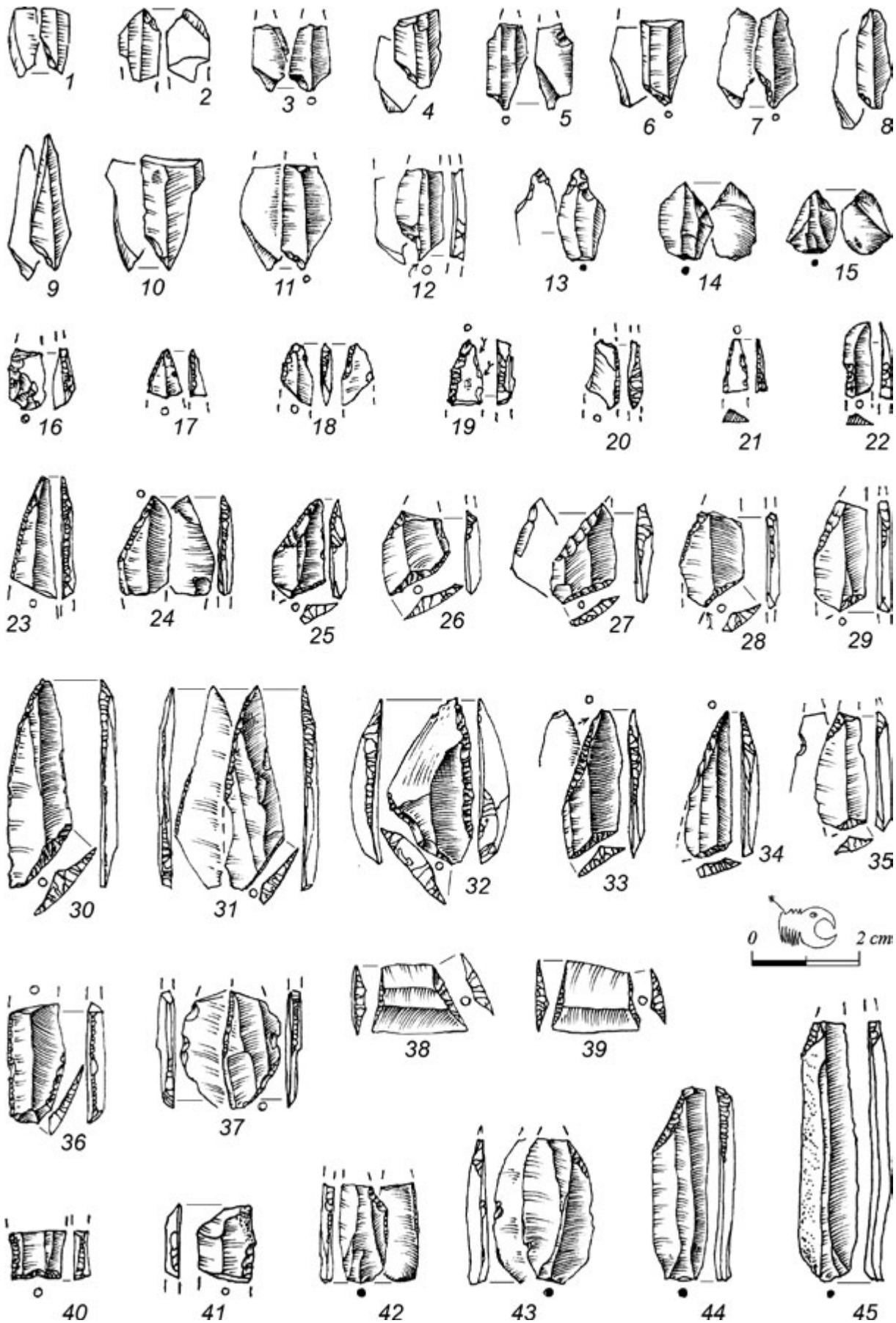


Fig. 17. Bernashivka I. Microlithic inventory.

