

# THE LATEST EPIGRAVETTIAN ASSEMBLAGES OF THE MIDDLE DNEIPEL BASIN (NORTHERN UKRAINE)

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## Abstract

Today four different expressive versions of local Epigravettian industries represented by groups of sites can be defined in the Middle Dnieper basin: Mezinian, Ovruchian, Mezhirichian and Yudinovian industries. In addition, two other quite specific ones are represented by single collections: Eliseevichi 1 and Zhuravka.

**Key words:** Late Palaeolithic, Epigravettian, Eastern Europe, Middle Dnieper, lithic processing, backed microliths.

## Specifics of Epigravettian assemblages of Eastern Europe and northern Ukraine

After the last glacial peak after 19–18 kyr. in the Periglacial zone of Eastern Europe covered by quite a lot of dry steppe and steppe-forest landscapes, a number of Epigravettian industries spread. Some were located in different regions or the basins of rivers, while others were spread over very vast areas. On the other hand, some, perhaps, even coexisted in the same areas at practically the same time (according to radiocarbon dating, within limits of a thousand years). Contrary to preceding local Eastern Gravettian industries (such as Molodovian, Khotil'ovian, Gagarinian or Kostenki-Avdeevian), where lithic tool assemblages demonstrated much more typological diversity, these industries were quite similar and simple. However, there are culturally different industries which are grouped together in the so-called Eastern Epigravettian technocomplex.

For the northern part of Eastern Europe and the Periglacial steppe-forest zone, including the Middle Dnieper basin, the Epigravettian sites of mammoth hunters are characterised by quite a complicated settlement organisation, occasionally including mammoth bone dwellings, pits, internal and external hearths, workshop places, garbage-dump areas and other habitation structures. On the other hand, some of these sites had no dwelling or other substantial mammoth-bone constructions (Fig. 1). For both categories of site, the following common specific of lithic and organic material industries can be defined. As a rule, 80% to 90% of lithic tools were produced from middle-size blades; burins are the main category, and among the latter, specimens of various truncation are most numerous. The other morphologically defined types are represented by simple short-end and double-end scrapers on blades or blade-like flakes,

sometimes truncated blades, various awl-drills, scaled pieces, etc. In fact, with some exceptions, only microlithic collections and some other categories of projectile points demonstrate the expressive specifics of different local versions of East European Epigravettian. On the other hand again, contrary to preceding East Gravettian collections, even the projectile components of the lithic artifacts in local Epigravettian industries are more typologically poor and simple. For example, classic Gravettian points with ventral processing, “flechettes”, “vachon points”, denticulated rectangles and backed bladelets, as well as “Rgani knives” and various shouldered points, are absent in the last industries. As a rule, the microlithic assemblages of Eastern Epigravettian are represented by various lanceolate or microgravettian points with different processing of the base part (eg with oblique or transversal truncation, with dorsal or ventral retouch, etc) which were used as pierced tips of arrows and darts. Sometimes typical narrow rectangles (with two truncated sides), and atypical ones (with single truncation), existed and were used as lateral composite edges of a projectile spear and dart points from organic materials. The main methods of truncation are important signs of the difference of each version of Epigravettian from another, too.

However, the bone-antler-ivory assemblages of Epigravettian sites of the Middle Dnieper basin are quite typologically developed and various. The projectile points are represented by cylindrical and spindle-shaped points for arrows, darts and spears of different sizes and forms (five to 20cm long) occasionally with one, two or four slots for fixation of microliths. Heavy very long ivory points, nearly 100 centimetres long, and even monolithic spears and darts 1.2 to 1.5 metres long and two to three centimetres in diameter cut from tusk (so-called Sungir' type) were found on some sites too. The existence of the last kind of projectile

weapons confirmed both finds of fragments and tusks with the slots removed from three-centimetre-wide pivots and more than 1.5 metres long. Sometimes the projectile points are covered by geometric decoration. Hammer-axes and “baton perces” made from reindeer antler or ivory, bone or ivory wedges, lissoirs, hoes from mammoth ribs, needles and awls are well represented in these sites too. At the same time, no harpoons or spear-throwers were found in these numerous and abundant collections.

Stylized female and human figures sometimes covered by geometric decoration, pendants made from amber, ivory and animal teeth, bracelets, brooches and diadems made from ivory blades, occasionally ornamented, as well as other various geometrically ornamented pieces of ivory, are typical of these sites, too. On a number of sites also pendants from fossil and Black Sea basin marine shells were found, as well as river and delta-gulf ones, sometimes in a large quantity.

#### Local versions of Epigravettian industries of the Middle Dnieper basin

For the present-day situation, as a minimum, four different expressive versions of local Epigravettian industries represented by groups of sites can be defined in the Middle Dnieper basin. They are located in modern northern Ukraine and neighbouring regions of European Russia (Fig. 1). In addition, two other specific kinds of industries are presented only as a single collection. The first one is the Zhurivka site, located in the valley of the River Udai, which still has no dates or analogies. The second kind is the famous Eliseevichi 1 settlement, situated in the Desna river basin in Ukraine, which contains quite specific both lithic industry (including backed microliths processed by characteristic abrasive retouch) and art objects (Velichko et al 1997: 122–139). The latter collection has a number of radiocarbon dates, fluctuating within wide limits from 12 to 17 kyr. The collection from Eliseevichi 1 will not be considered in this article.

#### Mezinian

The first is represented by Mezinian industry, which was spread over vast territories from the Volynian Upland in northwest Ukraine to the Middle Don basin in southwest European Russia (Fig. 1). There are two practically identical sites for both lithic or ivory collections and art objects, Barmaki and Mezin, situated in the Volynian Upland and Desna river basin respectively (Nuzhnyi, Pjasetzky 2003: 58–74). Some clear signs

of the influence of Mezinian industry are observed in lithic collections of the Sypponevo site in the Desna river basin and the Borshevo 1 site in the Middle Don basin in European Russia. One trustworthy radiocarbon date made for a mammoth tooth (15100  $\pm$  200 BP OxA-719) for the Mezin site (Svezhentsev 1993: 26) was supported by a new sample made (wolf bone from trench 2, pit 1) 15600  $\pm$  250 BP Ki-11084. However, the new date of the Barmaki site made for the bone of a hoofed animal is much younger 14300  $\pm$  220 BP Ki-11087. In the Mezin site substantial mammoth bone dwelling constructions, pits and hearths were found, contrary to the Barmaki site, where a part of a mud-hut about 8v in diameter was discovered (Shovkoplyas 1965: 32–95; Nuzhnyi, Pyasetzky 2003: 58–74).

Contrary to the larger part of East Epigravettian industries, the blade processing of Mezinian collections was based mainly on the use of prismatic and sub-pyramidal cores with one striking platform. Prismatic cores with two opposed striking platforms are not prevalent. The microlithic collection of Mezinian industry includes microgravettian points processed with a fine abrupt dorsal retouch and with diagonal truncation or with intact blow bulb on the base part (Fig. 2, 1–29; 3, 2–8). The ventral retouch was practically not used for the processing of microliths. As a rule, the diagonal truncations were the remains of notches made on the sharp opposite edge from the blunted surface of backed microliths (Fig. 2, 90) and intended for the breakage of a prismatic blank just in this place. The microliths with straight back are the absolutely dominant type in this industry, with only some lanceolate points (Fig. 2, 89, 91, 92; 3, 1) present in microlithic assemblages. Narrow typical rectangles with two diagonal truncations (Fig. 2, 28–36), and atypical ones with only a single truncation (Fig. 2, 37–40; 3, 9), existed in a limited quantity too. The percentage of microliths in Mezinian industry fluctuated between 6% to 7% of the total quantity of lithic tools.

Burins are the most numerous tools of Mezinian industry (64% to 60%), and of the latter just specimens on various truncations, frequently with multiple working edges (Fig. 4), are the dominant category (as a rule more than half the total number of burins). The dihedral (near three times less truncations) and angle ones are not so numerous (Fig. 5, 13–18). After the burins, various truncated blades (Fig. 3, 34–48) are the second most numerous typologically definable category of tools (15% to 14%). The latter used as cutting tools were periodically re-sharpened (Fig. 3, 34–36). The simple end-scrapers (Fig. 5, 1–5), sometimes made on massive blades and with a truncated base part (Fig. 5, 6), are not so numerous in Mezinian industry (around 7% to 8%). The other morphologically definable cat-

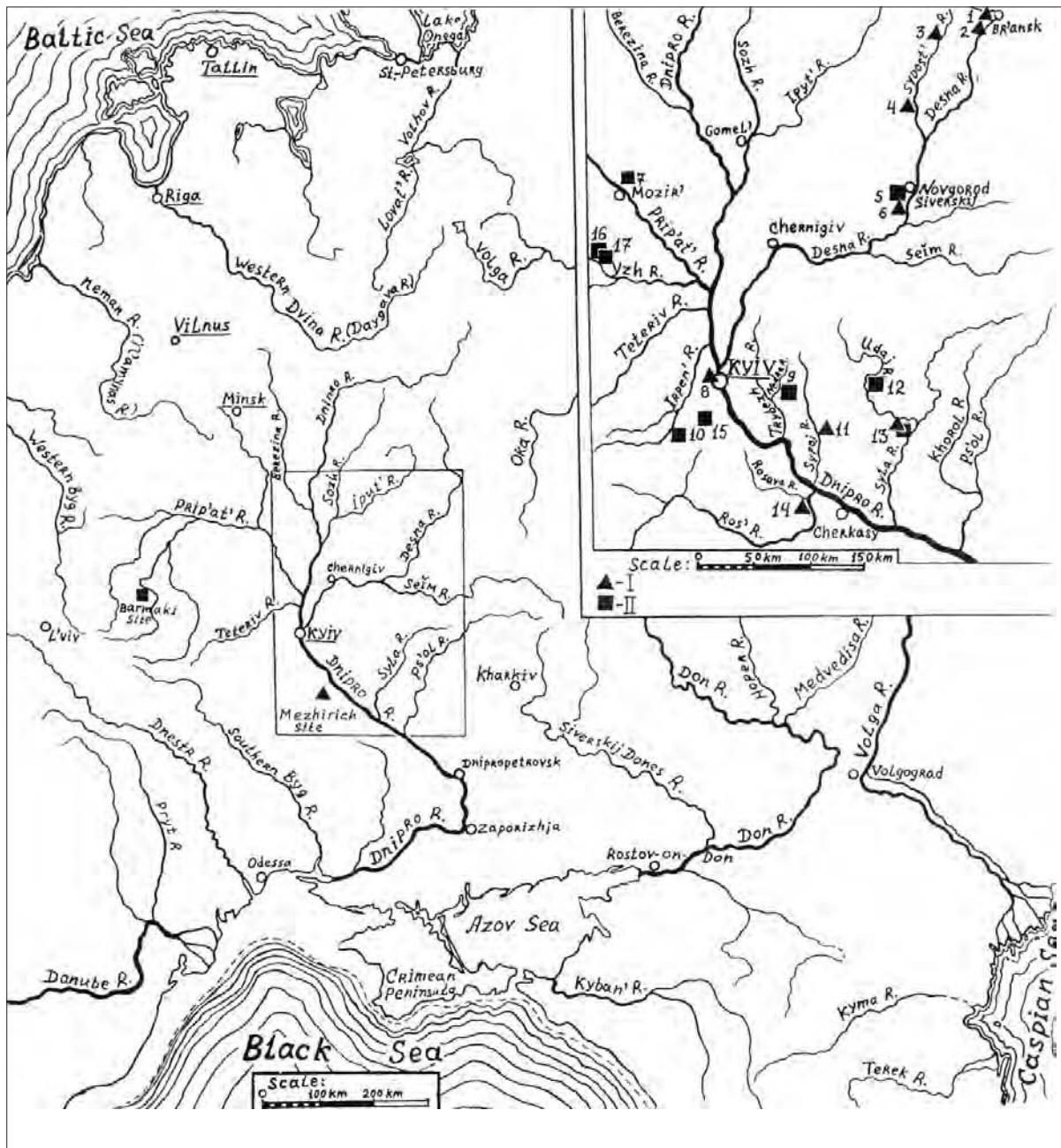


Fig. 1. A map of Epigravettian sites of the Middle Dnieper basin: I sites with substantive mammoth bone constructions; II sites without substantive mammoth bone constructions.

Code of sites: 1 Timonovka 1 and 2; 2 Syponevo; 3 Elisevichi 1 and 2; 4 Yudinovo; 5 Chulativ 1 and 2; 6 Mezin; 7 Yurevichi; 8 Kyrilivs'ka; 9 Semenivka 1, 2 and 3; 10 Fastiv; 11 Dobranichivka; 12 Zhurivka; 13 Gintsi; 14 Mezhirich; 15 Velika Bugaivka; 16 Zbran'ki; 17 Dovginichi and Sholomki 1

egories of tools are represented by awls-borers (Fig. 5, 8, 9) and burin-scrapers (Fig. 5, 7). As a rule, the first are about 3%, while the second are less than 1% of lithic tools.

The tool collection from organic materials of Mezinian industry (in their Barmaki version) included the spindle-shaped ivory spear and dart points (Fig. 6, 5), sometimes with one or two narrow slots (Fig. 6, 3), needles, and their unfinished specimens (Fig. 6, 21–23) and awls (Fig. 5, 9) made from ivory and bone, hammers-axes from antler, lissoirs and “baton perces”.

Objects of art are represented by famous stylized female figures and bracelets (Fig. 6, 1, 6–8, 11, 12, 26, 27), frequently covered by geometric meandering and herring-like decoration (Fig. 6, 1, 14–17). Specific pendants in ivory drop-like form with hole and with double swellings with transversal trough are typical of Mezin collections (Shovkoplyas 1965: 212–214). A pendant of the same style but much smaller (Fig. 6, 18) and a blank of one (Fig. 6, 19) are found in the Barmaki site too. On the latter, also a stylized mammoth chalk-stone figure (Fig. 6, 20) is present and has a



