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Front cover:
Jevišovice - *Starý Zámek* (aerial photograph by Miroslav Bálek).
Archive of the Institute of Archaeological Heritage, Brno.

Back cover:
Endscraper of radiolarite from Bánov (top). Photo PhDr. H. Všetečková.
Bánov, Hillfort of the Bošáca culture (bottom). Archive of the Institute of Archaeology of Academy of Sciences of the Czech Republic, Brno.

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Authors' note

The authors would like to dedicate their work to memory of Mrs. Anna Medunová, PhDr. CSc., outstanding archaeologist, who augmented so much our knowledge of the Moravian Eneolithic.

Brno, February 14, 2014

Contents

1. Birth of the project

Changes in production and use of stone tools towards the end of the Eneolithic are today commonly recognized by archaeologists of that period. They are interpreted as one of many reflections of cultural transformations observed in many parts of the Old World, eventually leading to the formation of the Bronze Age civilization. In studying this process the territory of Moravia is especially interesting, due to its location on one of the European crossroads of inter-cultural contacts. Moreover, Moravia is a relatively small country, limited in parts by distinctive physiographic features. Equally important is the fact that Moravian stone evidences from the end of the Stone Age and the beginning of the Bronze Age are affluent, well recognized and published to a high degree.

Joint Moravian-Polish studies on lithic inventories from the turn of the Stone and Bronze Ages goes back to the early 1990s. The first project of that kind was focused on materials of the Moravian Corded Ware culture (Kopacz, Šebela 1992a; 1992b). Despite a rather limited database available at that time, the research brought interesting results and formed the base for developing analytical methods in the future.

The next project of the same authors encompassed materials of the Proto-Únětice culture from the final stage of the Moravian Eneolithic (Kopacz, Šebela 1998). Probably the most important result of that work was verifying on the Moravian ground specific features of the lithic inventories from the turn of Stone and Bronze Ages, first observed in Lesser Poland (*cf.* Kopacz 1976; Balcer 1977; Schild *et al*. 1977; Kopacz 1987; Kopacz, Valde-Nowak 1987).

As a natural continuation, the Czech-Polish collaboration encompassed stone inventories from later phases of the Únětice sequence (II-V) and the Věteřov group in Moravia (Kopacz, Šebela 2006). At the same time the original two-person research team was joined by other specialists. Especially important was participation of Prof. A. Přichystal from the Department of Geological Sciences of the Masaryk University in Brno. Precise determination of raw materials used by Early Bronze Age inhabitants of Moravia became a very important analytical tool in further studies.

Methods applied in the studies of lithic inventories from the Early Bronze Age were utilized again in relation to materials of the Moravian Bell Beaker culture (Kopacz, Přichystal, Šebela 2009). Due to vast varieties of rocks recognized in assemblages of the Bell Beaker culture, petrographic expertise of artifacts appeared to be even more complex and also more significant than in the previous study.

If changes in the lithic chipped industries at the turn of Stone and Bronze Ages are unquestionable, the question arises when those transformations started. To answer this question the attention should be focused again on the Moravian Eneolithic, this time on stages earlier that "Final" or "Late".

The first unit to be taken in consideration is the Jevišovice culture, due to its importance and long-distance connections. Results of preliminary studies on its lithic industry (Kopacz, Šebela 2010a; *idem* 2010b) appeared to be promising. Although generally similar to Early Eneolithic industries, it features certain elements which can be interpreted as forerunners of incoming changes. Therefore, a deeper inside into Jevišovice assemblages, as well as assemblages of other Moravian cultures of that time, is the most obvious next step in research on the subject of our interest. The present work is an attempt in this direction.

Studies on lithic industries have been framed into research project LP/pč 12 of Academy of Sciences of the Czech Republic (*Kamenná štípaná industrie mladého eneolitu na Moravě a v českém Slezsku*; Lubomír Šebela) with financial support from *Program výzkumné činnosti Archeologického ústavu AV ČR, Brno, v. v. i. na léta 2012-2017* and project E.3. III of the Institute of Archaeology and Ethnology of the Polish Academy of Science (*Krzemieniarstwo młodszego eneolitu na Morawach i na Śląsku Czeskim*; Jerzy Kopacz). The petroarchaeological analysis of A. Přichystal was granted by Institute of Geological sciences, Masaryk University (Institutional support No. 2222/315010).

2. Note on the concept of Terminal Lithic Industries

The term "terminal lithic industries" (Polish *krzemieniarstwo schyłkowe*) was used for the first time in 1987 (Kopacz 1987). The same question was more thoroughly discussed on the ground of stone materials of the Epi-Corded Carpathian Circle (Kopacz, Valde-Nowak 1987). Assemblages presented on that occasion were distinctive by dominance of rocks collected from close vicinity of habitation sites, decline of laminar techniques, high frequency of tools without clear typological features, etc. There were introduced a few working categories useful in analyses of evidences of that kind, such as "typological tools" (Polish *narzędzia typologiczne*), "functional tools" (Polish *narzędzia funkcjonalne*), or "conventional tools" (Polish *narzędzia konwencjonalne*), the latter referring to implements of "high technical investment" and over-utilitarian functions (Kopacz, Valde-Nowak 1987, 78).

It is true that the term "terminal lithic industries" has been gaining its position in the literature of the subject in a slow pace (apart from the authors of this work, *cf.* references in the previous chapter, it has been accepted also by Jerzy Libera; 2004). The reason of it may be twofold. Firstly, the concept proposes a new terminology and a new analytical approach to lithic inventories from the turn of the Stone and Bronze Age, very much different then those applied to materials from earlier periods for almost a century. Secondly, changes of lithic industries were by no means uniform. They were relatively fast (and easily observable by archaeologists) on areas encompassed by main stream of epochal transformation, which came to East Central-Europe from the southeast. Going to the north, across the mountain ranges in that part of the continent, they become less and less obvious, especially on plains where the pace of cultural changes was different than on the uplands. Therefore, archaeologists of these areas may find the concept of terminal lithic industries not fully applicable.

The concept in question, as any theoretical category, can be verified only by its confrontation with "live" material. The most recent work on this subject (Kopacz 2012) may be helpful for better understanding its advantages and limitations.

3. Eneolithic in Moravia

3.1. Chronological Frames

The term "Eneolithic" is usually understood as an equivalent of "Late Neolithic". It is generally true in the chronological sense. However, there are several important reasons that the prehistoric development in the period in question, at least on some territories, should be distinguished by a specific name.

It is well known that the 4th millennium (very important !) BC witnessed the development of copper metallurgy. The appearance of metal artifacts brought important consequences in social and economic life of so-far egalitarian agricultural communities. Communities of southeaster Europe took advantage of proximity of Aegean and Anatolian centers and quickly transformed their culture into a quality referred now as the Copper Age or Eneolithic.

Another well known fact is very fast economic growth of Eneolithic communities, reflected by an overall growth of population, settlement spread, augmentation of domestic sites and cultivated areas, etc. In husbandry, surplus of farming products eliminated the need of annual cattle slaughtering and – in consequence – development of milk processing. We can also mention long distance trading contacts which encompassed also lithic artifacts and – as a consequence – development of mining and processing lithic raw materials.

Eneolithic transformation also had less bright sides. It exploited to a very high degree natural resources, by no means inexhaustible. Settlement growth cause overpopulation of some areas and augmented differences in living standards. First signs of the imminent crises can be observed in the younger part of the period in question, together with evidences of ethnic movements. Appearance at that time sites interpreted as fortified settlements was a natural answer to the new situation. Still later, the ongoing changes led the development of the civilization of the Early Bronze Age.

The condensed picture of social/economic/ethnic transformations in the period between ca 4000 and 2000 BC presented above is applicable mainly to the Balkan-Carpathian zone. Pace of the cultural development on other parts of our continent, especially on lowlands, was different and the term "Eneolithic" is not very much relevant there. However, for Moravian archaeologists it has a very specific meaning.

The Eneolithic in Moravia is bas been subdivided into several stages, usually five or six (Podborský *a kol.* 1993, 153-232; *cf.* also Kopacz, Šebela 2010, 105):

Early, *ca.* 4000-3700 BC – Moravian Painted Pottery-Phase II (Jevišovice-*Starý Zámek*, Layer D), Jordanów culture;

Old, *ca.* 3700-3200 BC – Funnel Beakers (Jevišovice-*Starý Zámek*, Layer C2);

Middle, *ca.* 3200-2900 BC – Baden horizon (Jevišovice-*Starý Zámek*, Layer C1);

Young, *ca.* 2900-2700 BC – Jevišovice (Jevišovice-*Starý Zámek*, Layer B), Bošáca and Globular Amphorae;

Late, *ca.* 2700-2200 BC – Corded Ware, Bell Beakers;

Final, *ca* 2200-2000 BC – Proto-Únětice and Chłopice-Veselé cultures.[1]

Our interest is focused on times referred as Young Eneolithic, when the first signs of the ongoing epochal crisis can be observed.

3.2. The Jevišovice culture

The Jevišovice culture appears as the most significant manifestation of the Late Neolithic period in southern Moravia. The first archaeological material which was subsequently classified as Jevišovice culture was discovered at the end of the 19th century by Jaro-

1 In the shortened division, the last two stages are merged into one.

slav Palliardi and František Vildomec who excavated the hillfort site *Starý Zámek* near Jevišovice, Znojmo district (on the cadastral area of Střelice). An upper cultural layer (B) of this stratified site was linked by J. Palliardi (1914) with the Corded Ware culture, on the basis of the presence of amphorae decorated with cord impressions. Later on, Oswald Menghin distinguished this assemblage as a specific entity, different from the Corded Ware culture, and referred to it as "of Jevišovice" (Hoernes, Menghin 1925). As a result, the terms "Jevišovice pottery", "Jevišovice type", and eventually "Jevišovice culture" took hold in the literature.

Today it is accepted that Jevišovice culture is a local manifestation (developed on a local substratum) of the Central-European development of Late Neolithic cultural circle of southeastern Europe, distantly related to the Leibacher Moor culture of Slovenia.

A significant progress in our knowledge of the Jevišovice culture was obtained in 1970s when Anna Medunová-Benešová published a series of evidence catalogues from three hillfort sites: *Starý Zámek* near Jevišovice – Layer B (1972), *Nad Mírovcem* in Grešlové Mýto (1973), and *Palliardiho hradisko* near Vysočany (1977a). On that basis, a comprehensive work on the culture in question was elaborated (1977b). It has retained its value as a reference to this day.

Settlement of the Jevišovice culture was centered on the territories of southern Moravia (Map 1). From the west and northwest it is geographically bordered by the Czech-Moravian and Drahany Uplands. The northernmost known appearance of the Jevišovice pottery has been detected between the cities of Vyškov and Prostějov, and in the Boskovice Furrow up to Svitávka (Štrof 1984). The hillfort site near the latter locality may indicate the diffusion route of the Jevišovice culture towards eastern Bohemia.

Southern Moravia, together with the adjacent part of Lower Austria to the north from the Danube, should be regarded as one cultural milieu. Its eastern border runs along the Morava River. Further to the east we encounter the contemporaneous Bošáca group (*cf.* Podborský *a kol.* 1993, Mapka 15). Jevišovice type finds in southwestern Slovakia (Romsauer 1981; Pavúková 1985) are interpreted as intrusions from Lower Austria.

Chronological subdivision of the Jevišovice culture is based on pottery. In territories to the west of the Morava River, three main horizons have been distinguished. The earliest one (Proto-Jevišovice) is represented by finds from Grešlové Mýto. The settlement in Vysočany is linked to the next phase which referred to as Early Jevišovice, while Layer B on the eponymous site (Medunová-Benešová 1977b, 78) with the younger one (Young Jevišovice). It is possible that certain materials, evidently related to the youngest development stage of the culture in question (e.g. from Brno-Starý Lískovec; Medunová-Benešová, Vitula1994) would be in the future described as representatives of the separate "final stage".

In relation to absolute chronology our database is still highly unsatisfactory, as the series of five dates from Brno-Starý Lískovec are the only available (Peška 2011, 315-317). They indicate that the youngest manifestations of the Jevišovice culture in Moravia might have lasted as long as the mid 3rd millennium BC.

The Jevišovice culture is known mostly from hillfort sites, located mainly on elevated points, usually on river or creek bends. In comparison with Early Eneolithic sites of that type, they appear to be much smaller. We can assume that they protected rather small communities. Nothing can be said about spatial arrangements of these sites, because in most cases they are multi-cultural and usually disturbed by subsequent occupations. A good example is the Jevišovice-*Starý Zámek* site where a medieval castle was built upon remains of an Eneolithic hillfort. We also lack more detailed information about sites in less elevated positions, which are usually disturbed or obliterated by prehistoric or modern agriculture.

The funerary ritual of the Jevišovice people is poorly recognized. Inferring from the literature, we cannot exclude the presence of burial under a barrow in Svitávka-*Hradisko* (Štrof 1984). Moreover, in the close vicinity of the Jevišovice settlement site in Miňůvky, Kroměříž district, there was found an inhumation grave of 7-8 years old child, equipped with a jar with stylistic features of the Coțofeni culture and a bowl of the Lublana type (Peška, Tajer 2006; Peška 2013, 29). We can hope that future finds will give us more information in this respect.

Pottery of the Jevišovice culture is very distinctive. Main types of vessels are: pots, amphorae, bowls, pans, jar-like pots, mortars, all of which show diversity in shape and decoration. Of non-ceramic production, the copper industry should be first mentioned.

Lithic chipped industry remained outside the field of archaeological interest for a long time. A still-relevant monograph on Moravian prehistory devotes only one sentence on this topic:

In the collection of chipped artifacts we can find blades, flakes, blade flakes, some of them with saw-like retouch, scrapers, and very exceptionally arrowheads

(Podborský *a kol.* 1993, 198; English by the authors).[2]

2 In orginal: *V souboru štípané industrie najdeme čepele, čepelovité úštěpy, některé s pilkovitou retuší, škrabadla a zcela výjimečně šipku.*

The situation improved considerably during the 1990s, due to publications of stone assemblages from Brno-Starý Lískovec (Oliva 1994) and Brno-Maloměřice (Valoch, Šebela 1995). Today it is obvious that evidence of that kind possesses a significant research potential and should not be omitted in studies of the culture in question.

3.3. The Globular Amphora culture

In the Moravian Eneolithic, the Globular Amphora culture represents an alien element of northern origin. Following the classic concept of Tadeusz Wiślański (1979), the unit in question appeared as a result of contacts of Epi-Lengyel communities of Central European lowlands with people representing Mesolithic traditions, under influences from megalithic circles. Its motherland can be in seek generally in the territories of Mecklenburg, Brandenburg, Pomerania, Greater Poland, and possibly also in parts of Mazovia. Throughout the whole development sequence, accompanied by territorial expansion (towards the southeast as far as Moldavia) the Globular Amphora culture formed several regional groups, one of them in Czech Silesia and northern Moravia.

The main center of the Globular Amphora culture in Czech Silesia was the Opava region. Their sites can be found on lower terraces of the Opava River, especially between cities of Opava and Krnov (Map 1). The material registered on these territories indicates the existence of well developed and rather homogenous settlement, linked with the Silesian (or Lubusz/Lebus-Silesian) group of the Globular Amphora culture (*cf.* Jiři Pavelčík in: Podborský *a kol*. 1993, 191, there further references). The situation in southern Moravia, as well on other territories (e.g. on foothills of the Drahany Upland) was probably slightly different. As Globular Amphora finds appear mainly on sites settled by other Young Eneolithic identities we can consider possibilities of imports of artifacts into other cultural milieux. A case of penetration of small groups far to the south from its original milieu also cannot be excluded.

Settlement of the Globular Amphora culture in the Opava region is probably related to a single, rather early chronological phase, as suggested by pottery decorated with cord impressions. The intrusion of Amphora people on this territory interrupted the development of the Baden culture in the course of its Classic Phase. Therefore, this process is being interpreted as a rather brief episode, possibly prior to the development there of the settlement of Bošáca group or culture (Jiři Pavelčík in: Podborský *a kol*. 1993, 191) which was the youngest manifestation of the development of the Baden circle.

In recent years, thanks to research of the Archaeological Center in Olomouc, long lasting presence of the Globular Amphora culture has been positively confirmed also in central Moravia, in the regions of Olomouc, Prostějov and (partially) Přerov. It is evidenced by a number of surface finds of domestic character, e.g. in Olomouc-Slavonín and Pravčice, Site 2 (Peška, Tajer 2010, 106-107, obr. 3-6; Peška 2013). It can be presumed that the souther limit of this settlement should correspond with the line connecting cities of Prostějov and Kroměříž, behind which was the domain of the Jevišovice culture (Přichystal, Šebela 2004, Fig. 2)

In relation to finds of the Globular Amphora culture in southern Moravia (Map 1) we should notice that they appear on Jevišovice sites of an early chronology. Many of these finds – as we will see – are axes made of the banded silicite of the Krzemionki Opatowskie type. It is difficult to interpret them as the evidence of direct contacts of communities from southern Moravia with flint miners and axe producers in the region north of the Holly Cross Mountains in central Poland. More probably they were obtained by the Jevišovice people from the Opava region, or perhaps from the Globular Amphorae enclave in the Drahany Upland.

The incursion of the Globular Amphora culture into Moravia was a short-lasting yet interesting event. It marks a change in cultural contacts of contacts, until so-far directed mainly to the south and southeast.

3.4. The Bošáca culture

The Bošáca culture was defined shortly after WWII by Vojtěch Budinský-Krička, on the ground of the surface collection of artifacts from the site called *Pohančeniště*, located on the cadastral area of Bošáca, Trenčín district (Budaváry 1931, 108-109, obr. 2; Budinský-Krička 1947). Originally it was perceived as a Young Neolithic „extension" of the Baden culture. In Slovakia bearer of this culture occupied the region White and Little Carpathians, especially in upper basins of the Váh, Nitra and Žitava. Towards the north the Bošáca settlement extends to the vicinity of Považská Bystrica and Orava. The southern reach, originally drown along the line Bratislava-Nitra-Nové Zámky (Chropovský, Němejcová-Pavúková 1983, obr. 1) was later limited due to exclusion the area south of Kočín, at that time – as it appeared – being a part of the domain of the Jevišovice culture (Šutéková 2008, 282). Following the Orava River upstream the Bošáca people penetrated territories of Lesser Poland, forming there the so-called Zesławice-Pleszów group (Zastawny 2011, ryc.5, 10-12). Possible they appeard also in the Polish Upper Silesia, as finds from Bolesław (Raciborz district) suggest (Godłowska 1979, 311).

In Moravia, materials of the Bošáca culture drew attention of Jan Pavelčík who from 1941 carried out the research (first surface survey, later regular excavations) on the hillfort site *Hrad* in Bánov, Uherské Hradiště district. According to Jiří Pavelčík, the Bošáca finds from Bánov were presented by Jan Pavelčík on the 2nd Convention of Czechoslovak Archaeologists in Karlova Studánka in 1947 (Pavelčík 1964; *idem* 1981). However, the report on that conference (Kalousek 1947, 275) does not register Jan Pavelčík's presentation, although confirms his participation there. For that reason it should be assumed that the first published information on Bošáca pottery from Moravia (previously associated with the Jevišovice culture) was the paper by Jan Pavelčík (1952) on rescue excavation on the *Hrad* site in Bánov in 1951.

According to the actual knowledge, finds of the Bošáca culture in Moravia are grouped in the southwest part of the country, in the vicinity of Uherský Brod (Bánov-*Hrad*; Uherský Brod-*Kyčkov* and *Bažantnice* I), and on the Olšava and Dřevnice Rivers. To the north from the Napajedelská Gateway there are finds in the Kroměříž region (Přílepy and Libosváry) and – in the Moravian Gateway area – in Hlinsko and Lipník nad Bečvou. To the west of the Morava River there are scattered finds near Břeclav (Břeclav-*Pohansko*; Dostál 1970) and Prostějov (Hrubčice; Šutéková 2008). Find of the Bošáca amphora in Structure 606 in Opava-Vávrovice in Czech Silesia (Fig. 7: 2) should be interpreted as an import into the Globular Amphora milieu.

At present, the Bošáca culture is Moravia is represented by 13 settlement sites, both in lowland (e.g. Lipník nad Bečvou) and upland locations (e.g. Bánov, Hlinsko). Most of them have not been published. Sepulcher sites are unknown. Rather problematic is the cultural affiliation of partially preserved inhumation (with N-S orientation) from the settlement in Bánov, linked by Jiří Pavelčík (2004, 258, obr. 65) with the Bošáca culture. The site in question was utilized also in the Early Bronze Age by people of the Únětice culture and the Věteřov group (Stuchlík 1985, 129-142; Chmela 2008, 93) who buried their deceased within settlements rather than in specials sepulchral places.

Most common finds on Bošáca sites are pottery fragments. Forms of vessels (amphorae, bowls, cups) reveal relations with the Baden culture. The most frequent decorative motifs are horizontal and vertical bands bordered by punctures or *Furchenstrich* (Fig. 8: 1, 3, 6, 7) while engraved motifs appear only occasionally (Pavelčík Jiří 2002, obr. 1). Pottery from Bánov published by Jiří Pavelčík (2004, fig. 13: 4, 8, 11) should be rather linked with the Early Bronze Age (analogies in Budkovice, Brno-venkov district; *cf.* Ondráček, Stuchlíková 1982, tab. 13: 7).

Infrequent lithic polished industry is represented by axes (Plate III) and shafted axes of simple form (Pavelčík Jiří 1964, obr. 5: 10). Chipped industry is best illustrated by assemblage from Hlinsko, settlement horizon V (*cf.* Catalogue). Metal finds are extremely rare (there are two rolls of copper plate from Bánov; Pavelčík Jiří 1964, obr. 5: 2-4).

On the basis of pottery material from Bánov, the sequence of the Bošáca culture was divided by Jiří Pavelčík (2002) into two phases – Early (I), subdivided into two sub-phases (Ia and Ib) and Young (II). In Hlinsko, the earliest Bošáca manifestations (BoK Ia) appear in the youngest horizon of the Baden culture (KK IVb), forming together the 5th settlement horizon on the site (Pavelčík Jiří 1992b). In contrast, Phase II supposedly reveals certain elements typical for the Early Bronze Age. This chronological concept was criticized from the point of view of materials from Slovakia (Šutéková 2008, 280-281; *eadem* 2010, 483-486).

First traces of the Bošáca culture in the eastern part of Bohemia (adjacent to Moravia) were discovered in the 2nd half of the last century. The earliest finds were from Plotiště nad Labem, Hradec Králové district, excavated in 1961-1970 (Vokolek, Zápotocký 1990). Further materials came to light in 1997 during the excavation in Mukrovousy in the same district (Fig. 9: 8) and the rescue research in a sand pit in the cadastral area of Obědovice, also in the Hradec Králové district (Kalferst, Prostředník 1998, *iidem* 2000). Materials linked with the Bošáca culture were also reported from Kolín, *loco* district (Dobeš, Šumberová, Kyselý 2013, obr. 3, 4).

According the actual state of knowledge, settlement of the Bošáca culture in eastern Bohemia was concentrated in the Hradec Králové region, while the Kolín region is generally affiliated with the Řivnáč culture (Zápotocký, Zápotocká 2008, 289, obr. 135).

Bošáca vessels from eastern Bohemia (Figs. 9 and 10) are similar to its Moravian counterparts. Thus pottery from Plotiště nad Labem and Obědovice (excavation 1996) corresponds with the Early Phase of Bošáca culture in Moravia (Kalferst, Prostředník 1998, 597; Pavelčík 1981), while the assemblage from a dwelling structure excavated in 1999 should be contemporary with the young phase (Kalferst 2001, 55). Bošáca pottery discovered on the site of the Řivnáč culture in Kolín confirms „the already observed chronological correspondence of the Bohemian Bošáca pottery with the archaic (Proto-Řivnáč) phase of the Řivnáč culture" (Dobeš, Šumberová, Kyselý 2013, 397).

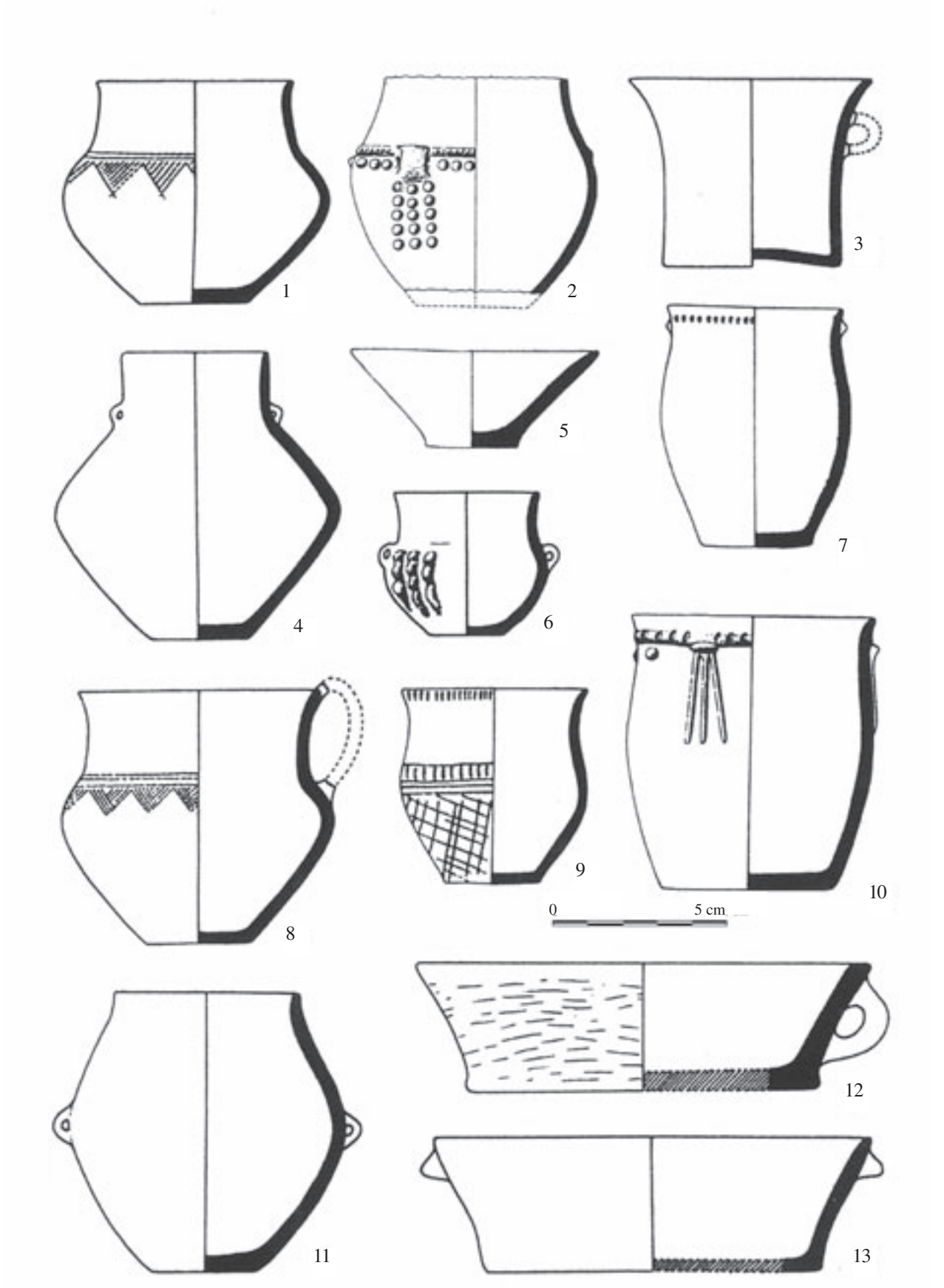


Fig. 1. Pottery of the Jevišovice culture: 1, 4, 6, 8, 11-13 – Jevišovice, Layer B; 2 – Vysočany, 3, 5, 7, 9, 10 – Grešlové Mýto. 1, 4, 6, 8, 11-13 – after Medunová-Benešová 1972; 2 – after Medunová-Benešová 1977; 3, 5, 7, 9, 10 – after Medunová-Benešová 1973.

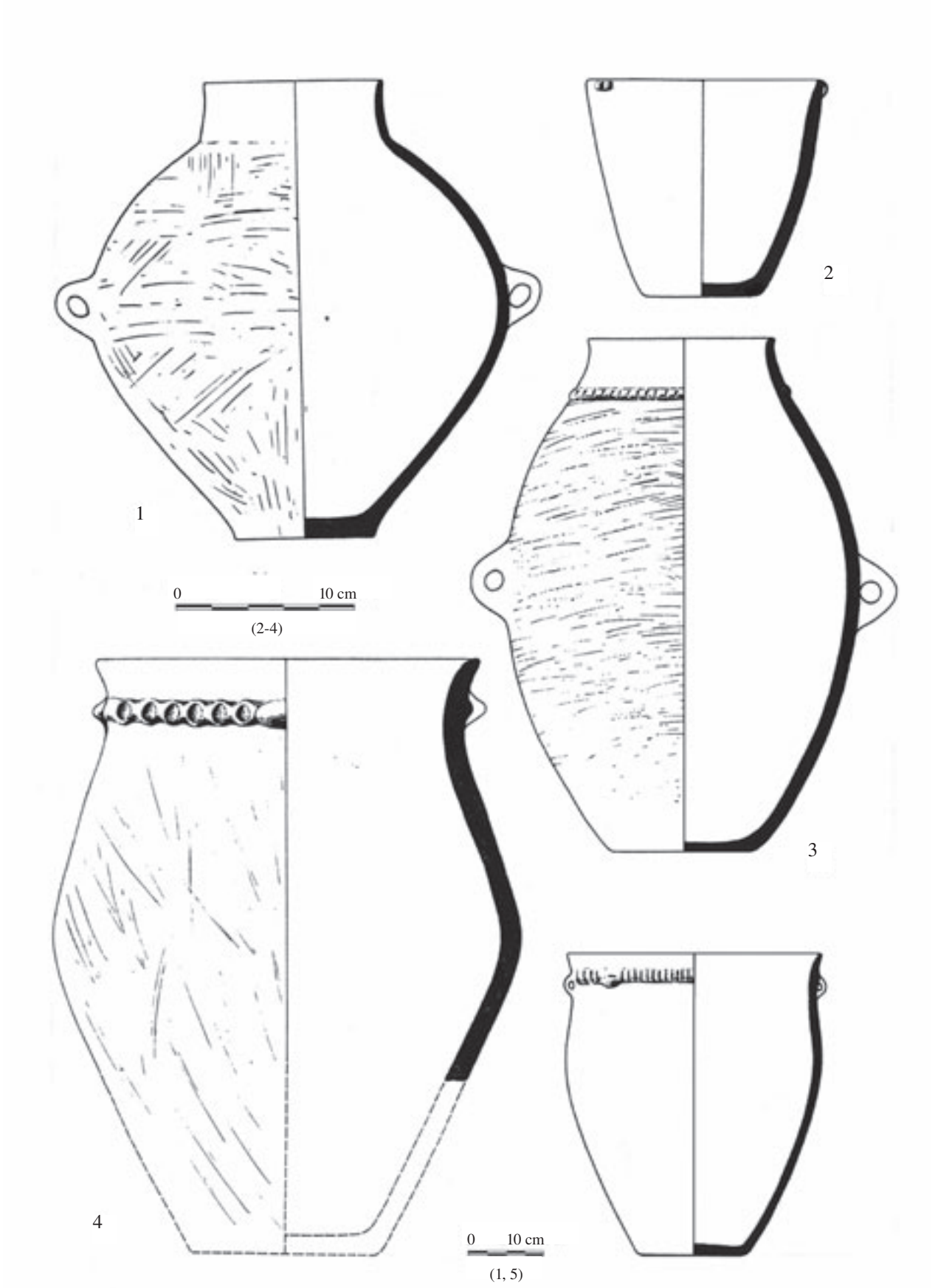


Fig. 2. Pottery of the Jevišovice culture: 1-3, 5 – Jevišovice, Layer B; 4 – Grešlové Mýto. 1-3, 5 – after Medunová-Benešová 1972; 4 – after Medunová-Benešová 1973.

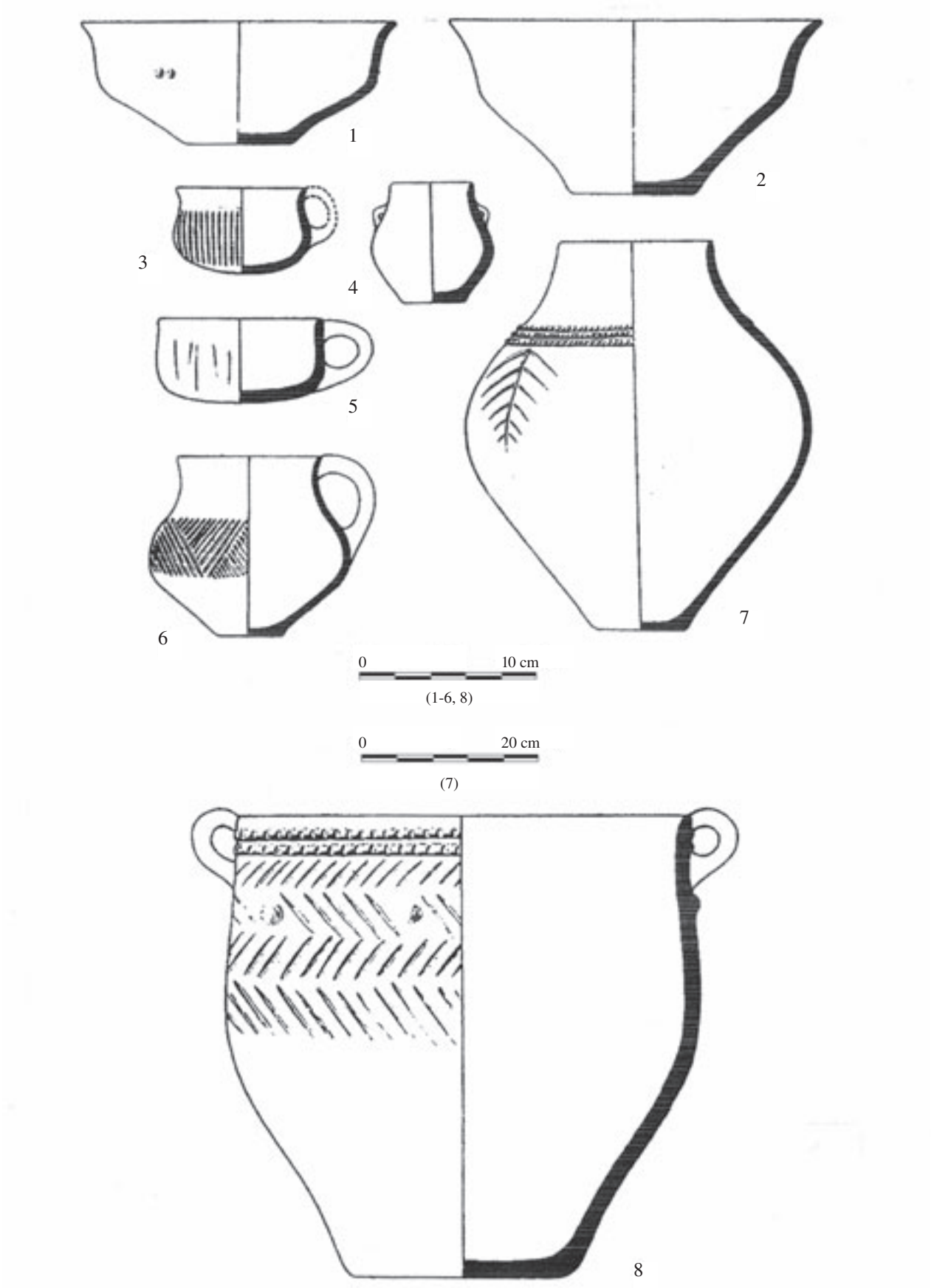


Fig. 3. Brno-Líšeň, *Staré Zámky*. 1-8 – Layer I (Jevišovice culture) 1-8 – after Medunová-Benešová 1964.

