JAN FRIDRICH

BEČOV IV., DISTRICT OF MOST — AN ACHEULIAN SITE IN BOHEMIA

The Acheulian finds in Bohemia cannot look back at such long and rich traditions as those in some of the neighbouring countries. The few isolated finds of hand-axes came from sites of little or no stratigraphic value, so that their dating is problematic. Their typological characteristic have been thoroughly discussed and the results of these discussions covered the whole range from acknowledging, to totally refusing any intentionality. This poorly balanced and confused state of knowledge has complicated, to a certain extent, the study of the Acheulian settlement in Bohemia. But the territory of Bohemia was situated between the northern and Alpine glacials. The Bohemian Basin could form therefore a corridor connecting the vast steppes of eastern and western Europe. This connecting belt could serve as a regulator of the amount of wild animals, enabling their migration and balancing their numbers in case of overpopulation or sudden losses. There could have been a similar geomorphologico-ethological situation as at the beginning of the Upper Palaeolithic Age (Fridrich 1973), when central Europe could have been a centre with a varied and rapidly changing population.

The territory of Bohemia is relatively poor in perfectly splitting amorphous rocks, suitable for the manufacture of Palaeolithic industries. On assessing the hitherto state of knowledge we had to take into account these and also other circumstances (e.g. the ways of survey inside the caves and on the ridges of high terraces), not leading to the cherished results, and to set a new direction to find the existing sources of suitable amourphous raw materials, namely in the above-mentioned east-west corridor. Surveys planned in this way have resulted in the discovery of a number of Middle Palaeolithic localities in the Ohře River Basin the most interesting of them being the group of localities around Bečov (the individual localities, some of them at the distance of several kilometres from each other, have been marked with Roman figures, at the locality of Bečov the letter stands for part of the locality, the Roman numeral marks the Middle Palaeolithic settlement, and the individual strata [layers] have been marked with Arabic figures). The most important locality is Bečov I with a multiple superposition of layers containing Middle Palaeolithic cultures. A detailed analysis of these finds, coming from the Saalian Glacial, from the Eemian Interglacial and from the Weichselian Glacial Period, has revealed that the entire group of layers has a similar technology of the manufacture of stone industry, based on intentional flake manufacture. The author therefore regards this industry, on the basis of its technological standard, as Middle Palaeolithic.

Bečov IV is situated in north-western Bohemia, between the towns of Louny and Most, south of the locality of Bečov I (Fridrich — Smolíková 1976, Fridrich 1979). It covers an area of about 300×300 m (at the altitude of 250 m above the sea level). They are surface finds found on chalk-marls and clay tuffit layers. The larger or smaller block of fine-grained quartzite, mostly whitish in hue (so-called Bečovian type) stick in the subsoil. Their largest concentration occurred roughly at the centre of the area, around the biggest quartzite blocks. The industry is slightly eolized on the surface. The first hand-axe was discovered in 1968, the most conspicuous and at the same time the biggest one was found on June 30 1971.

So far 165 specimens, made of the local fine-grained quartzite, have been found. Their hue is

whitish and they have yellow to yellow-brown patina. The terminology of a number of artifacts (Fridrich 1979) has been derived from German (Luttropp — Bosinski 1971), and to be exact, I quote them also in the original version. When presenting assamblages I describe the groups, roughly according to their technology. We should evaluate in detail the whole production, since the level of the technological development might help us to determine the overall standard of the culture. Sometimes this way is better than the morphological tool analysis. The importance of this procedure is increasing with small and incomplete collections, and, I am sorry to say, most collections are like this.