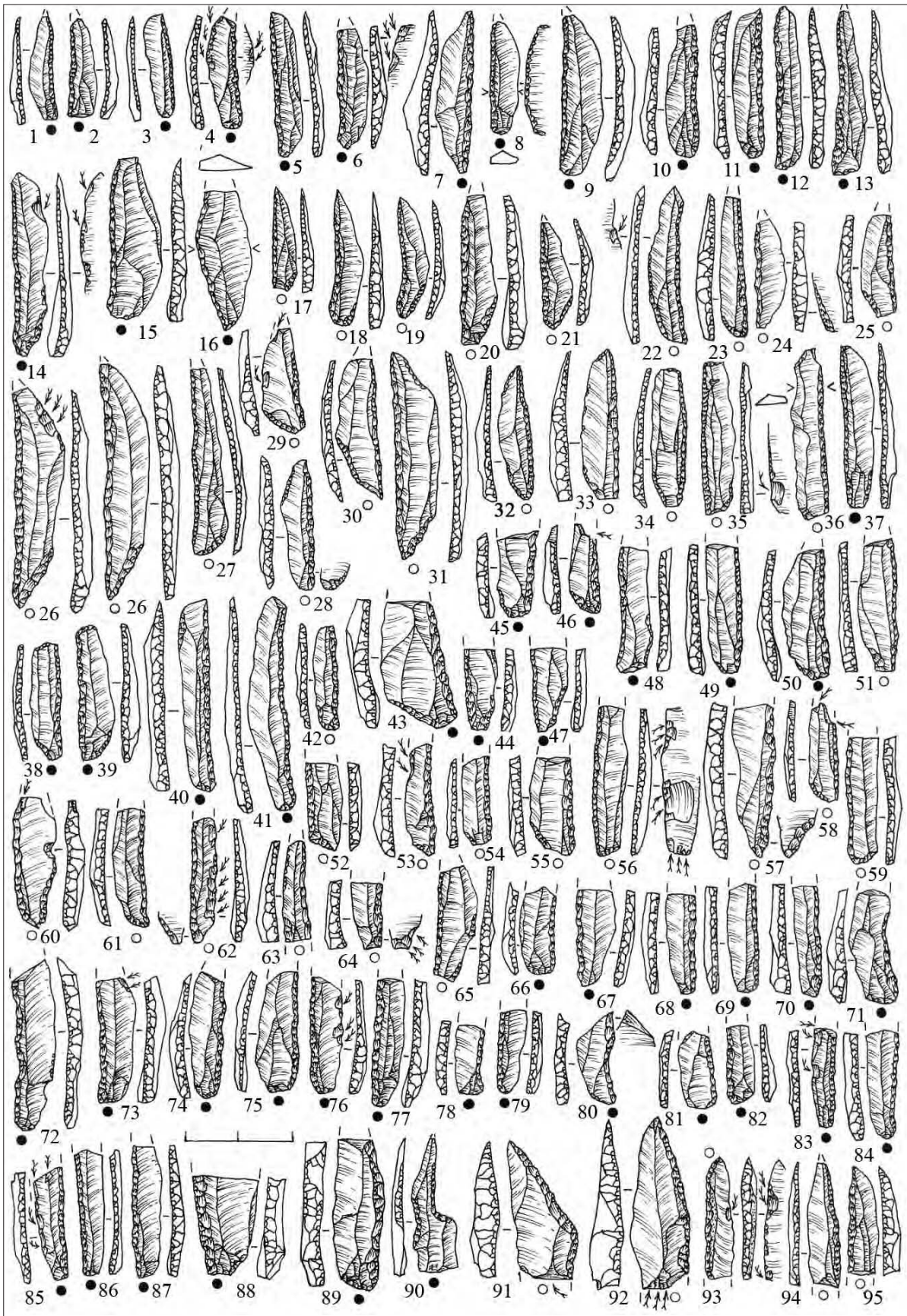


Fig. 2. The microlithic collection of the Mezin site



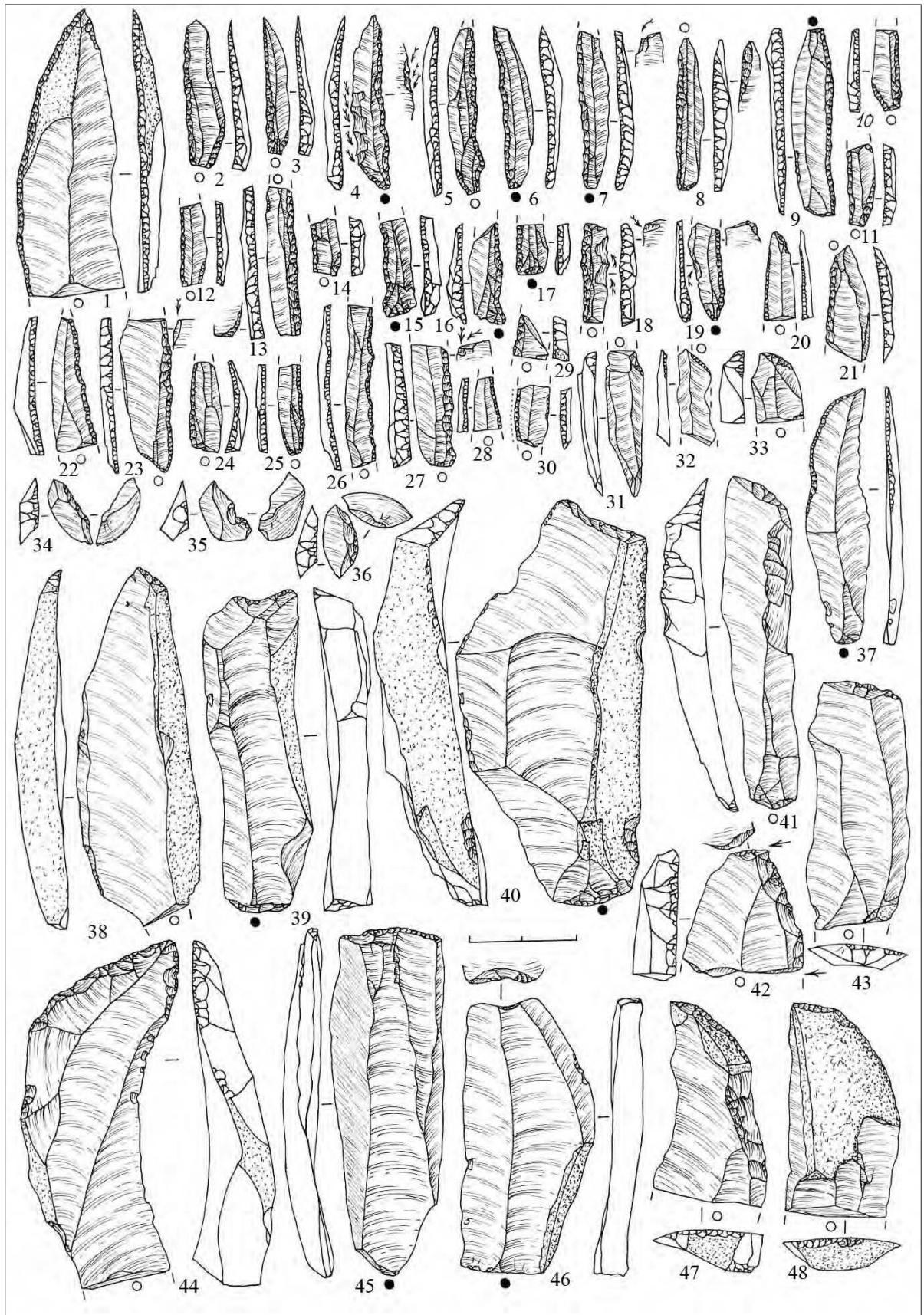


Fig. 3. Microliths, truncated blades and their production waste from the Barmaki site



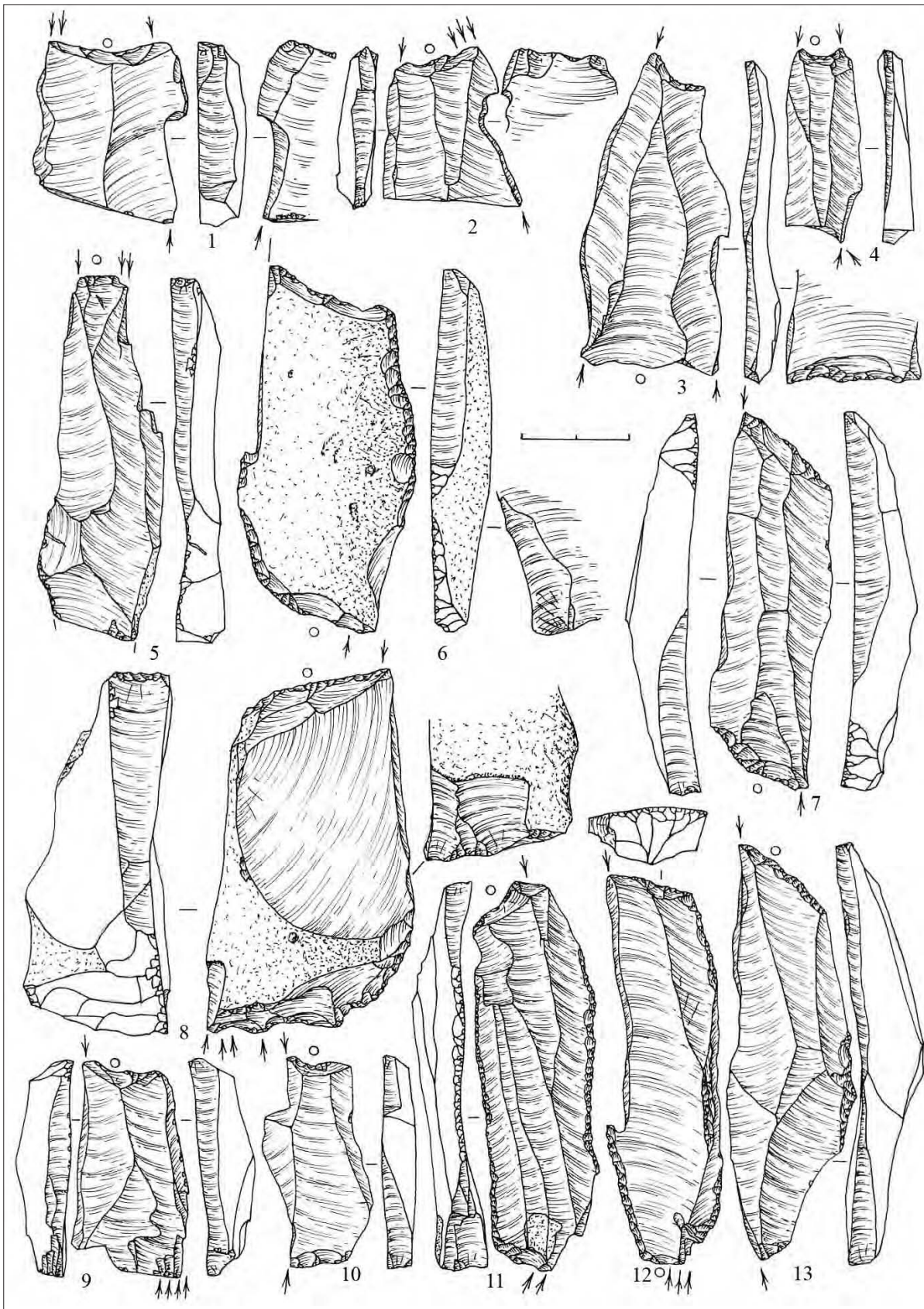


Fig. 4. Burins from the Barmaki site



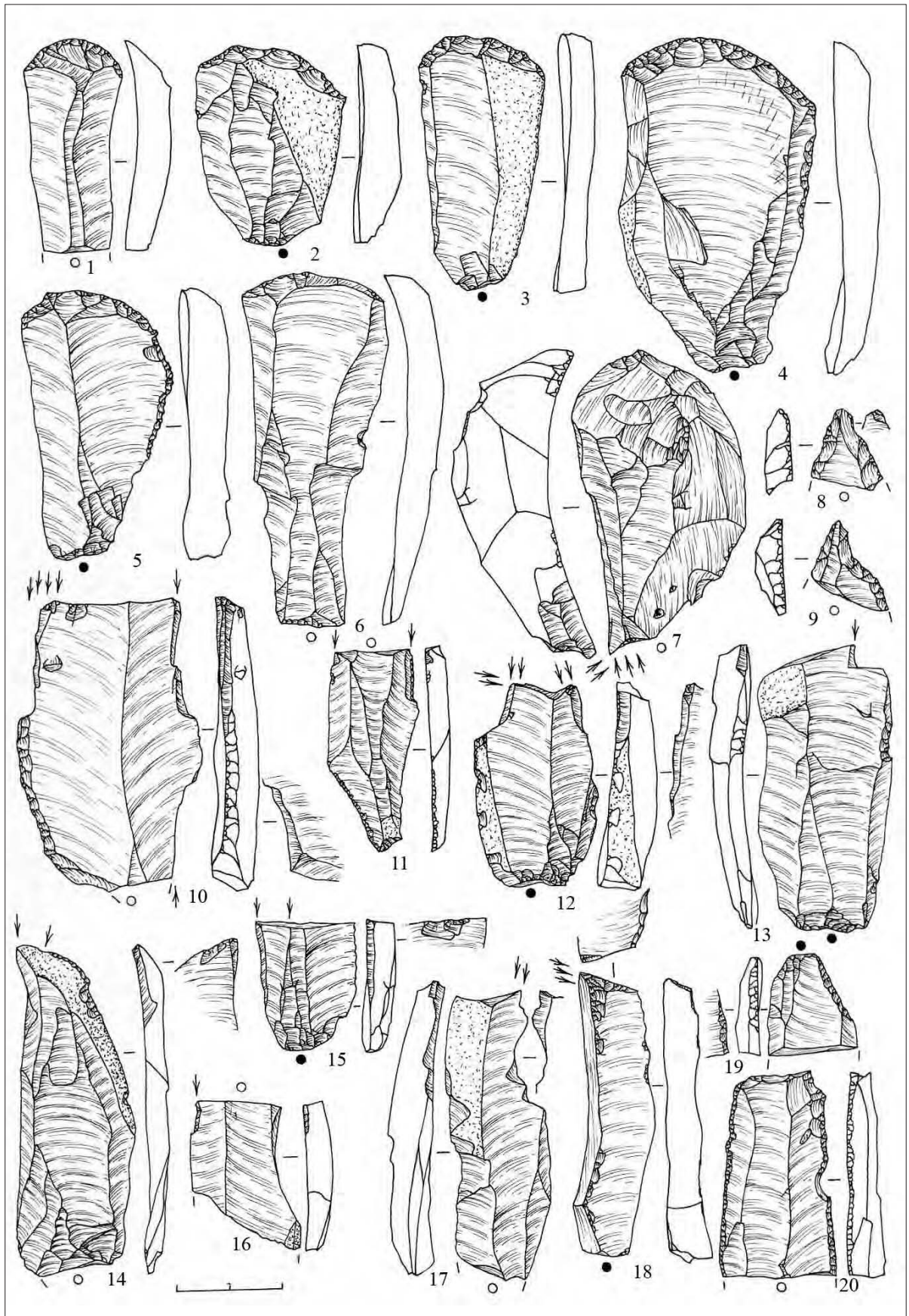


Fig. 5. Scrapers, scraper-burin, burins, awls and retouched blades from the Barmaki site



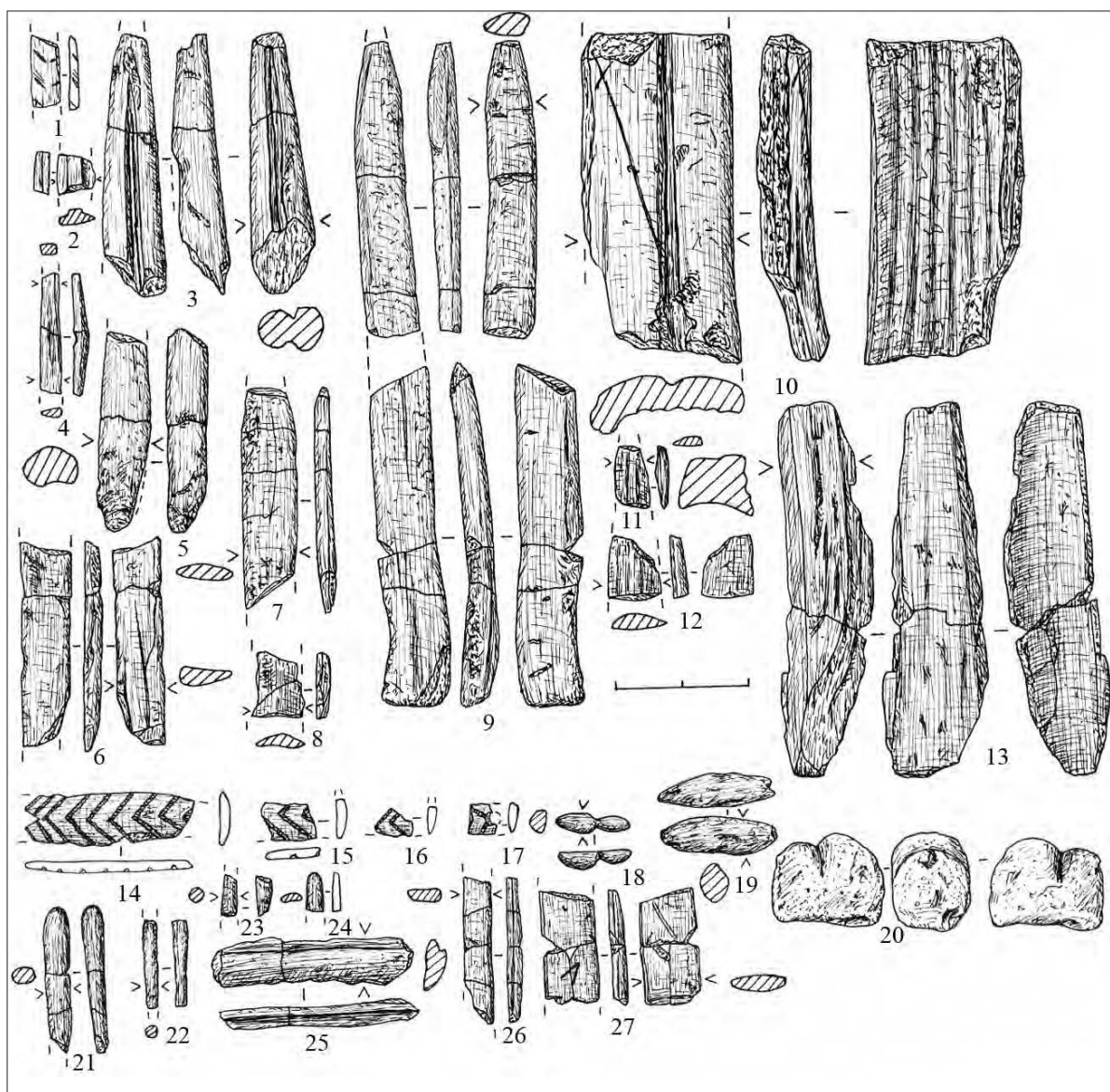


Fig. 6. The Barmaki site. Ivory tools, blanks and adornments (1–19, 28–32). Stylized mammoth figure (?) from chalk-stone (20)

very similar form to that of the second layer of the Kostenki 11 site in the Don river basin (Rogachev 1978: 11–160). The other pendants from fossil marine shells, on the whole from the “Dorsanum” (Fig. 7), “Cerithium” and “Trochidae” families, come from the remains of Miocene reefs (Middle and Low Sarmatian) on the Podolyan Upland in the limits of the modern Vinnitsa, Khmelniyskiy and Rivne regions, and are typical both of Mezin and Barmaki assemblages too.

### Ovruchian

The other version of local Epigravettian is represented by Ovruchian industry. The main sites (Sholomki 1, Zbran’ki and Dovginichi) are located on the Ovruch mountain ridge (an isolated loess plateau surrounded by sand deposits of the Polesje Lowland) to the north

of the Zhitomir city region (Nuzhnyi 2000: 37–56). Assemblages of this version of the industry are not dated. The most expressive assemblage of this kind of industry is represented by the collection of the totally excavated Sholomki 1 site.

The blade processing of Ovruchian industry is quite specific and carried out from rough prismatic, subpyramidal and wedge-like cores with single and two opposite striking platforms which have no traces of reduction or abrasion. As a rule, the blades of Ovruchian industry have a very massive unfaçeted butt and large percussion bulb from hardhammer. The working edges of the tools are mainly located on the distal end of prismatic blades.

The microlithic assemblages of Ovruchian industry include sometimes very massive lanceolate and gravettian points processed with a high abrupt, semi-abrupt





Fig. 7. Pendants from fossil marine shells “Dorsanum sp.” from the Barmaki site

dorsal and even bipolar retouch with oblique or transversal truncation and with intact blow bulb on their base parts (Fig. 8, 1–24) and their fragments (Fig. 8, 27–38). The quantity of the latter among lithic tools (nearly 50% in Zbran’ki, 25% in Dovginichi, and 28% in the Sholomki 1 sites) is incredible for Epigravettian collections of the Periglacial zone of Eastern Europe, and was perhaps connected with some of their seasonal and functional specialisations. Two fragments of shouldered points, including a barbed form with diagnostic projectile impact fractures (Fig. 8, 25, 26, 40) are found too. Rectangles, both typical and atypical forms, as well as ventral retouch processing, were not used in this industry.

The dominating category of lithic tools (as in other East Epigravettian collections) are the burins (nearly 40%). The most numerous ones are specimens on various truncations (Fig. 9, 1–11). Angle and dihedral burins are not so numerous (Fig. 9, 12–17). Simple end-scrapers on the blades or flakes (18% of tools) are the third category of tool assemblage (Fig. 10, 2–15). Only one short double-end scraper (Fig. 10, 1) was found. The other typologically definable category of tools of Ovruchian industry is represented by truncated blades (Fig. 8, 29, 41–44; 10, 17) and notched ones (Fig. 10, 16). A single high scraper on quite a massive flake was

found too (Fig. 10, 18). Only one combined tool in the form of an end-scraper on a blade joined with a dihedral burin exists in the collection.