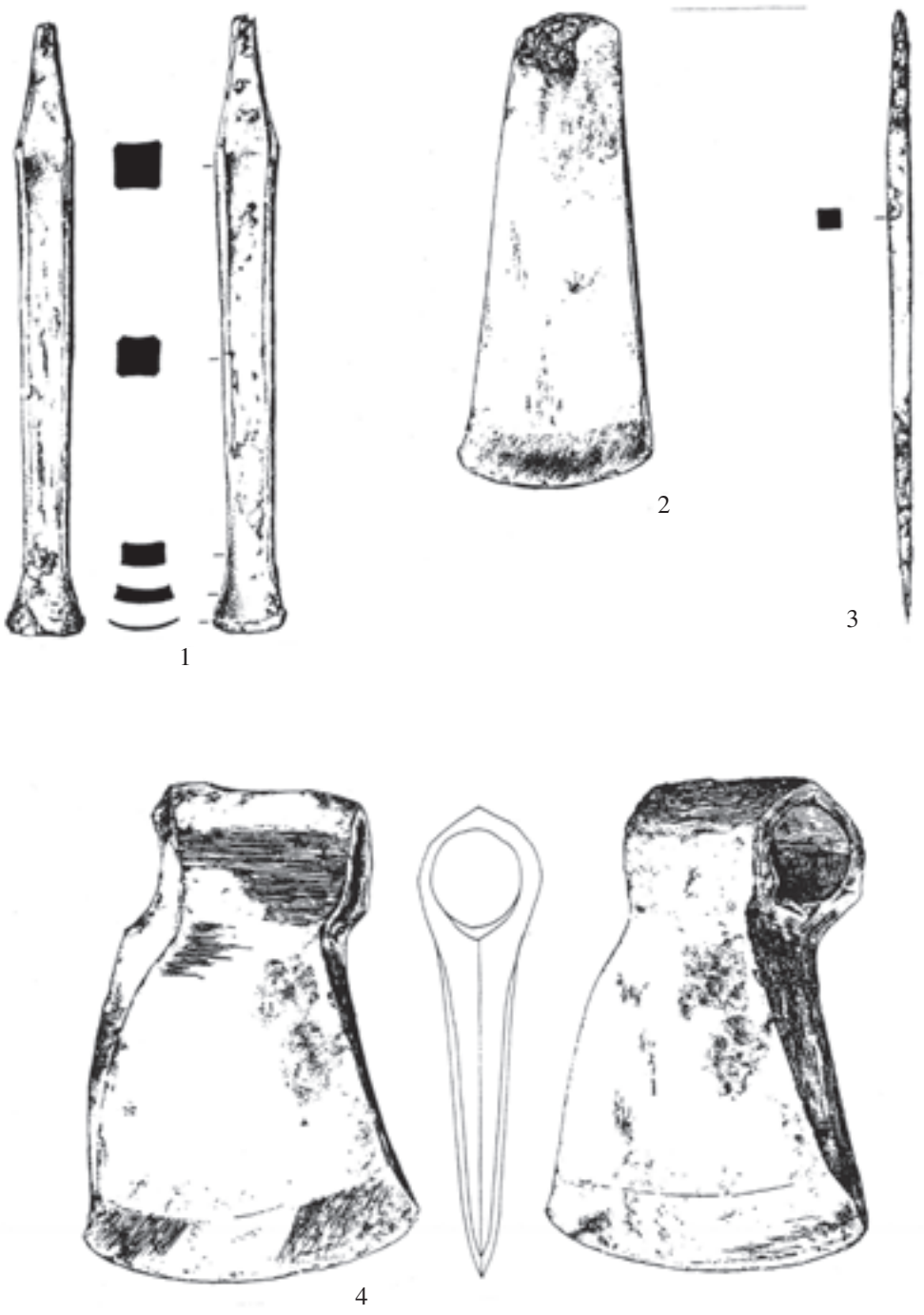


Fig. 4: Brno-Líšeň, *Staré Zámky*. 1-4 – deposit of copper artifacts (Jevišovice culture). After Medunová-Benešová 1964 (no scale).

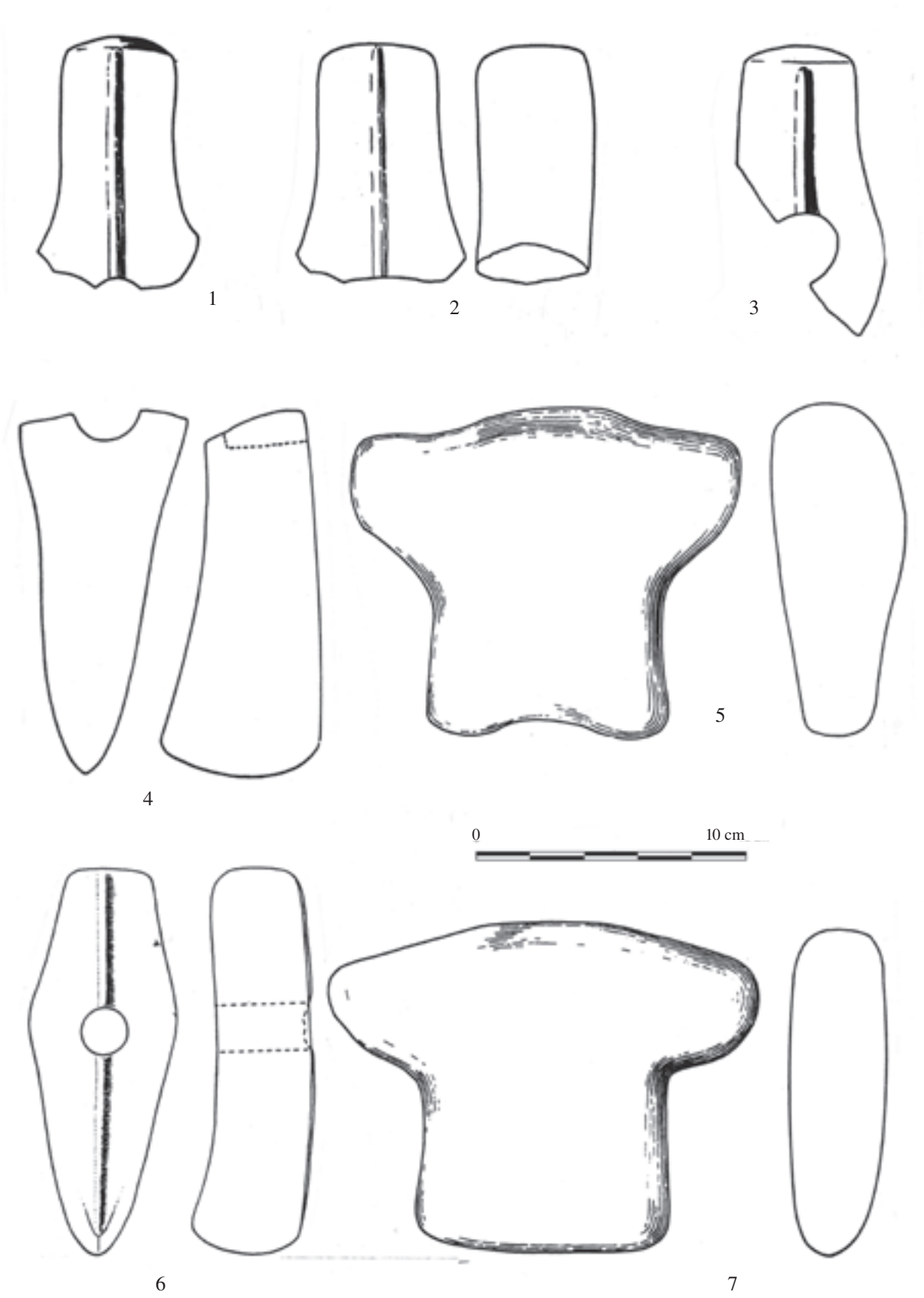


Fig. 5. Jevišovice, Layer B. 1-4, 6 – stone shafted axes; 5, 7 – stone anthropomorphic idols. 1-7 – after Medunová-Benešová 1972.

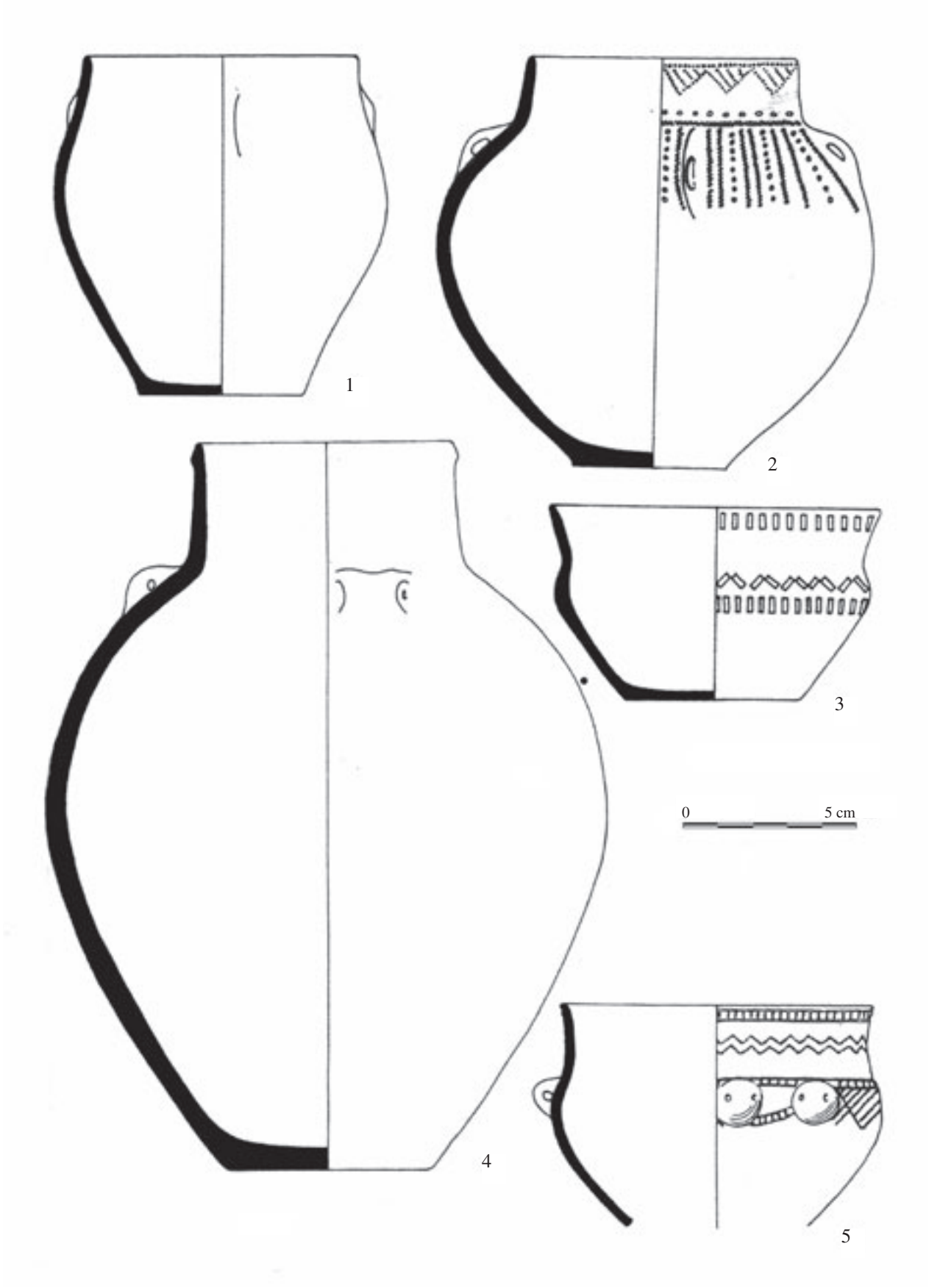


Fig. 6. Pottery of the Globular Amphora culture: 1, 3 – Opava-Vávrovice, *Palhanec*; 2, 4 - Opava, *Kotlářská ulice*; 5 – imported pottery of the Globular Amphora culture on the hillfort site of the Jevišovice culture in Vysočany. 1-4 – after Podborský *a kol.* 1993; 5 – after Medunová-Benešová 1977.

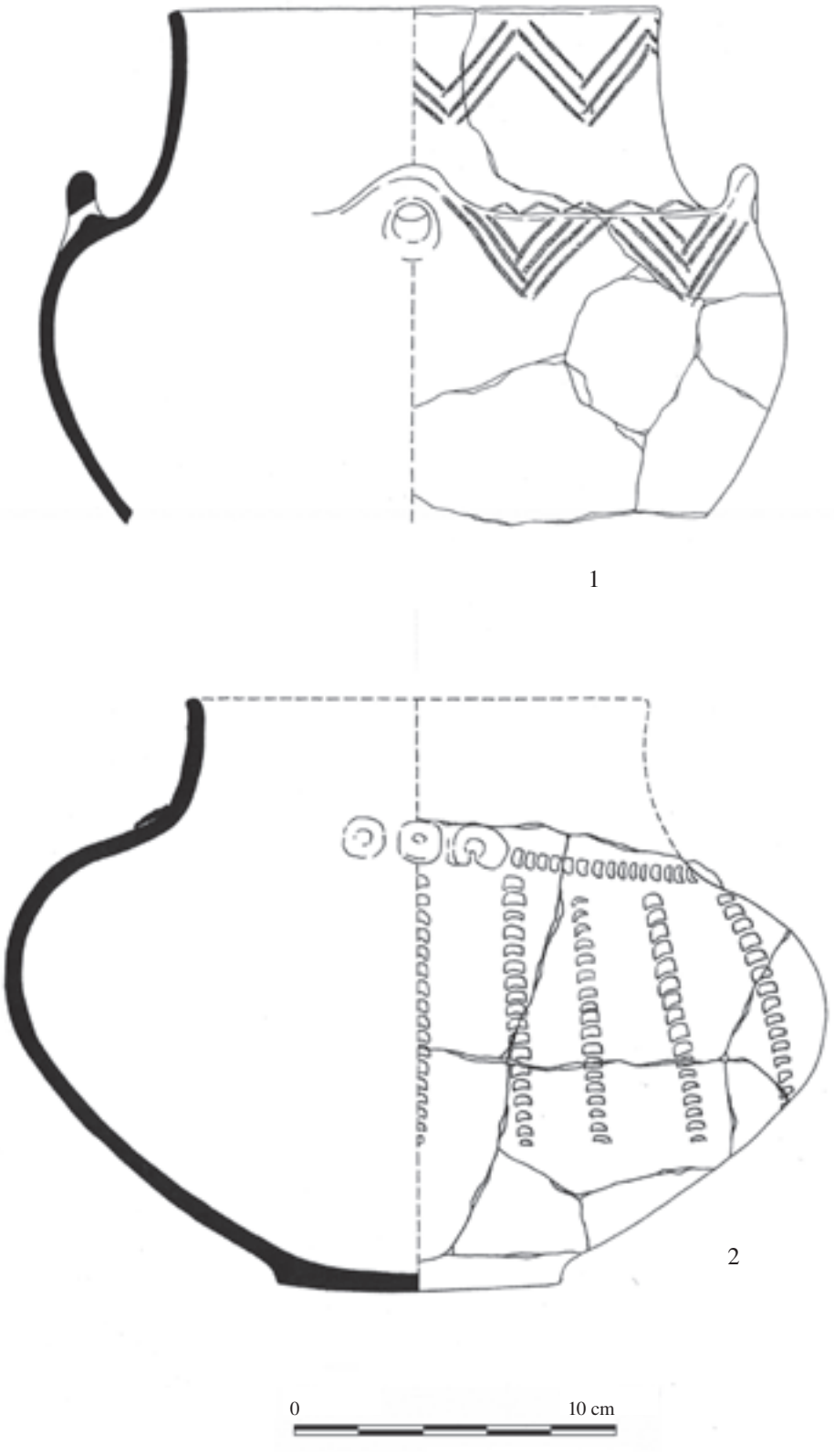


Fig. 7. Opava-Vávrovice, *U palhanské cesty*, settlement of the Globular Amphora culture, structure 606. Vessels of the Globular Amphora culture (1) and the Bošáca culture (2). After Zezulová, Šedo 2008.

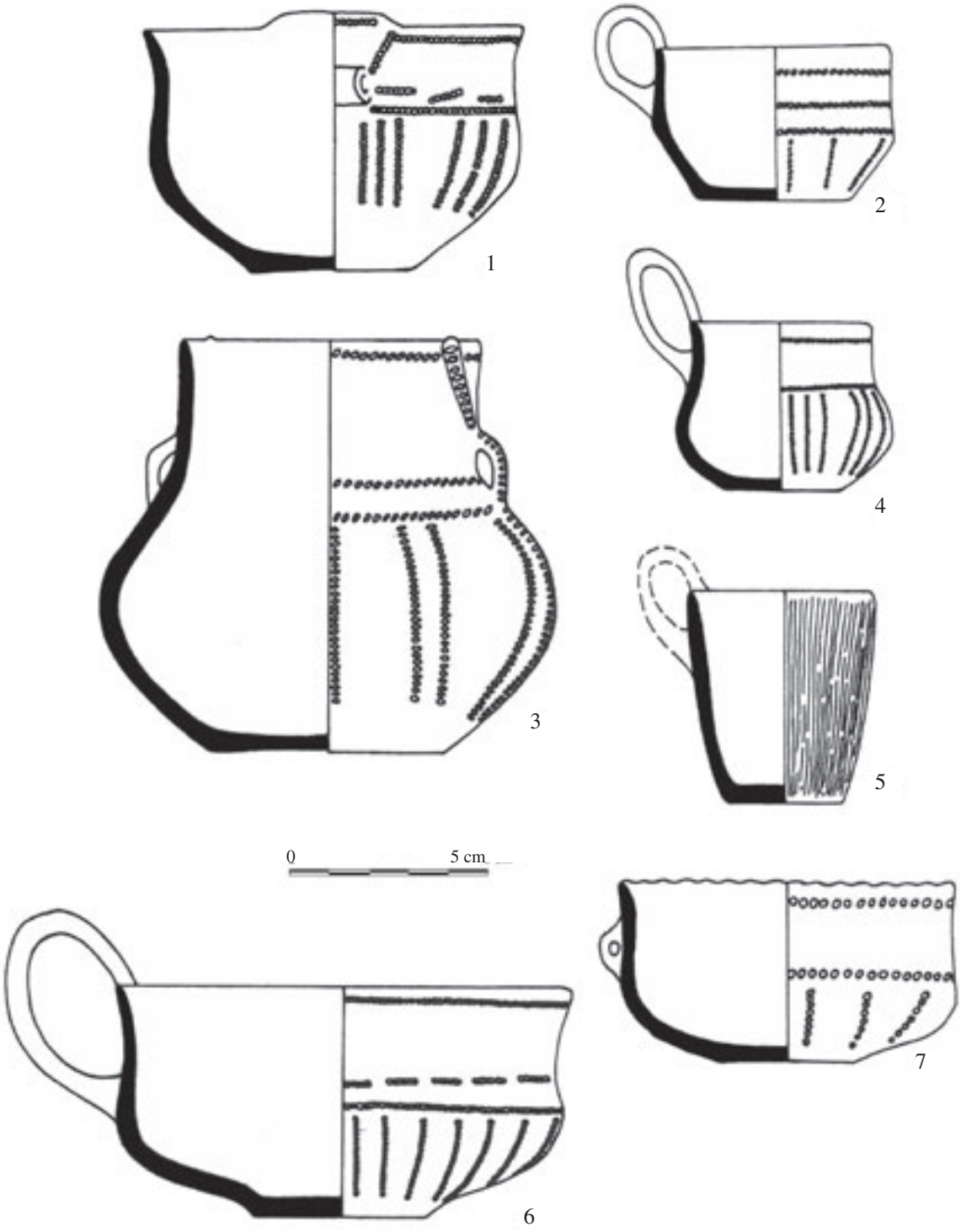


Fig. 8. Pottery of the Bošáca culture. 1-7. Bánov. After Podborský *a kol*. 1993.

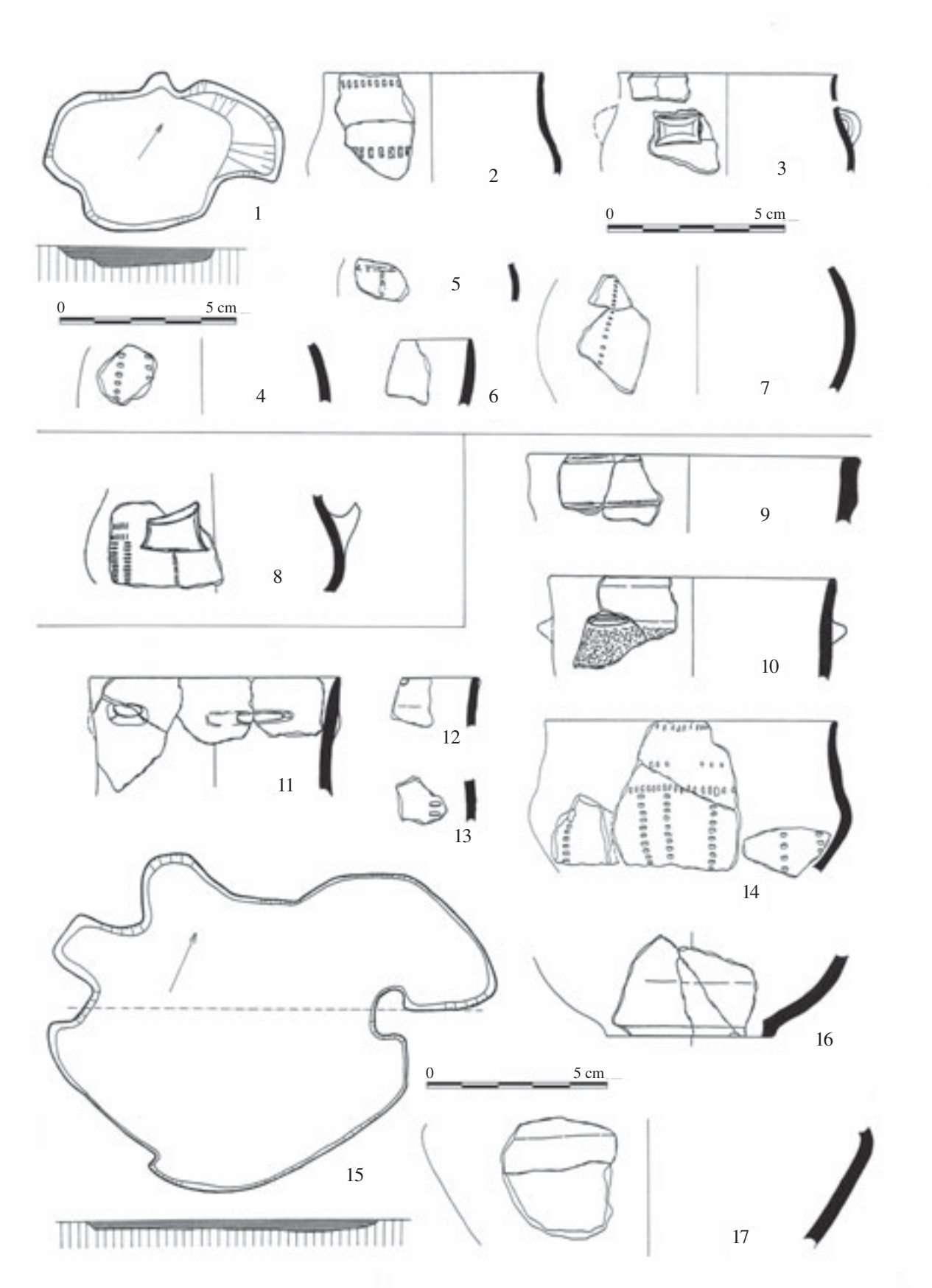


Fig. 9. The Bošáca culture from eastern Bohemia: 1-7 – Obědovice, Structure 23/96; 8 – Mokrovousy (surface collection); 9-17 – Obědovice, Structure 60/96. After Kalferst, Prostředník 1998.

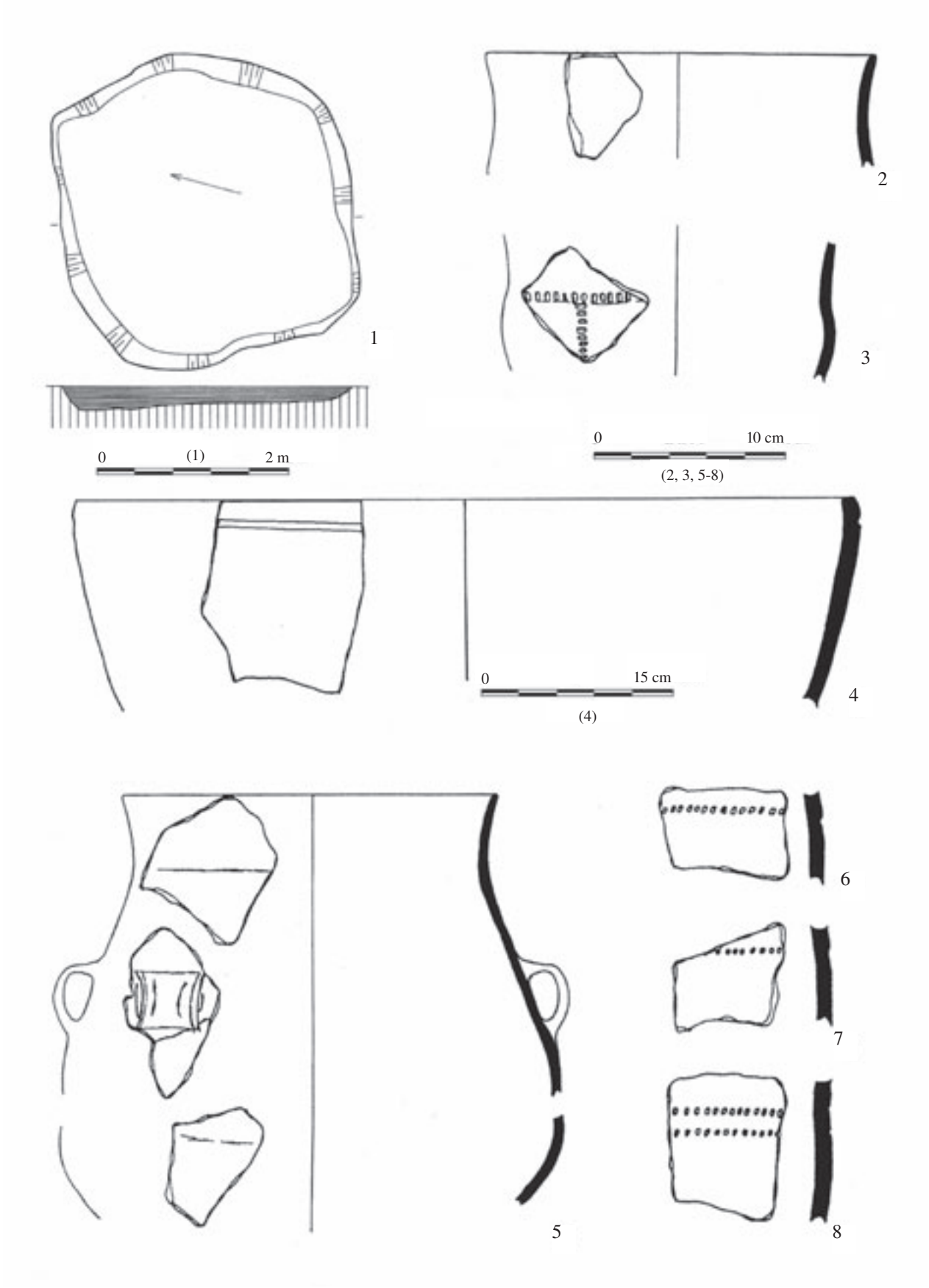


Fig. 10. The Bošáca culture in eastern Bohemia: 1-8 – Obědovice, structure 227/99. After Kalferst, Prostředník 2000.

Photo 1. Jaroslav Palliardi (1861-1922), outstanding Moravian archaeologist, during the excavation of the hillfort site *Starý Zámek* near Jevišovice (probably in 1915) where the stratigraphic sequence of Eneolithic culture was observed. After Čižmář 2004.

Photo 2. Anna Medunová-Benešová (1929-2001), research worker of the Archaeological Institute of the Czechoslovak Academy of Sciences in Brno. She described in detail materials from Eneolithic hillfort sites in southern Moravia (Jevišovice, Grešlové Mýto, Křepice and others) and complemented the settlement picture of the Jevišovice culture in Moravia. Archive of Archaeological Institute Brno.

Photo 3. Jan Pavelčík (1906-1990), archaeologist and anthropologist, long-time employee of the Jan Ámos Komenský Museum in Uherský Brod. In 1940s and 1950s he carried out excavations on the hillfort site in Bánov (from Archive of the Jan Ámos Komenský Museum, Uherský Brod).

Photo 4. Jaroslav Sobotka (1883-1960), school teacher and researcher in fields of botany and archaeology. In 1950-1958 he carried out excavations on the site *Palliardiho hradisko* near Vysočany (from collection of the Museum in Třebíč).

Photo 5. Josef Poláček (1924-1990), employee of the Museum in Jihlava. In 1959-1960 he carried out excavations on the site *Palliardiho hradisko* near Vysočany (from Archive of the Museum of Souther Bohemia in České Budějovice).

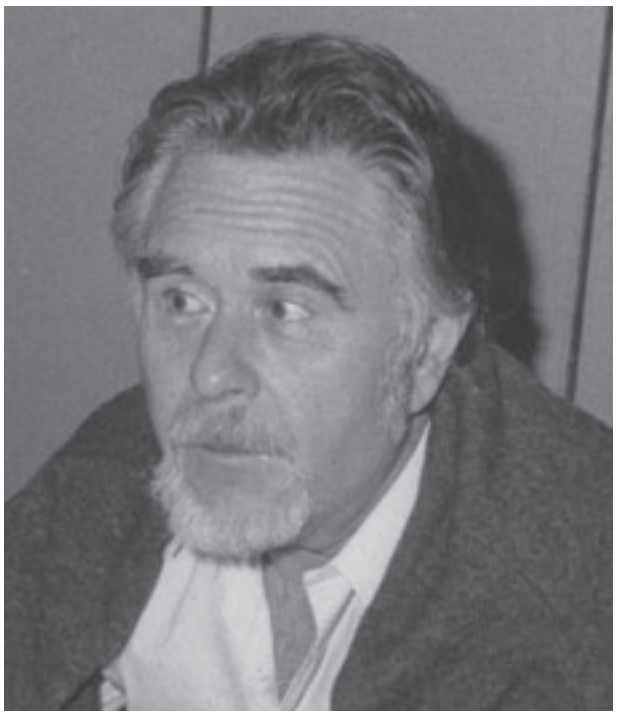


Photo 6. Jiří Pavelčík (1934) research worker of the Archaeological Institute of the Czechoslovak Academy of Sciences in Brno. He carried out excavations on the hillfort site in Bánov (1960-1961) and in Hlinsko near Lipník nad Bečvou (1962, 1968-1992). Archive of Archaeological Institute Brno.

4. Distribution of evidences

On the area of our interest lithic chipped material linked with the period of the Young Eneolithic has been found in following localities:

1 **Bánov**, Uherské Hradiště district (Bošáca culture) – 87 artifacts

2 **Bílovice-Lutotín**, Prostějov district (Globular Amphora culture ?) – 1 artifact

3 **Bravantice**, Nový Jičín district (Globular Amphora culture ?) – 1 artifact

4 **Brno-Líšeň,** Brno-město district (Jevišovice culture) – 34 artifacts

5 **Brno-Maloměřice**, Brno-město district (Jevišovice culture) – 1315 artifacts

6 **Brno-Starý Lískovec**, Brno-město district (Jevišovice culture) – 32 artifacts

7 **Bystřice pod Hostýnem**, Kroměříž district (Globular Amphora culture ?) – 1 artifact

8 **Děhylov,** Sites I and II, Opava district (Globular Amphorae culture?) – 2 artifacts

9 **Dlouhomilov**, Šumperk district (Globular Amphorae culture) – 1 artifact

10 **Drslavice,** Uherské Hradiště district (Globular Amphora culture) – 1 artifact

11 **Grešlové Mýto**, Znojmo district (Jevišovice culture) – 52 artifacts

12 **Hlinsko**, Přerov district (Bošáca culture) – 38 artifacts

13 **Holasovice**, Opava district (Globular Amphora culture?) – 1 artifact

14 **Ivančice,** Brno-venkov district (Jevišovice culture) – 27 artifacts

15 **Jeseník nad Odrou**, Nový Jičín district (Globular Amphora culture ?) – 1 artifact

16 **Jestřabí,** Zlín district (Globular Amphora culture ?) – 1 artifact

17 **Jevišovice**, Znojmo district (Jevišovice) – 60 artifacts

18 **Jiříkovice**, Brno-venkov district (Globular Amphora culture ?) – 1 artifact

19 **Luleč,** Vyškov district (Globular Amphora culture ?) – 1 artifact

20 **Mělčany,** Brno-venkov district (Globular Amphora culture ?) – 1 artifact

21 **Ohrozim**, Prostějov district (Globular Amphora culture ?) – 1 artifact

22 **Opava-Kateřinky/Malé Hoštice,** Opava district (Globular Amphora culture) – 103 artifacts

23 **Opava-Kylešovice**, Opava district (Globular Amphora culture ?) – 30 artifacts

24 **Opava-Vávrovice**, Opava district (Globular Amphora culture) – 2 artifacts

25 **Ostopovice,** Brno-venkov district (Jevišovice culture) – 21 artifacts

26 **Ostrava-Krásné Pole**, Ostrava-město district (Globular Amphora culture ?) – 1 artifact

27 **Prusinovice**, Kroměříž district (Globular Amphora culture ?) – 1 artifact

28 **Radslavice**, Vyškov district (Globular Amphora culture ?) – 1 artifact

29 **Rožnov pod Radhoštěm-Hážovice**, Vsetín district (Globular Amphora culture ?) – 1 artifact

30 **Suchá Loz**, Uherské Hradiště district (Globular Amphora culture ?) – 1 artifact

31 **Valašské Klobouky** (or vicinity), Zlín district (Globular Amphora culture ?) – 1 artifact

32 **Vracov**, Hodonín district (Globular Amphora culture ?) – 1 artifact

33 **Vysočany**, Znojmo district (Jevišovice culture) – 306 artifacts

34 **Zlín-Prštné**, Zlín district (Globular Amphora culture ?) – 1 artifact

In addition:

35 **Obědovice**, Hradec Králové district (Bošáca culture) – 26 artifacts

In total, **2155** artifacts from 35 localities (36 sites) have been analyzed. Eight sites, all of them recognized as settlements of considerable sizes, have been

referred to the Jevišovice culture. Altogether, they produced at least 1847 lithic chipped artifacts.

Twenty-five sites (two of them in the same locality – Děhylov) are linked with the Globular Amphora culture. Three of them (Opava-Kateřinky/Malé Hoštice, Opava-Kylešovice and Opava-Vávrovice) yielded materials of the settlement character. The other sites related to that culture are referred to finds of polished axes (or their fragments) of banded silicite of the Krzemionki Opatowskie type. It is commonly accepted that such forms were produced by Globular Amphorae people, most probably near places of the raw material extraction. In Moravia they can be often interpreted as artifacts imported into other cultural milieux. Altogether, the Catalogue includes 157 artifacts linked with the Globular Amphora culture (including those marked with the question mark).

