

a microblade as well (fig. 16:7). Further 5 blades and 1 flake possess notches; a lateral notch, both at the basal and distal ends, was applied on microblades (Fig. 16:4). The tool assemblage is accompanied by a massive bec (Fig. 20:38) and by a splintered piece.

Other finds. The bone industry comprises fragments of an ivory point (Fig. 24:11) and of a bone awl. Compared to the other units the chipped mammoth bones become more frequent; two of them lied directly inside of the hearth. Some of these bone fragments are retouched (Fig. 25:4).

Alltogether 11 *Dentalia* shells were found, and in 2 cases two and two pieces have been inserted in each other (Fig. 16:17-18). These shells were distributed in the northern part mainly, similarly as the lithics. Three *Melanopsis* shells, all pierced (Fig. 16:15-16) were dispersed in the area, together with another Tertiary mollusc shell. The ochre was markedly numerous: besides a larger ochre plate there were 44 smaller pieces. Sandstone plates were frequent as well: 5 were sharp-edged fragments and 4 were oblong, with rounded edges, of a kind which is absent elsewhere. Some of them show traces of pounding along the edges (Fig. 21:3).

AREA OUTSIDE THE SETTLEMENT UNITS

Southern field. Southern end of the settled area is divided into steps by dislocations. An irregular depression with unclear margins lied on the lower step, near the 1st settlement unit (area of square Aa-23). It contained numerous bones of smaller animals and artifacts. Higher, in the area of square C-23, was found a small kettle-shaped hole with cumulation of bones and 2 limestone fragments around. Two large mammoth bones lied along the southern margin of the settled area and a carnivore skull at the eastern margins. This "centrifugal effect", i.e. location of larger objects in marginal parts of settlements, is repeatedly observed in certain Upper Paleolithic sites. At the same time, density of small lithic industry decreases towards the margins, especially to the SE (Fig. 3).

Northern field. No remarkable features were observed in this area. At places (squares D-2, E-6) the charcoal and objects were cumulated; bones and stones were scattered; at the northern margin, again, some larger mammoth bones and heavier artifacts appeared, such as a siltstone core or a pebble with traces of utilization (Fig. 21:1). The density of lithics decreases in the direction to N (Fig. 2, Fig. 3).

Western field. A zone 3,6 m wide at the western margin of the etage, separated by disturbance 10,5 m wide, was investigated. Several depressions with charcoal seem to be due rather to irregularity of the original surface than to artificial features. Their outlines were not clear (cf. squares Y-18, Z-17). Animal bones lied scattered around the square Z-14, while lithics were most numerous in the zone of squares X-18 to X-21. Thus, no coincidence between the terrain features