### Mezhirichian

Numerous and well-investigated sites of the third version of Epigravettian or Mezhirichian industry are located on the small left and right tributaries of the Middle Dnieper basin between Kiev and Cherkassy (Nuzhnyi 2002a: 57–81; 2002b: 123–137). There are the famous Mezhirich, Dobranichivka and Gintsy (low and upper layers), and new ones such as Semenivka 1, 2, 3 and Fastiv, sites. These sites are represented by both collections with mammoth bone dwelling constructions, and without the latter, caused by different models of the seasonal adaptation of the Epigravettian population. The main typological and technological indices of tool collections from sites with mammoth bone dwelling constructions are very similar and sometimes even identical, contrary to those of sites without such constructions (Nuzhnyi 2002a: 57–81). According to the large number of trustworthy radiocarbon dates, Mezhirichian industry existed in quite narrow limits between 14,600 to 13,400 years ago (Svezhentssev 1993: 26; Nuzhnyi 2002b: 123–126; Iakovleva, Djindjian 2001: 86; Haesaerts et al, forthcoming). Two recent earlier dates made from mammoth bones both for the Dobranichivka site (12700+/-200 BP OxA-700) and for Dwelling 1 of the Mezhirich site (12,900+/-200 BP OxA-712) are perhaps doubtful. New ones made from brown bear bone for Dwelling 1 of Dobranichivka (GrA-14350+/-90 BP GrA-22472) and from wolf bone for Dwelling 1 Mezhirich (14450+/-90 BP GrA-22501) are in the limits of 15 kyr. similar to a number of trustworthy dates of other assemblages of Mezhirichian (Haesaerts et al, forthcoming). The Semenivka 2 site has the same age 14200+/-180 BP (Ki-5509, mammoth rib) without substantial dwelling constructions (Nuzhnyi 2002b: 126). The latest dates of this industry are connected with assemblages of the Semenivka 1 site (two pieces of the same brown bear bone 13,600+/-160 BP Ki-5510; 13440+/-90 BP GrA-22469) and Semenivka 3 site (13690 +/-90 BP GrA-22471) made from “Cervidae sp.” bone (Nuzhnyi 2002: 123–137; Haesaerts et al, forthcoming).

The blade processing of Mezhirich industry in the early and late stages is based on the use of mainly prismatic cores with two opposite striking platforms and abrasion reduction of the latter (Fig. 12, 15–17). Prismatic and sub-pyramidal cores with one striking platform and abrasion reduction were used too (Fig. 12, 12–14). The blades and bladelets have quite a regular parallel dorsal scare pattern and a pointed striking platform.

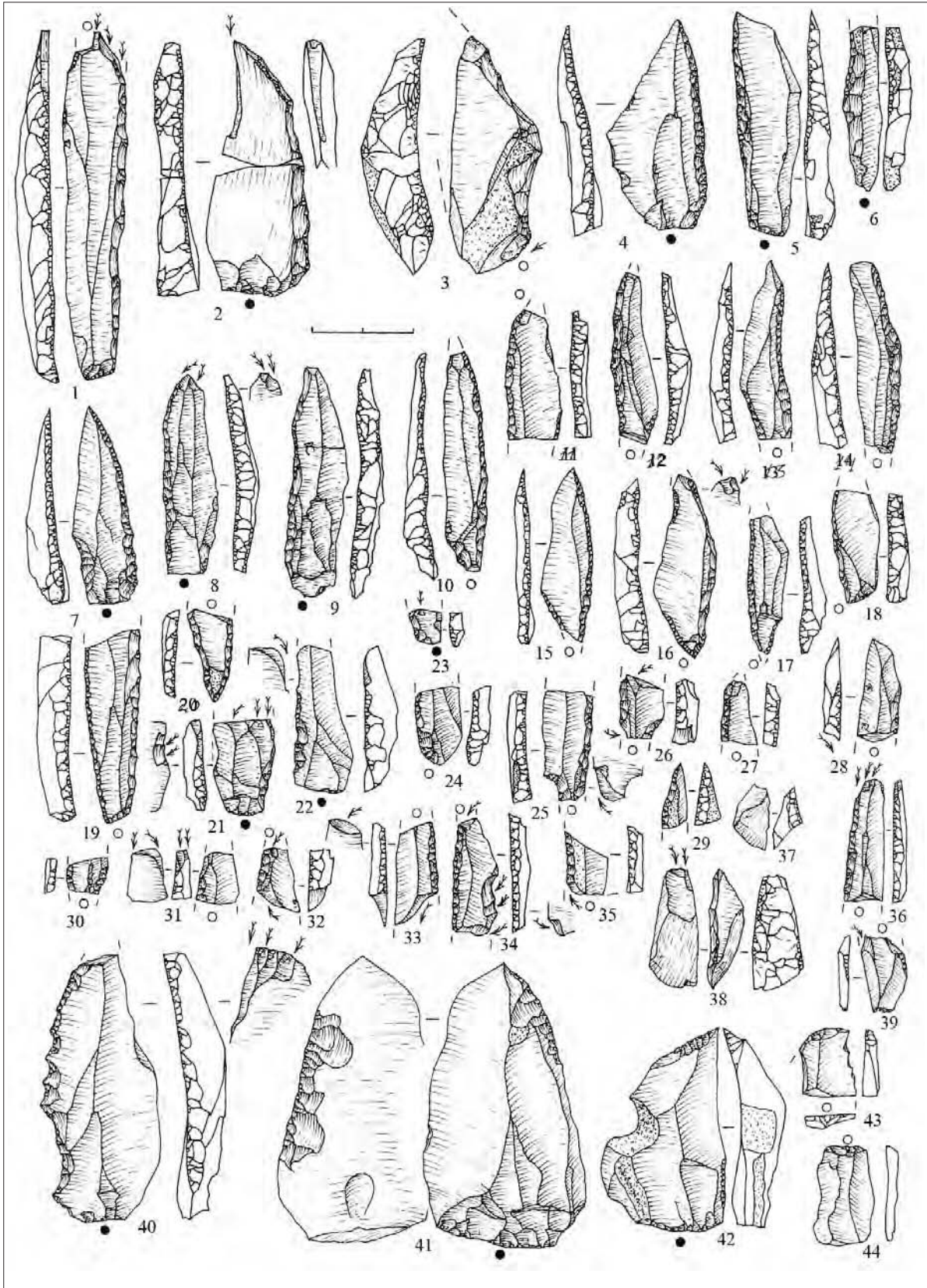


Fig. 8. Microliths, points, truncated blades and waste from their production from the Sholomki 1 site



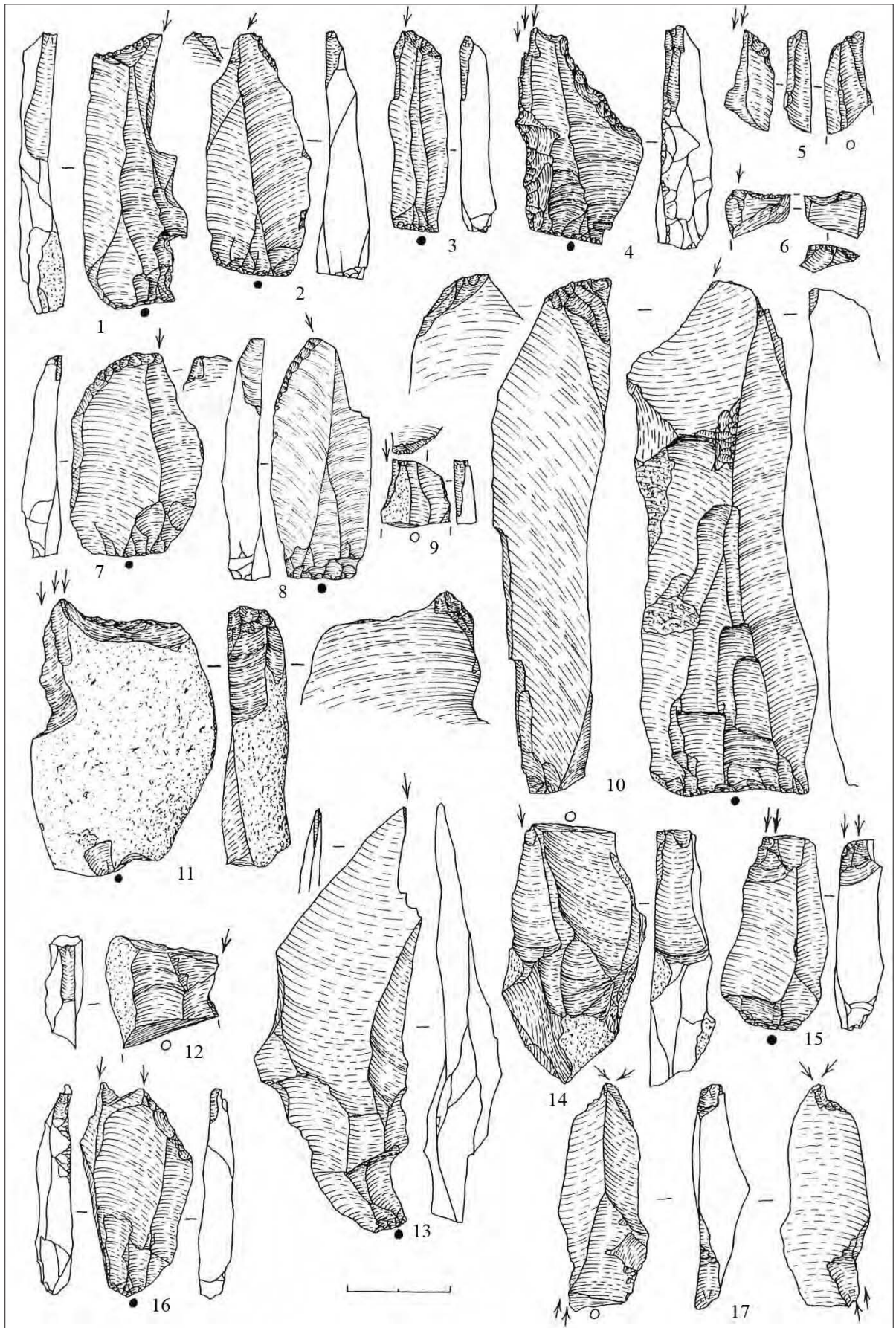


Fig. 9. Burins from the Sholomki 1 site



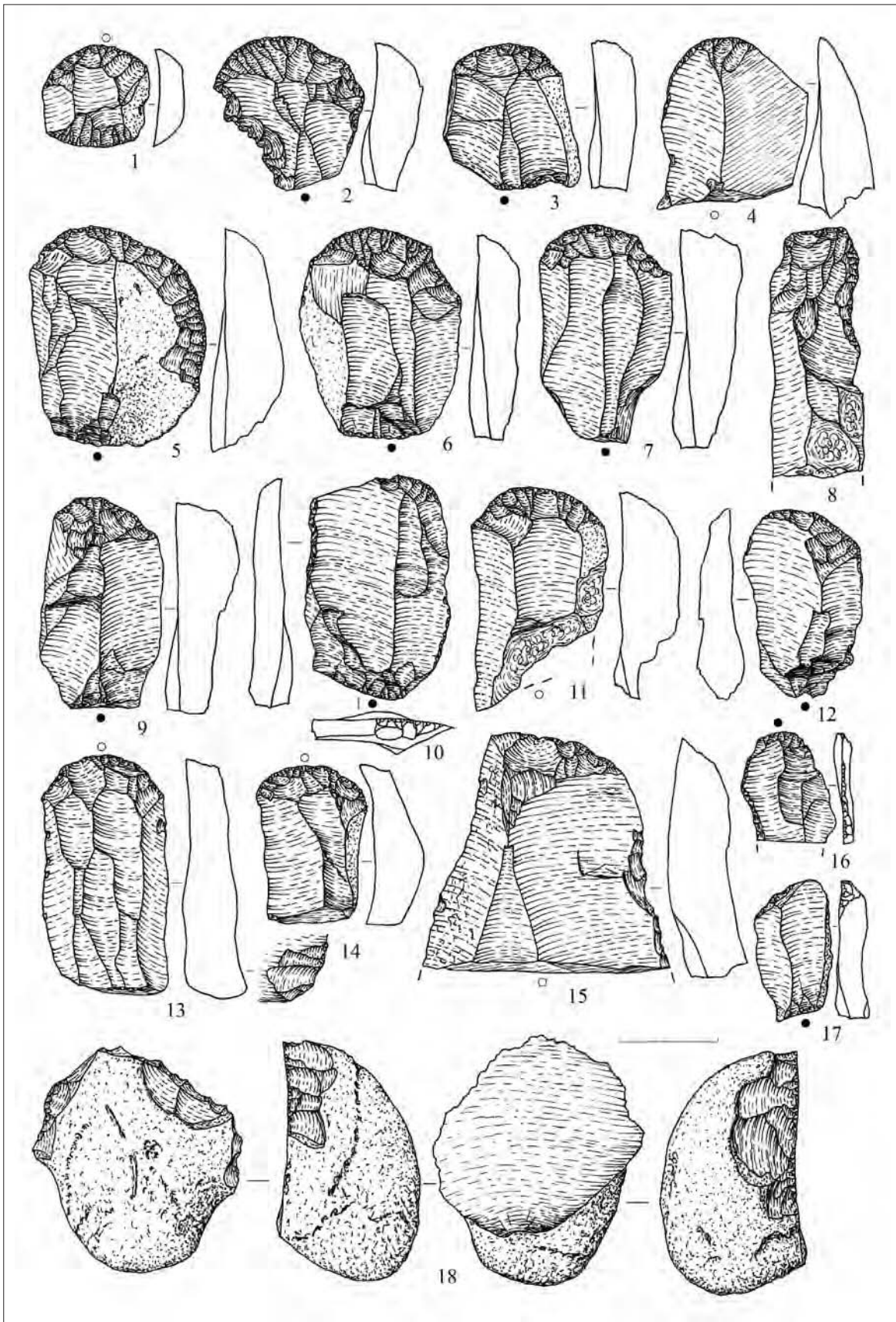


Fig. 10. Scrapers, scraper-like tools, retouched blades from the Sholomki 1 site



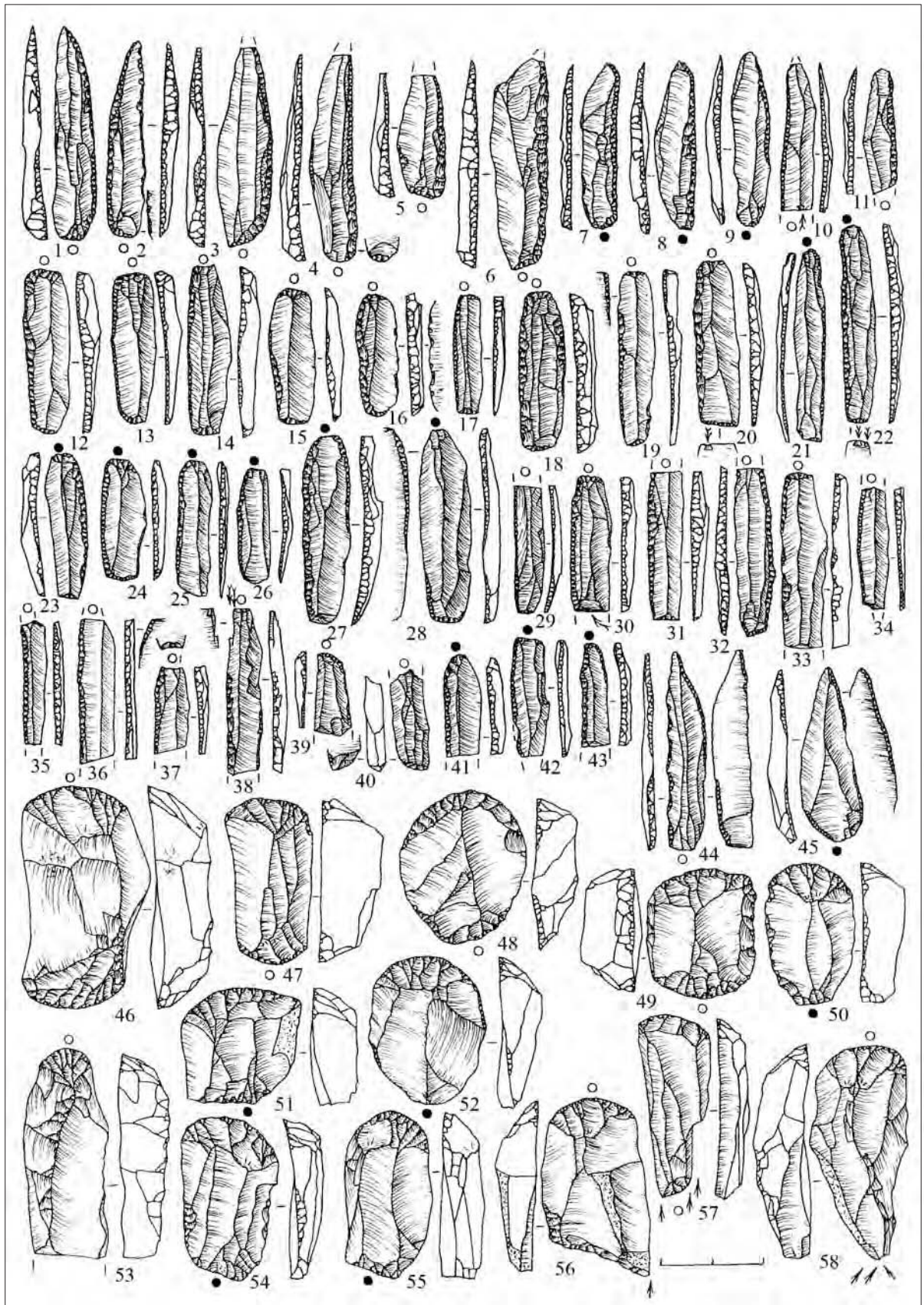


Fig. 11. Microliths, awls, scrapers and burin-scrapers from the first dwelling of the Mezhirich site

The percentage of the latter with tools produced from blades fluctuated from 40% to 52% of all lithics for sites with dwelling constructions, and 41% to 25% for collections without. The percentage of tools produced from blades and bladelets fluctuated for sites with mammoth bone constructions within narrower limits, 85% to 89%, contrary to collections without the latter (77% to 90%) too (Nuzhnyi 2002a: 72).

The most expressive lithic tool collections of the early stage of industry are represented by materials from the first dwelling of the Mezhirich site (Komar, Korniets et al 2003: 262–277). In four mammoth bone dwellings of the latter site, as well as four of the same structures of the Dobranichivka site, practically identical lithic and bone/ivory tool assemblages were found (Nuzhnyi 2002a: 57–81). As a rule, the percentage of backed microliths on sites with dwellings fluctuated in quite narrow limits, 6.4% to 14.9% of all lithic tools (Gladkih 2001: 15–21; Nuzhnyi 2002a: 72). In the sites without such mammoth bone constructions, the microliths are much more numerous (23.6% to 39.5%) and fluctuated within wider limits (from 7.1% in the Fastiv to 39.5% in the Semenivka 3 sites). The latter in collections of the upper layer of the Ginty and Semenivka 3 sites are the most numerous category of tools (Nuzhnyi 2002a: 72).