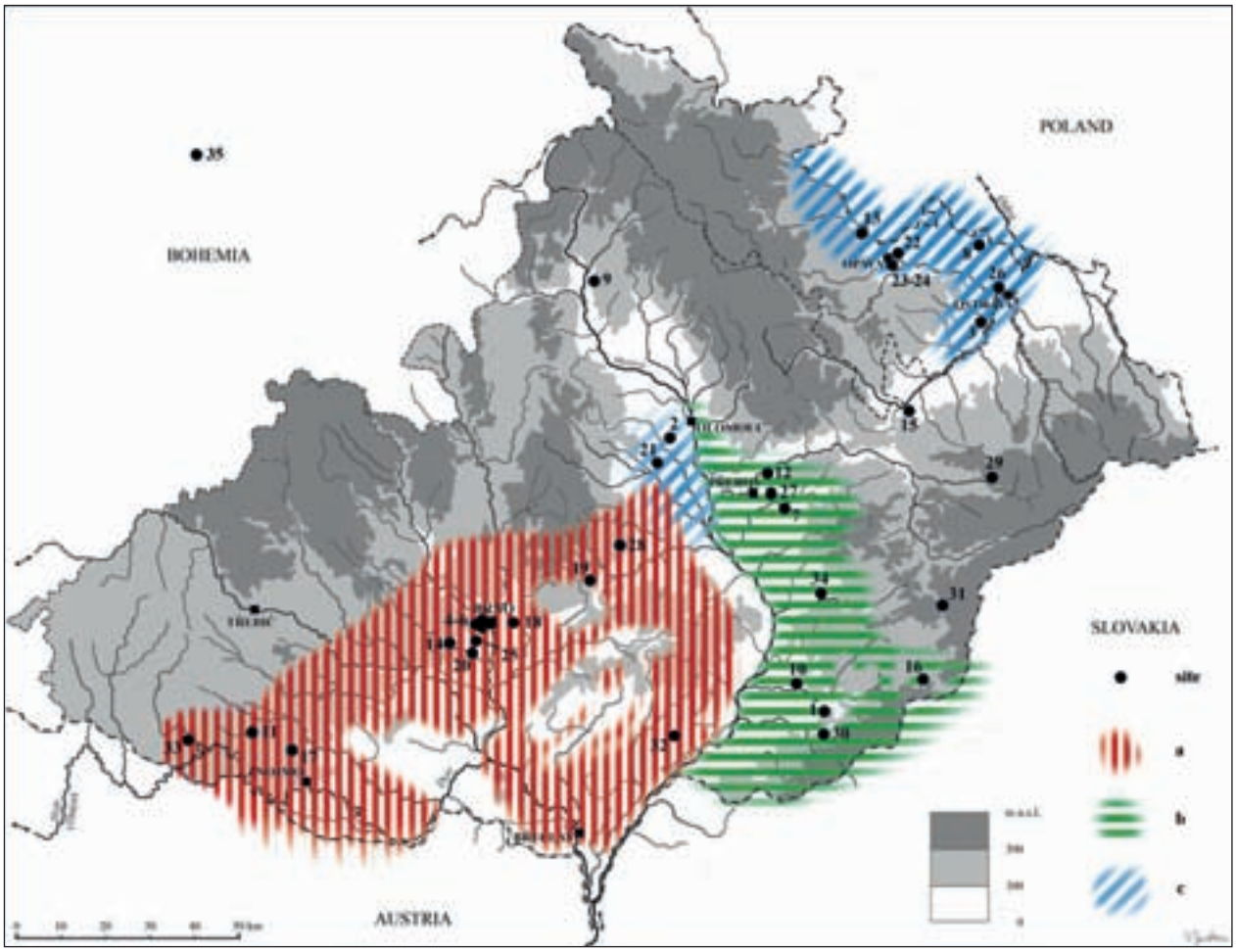
Finally, three sites of the Bošáca culture, exclusively of domestic character, yielded 151 artifacts.

Analytical values of the evidences are not equal. The most numerous artifacts of the Jevišovice culture from Brno-Maloměřice were not available for personal verification. Although technical and typological analyses of the material, based on published and unpublished documentations appears to be satisfactory, absence of professional raw material expertise is an evident shortcoming. Materials from other sites of this culture also have high analytical value. Unfortunately, they are much less frequent.

Materials of the Globular Amphora culture are not frequent in Moravia, due to very limited spread of the settlement of that culture (*cf.* Chapter 3.3). It should be noticed that lithic artifacts linked with this culture are known on the territories of our interest only in settlement context.[3] Significant is the presence of specific artifacts linked with that culture (axes of the banded silicite of the Krzemionki Opatowskie type) far beyond the reach of Globular Amphora milieu.

Lithic chipped materials of the Bošáca culture, although equally infrequent as those of the Globular Amphora culture, have been in most part verified and analyzed by the authors. For that reason they are of high analytical value. Important is also an insight in the material of that culture from eastern Bohemia, which – in cultural sense – is linked with the Moravian milieu.

3 In regards to materials from Opava-Kylešovice *cf.* Annex B



Map 1. Main settlement area of the Jevišovice culture in Moravia (A), the Bošáca culture (B) and areas where finds of the Globular Amphora culture concentrate (C). Sites with lithic artifacts: 1 – Bánov, Uherské Hradiště district; 2 – Bílovice-Lutotín, Prostějov district; 3 – Bravantice, Nový Jičín district; 4 – Brno-Líšeň**,** Brno-město district; 5 – Brno-Maloměřice, Brno-město district; 6 – Brno-Starý Lískovec, Brno-město district; 7 – Bystřice pod Hostýnem, Kroměříž district; 8 – Děhylov, Opava district; 9 – Dlouhomilov, Šumperk district; 10 – Drslavice, Uherské Hradiště district; 11 – Grešlové Mýto, Znojmo district; 12 – Hlinsko, Přerov district; 13 – Holasovice, Opava district; 14 – Ivančice**,** Brno-venkov district; 15 – Jeseník nad Odrou, Nový Jičín district; 16 – Jestřabí, Zlín district; 17 – Jevišovice, Znojmo district; 18 – Jiříkovice, Brno-venkov district; 19 – Luleč, Vyškov district; 20 – Mělčany, Brno-venkov district; 21 – Ohrozim, Prostějov district; 22 – Opava-Kateřinky/Malé Hoštice**,** Opava district; 23 – Opava-Kylešovice, Opava district; 24 – Opava-Vávrovice, Opava district; 25 – Ostopovice, Brno-venkov district; 26 – Ostrava-Krásné Pole, Ostrava-město district; 27 – Prusinovice, Kroměříž district; 28 – Radslavice, Vyškov district; 29 – Rožnov pod Radhoštěm-Hážovice, Vsetín district; 30 – Suchá Loz, Uherské Hradiště district; 31 – Valašské Klobouky, Zlín district; 32 – Vracov, Hodonín district; 33 – Vysočany, Znojmo district; 34 – Zlín-Prštné, Zlín district; 35 – Obědovice, Hradec Králové district. Drawn by I. Jordan.

5. Raw materials

As petrographic analyses of the examined assemblage are incomplete, the observations of raw material preferences during the period of Young Eneolithic in Moravia are general only. The prevailing majority of identified rocks can be described as local. Most important among them: Olomučany chert, Moravian Jurassic cherts, cherts of the Krumlovský les type, Stránská skála cherts, Cretaceous spongolites, siliceous weathering products of serpentinites, and quartz.

There have been also identified rocks originated from distant (not Moravian) sources: radiolarite, Bavarian tabular chert (*Plattensilex*), silicites (flints) from glacial sediments, and Tušimice quartzite.

Including silicites from glacial sediments into the group of imported rocks is very relative. The southernmost maximal limits of the continental glaciations do not exceed the European watershed divider, running across the Moravian Gateway between localities of Hranice and Bělotín (Přerov district). Thus, silicites from glacial sediments found in Silesia in the context of the Globular Amphora culture should be viewed as local rocks. Similarly, radiolarites in the milieu of the Bošáca culture in southeastern Moravia obviously represent rocks imported from very close distance.

Locations of source areas of major rocks utilized in the Eneolithic lithic industries in Moravia are presented on Map 2.

5.1. Local rocks

5.1.1. Olomučany chert

The term "Olomučany chert" was introduced into the archaeological literature in 1980s, as a result of petrographic examination of Eneolithic assemblages from the vicinity of Brno (Přichystal 1984). It is a dark (almost black) siliceous rock of a layered structure, with whitish-gray smudges (especially on layers' margins), and relics of a clastic texture of the silicified Jurassic opoka (silty marlstone). Under stereomicroscope, sponge spicules and occasionally limonitized glauconite are visible in the siliceous substance. Deposits of the rock in question, as well as places of its prehistoric exploitation, have been recognized at the village of Olomučany in the central part of the Moravian Karst (Přichystal A., Přichystal M. 2004).

5.1.2. Moravian Jurassic cherts

The term "Moravian Jurassic cherts" (abbr. MJC) is a comprehensive name for varieties of Jurassic cherts from secondary deposits in various gravel of the younger age (Plate LI: 2b). Usually it is impossible to determine their exact provenience. Pieces of the Moravian Jurassic chert are known from the Rudice Formation (probably of the Lower Cretaceous Age) and in Pleistocene river terraces in southern Moravia. Sporadically they can be found also in Miocene sediments of the Carpathian Foredeep. Rounded nodules and chunks of the Moravian Jurassic are bluish gray (no black surface).

Moravian Jurassic cherts, as well as cherts of the Krumlovský les type (to be described further), are siliceous relics of once widely spread Jurassic limestones. After denudation of limestones they did not stay exposed on the surface during the Lower Tertiary and for that reason they developed no black envelope.

Concretions of Moravian Jurassic cherts can reach a considerable size (e.g. a piece in the collection of A. Přichystal has dimensions of 41 x 40 x 28 cm and weighs 59 kg). In relation to small artifacts it is often impossible to distinguish the rock in question from their counterparts from primary deposits in Jurassic limestones, as fossils and siliceous mass are in both cases the same. In our studies doubtful pieces are usually denoted as MJC.

5.1.3. Cherts of the Krumlovský les type

The so-called cherts of the Krumlovský les type are siliceous rock originally formed in Jurassic and possibly Cretaceous sediments on eastern borders of the Bohemian Massif. They are known exclusively from secondary deposits (mainly gravels), located in the Krumlovský les Upland, but also in other places. Studies of A. Přichystal (1984) resulted in singling out two main varieties of the raw material in question, in the literature usually referred as KL I (Plate LII: 1b) and KL II (Plate LII: 2b). Later, examination of the Paleolithic assemblage from Alberndorf (Lower Austria) led to distinguishing the third variety (KL III), exact deposits of which remain partially unknown. Some of sources are apparently located on the NE margins of Brno or in its vicinity.

Chunks or pebbles of cherts of the Krumlovský les type of all three varieties are distinctive by a thin surface envelope, dark or almost black, composed mainly of Si, Al, Fe, and Mn. It is interpreted as ancient desert varnish. Siliceous mass of KL I is usually light gray to bluish gray, with lighter smudges of sponge spicules. Due to high chalcedony content, it is translucent and close to the surface it has a suspended whitish substance.

In contrast, the KL II variety is pale yellowish brown or pale brown, with distinctive petrosilex inclusions. Its siliceous mass is well translucent.

The KL III variety appears in forms of pebbles or small chunks. It is built of dark gray siliceous mass with numerous fossil relics in forms of whiter spots.

More detailed characteristics of cherts of the Krumlovský les type can be found in recently published monographic works devoted to terminal lithic industries in Moravia (Kopacz, Šebela 2006; Kopacz, Přichystal, Šebela 2009).

5.1.4. Stránská skála cherts

Stránská skála cherts appear in Upper Jurassic (Oxfordian) limestone relics located at eastern limits of Brno. The most important is the rocky elevation called Stránská skála, where a four-meter-thick layer of crinoidal limestone divides the profile into two parts featuring different nodular cherts.

Stránská skála cherts are usually gray or bluish gray (Plate LI: 3b). Those from above of the crinoidal layer show distinctive banded patterns of the siliceous mass. In contrast to the banded silicite (flint) of the Krzemionki Opatowskie type, patterns of the cherts from Stránská skála are never rectangular. The variety from the lower part of the profile (below the crinoidal layer) is spotted but not banded.

Despite various appearances (color, surface pattern, etc.), the siliceous mass of Stránská skála cherts is almost never translucent.

5.1.5. Cretaceous spongolite cherts

Raw materials referred as Cretaceous spongolite cherts are known in Moravia from both primary and secondary deposits. The first category includes Upper Cretaceous (Turonian) silty mudstones, recognized around Letovice, Bořitov, Březová nad Svitavou (western Moravia), and near Ústí nad Orlicí in eastern Bohemia.

In our studies most important are cherts from the area of Letovice and Bořitov (western Moravia), usually honey-brown in color. Occasionally, on polish surfaces of rocky chunks there are visible various patterns formed by the black envelope of the "desert varnish".

Cretaceous spongolite cherts were intensively transported by the Svitava River that flows in the vicinity of denudated Cretaceous relics in western Moravia (with their primary deposits). They can be also found in terraces of the Dyje River (southern Moravia) and on the Maleník Upland at the southern border of the Moravian Gateway.

5.1.6. Siliceous weathering products of serpentinites

They were recognized in prehistoric assemblages in the late 20th century by A. Přichystal (1979) and J. Kovárnik (1992) during their studies on lithic chipped materials from western Moravia. Color of the siliceous weathering products can be greenish, yellowish, or brown (Plate LII: 3b). They do not contain any fossils. On the surface there is often visible whitish envelope, occasionally very thick.

The raw material in question developed in the upper parts of weathered serpentinites and possibly other rocks (e.g. gneiss or marble) under tropical conditions of the Early Tertiary. From mineralogical point of view, they are composed of chalcedony and cryptocrystalline silica. Greenish varieties are often referred as plasma. They are also distinctive by increased magnetic susceptibility cause by the presence of magnetite.

Siliceous weathering products of serpentinites appear frequently in western Moravia, but also in serpentinites in other parts of the Bohemian Massive, including the Waldviertel region in Lower Austria.

5.1.7. Quartz

Quartz is a wide-spread mineral and – at the same time – one of the most resistant to weathering. Chunks of it can be found on slopes or in deluvio-fluvial sediments close to natural outcrops of quartz dykes. It appears also in forms of pebbles in the gravel of river terraces, as well as in many conglomerates.

Quartz is most often colorless, although varieties tinted gray-white, brown, yellowish, or gray-black are also known. It has a glassy luster. From the mineralogical point of view it is a mineral with no-cleavage properties, featuring only irregular or conchoidal fractures. Its chunks almost always contain tiny bubbles filled with a liquid or gas. In the quartz mass we can find rutile needles, chlorite and muscovite flakes, pyrite crystals, *etc*.

5.1.8. Rock crystal, smoky quartz and citrine

Rock crystal is clear, colorless, and transparent crystallized quartz, in appearance evoking ice. Citrine has yellow shade while the term smoky quartz refers to the brown-gray variety. In the archaeological literature both varieties are sometimes designated as rock crystal, as the yellowish shade can be easily overlooked. Natural sources of rock crystal, citrine and smoky quartz have been registered in pegmatites in crystalline rocks of the Bohemian-Moravian Highland, mainly around towns of Žďár nad Sázavou and Brtnice (Plate LIII: 2b). These minerals can be found also in gravel of rivers flowing from the Highland. These sources

were very probably used in cases of rock crystal artifacts found in Brno-Maloměřice and Ivančice. Rock crystal ascertained in Opava-Kateřinky/Malé Hoštice (one piece) in Czech Silesia could have been imported e.g. from Jegłowa in Poland.

5.1.9. Quartzite, so-called *sluňák* ("sun boulder")

Relics of siliceous weathering crust in forms of quartzite or fine-grained quartz conglomerate boulders have been referred from many places in the Bohemian-Moravian Highland. The rocks have conspicuous light colors (yellowish, white-gray, reddish, greenish). Four artifacts made of the raw material are known from Hlinsko where quartzite has its natural occurrences in the close vicinity of the archaeological site.

5.1.10. Porcellanites

Porcellanites are thermally metamorphosed fine-grained sedimentary rocks (marlstone, mudstone, or siltstone) of compact structure and conchoidal fracture. The source of the thermal (contact) metamorphosis was the body of volcanic rock (trachybasalt or trachyandesite).

Porcellanite artifacts were found in Bánov (south-eastern Moravia) and Obědovice (eastern Bohemia). In both cases the archaeological sites are close to the sources of porcellanites. Bánov is situated only 6-7 km from the well-known porcellanite occurrence on the Bučník Hill (Carpathian Flysch Belt), while Obědovice is *ca*. 18 km from the principal porcellanite locality in eastern Bohemia – the Kunětická hora Hill near Pardubice.

5.1.11. Opal

Among raw materials of minor importance in Moravian Young Eneolithic lithic assemblages, nothworty is sporadic presence of opal, hydrated amorphous form of silica, appearing in various tints. Its brawnish and yellowish variations (Plate LIII: 1b), confirmed in Vysočany, were probably collected from gravel in southwestern Morava.

5.2. Imported rocks

5.2.1. Carpathian radiolarite

It is a rock of Jurassic age, distinctive by specific tint – reddish brown, green, olive, bluish, or yellow (Plate LV: 2, 3). Its mass contains microfossils – round radiolarians. Primary deposits of radiolarites closest to the area of our interest can be found in Jurassic limestones of the Western Carpathian Klippen Belt – near the Vlára Pass (*Vlárský průsmyk*) between Moravia and Slovakia.

5.2.2. Bavarian tabular chert (*Plattensilex*)

The German name *Plattensilex* is a commonly accepted term for Upper Jurassic tabular chert from the so-called Fränkische Alb in the Regensburg/Kelheim region, southern Bavaria (Plate LIII: 36). The name refers to the tabular appearance of rocky chunks. For that reason *Plattensilex* is especially suitable for production of flat tools, often with application of flat or semi-flat retouching. Utilization of that raw material in the upper Danube region has been confirmed throughout the whole Stone Age. For our studies, use of *Plattensilex* during the Eneolithic, especially in Bohemia and eastern Bavaria (especially in the Cham culture) is very important. The presence of *Plattensilex* in lithic assemblages of the Jevišovice culture indicates relations of the unit in question with western Eneolithic milieux.

5.2.3. Silicites from glacial sediments (mostly flints)

The term "silicites from glacial sediments" (often referred in literature as SGS), alternatively "erratic silicites", encompasses variety of siliceous rocks dislocated by continental glacial sheets (Mindel and Riss) over vast areas of Central Europe (Plate LIV: 1b). As the ice lobe reached only the northern part of the area of our interest (*cf.* Map 3), in majority of Moravian Young Eneolithic assemblages this kind of raw material should be regarded as imported. However, in the Silesian milieu of the Globular Amphora culture in the Opava enclave, silicites from glacial sediments could have been obtained in the immediate vicinity of the settlement sites of that culture and as such they were there truly local rocks.

In the Polish literature, silicites from glacial sediments are usually called "erratic flint" (*krzemień narzutowy*). It is true that a substantial part of them are of the Maastichtian age and as such can be referred flints (*cf.* Přichystal 2009, 46-47). However, considering the fact that among silicites chunks left by the glacier there appeared also rocks from other formations (in northern Moravia silicites from the Danian [Lowermost Tertiary] limestones prevail; Přichystal 2009, 48), we prefer not to use this name.

Chunks of silicites from glacial sediments are rather small, usually with a diameter of a few centimeters. Also there appear quite big pieces, weighing over 10 kg (Přichystal 2009, 48). Archaeologists analyzing siliceous material are often faced by the problem of concerning the origin of individual pieces. Traces of glacier transportations may be observed only on natural surface of concretions, seldom preserved on worked-out artifacts. In some cases we cannot exclude that the raw material in question might have been obtained from (or from nearby) places of natural deposits of the rock, e.g. from the western Baltic zone.

Such a situation was encountered e.g. during studies on bifacial points of the Proto-Únětice culture; *cf.* Přichystal 2009a). However, in relation to Moravian assemblages from the Young Eneolithic, the assumption of the northern Moravian or Silesian origin of the used rock seen seems to be logical and very probable.

5.2.4. Tušimice quartzite (MW Bohemia)

Source the rock of that name is at Tušimice, in the eastern surroundings of Kadaň, Chomutov district, in northwestern Bohemia. In 1962, on the construction site of the power station, there were located tens of prehistoric mining features grouped on the area 50 by 75 m – pits, shafts up to 4 m deep and horizontal galleries several-meter-long (Neustupný 1963). On the basis of pottery finds, some of these structures (wide-open shafts) were used by the people of the Stroked Pottery culture. More developed mining works can be linked with the Eneolithic (two undecorated potsherds of the Řivnáč culture and probably of the Funnel Beaker culture, according to C14 dates from charcoal samples from shaft no. 5). Unfortunately, today the mining structures are inaccessible.

Silicified Upper Cretaceous sandstone is supposed to be the host rock of the Tušimice quartzite (Malkovský, Vencl 1995, 13). The quartzite appears in forms of discontinuous beds, blocks, or big nodules, originating probably in the Lower Tertiary. The raw material has a perfect conchoidal fracture and yellowish hue of various intensity (usually 5Y 7/2), due to finely dispersed TiO2 in the cemented siliceous groundmass. Stereomicroscope examination reveals the presence of angular grains to splinters of quartz with stable dimensions around 0.1-0.2 mm (bigger grains occur only rarely). It is the most typical feature of the Tušimice quartzite.

5.2.5. Obsidian (SE Slovakia, NE Hungary)

Obsidian is a dark-to-black volcanic glass of dacitic or rhyolitic composition (Plate LIV: 2b). As Central Europe is concerned, its natural sources are confirmed only in the Zemplínské vrchy Mts. (SE Slovakia) or in their equivalent in NE Hungary – the Tokaj-Zemplén Mts. Recent investigations, based on determining major elements or trace and rare earth elements, have shown that the Slovak source was by far more important. In prehistoric times obsidian was being obtained mainly from secondary river deposits on the NE outskirts of the Zemplínské vrchy Mts. (Přichystal, Škrdla 2013), but not from its primary occurrence at the village of Viničky, Trebišov district.

In the studied assemblages of the Young Eneolithic in Moravia and Czech Silesia, obsidian has been identified two sites only – in Hlinsko (Bošáca culture, 2 pieces) and in Vysočany (Jevišovice culture, 1 piece). The artifacts were imported for a distance more than 350 km.

5.2.6. Bohemian spilite volcaniclastic rock

We have registered sporadically the presence of spilite volcaniclastic rock of Proterozoic age (Vysočany; Plate LIV: 3a) originated from central Bohemia. This raw material was used especially in production of polished axes of the Řivnáč culture (for details *cf.* Přichystal 2009, 208). Due to very fine texture it could be chipped reasonably well. Sources of spilite volcaniclastic rock are supposedly located to the south and south-west of Prague (Plate LIV: 3b).

5.3. Raw material preferences in the Moravian Young Eneolithic

5.3.1. The Jevišovice culture

Lithic industry the Jevišovice culture was based almost entirely on local rocks. In the Brno area most preferable was evidently the Olomučany chert. In relations to the sites in the Brno-město district (Brno-Maloměřice, Brno-Starý Lískovec) it can be referred as "local rock", i.e. available in places in one-day walking distance from the places (*i.e.* ca 30 km) of its utilization. The same is true in relation to the Stránská skála cherts, deposits of which are located within the urban area of the city of Brno.

Raw material composition of the sites in southern Moravia (Znojmo district) appears to be different, although confirming the general observations on prevalence of local rocks. At present it can be presumed that a significant part of artifacts from the eponym site (Jevišovice, *Starý Zámek*) and from Vysočany, denoted as of "siliceous rock of unknown kind", may be of raw material from the Krumlovský les area and as such be local. The presence of cherts of the Krumlovský les type in Brno-Starý Lískovec is unquestionable. In this case the distance between the site and deposits of the rocks utilized (ca. 30 km) is close to the bordering value between "local" and "distant" raw materials (*cf.* Kopacz, Přichystal, Šebela 2009, 68).

Rocks of minor importance, including Cretaceous spongolite chert, quartz, various kinds of the Moravian Jurassic cherts, and as well as those referred in the literature as "rock crystal", "jasper", or "Devonian limestone chert", were probably also obtained from nearby sources, although it is impossible to determine their exact provenience. Thus, the only raw material positively identified as a "very distant" imported from more than 100 km; *cf.* Kopacz,

Přichystal, Šebela 2009, 68) are radiolarite (2 artifacts from Grešlové Mýto) and *Plattensilex* (1 artifact from Vysočany).

5.3.2. The Globular Amphora culture

Despite the limited information, the picture of raw material preferences in lithic chipped industry of the Globular Amphora culture appears to be clear. Implements of common use from domestic sites were made almost exclusively of silicites from glacial sediments. They were easy obtainable and more than sufficient for production of implements of small size, especially with application of elements of the splintering technique (*cf.* later in this work). In this respect the culture in question complies with general Young Eneolithic standards which give priority of local rocks over those imported from more distant areas. Exceptional in this respect are silicite axes.

In Moravia we encounter a number of axes made – for sure or probably – of the banded silicite of the Krzemionki Opatowskie type, from deposits in the region north of the Holly Cross Mountains (*Góry Świętokrzyskie*). It is generally accepted this raw material was exploited by mining methods by people of the Globular Amphora culture, especially on the well-known mining site at Krzemionki Opatowskie. This raw material was used mainly for axe production, requiring high-level craftsmanship, performed in specialized workshops near places of its extraction. As artifacts of a special function, exceeding *stricte* utilitarian use, they spread to other region, including the Globular Amphora enclave on the upper Odra River, but also to other cultural areas.

Axes of the banded silicite of the Krzemionki Opatowskie type appear in Moravia as specific artifacts, imported in complete forms from a long distance and used far outside of habitation places and outside the reach of the Globular Amphora culture. On this territory they were not a part of the lithic industry of the culture in question, even less of any other contemporary units. For that reason the banded silicite of the Opatowskie type has not been included into Chapter 4.1 discussing raw materials utilized in the Moravian Young Eneolithic.

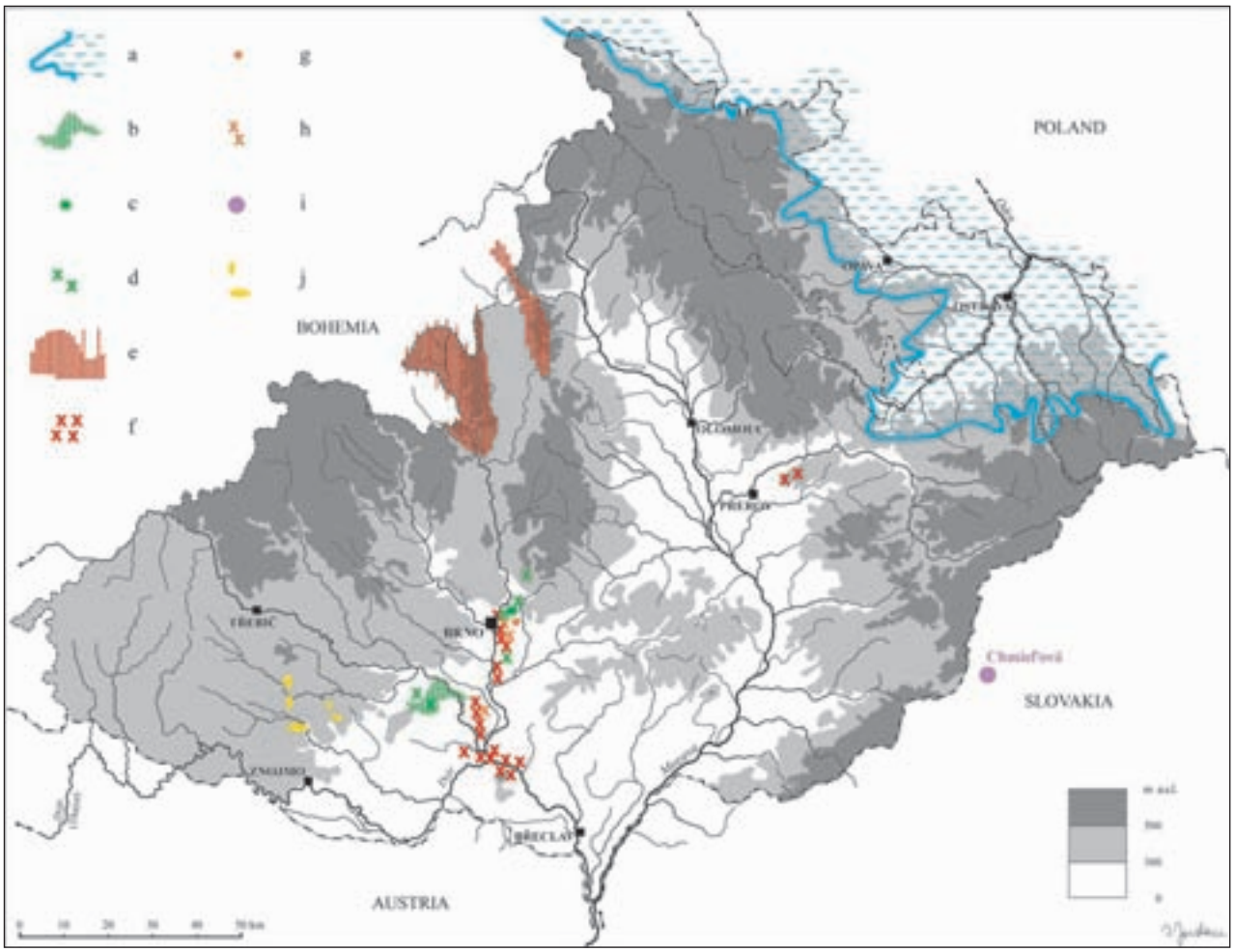
5.3.3. The Bošáca culture

Although not complete, information on lithic raw material utilized by people of the Bošáca culture in Moravia is very significant. Inferring from two sites – Bánov and Hlinsko, the most important (if not exclusive) was radiolarite, most probably of the White Carpathian origin. In that case we can speak about imported raw material only from the point of view of the whole Moravian-Slovak milieu but not in relation to the region of Uherské Hradiště, very close to sources of the Carpathian radiolarite. It reflects a situation very much different from that observed in relation to the other cultures of interest. While Jevišovice and Globular Amphora stone knappers sought easy available rocks in close distance from their habitations, their Bošáca counterparts obtained necessary raw material from a single source, most probably controlled by them

LOCALITY	CULTURE	SGS	Radiolar.	MJC	Porcell..	Olomuč.	Strán.sk	KLI	KLII	
Bánov	BC	6	65		6					
Bílovice-Lutonín	GAC (?)									
Bravantice	GAC (?)									
Brno-Líšeň	JC						22	5		
Brno-Maloměřice	JC			80		1093	19			
Brno-Starý Lískovec	JC									
Bystřice pod Hostýnem	GAC (?)									
Děhylov Sites I and II	GAC (?)									
Dlouhomilov	GAC (?)									
Drslavice	GAC (?)									
Grešlové Mýto	JC	6	1					8	7	
Hlinsko	BC	18	5							
Holasovice	GAC (?)									
Ivančice	JC							23		
Jeseník nad Odrou	GAC (?)									
Jestřabí	GAC (?)									
Jevišovice	JC	3						9	6	
Jiříkovice	GAC (?)									
Luleč	GAC (?)									
Mělčany	GAC (?)									
Ohrozim	GAC (?)									
Opava-Kateřinky/Malé Hoštice	GAC	84								
Opava-Kylešovice	GAC	29								
Opava-Vávrovice	GAC									
Ostopovice	JC							15	4	
Ostrava-Krásné Pole	GAC (?)									
Prusinovice	GAC (?)									
Radslavice	GAC (?)									
Rožnov pod Radhoštěm-Hážovice	GAC (?)									
Suchá Loz	GAC (?)									
Valašské Klobouky or vicinity	GAC (?)									
Vracov	GAC (?)									
Vysočany	JC	63		1		28	1	33	14	
Zlín-Prštné	GAC (?)									
Obědovice (Bohemia)	BC	3			21					
TOTAL		**212**	**71**	**81**	**27**	**1121**	**42**	**93**	**31**	

Table 1. Raw material composition of the analyzed Younger Eneolithic lithic assemblages from Moravia, Czech Silesia and eastern Bohemia.
Abbreviations of cultures: **BC** – Bošáca culture; **GAC** – the Globular Amphora culture; **JC** – the Jevišovice culture.
Abbreviations of raw materials: **Cret.sp.** – Cretaceous spongolite chert**; Crystal-like** – rock crystal, citrine, smoky quartz, quartz, *etc*.; **J.Cr.-Cz.** – Jurassic silicite from the Cracow-Częstochowa Upland; **KLI –** chert of the Krumlovský les type, variety I; **KLII –** chert of the Krumlovský les type, variety II; **KLI/II –** chert of Krumlovský les type, varieties I or II; **Krz.Opat.** – banded silicite of the Krzemionki Opatowskie type; **MJC** – Moravian Jurassic chert; ***Non vidi*** – *rock non vidi*; **Obsid.** – obsidian; **Olomuč.** – Olomučany chert; **Other r.** – other rocks; **Other sil.** – other siliceous rocks/silicites of unknown or undetermined kind; **Platten.** – Bavarian tabular chert (Plattensilex); **Porcell.** – porcellanite (including porcellanite from Kunětická hora near Pardubice); **Quartzite** – quartzite, quartzite to quartz conglomerate; **Radiolar.** – radiolarite; **SGS** – silicite from glacial sediments; **Sil.burnt** – silicite rock, burnt; **Sil.mud.** – silicified mudstone; **Sil.prod.** – siliceous weathering product of serpentinite; **Strán.sk**. – Stránská skála chert.

	RAW MATERIAL															
	KLI/II	Cret.sp.	Crystal-like	Quartzite	Opal	Obsidian	J.Cr.-Cz	Krz.Opat.	Other sil.	Platten.	Sil.prod.	Sil.mud.	Other r.	Sil.burnt	**Non vidi**	**TOTAL**
							2						4	1	3	87
								1								1
															1	1
								1						1	5	34
		10	6						15				2	90		1315
															32	32
								1								1
															2	2
															1	1
								1								1
				1							19	2		1	7	52
				4		2		2	3					3	1	38
								1								1
			3								1					27
															1	1
															1	1
			1				1		1		27		5	2	5	60
															1	1
															1	1
								1								1
								1								1
			1				2							16		103
									1							30
															2	2
									1						1	21
															1	1
								1								1
															1	1
								1								1
								1								1
								1								1
	2		26	2	19	1			8	2	64		7	13	22	306
								1								1
			1										1			26
	2	**10**	**38**	**7**	**19**	**3**	**5**	**15**	**29**	**2**	**111**	**2**	**19**	**127**	**88**	**2155**



Map 2. Main sources of the lithic raw materials in prehistoric Moravia: a – limits of the continental glaciation with occurrences of silicites from glacial sediments; b – main source area of cherts of the Krumlovský les type, varieties KL I and KL II; c – source area of cherts of the Krumlovský les type, variety KL III; d – chert breccias; e – primary deposits of Cretaceous spongolites; f – Cretaceous spongolites from gravels; g – cherts from the Stránská skála Hill; h – Moravian Jurassic cherts from gravels; i – the Chmeľová Mt. (925 m a.s.l.) near Vršatec (Slovakia) with radiolarite deposits; j – main sources of siliceous weathering product of serpentinite; k - main source area of chert of the Olomučany type. After Přichystal *et al.* 2004, drawn by I. Jordan.

6. Chipping techniques

6.1. The Jevišovice culture

Chipping technique of the Jevišovice culture can be best examined on the example of the Brno-Maloměřice assemblage. Especially important is a series of forms related to core shaping and core exploitation.

Generally speaking, blanks used for tool production were obtained from cores prepared according to certain standards. In this process very important was shaping a striking face, single as a rule and possibly narrow and rounded. It was achieved by crest fashioning of the pre-core face (Plate X: 1-5). This procedure is also confirmed by the presence of crested blades (Plate XIV: 4, 6, 7). Shaping pre-cores could have also encompassed the side opposite to the intended striking platform (Plate XI: 8).

The prevailing majority of cores had one striking face (e.g. Plate XI: 1-7), most often prepared, some times with multiple trimming.

There were also used multi-faced core for blades and laminar flakes, best exemplified by the artifact from Ostopovice (Plate XL: A-D). The presence of forms with faceted butt was usually related to changes of the percussion axis in advanced stages of core exploitation (e.g. Plate XII: 4). Attempts to make the best use of cores are also reflected by application of other "repairing procedures", such as trimming the platform edge (Plate XI: 2-4).

Cores described above served for obtaining series of regular blade blanks, preferably 4-7 cm long. From the regularity of blanks, which in most cases have parallel side edges and feature only a slight lateral bent (Plate XIV: 5; X: 15-19). Forms with preserved proximal parts have very often very narrow butt and indistinctive percussion bulb.