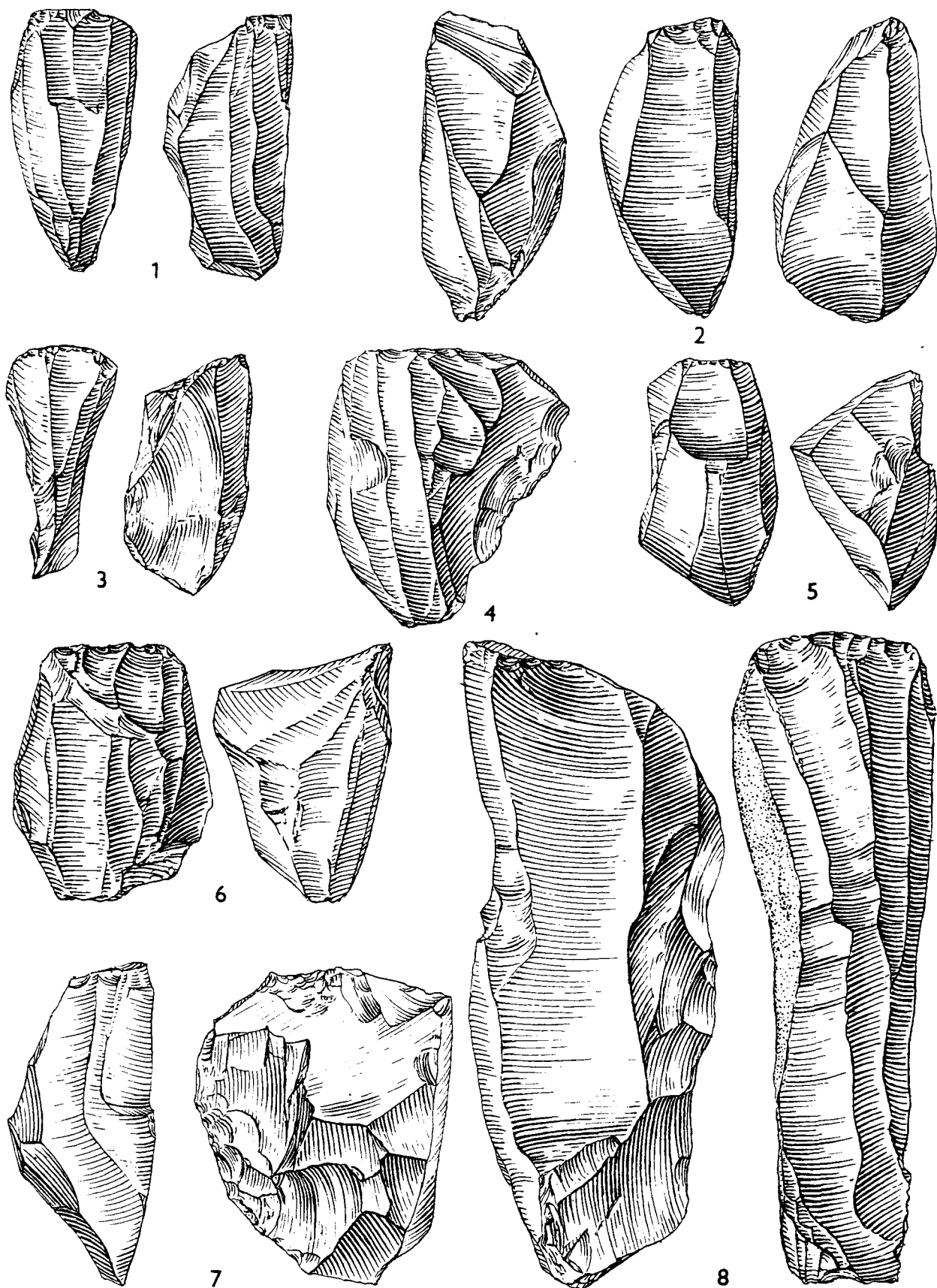


Fig. 17. Cores. Area outside the settlement units.