The microlithic collection of the early stage of this industry in the whole and already mentioned first dwelling of the Mezhirich site contains small narrow lanceolate and microgravettian points processed with fine dorsal and ventral abrupt and semi abrupt retouch, and various truncations of the basal parts (Fig. 11, 1–6). Sometimes an intact bow bulb existed on the base of the points too (Fig. 11, 7–9). Typical narrow rectangles with two straight or convex truncations were processed by the same methods (Fig. 11, 12–20), and atypical ones (Fig. 11, 23–28). Other backed microliths of the collection are represented by different fragments of the two main above-mentioned types (Fig. 11, 29–43).

Just burins dominate the category (40.3%) of tool assemblage of the first dwelling of the Mezhirich site (Fig. 12, 1–11), similar to three other structures of the latter (43.7%, 48.2% and 54.6%) and other of sites of this industry (30.7% to 31%) (Gladkih 2001: 15–21; Nuzhnyi 2002a: 57–81). Only in the collection of the upper layer of the Ginty site are burins less numerous than microliths and scrapers. Burins of different truncations are present in a larger quantity among this category of tools (Fig. 12, 2–10) and fluctuated within limits of 49% to 64% of the latter on sites with substantial mammoth bone dwelling constructions. As a rule, angle burins are the second most numerous category of these tools (Fig. 12, 11). On the same sites with-

out substantive mammoth bone constructions (ie the Semenivka 2 site) the latter are more numerous than those made on truncation and dihedral forms (Fig. 13, 21–29; 14, 24–33). Dihedral ones are not so numerous (Fig. 12, 9), just in a large body of collections with mammoth bone constructions. At the same time, the latter are periodically more numerous than angle forms both on sites with such constructions (Dobranichivka, Dwelling 1) and without (Fastiv) (Nuzhnyi 2002a: Fig. 11 A-B).

Simple end and double-end scrapers made on quite short blades and flakes (Fig. 11, 46–55) processed with semi-abrupt and sometimes with specific semi-flat fan-like retouch (Fig. 11, 46, 47, 50, 51–55) are the second most numerous category of tools on sites with substantial mammoth bone dwelling constructions. As a rule, the percentage fluctuated within quite narrow limits (21% to 26% for dwelling collections of the Dobranichivka site) or much wider ones (29% to 10.5% for the Mezhirich site) (Gladkih 2001: 15–21; Nuzhnyi 2002a: 57–81). On some sites without such constructions (Semenivka 2 and 3, Velika Bugaivka) scrapers are present in an abnormally low quantity, or are totally absent (Nuzhnyi 2002a: 72–73). Those of double-end form (Fig. 11, 46–49) fluctuated in limits of 4% to 16% of the total quantity of scrapers for sites with substantial dwelling constructions. The same indices for sites without the latter are very different (0% to 25%). And finally, among other typologically definable categories of tools, a number of truncated blades (not more than 5% to 8%) and some awl-drills (Fig. 11, 44, 45) are present too. Combined tools in the form of end-scrapers joined with different burins (Fig. 11, 56–58) are not so numerous (with some exceptions, only 1% to 2% of tools).

The organic material tool collections of Mezhirichian industry are sufficiently abundant, and included monolithic heavy ivory spears, ivory or antler cylindrical and spindle-shaped spears, dart and arrow points, sometimes with slots, antler hammer-axes, ivory or antler “baton perces”, wedges, lissoirs, hoes, needles and awls. Art objects and adornments are represented by stylized female and human figures from ivory and amber, sometimes covered by geometric decoration, ornamented ivory pieces, brooches, pins, pendants from ivory, amber, animal teeth, freshwater shell “*Theodoxus* sp.” and still existing marine shells from the Black Sea basin “*Nassa Reticulata* L.” and “*Cyclope Neritea* L.” (Boriskovsky 1953: 323–324; Pidoplichko 1976; Shovkoplyas 1973: 177–178; Nuzhnyi 2002b: 126–133). It is notable that on the sites with substantial mammoth bone constructions, pendants from marine shells were found only in the first dwelling assemblage



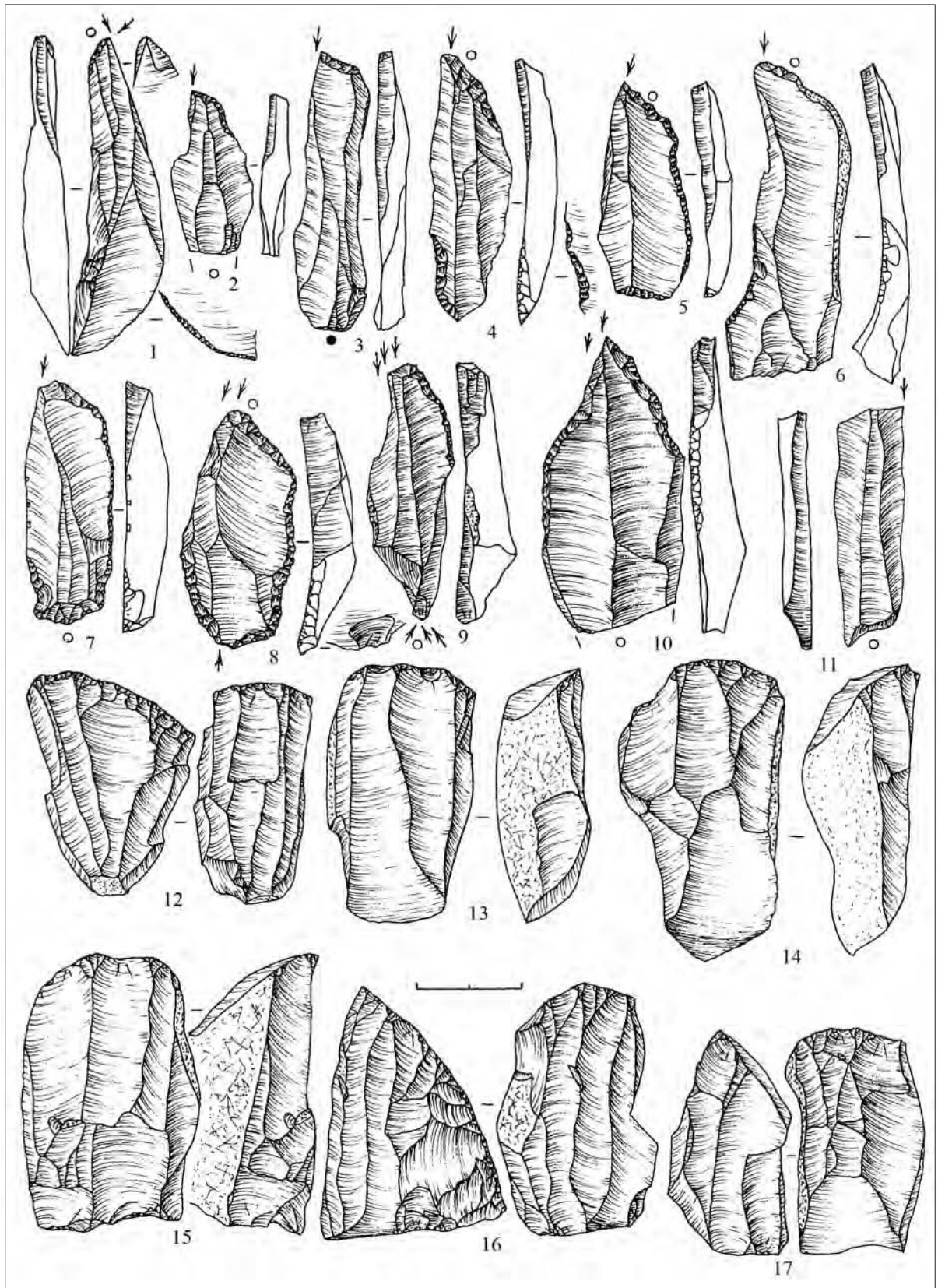


Fig. 12. Burins and cores from the first dwelling of the Mezhirich site

of the Mezhirich settlement (four specimens of “*Nassa Reticulata* L.”) (Pidoplichko 1969: Fig. 48, 56).

The tool and adornment collections from settlements without substantial mammoth bone constructions of Mezhirichian industry are well represented by the Semenivka 2 and 3 sites. The first is fully excavated over 158 square metres and dated 14,200 +/-180 BP. The main concentration of Upper Palaeolithic materials has a sub-oval form (17x13m) directed from north to south. Only quite fragmented faunal mammoth remains were found on the Semenivka 2 site, where just the ribs of young animals prevailed among anatomically definable parts of their skeletons (47 specimens out of 54). Different skull parts, very numerous on sites with substantial mammoth constructions, are present on Semenivka 2 only by a single ivory flake.

The total quantity of lithic assemblages of the site is 3,780 items, when chipped tools are represented by 199 specimens (or 5.3% of all lithics). Burins (97 specimens, or 49% of the tools) are the dominant category in the tool collection. Specimens with several working edges are not so numerous (Fig. 13, 25, 28, 45–46, 48; 14, 20, 22, 25, 27, 30). The most numerous (40 specimens) are angle burins on broken blades and bladelets, or sometimes on flakes (Fig. 13, 21–28; 14, 21–23, 26–29). Burins on various truncations, mostly on blades and flakes (19 and 11 specimens respectively), are the second most numerous group (Fig. 13, 29–32; 14, 30–34). The dihedral burins were made chiefly on blades (17 specimens out of 27) too (Fig. 13, 34, 37, 38–46, 49; 14, 15–18).

Backed microliths and their production waste are the second most numerous category of tools (47 insets, or 27%), and are represented by small lanceolate or microgravettian points and narrow typical or atypical rectangles (Fig. 13, 3–19; 14, 3–13). For production, microblades processed with low fine abrupt and semi-abrupt dorsal retouch were used. The ventral semi-flat or semi-abrupt retouch were used mainly for processing truncated basal parts of points or the sides of rectangles mainly from the proximal end of microblades. The microburin technique was used for the production of points too (Fig. 13, 3; 14, 5, 11). One lanceolate point was refitted with a microburin (Fig. 13, 8). This is the first case for East European Epigravettian. A number of microliths are damaged, with a diagnostic projectile fracture (Fig. 13, 10, 17, 19; 14, 8), from their use as arrow-heads and lateral composite edges of slotted points.

The truncated blades (15 specimens), awl-drills (two items) and one scaled piece are other typologically definable categories of tool (Fig. 13, 20–24; 14, 14, 24). Typical scrapers are totally absent in the collec-

tion of the Semenivka 2 site. Perhaps it is a result of the presence of only mammoth bones among the faunal remains of the latter. Only some truncated blades have scraper-like forms (Fig. 13, 24).

Concretions of ochre of different colours and local amber were found on the site, too. One concretion of the latter has a hole for use as a pendant (Fig. 14, 1). There are eight “*Nassa Reticulata* L.” (Fig. 13, 2) and two “*Cyclope Neritea* L.” (Fig. 13, 1; 14, 2) marine shells from the Black Sea basin. The nearest geological deposits of the last maximal transgression (Karangatska) of the Black Sea are situated more than 400 kilometres south of the site’s location in the mouth of the Dnieper. Seven were used as pendants similar to one other estuary shell “*Theodoxus* sp.” In addition, three intact fossil “*Dorsanum* sp.” marine shells without holes were found on the site too. The latter are from the Upper Miocene age, and these geological deposits are located nearly 200 kilometres southwest of the site on the Podolian Upland.

Another expressive collection without substantial mammoth bone constructions is the Semenivka 3 site, dated 13690 +/-90 BP. Excavated over 132 m<sup>2</sup> (75% to 80% of their common space), it has a much more abundant and larger concentration of Upper Palaeolithic remains, but of the same sub-oval form (approximately 16x22m), directed from north to south. The main concentration of faunal remains has a sub-circular form and more limited space (6x5m) and is more abundant in the northern sector. Inside the latter are large bones vertically dispersed at intervals of 25 to 30 centimetres. The bones lie in chaotic positions, often one on top of another. Sometimes even large mammoth bones also exhibit a vertical or diagonal position. There is good reason to believe that the structure represents the remains of a light hut, dug slightly into the ground like that discovered on the Barmaki site. This conclusion is supported by the higher concentration of lithic and organic material tools, and especially by pendants of marine and freshwater shells (more than 100 specimens) located just within this structure. The latter were probably sewn on to the clothing of the inhabitants, and were lost more easily in the confined space of the dwelling.

The remains of mammoths absolutely dominated (269 out of all 327 bones), and fragments of their ribs are most numerous (105 specimens) among the 187 definable parts of skeletons similar to the Semenivka 2 site. Parts of mammoth skulls are represented only by processed ivory too. An anatomical group in form of three young mammoth vertebrae was found in the central part of this concentration. However, according to the definition by M. Patou-Mathis, the other species found



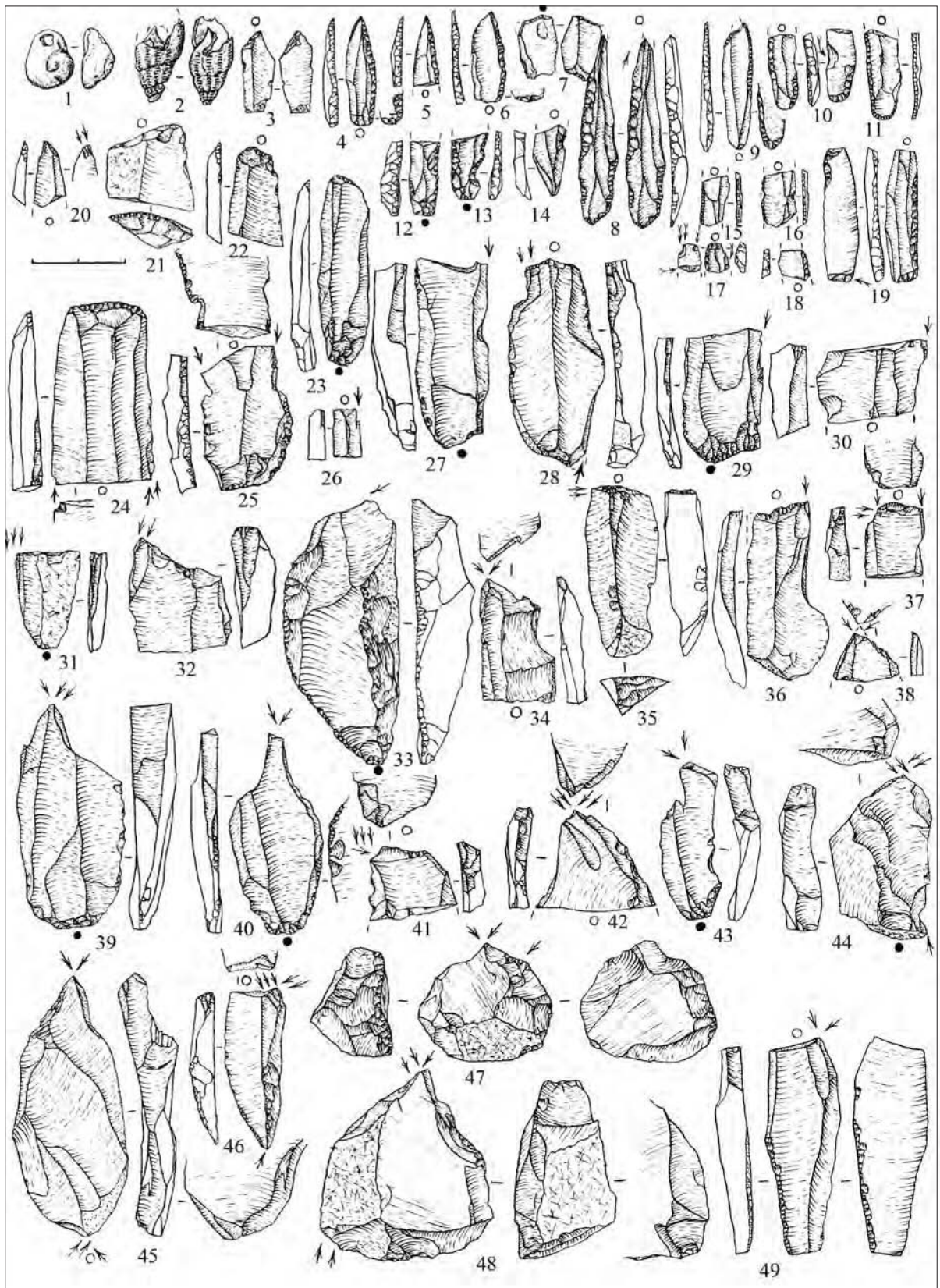


Fig. 13. Pendants from marine shells, microburins, backed microliths, truncated blades and burins from the Semenivka 2 site

at Semenivka 3 are not so numerous either. There are some bones of brown bear, wolf (34 remains), reindeer (one processed bone) and saiga antelope. Also, fragments of a long bone of a hoofed animal of "Cervidae sp." were found and used for radiocarbon dating.

For the present situation, the total quantity of lithic artifacts found at Semenivka 3 are 7,045 specimens. Chipped tools are present in 392 units, which are 5.6% of all lithics. The blades, bladelets and their fragments, as well as the tools made from them, are 2,218 specimens, or 31.5% of all the collection. Regular cores (48 units) are represented by the most numerous prismatic forms with two opposite striking platforms (34 specimens). The total quantity of the latter, fragments and core-like forms is not more than 1% of all the lithic assemblage.

The most numerous category of tools (155 units, or 39.5%) are various backed microliths and their production waste. The situation existed only in two assemblages (Semenivka 3 and the upper layer K' of Gintsi) of Mezhirichian industry (Nuzhnyi 2002: 72). Microliths are processed by fine semi-abrupt and abrupt dorsal retouch. Ventral kinds as a rule were used on their truncated parts on the proximal end. The microburin technique was used for the production of microliths too (Fig. 15, 30, 31; 16, 53, 54; 17, 1). Traditionally, the microlithic assemblage of Semenivka 3 included two main typologically definable categories of insets. The first is represented by small and narrow lanceolate or microgravettian points, sometimes with various processing of the base (Fig. 15, 9; 17, 1–4; 18, 1). The other kind is much more numerous in the above-mentioned assemblage. There are small narrow typical rectangles with two truncations (Fig. 15, 13–15; 16, 13–16, 18–21; 17, 5–15; 18, 2–14), and atypical ones with a single truncation and intact blow bulb on the proximal end (Fig. 15, 16; 16, 17; 17, 16). The other backed microliths of the assemblage are represented by different fragments of both above-mentioned categories (Fig. 15, 7, 8, 17–29; 16, 22–52; 17, 17–54; 18, 16–62). A number are damaged by diagnostic projectile fractures from their usage as thrusting arrow-heads (Fig. 15, 7, 9, 11, 12, 23–26, 28; 16, 31, 38, 40, 42; 17, 24, 36, 40, 46, 48; 18, 17, 18, 23, 34, 40, 44, 49, 51, 57, 60). The other kind of damage is connected with their usage as lateral composite edges of slotted spear and dart points (Fig. 15, 8, 17, 27; 16, 16–15, 16, 23, 29, 46, 47; 17, 5, 6, 13, 17, 23, 25, 28, 31, 33, 49, 50; 18, 4, 53, 58). Some unprocessed bladelets and microblades have the same fractures from both models of usage in projectile weapons too (Fig. 18, 73, 74).