Features of pre-cores, cores, and blanks described above indicate that the lithic industry of the Jevišovice culture from Brno-Maloměřice was based on blade blanks obtained from specially prepared and "maintained" cores, exploited by application of an intermediate percussor, probably of an organic material. The same can be said about assemblages from other sites, especially from Grešlové Mýto (Plate XXII: 1-18) and Jevišovice-*Starý Zámek* (Plate XXVII: 1-10). One of the blades from this site (Plate XXVII: 10) is probably the longest in the whole culture in question.

Despite laminar character of the lithic industry of the Jevišovice culture, a big portion of chipped artifacts (both blanks and tools) are flakes. We presume that a majority of them (especially from Brno-Maloměřice) were related to preparation of cores (Plate XIV: 1-19). Some of them were certainly inevitable side-product of exploitation of blade cores, mainly in advanced stages and during changes of percussion directions. Nevertheless, they should be interpreted not merely as a production waste, but rather as a potential half-products for certain tools, especially of the expedient use.

Sporadic presence of forms related to the splintering (Vysočany) is another proof that the blade technique of the Eneolithic tradition was dominant in the chipping industry of the Jevišovice culture.

At the end of technical considerations an attempt should be make to interpret a series of massive rounded hammerstones from Brno-Maloměřice (Plate XIII: 1-5). These artifacts were certainly useless for exploitation of blade cores described above. As the site in question was a stone processing workshop with elements of a more stable settlement (pottery), we cannot exclude their use (at least some of them) for general domestic purposes (e.g. as grinders). However, in our opinion the artifacts from Brno-Maloměřice served mainly for initial shaping lithic chunks prior to fashioning pre-cores proper, e.g. for removing cortex, fragmenting bigger pieces, and testing the raw material quality. Therefore, their presence rather complements than contradicts the general conclusions on technical aspects of the lithic industry of the Jevišovice culture.

6.2. The Globular Amphora culture

The analysis of chipping techniques of the Globular Amphora culture is based on two major site, both located in Czech Silesia – Opava-Kateřinky/Malé Hoštice (settlement) and Opava-Kylešovice. It is significant that both assemblages, despite their different context are very close in every respect.

Only three cores have been recognized (from Opava-Kateřinky/Malé Hoštice), all of them intensively used and without traces of any pre-shaping. Two of them are rather irregular with single-platforms (Plate XXXV: 23; XXXVI: 17), the other (Plate XXXVI: 14) was exploited from three directions. In their final forms they served for obtaining small flakes length up to 3 cm), although originally they might have been intended for small blades. Such forms, either small blades of length, often below 3 cm (referred as bladelets), are very frequent in both assemblages. Majority of them feature small butts and visible impact ripples on the dorsal side, suggesting use of a hard percussion. We can presume that they were basic blanks in the culture of our interest, at least in Czech Silesia.

The picture of technical aspects of the analyzed assemblages should be completed by one very characteristic element – the splintering technique. In fact, exploiting small cores with hard percussors (*cf. supra*) can generate forms similar to splinters, both of flake or blade proportions (*cf.* Plate XXXIII: 5; XXIV: 1, 3; XXXV: 6, 7, XXXVI: 6,). We have also examples of "classic" two-poled splintered pieces (Plate XXXIII: 11, 12; XXXV: 8; XXXVII: 5) and less regular single-poled forms Plate XXXIII: 20; XXXV: 18). Numerous splinters (*cf.* Plate XXXIII: 1, 2, 4, 8, 9; XXXIV: 5; XXXV: 7; XXXVI: 6), length of which seldom exceed 1.5 cm, indicate that even very small chips had their place in inventories.

In conclusion it can be said that the lithic chipped industry of the Globular Amphora culture was rather microlithic (or almost microlithic). It was based on exploitation of small cores for blades, laminar flakes, and finally flakes, with methods close to splintering. The splintering technique proper was also very important.

6.3. The Bošáca culture

Technical aspects of the lithic chipped industry of the Bošáca culture are not very clear. Assemblages of all three settlement sites of that affiliation (Bánov, Hlinsko, and Obědovice in eastern Bohemia) did not contain evidence linked directly with *débitage*. The most distinctive in this respect are the two cores from Bánov. One of them is a single-platform core for flakes of radiolarite (Plate II: 8). Partially cortical, it shows nevertheless traces of preparation in the part opposite to the striking platform. The other (Plate V: 17) is well used core for blades, with no traces of preparation visible.

The core from Obědovice in early stage of exploitation (Plate XLVIII: 9) also shows preparation traces. It was used exclusively for detaching flakes from one striking platform. Interesting find from the same site is a large pre-core fashioned by flaking directed to the center of the form (Plate XXXVIII: 7). Another artifact from that site (Plate L: 6) can be interpreted as a residual core used for detaching small flakes of expedient use (or possibly as a technical chunk).

About 60 per cents of artifacts are medium-sized flakes (up to 5 cm long), rather irregular (*cf.* Plate I: 16-19, 21; II: 2, IV: 17; VI: 8, 10, 11; L: 3.). The remaining 40 per cent represents laminar flakes and blades proper (*cf.* Plate I: 5, 11-15; IV: 8, 9-14; L: 1, 2), obtained evidently from cores of at least basic preparation of the striking face and platform, probably by intermediate percussion. Due to small sizes of the blanks (also usually not exceeding the length of 5 cm) and their well pronounced curve we can rather exclude *débitage par pression*. There are also traces of splintering technique (Plate V: 4), so typical for assemblages of the Globular Amphora culture. Interesting feature of the analyzed assemblages is that most of them were left with no further processing. It suggests that knapping of siliceous rocks took place in a close vicinity of settlement sites and that the blanks were kept in domestic places for possible use in the future.

Finally, we should mention about a sporadic use of the block-reduction technique, confirmed by the presence of polished siliceous axes on all three analyzed sites.

7. Tools

7.1. The Jevišovice culture

The most frequent implements in our assemblages are **endscrapers,** typical representatives of typological tools of the Neolithic tradition. At least 41 tools of that type have been registered –16 from Grešlové Mýto (Plate XVIII: 1-13, 15-17), 15 from Brno-Maloměřice (e.g. Plate XVI: 2-8), 7 from Vysočany (Plate XXXVII: 1, 2, 10, 14; XXXVI: 6, 10, 15), 2 from Jevišovice-*Starý Zámek* (Plate XXIII: 11, 12) and one from Brno-Starý Lískovec (Plate XIX: 9). In addition, one artifact from Brno-Maloměřice (Plate XVI: 10) should be classified as a combined tool (endscraper plus retouched blade).

Endscrapers from the first listed site (Brno-Maloměřice) are especially important, not only because their significant number. All of them are made on short blades or laminar flakes, short or medium-size, rather thin. Use of such blanks had its consequences in shapes of tools – they are usually close to "fingernails", and some can be classified as typical *unguiformes* (Plate XVI: 3, 5, 8). One tool has two scraping edges, in the proximal part evidently less regular than in the distal part (Plate XVI: 7).

The endscraper from Brno-Starý Lískovec (Plate XIX: 9) is a carbon copy of *unguiformes* from Brno-Maloměřice, and two artifacts from Jevišovice-*Starý Zámek* (Plate XXVII: 11, 12), "oversized" and on massive flakes, seem to be their distant reminiscences. One of them (Plate XXVII: 11) was probably combined with perforator.

The series from Grešlové Mýto and Vysočany appears to be of a different breed, perhaps due to their early chronological position. The artifacts were produced from slim regular blades and for that reason they lack fingernail features. At least two forms have

the lateral sides shaped by edge retouching (Grešlové Mýto – Plate XX: 9, 10) and in one case a massive subcrested blade was used for that purpose (Vysočany – Plate XLIV: 10). Scraping edges, rounded and well shaped are situated in distal parts of blanks. Exceptions from the rule are two forms from Vysočany: an artifact with two equal opposite scraping edges (Plate XLIV: 15) and another one with the main edge in the distal part and a secondary edge in the proximal part (Plate XLIV: 6).

Burins constitute another important category of typological tools. In assemblages of the Jevišovice culture their presence has been confirmed only at Brno-Maloměřice, nonetheless in a significant number (15 artifacts). They account for almost 13 per cent of forms recognized as tools, including those functional. The burins from Brno-Maloměřice represent variety of types including burins on break (Plate XVII: 13), flat-faced (Plate XVII: 14), and on retouched truncation (Plate XVII: 15). All of them were made on blades or flakes of substantial size and have distinctive burin chutes.

The number of burins from Brno-Maloměřice combined with their characteristics exclude possibilities of their accidental appearance. At present, they should be viewed as an integral part of the lithic industry of the culture in question.

Among other functional tools of the Neolithic/Early Eneolithic character in Jevišovice assemblages, there are **truncated blades**, present practically in all assemblages (e.g. Plate XVIII: 1; XXII: 2; XXV: 6; XXXIX: 9; XL: 1). Interesting is the artifact from Vysočany (Plate XLII: 17) was made on a regular blank 56 mm long. It has a steeply retouched oblique truncation that forms a distinctive knife-like point in the distal part of the blade. Both lateral edges of the tool, but especially the longer one show traces of functional retouch. The blank used in its production complies in size and morphology with other blades from the same assemblage. Therefore, we should rather exclude the case of alien admixture or the recuperation of older artifacts. Another form from the same site (Plate XLIV: 4) was made on a slim blade 38 mm long. It has a rather indistinctive truncation in the lateral part and a marginal retouch on the lateral edge.

Unusual finds in the Jevišovice context are arrowheads. One artifact of that type has been registered in the assemblage from Vysočany (Plate XLII: 12). It is 21 mm long and – according to metric standards developed by J. Olivík (2009) for arrowheads of the Moravian Bell Beaker culture – should be referred as "short". It has convex sides and a very shallow slightly concave base. Its barbs are rather negligible; one of them seems to be squared, although possibly unintentionally. Altogether, it remains certain forms from younger stages of the Eneolithic. For that reason we cannot exclude that it is not a part of the Jevišovice assemblage.

Raw material of the arrowhead from Vysočany (most probably quartz) is rather unusual. In the Moravian Bell Beaker culture tools of that kind were usually produced from raw materials of good chipping qualities, at first imported, then local (*cf.* Kopacz, Přichystal, Šebela 2009, 109 and other pages). It has a close analogy in shape in one of the arrowheads from Grešlové Mýto (Plate XXI: 5), which – however – is slightly bigger. Very remarkable are tanged artifacts from the latter site (Plate XXI: 1-4). One of them (Plate XXI: 2), by the presence on a notch in the base part, is close to arrowheads of the Štramberk type. Interesting is the find of the base part of an arrowhead from Ostopovice, Brno-venkov district (Plate XLI: 7). It was of very specific type (tanged, with concave notch at the base), remaining the arrowhead of the Globular Amphora culture from Opava-Kylešovice (Plate XXXVIII: 11).

Arrowheads (points) of the Štramberk type are enigmatic finds in the Moravian Eneolithic. Their characteristic feature is the presence of symmetrically located side notches in the base part. They have been described on the basis of finds from the Kotouč hill in Štramberk, Nový Jičín district. Due to the patinated state of many artifacts collected from the surface, they were originally dated to the Younger Paleolithic (Klíma 1962, 93) then to the Late Neolithic, or rather to early phases of the Eneolithic (Vencl 1964a; 1964b, 119, 120; Grepl 1973; Janák 2006, 88, footnote 2). Such a chronology is indirectly confirmed by finds of points with side notches at the base from territories of Romania linked with the Gumelnița culture (Păunescu 1970, Fig. 30: 16; 32: 1, 2, 4; *cf.* also Kopacz 2001, Tabl. I: 3, 7, 8). However, we cannot exclude that reminiscences of arrowheads of the Štramberk type survived in Czech Silesia and Moravia until the Young Eneolithic, on the earliest Jevišovice sites.

Arrowheads – due to its nature – were used and left behind outside of inhabited places. They also served as grave goods. Because of the domestic context of our assemblages we cannot expect any significant presence of artifacts of that type, even if they were really produced by the Jevišovice people in more significant numbers. However, the unique series of tanged arrowheads from Grešlové Mýto suggests that artifacts of that kind were rare yet integral elements of Jevišovice assemblage.

Terminal assemblage feature also **sidescrapers** – tools commonly recognized as "typological", yet very diverse in size and morphology. In our assemblages, one such a tool (from Brno-Starý Lískovec)

has both lateral edges fashioned by denticulated retouch (Plate XIX: 8). The artifact from Vysočany (Plate XLII: 18), made on a massive flake, resembles a knife. However, it has flat-concave cross-section and due to this feature (in consequence the asymmetric working edge) has been classified as the sidescraper. More typical is the artifact from Grešlové Mýto, with rather regular concave scraping edge (Plate XX: 18).

Not very far from side scrapers are **knife-like tools**, well represented by artifacts from Grešlové Mýto (Plate XX: 14; XXI: 10) and Jevišovice (Plate XXVII: 9). Tools described as **picks** have been registered in Brno-Maloměřice (Plate XVIII: 14) and again in Grešlové Mýto (Plate XXI: 6). From the latter locality we also have examples of **boring tools** (Plate XXI: 11, 12).

It is an open question whether **notched and denticulated tools** in assemblages from the end of the Stone Age and the beginning of the Bronze Age should be regarded as a separate typological category. It is because the denticulation is a feature adopted by tools of various types. It can be also found on functional tools, as specific "marginal" retouch. This issue has been recently raised by the authors in their work on lithic industry of the Moravian Bell Beaker culture (Kopacz, Přichystal, Šebela 2009, 104).

In the analyzed material there is a series of that type of tools on flakes from Brno-Maloměřice, classified either as notched (Plate XVIII: 5) or denticulated tools (Plate XVIII: 6). It may indicate that forms of that type constitute (at least on the site in question) an integral part of the tool set. Moreover, one notched tool on flake is known also from Brno-Starý Lískovec.

On two sites there have been registered implements of forms complying with the definition of **segments**, as presented in the context of assemblages of the Moravian Bronze Age (Kopacz *et al*. 2006; Kopacz, Šebela 2006, 64), and also of the Moravian Bell Beaker culture (Kopacz *et al*. 2009, 98-100). Especially interesting is one form from Ivančice – of trapezoid outline, bifacially shaped (Plate XXV: 2). Another tool of that from the same site (Plate XXVI: 9), although less regular, is also very distinctive (especially by denticulated retouch of the cutting edge). A segment-like tool is also known from Ostopovice. Due to its oblong form and narrow base (Plate XXXIX: 2) it resembles a bifacial knife.

On the Jevišovice site there also have been discovered tools on flakes with denticulated edges. We classify them within other categories, *i.e*. **retouched blades** (Plate XXVII: 1, 2, 6), **blades with marginal retouch** (Plate XXVII: 3), or even as a **knife-like tool** (Plate XXVII: 9).

As we see, forms with notched or denticulated edges do not constitute a homogeneous group in morphological terms. They should be regarded, at least in inventories of the Jevišovice culture, as implements of an intermediate position – between typological and functional tools.

Analyzed assemblages contain the whole variety of **non-typological tools on flakes** or **blades**, featuring more or less consequent marginal retouching, or possibly only traces of use. As implements of "expedient use" they are – not surprisingly - especially frequent at Brno-Maloměřice. On that side, 58 such forms account to 49.57% of all tools (Plate XVI: 9, 11-16, 18, 19; Plate XVII: 1-11). They appear also on other sites – in Brno-Starý Lískovec (e.g. the blade with utilization retouch and sickle gloss; Plate XIX: 3), Jevišovice (denticulated retouch, Plate XXVII: 3, 5, 10), and Vysočany (Plate XLII: 6).

Discussion on typological aspects of the lithic assemblage of the Jevišovice culture would be not complete without some remarks on specific tools referred in the literature under the German name *Krummesser* (literally "curved knife"). Produced in most parts of non-siliceous rocks and usually polished on the surface (partially or entirely), they do not belong to lithic chipped industry *sensu stricto*. However, due to elements of the chipping technique applied in their production (especially for fashioning cutting edge) we can place them on peripheries of these industries (Kopacz 2011).

According to our present knowledge *Krummesser* appeared for the first time on territories of today's Romania towards the end of the so-called Transition Period, in milieu of the late Coţofeni and the Pit Grave cultures (*cf*. Kopacz 2011, there further references). The peak of their development came at the beginning of the Bronze Age and the only (according to our knowledge) tool of that type in Moravia (from the settlement site of younger phase of the Únětice culture in Šatov, Znojmo district; Kopacz, Šebela 2006, Tabl. LII: 9) falls to that period.

Finds from Jevišovice-*Starý Zámek* (Plate XXX: 6; XXXI: 8; XXXII: 1, 2) suggest that tools of the *Krummesser* type might have appeared in the Western Carpathian zone earlier than it has been supposed (*cf*. Kopacz 2011, 68, 69). It should be noticed that all three artifacts from Jevišovice are polished on the entire surface. The earliest analogies to them can be found in Schneckenberg-Glina III milieu (Kopacz 2011, Fig. 5: 2, 5) and this observation is chronologically acceptable.

7.2. The Globular Amphora culture

Materials from two the most important sites of the Globular Amphora Culture – Opava-Kateřinky-Malé Hoštice and Opava-Kylešovice give a good inside into the tool set of the unit in question, at least from the territory of Czech Silesia. Among forms described as "typological", **endscrapers** appear to be most distinctive. The best example of them is the artifact from Opava-Kateřinky/Malé Hoštice (Plate XXXIV: 15), fashioned on a regular blade, with retouched lateral sides. It is rather unusual, considering rather microlithic character of the industry of culture in question. Another endscraper from the same side is less regular and shorter (Plate XXXIV: 6).

The presence of **burins** in the Globular Amphora culture is still an open question. Although none of such form has been recognized in the analyzed material, remarkable is a very slim blade (length 36 mm) from Opava-Kateřinky-Malé/Hoštice, with traces of very steep effectuated prior to its detachment (Plate XXXIV: 12). Most probably it is a burin spall. If such an interpretation is correct, it must have been detached from a long regular blade, along its lateral edge previously prepared by retouching.

The described inventories contained also a perforator (Plate XXXV: 17) and a variety of non-typological tools – blades with marginal/functional retouch (*cf.* Plate XXXIII: 14; XXXIV: 8, 9; XXXVII: 13).

Very rare finds in the Globular Amphora culture are **arrowheads**. Such forms are very frequent in East-Central European assemblages from the turn of Stone and Bronze Ages. In Moravia, the prevailing majority of finds of that type are linked with the Bell Beaker culture (Kopacz, Přichystal, Šebela 2009, 84-97). They appear also in the Moravian Proto-Únětice culture (Kopacz, Šebela 1998). On the other hand, scarcity of arrowheads in the Moravian Corded Ware culture is remarkable (*cf.* Kopacz, Šebela 1992a; 1992b).

The arrowhead from Opava-Kylešovice (Plate XXXVIII: 11) can be described as tanged point without barbs, with an incipient notch at the base. It was produced on laminar blanks which gave to the artifact natural slimness and very thin cross-section. For that reason the tool fashioning could have been effectuated by the edge retouch only.

Finds of axes of banded silicite of the Krzemionki Opatowskie type without cultural context (or in the context unknown) on territories of our interest have been provisionally linked with the Globular Amphora culture. It is based on the well known fact that artifacts of that type and of that rock were produced in Lesser Poland by people of this culture. Certainly, they could have been acquired by their contemporaries of other cultural affiliation or recuperated and reused by subsequent inhabitants, especially of the Corded Ware culture (*cf.* Kopacz 1986). Distribution of these finds on territories of our interest indicates that they are group mainly in Czech Silesia and northern Moravia, which in the Young Eneolithic period constituted the main "southern milieu" of Globular Amphorae. Certainly, another cultural affiliation of some, especially with the Bošáca culture, cannot be completely excluded.

Out of 24 registered finds of siliceous axes of the banded silicite of the Krzemionki Opatowskie type (*cf.* Catalogue), 18 artifacts were preserved in the state allowing reconstructing their basic shape and main dimensions. All of them were practically polished on the whole surface. In relation to the first feature in can be said that practically all axes were rectangular in the cross-section and trapezoid in the outline (only one artifact – from Radslavice, is triangular in outline and has a pointed butt). Length of the analyzed axes varied from 57-58 mm (artifacts from Ostrava-Krásné Pole and Bílovice-Lutonín) to 130 mm (artifact from Prusinovice; Plate XLVII: 7). The smallest axe is also the narrowest one (widths at the blade were 22 and 32 mm respectively), while the longest artifact was the widest (55 mm). The maximal thickness (30 mm) has been registered for the artifact from Rožnov pod Radhoštěm-Hážovice, also of a significant length of 90 mm).

Concluding the observations on axes of the banded silicite of the Krzemionki Opatowskie type it can be said that they constitute a rather homogenous group, not only in the scope of raw material, but also in shape (trapezoid outline, rectangular cross-section) and the way they were finished (polished on the whole surface). In this respect they are different than a few axes found in the context of the Bošáca culture, presented earlier in this chapter. It makes their hypothetical affiliation with the Globular Amphora culture even more probable.

7.3. The Bošáca culture

Set of implements in analyzed assemblages of the Bošáca culture is not very wide but significant. In accordance with the prevailing technique (*cf. supra*), almost all "small" implements (i.e. produced from chipped blanks) were made on blades. Artifacts described by us as tools fall into two main categories, referred as "typological" and "functional". Such a division is commonly accepted in analyses of Eneolithic lithic chipped inventories. The first category includes artifacts featuring recurrent and well defined typological elements. In contrast, functional tools cannot be precisely defined in morphological terms. Among

them we can find forms with marginal retouch, as well as those merely with utilization traces, the latter usually difficult to distinguish from the former.

In can be said without much risk that the main typological tools in the Bošáca assemblages are **truncated blade**s (Plate IV: 13; V: 7, 10, 11; L: 1). Traces of the so-called sickle gloss on many of them indicate that they were primarily used as sickle inserts, in the same way as truncated blades in Neolithic and Early Eneolithic assemblages.

Very frequent in the Bošáca assemblages are blades with retouched edges, including more of less regular retouched blades (Plate IV: 10-12; V: 3). Presence of artifacts of that type can also be linked with the Early Eneolithic tradition. The presence of its specific variation with steeply retouched lateral edges (similar to the so called lame à bords abbatus, has also been confirmed. The artifact of that type from Bánov (Plate VI: 13) might have served as perforator.

Endscrapers has been confirmed in Bánov (Plate V: 8, 13; VI: 17), Hlinsko (*cf.* Catalogue), and Obědovice (Plate XLIX: 2). Especially interesting is one of the artifacts from Bánov (Plate VI: 17), due to its size (length 72 mm) and partially bifacial retouch on lateral edges. There are also boring tools (Plate V: 5; *cf.* also Plate VI: 13), common in assemblages from various periods.

In contrast to "everyday forms" described above, the arrowhead from in Bánov (Plate IV: 2) is rather unusual find. It has a shallow trapezoid notch at the base, the kind which later would become typical for arrowheads of the Bell Beaker culture (*cf.* Kopacz 2012, 10). Remarkable is also semi-flat (evasive) bifacial retouch.

As it can be expected, in the analyzed assemblages of the settlement character non-typological tools prevail. Most of them are marginally retouched blades or flakes, in parts caused by utilization (e.g. Plate I: 4, 5, 18; II: 7; IV: 10, 15; V: 9; VI: 1, 2, 12).

Polished siliceous axes are known from Bánov (Plate III: 1-3), Hlinsko (Plate XLVII: 1), and Obědovice (Plate XLVIII: 6, 8). Two of them are of rocks of the Polish provenience. The artifact from Bánov (Plate III: 2) is of Jurassic silicite from the Cracow-Częstochowa Upland, variety G, while the axe from Hlinsko of the banded silicite of the Krzemionki Opatowskie type. Two axes from the first named site (Plate III: 1, 3) and the axes from Obědovice (Plate XLIX: 6, 8) were produces from non-siliceous rocks and as such they do not represent the lithic chipped industry proper. Nonetheless, they are very close in shape (and probably in functions as well) to their siliceous counterparts.

All axes of the Bošáca culture have quasi-rectangular cross-sections and are partially polished (mainly in the blade part). In general, they represent a very average level of the craftsmanship, especially in comparison to axes of the Globular Amphora culture.

8. Comparison of lithic chipped industries of the Jevišovice, Globular Amphora, and Bošáca cultures

Comparison of lithic chipped industries of three major cultural units of the Moravian Young Eneolithic should encompassed raw materials utilized, prevailing chipping technique, and also typological aspects of their implements.

8.1. Raw material aspect

The first of the analyzed – the Jevišovice culture, is distinctive by almost exclusive use of local rocks without much regards to their qualities. In selecting raw material the most important was its availability, to be exact – possibly the closest distance from places of habitation. In southern Moravia (in today's Znojmo district) they were cherts from the Krumlovský les Highland and, in the Brno area, Stránská skála and Olomučany cherts, the latter from the nearby Moravian Karst. In any cases, source areas of the utilized rocks located in a distance not exceeding a one-day walk (*ca* 30 km).

In light raw material preferences in the Jevišovice culture, the sporadic appearance of artifacts made of rocks obtained from distant regions (radiolarite, *Plattensilex*) is only a proof of contacts of the Jevišovice people with other cultural milieux, which is by no means surprising.

Assemblages of the Globular Amphora culture in the northern part of the area of our interest (namely Czech Silesia) are even more homogenous in the scope of raw material. Practically all implements of common use, evidently locally produced, were made of silicites (flints) from glacial sediments. Although we are not able to determine their exact provenience, it is more then possible they come from close vicinity of the settlement site (in this case – from the Opava region).

Very exceptional finds are polished axes made of the banded silicite of the Krzemionki Opatowskie type, evidently produced close to the source area of this rock (northern foothills of the Holy Cross Mts. in Poland) by local groups of the Glob-

ular Amphora culture. In Moravia, artifacts of that kind can be found well outside the Opava enclave of that culture, especially on areas dominated by the Jevišovice settlement. It confirms the notion that polish axes of the banded silicite (imported from a very long distance – up to 400 km) were implements of special functions, possibly serving as symbols of prestige for high social ranks. Although they spread in other cultural milieux, they were probably imported to Moravia via the Opava enclave of the Globular Amphora culture.

The third unit of our interest – the Bošáca culture, appears to utilize a specific raw material economy, in contrast to the previously described identities. Its Moravian inhabitants relied on supplies of radiolarites, evidently from sources in the White Carpathians, controlled at that time by other groups of the same culture. It is difficult to classify this practice. In the scope of distance it was a medium distance import (30-100 km). However, considering the settlement territory of the Bošáca culture, the Carpathian radiolarite in eastern Moravia can be viewed as a local raw material.

The situation described above resembles situation registered in many Neolithic cultures which in most parts relied on specific raw materials, without much regards to the distance of source areas (certainly, to certain limits only). However, this picture is complicated by the assemblage of the Bošáca culture from Obědovice (eastern Bohemia). It was based on easy available rocks from not very far distance – porcellanite from Kunětická hora Hill near Pardubice and silicites from glacial sediments. We can presume that in this case imports of Carpathian radiolarites, even with intermediacy of the Bošáca people in eastern Moravia, was not practical.

8.2. Technical aspect

In relation to chipping technique, assemblages of the Jevišovice culture appear to be the best describable, possibly due to distinctive evidences obtained from one stone-processing site (Brno-Maloměřice). The blade technique *sensu stricte*, based on pre-prepared cores was commonly applied for obtaining most demanding blanks – blades of medium-size. They were usually detached with use of intermediate percussor applied to the preferred striking platform. In advanced stages of exploitation cores often became multi-faced and multi-platformed. In such forms they could be still use for obtaining flaks, still useful as blanks for certain types of implements, especially of expedient use.

Chipping techniques recognized in the Globular Amphora lithic assemblage appear to be directed for producing small blanks, usually no more than 3 cm long. Most often they were flakes, although laminar forms seem to be also desirable. Blanks were detached from multi platform cores, probably pre-prepared to a minimal degree only. For that purpose, direct percussion applied by a hard tool quite was quite sufficient.

Lithic assemblages of the Globular Amphora culture are distinctive also by the evident presence of the splintering technique, similar to chipping flakes with application of direct hard percussion. For that reason, splintered pieces in the analyzed assemblages should be interpreted as specific cores for obtaining small and very small blanks.

The chipping technique of the Bošáca culture is not very distinctive. First of all, it seems to be balanced in use of flake and blade blanks, usually small or medium sized (length not exceeding 5 cm). Morphological features of blades and laminar forms point mainly towards indirect percussion (which was evidently applied for obtaining flakes) but we cannot exclude in some cases using more sophisticated methods (*débitage par pression*). If it was the case, blades of the Bošáca culture could have been both occasional and intended, *i.e.* obtained from specifically pre-prepared cores.

It is remarkable that prevailing majority of blanks were never further processed. We can interpret this as a result of a specific raw material economy related to the fact that raw material in the analyzed sites was imported from quite a distance and – as such – stored in domestic areas for needs that might arise in the future.

8.3. Typological aspect

Tool sets of the Jevišovice culture are dominated by endscrapers. Most often they are fashioned on a short blade or are small laminar flakes. For that reason they are of small size and represent ednscrapers close to *unguiformes*. However, in earlier assemblages (Grešlové Mýto, Vysočany) we have also longer forms on regular blades similar to endscrapers from earlier stages of the Eneolithic.

The second most important tool in the Jevišovice assemblage are burins, again resembling forms from earlier periods. Number of artifacts of that type and their diversity (burins on break, flat faced, on retouched truncation) confirm that they are not occasional implements but well intended tools for specific use.

Early Eneolithic tradition is reflected also in truncated blades, including regular forms with oblique retouched truncation. As in previous cases, we rath-

er exclude the hap-hazard character of these tools or the case or recuperation of older artifacts.

Very special yet quite infrequent in lithic assemblages of the Jevišovice culture are arrowheads, either with concave base or notched. In the latter type we can see certain reminiscence of arrowheads of the Štramberk type (forms with side notch at tang base), which in Moravia are dated to earlier stages of the Eneolithic.

The analyzed assemblages have also yielded implements typical rather for "terminal assemblages", such as sidescrapers, knife-like tools, various denticulated forms, and the whole scope of expedient tools with marginal or functional retouch, both on blades and flakes.

The appearance of the forms described as segments on some Jevišovce sites is significant. Later tools of that type would become very common in assemblages of the Moravian Bell Beaker culture, the Únětice culture and the Veteřov group. As the development of lithic forms usually followed a long path, it is logical to presume that forerunners of segments might have appeared earlier than the Late or Final Eneolithic. As so far their earliest appearance has been registered in Ivančice and Ostopovice. Therefore it is possible that the sites in question are the youngest links of the whole Jevišovice sequence. The presumption is backed up by the presence of an arrowhead featuring Globular Amphora elements in Ostopovice. If it is true, both sites in question would be linked with the hypothetical "final phase" of the Jevišovce culture, surviving on territories to the west of the Svratka River until the Late Eneolithic.

If the lithic chipped industry of the Jevišovice culture in many aspects (technological and typological) continued Neolithic/Eneolithic chipping tradition, its Globular Amphora reveals much different aspects. In general, its tools of common use are of rather small size and have rather indistinctive typological features. It is true also for endscrapers – most common among typological tools.

Unlike to the Jevišovice culture, the presence of intentional burins in Globular Amphora assemblage is questionable. Common for both units in question is a sporadic presence of tanged arrowheads and an abundance of non-typological tools. The last feature seems to be emblematic for all Moravian lithic industries starting from the Young Eneolithic.

Specific position in lithic industry of the Globular Amphora culture is taken by polished axes of the banded silicite of the Krzemionki Opatowskie type, already mentioned several times in this work. As implements of special functions they can be omitted in our considerations.

Finally, we focus our attention on typological aspects of Bošáca assemblage. The most common implements there are not endscrapers, as one could expect, but truncated blades. Traces of sickle gloss on many of them indicate that the form in question served as sickle inserts. This underlines the importance of agriculture-related activities in economic life of Bošáca communities.

The second most frequent tools in Bošáca assemblage are endscrapers, most often not very regular and of rather small size. Exceptional in this respect is one of the artifacts from Bánov, 72 mm long, made on massive regular blade with bifacially retouched edges. We should also mention a few not very distinctive boring tools.

A unique find is the arrowhead from Bánov. By its slightly trapezoid notch at the base it resembles arrowheads of the Bell Beaker culture from the Late Eneolithic. As chronological reasons exclude the case of reutilization, we can only acknowledge this unusual observation and await for further finds of that type.

People of the Bošáca culture commonly utilized stone axes of silicite and non-silicites rocks. Although in our classification they are placed into different categories (either chipped or polished) they are close in morphology and identical in function. We can presume that non-siliceous raw material was used as a local substitute to siliceous axes which should have been imported from far away – the Cracow-Częstochowa Upland and northern foothills of the Holy Cross Mountains.

9. Lithic chipped industries of the Moravian Young Eneolithic as forerunners of epochal transformations

The Young Eneolithic in Moravia terminated the long-lasting period of the steady farming economy, developing under influences from the south and the southeast. From at least the Middle Eneolithic we can speak about transformations of local ethnic substratum which developed into various forms, today recognized by archaeologists as cultures or cultural groups. They were uniform in basic aspects of lithic industries, such as a raw material economy, chipping techniques, and sets of implements which had to comply with the needs of the farming people. We refer to these elements as reflections of the Neolithic/Early Eneolithic tradition.

Cultural development in the Moravian Young Eneolithic reveals a certain kind of split, reflected by the separate development of three major cultures of the period – Jevišovice in the south, Bošáca in the east, and Globular Amphorae in the north. The first two, although deriving from different roots, were generally off-springs of the Carpathian-Danubian civilization circle. In contrast, the Globular Amphora culture was on the territories of today's Czech Silesia and northern Moravia an alien intrusion from a different world – the Polish Plain. Its appearance indicated that so-far established directions of contacts lost their exclusiveness in cultural development of the territory in question. This phenomenon, more and more evident in later stages of the Eneolithic, became emblematic for transformations leading towards the formation of the Bronze Age civilization.

Lithic evidences are only complementary sources in studying epochal transformations which encompassed many aspects of social and economic life. Nonetheless, they can help us to understand better these processes. The concept of the Terminal Lithic Industries recalled at the beginning of this work confirms that such an approach is correct. The question arises if it can be applied to stone assemblages of the Moravian Young Eneolithic. Specific studies on the subject mentioned above (Kopacz 2012) indicate that changes in the lithic industries in Moravia passed a "breaking point" in the Late Eneolithic and from that period only we can speak about Terminal Lithic Industries. It leaves aside Young Eneolithic assemblages. But perhaps not entirely?

Among the three cultural units of our interest, the lithic industry of the Jevišovice culture is the most "traditional" in the scope of tools. At the same time it relies almost exclusively on local rocks from a close vicinity of the habitation sites which is rather against Neolithic/Early Eneolithic tradition. This practice will become typical e.g. for the youngest Moravian Corded Ware Culture and the younger industry of the Moravian Bell Beaker culture (*cf.* Kopacz 2012).

In assemblage of the Bošáca culture we fine certain elements of the Neolithic/Early Eneolithic tradition, especially variety of sickle inserts. Traditional is also the raw material subsistence of Moravian sites (on the Carpathian radiolarite). At the same time they reveal a considerable fall of the blade technique and increased number of non-typological tools, later emblematic for the Terminal Lithic Industries.

Industry of the Globular Amphora culture is of different breed. In fact, it can be hardly compared with industries of other units of our interest. Unclear is also its place in the process of transformations stone industries towards their final form, perhaps for reasons of its "lowland origin". In technical sense (low significance of the blade technique, frequency of splintering, etc.) it is very far from Neolithic/Early Neolithic tradition in our understanding. Moreover, it produced and distributed very special implements – polished axes of the banded silicite of the Krzemionki Opatowskie type, true "conventional tools".

Summing-up our observations we are getting to the conclusion that first signs or forerunners of the process of disintegrations of stable, long lasting agricultural structures can be observed as early as in the Young Eneolithic. They are reflected also in the lithic chipped industries of the Jevišovice, Bošáca, and Globular Amphora cultures. For that reason, studying evidences of that kind gives us a broader perception of the processes at the end of the Stone Age which led to the new epoch in prehistoric development. This is the wrapping up of our work.