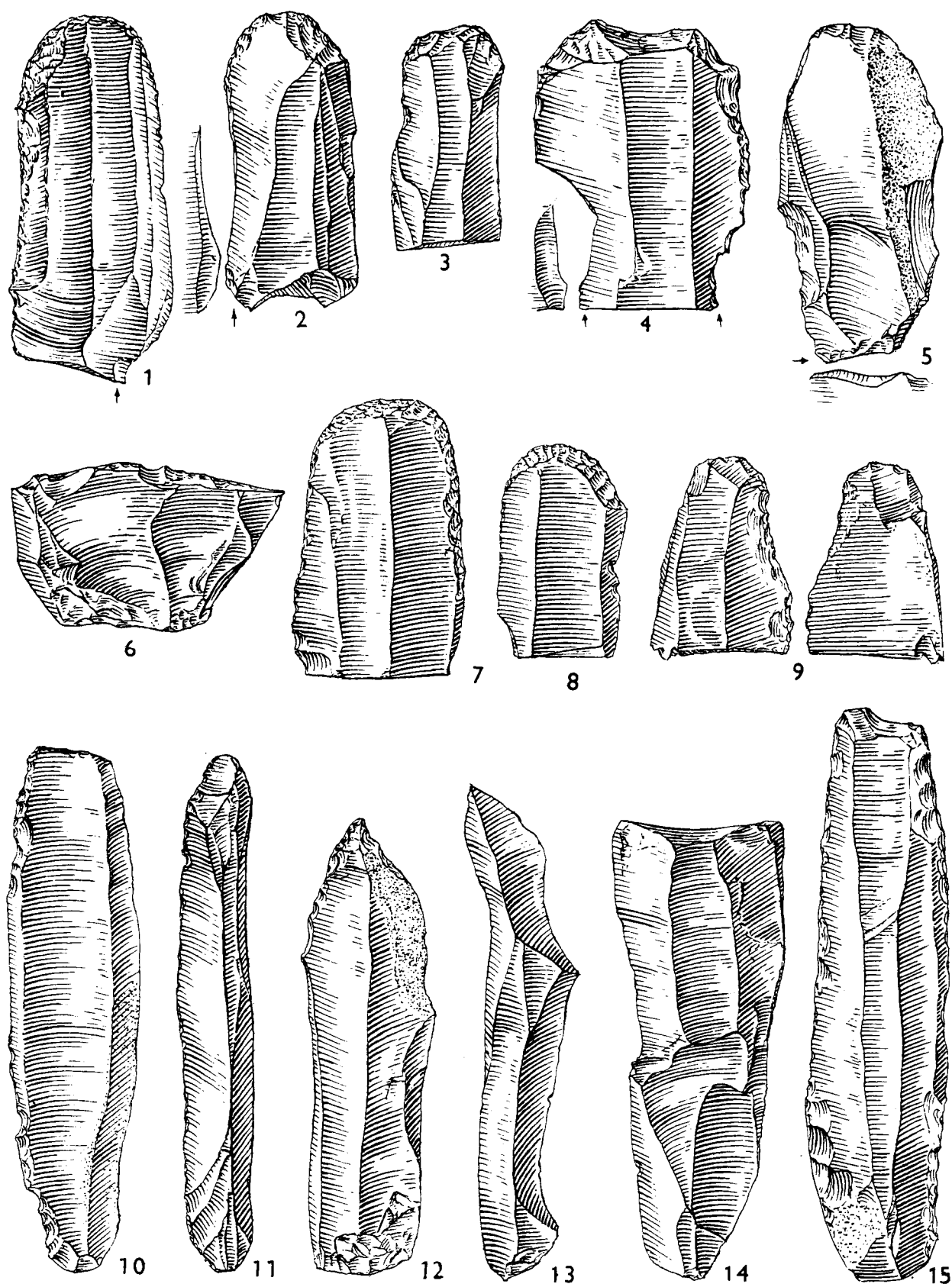


Fig. 18. End-scrapers, blades and other tools. 2, 11, 13: 3rd unit; others from free area.