The second most numerous category of lithic tools are various burins (131 specimens, or 33.4%). Tools with

several working edges, sometimes of different types, are represented in 15% of the burins (Fig. 15, 37–39, 48; 16, 61, 66, 67; 17, 71; 19, 1–4, 6–8, 14, 17, 19, 21, 23, 26, 29). Among the burins, 113 specimens are made on the blades, and those on oblique, concave and convex truncations (Fig. 15, 39–45; 16, 62–70; 17, 72–79; 19, 1–23) are in a larger quantity (59 specimens on blades and six on flakes). Angle burins are a little less numerous (47 specimens on blades and five on flakes) in this collection (Fig. 15, 46–50, 54, 56; 19, 24–31). Dihedral burins are present at the Semenivka 3 site only in seven specimens on blades and five on flakes (Fig. 15, 37, 38; 16, 60, 61; 68–70).

The third most numerous category of tools (or 6.1%) are truncated blades and flakes (22 and two specimens accordingly). Their truncated parts have various (as a rule oblique, transversal and convex) outlines (Fig. 15, 32, 36, 53, 55; 17, 61–63; 18, 75–79). Awls-drills of various configurations and processing with semi-abrupt ventral and dorsal retouch (Fig. 16, 55–57; 17, 55–59; 18, 63, 64, 66–70) existed in 18 specimens (or 4.6%) and were made mainly on blades or bladelets (ten tools), flakes or even burin spalls (Fig. 18, 64). Scrapers very typical of collections with substantive mammoth bone constructions are represented at the Semenivka 3 site only by eight tools (or 2%). There are in the main simple end forms made on blades or blade-like flakes (Fig. 15, 35; 58, 59; 18, 71, 72), an atypical double-end scraper (Fig. 17, 60), and one sub-circular specimen on a flake. Only one combined tool in the form of an atypical Aurignacian thick-nosed scraper on a flake was joined with an angle burin (Fig. 15, 34). The other artefacts with secondary modifications are not from morphologically definable types. There are blades or bladelets with irregular retouch and notches (53 units), processed both with dorsal and ventral types (Fig. 15, 33, 51, 52; 17, 63; 18, 65) and flakes with the same processing (12 specimens).

The collection of tools from organic materials of the Semenivka 3 site is represented by a fragment of a massive cylindrical spear ivory point with one wide slot (Fig. 20, 1), two small pieces with the remains of slots perhaps of the same kind of point (Fig. 20, 2, 4), a bone awl (Fig. 20, 3), two hoes from mammoth ribs (Fig. 20, 5) and a flake of mammoth ivory. In addition, a case of needles made from epiphysis of reindeer metatarsal bone (Fig. 20, 6) was found.

Marine shells and pendants from those from Semenivka 3 (82 specimens) are represented by the geologically modern species "Nassa Reticulata L." (Fig. 15, 3–6; 16, 1–8) and "Cyclope Neritea L." (Fig. 15, 1, 2; 16, 9) which still existed in the Black Sea basin. On the whole, these pendants have one middle or large-



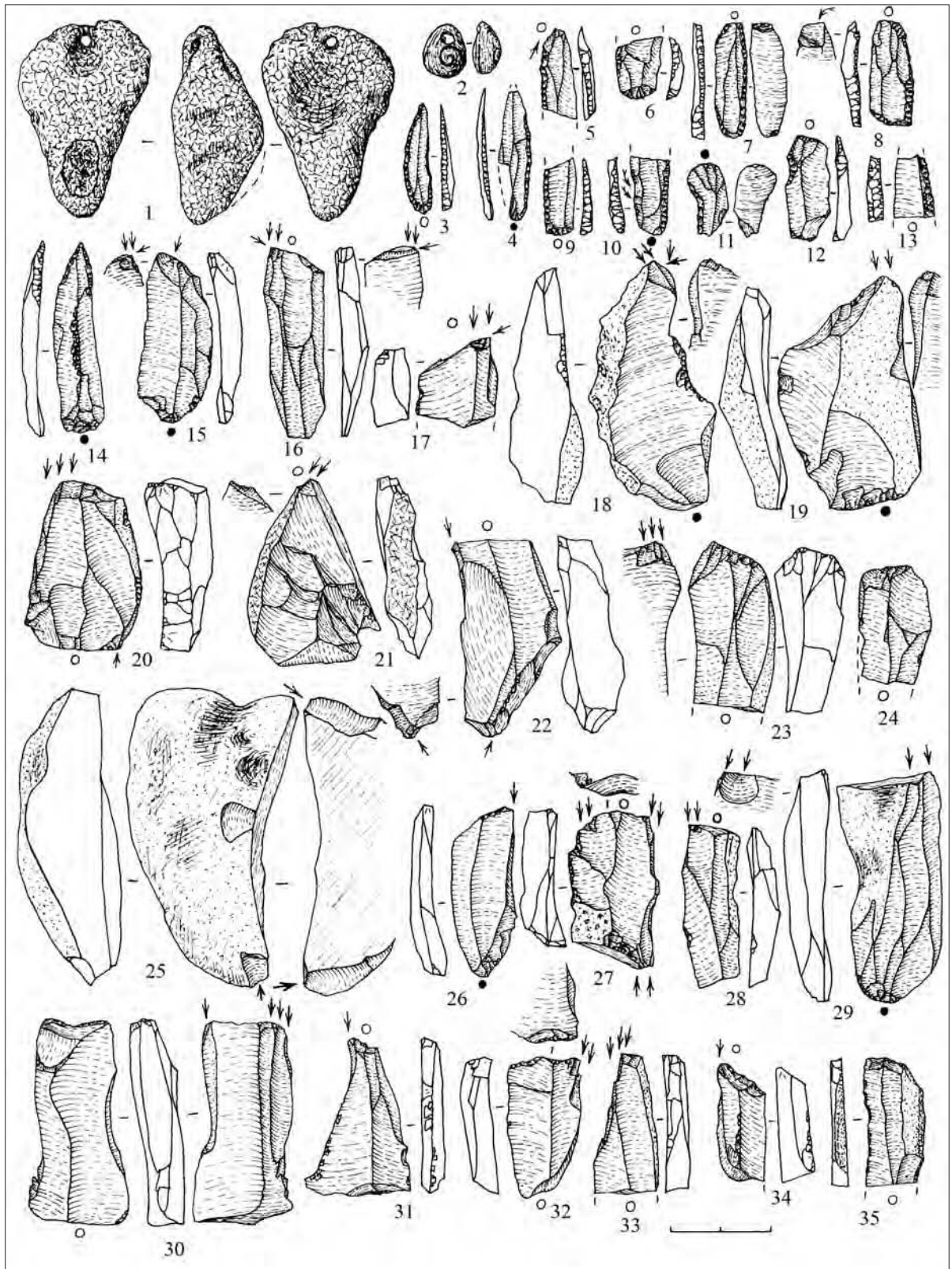


Fig. 14. Pendant from amber concretion and marine shells, backed microliths, awl, burins and truncated blades from the Semenivka 2 site



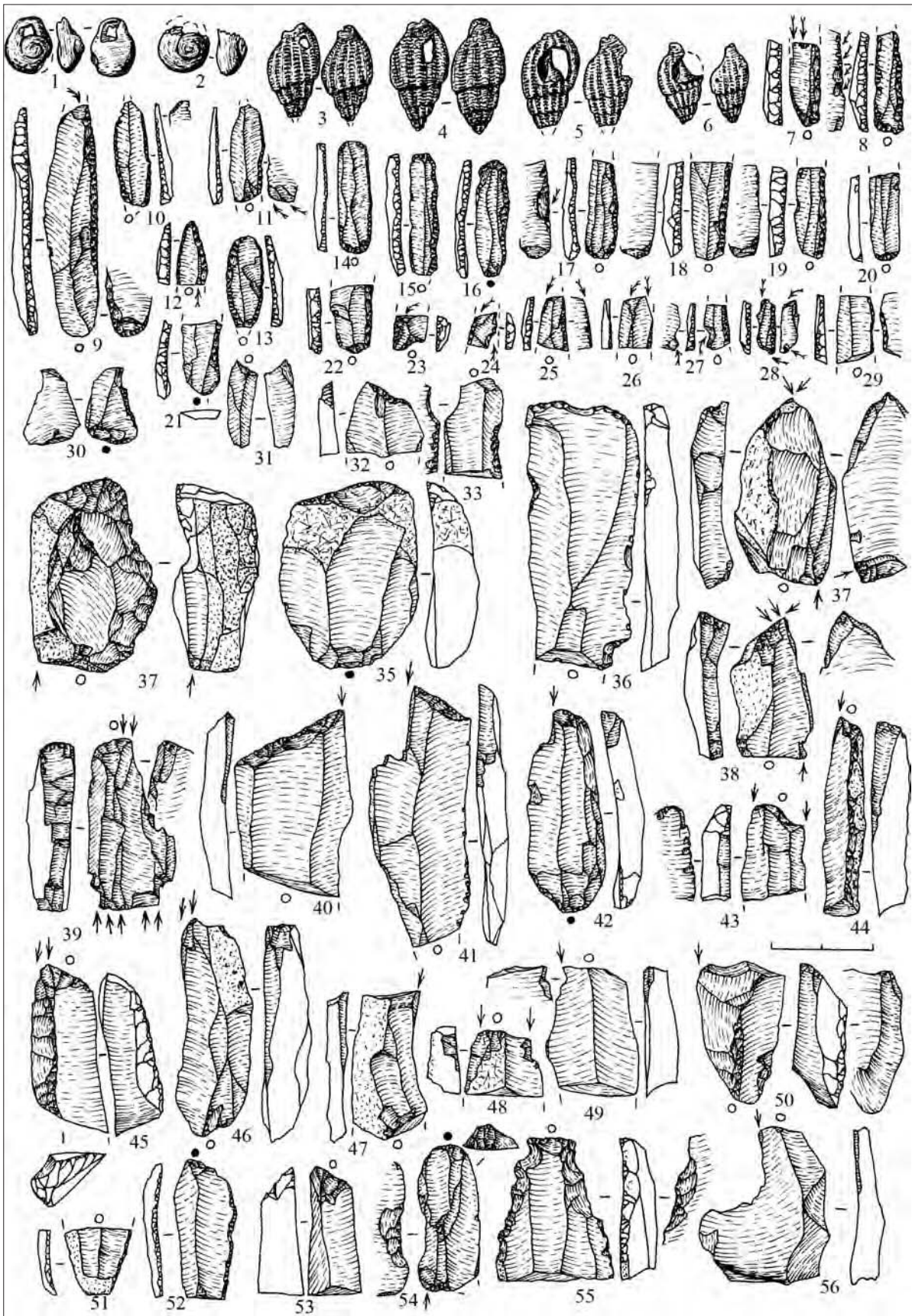


Fig. 15. Pendants from marine shells, backed microliths, microburins, scrapers, truncated blades, burins and retouched blades from the Semnivka 3 site



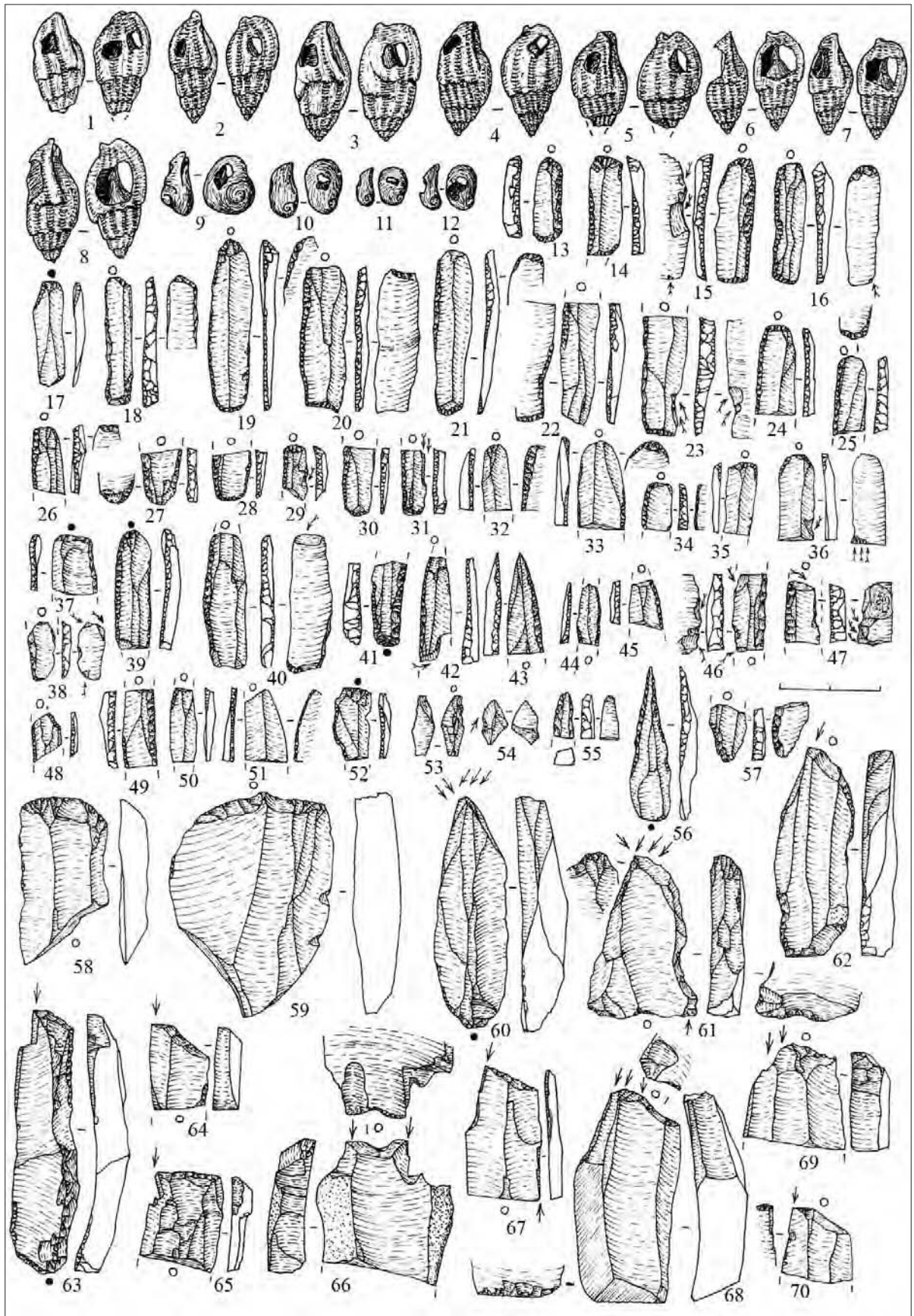


Fig. 16. Pendants from marine and river shells, backed microliths, microburins, awls-drills, scrapers and burins from the Semenvka 3 site



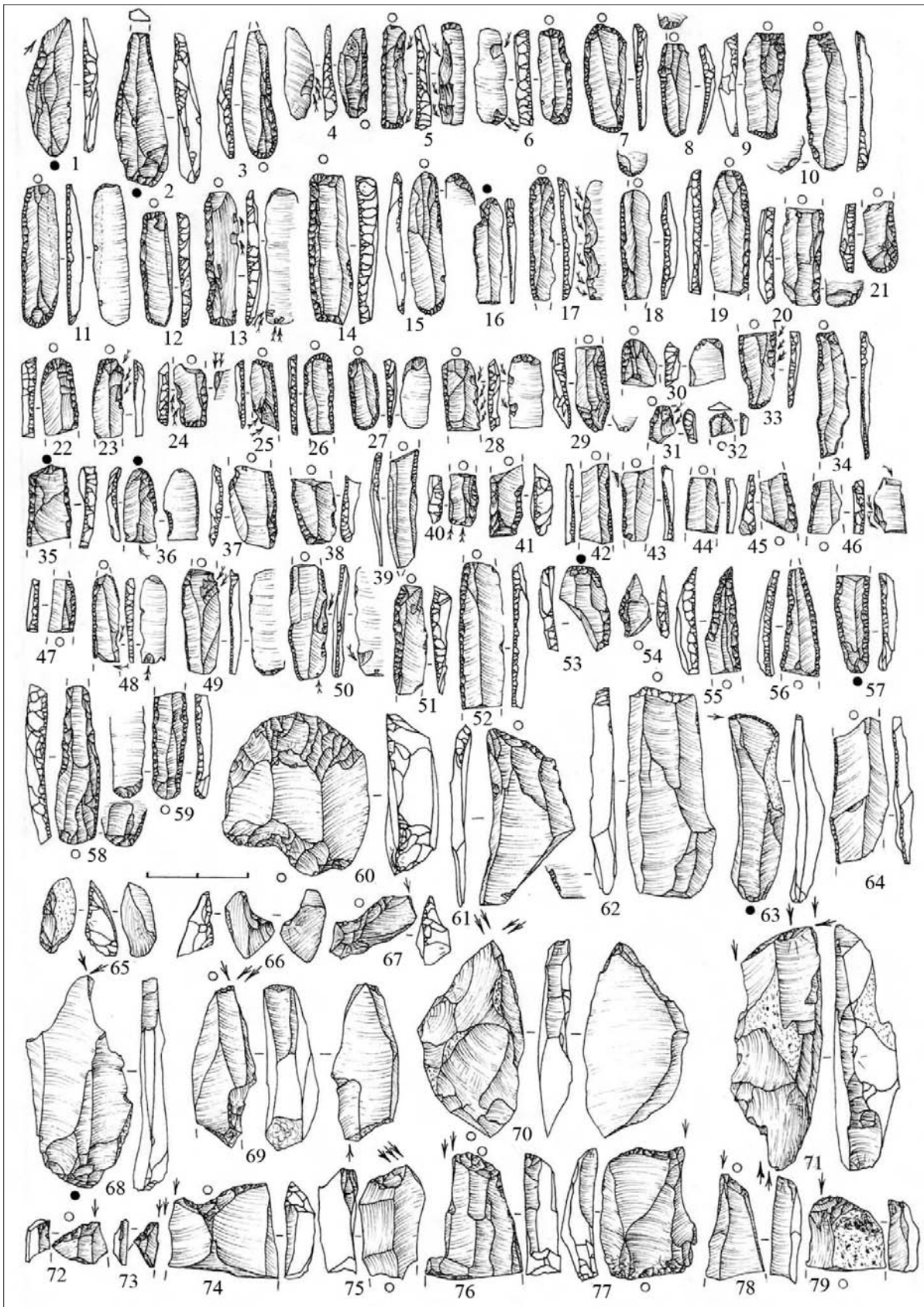


Fig. 17. Backed microliths, awls-borers, scrapes, burins, truncated and retouched blades and waste from their production from the Semenovka 3 site