The group of *cores* has 36 pieces, i.e. 21.8 % and it is the second most numerous group. Most frequent are the bar-shaped cores (Barrenförmige Kernsteine) — 6 pcs (16.7 % of cores) and cores with a single stick edge (Abschlagkernsteine mit einer dicken Kante) — 6 pcs (16.7 %). The second most numerous type are the approximately rectangular cores (Annähernd rechteckige Abschlagkernsteine) — 4 pcs (11.1 %), among the finds there are also amorphous cores — 3 pcs (8.3 %), blade-shaped cores (Klingenkernsteine) — 3 pcs (8.3 %). The Levalloisian technique is represented scarcely — cores for elongated Levallois-type points (Langgestreckt-dreieckige Kernsteine für Levalloisspitzen) — 2 pcs (5.6 %), broad triangular cores for Levalloisian points (Annähernd breitdreieckige Kernsteine für Levalloisspitzen) — 2 pcs (5.6 %). Sporadically are represented also round cores (Rundliche Abschlagkernsteine) — 1 pcs (2.8 %) and boat-shaped cores (Schiffchenförmige Kernsteine) — 1 pcs (2,8 %). The rest — 6 pcs are atypical cores and fragments. Generally we can assess the cores within a relatively wide range of individual types showing not only the fact that the raw material had been worked on the spot, but also a very high standard of technological development, since from the seventeen studied types of Middle-Palaeolithic cores eleven are represented here. The Levalloisian technique is not widely represented but the situation is similar also in other cultures of the early Middle Palaeolithic period in central Europe; under the notion of the early Middle Palaeolithic we undertand the period from the beginning of the Saalian s.l. Glacial to the beginning of the Eemian Interglacial.

Flakes. This group is more frequently represented in the studied material — 66 pcs (40 %). Over half of the flakes are formed by waste from the preparatory technological stages — amounting to 68.2 %. The Levallois-type technique is represented relatively weakly — 10.6 %, most numerous are Levalloisian flakes — 3 pcs (4.5 %) of pointed Levalloisian flakes — 2 pcs (3 %), round Levalloisian flakes — 2 pcs (3 %). There are few pseudo-Levalloisian points — 2 pcs (3 %) and blades — 4 pcs (4.5 %). As a whole the flakes represent a heterogenous part of the assamblage with proportional representation of all basic flake types. The prevailling share of flakes from the preparatory phases of processing the cores workshop material illustrates the situation of the locality near the natural outcrop of the raw material.

Hand-axes. They a relatively scarcely represented — 9 pcs (5.5 %). All have been made of the local quartzite of the so-called Bečov type. Most frequently appear the approximately triangular hand-axes of plano-convex section — 3 pcs. Sporadically appear oblong hand-axes of biconvex section, oblong, pointed hand-axes with plano-convex section and a ficron hand-axe. The hand-axes form a most-characteristic group of tools that can be dated into the Upper Acheulian (Bosinski 1967, 32—42, 1976).

Scrapers. They form quite a numerous part of the assamblage — 22 pcs (13.3 %). Most frequent are the convex single-edge scrapers — 10 pcs (45.5 %), represented are also straight single-edge scrapers — 3 pcs (13.6 %) and transverse convex scrapers — 2 pcs (9.1 %), scrapers on bulbar face — 2 pcs (9.1 %), biconvex double scrapers — 2 pcs (9.1 %). Sporadically appear also bifacial retouched scrapers — 1 pc (4.5 %) an alternate retouched scraper — 1 pc (4.5 %) and a concave scraper — 1 pc (4.5 %). Out of the twenty-five possible types only nine were found at the site which is roughly one third of all types. We can conclude that scrapers do not represent any important part of the assamblage in contrast to other Czech localities from the earlier part of the Middle Palaeolithic Period.

Knives. Only a single backed knife has been found.

Other tools. This part is more numerous — it comprises 31 pcs (18.8 %). Most frequent are semi-finished tools — 17 pcs (54.8 %), notches — 5 pcs (16.1 %), choppers — 7 pcs (22.6 %), there are relatively few borers — 2 pcs (6.5 %).

Cores	36	21,8 %
Flakes	66	40,0 %
Hand-axes	9	5,5 %
Scrapers	22	13,3 %
Knives	1	0,6 %
Other implements	31	18,8 %
	165	100,0 %

In general the industry can be regarded as Upper Acheulian, coming from the lower part of the Saalian Glacial (Drenthe). If we do not count the isolated finds of hand-axes, this is the first Acheulian locality discovered in Czechoslovakia. It documents not only the types of the Upper Acheulian krols but also the scope of workshop production sometimes reduced to Levallois technique.