10. CATALOGUE

Lithic evidences related to the Moravian Young Eneolithic are presented in the Catalogue in a standardized form, arranged according to alphabetic order of localities (cadastral areas) in which they have been found. Each locality name is accompanied by the reference to its affiliation to the main administrative unit of the Czech Republic (*okres*, *i.e.* district). Then follows the site name, which is usually a local appellation presented in *italics* (occasionally also denoted by Roman numerals). The next lines inform about the find character (settlement site, cemetery, or accidental) and its cultural affiliation, *i.e.* the Bošáca culture, the Globular Amphora culture, and the Jevišovice culture). In relation to accidental finds of polished axes of the banded silicite of the Krzemionki Opatowskie type, most probably produced in the Globular Amphorae milieu in Lesser Poland, their cultural affiliation is accompanied by the question mark. Materials from Opava-Kylešovice, tentatively linked by us with the Globular Amphora culture, are also followed by the question mark.

The descriptive part of each position of the catalogue gives the information (if available) on circumstances of the find, years of the research, the excavator's name and affiliation, etc. It was followed by numbered lists of artifacts according to archaeological features, arranged according to inventory numbers (if available). Each position in the list presents a typological assignation of the artifact, its dimensions (for more distinctive pieces), information on raw material (either verified or based on the literature), inventory (or other) number and the reference to the illustration tables.

In description of rocks, abbreviations commonly in the literature have been utilized:

KL I – Krumlovský les chert, variety I; **KL II** – Krumlovský les chert, variety II; **SGS** – silicite from glacial sediments.

To facilitate verification of evidences in the future, information related to actual location of the described artifacts, are given for each collection. Names of relevant institution are in English in simplified forms, where:

Archaeological Institute Brno means *Archeologický ústav Akademie věd České republiky, Brno, v.v.i.*;

Moravian Museum Brno means *Moravské zemské muzeum v Brně*;

Museum Bílovec means *Muzeum Novojičínska v Bílovci*;

Museum Bystřice pod Hostýnem means *Městské muzeum v Bystřici pod Hostýnem*;

Museum Jihlava means *Muzeum Vysočiny v Jihlavě;*

Museum Hodonín means *Masarykovo Muzeum v Hodoníně*;

Museum Hradec Králové means *Muzeum východních Čech v Hradci Králové*;

Museum Olomouc means *Vlastivědné muzeum v Olomouci*;

Museum Opava means *Slezské muzeum v Opavě*;

Museum Ostrava means *Ostravské muzeum v Ostravě*;

Museum Prague means *Národní muzeum v Praze*;

Museum Prostějov means *Muzeum Prostějovska v Prostějově*;

Museum Přerov means *Muzeum Komenského v Přerově*;

Museum Rožnov pod Radhoštěm means *Valašské muzeum v přírodě v Rožnově pod Radhoštěm*;

Museum Třebíč means *Západomoravské muzeum v Třebíči*;

Museum Uherský Brod means *Muzeum J. A. Komenského v Uherském Brodě*;

Museum Valašské Klobouky means *Městské muzeum ve Valašských Kloboukách*;

Museum Zlín means *Muzeum Jihovýchodní Moravy ve Zlíně*;

Rosice Castle means *Zámek Rosice – archeologická sbírka*.

The final position (**Literature**) lists relevant archive and published bibliographic references.

For comparative reasons, the Catalogue has an addition: **YOUNG ENEOLITHIC – EASTERN BOHEMIA (5.2).** Rules of its presentation are the same as in the main part of the Catalogue.

The Catalogue does not include lithic chipped material from a settlement of the Globular Amphora culture at Opava-Vávrovice, Site *U palhanské cesty* (excavations 2001-2003), elaborated by Michaela Zezulová in the digital form in 2008. Her work, deposited in the National Library of the Czech Republic in Prague, was not available to the authors at the time of collecting the evidences.

5.1. Moravia and Czech Silesia

1. Bánov, Uherské Hradiště district
Site: *Hrad* (also *Kalvárie*).
Find character: settlement (hillfort site).
Cultural affiliation: Bošáca culture.

The site is located on a rocky (trachandesite breccia) promontory (*ca*. 300 m a.s.l.), in the northern part of the locality, on the place of the Early Medieval hillfort site. In 1943 a rescue excavation of the site (endangered by a quarry) was carried out by J. Poulík. It resulted in discovering settlement traces of the Bošáca culture (Pavelčík Jiří 1965), the Únětice culture (Stuchlík 1985, 131-132, obr. 4: 1-6) and the Věteřov group (Chmela 2008, 92-94, tab. I-II). The research was continued in 1948 and 1951 by Jan Pavelčík and in 1960-1961 by Jiří Pavelčík. The discovered lithic chipped industry is related to the Bošáca culture.

Excavation 1943:

1. Massive endscraper on blade with retouched lateral edges. Red-brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1646 (Plate VI: 17; LV: 1ab).

2. Flake with marginal retouch. Red-brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/1 (Plate I: 17).

3. Laminar flake. Burnt radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/2 (Plate I: 6).

4. Flake. Red-brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/3 (Plate I: 7).

5. Triangular flake. Light brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/4 (Plate I: 3).

6. Flake. Brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/5 (Plate I: 19).

7. Flake. Red-brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/6 (Plate I: 20).

8. Irregular flake. Light-brown radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/7 (Plate I: 16).

9. Flake. Light red radiolarite (after Pavelčík Jiří 1965, 8: *červený radiolarit*). Inv. no. 1647/8 (Plate I: 2).

10. Flake. Brown calcareous claystone (after Pavelčík Jiří 1965, 8: *hnědý pazourek*). Inv. no. 1648/1 (Plate II: 1).

11. Small flake. Possibly porcellanite (after Pavelčík Jiří 1965, 8: *hnědý pazourek*). Inv. no. 1648/2 (Plate I: 8).

12. Small flake. Burnt SGS (after Pavelčík Jiří 1965, 8: *hnědý pazourek*). Inv. no. 1648/3 (Plate I: 9).

13. Silicite axe with rectangular cross-section. Jurassic silicite from the Cracow-Częstochowa Upland, variety G. Inv. no. 6091 (Plate III: 2).

15. Axe with rectangular cross-section. Burnt volcanic rock (probably local andesite). Inv. no. 6092/1 (Plate III: 1).

16. Flake. SGS. Inv. no. 6097/1 (Plate II: 2).

17. Flake. SGS-Danian ? Inv. no. 6097/2 (Plate I: 21).

18. Occasional blade. SGS-Danian ? Inv. no. 6097/3 (Plate I: 11).

19. Slim regular blade. Red-green radiolarite. Inv. no. 6097/4 (Plate I: 15).

20. Regular blade with traces of utilization retouch. Red-green radiolarite. Inv. no. 6097/5 (Plate I: 13).

21. Blade. Light red radiolarite. Inv. no. 6097/6 (Plate I: 14).

22. Blade. Light red radiolarite. Inv. no. 6097/7 (Plate I: 12).

23. Blade fragment. Light-red radiolarite. Inv. no. 6097/8 (Plate I: 5).

24. Small splinter-like flake. Dark brown radiolarite. Inv. no. 6097/9 (Plate I: 10).

25. Small laminar fake with marginal retouch. Red-brown radiolarite. Inv. no. 6097/10 (Plate I: 4).

26. Flake. Dark red-brown radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/11 (Plate II: 3).

27. Flake. Red radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/12 (Plate II: 6).

28. Flake. Red-brown radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/13 (Plate I: 1).

29. Retouched flake. Red-brown radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/14 (Plate I: 18).

30. Thick flake with cortex fragment. Red-brown radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/15 (Plate II: 5).

31. Massive flake. Light red radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/16 (Plate II: 4).

32. Big flake with cortex fragment, one lateral edge partially retouched. Light red radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/17 (Plate II: 7).

33. Big flake with cortex fragment. Light red radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/18 (Plate IV: 18).

34. Single-platform core for flakes. Dark red-brown radiolarite (after Pavelčík Jiří 1965: 17: *radiolarit*). Inv. no. 6097/19 (Plate II: 8).

In addition:

(A) Axe with rectangular cross-section. Metabasite. Inv. No. 6092/2 (Plate III: 3).

Excavation 1948:

1. Blade with retouched notch. Burnt green radiolarite (after Pavelčík Jiří 1965, 18: *červený radiolarit*). Length 26 mm, width 7 mm. Inv. no. 6462/1 (Plate V: 3).

2. Truncated blade. Burnt radiolarite (after Pavelčík Jiří 1965, 18: *červený radiolarit*). Length 26 mm, width 16 mm. Inv. no. 6462/2 (Plate V: 11).

3. Truncated blade with utilization retouch on the cutting edge and blunting retouch on the opposite edge. Light red-brown radiolarite (after Pavelčík Jiří 1965, 18: *červený radiolarit*). Length 21 mm, width 18 mm. Inv. no. 6462/3 (Plate V: 7).

4. Boring tool on flake with the retouched tip point in the distant end .Burnt red-brown radiolarite (after Pavelčík Jiří 1965, 18: *červenhnědý radiolarit*). Length 31 mm, width 13 mm. Inv. no. 6462/4 (Plate V: 5).

5. Flake. Red-brown radiolarite (after Pavelčík Jiří 1965, 18: *červenhnědý radiolarit*). Inv. no. 6462/5.

6. Flake. Rock *non vidi* (after Pavelčík Jiří 1965, 18: *červenohnědý radiolarit*). Inv. no. 6462/6 (not identified by the authors).

7. Blade fragment. Burnt radiolarite (after Pavelčík Jiří 1965, 18: *červenhnědý radiolarit*). Inv. no. 6462/7 (Plate V: 2).

8. Splintered piece. Dark-brown radiolarite (after Pavelčík Jiří 1965, 18: *červenohnědý radiolarit*). Inv. no. 6462/8 (Plate V: 4).

9. Retouched flake. Red-brown radiolarite (after Pavelčík Jiří 1965, 18: *červenohnědý radiolarit*). Inv. no. 6462/9 (Plate V: 9).

10. Single-platform core for blades. Trachyandesite (magnetic susceptibility 8.57 x 10^{-3} Si; expertise of A. Přichystal; after Pavelčík Jiří 1965, 18: *červenohnědý radiolarit*). Inv. no. 6462/10 (Plate V: 17).

11. Laminar flake. Yellow-brown radiolarite (after Pavelčík Jiří 1965, 18: *červenohnědý radiolarit*). Inv. no. 6462/11 (Plate V: 1).

Excavation 1951:

1. Small blade. Light red brown radiolarite (after Pavelčík Jiří 1965, 25: *červenohnědý radiolarit*). Inv. no. 7025/5 (Plate IV: 5).

2. Truncated blade with utilization retouch on the cutting edge. Greenish radiolarite (after Pavelčík Jiří 1965, 31: *červený radiolarit*). Inv. no. 7077/1 (Plate IV: 13).

3. Regular blade traces of utilization retouch on both lateral edges. Red-brown radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/2 (Plate IV: 15).

4. Blade retouched on one lateral edge and traces of wear (possibly from a haft) on the opposite edge. Dark red brown radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/3 (Plate IV: 11).

5. Blade with utilization retouch on both lateral edges. Dark brown radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/4 (Plate IV: 12).

6. Blade with traces of wear. Brown radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/5 (Plate IV: 8).

7. Blade with utilization retouch on one lateral edge. Gray-green radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/6 (Plate IV: 10).

8. Blade. Light brownish radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/7 (Plate IV: 1).

9. Long slim blade. Porcellanite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/8 (Plate IV: 14).

10. Blade. Red-brown radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/9 (Plate IV: 4).

11. Blade fragment. Burnt radiolarite (after Pavelčík Jiří 1965, 31: *radiolarit*). Inv. no. 7077/10 (Plate IV: 7).

12. Arrowhead with concave base, bifacially retouched, with broken point. Jurassic silicite from the Cracow-Częstochowa Upland (after Pavelčík Jiří 1965: 32: *hnědý pazourek*). Inv. no. 7077/11 (Plate IV: 2).

13. Irregular flake. Red-brown radiolarite (after Pavelčík 195, 32: *červený radiolarit*). Inv. no. 7077/12 (Plate IV: 6).

14. Splinter. Red-brown radiolarite (after Pavelčík 195, 32: *červený radiolarit*). Inv. no. 7077/13 (Plate IV: 3).

15. Laminar flake. Red-brown radiolarite (after Pavelčík 195, 32: *červený radiolarit*). Inv. no. 7077/14 (Plate IV: 9).

16. Flake. Red-brown radiolarite (after Pavelčík 195, 32: *červený radiolarit*). Inv. no. 7077/15 (Plate IV: 16).

17. Flake with cortex fragment. Red-brown radiolarite (after Pavelčík 195, 32: *červený radiolarit*). Inv. no 7077/16 (Plate IV: 17).

Excavation 1960-1961

1. Regular *unguiform*e endscraper on flake. Light gray-black radiolarite or spongolite (after Pavelčík Jiří 1965, 38: *červený křemen*). Length 30 mm, width 19 mm, thickness 8 mm. Inv. no. 10174 (Plate V: 13).

2. Endscraper on flake similar to the *unguiforme* type. Light reddish radiolarite (after Pavelčík 1965, 38: *červený radiolarit*). Length 16 mm, width 23 mm, thickness 6 mm. Inv. no. 10175 (Plate V: 8).

3. Blade. Gray-green porcellanite (magnetic susceptibility 0.03 x 10^{-3} Si; expertise of A. Přichystal; after Pavelčík Jiří 1965, 38: *červený radiolarit*). Length 50 mm, width 28 mm. Inv. no. 10176 (Plate V: 12).

4. Truncated blade. Red-brown radiolarite (after Pavelčík Jiří 1965, 38: *červenohnědý radiolarit*). Length 19 mm, width 18 mm. Inv. no. 10177 (Plate V: 10).

5. Splintered piece. Porcellanite (magnetic susceptibility 0.04 x 10^{-3} Si; expertise of A. Přichystal; after Pavelčík Jiří 1965, 38: *zelený radiolarit*). Inv. no. 10178 (Plate V: 15).

6. Retouched fragment of core for blade. Porcellanite (magnetic susceptibility 0.08 x 10^{-3} Si; expertise of A. Přichystal; after Pavelčík Jiří 1965, 41: *šedočerný porcelanit*). Length 39 mm, width 37 mm. Inv. no. 10316 (Plate V: 14).

7. Boring tool on flake. Light red-brown radiolarite (after J. Pavelčík Jiří 1965, 56: *červený radiolarit*). Length 40 mm, width 10 mm. Inv. no. 10600 (Plate VI: 13).

8. Blade with sickle gloss on all edges. Burnt radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Length 32 mm, width 25 mm. Inv. no. 10601 (Plate VI: 10).

9. Blade fragment with utilization retouch and sickle gloss on one lateral edge. Burnt radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Length 13 mm, width 10 mm. Inv. 10602 (Plate VI: 2).

10. Retouched flake. SGS-Danian (after Pavelčík 56: *bílošedý rohovec*. Length 24 mm, width 16 mm. Inv. no. 10603 (Plate VI: 4).

11. Blade with utilization retouch. Brownish radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Inv. no. 10604 (Plate VI: 3).

12. Blade with utilization retouch. Patinated brownish radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Inv. no. 10605 (Plate VI: 1).

13. Blade with utilization retouch on both lateral edges. Burnt silicite of unknown kind (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Inv. no. 10606 (Plate VI: 14).

14. Blade. Light red-brown radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Inv. no. 10607 (Plate VI: 6).

15. Blade fragment. Brownish radiolarite (after Pavelčík Jiří 1965, 56: *červený radiolarit*). Inv. no. 10608 (Plate VI: 7).

16. Flake. SGS (after Pavelčík Jiří 1965, 57: *hnědý pazourek*). Inv. no. 10609 (Plate VI: 8).

17. Flake. Red-brown radiolarite (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10610 (Plate VI: 15).

18. Laminar flake. Brown radiolarite (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10611 (Plate VI: 5).

19. Laminar flake with utilization retouch and traces of sickle gloss. Red-brown radiolarite (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10612 (Plate VI: 9).

20. Flake. Rock *non vidi* (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10613 (not identified by the authors).

21. Flake. Porcellanite (after Pavelčík Jiří 1965, 57: *červený radiolarit*. Inv. no. 10614 (Plate VI: 12).

22. Laminar flake. In parts yellow and red radiolarite (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10615 (Plate VI: 16).

23. Fake. Rock *non vidi* (after Pavelčík Jiří 1965, 57: *červený radiolarit*). Inv. no. 10616 (not identified by the authors).

24. Flake. Rock *non vidi* (after Pavelčík Jiří 1965, 57: *hnědý pazourek*). Inv. no. 10617 (not identified by the authors).

25. Flake. Trachyandesite (after Pavelčík Jiří 1965, 57: *křemen*). Inv. no. 10618 (Plate VI: 11).

Feature P 2/60 (house with fireplace)
1. Flake with utilization traces. Red-brown radiolarite (after Pavelčík Jiří 1965, 48: *červený radiolarit*). Inv. no. 10451 (Plate V: 16).

Collection: Jan Ámos Komenský Museum Uherský Brod.
Literature: Excavation report in Archive of AÚ AV ČR Brno, no. 1639/62 (Jiří Pavelčík). Čižmář 2004, 79; 1944b, 26, 64 (tab. 1); *idem* 1950a; *idem* 1950b, 49; *idem* 1952a, 8, 19, 60; Pavelčík Jiří 1965, II, 7-67.

2. Bílovice-Lutonín, Prostějov district
Site: *Hrad* (on the cadastral area of Bílovice).
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished. Dimensions: length 58 mm, width at blade and butt 32 and 20 mm, thickness 18 mm, weight 46 g. Banded silicite of the Krzemionki Opatowskie type. Inv. no. A 63107 (G 1977).

Collection: Museum Olomouc.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 1168/70 (Z. Trňáčková); Červinka 1908, 189; Pavelčík Jiří 1992a, 225.

3. Bravantice, Nový Jičín district
Site: lot no. 989/2.
Find character: accidental (in 1936).
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished. Dimensions: length 85 mm, width at blade and butt 43 and 23 mm, thickness 19 mm. Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (after photo – *cf.* Jisl 1969, tab I: 14; not identified by the authors). Inv. no. P 31 (Plate XLVII: 8).

Collection: Museum Bílovec.
Literature: Jisl 1969, 101, tab. I: 14.

4. Brno-Líšeň, Brno-město district
Site: *Staré Zámky.*
Find character: settlement.
Cultural affiliation: Jevišovice culture.

The place called *Staré Zámky* is located in the southern part of the Drahany Upland, close to borders of the Moravian Karst. It is a promontory (325 m. a.s.l.) of natural defensive values, built of Lower Carboniferous conglomerates, raising *ca*. 60 m over the Říčka Creek and its no-name tributary. First archaeological artifacts collected from there were published already in the 2nd half of the 19th century (Belcredi 1875). At the end of that century the site was for the first time excavated (by M. Kříž; for more detailed information concerning the history of the research *cf.* Čižmář 2004, 93). Excavations, that time on a much wider scale, were resumed after WWII – first by J. Poulík (1948, 1949, 1953-1955), then by Č. Staňa (1962, 1963, 1965), both from the Archaeological Institute of the Czechoslovak Academy of Sciences (AÚ ČSAV) in Brno. The research confirmed the presence of the multi-cultural fortified site, utilized from the Early Eneolithic (the Moravian Painted Pottery culture) to the Early Medieval Period. Materials recovered from settlement layers III and II correspond with materials from Jevišovice-*Starý Zámek*, layers C2 and C1), while those from Layer I – with materials from Layer B on the same site (the Jevišovice culture).

Materials from Layer I (excavation of A. Medunová from AÚ ČSAV Brno in 1955 and 1956):

1. Regular blade with distal part broken. Length 29.5 mm, width 8.2 mm, thickness 3.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2435/55, actual inv. no. 147114 (Plate VII: 1).

2. Massive flake with distinctive percussion bulb, with denticulated retouch. Length 29 mm, width 41.5 mm, thickness 6 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2436/55, actual inv. no. 147080 (Plate IX: 2).

3. Massive flake with marginal retouch. Length 60 mm, width 52 mm, thickness 17 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2437/55, actual inv. no. 147082 (Plate VIII: 7).

4. Slim regular blade, slightly curved. Length 59 mm, width 13 mm, thickness 5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2438/55, actual inv. no. 147086 (Plate VII: 4).

5. Flake with distinctive percussion bulb. Length 41 mm, width 35 mm, thickness 11 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2439/55, actual inv. no. 147090.

6. Flake with distinctive percussion bulb. Length 32 mm, width 35.5 mm, thickness 10 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-2484/55, actual inv. no. 147111.

7. Massive blade with denticulated lateral edges and scraper-like distant end (retouched blade combined with endscraper). Sickle gloss on the right (concave) edge. Rock *non vidi*. AÚ ČSAV inv. no. 105.0-e-2440/55 (not identified by the authors; Plate VII: 3).

8. Endscraper on blade. Rock *non vidi*. AÚ ČSAV inv. no. 105.0-e-2441/55 (not identified by the authors; Plate VII: 10).

9. Flake with marginal retouch. Length 38 mm, width 46 mm, thickness 13.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1067/56, actual inv. no. 147138 (Plate IX: 4).

10. Thick laminar flake. Length 20.5 mm, width 49 mm, thickness 19 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1068/56, actual inv. no. 147151 (Plate VIII: 6).

11. Double endscraper on flake with scraping edges in distal and proximal ends. Length 39.5 mm, width 25.5 mm, thickness 10.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1069/56, actual inv. no. 147125 (Plate VII: 11).

12. Retouched flake similar to sidescraper. Length 49 mm, width 45 mm, thickness 13.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1070/56, actual inv. no. 147137 (Plate VIII: 5).

13. Sidescraper on massive flake, partially cortical. The scraping edge concave, the opposite edge partially formed with semi-steep retouch. KL I. AÚ ČSAV inv. no. 105.0-e-1071/56, actual inv. no. 147156 (Plate VII: 12).

14. Endscraper of the *unguiforme* type on cortical flake. Length 36 mm, width 28 mm, thickness 11.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1073/56, actual inv. no. 147169 (Plate VII: 8).

15. Flake. Length 35 mm, width 40 mm, thickness 9.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1074/56, actual inv. no. 147153 (Plate IX: 5).

16. Massive flake with traces of utilization retouch. Length 51 mm, width 27.5 mm, thickness 13 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1075/56, actual inv. no. 147148 (Plate VII: 5).

17. Massive fake, partially cortical, with traces of utilization retouch. Length 70 mm, width 45 mm, thickness 14 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1076/56, actual inv. no. 147133 (Plate VIII: 9; LI: 3a).

18. Flake. Rock *non vidi*. AÚ ČSAV inv. no. 105.0-e-1077/56 (not identified by the authors).

19. Massive retouched flake, partially cortical. Length 55 mm, width 32 mm, thickness 16.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1078/56, actual inv. no. 147130 (Plate VIII: 8).

20. Flake. Length 43, width 38 mm, thickness 11.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1079/56, actual inv. no. 147131 (Plate VIII: 4).

21. Flake. Rock *non vidi*. AÚ ČSAV inv. no. 105.0-e-1080/56 (not identified by the authors).

22. Laminar flake with cortex fragment. Length 34 mm, width 20 mm, thickness 6 mm. KL I. AÚ ČSAV inv. no. 105.0-e-1081/56, actual inv. no. 147135 (Plate VII: 2).

23. Flake. Length 36 mm, width 28.5 mm, thickness 18 mm. Burnt chert from gravels from the area of the Stránská skála Hill. AÚ ČSAV inv. no. 105.0-e-1082/56, actual inv. no. 147161.

24. Big splinter. Length 31 mm, width 27 mm, thickness 5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1083/56, actual inv. no. 147170 (Plate IX: 3).

25. Flake. Length 38 mm, width 30 mm, thickness 12.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1084/56, actual inv. no. 147165 (Plate IX: 1).

26. Core fragment. Rock *non vidi*. AÚ ČSAV inv. no. 105.0-e-1085/56 (not identified by the authors).

27. Cortical flake. Length 41.5 mm, width 26 mm, thickness 9 mm. KL I. AÚ ČSAV inv. no. 105.0-e-1086/56, actual inv. no. 147 157 (Plate VIII: 2).

28. Laminar flake with traces of marginal retouch at the distal end. Length 33 mm, width 21.5 mm, thickness 5.5 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1087/56, actual inv. no. 147162 (Plate VII: 6).

29. Flake. KL I. AÚ ČSAV inv. no. 105.0-e-1088/56, actual inv. no. 147146.

30. Unfinished form, probably intended sidescraper or knife-like tool, on massive partially cortical blade. Length 77 mm, width 33 mm, thickness 20 mm. KL I. AÚ ČSAV. no. 105.O-e-1089/56, actual inv. no. 147129 (Plate VII: 9).

31. Flake with traces of utilization retouch. Length 39.5 mm, width 28 mm, thickness 13 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1090/56, actual inv. no. 147143 (Plate VIII: 3).

32. Endscraper of the *unguiforme* type on flake. Length 38 mm, width 32.5 mm, thickness 12 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1101/56, actual inv. no. 147147 (Plate VII: 7).

33. Massive flake. Length 32 mm, width 41 mm, thickness 17 mm. Stránská skála chert. AÚ ČSAV inv. no. 105.0-e-1072/56, actual inv. no. 147156 (Plate VIII: 1).

34. Badly damaged silicite axe of trapezoid outline and rounded butt. Dimensions: length 75 mm, width at blade and butt 38 and 28 mm, thickness 10 mm. Banded silicite of the Krzemionki Opatowskie type, slightly burnt. AÚ ČSAV inv. no. 105.0-e-2487/55, actual inv. no. 139190 (Plate IX: 6ab and XLVII: 4).

Collection: Moravian Museum Brno.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2246/62 (A. Medunová); Medunová 1961, II, 319-321, tab. 172-173; Medunová-Benešová 1964, 135-135, obr. 37: 1-15, 36: 4; Jisl 1969, 101; Přichystal, Šebela 2003, 153, obr. 9: 2; *iidem* 2004, 11.

5. Brno-Maloměřice, Brno-město district
Site: *Občiny*.
Find character: settlement site.
Cultural affiliation: Jevišovice culture.

The site is located on the border of the cadastral area of Maloměřice, 270 m a.s.l., at the foot of a limestone plateau called *Hády* (424 m a.s.l., southernmost part of the Moravian Karst), on the left bank of the Svitava, in the area where the river enters the Brno Basin. Nowadays, on the place there is an abandoned quarry where the original bedrock of the site (granodiorite of the Brno Batholith) was quarried for a long time.

First Eneolithic artifacts were discovered in Maloměřice in 1929 by Jaroslav Boček, at that time a worker at the local quarry. The collected pieces (axes made of metabasite, siliceous artifacts, potsherds) given to F. Adámek. In the period of 1929-1942 J. Boček found more artifacts of that kind, all from the Eneolithic settlement destroyed by the quarry. At the same time the place was systematically supervised by F. Adámek and E. Vodička who saved a vast collection of the material, including patinated artifacts recognized as Paleolithic. In the following years the site was visited by K. Valoch, V. Gebauer, B. Vyskočil, K. Simon, J. Čubuk, and others. In 1955 K. Valoch published the Paleolithic artifacts, recognized as Aurinacien (Valoch 1955), while the Eneolithic finds were purchased by F. Adámek to complement his collection.

Besides the surface survey, in 1952 the site was excavated by F. Adámek and K. Valoch by means of sounding trenches. In one of the trenches, 2 meters from the actual quarry line, there was found a cultural layer ("gray-black ashy clay") with potsherds and stone artifacts. In the following years the quarry destroyed also that place together with several prehistoric structures (according to diary of F. Adámek; *cf.* Valoch, Šebela 1995, 46).

Pottery obtained from the cultural layer has close analogies in Layer B at Jevišovice. Therefore, the site in question should be interpreted as the settlement of the Jevišovice culture.

The collection of F. Adámek includes over 1300 lithic chipped artifacts. It is quite homogenous in the scope of raw material. More then 80 per cent of them were made of the Olomučany chert. None of them show traces of patina. Cortex parts preserved

on few pieces are coarse and brown in color. These features may suggest the raw material was obtained by mining from primary deposits. Significant is also the presence of rocks identified as Moravian Jurassic chert (Valoch, Šebela 1995, 69, 70).

A detailed petrographic composition of the collection according to K. Valoch and L. Šebela is as follows:

Olomučany chert	– 1093 artifacts (83.12%)
Moravian Jurassic chert (gray)	– 80 artifacts (6.08%)
Stránská skála cherts	– 19 artifacts (1.45%)
Spongolite	– 10 artifacts (0.76%)
Other siliceous rocks (cherts)	– 15 artifacts (1.14%)
Quartz	– 3 artifacts (0.23%)
Crystalline rocks	– 3 artifacts (0.23%)
Devonian limestone	– 2 artifacts (0.15%)
Burnt silicite (undetermined)	– 90 artifacts (6.84%)
Total	**– 1315 artifacts (100.00%)**

The material can be divided into the following groups:

1. Pre-cores forms. They are shaped by converging chipping, some of them discoidal. Majority of them show a distinctive crest in the place of the intended striking platform (Plate X: 1-5). Rock *non vidi*.

2. Single-platform cores for blades with one striking platform, either natural (also cortical) or pre-shaped (Plate XI: 1-8; XII: 1). The site opposite to the flaking surface was in some cases carefully fashioned and the striking platform in early exploitation stages strongly convex (Plate IX: 8). Later their convexity gradually diminished. Rock *non vidi*.

3. Cores with changed percussion axis, in advanced stages of exploitation (Plate XII: 2-7). Rock *non vidi*.

4. Hammerstones, usually spherical, with utilization marks on the surface, especially on edges (Plate XIII: 1-5). Rock *non vidi*.

5. Flakes and blades related to core pre-shaping (Plate XIV: 1-19). Some of them have cortical parts preserved (Plate XIV: 1). Very typical feature of these forms is the crest-like edge on the dorsal side (Plate XIV: 2-10). One artifact features clear traces of a faceted core striking platform (Plate XIV: 11). Some forms were utilized as expedient tools (Plate XIV: 2, 9). Rock *non vidi*.

6. Blade blanks. Length of these forms varies from 2 to 8 cm (Plate XV: 6-25). Some of them show traces of the utilization retouch (Plate XV: 8, 9). Rock *non vidi*.

7. Tools. Forms recognized as tools (either typological or functional) accounts to 117 artifacts (8.90 per cent of the collection). They include the following types:

   (a) Endscrapers – 15 artifacts, *i.e.* 12.82% of tools, in most cases short *unguiformes* on flakes, laminar flakes, or small blades (Plate XVI: 2-8, XVIII: 10, 11); one piece has two opposite scraping edges (Plate XVI: 1). Rock *non vidi*.

   (b) Endscraper combined with retouched blade – 1 artifact, *i.e.* 0.85% of tools (Plate XVI: 10). Rock *non vidi*.

   (c) Burins – 15 artifacts, *i.e.* 12.82% of tools, including forms on break (Plate XVII: 13), flat-faced (Plate XVII: 14), and on retouched truncation (Plate XVII: 15). Rock *non vidi*.

   (d) Notched tools – 17 artifacts, *i.e.* 14.53% of tools (Plate XVIII: 5). Rock *non vidi*.

   (e) Denticulated tools – 7 artifacts, *i.e.* 5.98% of tools (Plate XVIII: 6, 7). Rock *non vidi*.

   (f) Trapeze-like truncated blade – 1 artifact, *i.e.* 0.86% of tools (Plate XVIII: 1). Rock *non vidi*.

   (g) Mini-pick – 1 artifact, *i.e.* 0.86% of tools (Plate XVIII: 14). Rock *non vidi*.

   (h) Core-like flatly retouched tools – 2 artifacts, *i.e.* 1.71% of tools (Plate XVIII: 12, 13; the former may be classified also as knife-like tool). Rock *non vidi*.

   (i) Blades and flakes with marginal (utilization) retouch – 58 artifacts, *i.e.* 49.57% of tools (Plate XV: 1-5; XVI: 9, 11-16, 18, 19; XVII: 1-11; XVIII: 4, 8), some of them featuring perforating (boring) tips (Plate XVIII: 9). Rock *non vidi*.

Collection: Moravian Museum Brno (at the time of authors' studies the materials were unavailabe for analyses).
Literature: Valoch, Šebela 1995.

6. Brno-Starý Lískovec, Brno-město district
Site: *Kamenný vrch*.
Find character: settlement site.
Cultural affiliation: Jevišovice culture.

The multi-cultural site at Starý Lískovec is located in the southwestern part of Brno, on southeastern slopes of the hill called *Kamenný vrch*. It was examined, together with other places of prehistoric settlement located between the city quarters of Starý Lískovec and Nový Lískovec, during three excavation seasons – 1971, 1978, and 1989. The research had a rescue character and was related to constructing the road system in this part of the city.

In 1971 R. Tichý excavated 48 various prehistoric structures linked with settlements of the Linear Pottery culture, the Moravian Painted Pottery culture and of the Jevišovice culture (6 structures – nos. 26/71, 33/71, 34/71, 37/71, 38/71, and 45/71). Excavation of 1978 by K. Geislerová revealed the presence of nine more structures of the Linear Pottery culture and a structure of the Jordanów culture.

In 1989 a rescue excavation of P. Vitula on the place of the freeway construction, carried out within three excavation trenches, revealed more prehistoric structure from various periods, including 40 of the Jevišovice culture: 1-4/89, 11/89, 18/89/ 19/89, 30/89, 32b/89, 33-36/89, 38/89, 40/89, 42/89, 48/89, 50/89, 51a/89, 53a/89, 56/89, 60/89, 61/89, 64-66/89, 70-73/89, 75/89, 77/89, 94/89, 95/89, 97/89, 99/89, and 103/89.

Lithic chipped material related to the Jevišovice culture accounts to 32 artifacts. According to the expertise of M. Oliva (1994) the collection includes the following raw materials:

Cherts of the Krumlovský les type – 13 artifacts

Moravian Jurassic chert or chert of other types – 3 artifacts

Olomučany chert – 10 artifacts

Raw material of the other artifacts has not been identified by M. Oliva.

Structure 33/71
1. Retouched flake, slightly similar to sidescraper. Length 3.3 mm. Rock *non vidi*. Inv. no. 01028-69/71.

Structure 45/ 71
1. Core without distinctive striking face. Dimensions: 58.5 x 53 x 45 mm. Rock *non vidi*. Inv. no. 01028-172/71.

Structure 1/89
1. Flake. Length 51.5 m. Rock *non vidi*. Inv. no. 01028-8/89.

Structure 2/89
1. Regular blade. Length 52.5 mm. Rock *non vidi*. Inv. no. 01028-17/89 (Plate XIX: 1).

2. Flake. Length 63.5 mm. Rock *non vidi*. Inv. no. 01028-18/89.

Structure 11/89
1. Flake. Length 37 mm. Rock *non vidi*. Inv. no. 01028-141/89.

2. Cortical flake with notched retouch. Length 25 mm. Rock *non vidi*. Inv. no. 01028-142/89.

3. Flake. Length 25 mm. Rock *non vidi*. Inv. no. 01028-143/89.

Structure 19/89
1. Flake. Length 42.5 mm. Rock *non vidi*. Inv. no. 01028-174/89.

Structure 29/89
1. Flake. Length 34 mm. Rock *non vidi*. Inv. no. 01028-227/89.

2. Flake. Length 32.5 mm. Rock *non vidi*. Inv. no. 01028-228/89.

3. Flake. Length 27.5 mm. Rock *non vidi*. Inv. no. 01028-229/89.

4. Flake with utilization retouch. Length 28.5 mm. Rock *non vidi*. Inv. no. 01028-230/89.

Structure 35/89
1. Blade fragment. Length of the preserved part: 20 mm. Rock *non vidi*. Inv. no. 01028-271/98 (Plate XIX: 2).

Structure 40/89
1. Irregular blade with traces of utilization retouch on one lateral edge and sickle gloss. Length 51 mm. Rock *non vidi*. Inv. no. 01028-337/89 (Plate XIX: 3).