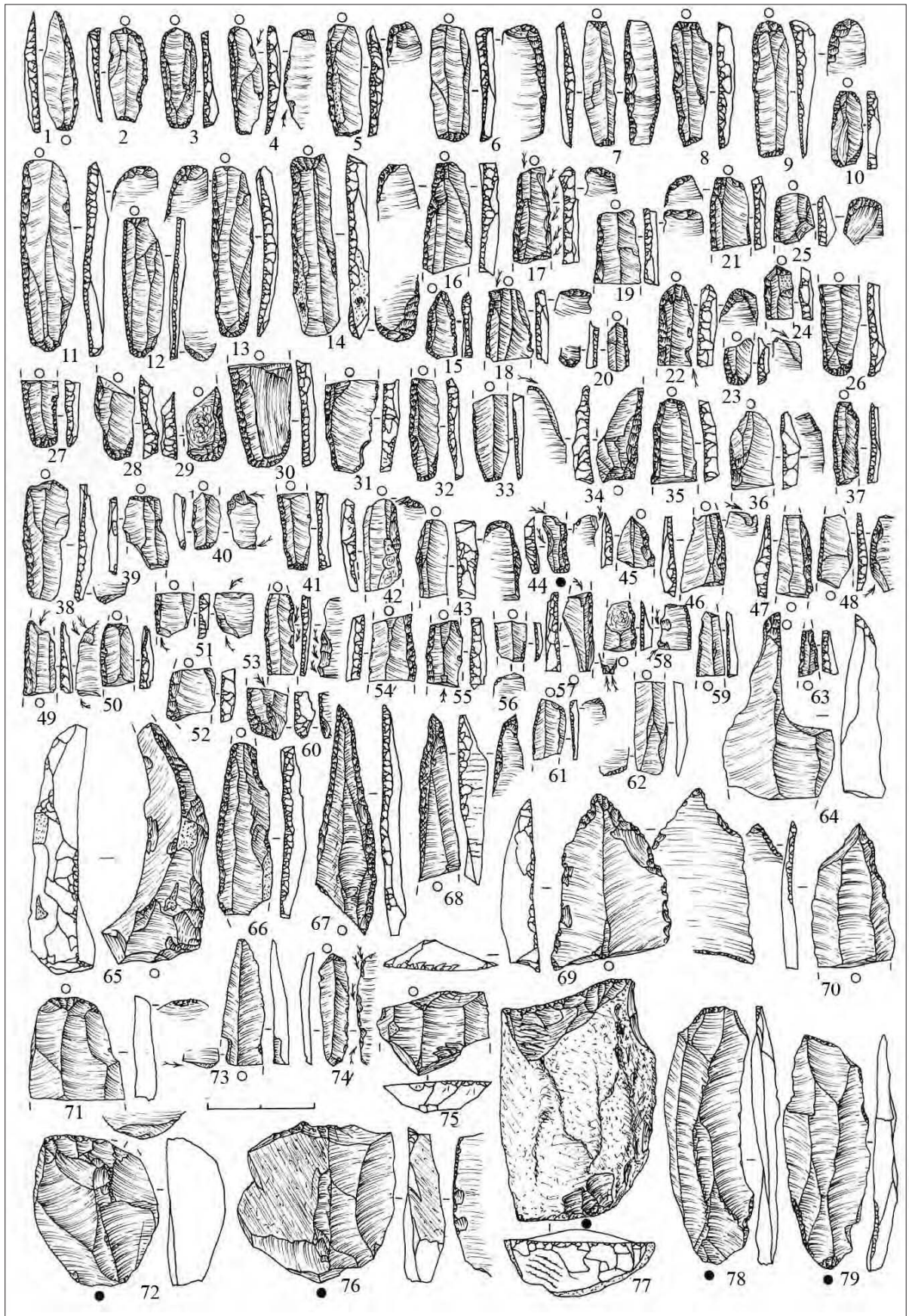


Fig. 18. Backed microliths, retouched and truncated blades, scrapers and awls-borers from the Semenivka 3 site



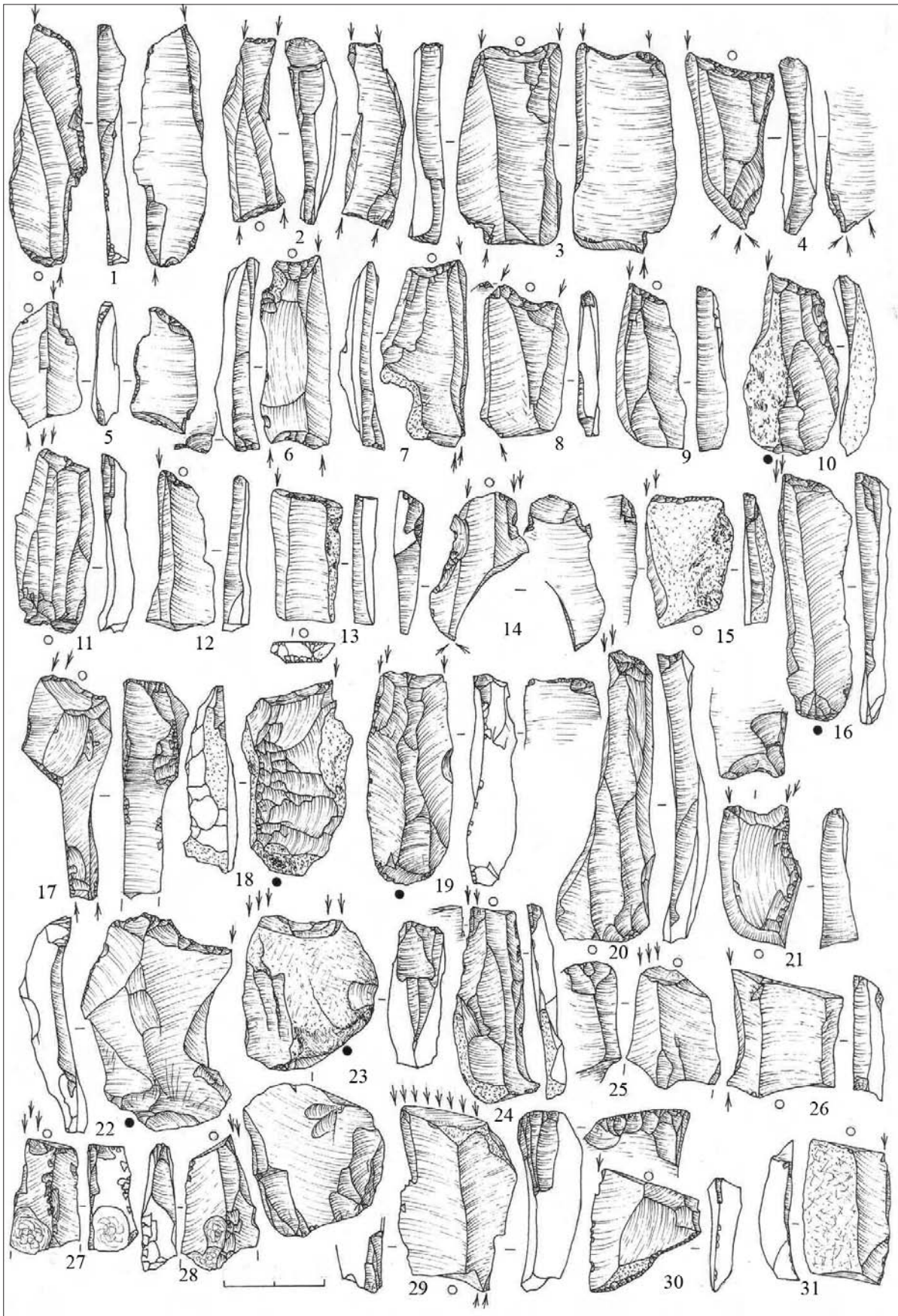


Fig. 19. Burins from the Semenivka 3 site



size hole. The forming of the latter was perhaps a result of damage to the partition between two smaller holes (Fig. 16, 1). A number of shells are quite polished and coloured by red ochre. The “*Nassa Reticulata*” shells are represented by 52 pendants with holes, 13 damaged specimens and three intact shells. No intact “*Cyclope Neritea*” shells were found, but ten pendants with holes and four damaged specimens exist in the collection. As was noted above, the most northern geological deposits containing both these species (connected with the last maximal or Karangatska transgression of the Black Sea) is located almost 400 kilometres south of Semenivka 3 in the mouth of the River Dnieper near Nikopol’. Other delta-gulf and river shell “*Theodoxus* sp.” (18 pendants, two damaged and two intact specimens) were found, too (Fig. 16, 10–12). The collection of shells of Semenivka 3 (100 specimens) is the third most numerous in Ukraine, after that of the above-mentioned Mezyn and Barmaki sites.

### Yudinovian

The other kind of Epigravettian assemblages of the Middle Dnieper is represented by Yudinovian industry. The main sites of this (Yudinovo, Timonovka 1 and 2, Bugorok, Chulativ 2 etc) are located in the Middle Desna river basin (Fig. 1), on the whole in western Russia and partly in neighbouring parts of northeast Ukraine. In the current literature, they are defined as a very similar and related group of sites, or even as single Yudinovo-Timonovka culture (eg Grekhova 1971: 20; Abramova, Grigogeva 1997: 81–91 etc). According to radiocarbon dating methods, the sites of this industry’s dates are in the limits of 14–15 kyr. (Svezhentsev 1993: 26–27). As in Mezinian and Mezhirichian industries, sites both with some substantial mammoth bone dwelling constructions (Yudinovo, Timonovka 1 and 2, Eliseevichi II) and without (Bugorok, Chulativ 2) existed in Yudinovian too.

One of the most expressive collections of this industry is represented by the Timonovka 1 site, which has one maximally trustable date (GIN-2003) 15300 +/-700 BP (Gavrilov 1994: 63–76). Nearby, the Timonovka 2 site, with a practically identical lithic inventory, is the same age (LU-358) 15.110 +/-530 BP (Grekhova 1971: 3–22; Svezhentsev 1993: 26–27). The statistical data of lithic tool collections of all four excavated assemblages of the Timonovka 1 site, now including 6,023 specimens, are quite thoroughly analysed and published (Gavrilov 1994: 63–76).

The Timonovka 1 site was investigated by M.V. Voevodsky and V.A. Gorodtsov between 1928 and 1933 (Voevodsky 1929: 59–70). According to the latter au-

thor, four quite specific mud-huts existed on the site. However, recent excavations of the nearby Timonovka 2 site discovered serious cryogenic destructions of both their cultural layer and some substantive mammoth bone constructions (dwellings and pits) and did not support this last conclusion (Velichko, Grekhova, Gubonina 1977). The total quantity of the lithic collection of Timonovka 1 from all four assemblages includes now nearly 100,000 artefacts and 6,023 tools (Gavrilov 1977: 64). Blade processing, like other assemblages of Yudinovian industry, is based on the use of mainly prismatic cores with two opposite striking platforms, with abrasion reduction of the latter from the knapping of middle-size blades and bladelets with a regular parallel dorsal scare pattern and pointed knapping bulb. The same but sub-pyramidal and prismatic cores with a single striking platform were used too.

The most expressive category of lithic tools of the Timonovka 1 site, as well as other assemblages of this industry and Epigravettian of the Middle Dnieper basin, on the whole are various backed microliths and other lithic points connected with usage as the tips of projectile weapons. The percentage of microlithic insets among the tools of each assemblage of the site fluctuated within quite wide limits (1.4% in the second assemblage, 6.2% in the fourth, 7% in third, and 9.1% in the first) (Gavrilov 1994: 64). The total quantity of microliths (273 specimens) is 4.5% of all tool assemblages. The latter are processed with quite different (fine, low or high) dorsal semi-abrupt and abrupt retouches. Practically no cases of the regular use of ventral retouch were present in the microlithic collection of Timonovka 1, or of other sites of this industry. The first and most numerous kind of backed microliths included quite massive, short and wide lanceolate points, sometimes with different processing of the basal part (Fig. 21, 2–16, 19, 20; 22, 1). However, some more small, short or narrow lanceolate and microgravettian points existed too (Fig. 21, 1, 17, 18, 35, 58). The same diversity of processing, proportion and size is observed among the typical (Fig. 21, 21–25) and atypical (with only one truncation) rectangles (Fig. 21, 26–28, 31) which formed from the second typological category of backed microliths. Perhaps typologically related with atypical rectangles are specific truncated bladelets and microblades (Fig. 21, 29, 30, 32, 33). One even has a rhomboid form (Fig. 21, 45). The other microliths of the collection are fragments of two already described types (Fig. 21, 36–61). A number are damaged by diagnostic projectile fractures from their usage as thrusting tips of a dart or arrow (Fig. 21, 9, 13, 15, 38, 41, 42, 46, 53, 55–59) or the lateral edges of composite slotted spear points from organic materials (Fig. 21, 49–51, 60).