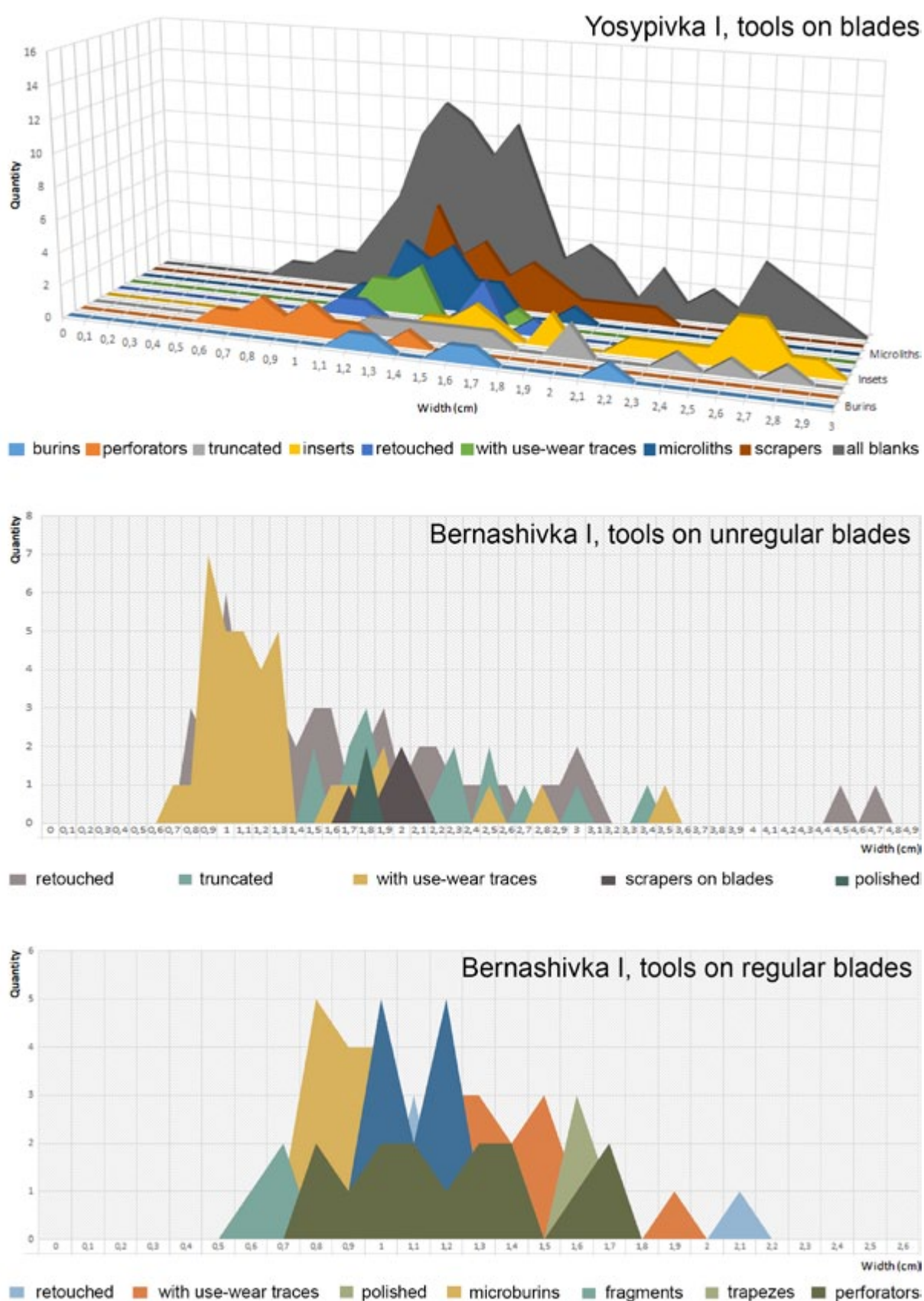


Fig. 18. Graphs of blade selection for manufacture of tools by Yosypivka I and Bernashivka I inhabitants.

Y. Morozova, P. Shydlovskyi

STEP AHEAD: NEENAWA 2017 International Scientific Conference report

A significant step in establishing a network for the study of the Eastern European Neolithic and at the same time the final event of the project became the NEENAWA International Scientific Conference **“Wetland Archaeology and Prehistoric Networks in Europe”**, September 15-18, which was held in Kyiv and Kaniv on the basis of Taras Shevchenko National University of Kyiv.

Our University is one of the four partners in the NEENAWA Project's consortium. It plays a significant role in fulfilling its goals and tasks, since the SCOPES programme aims at the development and modernization of institutional aspects of research and teaching institutions in Eastern Europe. All efforts and events of the project are directly linked to teaching activities and pursuing its educational objectives. University teachers and students have thus become the main beneficiaries of the project.