2. Flake. Length 39 mm. Rock *non vidi*. Inv. no. 01028-338/89.

3. Flake. Length 30 mm. Rock *non vidi*. Inv. no. 01028-339/89.

Structure 48/89
1. Flake. Length 27 mm. Rock *non vidi*. Inv. no. 01028-371/89.

2. Blade with broken distal part. Length of the preserved part 28 mm. Rock *non vidi*. Inv. no. 01028-372/89 (Plate XIX: 4).

Structure 51a/89
1. Distal blade part. Length of the preserved part 10 mm. Rock *non vidi*. Inv. no. 01028-423/89 (Plate XIX: 5).

2. Core. Dimensions: 37 x 49 x 35.5 mm. Rock *non vidi*. Inv. no. 01028-424/89.

3. Remnant core. Dimensions: 52 x 37 x 27 mm. Rock *non vidi*. Inv. no. 01028-425/89.

4. Massive flake. Length 46 mm, width 35 mm, thickness 23 mm. Rock *non vidi*. Inv. no. 01028-426/89.

5. Splintered piece. Dimensions: 34 x 31 x 12 mm. Rock *non vidi*. Inv. no. 01028-427/89.

Structure 66/89
1. Flake. Length 30 mm. Rock *non vidi*. Inv. no. 01028-600/89.

2. Blade. Length 28 mm. Rock *non vidi*. Inv. no. 01028-601/89 (Plate XIX: 6).

3. Small flake. Length 16 mm. Rock *non vidi*. Inv. no. 01028-602/89.

Structure 70/89
1. Blade with pointed butt. Length: 45 m. Rock *non vidi*. Inv. no. 01028-629/89 (Plate XIX: 7).

2. Sidescraper on a thick flake with denticulated retouch on both lateral edges. Length 34 mm, width 19.5 mm, thickness 11.5 mm. Rock *non vidi*. Inv. no. 01028-630/89 (Plate XIX: 8).

Structure 75/89
1. Core for flakes (negative of one detached flake). Dimensions: 81 x 65 x 45 mm. Rock *non vidi*. Inv. no. 01028-711/89.

Structure 94/89
1. Short *unguiform*e endscraper on blade. Length 25 mm. Rock *non vidi*. Inv. no. 01028-736/89 (Plate XIX: 9).

Structure 103/89
1. Flake. Length 35.5 mm. Rock *non vidi*. Inv. no. 01028-779/89.

Collection: Moravian Museum Brno.
Literature: Medunová-Benešová, Vitula 1994.

7. Bystřice pod Hostýnem, Kroměříž district
Site: cadastral area of the locality.
Find character: accidental (in 1935).
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, "polished, with thick butt and rectangular cross-section". Dimensions: length 70 mm, width at blade and butt 44 and 35 mm, thickness 17 mm. Raw material: probably banded silicite of the Krzemionki Opatowskie type (after Kalousek 1945, II, 12: *páskový pazourek*; not identified by the authors). Inv. no. ?

Collection: Museum Bystřice pod Hostýnem.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2624/52 (F. Kalousek); Kalousek 1945, 4; Přichystal, Šebela 2003, 153; *iidem* 2004, 11.

8. Děhylov, Opava district
Site I: backyard of lot no. 8; formerly owned by Mr. L. Víteček.
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe; dimentions unknown (the artifact lost during WWII). Rock *non vidi*, possibly silicite from the Cracow-Częstochowa Upland (after Jisl undated, 88: *achát*).

Collection: Museum Opava (artifacts donated by the School in Děhylov).
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2637/52 (F. Kalousek); Kalousek 1945, II, 17; Skutil 1931, 99; Janá*k et al*. 2004, 171; Přichystal, Šebela 2003, 153-154; *iidem* 2004, 11; Janák 2007, 163; Jisl undated, 88.

Site II: field of Mr. Martinek, *ca*. 500 m from bench mark 341 m a.s.l.
Find character: accidental.
1. Silicite axe, polished, with oblique blade. Dimensions: length 78 mm, width at blade and butt 40 and 25 mm, thickness 23 mm. Rock *non vidi*, probably banded silicite of the Krzemionki type (after Kalousek 1945, II, 17: *páskový material voskové barvy*; artifact lost during WWII). Inv. no. 1302a.

Collection: Museum Opava.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 609/50 (transcript from paper by G. Stumpf); 2637/52 (F. Kalousek); Stumpf 1927, 74 (under German name *Dielhau*); Skutil 1931, 99; Kalousek 1945, II, 17; Přichystal, Šebela 2003, 154; *iidem* 2004, 11; *Janák et al*. 2004, 171; Janák 2007, 163; Jisl undated, 88.

9. Dlouhomilov, Šumperk district
Site: cadastral area of the locality.
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe; shape and size unknown. Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (after I. L. Červinka 1938, 85: *achát*; not identified by the authors). Inv. no. ?

Collection: Formerly (up to WWII) in Museum in Dubicko (now not existing), actual location unknown.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2360/46 (I. L. Červinka); Červinka 1938, 85; Kalousek 1945, I, 212; Přichystal, Šebela 2003, 154; *iidem* 2004, 11.

10. Drslavice, Uherské Hradiště district
Site: cadastral area of the locality.
Find character: accidental.
Cultural affiliation: Globular Amphora culture, possibly import in the milieu of the Bošáca culture.

1. Silicite axe, polished, with trapezoid outline. Dimensions: length 78 mm, width at blade and butt 32 14 mm, thickness 12 mm. Banded silicite of the Krzemionki Opatowskie type (after Červinka 1908, 196: *jaspis*; Skutil 1937, 106: *páskovaný pazourek)*. Inv. no. 195 (Plate XLVIII: 3).

Collection: Museum Uherský Brod (collection of J. Kučera).
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2685/46 (I. L. Červinka); 1846/47, 2650/52 (F. Kalousek) and with no reference no. (V. Hrubý); Červinka 1902, 88; *idem* 1908, 89, 190; *idem* 1938, 47, figure on p. 66; Kučera 1910, 57, tab. V: 2; Skutil 1937, 106; *idem* 1946, obr. 32: 5; Pavelčík Jan 1944a, 38; Kalousek 1945, II, 32; Přichystal, Šebela 2003, 154-155, obr. 9: 6; *iidem* 2004, 11, Fig. 4: 1.

11. Grešlové Mýto, Znojmo district
Site: *Nad Mírovcem*.
Settlement site.
Cultural affiliation: Jevišovice culture.

The site is located to the northeast from the village of Grešlové Mýto, on a rocky promontory above the Jevišovka River. It was excavated by Jaroslav Palliardi in 1890, 1891, 1894. He examined a cultural layer of the thickness up to 50 cm and six dug-in structures (pits 1 to 6) related provably to the Moravian Painted Pottery culture. In 1966 the site was additionally examined be means of 7 soundings (A-G) by A. Medunová (Archaeological Institute of Czechoslovak Academy of Sciences, Brno.

The site is primary the settlement of the Jevišovice culture of early stage of its development. Materials from other periods, including the already mentioned Moravian Painted culture and from the Medieval Period were also registered.

Lithic assemblage recovered from the cultural layer is probably in most part related to the Jevišovice culture. It accounts to 51 artifacts of siliceous rocks, in most cases of unknown kind. Raw material of two pieces has been recognized as radiolarite.

Material from settlement layer (J. Palliardi's excavations)

1. Core. Rock *non vidi*. Inv. no. 5513.

2. Endscraper on core fragment (part of the striking face). SGS. Inv. no. 50790 (Plate XX: 16).

3. Endscraper on blade. KL I. Inv. no. 50791 (Plate XX: 11).

4. Bifacially retouched massive knife-like tool on oblong laminar form, similar in outline to *Krummesser*. Reddish silicified mudstone (magnetic susceptibility 0.00 x 10^{-3} Si; expertise of A. Přichystal). Inv. no. 50792 (Plate XXI: 10).

5. Endscraper on blade with retouched lateral edges. SGS. Inv. no. 50793 (Plate XX: 10).

6. Small pick on thick blade. SGS, burnt. Inv. no. 50794 (Plate XXI: 6).

7. Blade with cortex vestiges. Siliceous weathering product of serpentinite. Inv. no. 50795 (Plate XXII: 3).

8. Blade with broken proximal part. Siliceous weathering product of serpentinite. Inv. no. 50796 (Plate XXII: 1).

9. Endscraper on slim blade. KL II. Inv. no. 50797 (Plate XX: 2).

10. Slim blade with a notch and marginal retouch. KL II. Inv. no. 50798 (Plate XXII: 8).

11. Massive blade with cortex fragment. KL I. Inv. no. 50799 (Plate XXII: 15).

12. Massive crested blade with retouched proximal part, similar to endscraper. Siliceous weathering product of serpentinite. Inv. no. 50800 (Plate XXII: 16).

13. Endscraper on blade with retouched lateral edges. SGS ?. Inv. no. 50802 (Plate XX: 9).

14. Small endscraper on blade with retouched lateral edges. Rock *non vidi*. Inv. no. 50809 (Plate XX: 13).

15. Endscraper on blade. Siliceous weathering product of serpentinite. Inv. no. 50803 (Plate XX: 12).

16. Small endscraper on blade. SGS ?. Inv. no. 50804.

17. Endscraper on massive, partially cortical blade. Silicified mudstone. Inv. no. 50805 (Plate XX: 17).

18. Knife-like tool on wide flake. Tušimice quartzite. Inv. no. 50807 (Plate XX: 14).

19. Blade with broken distal part, with traces of utilization retouch. KL II. Inv. no. 50807 (Plate XXI: 13).

20. Endscraper on massive blade. Siliceous weathering product of serpentinite. Inv. no. 50808 (Plate XX: 15).

21. Small splinter-like flake. KL II. Inv. no. 50811 (Plate XXI: 9).

22. Triangular arrowhead with slightly concave base. KL I. Inv. no. 50812 (Plate XXI: 5).

23. Oblong tanged arrowhead with triangular leaf. Rock *non vidi*. Inv. no. 50813 (Plate XXI: 4).

24. Tanged arrowhead with triangular leaf. KL I ? Inv. no. 50815 (Plate XXI: 3).

25. Arrowhead with broken tang and one distinctive notch at the base. Rock *non vidi*. Inv. no. 50816 (Plate XXI: 2).

26. Tanged arrowhead. Burnt silicite, probably KL I. Inv. no. 50817 (Plate XXI: 1).

27. Blade. Siliceous weathering product of serpentinite. Inv. no. 50818 (Plate XXII: 12).

28. Endscraper on proximal part of a blade. KL I. Inv. no. 50819 (Plate XX: 6).

29. Endscraper on blade with asymmetric scraping edge. Siliceous weathering product of serpentinite. Inv. no. 50820 (Plate XX: 4).

30. Blade with marginal or utilization retouch. Rock *non vidi*. Inv. no. 50821 (Plate XXI: 7).

31. Endscraper (*unguiforme*) on laminar flake. SGS. Inv. no. 50822 (Plate XX: 5).

32. Blade with broken distal part. Siliceous weathering product of serpentinite. Inv. no. 50823 (Plate XXII: 11).

33. Boring tool on wide flake with marginal retouch which partially removed the striking face of a blade core. KL II. Inv. no. 50824 (Plate XXI: 11).

34. Blade with broken tip. Siliceous weathering product of serpentinite. Inv. no. 50825 (Plate XXII: 4).

35. Blade with broken distal part. Siliceous weathering product of serpentinite. Inv. no. 50826 (Plate XXII: 14).

36. Blade with proximal and distal parts broken. Siliceous weathering product of serpentinite. Inv. no. 50827 (Plate XXII: 9).

37. Blade with cortex fragment in the distal part. Siliceous weathering product of serpentinite. Inv. no. 50828 (Plate XXII: 17).

38. Boring tool on flake. KL II. Inv. no. 50829 (Plate XXI: 12).

39. Retouched laminar blade with traces of core crest preparation on the dorsal side. Burnt silicite. Inv. no. 50830 (Plate XXI: 8).

40. Sidescraper with concave scraping edge on laminar flake. Siliceous weathering product of serpentinite. Inv. no. 50831 (Plate XX: 18).

41. Endscraper on blade with traces of cortex, with irregular scraping edge. Siliceous weathering product of serpentinite. Inv. no. 50832 (Plate XX: 8).

42. Blade with utilization retouch. Siliceous weathering product of serpentinite. Inv. no. 50833 (Plate XXII: 18).

43. Blade with proximal part broken. Siliceous weathering product of serpentinite. Inv. no. 50834 (Plate XXII: 6).

44. Blade with proximal and distal parts broken. KL I. Inv. no. 50835 (Plate XXII: 7).

45. Endscraper on blade. Siliceous weathering product of serpentinite. Inv. no. 50836 (Plate XX: 7).

46. Blade with proximal and distal parts broken, with traces of utilization retouch. SGS. Inv. no. 50837 (Plate XXI: 14).

47. Blade. Rock *non vidi*. Inv. no. 50838 (Plate XXII: 13).

48. Blade with proximal and distal parts broken. Rock *non vidi*. Inv. no. 50839 (Plate XXII: 10).

49. Endscraper (*unguiforme*) on laminar flake. KL I. Inv. no. 50841 (Plate XX: 1).

50. Truncated blade with proximal part broken, with traces of utilization retouch. Siliceous weathering product of serpentinite. Inv. no. 50842 (Plate XXII: 2).

51. Blade with broken distal part. Red-brown radiolarite. Inv. no. 50843 (Plate XXII: 5).

52. Endscraper on blade with fan-like scraping edge. Siliceous weathering product of serpentinite. Inv. no. 50840 (Plate XX: 3).

Collection: Moravian Museum Brno.
Literature: Medunová-Benešová 1973.

12. Hlinsko, Přerov district
Site: *Nad Zbružovým*.
Find character: settlement site.
Cultural affiliation: Bošáca culture.

The site, referred in the literature also as *Lipník* or *Hradišťko* is located on an elevation to the north of the locality. It is the biggest Young Eneolithic settlement site in Moravia, known from the mid 19th century. Large-scale excavations in that place were carried out in 1962-1992 by Jiří Pavelčík. Lithic chipped artifacts linked with the Bošáca culture (denoted as "BK IVb=Boš Ia"; *cf.* Šebela at all. 2007, 301) were discovered in the following features:

Feature 3/69
1. Flake with marginal retouch. Obsidian. Length 38 mm, width 19, thickness 6 mm. Inv. no. A 21491 9956, original inv. no. 257-236/69 (Plate XXIV: 2).

2. Endscraper on blade. SGS. Length 38 mm, width 23, thickness 5.5 mm. Inv. no. A 19956, original inv. no. 257-236/69 (Plate XXIV: 1).

3. Core. SGS. Dimensions: 37 mm x 23 mm x 33 mm. Inv. no. A 21487; original inv. no. 257-25/70 (Plate XXIV: 5).

4. Flake. SGS. Length 38 mm, width 34 mm, thickness 8 mm. Inv. no. A 21488; original inv. no. 257-26/70 (Plate XXIII: 17).

5. Core. Radiolarite. Dimensions: 37 mm x 29 mm x 50 mm. Inv. no. A 21489, original inv. no. 257-27/70 (Plate XXIV: 6).

6. Flake. Radiolarite. Length 22 mm, width 13, thickness 6 mm. Inv. no. A 21490, original inv. no. 257-28/70 (Plate XXIII: 5).

Feature 25/69
1. Blade. Length 39 mm, width 13, thickness 3 mm. SGS. Inv. no. A 20825, original inv. no. 257-1104/69 (Plate XXIII: 14).

2. Flake. Length 22 mm, width 28, thickness 5 mm. Banded silicite of the Krzemionki Opatowskie type. Inv. no. Inv. no. 257-1105/69 (Plate XXIII: 12).

3. Flake. Length 37 mm, width 13 mm, thickness 6 mm. SGS. Inv. no. A 20826, original inv. no. 257-1106/69 (Plate XXIV: 4).

Feature 6/1971
1. Core. Dimensions: 49 x 33 x 32 mm. Radiolarite. Inv. no. A 26734, original inv. no. 257-30/71 (Plate XXIII: 15).

Feature 8/71
1. Blade. Length 27 mm, width 11, thickness 3 mm. Radiolarite. Inv. no. A 26765; original inv. no. 257-61/71 (Plate XXIII: 13).

2. Flake. Length 18 mm, width 13, thickness 4 mm. Radiolarite. Inv. no. 257-62/71 (Plate XXIII: 2).

3. Microflake. SGS. Inv. no. ?, original inv. no. 257-63/71.

4. Technical chunk. Local quartzite-to-quartz conglomerate (*sluňák*). Inv. no. ?, original inv. no. 257-64/71.

Feature 4/73
1. Blade with marginal retouch. Length 58 mm, width 25 mm, thickness 13 mm. Obsidian. Inv. no. 257-96/73 (Plate XXIV: 8).

2. Retouched blade (fragment). Preserved length 13 mm, width 12 mm, thickness 3 mm. SGS. Inv. no. 257-97/73 (Plate XXIII: 3).

3. Blade. Length 39 mm, width 18 mm, thickness 7 mm. Dotted silicite of the Świeciechów type. Inv. no. 257-98/73 (Plate XXIII: 18).

4. Retouched blade. Length 31 mm, width 16 mm, thickness 4 mm. SGS. Inv. no. 257-99/73 (Plate XXIII: 8).

5. Blade with utilization retouch. Length 31 mm, width 14 mm, thickness 4 mm. SGS. Inv. no. 257-100/73 (Plate XXIII: 10).

6. Blade with transversal retouch in the distal part, utilization retouch on both lateral edges and sickle gloss. Length 19 mm, width 12 mm,

thickness 4 mm. SGS. Inv. no. 257-101/73 (Plate XXIII: 1).

7. Flake with marginal retouch. Length 25 mm, width 18 mm, thickness 3 mm. SGS. Inv. no. 257-102/73 (Plate XXIV: 3).

8. Minicore. Rock *non vidi*. Inv. no. 257-103/73 (not identified by the authors).

9. Flake. Siliceous rock, burnt. Inv. no. 257-104/73.

10. Blade fragment. Siliceous rock, burnt. Inv. no. 257-105/73.

11. Flake with marginal retouch. Length 59 mm, width 55 mm, thickness 13 mm. Quartzite (*sluňák*). Inv. no. 257-106/73 (Plate XXIV: 7).

Feature 24/76
1. Flake with marginal retouch. Length 34 mm, width 27 mm, thickness 6 mm. SGS. Inv. no. 03940-1074/76 (Plate XXIII: 14).

2. Blade fragment. Preserved length 26 mm, width 12 mm, thickness 6 mm. SGS. Inv. no. 03940-1075/76 (Plate XXIII: 6).

Feature 2/89
1. Blade. Length 34 mm, width 15 mm, thickness 4 mm. SGS. Inv. no. 03940-16/89.

2. Endscraper on blade with retouched lateral sides. Length 20 mm, width 17 mm, thickness 4 mm. SGS. Inv. no. 03940-17/89 (Plate XXIII: 4).

3. Blade retouched on both lateral sides. Length 35 mm, width 18 mm, thickness 3 mm. Siliceous rock of unknown kind. Inv. no. 03940-18/89 (Plate XXIII: 9).

4. Blade fragment. SGS. Preserved length 28 mm, width 18 mm, thickness 4 mm. Inv. no. 03940-19/89.

5. Blade fragment. Siliceous rock of unknown kind, burnt. Inv. no. 03940-20/89.

6. Splintered piece. SGS, slightly burnt. Inv. no. 03940-21/89.

7. Splintered piece. Local quartzite (*sluňák*). Inv. no. 03940-22/89.

Feature 7/89
1. Retouched blade. Length 32 mm, width 14 mm, thickness 4 mm. SGS. Inv. no. 03940-73/89 (Plate XXIII: 11).

2. Blade. Length 32 mm, width 17 mm, thickness 4 mm. Burnt silicite. Inv. no. 03940-74/89.

3. Flake. Quartzite (*sluňák*). Inv. no. 03940-75/89.

Sounding trench 77-D/86:
1. Silicite axe. Dimensions: length 65 mm, width at blade and butt 35 and 20 mm, thickness 12 mm. Banded silicite of the Krzemionki Opatowskie type (after Pavelčík 1992, 225: "patinated chert"). Inv. no. 03940-982/86 (Plate XLVII: 7).

Collection: Museum Přerov.
Literature: Excavation report in Archive of ArÚ AV ČR Brno, reference no. 765/70 (J. Pavelčík, excavation season 1968); 852/77 (J. Pavelčík, excavation season 1976); 938/87 (J. Pavelčík, excavation season 1986); Pavelčík 1992, 225, Abb. 4: 1, 10, 18; Šebela *a kol*. 2007.

13. Holasovice, Opava district
Site: Cadastral area of the locality.
Find character: accidental (circumstance of the discovery unknown).
Cultural affiliation: Globular Amphora culture ?.

1. Blade part of silicite axe, polished. Dimensions: preserved length – 40 mm, width of blade 35 mm, thickness 17 mm. Banded silicite, probably of the Krzemionki Opatowskie type, burnt. Inv. no. P 2450.

Collection: Museum Opava.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2664/52 (F. Kalousek); Literature: Kalousek 1945, II, 38; Přichystal, Šebela 2003, 155; *iidem* 2004, 11; Jisl 1969, 101; Janák 2007, 163.

14. Ivančice, Brno-venkov district
Site: *Réna*.
Find character: settlement (hillfort site).
Cultural affiliation: Jevišovice culture.

The site is located at the confluence of the Jhlava and Rokytná Rivers. It was discovered before 1941. Materials collected from there were published by J. Skutil (1941). According to L. Šebela and S. Stuchlík (2002, 36) the site should be linked mainly with the Jevišovice culture. Lithic chipped artifacts associated with this culture include:

1. Truncated blade with denticulated retouch and sickle gloss. Length 43 mm. KL I. Inv. no. 51193 (Plate XXV: 6).

2. Fragment of retouched denticulated blade with sickle gloss. Preserved length 28 mm. KL I. Inv. no. 51194 (Plate XXVI: 2).

3. Boring tool on flake. Length 38.5 mm. KL I. Inv. no. 51195 (Plate XXVI: 8).

4. Arrowhead with concave base, partially bifacially retouched. Length 30 mm, width 17 mm, thickness 4.5 mm. KL I. Inv. no. 51196 (Plate XXVI: 3).

5. Blade with bilateral blunting retouch on one edge, with traces of sickle gloss. Length 49 mm. KL I, slightly burnt. Inv. no. 51197 (Plate XXVI: 1).

6. Knife on blade with flat retouch on dorsal side and denticulated working edge. KL I. Inv. no. 51198 (Plate XXVI: 6).

7. Bifacially retouched knife. Length 47 mm. KL I. Inv. no. 51199 (Plate XXV: 1).

8. Large endscraper on very wide flake, with retouch on both lateral sides. Length 7.45 mm. KL I. Inv. no. 51200 (Plate XXV: 10).

9. Massive sidescraper retouched on both lateral sides. Length 75 mm. KL I. Inv. no. 51201 (Plate XXVI: 10).

10. Blade with utilization retouch. Length 79 mm. Siliceous weathering product of serpentinite. Inv. no. 51202 (Plate XXV: 7).

11. Bifacially retouch trapezoid segment. Length 46.5 mm, width 29 mm, thickness 10 mm. KL I. Inv. no. 51203 (Plate XXV: 2).

12. Truncated blade with irregular denticulated retouch and sickle gloss on the cutting edge. Length 45 mm. KL I. Inv. no. 51204 (Plate XXV: 3).

13. Retouched blade with sickle gloss. Length 43 mm. KL I. Inv. no. 51205 (Plate XXVI: 4).

14. Endscraper combined with pointed tool with bifacial retouch. Length 69 mm. KL I. Inv. no. 51206 (Plate XXVI: 5).

15. Blade fragment (possibly segment) with blunting retouch on one edge and denticulated retouch on the other. Preserved length 42 mm. KL I. Inv. no. 51207 (Plate XXVI: 9).

16. Truncated blade (truncation formed by break) with denticulated cutting edge and blunting retouch on the opposite edge. Length 36 mm. KL I (or possibly KL II). Inv. no. 51208 (Plate XXV: 4).

17. Sidescraper on partially cortical flake. Length 49 mm. KL I. Inv. no. 51209 (Plate XXV: 5).

18. Blade fragment with utilization retouch. KL I. Inv. no. 51210 (Plate XXVI: 7).

19. Pebble. Rock crystal. Inv. no. 51212 (Plate XXV: 9).

20. Flake. Length 23 mm. Rock crystal. Inv. no. 51213 (Plate XXV: 8).

Artifacts from another collection from the same site (find circumstances unknown):

1. Technical chunk. Length 53 mm. Proximal blade fragment with blunting retouch on one edge and denticulated retouch on the other. Preserved length 42 mm. KL I. Inv. no. Pa 166/87/1.

2. Bilaterally retouched blade. Length 54 mm. Proximal blade fragment with blunting retouch on one edge and denticulated retouch on the other. Preserved length 42 mm. KL I. Inv. no. Pa 166/87/2.

3. Cortical flake. Length 48 mm. Proximal blade fragment with blunting retouch on one edge and denticulated retouch on the other. Preserved length 42 mm. KL I. Inv. no. Pa 166/87/3.

4. Small trapezoid segment-like the form, with denticulated and glossy working edge and the opposite edge blunted. Length 29 mm, thickness 5 mm. KL I. Inv. no. Pa 166/87/4.

5. Proximal blade fragment with blunting retouch on one edge and denticulated on the other. Preserved length 42 mm. KL I. Inv. no. P 166/87/5.

6. Boring tool. Quartz. Inv. no. Pa 166/87/6).

7. Exploited core-form reused as hammerstone. KL I. Inv. no. Pa 166/87/7).

In addition: Several (at least 6) polished stone artifacts of various rocks.
Collection: Moravian Museum Brno.
Literature: Excavation Report no. 60/00, in Archive AÚ AV ČR Brno (L. Šebela); Skutil 1941; Šebela Stuchlík, 2002, 36, 63, fig. on page 33.

15. Jeseník nad Odrou, Nový Jičín district
Site: *Statkáře Matzka hill.*
Find character: accidental (by Stefan Weigel before 1920).
Cultural affiliation: Globular Amphora culture ?

1. "Thin-walled silicite axe", dimensions unknown. Rock *non vidi*, probably of banded silicite of the Krzemionki Opatowskie type (after excavation report in Archive of AÚ AV ČR Brno, reference

no. 597/50: *aus schön gestreiftem, achartigem Feuerstein*; not identified by the authors).

Collection: unknown.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 597/50, 603/50; Přichystal, Šebela 2003, 155; *iidem* 2004, 11; Janák *et al*. 2004, 171; Janák 2007, 163.

16. Jestřabí, Zlín district
Site: cadastral area of the locality.
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe; shape and dimensions unknown. Rock *non vidi*, possibly banded silicite of the Krzemionki Opatowskie type (according to expertise of J. Skutil 1946, not verified by the authors).

Collection: unknown
Literature: Skutil 1946, obr. 32: 6; Přichystal, Šebela 2003, 155; *iidem* 2004, 11.

17. Jevišovice (in reality: Střelice), Znojmo district
Site: *Starý Zámek*.
Find character: settlement site (Layer B).
Cultural affiliation: Jevišovice culture.

The site is in reality located in the cadastral area of Střelice, yet very close to Jevišovice. The term *Starý Zámek* (Old Castle) refers to a rocky promontory on the left-hand side of the Jevišovka River, opposite to the village of Jevišovice, with now hardly visible relics of a medieval castle (earth ramparts) on the top. The place was excavated in 1909-1914, mainly by J. Palliardi, but also by F. Vildomec.

Jaroslav Palliardi singled out four settlement layers, denoted (from the top) as A, B, C1, and C2. Artifacts recovered from Layer B (*cf.* Fig. 11) became the basis for distinguishing the Jevišovice culture.

Artifacts from Layer B
1. Blade with denticulated retouch on both lateral edges. Length 29 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4906 (Plate XXVII: 1).

2. Blade with denticulated retouch on one lateral edge. Length 30 mm, width 16.5 mm, thickness 5 mm. Burnt silicite, probably KL I. Access no. Pa 17/24, inv. no. 690 (Plate XXVII: 2).

3. Slim thin blade with denticulated retouch on both lateral edges. Length 27 mm. Rock *non vidi*. Access no. Pa 17/24, inv. no. probably 4903/39 (not identified by the authors; Plate XXVII: 3).

4. Laminar flake with traces of utilization retouch. Length 35 mm. Rock *non vidi*. Access no. Pa 17/24, inv. no. 4903/40 (not identified by the authors; Plate XXVII: 4).

5. Blade with traces of utilization retouch. Length 36, width 18 mm, thickness 6.5 mm. Burnt silicite, probably KL I. Access no. Pa 17/24, inv. no. 4905 (Plate XXVII: 5).

6. Massive blade, partially cortical, with regular denticulated retouch on the whole length of one lateral edge. Length 66 mm, width 25.5, thickness 9 mm. Jurassic silicite from the Cracow-Częstochowa Upland, probably of the Gojść variety. Access no. Pa 17/24, inv. no. 5026 (Plate XXVII: 6).

7. Massive blade. Length 73.5 mm, width 25 mm, thickness 8 mm. SGS-Danian. Access no. Pa 17/24, inv. no. 5027 (Plate XXVII: 7).

8. Subcrested blade with a regular triangular transversal cross-section. Length 46 mm. KL II ? Access no. Pa 17/24, inv. no. 3505 (Plate XXVII: 8).

9. Knife-like backed tool on laminar flake, with partially cortical back, regularly denticulated working edge, and rounded tip in the dorsal part. Length 45 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 619 (Plate XXVII: 9).

10. Regular long blade with very small (almost punctated) butt. Length 98 mm. SGS or the northern flint. Access no. Pa 17/24, inv. no. probably 981 (Plate XXVII: 10).

11. Endscraper on flake with cortex vestiges, with the part opposite to the scraping edge shaped into a point (possibly perforator bit). Length 43 mm, width 33 mm, thickness 12 mm. Siliceous product of weathering serpentinite. Access no. Pa 17/24, inv. no. 7038 (Plate XXVII: 11).

12. Core for blades in early exploitation stage, with rounded striking face and cortical sides. Dimensions: 34 x 27 x 20 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 998 (Plate XXIX: 9).

13. Massive endscraper on a fragment of a blade core. Length 49 mm, width 33 mm, thickness 13 mm. KL I. Access no. Pa 17/24, inv. no. 4904 (Plate XXVII: 12).

14. Laminar flake with marginal retouch on the dorsal side. Length 58 mm, width 28 mm, thickness 13 mm. KL II. Access no. Pa 17/24, inv. no. 3504 (Plate XXVII: 13; LII: 2a/2).

15. Endscraper on very slim subcrested blade. Length 52.5 mm, width 10 mm, thickness 6 mm. SGS-Danian. Access no. Pa 17/24, inv. no. 947 (Plate XXIX: 5).

16. Thick flake with cortical butt. Length 46 mm, width 32.5 mm, thickness 16 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/1 (Plate XXVIII 11).

17. Irregular blade, partially cortical. Length 47 mm, width 31 mm, thickness 10 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/2 (Plate XXXI: 1).

18. Technical chunk. Smoky quartz. Access no. Pa 17/24, inv. no. 4903/3 (Plate XXIX: 6; LIII: 2a/1).

19. Irregular blade with marginal and utilization retouch. Length 44.5 mm, width 20 mm, thickness 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/4 (Plate XXXI: 6).

20. Massive irregular blade, partially cortical, with triangular cross-section. Length 49 mm, width 24.5 mm, thickness 14.5 mm. KL I. Access no. Pa 17/24, inv. no. 4903/5 (Plate XXIX: 1).

21. Thin regular blade. Length 34 mm, width 15 mm, thickness 4 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/6 (Plate XXIX: 7).

22. Crested blade. Length 41 mm, width 16 mm, thickness 7.5 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/7 (Plate XXVIII: 2).

23. Thick quasi-circular flake. Length (along the percussion axis) 37 mm, width 38 mm, thickness 15.5 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/8 (Plate XXX: 5).

24. Thick flake. Length 66 mm, width 39 mm, thickness 14 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/9 (Plate XXVIII: 13).

25. Laminar flake. Length 61 mm, width 35.5 mm, thickness 10 mm. KL I. Access no. Pa 17/24, inv. no. 4903/10 (Plate XXIX: 11; LII: 1a).

26. Distal part of massive retouched blade, partially cortical. Preserved length 53.5 mm, width 35 mm, thickness 12 mm. Siliceous weathering product of serpentinite Access no. Pa 17/24, inv. no. 4903/11 (Plate XXXI: 3).

27. Flake. Length 46 mm, width 32 mm, thickness 9 mm. KL I. Access no. Pa 17/24, inv. no. 4903/12 (Plate XXXI: 2).

28. Fan-shaped flake. Length (along the percussion axis) 30.5 mm, width 54 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/13 (Plate XXVIII: 10; LII: 3a/3).

29. Flake with small linear butt, partially cortical. Length 33 mm, width 25 mm, thickness 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/14 (Plate XXIIIV: 7).

30. Flake with linear butt. Length 33mm, width 25 mm, thickness 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/15 (Plate XXIX: 8).

31. Irregular flake. Siliceous weathering product of serpentinite. Length 40 mm, width 16 mm, thickness 7 mm. Access no. Pa 17/24, inv. no. 4903/16 (Plate XXVIII: 3).

32. Massive blade with linear butt. Length 59 mm, width 24.5 mm, thickness 11.5 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/17 (Plate XXIX: 10).

33. Irregular flake. Siliceous weathering product of serpentinite. Length 32 mm, width 29 mm, thickness 8 mm. Access no. Pa 17/24, inv. no. 4903/18 (Plate XXVIII: 6).

34. Massive irregular flake with wide flat butt. Length 54 mm, width 66 mm, thickness 12 mm. Spilite volcaniclastic rock with content of pyrite in places with limonite bands around it (magnetic susceptibility 0.30 x 10^{-3} S; expertise of A. Přichystal). Access no. Pa 17/24, inv. no. 4903/19 (Plate XXIX 13; LIV: 3a).

35. Splintered piece, in most parts cortical. Dimensions: 47 mm x 38 mm x 20.5 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/20 (Plate XXVIII: 9).

36. Massive flake. Length 61 mm, width 40.5 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/21 (Plate XXX: 1; Plate LII: 3a/1).

37. Massive flake. Length 48.5 mm, width 40.5 mm, thickness 15.5 mm. KL I. Access no. Pa 17/24, inv. no. 4903/22 (Plate XXVIII: 14).

38. Laminar flake with wide flat butt. Length 58 mm,

width 32 mm, thickness 13 mm. KL II. Access no. Pa 17/24, inv. no. 4903/23 (Plate XXXI: 4).

39. Massive flake, partially cortical. Length 51 mm, width 27.5 mm, 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/24 (Plate XXVIII: 5).

40. Technical chunk. KL I. Access no. Pa 17/24, inv. no. 4903/25 (Plate XXXI: 7).

41. Technical chunk. KL I. Access no. Pa 17/24, inv. no. 4903/26 (Plate XXIX: 12).

42. Remnant core for flakes. Dimensions: 45 mm x 27 mm x 15 mm. KL II ? Access no. Pa 17/24, inv. no. 4903/27 (Plate XXX: 2).

43. Technical chunk. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/28 (Plate XXX: 4).

44. Technical chunk or core fragment. KL I. Access no. Pa 17/24, inv. no. 4903/29 (Plate XXX: 3).

45. Wide flake, partially cortical, with linear butt. Length 30.5 mm, width 43 mm, thickness 12 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/30 (Plate XXVIII: 12: LII: 3a/2).

46. Occasional blade, Length 33.5 mm, width 12 mm, thickness 7 mm. KL II ? Access no. Pa 17/24, inv. no. 4903/31 (Plate XXIX: 2).

47. Splinter. KL II, slightly burnt. Access no. Pa 17/24, inv. no. 4903/32 (Plate XXXI: 5).

48. Blade fragment. Preserved length 22 mm, width 11 mm, thickness 4 mm. KL I. Access no. Pa 17/24, inv. no. 4903/33 (Plate XXIX: 3).

49. Bladelet, partially cortical. Length 28.5 mm, width 12 mm, thickness 4.5 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/34.