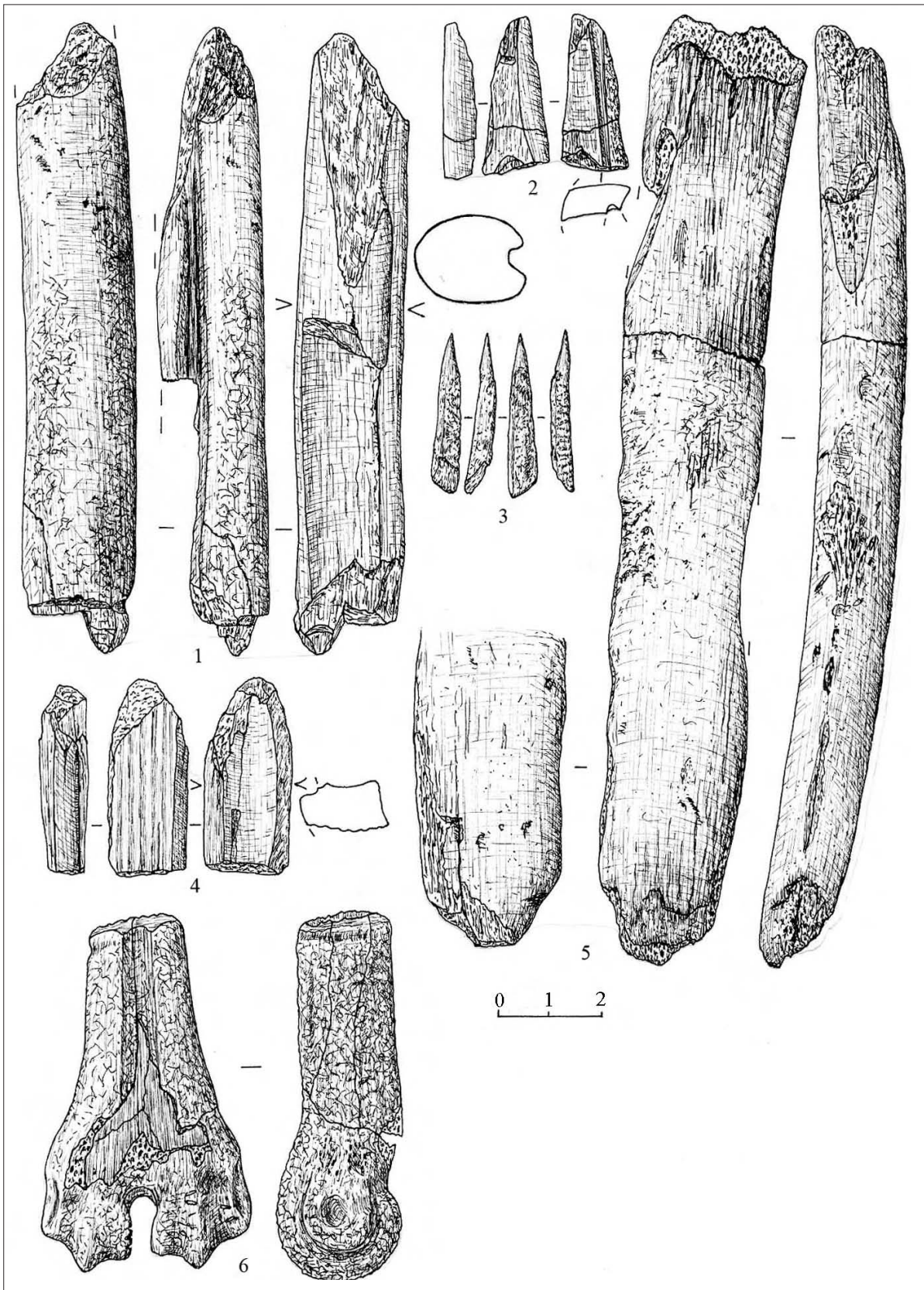


Fig. 20. Bone and ivory tools from the Semenivka 3 site



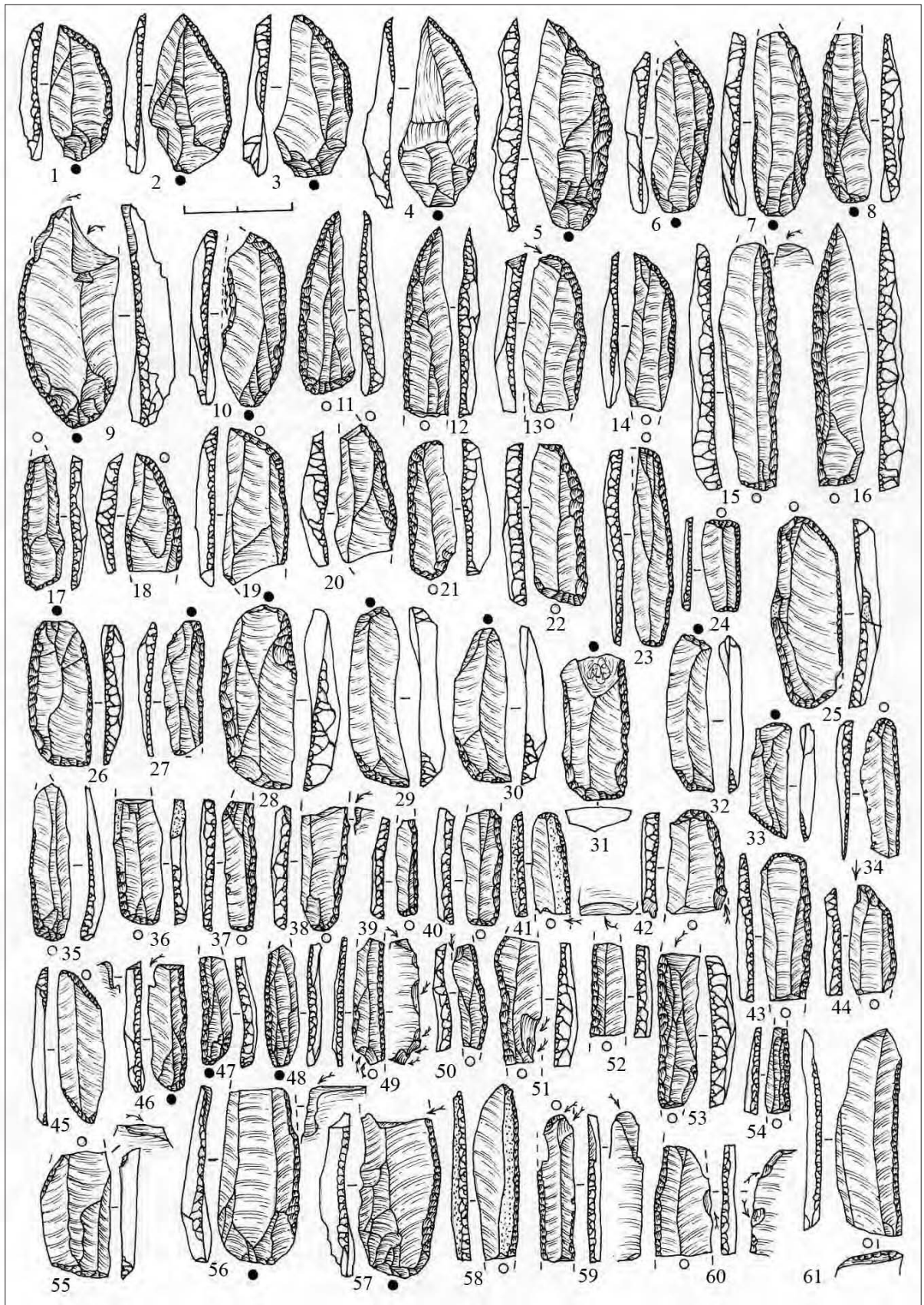


Fig. 21. Backed microliths from the Timonovka 1 site



The other typologically definable category of lithic projectile weapon tips of the Timonovka 1 collection are quite specific more or less symmetrical massive points on blades processed by semi-abrupt or abrupt dorsal retouch along from one, partly two or completely both lateral sides (Fig. 22, 2–14). Some have various truncations on the base (Fig. 22, 2–6, 13). Practically all these points are damaged, sometimes by diagnostic projectile fractures from their use as points of quite massive projectile weapons like spears (Fig. 22, 2–9, 11, 12, 14).

However, the dominant category of tools in all assemblages of Timonovka 1 are various burins made mainly on middle-size blades (4,332 specimens, or 72% of the tools). However, the percentage of the latter fluctuated within quite wide limits in each collection (46.3%, 57.9%, 60.1% and 88.6% for the third, fourth, first and second respectively) (Gavrilov 1994: 64). The most numerous type of the latter (66.1%, 65.4%, 63.8% and 66.2% of all burins from each collection) are tools made on different, mainly oblique or convex, truncations (Fig. 24, 12, 14–21; 25, 4–6, 8–10). Some have several working edges (Fig. 24, 1–12, 14–17, 19–21) or combined with dihedral (Fig. 24, 22; 25, 1, 2) and angle burins (Fig. 23, 23, 26–28; 24, 18). The quantity and correlation between the two other main types of burins (angle and dihedral) are different in each assemblage of this site. Angle forms (Fig. 24, 13) made mainly on blades are quite numerous in the first and less numerous in the fourth assemblages (11.7% and 9.9% of all burins respectively), contrary to 3.6% and 5.7% in the first and third. Dihedral burins also made on the whole on blades (Fig. 25, 11–13) in contrast are quite dominant in the second (8.9%) and few in the third assemblages (5.9% of all burins), but in the first and fourth are 6% and 9.8% respectively.

The second most numerous category of lithic tools in all assemblages of Timonovka 1 are scrapers made mainly on blades (a total of 577 specimens, or 9.6% of the tools). The percentages of the latter among the tools of each collection fluctuated within quite wide limits and are 15.4%, 0.9%, 18.5% and 22.1% in the first, second, third and fourth assemblages accordingly (Gavrilov 1994: 64). As a rule, there are simple and quite short end-scrapers (Fig. 23, 1–18) made mainly on blades (55.2% to 78.6% of all these tools), or nearly half on blade-like flakes (Fig. 23, 1–5). The percentage of short double-end type specimens (Fig. 22, 26–28) among the scrapers fluctuated within limits of 7.1% to 15% (Gavrilov 1994: 71). Some are retouched along one lateral side (Fig. 22, 30, 31). The same processing existed on a number of end-scrapers on flakes (Fig. 22, 33, 34) which sometimes received a sub-circular form (Fig. 22, 32, 35, 36).

As in the larger body of Epigravettian industries of Eastern Europe, after burins, scrapers and microliths, the fourth most numerous category of lithic tools of Yudinovian are blades with various (transversal, oblique, convex and concave) truncations (224 specimens, or 3.7% of all the tools). The most expressive kind are represented by oblique truncated forms (Fig. 22, 15–23), which at times are typologically well connected with some of the above-described lanceolate points (Fig. 21, 3, 4, 13, 14). In addition, a number of these tools have a diagnostic projectile fracture from their use as spear or dart points (Fig. 22, 19–23). And finally, the last typologically definable category of the tool collection of Timonovka 1 is represented by different borers-awls (40 specimens, or 0.6% of all the tools), made mainly on blades or bladelets (Fig. 22, 24, 25).

Tools made from organic materials of the Timonovka 1 site are represented by fragments of cylindrical ivory projectile points and pivots, awls from arctic fox bone and ivory, and fragments of ivory needles and lissoir, hoes from mammoth ribs, etc. A number of adornments, such as three fragments of ivory bracelets with linear decoration and hole, pendants from deer teeth and shell with holes, have been found on the site too. There are 23 objects of art, in the form of pieces of tusk or ivory blades covered by rhombic-shape engravings (stylized fishes?) or, rarely, triangles filled with diagonal net decoration (Abramova, Grigoreva 1997: 120). According to the abundant number of pendants from marine and river shells of the Yudinovo site, the main species of this industry are the same as that of the Smenivka 3 site. There are more than one hundred geologically modern shells from the Black Sea basin, “*Nassa (Tritia) Reticulata* L.” and “*Cyclope Neritea* L.”. Estuary or river shells are represented by the “*Theodoxus fluviatilis*” species (Abramova, Grigoreva, Kristensen 1997: 133).

#### The Zhurivka site

And finally, perhaps, the latest stage of development of the Epigravettian technocomplex in the region is represented by the Zhurivka site (Rudinsky 1929: 141–151). The lithic collection of the latter includes 1,216 flakes and chips, 240 blades, bladelets and fragments of them, 14 crested blades, six core tablets and two burin spalls. The blade processing was carried out mainly with cores of sub-pyramidal and prismatic forms with one striking platform (Fig. 27, 8–12). The total quantity of lithic tools is 47 specimens. There are microlithic tools (30 insets), 14 burins, two truncated (Fig. 26, 31, 32) and one retouched blade (Fig. 26, 33). The microlithic collection includes the short lanceolate points of “Fed-



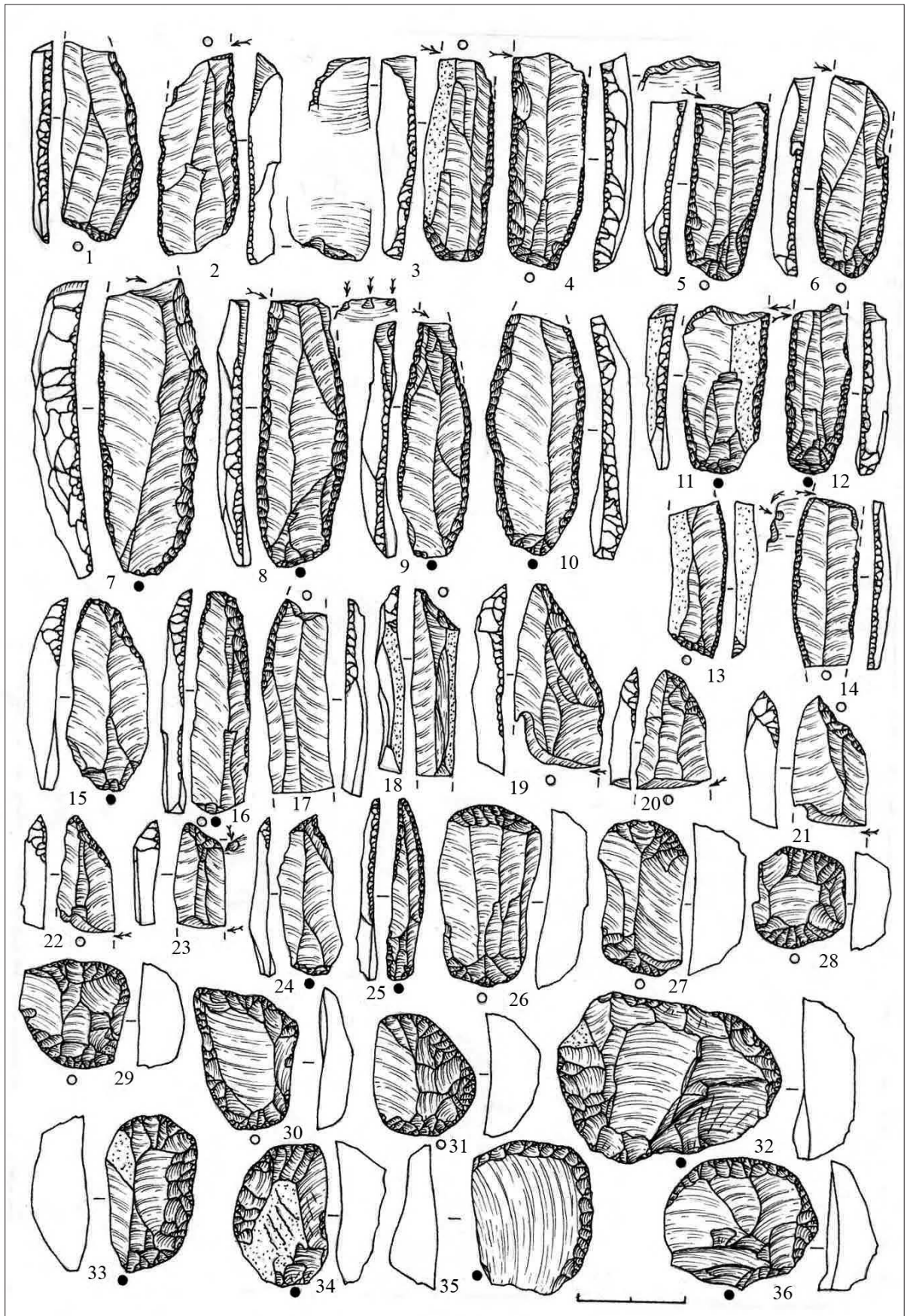


Fig. 22. Points on blades, truncated blades, awls-borers and scrapers from the Timonovka 1 site