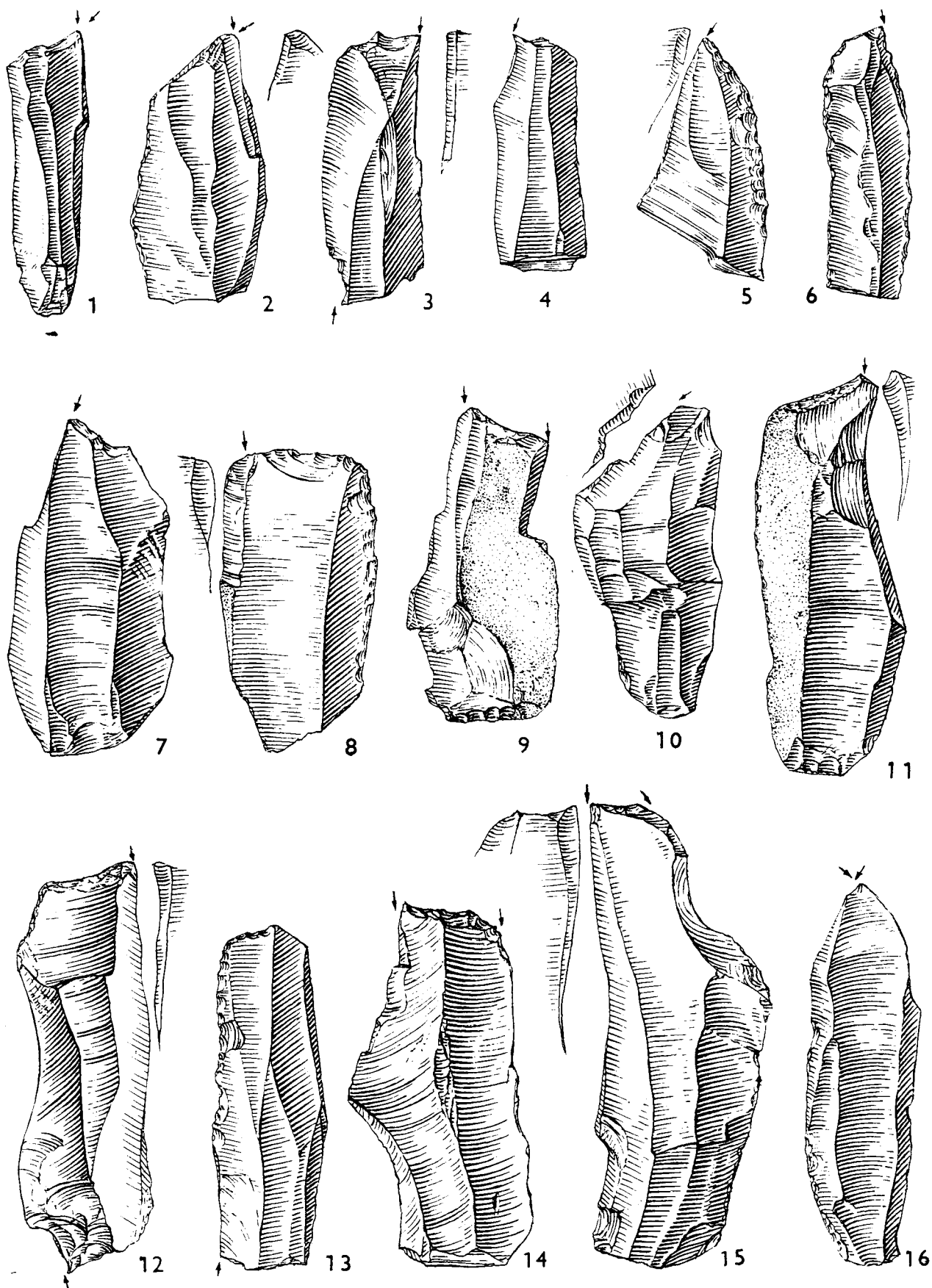


Fig. 19. Burins. 3: 3rd unit; 15: 2nd unit; others from free area.