Due to the initiative of the Department of Archaeology and Museum Studies, the Centre for Underwater Archaeology of the Faculty of History and the Centre for Paleoethnological Research, the Scientific Committee of the conference was created in which scientists from Switzerland, Macedonia, Russia and Ukraine were included. Specialists from international university centres and scientific establishments (Switzerland, Germany, Macedonia, Greece, Poland, Russia, Latvia, Belarus, etc.) and representatives of the Institute of Archaeology of NAS of Ukraine, National University of Kyiv-Mohyla Academy, B. Hrinchenko University of Kyiv, the Institute of Zoology of NAS of Ukraine, the National Natural History Museum of NAS of Ukraine, universities of Odesa, Kharkiv, Chernihiv, etc. were invited to take part in the conference. The conference highlighted the results of archaeological investigations of national and foreign scientists, including the results of international cooperation based on archaeological localities within Ukraine and brings together researchers working in Holocene European prehistoric archaeology. The discussed topics chronologically covered the period from the Mesolithic up to the Bronze Age.

The Ukrainian scientific and educational institutions were represented by:

- the Department of Archaeology and Museum Studies, Taras Shevchenko National University of Kyiv
- the Education Laboratory “Centre for Underwater Archaeology, Archaeological and Ethnological Research”, Taras Shevchenko National University of Kyiv
- the Archaeological Museum, Taras Shevchenko National University of Kyiv
- Th. Vovk Center for Paleoethnological Research
- the the Institute of Archaeology, National Academy of Sciences of Ukraine
- the Archaeological Museum IA, National Academy of Sciences of Ukraine
- the National Natural History Museum, National Academy of Sciences of Ukraine
- National University of Kyiv-Mohyla Academy
- B. Hrinchenko National University of Kyiv
- I.I. Mechnikov National University of Odessa
- T.G. Shevchenko National University of Chernihiv
- Kyiv Regional Archaeological Museum
- Kyiv Regional Center for Defense of Cultural Heritage Monuments

September 15, 2017

The opening of the conference and the plenary meeting took place on September 15, 2017 in the Main Building of Taras Shevchenko National University of Kyiv, on which the vice-rectors of the University professors Petro Bekh and Viktor Martyniuk, as well as the representative of the Swiss Embassy in Ukraine and Moldova, Holger Tausch gave their greetings for the participants. Dean of the Faculty of History prof. Ivan Patrylak, associate professor Pavlo Shydlovskyi and a head of the Education Laboratory Yana Morozova indicated the importance for the University and Ukrainian science of holding such events and the need for international cooperation in the field of archaeological research. The sincere wishes of the fruitful work of

the conference were expressed by the NEENAWA project participants.

The scientific part was presented by presentations describing the current state of the study of neolithization processes in Europe and the achievements of prehistoric archaeology in recent years. Among the speakers – prof. Albert Hafner (Switzerland), prof. Marzena Szymt (Poland), Robert Hofmann, Liudmyla Shatilo (Germany), prof. Leonid Zaluzniak, Mykhailo Videiko and Nataliia Burdo (Ukraine).

Within the framework of the first day of the conference, the opening of the exhibition «The first farmers and pastoralists on the territory of Ukraine» was held at the Archaeological Museum of Taras Shevchenko National University of Kyiv, as well as presentations of the editions:

HUMAN & LANDSCAPE: Prehistoric Archaeology of Eastern Europe. – VITA ANTIQUA, 9. Collection of scientific works. – Kyiv: 2017. – 282 p. – Ill. <http://vitaantiqua.org.ua/en/category/current-issue/>

Wetland Archaeology and Prehistoric Networks in Europe / NEENAWA International Scientific Conference, September 15th-18th, 2017 / eds. Y. Morozova, P. Shydlovskyi. – Kyiv-Kaniv, 2017. – 78 p. – Ill. <http://vitaantiqua.org.ua/en/category/library/>

After the presentations for the participants of the conference, an excursion to The Museum of Historical Treasures of Ukraine, The National Kyiv-Pechersk Historical and Cultural Preserve were organized where the guests were able to get acquainted with the masterpieces of Old Rus architecture, as well as unique archaeological exhibits of Ancient Times and Early Middle Ages.

September 16, 2017

The next day, September 16, a trip to the Kaniv Nature Reserve took place, where the main part of the event was planned. During the trip, the participants attended the Kyiv Regional Archeological Museum in Trypillia village. It is in this area, in the end XIXth century some of the first excavations of Trypillian settlements were carried out by the archaeologist Vikentii Khvoika, after which this site became eponymous for the whole cultural complex. The participants of the conference were acquainted with the life of the famous scientist; they were able to see the collections of artifacts which reflect the prehistoric archeology of the Middle Dnieper region.