GENERAL CONTEXT OF THE LOCALITY

The characteristics of the Acheulian has been defined on the basis of finds from the northern part of central Europe (Toepfer 1961, 1970, Bosinski 1963, 1967, 1976). The latest finds from Bohemia, to which belong e.g. also the finds from Stvolínky I (Svoboda 1979), support the views

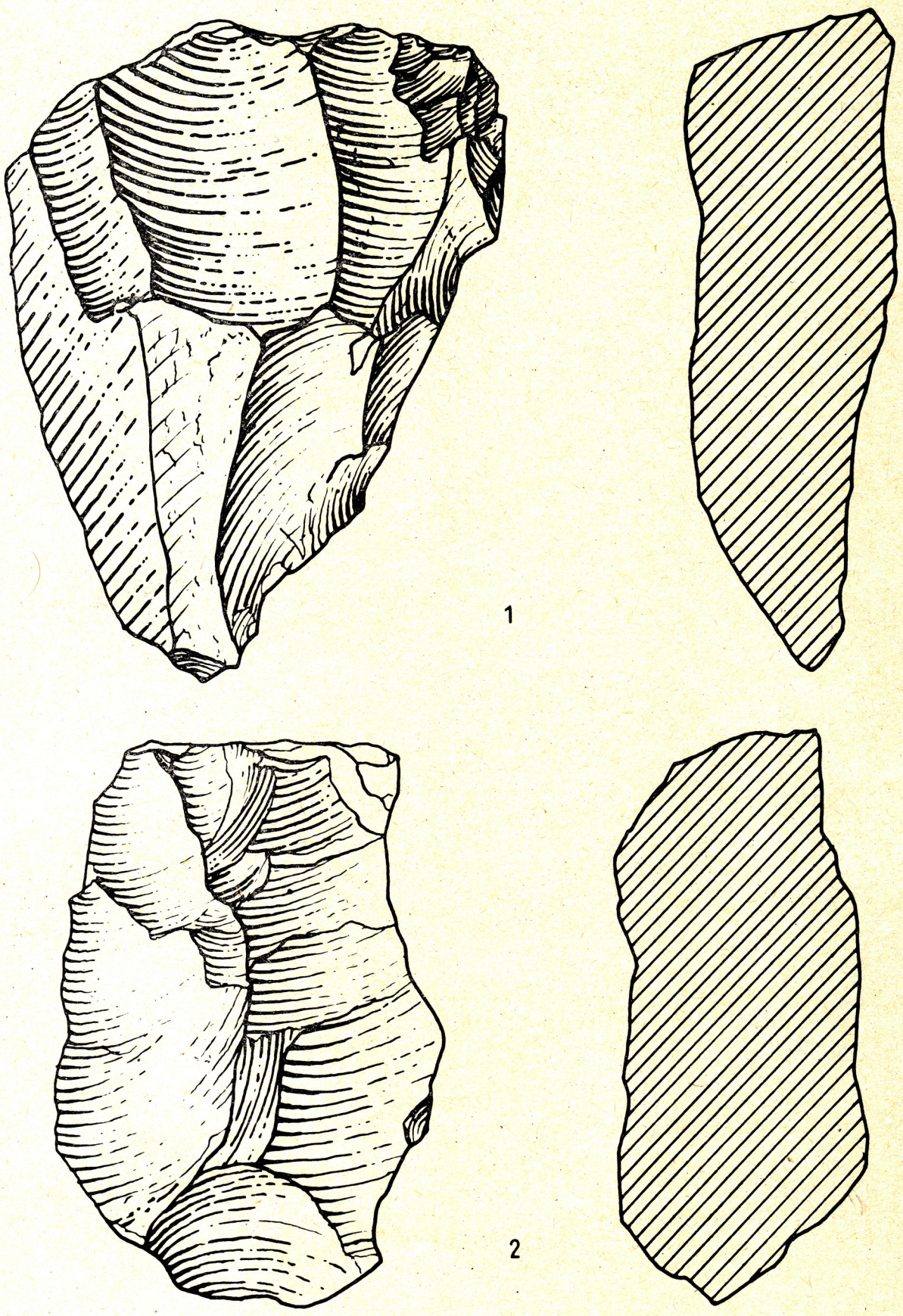

FIG. 1. *Acheulian Industry from Bečov IV — Most.*

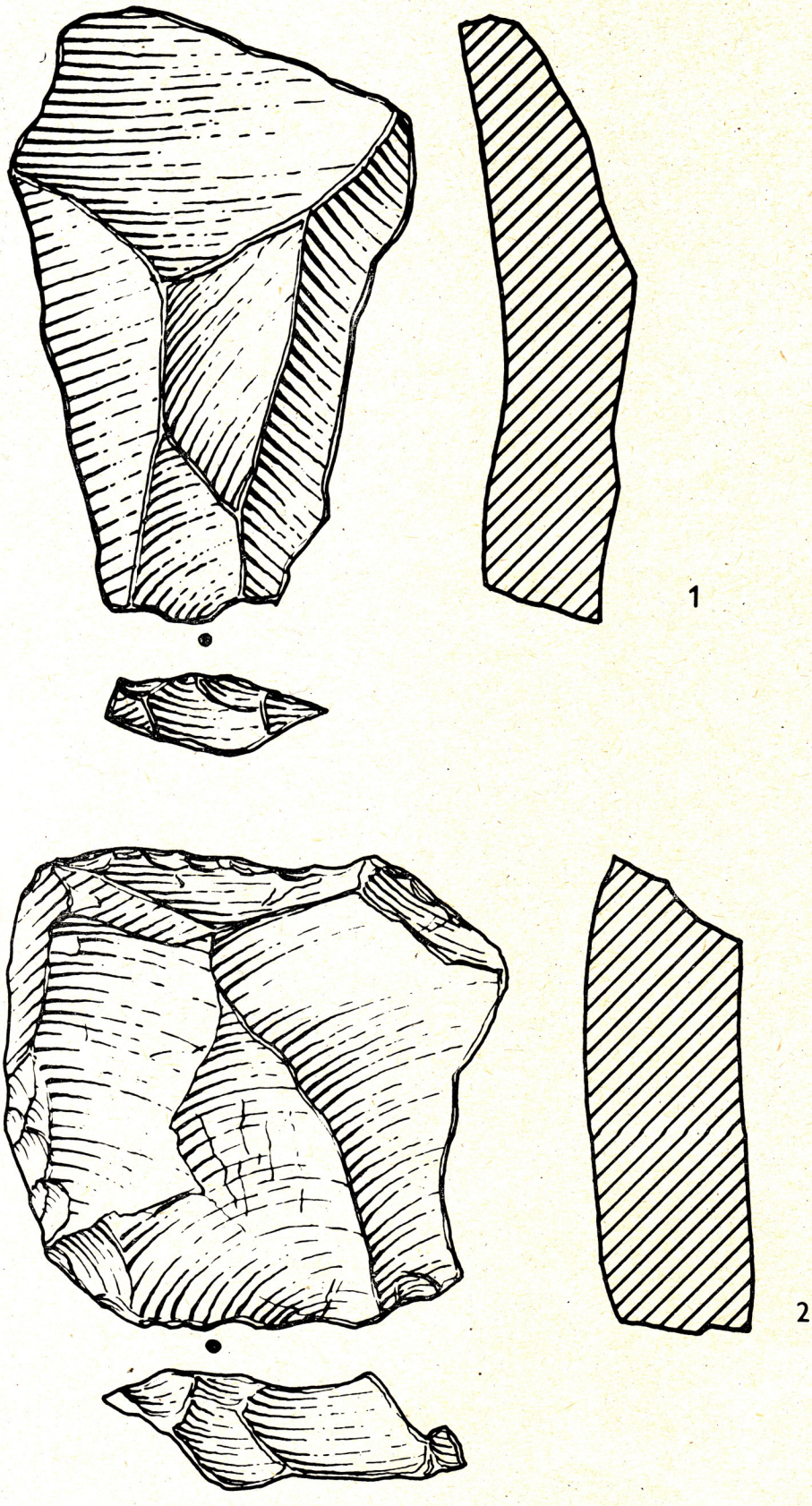

FIG. 2. *Acheulian Industry from Bečov IV — Most.*

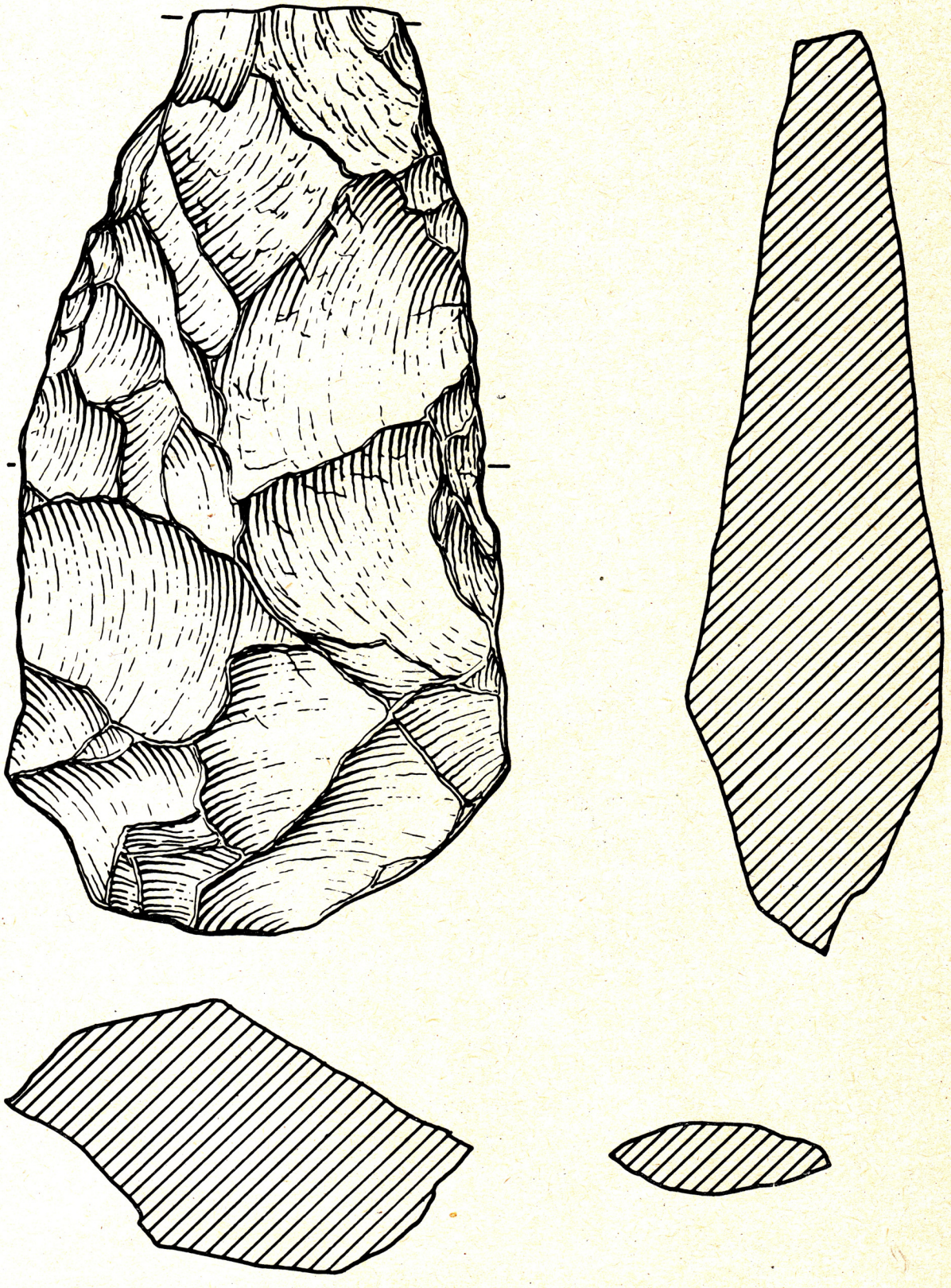

FIG. 3. *Acheulian Industry from Bečov IV — Most.*

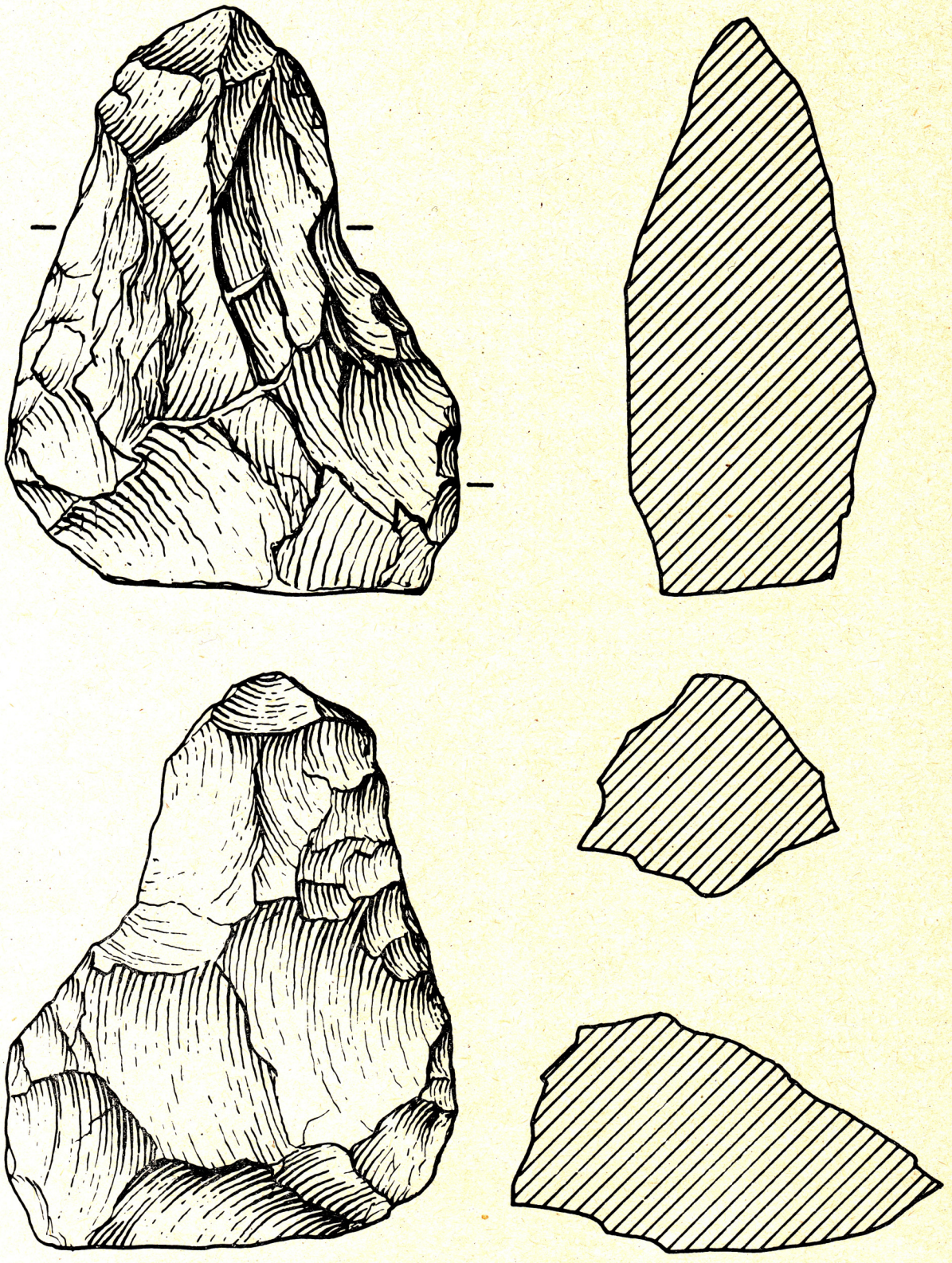

FIG. 4. *Acheulian Industry from Bečov IV — Most.*

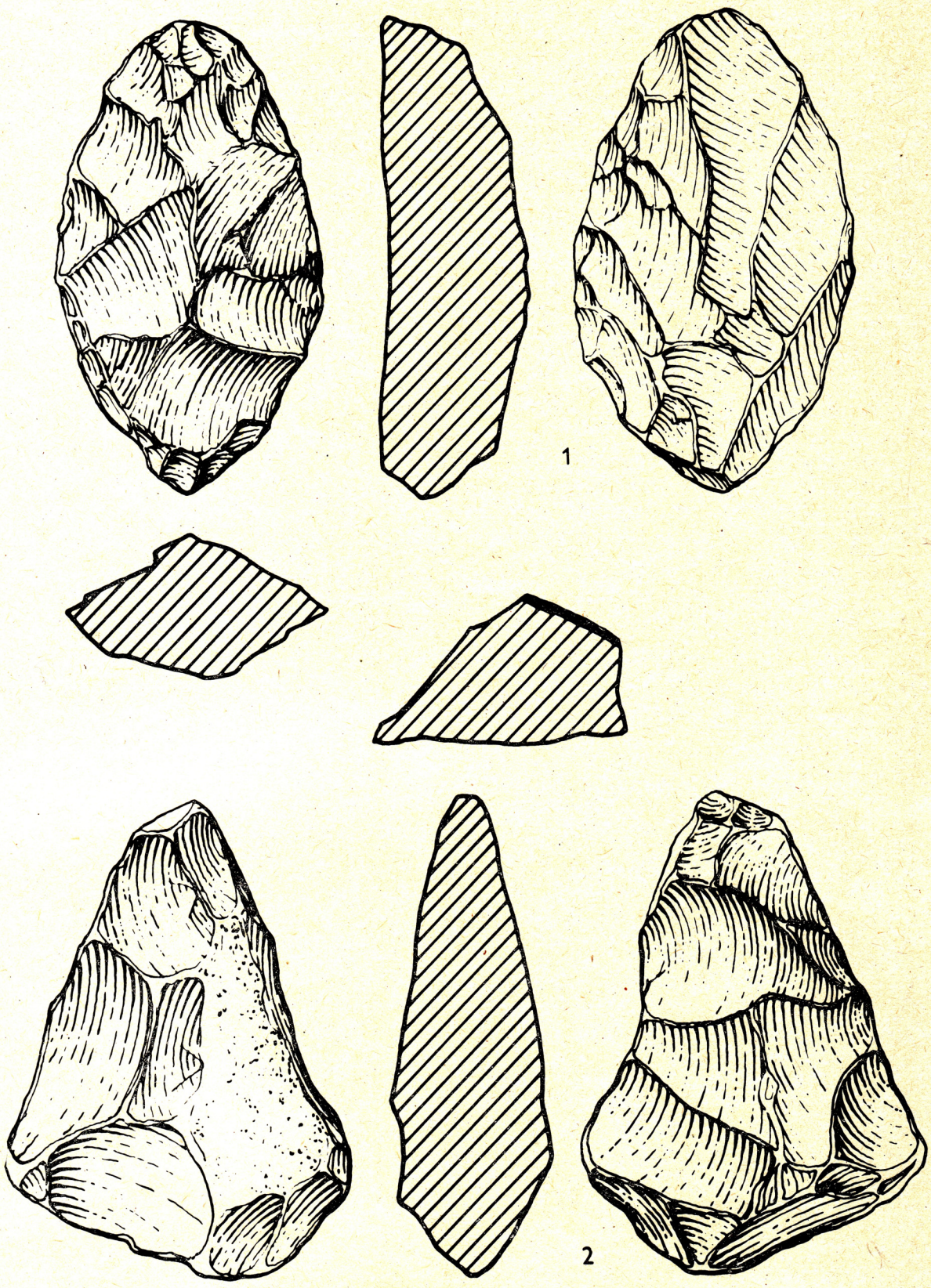

FIG. 5. *Acheulian Industry from Bečov IV — Most.*