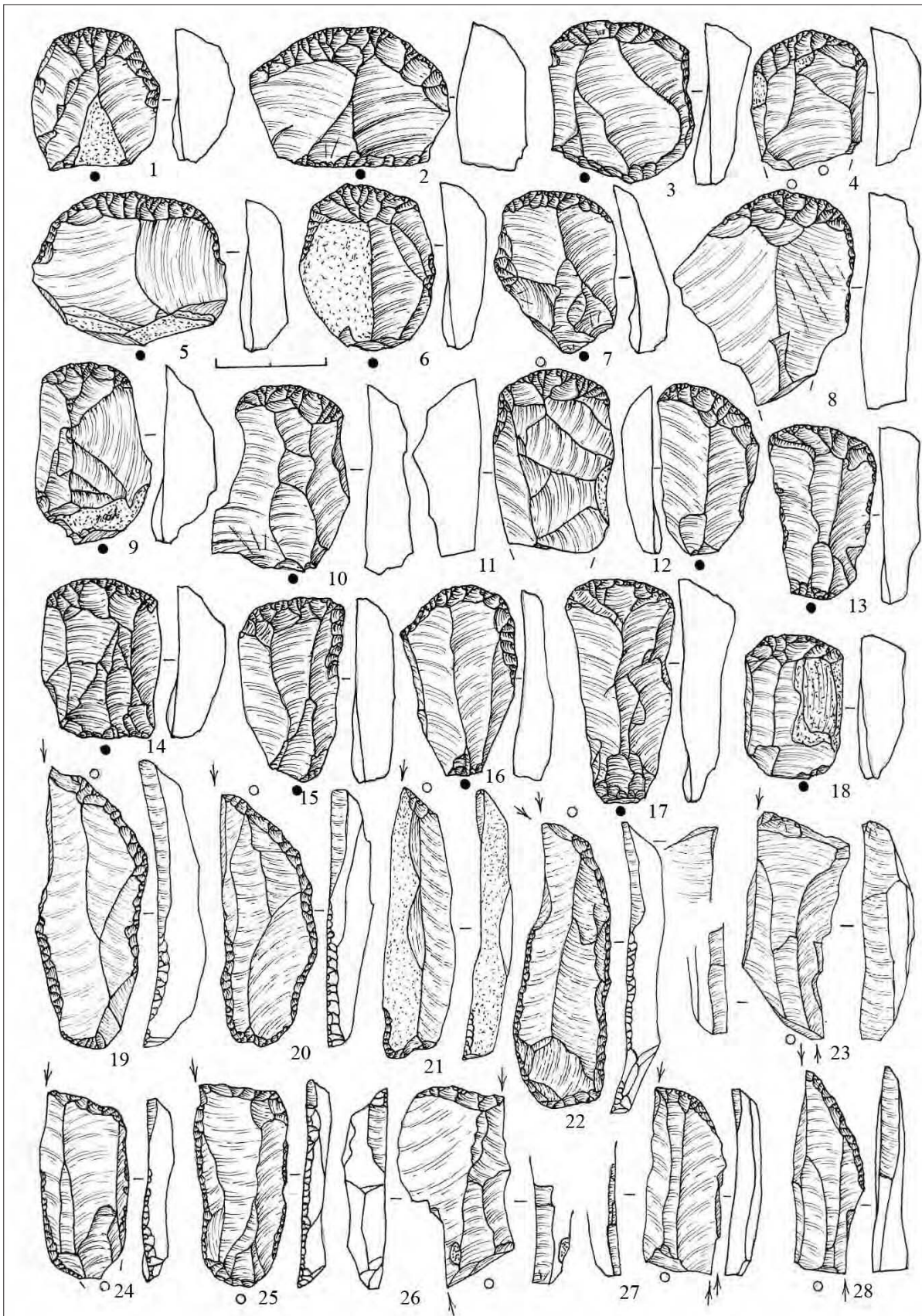


Fig. 23. Scrapers and burins from the Timonovka 1 site



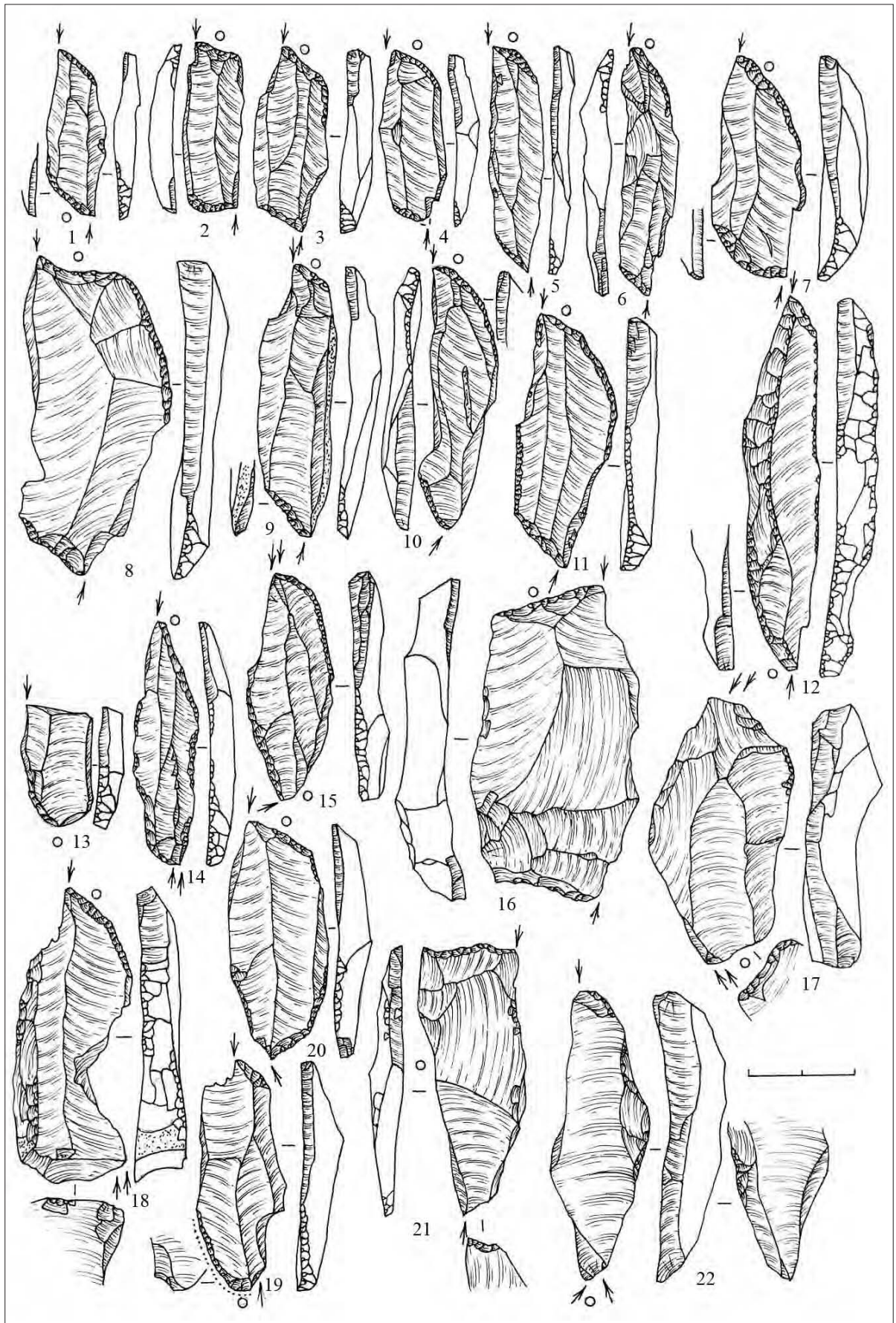


Fig. 24. Burins from the Timonovka 1 site



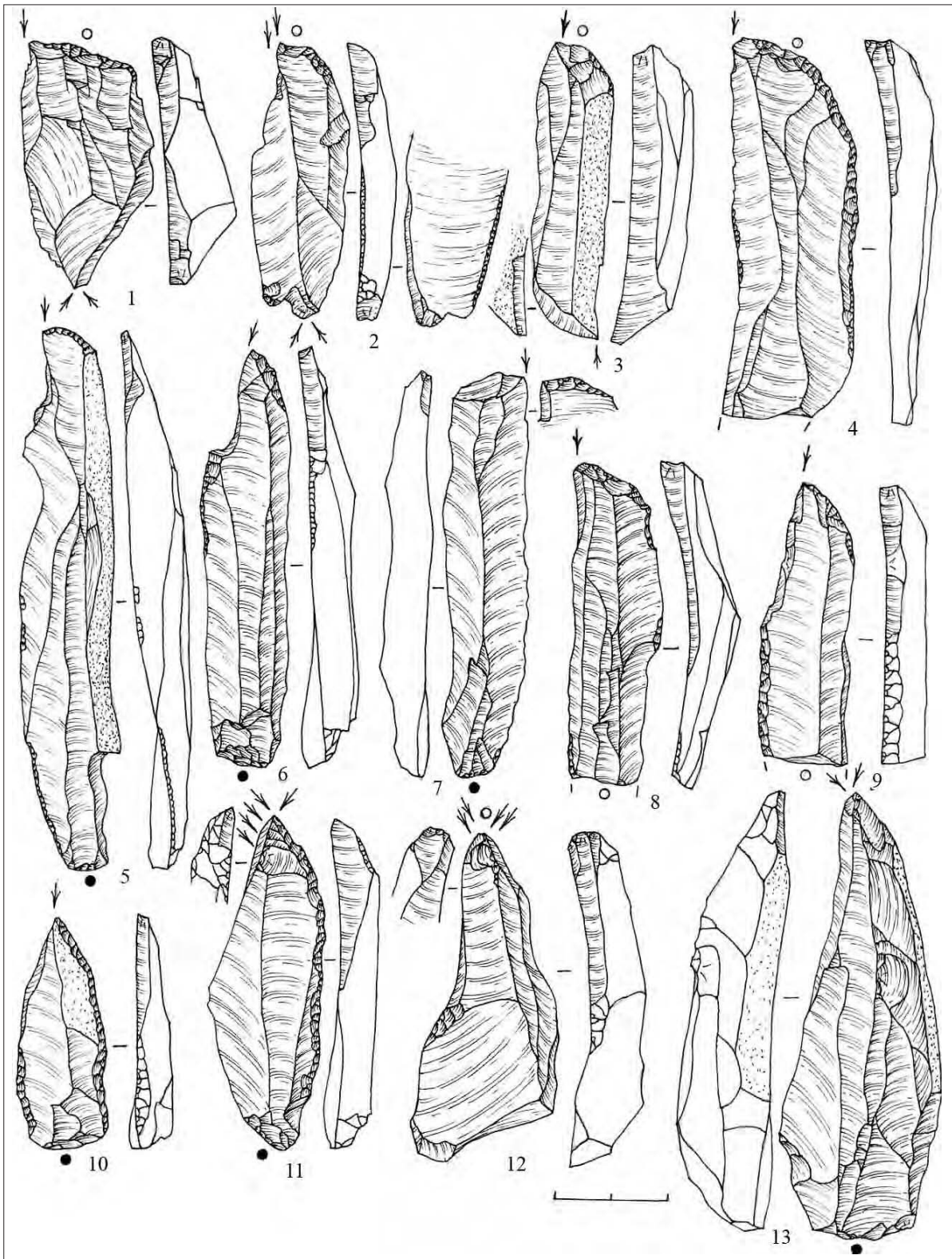


Fig. 25. Burins from the Timonovka 1 site



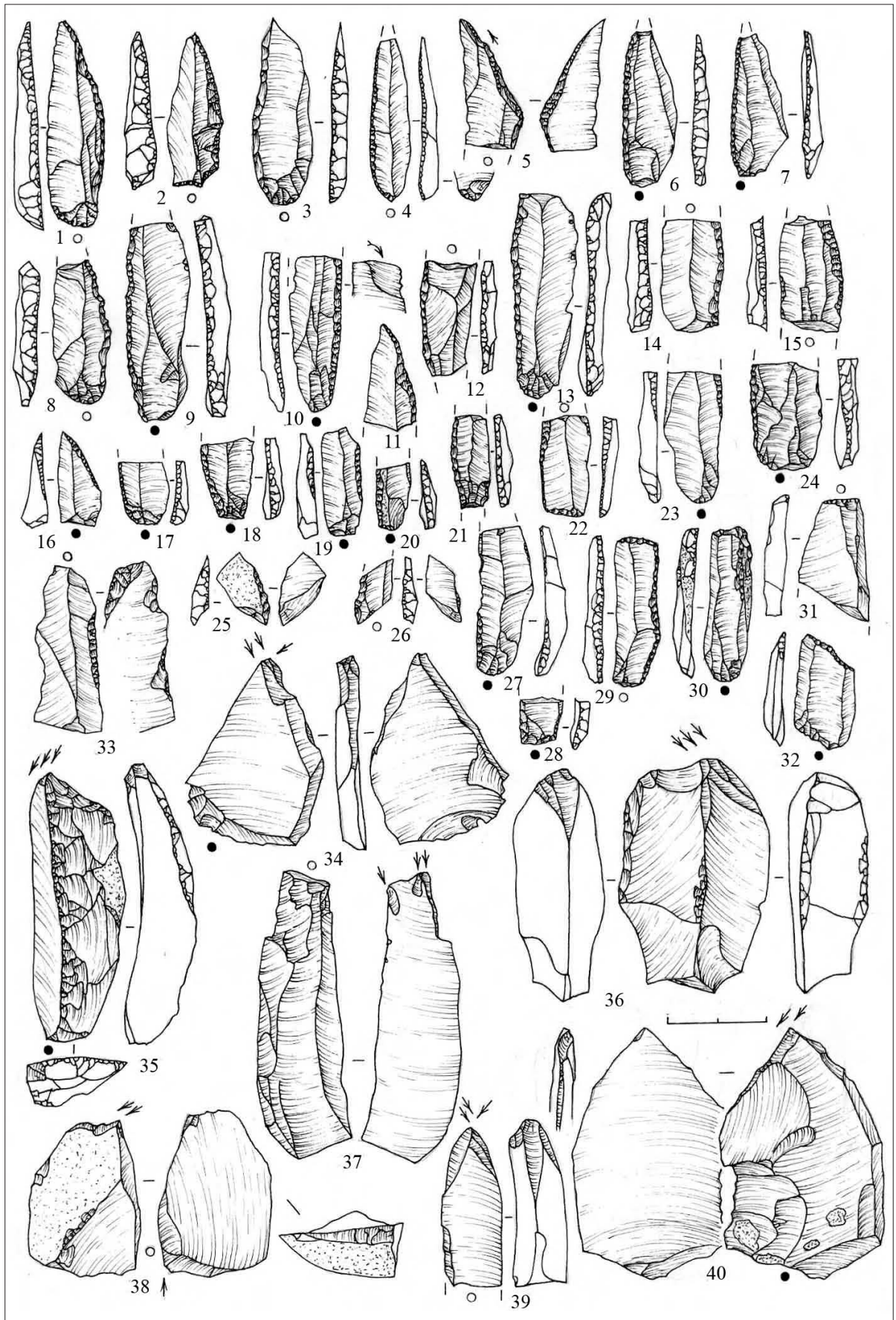


Fig. 26. Microliths, burins, truncated and retouched blades from the Zhurivka site



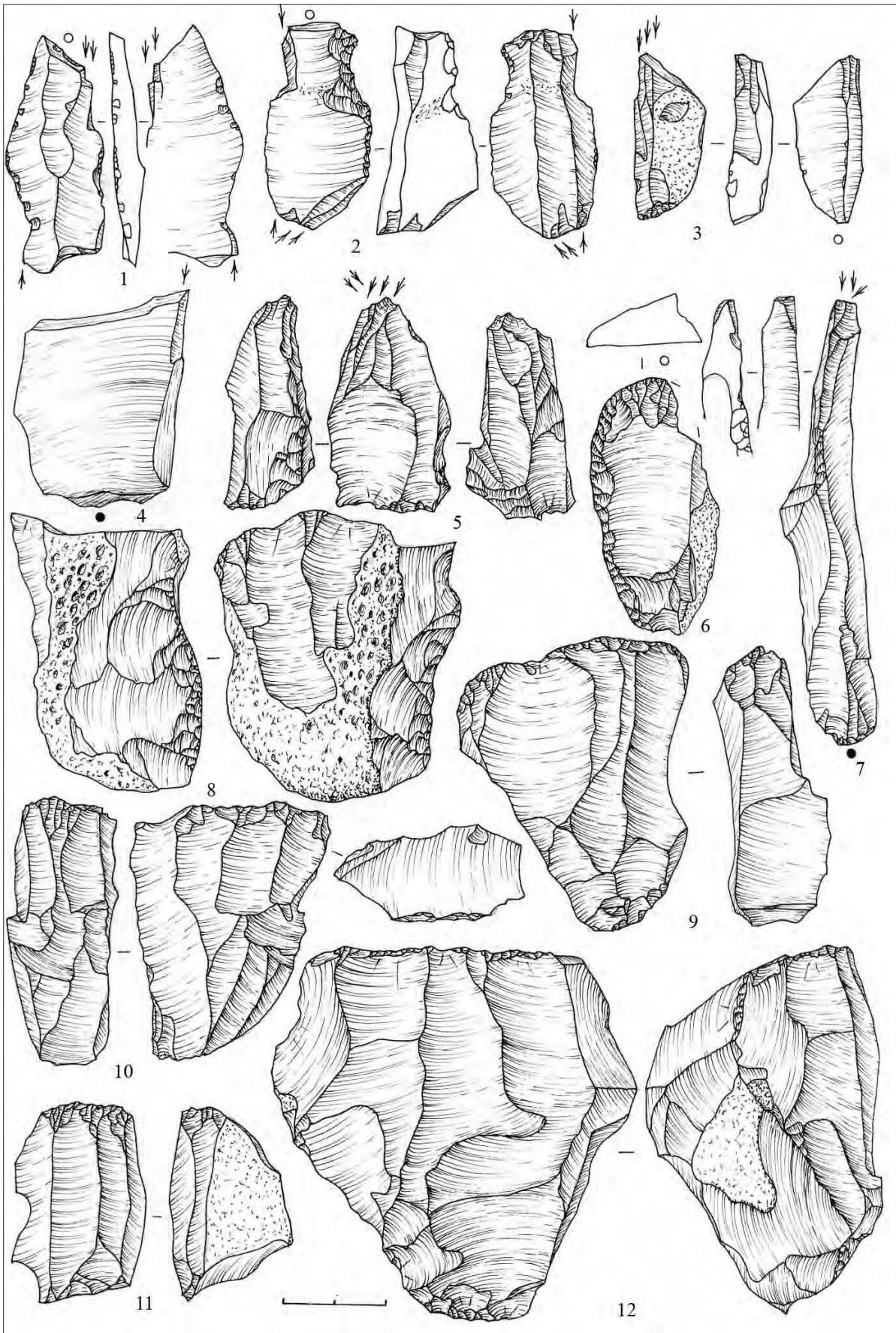


Fig. 27. Burins, scrapers and cores from the Zhurivka site



ermesser” type, sometimes with a retouched base (Fig. 26, 1–4, 6–8), sub-triangular forms (Fig. 26, 7) and oblique truncated points called atypical “Zonhoven” (Fig. 26, 16). For production of some, the microburin technique, which is confirmed by both microburins (Fig. 26, 25, 26) and microliths with the remains of microburin spalls (Fig. 26, 5), was used. Some atypical rectangles are found too. One fragment of a backed point has a diagnostic projectile fracture from use as a thrusting arrow-head (Fig. 26, 10). Contrary to other Epigravettian assemblages in the region, the dominant kind of burins are angle and dihedral ones (Fig. 26, 37–40; 27, 1–5, 7), but some specimens on truncation existed too (Fig. 26, 35, 36). One quite specific end-scrapers with a retouched side (Fig. 27, 6) presented now in the modern collection was not published with the main collection, and perhaps has a neo-eneolithic age. The bone industry of the site is represented only by bones of steppe bobak with traces of processing. There are no carbon dates for the Zhurivka site, but the absence of mammoth bones among the faunal remains (mainly steppe bobak, bison, red deer, wild boar, wolf and red fox) and finds of fir “*Picea excelsa*” charcoal are significant.

## Conclusion

There is good reason to believe that, as a minimum, four different Epigravettian industries, well represented by a number of sites, can be identified in the Middle Dnieper basin. In addition, two other quite specific ones are represented by single collections (Eliseevichi 1 and Zhurivka). Perhaps some these industries even coexisted in the same territories during quite narrow chronological limits, 15–14 kyr. like Mezinian and Yudinovian in the Desna river basin. The main typological and technological characteristics of tool collections of these industries are quite similar, and included mainly burins on various truncations and quite simple short-end or sometimes double-end scrapers on the blades. With some exceptions, the difference of the latter are connected mainly with the morphology of used types of backed microliths and other specific kinds of lithic projectile points.

For the reasons given, the use of the microburin technique for the production of backed points in Mezhirichian industry in just the Semenivka 2 and 3 (dated 15 and 14 kyr. respectively) sites is very significant. The reason for the latter is still in question. Is it the result of the slightly younger age of some, or their quite seasonal specific as hunting camps of warmer times? On the other hand, both these collections can also represent the other different version of local Epigravettian that coexisted in the same region with classic sites of

Mezhirichian industry, such as the Mezhirich, Dobranichivka, Gintsi and Fastiv sites. The obvious southern cultural connections of collections of the Semenivka 2 and 3 sites, with Epigravettian of the steppe zone of southern Ukraine, where the microburin technique was widely used for the production of backed points practically up to the second part of the Upper Palaeolithic (Nuzhnyi 1992: 76), was confirmed also by the numerous marine shells of the Black Sea basin.

The cultural connection of Mezinian industry with both Mezhirichian and Yudinovian ones is also not yet clear. The first kind of industry had an expressive east-west cultural connection (in the form of fossil marine shells from the Podolian Upland, contrary to the latter, which contained southern exports of modern Black Sea species. For the present-day situation, some influence of preceding local Pushkari industry (dated within limits of 22–19 kyr.) on the typology of the Yudinovian collection of lithic tools is more or less understandable.

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## VĒLYVIAUSIO EPIGRAVETO KOMPLEKSAI VIDURIO DNEPRO BASEINE (ŠIAURĖS UKRAINA)

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Santrauka

Šiuo metu Vidurio Dnepro baseine Šiaurės Ukrainoje ir gretimuose regionuose galima išskirti mažiausiai keturis epigravetinius technokompleksus, reprezentuojamus atskirų gyvenviečių grupių. Dar du tokie technokompleksai yra išskirti pagal pavienes gyvenvietes. Jų technologijos yra labai panašios, tačiau jos atskiriamos tik pagal joms būdingą medžioklės inventorių – mikrolitų su retuotu vienu šonu ir kitų antgalių – tipologinę sudėtį ir morfologinius ypatumus.

Pirmam – Mezin – technokompleksui skirtinos dvi stovyklavietės: Mezin Desnos upės baseine ir Barmakų Gorynės upės aukštupyje Volynėje (Vakarų Ukraina). Pagal radiokarboninių datų seriją abi stovyklavietės gyvavo prieš 16–15 tūkst. m. Kai kurie šiai technologijai būdingi dirbinių tipai (ypač mikrolitai) aptikti Suponevo gyvenvietėje prie Desnos upės ir Borševo gyvenvietėje prie Dono.

Antrasis – Ovručo – technokompleksas apima Dovginičių, Zbrankos ir Šolomkos 1 stovyklavietes, įsikūrusias Ovručo kalno keteroje, Žitomiro krašto šiaurinėje dalyje. Šie paminklai dar nedatuoti.

Trečiasis – Mežiričo – technokompleksas aptiktas Mežiričių, Dobraničevkos, Goncų (abu sluoksniai), Fastovo, Semenvkos 1, 2, 3 ir Velika Bugaivka stovyklavietėse. Jos įsikūrusios prie nedidelių Vidurio Dnepro intakų į pietus nuo Kijevo. Pagal didelę seriją radiokarboninių datų šie kompleksai patikimai datuoti ni 15–14 tūkst. metų amžiumi.

Ketvirtasis – Judinovo – technokompleksas, būdingas Judinovo, Timonovkos 1 ir 2, Jelisejevičių 2, Čiulatovo 2 ir Bugoroko stovyklavietėms Desnos upės baseine. Judinovo technokompleksas radiokarboniniu metodu datuotas 15–14 tūkst. metų amžiumi.

Du specifiniai epigraveto technokompleksai yra iki šiol aptikti tik pavieniuose paminkluose ir neturi analogų kitose epigraveto stovyklavietėse šiame regione. Tai Jelisejevičių 1 stovyklavietė Desnos baseine, datuota 17–12 tūkst. metų amžiumi, ir Žuravka prie Udajaus upės.