Upon arrival at the Kaniv Nature Reserve, reports and presentations dedicated to the study of specific settlements of the Neolithic – the Bronze Age of Southern and Eastern Europe were listened and discussed. Andrey Mazurkevich and Ekaterina

Dolbunova (Russia) presented an open lecture devoted to the study of lacustrine sites in North-Western Russia in the 7th-3rd Mill. BC. Among other speakers were prof. Sławomir Kadrow (Poland), Maxim Charniauski (Belarus), Valentina Todoroska, Zlata Blazeska, (Macedonia), Christoforos Arampatzis (Greece). Presentation of the project: “Airborne Survey: Ancient Landscapes of the Central Ukraine – Kyiv and Cherkasy Regions” and photo exhibition also took place.

September 17, 2017

September 17, 2017 (Kaniv Nature Reserve) – the reports on problems of the analysis of ceramic assemblages of Neolithic cultures in Europe were read by Caroline Heitz (Switzerland) and Dmytro Gaskevich (Ukraine). A workshop “**Lacustrine Dendrochronology in the Context of Pile Dwelling Archaeology at Lake Biel, Switzerland. Focus Measuring, Chronology – building, Dating**”. was held under the supervision by Matthias Bolliger and John Francuz (Switzerland).

After the scientific part on this day, the conference participants made a trip to the National Historical and Ethnographic Preserve “Pereyaslav” which situated near the town of Pereyaslav-Khmelnytskyi and attended an excursion in the Open-air Ethnographic Museum, which was read by the vice-director of the Preserve Oleksandr Kolybenko.

September 18, 2017

The last day of the conference, September 18, 2017 (Kaniv Nature Reserve) was dedicated to issues of prehistoric networks and the question of the interaction of the prehistoric societies in Southeastern Europe. Among the speakers were Prof. Nikos Chausidis, Goce Naumov, (Macedonia), Valerii Manko, Dmytro Kiosak, Anzhelika Kolesnychenko, Sergei Telizhenko, and Oleksandr Diachenko (Ukraine).

Part of the reports was devoted to the questions of transportation and use of natural resources and raw materials by the prehistoric population of Eastern Europe. This materials were presented by Marcis Kalniņš (Latvia), Alina Veiber, Oleh Tuboltsev, Yevhen Pichkur, Pavlo Shydlovskyi, Ivan Radomskyi and Dmytro Zhelaga (Ukraine).

At the end, a workshop «**Underwater Exploration of Wetland and Peat-bog Sites. Perspectives and Problems**» was held by Ekaterina Dolbunova (Russia).

During the conference the poster session on the subject of Wetland Archeology were presented by Gjore Milevski (Macedonia), Irina Khrustaleva, Anna Malyutina (Russia), Yana Morozova, Sergii Zelenko, Marta Andriyovych (Ukraine).

A number of lectures, presentations and posters were presented by the NEENAWA team:

Archaeology in Switzerland: Research from Under Water to High-Altitude Mountains (Prof. Albert Hafner, Bern)

Mobilities, Entanglements, Transformations. Pottery Practices in Neolithic Wetland Sites of the Swiss Plateau (Caroline Heitz, Bern)

Lacustrine Sites in North-Western Russia in the 7th-3rd Mill. BC (Andrey Mazurkevich, Ekaterina Dolbunova, St. Petersburg)

Wooden Post Buildings of the Lake Settlement Serteya XIV (Irina Khrustaleva, St. Petersburg)

Bone and Antler Items From Peat-Bog Settlements (the 6th – 3rd mill. BC) of North-Western Russia (Dnepr – Dvina Basin). Technological and Functional Features (Anna Malyutina, St. Petersburg)

Prehistoric Tool Kit for Surviving (Valentina Todoroska, Struga, Zlata Blazeska, Skopje)

With or Without You: the Formation of Identities in the Neolithic Balkans (Goce Naumov, Skopje)

Spatial Analysis of Marshy Areas: Neolithic Tell-Sites in Pelagonia (Gjore Milevski, Skopje)

Overview of the Osteological Mammal Material from the Surska Culture in the Context of Its Development and Adaptation of Its Communities to the Natural Environment (Alina Veiber, Kyiv)

Lithic assemblages of Early Agricultural Communities in Western Ukraine (Pavlo Shydlovskiy, Ivan Radomskiy, Dmytro Zhelaga, Kyiv)

Patterns of Ornaments on the Ceramic from the Lysa Gora Cemetery (Marta Andriyovych, Kyiv)

Perspectives for Wetland Archaeology, Surveys and Underwater Exploration in the Dnieper River, Ukraine (Yana Morozova, Sergii Zelenko, Kyiv)

Among the decisions of the Scientific Committee are:

– to expand the cooperation of scientific and educational institutions of Europe that were presented at the conference by the conducting internships for young scientists and lecturers from different countries at university centers,

– to create a system for the exchange of information on the archeology of Eastern Europe in order to unify modern methods of fixation, describing and systematizing data on prehistoric objects.