of G. Bosinski, putting the Upper Acheulian already to the early part of the Penultimate Glacial (Bosinski 1976). It is documented especially by the finds from the Bečov IV locality linked with a sequence of Middle Palaeolithic cultures in the nearby Bečov I (especially in Bečov I-B-III-4). Other result of this research, not yet studied in detail, is the discovery of the Lower Acheulian in the pre-Holstein period, e.g. in Bečov II (Fridrich 1976). In general we can aggree with the view that the finds of the Middle Acheulian are still missing in central Europe (Collins 1969).

The Bečov IV locality belongs among the relatively rich and well dated central European sites, however we have found mostly only isolated or not too numerous assamblaged. The Acheulian period has the following remarkable features: the tool inventory is reduced to several basic types, highly standardized over large geographical and chronological distances. It is bound to sources of high-quality raw material and was widespread. Characteristic of the Acheulian period is the Levalloisian technique in some localities forming the majority of the assemblage (Markkleeberg). Besides this we can find a great deal of Clactonian flakes and cores. The Clactonian technology however, continued to be in use till a very late period, it appears e.g. in the Middle Palaeolithic sequence in Bečov I. However, the use, respectively the presence of certain technology is due to the technological traditions and also to the technological quality of the raw material, to the type of the locality and also due to the research methods (Bosinski 1976). Typologically most remarkable in the Acheulian are the hand-axes of various shapes (Luttropp — Bosinski 1971) of relatively low frequency (for the characteristics of the Upper Acheulian see Bosinski 1967, 1976). Other characteristic Upper Acheulian type is the bifacially retouched scraper, appearing very sporadically. One of the most characteristic tools — the cleaver — appears only in some localities. Relatively numerous are the unifacial simply retouched tools, such a scrapers, blades and points. We have no reliable information as regards the ways of habitat, only on the Salzgitter-Lebenstedt locality (Tode et al. 1953) had been found groups of big stones in circles of five metres in diameter. Perhaps they served to keep the tents at the ground, sedimentary conditions are, however, rather complicated so that this explanation is not the only one possible. In connection with the Acheulian in central Europe there is also the interesting problem of the classification of the small collections lacking a leading type of hand-axe. New contributions to this question are the finds from the Rheindahlen locality (Bosinski — Brunnacker 1973). They do not cover the entire scale of the tool types, and the individual types appear also in limited numbers. In a certain sense the same can be said about the finds from Praha-Sedlec (Sedlec III) containing isolated cleavers, not known from any other culture with the exception of the Acheulian. Characteristic of this site are the massive chopper-like tools, made of local raw material (cobbles of quartzite and quartz).