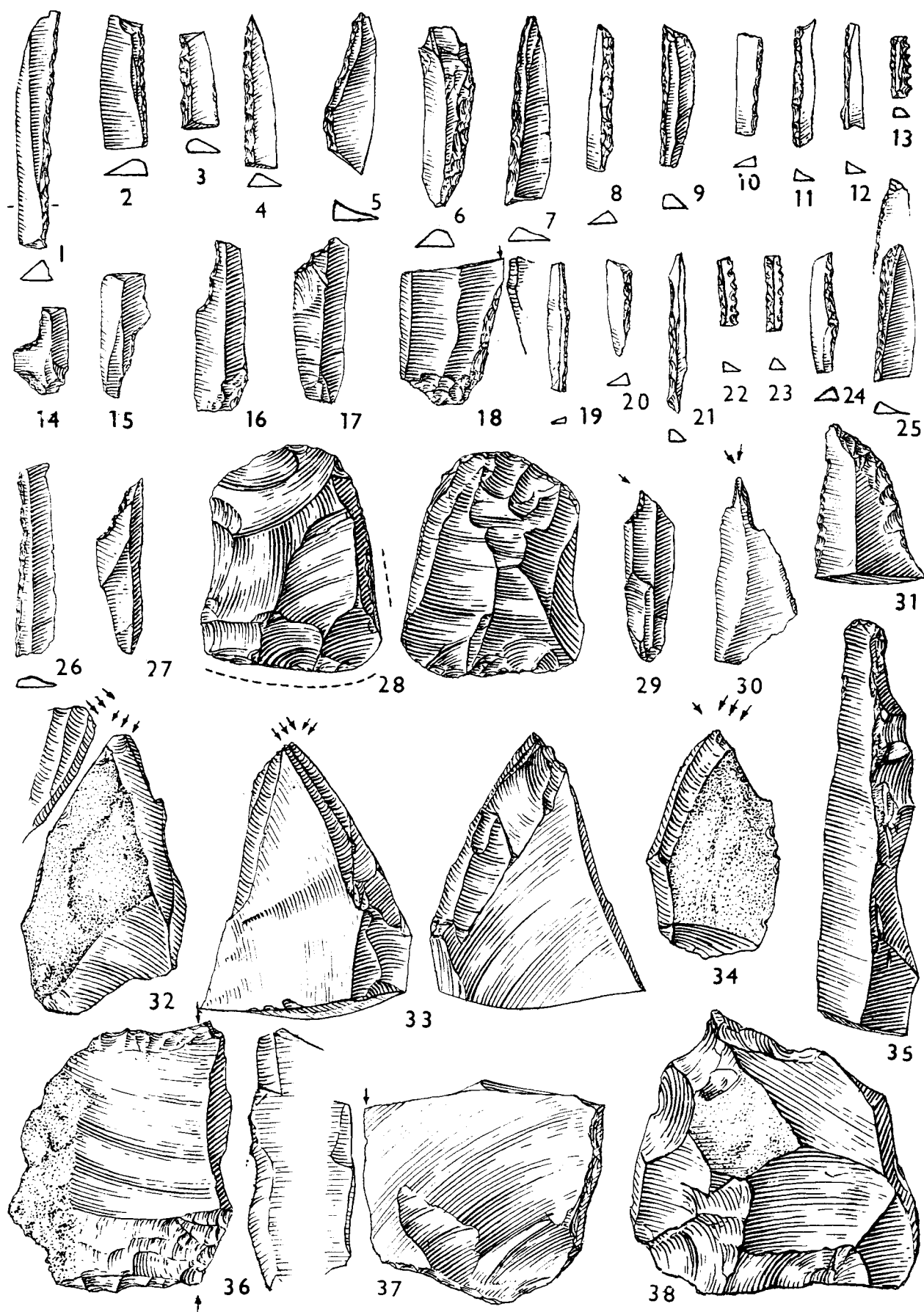


Fig. 20. Microliths and various tools. 16-18: 2nd unit; 28, 30, 36, 38: 3rd unit; others from free area.

and concentration of objects is observed. All finds disappear in the directions to N and S.

Lithic industry. Out of the total of 59 cores, 5 are made of red and 7 of green radiolarite; the large siltstone core has already been mentioned. With the exception of one pre-core, most of the cores are in the exploitation process, and usually of the Upper Paleolithic type (with dorsal crest - 11 pieces, Fig. 17:3-4, 7-8, or without dorsal preparation - 3 pieces, Fig. 17:2). Prismatic (10 pieces), cubical (2 pieces) and pyramidal cores (3 pieces - Fig. 17:1) occur as well. With exception of the largest core (Fig. 17:8), all are of standard dimensions. Bipolar cores dominate over the unipolar ones. Changes of orientation are frequently visible, especially on cubical cores, where the new direction is usually perpendicular to the original one. Some cores get shortened by platform rejuvenation. Core residuals are both of flat and small prismatic shapes (Fig. 17:5).

Among the 165 retouched tools, 5 are of red radiolarite and 15 of green radiolarite. Endscrapers are mostly on blades (8 pieces, Fig. 18:3, 7-8), or broken endscraper heads only, atypical endscrapers (4 pieces) and 1 nosed microendscraper (Fig. 20:35). Combinations of endscrapers are with burins on broken blades or with a transverse burin (4 pieces, Fig. 18:1, 4-5).