The conference itself was an exceptional opportunity to create a system of information and experience exchange, in research about European prehistoric sites, to introduce up-to-date methodologies of fixation and description of archaeological material and to promote Ukrainian archaeological heritage in the European system of research. An important value is the participation of Macedonian, Russian, Swiss and Ukrainian students in this event that will help to develop their knowledge about current theoretical and practical European scientific research and promote their international mobility during their academic experience. In terms of public benefit, the conference will help to represent the Ukrainian cultural and natural heritage at a European level.

We wish that young scientists, using acquired skills and knowledge, will broaden their circle of professional contacts, put their creative ideas in to practice for developing a liberal society, and become the most valuable resource for positive changes in the contemporary world.

<http://vovkcenter.org.ua/en/main/>



At Rector's office in Kyiv, 2016. From left: Prof. Rostyslav Terpylovskiy – Head of the Department of Archaeology and Museology, Dr. Pavlo Shydlovskiy – associate professor of the Department of Archaeology and Museology, Prof. Ivan Patryliak – Head of Faculty of History, prof. Leonid Huberskyi – Rector of Taras Shevchenko National University of Kyiv, Prof. Albert Hafner – Head of Department of Prehistoric Archaeology of the Institute of Archaeological Sciences, Bern University (Switzerland), Prof. Petro Bekh – Vice Rector (International Relations) of Taras Shevchenko National University of Kyiv



September 15th, 2017, Kyiv. Opening the conference at Taras Shevchenko National University of Kyiv. From left: Yana Morozova, Albert Hafner, Petro Bech and Viktor Martyniuk



Opening the conference. Marzena Szmyt (Poznan, Poland) and Pavlo Shydlovskyi



Presentation by Albert Hafner (Bern, Switzerland) "Archaeology in Switzerland: Research from Under Water to High-Altitude Mountains"



Greetings from Andrei Mazurkevich (St. Petersburg, Russia)



Presentation by Robert Hofman and Liudmyla Shatilo (Kiel, Germany) "Trypillia – Strategy and Results of an ongoing Ukrainian-European Project"



Liudmyla Shatilo (Kiel, Germany)



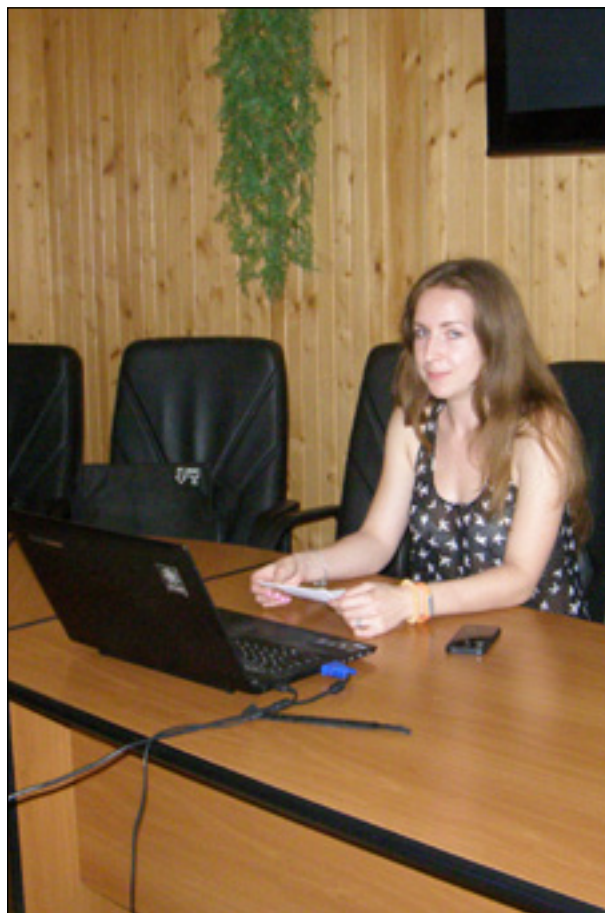
September 15th, 2017. Plenary session in the Red Building of Taras Shevchenko National University of Kyiv



Participants from Macedonia and Switzerland at the Plenary session



Presentation by Mykhailo Videiko (Kyiv, Ukraine) "Life on the Eastern Borders of Old Europe"