This presents a certain problem — how to classify the uncoupentional assamblages made of low-quality, substitute raw materials, often found in the shape of cobbles, namely in areas lacking better suitable amorphous raw materials. Any comparison would feasible in this case only on the basis of the frequence of typical Acheulian tools which, however, appear very seldom.

The Acheulian is one of the most characteristic Middle Palaeolithic cultures in central Europe with a high degree of stabilization of the cultural traditions and the longest existence, its roots reaching back to the Lower Palaeolithic.

BOSINSKI, G. (1963): Eine mittelpaläolithische Formengruppe und das Problem ihrer geochronologischen Einordnung. — *Eiszeitalter und Gegenwart 14, 124—140; Öhringen.*

BOSINSKI, G. (1967): Die mittelpaläolithische Funde im westlichen Mitteleuropa. — *Fundamenta A, 4; Köln-Graz.*

BOSINSKI, G. (1976): L'Acheuléen en Europe centrale du Nord. — *Union internationale des sciences préhistorique et protohistorique, IXe Congrès, Colloque X, 54—64; Nice.*

BOSINSKI, G. — BRUNNACKER, K. (1973): Eine neue mittelpaläolithische Fundschicht von Rheindahlen. — *Archäologisches Korrespondenzblatt 3, 1—6; Mainz.*

COLLINS, D. M. (1969): Culture Traditions and Environment of Early Man. — *Current Anthropology 10, 4, 267—316; Chicago.*

FRIDRICH, J. (1973): Počátky mladopaleolitického osídlení Čech. — *Archeologické rozhledy XXV, 392—442; Praha.*

FRIDRICH, J. (1976): The first industries from Eastern and South-Eastern Central Europe — Union internationale des sciences préhistorique et protohistorique, *IXe Congrès, Colloque VIII, 8—23; Nice.*

FRIDRICH, J. (1979): Středopaleolitické osídlení Čech. — *Kandidátská disertace; Praha.*

FRIDRICH, J.—SMOLÍKOVÁ, L. (1976): Starý pleistocén v profilu B, Bečov I (Lounské Středohoří). — *Archeologické rozhledy XXVIII, 3—17; Praha.*

LUTTROPP, A. — BOSINSKI, G. (1971): Der altsteinzeitliche Fundplatz Reutersruh bei Ziegenhain in Hessen. *Fundamenta A, 6; Köln—Wien.*

SVOBODA, J. (1979): Paleolitická industrie ze Stvolínek I, okr. Česká Lípa. — *Archeologické rozhledy XXXI, 75—82; Praha.*

TODE, A. et al. (1953): Die Untersuchung der paläolithischen Freilandstation von Salzigitter-Lebenstedt. — *Eiszeitalter und Gegenwart 3, 144—215; Öhringen.*

TOEPFER, V. (1961): Das Altpaläolithikum im Flußgebiet der unteren Saale und der Mittelelbe. — *Geologie 10, 570—585.*

TOEPFER, V. (1970): Stratigraphie und Ökologie des Paläolithikums. — Periglazial-Löss-Paläolithikum im Jungpleistozän der DDR: *Ergäzungsheft 274 zu Petermanns geographischen Mitteilungen, 329—422; Gotha—Leipzig.*

Dr. Jan Fridrich
Archeologický ústav ČSAV
Letenská 4
118 01 Praha 1