The burins are the most frequent group (56 pieces), mostly on broken blades (26 pieces, Fig. 19:4, 6, 10, 13; Fig. 20:37). Dihedral burins (9 pieces) are rather symmetrical (Fig. 19:16) than asymmetrical (Fig. 19:1-2) and frequently rounded in section by parallel blows (Fig. 20:32-34). There are 11 burins on truncations of concave (Fig. 19:7, Fig. 18:29), straight (Fig. 19:11) and convex (Fig. 19:5) shapes, and some of them are double (Fig. 19:4). Other burins are transverse, flat (Fig. 19:8), core burins on larger fragments and combinations of burins (e.g. - burin on truncation/burin on broken blade, Fig. 19:3, 12).

The backed implements (45 pieces) are usually microlithic. Again, most frequent are the backed microblades (27 pieces, Fig. 20:1-3, 6-8, 10-12, 19-21, 26), sometimes pointed (9 pieces). Microsaws are scarcer (Fig. 20:13, 22-23), and a La Gravette point (Fig. 20:4), a small point with a gibbosity (Fig. 20:24) and a ventral retouche applied on microblade (Fig. 20:25) are solitary. Among the other microliths we should note a small shouldered point, accompanied by blades with terminal (Fig. 20:14, 27) and basal (Fig. 20:15) notches. A single blade with oblique truncation (Fig. 20:9) completes this group.

Further repeatedly occurring tools are blades retouched unilaterally and bilaterally, some of them pointed symmetrically (Fig. 18:12) and asymmetrically (Fig. 20:31). Truncated blades are concave, oblique and straight (Fig. 18:10, 15). The last group form the notches; all other types (denticulate, becs, chissels - Fig. 18:9) are rather solitary.