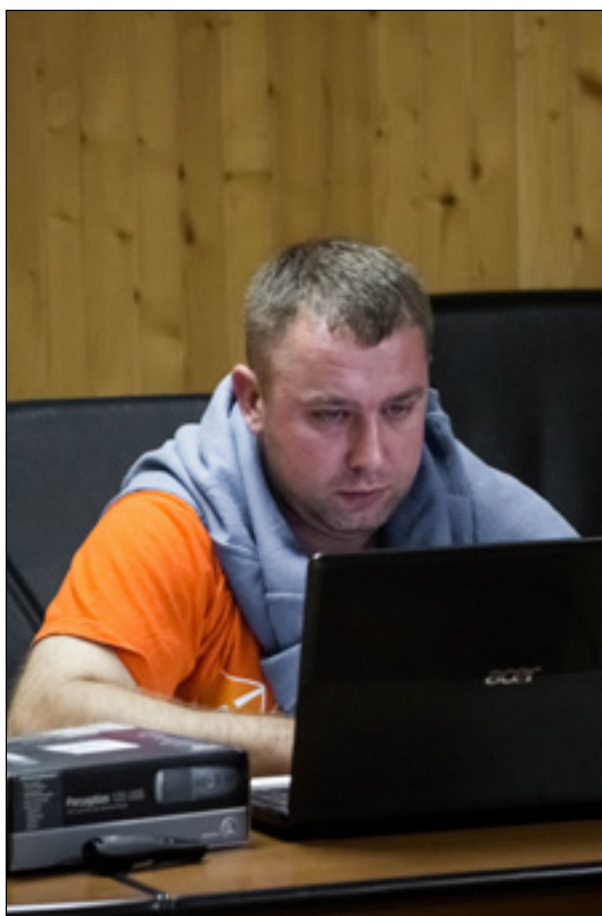
September 16th, 2017, the Kaniv Nature Reserve. Marta Andriiovych as a moderator of session



The conference participants Serhii Telizhenko, Valerii Manko (Kyiv, Ukraine) and Marzena Szmyt (Poznan, Poland)



Presentation by Nikos Chausidis (Skopje, Macedonia) "«River People» of the Northern Black Sea and Macedonia"



Presentation by Yevhen Pichkur (Kyiv, Ukraine) "Mining and Transportation of Flint by Cucuteni-Trypillian Tribes"



Presentation by Ekaterina Dolbunova (St. Petersburg, Russia) "Lacustrine Sites in North-Western Russia in the 7th-3rd Mill. BC"



Presentation by Goce Naumov (Skopje, Macedonia) "With or Without You: The Formation of Identities in the Neolithic Balkans"



Workshop "Lacustrine Dendrochronology in the Context of Pile Dwelling Archaeology" led by Matthias Bolliger and John Francuz (Bern, Switzerland)



Mariia Tymoshenko and Alina Veiber studying a dendrochronological method at workshop



Marzena Szmyt



Excursion around the National Historical and Ethnographic Preserve "Pereyaslav" guided by Oleksandr Kolybenko



Participants of the conference during excursion in Preserve "Pereyaslav"



On the Dnieper River bank

Я. Морозова, П. Шидловський

КРОК ВПЕРЕД: Міжнародна наукова конференція NEENAWA 2017, звіт

Значним кроком у створенні мережі для вивчення східноєвропейського неоліту і в той же час завершальною подією проекту NEENAWA (Network in Eastern European Neolithic and Wetland Archaeology for the improvement of field techniques and dating methods) стала міжнародна наукова конференція **"Археологія річок і озер та первісні спільноти Європи"**, яка відбулася 15-18 вересня 2017 р. у Києві та Каневі на базі Київського національного університету імені Тараса Шевченка. Наш університет виступив одним з чотирьох партнерів консорціуму проекту. Він відіграв важливу роль у виконанні своїх цілей та завдань проекту, оскільки програма SCOPES спрямована на розвиток та модернізацію інституційних аспектів дослідницьких та навчальних установ Східної Європи. Всі зусилля та заходи проекту безпосередньо пов'язані з навчальною діяльністю, а викладачі та студенти університету стали головними бенефіціарами проекту.

За ініціативи Кафедри археології та музеєзнавства, Центру підводної археології історичного факультету та Центру палеоетнологічних досліджень, було сформовано науковий комітет конференції, куди увійшли дослідники з Швейцарії, Македонії, Росії та України. Спеціалісти з міжнародних і вітчизняних університетських центрів та наукових установ були запрошені до участі. На конференції висвітлювались результати археологічних досліджень вітчизняних та зарубіжних вчених, значна частина яких отримана в результаті міжнародного співробітництва під час вивчення пам'яток з території України. Тематика конференції хронологічно охоплювала періоди від мезоліту – до доби бронзи та об'єднала дослідників голоцену первісної археології Європи.