50. Regular blade, partially cortical. Length 45 mm, width 17 mm, thickness 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/35 (Plate XXVIII: 4).

51. Blade. Length 44 mm, width 20 mm, thickness 8 mm. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/36 (Plate XXVIII: 8).

52. Splinter. Siliceous weathering product of serpentinite. Access no. Pa 17/24, inv. no. 4903/37 (Plate XXVIII: 1).

53. Regular blade with functional retouch and sickle gloss on one lateral edge. Length 33 mm, width 13 mm, thickness 4 mm. Chalcedony breccia. Access no. Pa 17/24, inv. no. 4903/38 (Plate XXIX: 4).

54. Artifact. Rock *non vidi*. Access no. Pa 17/24, inv. no. 4903/41 (not identified by the authors).

55. "Scraper". Rock *non vidi* (in J. Palliardi's inventory book: *rohovec*). Access no. Pa 17/24, inv. no. 4738 (not identified by the authors).

56. "Worked-out chert piece". Rock *non vidi* (in J. Palliardi's inventory book: *rohovec*). Access no. Pa 17/24, inv. no. 4939 (not identified by the authors).

57. Flat oblong polished tool, possibly *Krummesser*, polished on the whole surface with intentionally shaped working edge (after Medunová-Benešová 1972, 150: *flacher geglätteter Rollstein*). Length 79.5 mm, width 26 mm, thickness 9.5 mm. Slightly calcareous fine-grained sandstone (magnetic susceptibility 0.00 x 10^{-3} Si; expertise of A. Přichystal). Access no. Pa 17/24, inv. no. 3509 (Plate XXXII: 2).

58. *Krummesser*, the whole surface polished, with utilization retouch on slightly concave edge (after J. Palliardi's inventory book: *brousek*). Yellow-brown silicified sandstone, with reddish stripe up to 2 mm. wide in distal part of the tool (magnetic susceptibility 0.07 x 10^{-3} Si; expertise of A. Přichystal). Length 120 mm, width 37 mm, thickness 9 mm. Access no. Pa 17/24, inv. no. 3530 (Plate XXX: 6).

59. Flat oblong artifact, probably unfinished *Krummesser*, the whole surface polished, with intentionally shaped working edge (after Medunová-Benešová 1972, 150: *Schliefstein aus Sandstein*). Length 111.5 mm, width 45 mm, thickness 10 mm. Deep brown (in the Munsell scale: 2.5/2 to 2.5/3) muscovite arcos sandstone from the Boskovice Furrow (magnetic susceptibility 0.00 x 10^{-3} Si, expertise of A. Přichystal). Access no. Pa 17/24, inv. no. 3513 (Plate XXXI: 8).

Artifact without cultural context:

1. Flat oblong polished tool, possibly *Krummesser*, the whole surface polished, with intentionally shaped working edge. Silicified spiculite mudstone ? (magnetic susceptibility 0.00 x 10^{-3} Si; expertise of A. Přichystal). Length 104 mm, width 33 mm, thickness 12 mm. Access no. Pa 17/24, inv. no. 3511 (Plate XXXII: 1).

Collection: Moravian Museum Brno (J. Palliardi's collection, access no. 17/24).
Literature: Medunová-Benešová 1972, 154-155, Taf. 99; *idem* 1979, 8, obr 6: 2; Kopacz 2001, 59, Tabl. XL on p. 164.

18. Jiříkovice, Brno-venkov district
Site: rural area ("on fields behind the manor house").
Find character: accidental (by Jaroslav Dvořáček in 1925).
Cultural affiliation: Globular Amphora culture ?, probably import to the Jevišovice milieu.

1. Silicite axe; shape and dimensions unknown. Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (after literature, not verified by the authors). Inv. no. ?

Collection: Moravian Museum Brno (collection of A. Procházka).
Literature: Excavation report in Archive of AÚ AV ČR, reference no. 2689/46 (I. L. Červinka); 2688/52 (F. Kalousek); Červinka 1938, figure on p. 66; Poulík 1939, 4; Kalousek 1945, II, 48; Přichystal, Šebela 2003, 155; *iidem* 2004, 11.

19. Luleč, Vyškov district.
Site: *Svatomartinský* hill.
Find character: accidental (by V. Travěnec) on the hillfort site.
Cultural affiliation: Globular Amphora culture ?, probably imported to the milieu of the Jevišovice culture.

1. Silicite axe, polished, with trapezoid outline. Dimensions: length 115 mm, width 42 mm, thickness 21 mm. Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (according to Skutil 1937, 106: *páskovaný pazourek*, confirmed by photo – Skutil 1946, obr. 31, not identified by the authors). Inv. no. ?

Collection: Moravian Museum Brno (the Travěnec collection).
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 499/59 (description after AÚ AV ČR Praha); 2737/52 (F. Kalousek); Červinka 1908, 192; Skutil 1936, 27; *idem* 1937, 106; *idem* 1946, 73, obr. 31, 32: 2 (1); Kalousek 1945, II, 88; Přichystal, Šebela 2003, 155, obr. 5 (1); *iidem* 2004, 11, Fig. 7: 5 (1).

20. Mělčany, Brno-venkov district
Site: cadastral area of the locality (built-up part).
Find character: accidental (by K. Ustohal in 1960).
Cultural affiliation: Globular Amphora culture ?, probably imported to the milieu of the Jevišovice culture.

1. Silicite axe, polished. Dimensions: length 88 mm, width at blade and butt 42 and 19 mm, thickness 12 mm, weight 66 g. Banded silicite of the Krzemionki Opatowskie type. Inv. no. RS 00641 559 (Plate XLVII: 6).

Collection: Rosice Castle.
Literature: Skutil 1961; Medunová-Benešová 1964, 137, note on p. 154 (reference to verbal communication of J. Skutil); Přichystal, Šebela 2003, 156; *iidem* 2004, 11.

21. Ohrozim, Prostějov district
Site: *Na Čubernici*.
Find character: accidental find by J. Všetička.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished, with trapezoid outline, butt broken. Dimensions: preserved length 51.2 mm, width of blade 33.4 mm, thickness 14 mm, weight 28.5 g. Banded silicite of the Krzemionki Opatowskie type, burnt (after Gottwald 1903b, 157: *achát*; after Skutil 1937, 106 *páskovaný pazourek*; Kalousek 1945, II, 119: *páskový pazourek*). Inv. no. 041408/34, E 8 (Plate XLVII: 5).

Collection: Museum Prostějov.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2808/52 (F. Kalousek); 3371/60 (description after excavation report in AÚ AV ČR Praha); Červinka 1902, 77-78; *idem* 1908, 47, 193; Gottwald 1903, 157, tab. XIX: 2; *idem* 1924, 32, tab. III: 2, figure on p. 31; *idem* 1930, 13; *idem* 1931, 38, obr. 39: 2; Skutil 1937, 106; *idem* 1946, obr. 321: 1; Všetička 1937, 192; Kalousek 1945, II, 119; Přichystal, Šebela 2003, 156, obr. 3ab; 9: 4; *iidem* 2004, 11, Fig. 4: 2; 6: 3ab.

22. Opava-Kateřinky/Malé Hoštice, Opava district
Site: *Na hoštických lukách*.
Find character: settlement site.
Cultural affiliation: Globular Amphora culture.

The site was discovered accidentally in 2008 during the road construction and rescue excavated in the same year by J. Juchelka from the Archaeological Institute, Academy of Sciences of the Czech Republic (AÚ AV ČR) in Brno, the Opava Branch. There were 13 settlement pits of the Globular Amphora culture discovered, all of them with lithic chipped material:

Structure 528
1. Flake. SGS. Inv. no. P 14051 (Plate XXIV: 19).

2. Bladelet. Length 22 mm, width 9 mm, thickness 1.5 mm. SGS. Inv. no. P 14052 (Plate XXIV: 3).

Structure 547
1. Technical piece with pointed tip. Pink-colored crystalline quartz. Inv. no. P 14057.

Structure 550

1. Technical chunk with flaking traces (possibly irregular core). SGS. Inv. no. P 14085/1 (Plate XXXIII: 22).

2. Splinter. SGS. Inv. no. P 14085/2 (Plate XXXIII: 1).

3. Massive fan-shaped flake with wide natural butt. Length 28 mm, width 40 mm, thickness 5 mm. SGS. Inv. no. P 14085/3 (Plate XXXIII: 15).

4. Triangular flake with wide flat butt. SGS. Inv. no. P 14085/4 (Plate XXXIII: 18).

5. Flake with wide flat butt. SGS. Inv. no. P 14085/5 (Plate XXXIII: 7).

6. Occasional irregular blade with linear butt. Length 32 mm, width 14 mm, thickness 3 mm. SGS. Inv. no. P 14085/6 (Plate XXXIII: 5).

7. Two-poled splintered piece. Length 19 mm, width 19 mm, thickness 9 mm. Siliceous rock, burnt. Inv. no. P 14085/7 (Plate XXXIII: 11).

8. Flake with wide dihedral butt. SGS. Inv. no. P 14085/8 (Plate XXXIII: 13).

9. Laminar flake with linear butt. SGS. Inv. no. P 14085/9 (Plate XXXIII: 21).

10. Single-poled splintered piece. Length 43 mm, width 28 mm, thickness 6 mm. SGS. Inv. no. P 14085/10 (Plate XXXIII: 20).

11. Fan-shaped flake with wide dihedral butt. Length 19 mm, width 28 mm, thickness 4 mm. Siliceous rock, burnt. Inv. no. P 14085/11 (Plate XXXIII: 6).

12. Big splinter. Length 27 mm, width 21 mm, thickness 3 mm. SGS-Maastrichtian. Inv. no. P 14085/12.

Structure 552

1. Splinter. Siliceous rock, burnt. Inv. no. P 14107/1 (Plate XXXIII: 9).

2. Thick splinter. SGS. Inv. no. P 14107/2 (Plate XXXIII: 4).

3. Splinter. SGS. Inv. no. P 14107/3 (Plate XXXIII: 8).

4. Cortical splinter. SGS. Inv. no. P 14107/4 (Plate XXXIII: 2).

5. Small two-poled splintered piece. SGS. Inv. no. P 14107/5 (Plate XXXIII: 12).

6. Regular blade with utilization retouch. Length 38 mm, width 15 mm, thickness 3 mm. SGS. Inv. no. 14108 (Plate XXXIII: 14).

Structure 660

1. Endscraper on regular blade with side edges retouched on the ventral side. Length 60 mm, width 22 mm, thickness 6 mm. SGS-petrosilex part. Inv. no. P 17667 (Plate XXXIV: 15).

2. Proximal blade fragments with retouched end (similar to endscraper) and utilization retouch and sickle gloss on one lateral edge. Preserved length 29 mm. width 19 mm, thickness 4 mm. Jurassic silicite from the Cracow-Częstochowa Upland ? Inv. no. P 17668 (Plate XXXIV: 6).

3. Blade with slanting truncation in the proximal part. SGS. Inv. no. P 17669 (Plate XXXV: 16).

4. Blade. Length 39 mm, width 13 mm, thickness 3 mm. SGS. Inv. no. P 17670 (Plate XXXV: 12).

5. Splinter. SGS, slightly patinated. Inv. no. P 17671 (Plate XXXIV: 4).

6. Splinter. SGS. Inv. no. P 17672 (Plate XXXIV: 5).

7. Proximal blade fragment. SGS. Inv. no. P 17673 (Plate XXXIV: 2).

8. Splinter. SGS. Inv. no. P 17674 (Plate XXXIV: 1).

9. Very long blade similar to oversized burin spall, retouched on one edge. Length 36 mm, width 5 mm, thickness 3 mm. SGS. Inv no P. 17675 (Plate XXXIV: 12).

10. Blade with slanting truncation in the distal part. SGS. Inv. no. P 17676 (Plate XXXIV: 7).

11. Bladelet. SGS. Inv. no. P 17677 (Plate XXXV: 11).

12. Blade with retouch (partially functional) on both lateral sides, one edge glossy. Length 26 mm, width 12 mm, thickness 3 mm. SGS. Inv. no P 17678 (Plate XXXIV: 9).

13. Used multi-faced core with changed orientation. Dimensions: 37 mm x 32 mm x 28 mm. SGS. Inv. no. P 17679/1 (Plate XXXVI: 14).

14. Splintered piece. Length 23 mm. SGS. Inv. no. P 17679/2 (Plate XXXIV: 18).

15. Splintered piece. Length 34 mm. Siliceous rock, burnt. Inv. no. P 17679/3 (Plate XXXVI: 15).

16. Wide flake with wide flat butt. Length 35 mm.

SGS. Inv. no. P 17679/4 (Plate XXXVI: 16).

17. Core for flakes with cortex fragment at the distal part (opposite to the butt). Parameters: 54 mm x 37 mm x 28 mm. SGS. Inv. no. P 17679/5 (Plate XXXVI: 17).

18. Small splinter. SGS. Inv. no. P 17679/6.

19. Small splinter. SGS. Inv. no. P 17679/7.

20. Small splinter. Siliceous rock, burnt. Inv. no. P 17679/8.

21. Bladelet. Length 18 mm. SGS. Inv. no. P 17679/9 (Plate XXXV: 9).

22. Oblong thick laminar flake. SGS. Inv. no. P 17679/10 (Plate XXXIV: 3).

23. Small splinter (technical chunk). Siliceous rock, burnt. Inv. no. P 17679/11.

24. Irregular flake with splintered negatives. SGS. Inv. no. P 17679/12.

25. Thick flake. SGS. Inv. no. P 17679/13 (Plate XXXVI: 4).

26. Irregular flake. Siliceous rock, burnt. Inv. no. P 17679/14.

27. Bladelet. Length 13 mm. SGS. Inv. no. P 17679/15 (Plate XXXIV: 10).

28. Splinter. SGS. Inv. no. P 17679/16.

29. Splinter. SGS. Inv. no P 17679/17 (Plate XXXV: 2).

30. Splinter. SGS-Maastrichtian. Inv. no P 17679/18 (Plate XXXVI: 6).

31. Irregular flake. Siliceous rock, burnt. Inv. no. P 17679/19.

32. Splinter. SGS. Inv. no. P. 17679/20 (Plate XXXV: 20).

33. Splinter fragment. Siliceous rock, burnt. SGS. Inv. no. P 17679/21 (Plate XXXV: 1)

34. Irregular flake. SGS. Inv. no. P. 17679/22.

35. Splinter. SGS. Inv. no. P 17679/23 (Plate XXXV: 7).

36. Flake. SGS. Inv. no. P 17679/24 (Plate XXXVI: 8).

37. Splinter. SGS. Inv. no. P 17679/25.

38. Splinter. SGS. Inv. no. P 17679/26 (Plate XXXV: 6).

39. Distal part of irregular blade with utilization retouch. Preserved length 38 mm. SGS. Inv no. P 17679/27 (Plate XXXVI: 13).

40. Flake fragment. Siliceous rock, burnt. Inv. no. P 17679/28 (Plate XXXVI: 5).

41. Splinter. SGS. Inv. no. P 17679/29 (Plate XXXV: 3).

42. Flake fragment. SGS. Inv. no. P 17679/30 (Plate XXXV: 10).

43. Small single-platform core for flakes and small blades. Dimensions 28 m x 19 mm x 16 mm. SGS. Inv. no. P 17679/31 (Plate XXXV: 23).

44. Small flake. SGS. Inv. no. P 17679/32.

45. Thick laminar flake of rectangular cross-section. Length 29 mm, width 18 mm, thickness 11 mm. SGS. Inv. no. P 17679/33 (Plate XXXVI: 11).

46. Thick laminar flake. Length 35 mm, width 20 mm, thickness 9 mm. SGS. Inv. no. P 176/79/34.

47. Irregular flake. SGS. Inv. no. P 17679/35.

48 Fan-shaped flake with flat butt. Length 29 mm. SGS. Inv. no. P 17679/36 (Plate XXXV: 24).

49. Flake reused as splintered piece. SGS-Maastrichtian. Inv. no. P 17679/37 (Plate XXXV: 14).

50. Big flake with a fragment of natural chunk surface on the dorsal side. Length 34 mm. SGS, slightly burnt. Inv. no. P 17679/38.

51. Flake. Length 26 mm. Siliceous rock, burnt. Inv. no. P 17679/39 (Plate XXXVI: 9).

52. Occasional blade. Length 27 mm, width 13 mm, thickness 5 mm. SGS. Inv. no. P 17679/40 (Plate XXXVI: 10).

53. Flake. Siliceous rock, burnt. Inv. no. P 17679/41 (Plate XXXVI: 5).

54. Splinter. SGS. Inv. no. P 17679/42 (Plate XXXV: 4).

55. Very wide fan-shaped flake (pseudo-blade). Length 15 mm, width 31 mm. SGS. Inv. no. P 17679/43 (Plate XXXVI: 1).

56. Perforator on flake with wide flat butt. Length 30 mm, width 17 mm, thickness 6 mm. SGS. Inv. no. P 17679/44 (Plate XXXV: 17).

57. Small splinter. Siliceous rock, burnt. Inv. no. P 17679/45.

58. Blade with transversal negatives from core preparation. Length 48 mm, width 23 mm, thickness 6 mm. SGS. Inv. no. P 17679/46 (Plate XXXIV: 11).

59. Flake. SGS-petrosilex part. Inv. no. P 17679/47 (Plate XXXV: 25).

60. Massive lake. SGS. Inv. no. P 17679/48 (Plate XXXV: 19).

61. Splinter. SGS. Inv. no. P 17679/49 (Plate XXXVI: 2).

62. Notched tool on flake with large flat butt. Length 35 mm, width 32 mm, thickness 12 mm. SGS. Inv. no. P 17679/50 (Plate XXXV: 22).

63. Fan-like flake. SGS. Inv. no. P 17679/51 (Plate XXXVI: 12).

64. Cortical flake. SGS. Inv. no. P 17679/52 (Plate XXXVI: 3).

65. Splinter. SGS, slightly burnt. Inv. no. P 17679/53.

66. Flake. Siliceous rock, burnt. Inv. no. P 17679/54 (Plate XXXV: 13).

67. Wide fan-shaped flake with wide irregular butt. Length 20 mm, width 32 mm, thickness 9 mm. SGS. Inv. no. P 17679/55 (Plate XXXV: 21).

68. Small thick blade with wide flat butt. Length 27 mm, width 13 mm, thickness 6 mm. SGS. Inv. no. P 17679/56 (Plate XXXVI: 7).

69. Irregular flake. SGS, slightly burnt. Inv. no. P 17679/57.

70. Flake. Siliceous rock, burnt. Inv. no. P 17679/58 (Plate XXXV: 15).

71. Splinter. Siliceous rock, burnt. Inv. no. P 17679/59.

72. Splinter. SGS, burnt. Inv. no. P 17679/61.

73. Small two-poled splintered piece. Length 27 mm. SGS. Inv. no. P 17679/62 (Plate XXXV: 8).

In addition:

Fragment of a polished shafted axe of non-siliceous rock. Inv. no. P 17666 (Plate XXXIV: 17).

Feature 1517

1. Big splinter. SGS. Inv. no. P 26543/1 (Plate XXXIII: 10).

2. Flake with wide dihedral butt. Jurassic flint from the Cracow-Częstochowa Upland. Inv. no. P 26543/2 (Plate XXXIII: 16).

3. Flake with wide flat butt. SGS. Inv. no. P 26543/3 (Plate XXXIV: 13).

4. Flat flake with flat butt and cortical proximal end. SGS. Inv. no. P 26543/4 (Plate XXXIV: 14).

5. Technical chunk with cortex fragments on opposite ends. SGS? Inv. no. P 26543/5 (Plate XXXIV: 16).

6. Wide fan-shaped flake with marginal-utilization retouch. Length 23 mm, width 36 mm, thickness 3 mm. SGS. Inv. no. P 26543/6 (Plate XXXIV: 8).

7. Splinter. SGS. Inv. no. P 26543/7 (Plate XXXIII: 17).

Feature 1557

1. Thin tanged point. Length 41 mm, width 20.5 mm, thickness 4 mm. SGS. Inv. no. P. 28050.

2. Thin tanged point. Length 28.5 mm, width 16 mm, thickness 3.5 mm. SGS, banded. Inv. no. P. 28051.

Collection: Silesian Museum Opava.
Literature: Juchelka 2009c.

23. Opava-Kylešovice, Opava district
Site: *Na stanech*.
Find character: settlement material, mainly dislocated.
Cultural affiliation: Globular Amphora culture ?

The site was discovered accidentally in 2007 during a construction of family houses in Opava-Kylešovice (*cf.* Annex B). The rescue excavation in 2007 and 2008 by J. Juchelka from Archaeological Institute, Academy of Sciences of the Czech Republic in Brno, the Opava Branch, revealed the presence of a multi-cultural settlement and a burial ground with 42 poorly preserved inhumations. It was affiliated by the author of the research to the Chłopice-Veselé culture (Juchelka 2009a, 91-98). However, lithic chipped material recovered from fills of grave pits was probably dislocated from the settlement layer of the Globu-

lar Amphora culture (structure 545). It was discovered in the following structures:

Structure 545 (the Globular Amphora culture)
1. Small irregular endscraper on blade. SGS. Inv. no. P 7772/1 (Plate XXXVII: 3).

2. Technical chunk with weathered and slightly glossy surface. SGS ? Inv. no. P 7772/2 (Plate XXXVII: 17).

Fill of grave pit (Grave 802)
1. Small core for blades with changed orientation. Dimensions: 28 mm x 19 mm x 18 mm. SGS, slightly burned. Inv. no. P 8077 (Plate XXXVII: 14).

2. Regular blade. Length 31 mm, width 10 mm, thickness 4 mm. SGS. Inv. no. P8075 (Plate XXXVII: 9).

3. Splinter. SGS. Inv. no. P 8076 (Plate XXXVIII: 5).

Fill of grave pit (Grave 805)
1. Retouched flake, partially patinated, possibly reused Paleolithic artifact. Siliceous rock of unknown kind. Inv. no. P 8079 (Plate XXXVII: 6).

2. Small laminar flake. Length 22, width 14 mm, thickness 4 mm. SGS. Inv. no. P 8078 (Plate XXXVII: 7).

Fill of grave pit (Grave 808)
1. Truncated blade with slanting break truncation in the proximal part and marginal-utilization retouch on both lateral sides. Length 33 mm, width 13 mm, thickness 3 mm. SGS. Inv. no. P 8083 (Plate XXXVII: 13).

Fill of grave pit (Grave 809)
1. Thin tanged point with finely denticulated leaf. Length 34 mm, width 18 mm, thickness 3 mm. SGS. Inv. no. P 8091 (Plate XXXVIII: 11).

2. Splinter. SGS. Inv. no. P 8092 (Plate XXXVIII: 8).

In addition:
Slab probably used as anvil. Lower Carboniferous (Culmian) sandstone (magnetic susceptibility 1.64 x 10^{-3} Si; expertise of A. Přichystal; Plate XXXVIII: 14).

Fill of grave pit (Grave 810)
1. Cortical flake. SGS. Inv. no. P 8103/B (Plate XXXVIII: 12).

2. Irregular flake. SGS. Inv. no. P 8103/A (Plate XXXVIII: 13).

Fill of grave pit (Grave 813)
1. Distal blade fragment. SGS. Inv. no. P 8114 (Plate XXXVII: 2).

2. Flake. SGS. Inv. no. P 8115 (Plate XXXVII: 12).

Fill of grave pit (Grave 815)
1. Small triangular laminar flake. SGS. Inv. no. P 8122 (Plate XXXVIII: 2).

Fill of grave pit (Grave 816)
1. Middle part of regular blade. SGS. Inv. no. 8125 (Plate XXXVIII: 7).

Fill of grave pit (Grave 821)
1. Massive flake. SGS. Inv. no. P 8143/D (Plate XXXVII: 10).

2. Massive flake. SGS. Inv. no. P 8143/B (Plate XXXVII: 16).

3. Irregular flake. SGS. Inv. no. P 8143/A (Plate XXXVII: 11).

4. Retouched flake. SGS with reddish patina. Inv. no. P 8143/C (Plate XXXVII: 1).

Fill of grave pit (Grave 825)
1. Splinter. SGS. Inv. no. P 8153 (Fig. XXXVIII: 4).

Fill of grave pit (Grave 828)
1. Massive blade with linear butt and utilization retouch on both lateral sides. Length 46 mm, width 22 mm, thickness 6.5 mm. SGS. Inv. no. P 8159 (Plate XXXVII: 15).

Fill of grave pit (Grave 831)
1. Blade fragment retouched in the distal part. SGS. Inv. no. P 8166 (Plate XXXVIII: 1).

2. Splintered piece. Dimensions 28 mm x 17 mm x 10 mm. SGS. Inv. no. P 8167/1 (Plate XXXVII: 5).

3. Splintered piece. Dimensions 25 mm x 17 mm x 9 mm. SGS. Inv. no. P 8167/2 (Plate XXXVII: 4).

Fill of grave pit (Grave 833)
1. Blade. SGS. Length 37.5 mm, width 14.4 mm, thickness 4 mm. SGS. Inv. no. P 8169 (Plate XXXVII: 8).

Fill of grave pit (Grave 837)
1. Splinter. SGS, slightly burnt. Inv. no. P 8180 (Plate XXXVIII: 3).

Fill of grave pit (Grave 840
1. Blade with utilization retouch on one lateral edge. SGS. Length 36 mm, width 12 mm, thickness 5 mm. SGS. Inv. no. P 8188 (Plate XXXVIII: 9).

2. Flake. SGS. Inv. no. P 8189 (Plate XXXVIII: 10).

Fill of grave pit (Grave 842)
1. Two-poled splintered piece. Dimensions 21 mm x 18 mm x 9 mm. SGS. Inv. no. P 8215 (Plate XXXVIII: 6).

Collection: Silesian Museum Opava.
Literature: Juchelka 2008; 2009a.

24. Opava-Vávrovice, hamlet Palhanec Opava district
Site: *Nad Křížem* (sand pit).
Find character: settlement site.
Cultural affiliation: Globular Amphora culture.

The site was rescue excavated in 1973 by Jiří Pavelčík from AÚ ČSAV Brno, Opava Branch. On the multi-cultural site 12 settlement structures were discovered. One of them (5/1973) was linked with the Globular Amphora culture.

Structure 5/1973
1. Flake. Rock *non vidi* (after excavation report by Jiří Pavelčík: *rohovec*). Inv. no. 1168-23/73.

2. Flake. Rock *non vidi* (after excavation report by Jiří Pavelčík: *přepálený rohovec*). Inv. no. 1168-24/73.

Collection: Museum Opava.
Literature: excavation report in Archive of AÚ AV ČR Brno, ref. no. 2223/74; Pavelčík Jiří 1974, 112.

25. Ostopovice, Brno-venkov district
Site: *Padělky.*
Find character: settlement site.
Cultural affiliation: Jevišovice culture.

The site is located on a broad elevation to the north-east from the village of Ostopovice, sloping towards the Ostopovice-Moravany road (*cf.* Annex A). It was partially destroyed in 1940 during the construction of the planned freeway Breslau (now Wrocław)-Vienna when service buildings for road workers were erected on this place. In 1946-1948 the local amateur-archaeologist Jaroslav Mikulášek discovered on a slope beneath the place of the abandoned construction four settlement pits of the Jevišovice culture (structures 1-4). In the early 1950s the recovered material purchased by the National Museum in Prague, where artifacts from structures 3-4 were catalogued together (without distinctions).

Structures 1/1947
1. Massive round flake with edge-like platform and marginal retouch. Length 38 mm, width 37 mm, thickness 13 mm. KL I. Inv. no. 83596 (Plate XXXIX: 7).

2. Single-platform polyhedral core for blades in advanced stage of use. Dimensions: 31 mm 41 mm x 33 mm. KL I. Inv. no. 83597 (Plate XXXIX: 5).

3. Small knife-like segment on flake (longer axis of the form is transversal to percussion axis with denticulated cutting edge. KL I. Inv. no. 83598 (Plate XXXIX: 2).

4. Blade with irregular scraping edge in the proximal part of the form. Length 35 mm, width 19 mm, width 6 mm. KL I. Inv. no. 83599 (Plate XXXIX: 1).

5. Knife-like tool on wide flake. Length 31 mm, width 28 mm, thickness 7 mm. KL I. Inv. no. 83600 (Plate XXXIX: 6).

6. Endscraper with scraping edge in the proximal part of the form and one lateral side retouched, with fragment of the natural surface on the dorsal side. Length 42 mm, width 9 mm, thickness 7 mm. KL I. Inv. no. 83601 (Plate XXXIX: 4).

7. Truncated blade with steeply retouched slanting truncation in the distal part of the form and sickle gloss at the pointed end. Length 33 mm. width 16 mm, thickness 4 mm. KL I. Inv. no. 83602 (Plate XXXIX: 9).

In addition:
Two small polished axes of non-siliceous rocks. Inv. nos. 83590 and 83591 (Plate XXXIX: 8, 10).

Structures 3 and 4/1948
1. Polyhedral core for flakes exploited from three striking platforms. Dimensions: 47 mm x 46 mm x 41 mm. KL I. Inv. no. 88723 (Plate XL: A-D).

2. Endscraper on blade with scraping edge in the distal part of the form Length 33 mm, width 16.5 mm, thickness 6.5 mm. KL II. Inv. no. 88724 (Plate XLI: 11).

3. Short endscraper of the *ungiforme* type on blade with regular scraping edge in the distal part of the form. Length 19 mm, width 15 mm, thickness 5 mm. KL II. Inv. no. 88725 (Plate XLI: 8).

4. Endscraper (*ungiforme*) on blade with scraping edge in the proximal part of the form, one lateral side formed with steep retouch. Length 21 mm, width 19 mm, thickness 8 mm. KL I. Inv. no. 88726 (Plate XLI: 6).

5. Small knife-like tool with rounded back formed with steep retouch. Length 27 mm, width 15 mm, thickness 5.5 mm. Siliceous rock of unknown kind. Inv. no. 88727 (Plate XLI: 3).

6. Combined tool on blade, with slanting truncation in the distal part of the form and narrow scraping edge in the proximal part. Length 32 mm, width 13.5 mm, thickness 3 mm. KL II. Inv. no. 88728 (Plate XLI: 2).

7. Base part of an arrowhead with wide tang terminated by a concave notch. Preserved length 15.5 mm, width 18 mm, thickness 4.5 mm. KL I. Inv. no. 88730 (Plate XLI: 7).

8. Endscraper on long blade. One lateral edge with fine denticulated retouch and sickle gloss. Length 36 mm, width 13.5 mm, thickness 5 mm. KL II. Inv. no. 88731 (Plate XLI: 5).

9. Boring tool on long blade with point in the distal part of the form, partially cortical with functional retouch on one lateral edge. KL I. Length 58.5 mm, thickness 15 mm, width 6 mm. Inv. no. 88732 (Plate XLI: 9).

10. Bifacially retouched knife-like tool on flake. Length 31 mm, width 23 mm, thickness 9 mm. KL I. Inv. no. 88733 (Plate XLI: 4).

11. Truncated blade with denticulated retouch on one lateral edge. Length 32, width 18 mm, thickness 3.3 mm. KL I. Inv. no. 88729 (Plate XLI: 1).

12. Irregular laminar flake with notch. Length 40 mm, width 26 mm, thickness 7 mm. Siliceous rock, deeply burnt. Inv. no. 88735 (Plate XLI: 10).

13. Massive flake with cortex part in the distal end of the form. Length 46 mm, width 32 mm, thickness 6.5 mm. KL I. Inv. no. 88736 (Plate XLI: 12).

14. Retouched blade with distal part broken. Length 42 mm, width 15 mm, thickness 5 mm. KL I. Inv. no. 887734 (Plate XXXIX: 3).

In addition:

Boring core from a shafted axe and small polished stone axe of non-siliceous rocks. Inv. nos. 88738 and 88737 (Plate XLI: 13, 14).

Collection: Museum Prague.
Literature: Excavation report in Archive of the National Museum in Prague (J. Mikulášek).

26. Ostrava-Krásné Pole, Ostrava-město district
Site: *ca*. 300 m to NE from the water tank, to the right from the Svinov-Opava road.
Find character: accidental (by Mr. Rovner in 1957).
Cultural affiliation: Globular Amphora culture ?

1. Small silicite axe, polished. Dimensions: length 57 mm, width 22 mm, thickness 15 mm.

Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (after photo in the excavation report). Inv. no. ? (not identified by the authors).

Collection: Museum Ostrava.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2159/62 (V. Šikulová); Přichystal, Šebela 2003, 153-154; *iidem* 2004, 11; Janák, Oliva, Přichystal, Grepl 2004, 171; Janák 2007, 163.

27. Prusinovice, Kroměříž district
Site: *Od větráku*.
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished with damaged straight blade. Dimensions: length 130 mm, width at blade and butt 55 and 29 mm, thickness 20.8 mm, weight 66.5 g. Banded silicite of the Krzemionki Opatowskie type (after Kalousek 1945, II, 138: *šedý páskový pazourek*; after Skutil 1937, 106: *pásovaný pazourek*; Červinka 1938, 67: *páskový pazourek*). Inv. no. 51870. (Plate XLVII: 7).

Collection: Moravian Museum Brno.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2698/46 (I. L. Červinka); 380/47, 2641/52 (F. Kalousek); Červinka 1908, 101, 197; *idem* 1909, note on p. 127; *idem* 1938, 67 with illustration; Kossina 1917, 149 (under name "Businovice"); *idem* 1918, 206 (under name *Businovice bei Hohenstadt*); Skutil 1937, 106; *idem* 1946, obr. 32: 4; Kalousek 1945, II, 138, tab. LXXXIV: 8, 9; *idem* 1947, 18, obr. 33; Přichystal, Šebela 2003, 156-157, obr. 1a (1), 8: 4 (1), 3 (2), 9: 3(2); *iidem* 2004, 11, Fig. 4: 4 (1), 7: 3 (1).

28. Radslavice (former Velké Raclavice), Vyškov district
Site: cadastral area of the locality.
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished, with triangular outline and pointed butt. Dimensions: length 65 mm, width at blade 34 mm, thickness – 14.5 mm. Rock *non vidi*, probably banded silicite of the Krzemionki Opatowskie type (inferring from the literature, *cf.* Červinka 1896, 157: *bělošedý pazourek*; *idem* 1908, 196: *achát*"; *idem* 1938, 67: *achát*; Kosina 1917, 149: *gebändertes Feuersteinbeil*; Skutil, 1936, 55: *polský pruhovaný pazourek*; *idem* 1937, 105: *páskovaný pazourek*; Kalousek 1945,

II, 141: *polský páskovaný pazourek*. Inv. no. 51863 (not identified by the authors).

Collection: Moravian Museum Brno
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2699/46 (I. L. Červinka); 2841/52 (F. Kalousek); Červinka 1896, 157; *idem* 1900b, 22 (under name *Raclavice Velké*); *idem* 1902, 100, obr. 45: 2; *idem* 1908, 47 (under name "Velké Raclavice"), 101 (under name *Raclavice*), obr. 41 (left); *idem* 1938, 67 with illustration; Kossina 1917, 149; *idem* 1918, 206; Skutil 1936, 33-34; *idem* 1937, 106; *idem* 1946, obr. 32: 3; Kalousek 1945, II, 141, tab. LXXXVIII: 10; Přichystal, Šebela 2003, 157; *iidem* 2004, 11.

29. Rožnov pod Radhoštěm-Hážovice, Vsetín district
Find character: accidental.
Cultural affiliation: Globular Amphora culture ?

1. Silicite axe, polished, with trapezoid outline, blade repaired. Dimensions: length 90 mm, width at blade and butt 43 and 27 mm, thickness 30 mm, weight 162 g. Banded silicite of the Krzemionki Opatowskie type. Inv. no. 3.

Collection: Museum Rožnov pod Radhoštěm.
Literature: Přichystal, Šebela 2003, 159, tab. 4 (under name *Rožnov pod Radhoštěm a okolí*); *iidem* 2004, 11, Fig. 7: 4.

30. Suchá Loz, Uherské Hradiště district
Site: *Volenov.*
Find character: accidental (artifact donated to the museum in 1905 by teacher Mr. Janiš).
Cultural affiliation: Globular Amphora culture ?, probably imported into the Bošáca milieu.