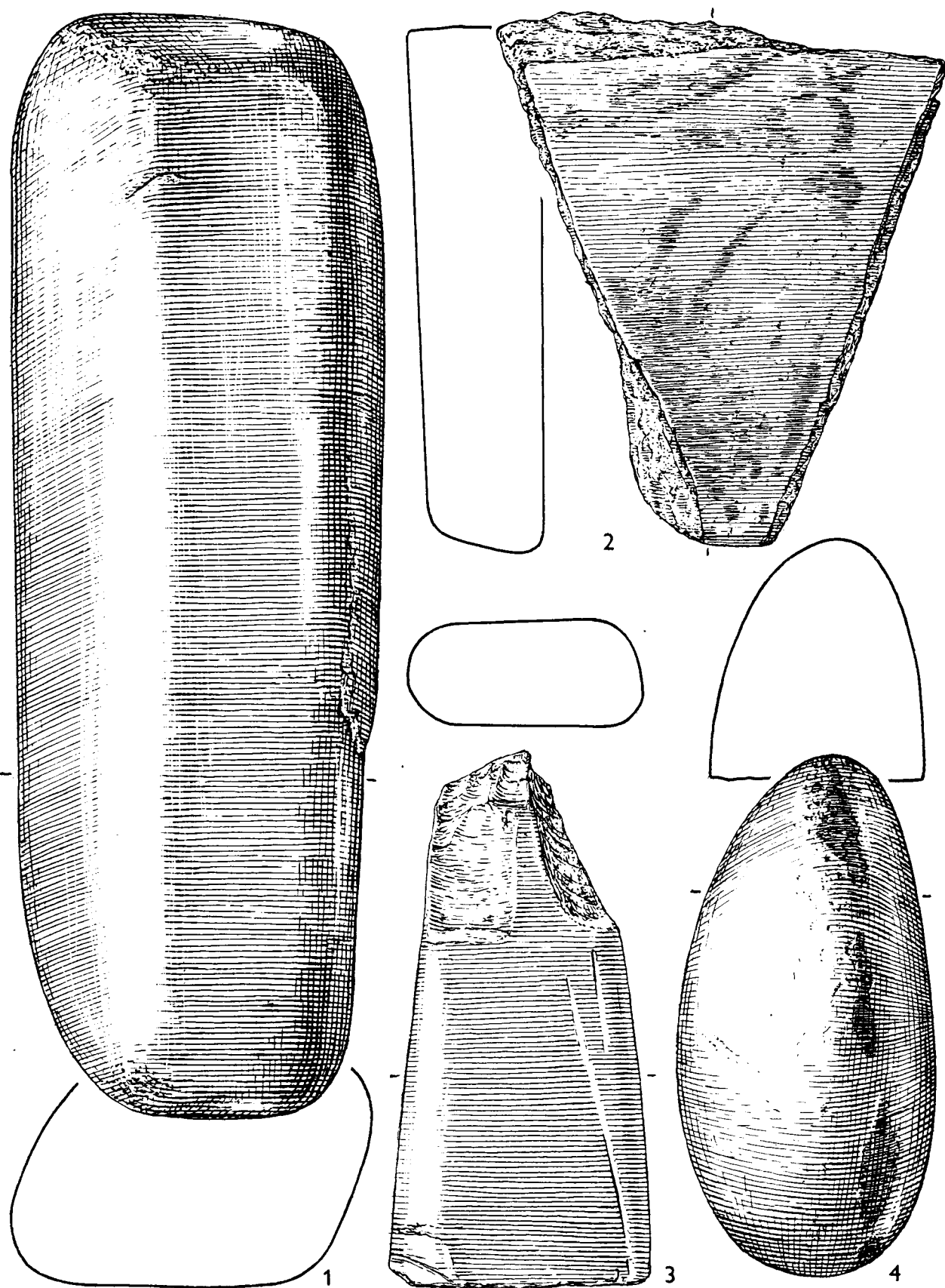


Fig. 21. Pebble tools and plates. 3: 1st unit; 4: 3rd unit; others from free area.

Other finds. The bone industry comprises three awls (Fig. 24:1-2, 6), fragment of a decorated ivory point (Fig. 24:12) and a polished spatula (Fig. 25:2). Chipped mammoth bones were scattered throughout the area, especially in its northern part (Fig. 22). Dentalia shells (21 pieces) and Melanopsis shells, rather non-pierced (8 pieces) than pierced (5 pieces) occurred, accompanied by two carnivore canines with traces of piercing. Among the special finds range an oblong and partly rounded sandstone plate and a longitudinal quartz pebble with traces of use on the edges (Fig. 21:1).

THE LITHIC INDUSTRY: GENERAL CHARACTERISTIC

Distribution. Spatial distribution of lithic industry corresponds roughly to the terrain features: the southern cluster coincides with the 1st and 2nd settlement units, and the northern cluster with the 3rd settlement unit (Fig. 3). Highest density of artifacts occurs within the 1st unit, but it rapidly decreases in direction to the S (behind the back of the skeleton). Neither in the 3rd unit is the coincidence accurate: the artifact cluster lies slightly more to the N, compared to the terrain features. Smaller isolated clusters were detected in squares Aa-B/23 (a solitary depression), G/8-10, X/20-21, etc. Some of the larger stone artifact appear in marginal areas, similiary as large bones.

Distribution of the retouched tools reveals the same pattern as distribution of lithic industry in general. Therefore we excluded the graphic presentation from this report.

Raw materials. About 80-90 % of artifacts is made of various silicites from the glacial sediments of North Moravia and Silesia, from outcrops of the Kraków - Częstochowa Jurassic and possibly even from the Volhynia plateau. A detailed study of this group of raw materials, including definition of the various types of flints and determination of their origin, is still under preparation. With the present knowledge we may conclude that most of these materials come from the distance of several hundred km to the NE. The rest of the material form radiolarites, most probably from the White Carpathians. They are rather green than red (on certain pieces the two colours are passing to each other, so that one original outcrop for both sorts may be supposed). Percentages of these materials are rather standard, with the exception of the higher share of green radiolarite in the 2nd settlement unit. Other kinds of raw materials are very scarce.

The production dynamics. From the technological viewpoint, Dolní Věstonice II are to be classified as a secondary workshop site, where raw materials have been imported and thus intensively transformed. The first consequence of this is the low share of preserved pre-cores (6,3 % in assemblage of 111 cores), relatively small pieces, mostly in dimensions of usual exploited cores. Larger pieces have evidently been exhausted. Most of the pre-cores are found inside the settlement units.