Українські наукові та освітні установи були представлені співробітниками та членами:

— Кафедри археології та музеєзнавства Київського національного університету імені Тараса Шевченка

— Навчальної лабораторії «Центр підводної археології, археологічних та етнологічних досліджень» Київського національного університету імені Тараса Шевченка

— Археологічного музею Київського національного університету імені Тараса Шевченка

— Центру палеоетнологічних досліджень ім. Хв. Вовка

— Інституту археології НАН України

— Археологічного музею ІА НАН України

— Національного науково-природничого музею НАН України

— Національного університету «Києво-Могилянська академія»

— Київського національного університету імені Б. Грінченка

— Одеського національного університету імені І.І. Мечникова

— Національного університету «Чернігівський колегіум» імені Т.Г. Шевченка

— Київського обласного археологічного музею

— Київського обласного центру охорони і наукових досліджень пам'яток культурної спадщини.

15 вересня 2017 року

Відкриття конференції та пленарне засідання відбулося 15 вересня 2017 року у Головній будівлі Київського національного університету імені Тараса Шевченка, на якому проректори університету професори Петро Бех та Віктор Мартинюк, а також представник Посольства Швейцарії в Україні та Молдові Хольгер Тауш привітали учасників. Декан історичного факультету проф. Іван Патриляк, доцент Павло Шидловський та керівник Навчальної лабораторії Яна Морозова вказали на важливість для університету та української науки проведення таких заходів та необхідність міжнародного співробітництва у сфері археологічних досліджень. Учасники проекту NEENAWA висловили щирі побажання плідної роботи конференції.

Наукова частина була представлена презентаціями, що стосуються сучасного стану ви-

вчення процесів неолітизації в Європі та досягнень первісної археології останніх років. Серед доповідачів – проф. Альберт Хафнер (Швейцарія), проф. Мажена Шміт (Польща), Роберт Хофманн, Людмила Шатіло (Німеччина), проф. Леонід Залізник, Михайло Відейко та Наталія Бурдо (Україна).

У рамках першого дня конференції в Археологічному музеї Київського національного університету імені Тараса Шевченка відбулося відкриття виставки "Перші землероби та скотарі на території України", а також презентації видань:

ЛЮДИНА ТА ЛАНДШАФТ: Первісна археологія Східної Європи. – VITA ANTIQUA, 9. Збірка наукових статей. – Київ: 2017. – 282 с. – Іл.

<http://vitaantiqua.org.ua/en/category/current-issue/>

Археологія річок та озер і первісні спільноти Європи / Міжнародна наукова конференція НЕЕНАВА, 15-18 вересня 2017 року / ред. Я. Морозова, П. Шидловський. – Київ-Канів, 2017. – 78 с. – Іл.

<http://vitaantiqua.org.ua/en/category/library/>

Після презентацій для учасників конференції була організована екскурсія до Музею історичних коштовностей України, Національного Києво-Печерського історико-культурного заповідника, де гості змогли ознайомитися як з шедеврами давньоруської архітектури, так і унікальними археологічними експонатами стародавніх часів і раннього середньовіччя.

16 вересня 2017

Наступного дня, 16 вересня, відбулася поїздка до Канівського природного заповідника, де була запланована основна частина заходу. Під час поїздки учасники відвідали Київський обласний археологічний музей у с. Трипілля. Саме в цій місцевості наприкінці XIX ст. археолог Вікентій Хвойка проводив одні з перших розкопок трипільських поселень, після чого поселення в Трипіллі стало епонімним для всього культурного комплексу. Учасники конференції ознайомилися з життям відомого вченого, а також мали змогу ознайомитися з колекціями артефактів, які відображають первісну археологію Середнього Подніпров'я.

Після прибуття до Канівського заповідника були заслухані та обговорені доповіді та презентації, присвячені вивченню конкретних поселень неоліту – бронзової доби Південної та Східної Європи. Катерина Долбунова у співавторстві з Андрієм Мазуркевичем (Росія) презентувала відкриту лекцію, присвячену вивченню озерних стоянок Північно-Західної Росії 7 – 3 тис. до н.е. Серед інших доповідачів – проф. Славомир Кадоров (Польща), Максим Чарняускі (Білорусь), Валентина Тодороська, Злата Блазеска (Македонія), Крістофорос Арампатіс (Греція). Також

відбулося відкриття фотовиставки, присвяченої первісним культурам Європи.

17 вересня 2017

17 вересня 2017 року (Канівський природний заповідник) – було заслухано доповіді з питань аналізу керамічних колекцій неолітичних культур в Європі – Каролін Хейтс (Швейцарія) та Дмитра Гаскевича (Україна). Під керівництвом Маттіаса Боллігера та Джона Франкуза (Швейцарія) було проведено семінар «Озерна дендро-хронологія в контексті дослідження пальових будинків на озері Біль, Швейцарія. Фокус: обміри, хронологія будівництва, датування».

Після наукової частини, учасники конференції здійснили поїздку до Національного історико-етнографічного заповідника "Переяслав", який розташований неподалік міста Переяслав-Хмельницький і відвідали екскурсію до Етнографічного музею під відкритим небом, яку провів заступник директора заповідника Олександр Колибенко.

18 вересня 2017

Останній день конференції, 18 вересня 2017 року (Канівський природний заповідник), був присвячений питанням дослідження первісних мереж і взаємодії первісних суспільств Південно-Східної Європи. Серед доповідачів – проф. Нікос Чаусідіс, Гоце Наумов (Македонія), Валерій Манько, Дмитро Кіосак, Анжеліка Колесниченко, Сергій Теліженко та Олександр Дяченко (Україна).

Частина доповідей була присвячена питанням транспортування та використання природних ресурсів і сировини первісним населенням Східної Європи. Ці матеріали були представлені Марцісом Кальніншем (Латвія), Аліною Вейбер, Олегом Тубольцевим, Євгеном Пічкуром, Павлом Шидловським, Іваном Радомським та Дмитром Желагою (Україна).

На завершення відбувся воркшоп «Підводні дослідження заплавних та болотних стоянок. Перспективи та проблеми» під керівництвом Катерини Долбунової (Росія).

Під час конференції стендові доповіді з археології річок та озер представили Жьоре Мілевські (Македонія), Ірина Хрустальова, Анна Малютіна (Росія), Яна Морозова, Сергій Зеленко, Марта Андрійович (Україна).

Команда NEENAWA представила ряд лекцій, презентацій та стендів:

Археологія в Швейцарії: від досліджень під водою до високогір'їв (проф. Альберт Хафнер, Берн);

Мобільність та трансформація. Практика гончарства на неолітичних заплавних стоянках Швейцарського плато (Каролін Хейтс, Берн);

Озерні стоянки Північно-Західної Росії у 7-му – 3-му тисячоліттях до н.е. (Андрій Мазуркевич, Катерина Долбунова, Санкт-Петербург);

Дерев'яні залишки будівель озерного поселення Сертея XIV (Ірина Хрустальова, Санкт-Петербург);

Вироби з кістки та рогу з торф'яникових стоянок (6 – 3 ст. до н.е.) Північно-Західної Росії (Дніпро-Двінський басейн). Технологічні та функціональні риси (Анна Малютіна, Санкт-Петербург);

Доісторичний набір інструментів для виживання (Валентина Тодороська, Струга, Злата Блазеска, Скоп'є);

З вами або без вас: формування ідентичностей в балканському неоліті (Гоце Наумов, Скоп'є);

Просторовий аналіз болотяних територій: Неолітичні теллі в Пелагонії (Жьоре Мілевські, Скоп'є);

Огляд остеологічного матеріалу ссавців з археологічних пам'яток сурської культури в контексті адаптації її носіїв до навколишнього середовища (Аліна Вейбер, Київ);

Кам'яні комплекси ранньоземлеробських спільнот Західної України (Павло Шидловський, Іван Радомський, Дмитро Желага, Київ);

Орнаментальні сюжети на кераміці з неолітичного могильника Лиса Гора (Марта Андрійович, Київ);

Перспективи заплавної археології, обстеження та підводного дослідження Дніпра, Україна (Яна Морозова, Сергій Зеленко, Київ).

Серед рішень Наукового комітету:

– розширити співпрацю наукових і освітніх установ Європи, які були представлені на конференції проведенням стажувань для молодих вчених і викладачів з різних країн в університетських центрах;

– створити систему обміну інформацією про археологію Східної Європи з метою уніфікації сучасних методів фіксації, опису та систематизації даних про доісторичні об'єкти.

Сама конференція стала унікальною можливістю створення системи обміну інформацією та досвідом в галузі вивчення первісних пам'яток Європи, з метою презентації сучасних методик фіксації та опису археологічного матеріалу та включення вітчизняної археологічної спадщини до європейської системи досліджень. Важливе значення мала участь українських та закордонних студентів у цій події, що допоможе їм поглибити свої знання про сучасні теоретичні та практичні європейські наукові досягнення та сприятиме міжнародній мобільності.

Ми хочемо, щоб молоді вчені, використовуючи набуті навички та знання, розширили коло своїх професійних контактів, ввели свої творчі ідеї в практику розвитку ліберального суспільства і стали найціннішим ресурсом для позитивних змін у сучасному світі.

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