1. Blade fragment of silicite axe. Dimensions: preserved length 30, blade width 44 mm, thickness 14 mm. Banded silicite of the Krzemionki Opatowskie type. Inv. no. 199.

Collection: Museum Uherský Brod.
Literature: Excavation report in Archive of AÚ AV ČR Brno, reference no. 2024/47 (Jan Pavelčík); 2620/52 (F. Kalousek) and 104/66; Červinka 1908, 47 (under name *Volenov*); Kučera 1910, tab. V: 4; Kalousek 1945, II, 8 (referred as "from the vicinity of Uherský Brod"); Přichystal, Šebela 2003, 159 (under name *Uherský Brod a okolí*); *iidem* 2004, 11.

31. Valašské Klobouky or vicinity, Zlín district
Site: unknown
Find character: accidental find
Cultural affiliation: Globular Amphora culture ?, possibly import to the Bošáca milieu.

In the Museum in Valašské Klobouky there is a silicite axe with no information on finding circumstances. It might have been found in Valašské Klobouky in its vicinity, but possibly also in the cadastral area of the village of Jestřabí (Zlín district).

1. Silicite axe, polished. Dimensions: length 86.5 mm, width at blade and butt 44 and 25 mm, thickness 21 mm, weight 147 g. Banded silicite of the Krzemionki Opatowskie type. Inv. no. 299.

Collection: Museum Valašské Klobouky.
Literature: Přichystal, Šebela 2003, 159, obr. 1; *iidem* 2004, 11, Fig. 7: 1.

32. Vracov, Hodonín district
Site: cadastral area of the locality.
Find character: accidental find.
Cultural affiliation: Globular Amphora culture ?, possibly import into the Bošáca milieu.

1. Silicite axe with traces of polishing. Dimensions: length 95 mm, width at blade and butt 53 and 30 mm, width 28 mm, weight 202 g. Banded silicite of the Krzemionki Opatowskie type Inv. no. P 246.

Collection: Museum Hodonín.
Literature: Šebela, in preparation.

33. Vysočany, Znojmo district
Site: *Palliardiho hradisko.*
Find character: settlement (hillfort site).
Cultural affiliation: Jevišovice culture.

The place called *Palliardiho hradisko* (Palliardi's hillfort) is located on a big promontory over a valley of the Želetavka Creek. It has been known for years as a multi-cultural site from the Early Medieval Period, the Hallstatt Period (the Horákov culture), the Early Neolithic (the Linear Pottery culture), and the Late Eneolithic (the Jevišovice culture).

Excavations of the site were carried out between 1950 and 1958 by J. Sobotka, a school teacher from nearby Dolní Lažany. In 1959 the research was resumed by J. Poláček (Museum Jihlava), under supervision of J. Říhovský and A. Medunová from the Archaeological Institute, Czechoslovak Academy of Sciences, Brno.

Materials from J. Sobotka's excavations were later detailed by A. Medunová (Medunová-Benešová 1977a). Materials obtained in 1959 were included in an unpublished paper by the same author (Medunová 1977).

Finds dated to the Hallstatt Period from all excavation seasons were published by V. Podborský (1966).

Research 1950-1952

1. Blade with broken terminal part, with traces of marginal retouching. Length 32 mm. Rock *non vidi*. Inv. no. MB 187 (not identified by the authors).

Research 1957

1. Endscraper on blade. Length 33 mm. Rock *non vidi*. Inv. no. MB 280 (not identified by the authors; Plate XLII: 1).

2. Endscraper on blade with irregular scraping edge in the distal part and utilization retouch on one lateral edge. Length 51 mm. Rock *non vidi*. Inv. no. MB 301 (not identified by the authors; Plate XLII: 2).

3. Core for flakes. Jasper ? Dimensions: 55 x 48 x 32 mm. Siliceous weathering product of serpentinite. Inv. no. MB 302.

4. Crested flake. Length 54.5 mm. Rock *non vidi*. Inv. no. MB 309 (not identified by the authors).

5. Blade with broken distal part. Length of the preserved part 29 mm. Rock *non vidi*. Inv. no. MB 310 (not identified by the authors; Plate XLII: 3).

6. Blade. Length 36 mm. Rock *non vidi*. Inv. no. MB 311 (not identified by the authors; Plate XLII: 4).

7. Single platform core for blades. Dimensions: 36 mm x 21 mm x 22 mm. Siliceous rock (chert) of undetermined kind. Inv. no. MB 365.

8. Crested blade of triangular cross-section. Length 63.5 mm, width 16, thickness 9.5 mm. SGS ? Inv. no. MB 411 (Plate XLIII: 22).

9. Short blade. Length 25 mm. Rock *non vidi*. Inv. no. MB 412 (not identified by the authors; Plate XLII: 5).

10. Blade with traces of marginal retouch. Length 39 mm. Rock *non vidi*. Inv. no. MB 456 (not identified by the authors; Plate XLII: 6).

11. Blade with broken distal part. Length of the preserved part 36.5 mm. Rock *non vidi*. Inv. no. MB 459 (not identified by the authors; Plate XLII: 7).

12. Flake with traces of marginal retouch. Length 40 mm. SGS. Inv. no. MB 475 (Plate XLVI: 6).

13. Blade with broken distal part. Length of the preserved part 34 mm. Rock *non vidi*. Inv. no. MB 490 (not identified by the authors; Plate XLII: 8).

14. Flake. Length 16.5 mm. Rock *non vidi*, possibly jasper. Inv. no. MB 491 (not identified by the authors).

15. Fan-shaped flake. Length 32 mm, width 42 mm, thickness 7 mm. Rock *non vidi*, possibly jasper. Inv. no. MB 574 (not identified by the authors).

16. Thin laminar flake. Length 40 mm, width 26 mm, thickness 6 mm. Rock *non vidi*. Inv. no. MB 575 (not identified by the authors).

17. Blade with traces of marginal retouch. Length 41 mm, width 21 mm. Rock *non vidi*. Inv. no. MB 579 (not identified by the authors; Plate XLII: 9).

18. Fragment of retouched tool of unknown type. Preserved length 57.5 mm, maximal width 41 mm. *Plattensilex* ? Inv. no. MB 584.

Research 1958

1. Bladelet fragment with traces of functional retouch. Preserved length 16 mm. SGS ? Inv. no. MB 1068.

2. Bladelet. Length 27.5 mm, width 8 mm, thickness 3.5 mm. SGS. Inv. no. MB 1070.

3. Arrowhead with convex sides and slightly convex base. Length 21 mm. Rock *non vidi*, possibly quartz. Inv. no MB 1072 (not identified by the authors; Plate XLII: 12).

4. Small blade. Length 22 mm. Rock non vidi. Inv. no. MB 1073 (not identified by the authors; Plate XLII: 13).

5. Irregular blade. Length 31 mm, width 11 mm, thickness 3.5 mm. Rock *non vidi*. Inv. no. MB 1074 (not identified by the authors).

6. Splinter. Siliceous weathering product of serpentinite. Inv. no. MB 1075.

7. Splinter. Rock *non vidi*, possibly jasper or siliceous weathering product of serpentinite. Inv. no. MB 1076.

8. Blade with retouched distal end (endscraper ?). SGS, burnt. Length of the preserved part 20 m. Inv. no. MB 1077.

9. Fan shaped flake. Length 36.5 mm, width 43.5 mm, thickness 18.5 mm. Siliceous weathering product of serpentinite. Inv. no. MB 1078.

10. Endscraper on a very slim regular blade. Length 46 mm, width 8 mm, thickness 3 mm. *Plattensilex*. Inv. no. MB 1079 (Plate XLII: 14; LIII: 3a).

11. Flake. Length 21 mm, width 18 mm, thickness 6 mm. Rock crystal. Inv. no. MB 1095.

12. Laminar flake. Length 25 mm, width 17 mm, thickness 4.5 mm. Olomučany chert. Inv. no. MB 1103 (Plate XLII: 15).

13. Bladelet. Length 26 mm, width 11 mm, thickness 4 mm. Olomučany chert. Inv. no. MB 1105 (Plate XLII: 16; LI: 1a/2).

14. Flake. Rock *non vidi*, possibly jasper or siliceous weathering product of serpentinite. Inv. no. MB 1180 (not identified by the authors).

15. Bladelet with retouched notch and functional retouch on one lateral edge. Length 23, width 9 mm, thickness 3 mm. Brown-yellow opal. Inv. no. MB 1082.

16. Truncated blade. Length 30 mm, width 19 mm, thickness 5 mm. Olomučany chert. Inv. no. MB 1101.

17. Blade. Length 41 mm, width 28 mm, thickness 7 mm. KL I. Inv. no. 18785-693/59.

18. Wide flake. Length 22 mm, width 29 mm, thickness 10 mm. White-brown opal. Inv. no. 18785-694/59.

19. Flake fragment. SGS. Inv. no. 18785-695/59.

20. Cortical flake, distal part broken. SGS. Inv. no. 18785-696/59.

21. Blade fragment. Preserved length 19 mm, width 17.5 mm, thickness 5.5 mm. SGS. Inv. no. 18785-697/59.

22. Bladelet. Length 20 mm, width 7.5 mm, thickness 3 mm. Brown-yellow siliceous weathering product of serpentinite. Inv. no. 18785-698/59.

23. Splinter. KL I ? Inv. no. 18785-699/59.

24. Blade fragment with functional retouch. Preserved length 17 mm, width 15 mm, thickness 3 mm. SGS. Inv. no. 18785-700/59.

25. Wide flake. Length 32.5 mm, width 22 mm, thickness 5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-701/59.

26. Wide flake with cortical butt. Length 21 mm, width 19.5 mm, thickness 7 mm. SGS. Inv. no. 18785-702/59.

27. Splinter. Brown-red siliceous weathering product of serpentinite. Inv. no. 18785-703/59.

28. Splinter. Siliceous weathering product of serpentinite, patinated. Inv. no. 18785-704/59.

29. Bladelet. Length 22.5 mm, width 12 mm, thickness 3.5 mm. SGS. Inv. no. 18785-705/59.

30. Bladelet. Length 16.5 mm, width 12.5 mm, thickness 3 mm. SGS. Inv. no. 18785-706/59.

31. Bladelet. Length 22 mm, width 10 mm, thickness 3.5 mm. SGS. Inv. no. 18785-707/59.

32. Small flake. Length 25 mm, width 16.5 mm, thickness 6.6 mm. SGS (?). Inv. no. 18785-708/59.

33. Splinter. SGS. Inv. no. 18785-709/59.

Research 1959

1. Truncated blade (break truncation) with traces of sickle gloss on the dorsal face. Length 31 mm. SGS. Inv. no. 18785-95/59, Museum Jihlava inv. no. 2247.

2. Blade fragment. Preserved length 22 mm. SGS. Inv. no. 18785-96/59, Museum Jihlava inv. no. 2248.

3. Massive flake. Length 57 mm; width 50 mm, thickness 10 mm. KL II. Inv. no. 18785-216/59 (Museum Jihlava inv. no. 2454).

4. Fragment of retouched tool. Rock *non vidi* (after Medunová 1977, 30: Bavarian *Plattensilex*). Inv. no. 18875-220/59, Museum Jihlava inv. no. 2466 (not identified by the authors).

5. Flake with wide flat striking face. Length 53 mm, width 41 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-221/59, Museum Jihlava inv. no. 2467.

6. Thin small flake. Length 18 mm, width 17.5 mm, thickness 4.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-289/59, Museum Jihlava inv. no. 1094.

7. Small endscraper on flake, partially cortical. Length 26 mm, width 18 mm, thickness 7 mm. KL I ? Inv. no. 18785-290/59, Museum Jihlava inv. no. 1094.

8. Blade fragment. Preserved length 20 mm. width 15 mm, thickness 4.5 mm. KL I. Inv. no. 18785-291/59, Museum Jihlava inv. no. 1094.

9. Splinter. KL II. Inv. no. 18785-292/59, Museum Jihlava in. no. 1094.

10. Cortical flake. KL II ? Inv. no. 18785-293/59, Museum Jihlava inv. no. 1094.

11. Irregular blade. Length 34 mm, width 16 mm, thickness 5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-294/59, Museum Jihlava inv. no. 1094.

12. Irregular flake. Olomučany chert. Inv. no. 18785-295/59, Museum Jihlava inv. no. 1094.

13. Splinter. SGS. Inv. no. 18785-296/59, Museum Jihlava inv. no. 1094.

14. Laminar flake. Siliceous substance of undetermined kind, burnt. Length 31, width 17.5 mm, thickness 9 mm. Inv. no. 18785-297/59, Museum Jihlava inv. no. 1094.

15. Irregular flake. Siliceous weathering product of serpentinite. Inv. no. 18785-298/59, Museum Jihlava inv. no. 1094.

16. Quasi-circular flake with wide flat butt. KL I. Length 30 mm, width 27 mm, thickness 8 mm. Inv. no. 18785-299/59, Museum Jihlava inv. no. 1094.

17. Flake. KL I, burnt. Inv. no. 18785-300/59, Museum Jihlava inv. no. 1094.

18. Flake, partially cortical. Petrosilex/KL II. Inv. no. 18785-301/59, Museum Jihlava inv. no. 1094.

19. Flake. Siliceous weathering product of serpentinite/plasma. Inv. no. 18785-302/59, Museum Jihlava inv. no. 1094.

20. Flake with wide polyhedral butt. KL II. Length 34.5 mm, width 41 mm, thickness 12 mm. Inv. no. 18785-303/59, Museum Jihlava inv. no. 1094.

21. Flake. Length 39 mm, width 33 mm, thickness 13 mm. KL I. Inv. no. 18785-304/59, Museum Jihlava inv. no. 1094.

22. Irregular flake. Red siliceous weathering product of serpentinite. Inv. no. 18785-305/59, Museum Jihlava inv. no. 1094.

23. Splinter. KL I ? Inv. no. 18785-306/59, Museum Jihlava inv. no. 1094.

24. Hammerstone. Quartz. Inv. no. 18785-355/59, Museum Jihlava no. 1096.

25. Hammerstone. Diorite. Inv. no. 18785-356/59, Museum Jihlava no. 1096.

26. Core for flakes reused as hammerstone. KL I. Dimensions: 72 mm x 42 mm x 43 mm. Inv. no. 18785-357/59, Museum Jihlava inv. no. 1096 (Plate XLVI: 8).

27. Flake. KL II, burnt. Inv. no. 18785-358/59, Museum Jihlava inv. no. 1096.

28. Flake. Siliceous weathering product of serpentinite. Inv. no. 18785-359/59, Museum Jihlava inv. no. 1096.

29. Cortical flake. KL II. Length 39 mm, width 29 mm. Inv. no. 18785-360/59, Museum Jihlava inv. no. 1096.

30. Big thin flake with surface retouch on whole dorsal side (possibly from shaping axe). SGS-Danian. Length 56.5 mm, width 40 mm, thickness 7 mm. Inv. no. 18785-498/59 (Plate XLIV: 17; LIV: 1a).

31. Massive flake, partially cortical. SGS-Maastricht. Length 29 mm, width 56 mm, thickness 11 mm. Inv. no. 18785-499/59 (Plate XLIV: 18).

32. Massive endscraper, *unguiforme*. KL II. Length 24 mm, width 23 mm, thickness 9 mm. Inv. no. 18785-500/59 (Plate XLIV: 10; Plate LII: 2a/1).

33. Blade. Length 33.5 mm, width 8 mm, thickness 3 mm. SGS. Inv. no. 18785-501/59 (Plate XLIV: 11).

34. Endscraper on subcrested blade. Length 23 mm, width 13.5 mm, thickness 8 mm. SGS. Inv. no. 18785-502/59 (Plate XLIV: 5).

35. Blade with functional retouch on both lateral edges. Length 23.5 mm, width 13 mm, thickness 3 mm. Olomučany chert. Inv. no. 18785-503/59 (Plate XLIV: 2).

36. Endscraper, *unguiforme*. Length 22.5 mm, width 22 mm, thickness 7 mm. SGS. Inv. no. 18785-504/59 (Plate XLIV: 8).

37. Blade with functional retouch on both lateral edges. Length 30 mm, width 20 mm, thickness 4.5 mm. Olomučany chert. Inv. no. 18785-505/59 (Plate XLIV: 16).

38. Blade with functional retouch on both lateral edges. Length 30 mm, width 15 mm, thickness 4.5 mm. SGS-Danian. Inv. no. 18785-506/59.

39. Blade with functional retouch on both lateral edges. Length 43.5 mm, width 22 mm, thickness 4 mm. SGS. Inv. no. 18785-507/59 (Plate XLIV: 14).

40. Short endscraper on blade, close to *unguiforme*. Length 25.5 mm, width 17.5 mm, thickness 4 mm. SGS-Danian. Inv. no. 18785-508/59 (Plate XLIV: 4).

41. Bladelet. Length 29 mm, width 11 mm, thickness 5 mm. SGS ? Inv. no. 18785-509/59 (Plate XLIV: 3).

42. Bladelet. Length 25.5 mm, width 11 mm, thickness 3 mm. Siliceous rock (chert) of undetermined kind. Inv. no. 18785-510/59 (Plate XLIV: 6).

43. Pointed blade with fine denticulated retouch on one lateral edge. Length 42 mm, width 15 mm, thickness 7 mm. SGS. Inv. no. 18785-511/59 (Plate XLIV: 15).

44. Blade. Length 39 mm, width 13 mm, thickness 4 mm. Stránská skála chert, lightly burnt. Inv. no. 18785-512/59 (Plate XLIV: 9).

45. Blade. Length 33 mm, width 11 mm, thickness 3 mm. Olomučany chert. Inv. no. 18785-513/59 (Plate XLIV: 7).

46. Blade with functional retouch on both lateral edges, distal part broken. Preserved length 33 mm, width 19 mm, thickness 4 mm. Olomučany chert. Inv. no. 18785-514/59 (Plate XLIV: 1).

47. Short blade. Length 26 mm, width 16.5 mm, thickness 4 mm. KL II. Inv. no. 18785-515/59 (Plate XLIV: 13).

48. Big irregular flake. Length 55 mm, width 33 mm, thickness 8 mm. Spilite tuff ? Inv. no. 18785-516/59 (Plate XLIV: 19).

49. Technical chunk. Smoky quartz. Inv. no. 18785-532/59, original museum no. 2240.

50. Splinter. Rock crystal. Inv. no. 18785-533/59, original museum no. 2240.

51. Splinter. Rock crystal. Inv. no. 18785-534/59, original museum no. 2240.

52. Splinter. Rock crystal. Inv. no. 18785-535/59, original museum no. 2240.

Research 1950-1958 (finds without affiliation to specific research season)

1. Blade. Siliceous rock of unknown kind. Length 37.5 mm. Inv. no. 1127 (Plate XLIII: 21).

2. Truncated blade with oblique truncation in the distal end and utilization retouch on both lateral edges. Length 56 mm, width 21 mm, thickness 5 mm. SGS. Inv. no. MB 1132 (Plate XLII: 17).

3. Splinter. SGS. Inv. no. MB 1133.

4. Blade fragment with marginal retouch. Preserved length 20 mm. Rock *non vidi*. Inv. no. MB 1134 (not identified by the authors).

5. Massive flake. Length 53.5 mm, width 45 mm, thickness 17 mm. Siliceous weathering product of serpentinite. Inv. no. MB 1954.

6. Massive flake with traces of marginal retouch. Length 74 mm, width 75 mm, thickness 16 mm. Siliceous weathering product of serpentinite. Inv. no. MB 1955 (Plate XLIII: 19).

7. Knife-like tool on massive flake. Length 43.5 mm, width 30 mm, thickness 15 mm. Siliceous weathering product of serpentinite up to brown-yellow opal. Inv. no. MB 1956 (Plate XLII: 18).

8. Technical chunk. Length 44.5 mm. Siliceous weathering product of serpentinite. Inv. no. MB 1957 (Plate XLIII: 1).

9. Splinter. Length 29 mm. SGS. Inv. no. MB 1958 (Plate XLIII: 2).

10. Splinter. Siliceous weathering product of serpentinite, burnt. Inv. no. MB 1959 (Plate XLIII: 3).

11. Slim truncated blade with marginal retouch on one lateral edge). Length 38 mm, width 17 mm, thickness 4 mm. Olomučany chert. Inv. no. MB 2275 (Plate XLIII: 4).

12. Regular blade with traces of utilization retouch. Length 35 mm, width 16 mm, thickness 3 mm. SGS. In. no. MB 2276 (Plate XLIII: 5).

13. Massive flake slightly retouched in the distal end, similar to irregular endscraper. Length 48 mm, width 34 mm, thickness 12 mm. SGS ? Inv. no. MB 2277 (Plate XLII: 11).

14. Flake. Length 45 mm, width 32 mm, thickness 14 mm. KL I. Inv. no. MB 2279.

15. Endscraper on blade with cortex fragment, with asymmetrical scraping edge in the distal part. Length 47.5 mm, width 21 mm, thickness 10 mm. SGS. Inv. no. MB 2280 (Plate XLII: 10).

16. Endscraper on blade with retouch on both lateral sides. Besides the main scraping edge in the distal part of the blank, it has a secondary edge in the proximal part. Length 40 mm. Rock *non vidi*. Inv. no. MB 2281 (not identified by the authors; Plate XLIII: 6).

17. Truncated blade with retouch on one lateral edge. Length 41 mm, width 20 mm, thickness 5 mm. SGS. Inv. no. MB 2282 (Plate XLIII: 7).

18. Fan-shaped flake. Length 22 mm, width 37, thickness 9.5 mm. Red siliceous weathering product of serpentinite. Inv. no. MB 2283 (Plate XLIII: 8).

19. Blade. Length 36 mm, width 17 mm, thickness 4 mm. SGS, burnt. Inv. no. MB 2284 (Plate XLIII: 9).

20. Endscraper on a massive subcrested blade. Length 34 mm, width 19.5 mm, thickness 9 mm. SGS. Inv. no. MB 2285 (Plate XLIII: 10).

21. Laminar flake. Length 34 mm, width 15 mm, thickness 7 mm. SGS. Inv. no. MB 2286 (Plate XLIII: 11).

22. Irregular flake. Maximal length 25 mm. Rock crystal. Inv. no. MB 2287 (Plate XLIII: 12).

23. Irregular flake. Maximal length 31 mm. Citrine. Inv. no. MB 2288 (Plate XLIII: 13).

24. Blade. Length 40 mm, width 13 mm, thickness 3 mm. SGS. Inv. no. MB 2289 (Plate XLIII: 14).

25. Double endscraper on blade with traces of functional retouch on lateral edges. Length 37 mm, width 15.5 mm, thickness 7 mm. SGS. Inv. no. MB 2290 (Plate XLIII: 15).

26. Laminar flake. Length 30.5 mm, width 19.5 mm, thickness 4 mm. SGS. Inv. no. MB 2291 (Plate XLIII: 16).

27. Blade. Length 28.5 mm, width 13 mm, thickness 3 mm. Chalcedony mass. Inv. no. MB 2292 (Plate XLIII: 17).

28. Flake. Length 25 mm, width 18 mm, thickness 5 mm. Red siliceous weathering product of serpentinite. Inv. no. MB 2293 (Plate XLIII: 19).

29. Blade. Length 33.5 mm, width 13 mm, thickness 7 mm. Olomučany chert. Inv. no. MB 2294 (Plate XLIII: 18).

30. Flake. Length 26 mm, width 16 mm, thickness 7.5 mm. Red-brown siliceous weathering product of serpentinite. Inv. no. MB 2295 (Plate XLIII: 20).

31. Single-poled splintered piece. Dimensions: 28 mm x 22 mm x 13 mm. SGS. Inv. no. 18785-662/59.

32. Splinter. Yellow-brown opal. Inv. no. 1180.

33. Massive flake, partially cortical. Length 53 mm, width 34 mm, thickness 10 mm. Yellow-brown siliceous weathering product of serpentinite. Inv. no. 18785-517/59, original museum inv. no. 145.

34. Endscraper on thick wide flake, partially cortical. Length 31 mm, width 38 mm, thickness 12 mm. Yellow-brown siliceous weathering product of serpentinite. Inv. no. 18785-518/59, original museum inv. no. 145.

35. Endscraper on flake, *unguiforme*. Length 22.5 mm, width 23 mm, thickness 10 mm. KL I. Inv. no. 18785-519/59, original museum inv. no. 145.

36. Thin retouched flake. Length 23.5 mm, width 22 mm, thickness 7 mm. Siliceous rock, burnt. Inv. no. 18785-520/59, original museum inv. no. 145

37. Flake, partially cortical. Length 25 mm, width 20 mm, thickness 8 mm. KL I. Inv. no. 18785-521/59, original museum inv. no. 1147.

38. Splinter. KL II. Inv. no. 18785-522/59, original museum inv. no. 1147.

39. Fan-shaped flake with wide flat butt. Length 30 mm, width 33 mm, thickness 9 mm. KL I. Inv. no. 18785-523/59, original museum inv. no. 1147.

40. Blade fragment, distal part broken. Preserved length 19 mm, width 14.5 mm, thickness 4 mm. KL I. Inv. no. 18785-524/59, original museum inv. no. 1147.

41. Small single platform core for blades with traces of side crest preparation. Dimensions: 31 mm x 19 mm x 18 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-525/59, original museum inv. no. 1251 (Plate XLVI: 7).

42. Blade. Length 38.5 mm, width 19 mm, thickness 3.5 mm. KL I. Inv. no. 18785-526/59, original museum inv. no. 1251.

43. Perforator on flake. Length 27.5 mm, width 19 mm, thickness 5 mm. SGS. Inv. no. 18785-527/59, original museum inv. no. 1251 (Plate XLV: 6).

44. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-528/59, original museum inv. no. 1251.

45. Flake. Length 26 mm, width 20 mm, thickness 6 mm. SGS. Inv. no. 18785-529/59, original museum inv. no. 1256.

46. Thick irregular flake. Length 38.5 mm, width 25 mm, thickness 13.5 mm. Yellow-brown opal. Inv. no. 18785-530/59, original museum inv. no. 1257.

47. Core with changed orientation of percussion axis, for blades and flakes. Dimensions: 44 mm x 42 mm x 26. Yellow-brown opal. Inv. no. 18785-531/59, original museum inv. no. 1258 (Plate XLVI: 10).

48. Flake. Length 24 mm, width 42 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-536/59, original museum inv. no. 244.

49. Single platform core for blades and flakes. Dimensions: 55 mm x 49 mm x 28.5 mm. Olomučany chert. Inv. no. 18785-537/59, original museum inv. no. 1130 (Plate XLV: 4).

50. Core with changed orientation of percussion axis for blades and flakes. Dimensions: 48 mm x 42 mm x 35 mm. KL I. Inv. no. 18785-538/59. Inv. no. 18785-538/59, original museum inv. no. 1130 (Plate XLVI: 1).

51. Massive overpassed flake from single platform core. Length 52.5 mm, width 45 mm, thickness 18 mm. KL I. Inv. no. 18785-539/59, original museum inv. no. 1130.

52. Massive flake with flat butt. Length 43.5 mm, width 35 mm, thickness 17 mm. KL I. Inv. no. 18785-540/59, original museum inv. no. 1130.

53. Endscraper, *unguiforme*. Length 27 mm, width 27 mm, thickness 10 mm. KL II ? Inv. no. 18785-541/59, original museum inv. no. 1130.

54. Fan-shaped flake. Length 22.5 mm, width 34 mm, thickness 8 mm. KL I. Inv. no. 18785-542/59, original museum inv. no. 1130.

55. Retouched blade with sickle gloss on working edge. Length 29 mm, width 13 mm, thickness 6 mm. Siliceous rock, burnt. Inv. no. 18785-543/59, original museum inv. no. 1130.

56. Irregular blade. Length 43 mm, width 15.5 mm, thickness 8 mm. Olomučany chert. Inv. no. 18785-544/59, original museum inv. no. 1130.

57. Splinter. KL II. Inv. no. 18785-545/59, original museum inv. no. 1130.

58. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-546/59, original museum inv. no. 1130.

59. Splinter. KL. I. Inv. no. 18785-547/59, original museum inv. no. 1130.

60. Pebble. Milky-white quartz. Inv. no. 18785-548/59, original museum inv. no. 1131.

61. Technical chunk. Rock crystal. Inv. no. 18785-549/59, original museum inv. no. 1131.

62. Technical chunk. Smoky quartz. Inv. no. 18785-550/59, original museum inv. no. 1131.

63. Flake. Length 38 mm, width 30 mm, thickness 10.5 mm. Rock crystal/citrine. Inv. no. 18785-551/59, original museum inv. no. 1131.

64. Knife-like tool on cortical rock chunk with denticulated working edge. Length 45 mm, width 47 mm, thickness 25 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-552/59 (Plate XLVI: 10).

65. Retouched blade with notch on one lateral edge. Length 48 mm, width 27.5 mm, thickness 18.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-553/59.

66. Blade. KL I. Length 34, width 17, thickness 4 mm. Inv. no. 18785-554/59.

67. Flake. Length 37 mm, width 27 mm, thickness 10 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-555/59.

68. Laminar flake. Length 33 mm, width 20 mm, thickness 8.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-556/59.

69. Flake with flat butt. Length 31.5 mm, width 22 mm, thickness 9 mm. Siliceous rock, burnt. Inv. no. 18785-557/59.

70. Short endscraper on fragment of regular blade. Length 19.5 mm, width 19.5 mm, thickness 5 mm. KL I ? Inv. no. 18785-558/59.

71. Flake. Length 33 mm, width 30 mm, thickness 9 mm. SGS. Inv. no. 18785-559/59.

72. Retouched laminar flake. Length 24 mm, width 18.5 mm, thickness 8 mm. Siliceous rock, burnt. Inv. no. 18785-560/59.

73. Splinter. KL I ?, burnt. Inv. no. 18785-561/59.

74. Splinter. SGS. Inv. no. 18785-562/59.

75. Splinter, partially cortical. KL II. Inv. no. 18785-563/59.

76. Blade fragment with functional retouch on one lateral edge, proximal part broken. Preserved length 30 mm, width 18 mm, thickness 3 mm. SGS. Inv. no. 18785-564/59.

77. Bladelet with functional retouch on one lateral edge. Length 21 mm, width 10.5 mm, thickness 3 mm. SGS ? Inv. no. 18785-565/59.

78. Bladelet with functional retouch on one lateral edge. Length 20 mm, width 10 mm, thickness 4 mm. SGS. Inv. no. 18785-566/59.

79. Sidescraper on blade. Length 48 mm, width 39.5 mm, thickness 18 mm. KL I. Inv. no. 18785-567/59 (Plate XLV: 3).

80. Technical chunk, possible core. Dimensions: 28 mm x 28 mm x 19 mm. Clustered crystalline quartz up to rock crystal. Inv. no. 18785-568/59.

81. Technical chunk. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-569/59.

82. Irregular flake. Siliceous substance, burnt. Length 37 mm, width 25 mm, thickness 9 mm. Inv. no. 18785-570/59.

83. Irregular flake. Length 36 mm, width 22.5 mm, thickness 16 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-571/59.

84. Flake with wide flat butt. Length 43.5 mm, width 33 mm, thickness 12.5 mm. KL I. Inv. no. 18785-572/59.

85. Technical chunk. Brown-yellow opal. Inv. no. 18785-573/59.

86. Flake with wide dihedral butt. Length 33 mm, width 26.5 mm, thickness 9.5 mm. Brown opal. Inv. no. 18785-574/59.

87. Two-poled splintered piece. Dimensions: 35 mm x 16.5 mm x 9.5 mm. Olomučany chert. Inv. no. 18785-575/59 (Plate LI: 1a/1).

88. Flake fragment. Yellowish opal. Inv. no. 18785-576/59.

89. Core with changed percussion axis. Dimensions: 26.5 mm x 25 mm x 16 mm. Olomučany chert. Inv. no. 18785-577/59.

90. Technical chunk. Red-brown silicified sandstone up to siltstone. Inv. no. 18785-578/59.

91. Flake with pebble surface on the dorsal face. Length 39 mm, width 29.55 mm, thickness 7 mm. KL I. Inv. no. 18785-579/59.

92. Technical chunk. Siliceous weathering product of serpentinite. Inv. no. 18785-580/59.

93. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-581/59.

94. Technical chunk or core fragment. Siliceous rock, burnt. Inv. no. 18785-582/59.

95. Fan-shape flake with wide polyhedral butt, possible from axe fashioning. SGS-Maastrichtian. Length 18 mm, width 37 mm, thickness 9 mm. SGS. Inv. no. 18785-583/59 (Plate XLVI: 4).

96. Technical chunk, in most parts cortical. Siliceous weathering product of serpentinite. Inv. no. 18785-584/59.

97. Splintered piece with one distinctive pole. Dimensions: 30 mm x 23 mm x 11 mm. SGS. Inv. no. 18785-585/59.

98. Technical chunk. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-586/59.

99. Flake, partially cortical. Length 42 mm, width 27 mm, thickness 9 mm. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-587/59.

100. Flake. Length 35 mm, width 23 mm, thickness 7 mm. SGS. Inv. no. 18785-588/59.

101. Two-poled splintered piece. Dimensions: 26 mm x 31 mm x 15 mm. Brown opal. Inv. no. 18785-589/59 (Plate LIII: 1a).

102. Flake. Length 25 mm, width 17.5 mm, thickness 7.5 mm. Rock crystal. Inv. no. 18785-590/59.

103. Cortical flake. Length 28 mm, width 33.5 mm, thickness 12 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-591/59.

104. Cortical flake. Length 33 mm, width 24 mm, thickness 10 mm. Moravian Jurassic chert. Inv. no. 18785-592/59 (Plate LI: 2a).

105. Big splinter. Length 29.5 mm, width 27 mm, thickness 6 mm. SGS. Inv. no. 18785-593/59 (Plate XLV: 5).

106. Irregular flake. Length 23.5 mm, width 15 mm, thickness 7.5 mm. Rock crystal. Inv. no. 18785-594/59.

107. Flake. Length 30 mm, width 24 mm, thickness 8.5 mm. Quartz/rock crystal. Inv. no. 18785-595/59.

108. Flake. Length 31 mm, width 17 mm, thickness 9 mm. Rock crystal. Inv. no. 18785-596/59.

109. Flake. Length 19.5 mm, width 13 mm, thickness 7 mm. Rock crystal. Inv. no. 18785-597/59.

110. Flake. Length 24.5 mm, width 26 mm, thickness 8 mm. Rock crystal. Inv. no. 18785-598/59 (Plate LIII: 2a/2).

111. Irregular bladelet. Length 21 mm, width 11 mm, thickness 6 mm. Chalcedony mass. Inv. no. 18785-599/59.

112. Cortical flake with wide butt. Length 27 mm, width 17 mm, thickness 8 mm. Obsidian. Inv. no. 18785-600/59 (Plate LIV: 2a).

113. Rock chunk. Smoky quartz scepter-like crystal. Inv. no. 18785-601/59.

114. Flake. Length 21 mm, width 25 mm, thickness 7 mm. Rock crystal. Inv. no. 18785-602/59.

115. Endscraper, *unguiforme*. Length 20 mm, width 21 mm, thickness 10 mm. Citrine. Inv. no. 18785-603/59 (Plate XLV: 7).

116. Flake. Length 35 mm, width 25 mm, thickness 9 mm. Quartz/crystal. Inv. no. 18785-604/59.

117. Flake. Length 23 mm, width 13.5 mm, thickness 4.5 mm. Quartz. Inv. no. 18785-605/59.

118. Splinter. Length 11 mm, width 10 mm, thickness 2.5 mm. Rock crystal. Inv. no. 18785-606/59.

119. Massive splinter. Length 28 mm, width 30 mm, thickness 8 mm. SGS. Inv. no. 18785-607/59 (Plate XLV: 1).

120. Long curved blade removing base part of core. Length 47 mm, width 12 mm, thickness 6 mm. Olomučany chert. Inv. no. 18785-608/59 (Plate XLVI: 5).

121. Blade with functional retouch on both lateral edges, distal part broken. Preserved length 32 mm, width 14.5 mm, thickness 6 mm. KL I or KL II. Inv. no. 18785-609/59.

122. Blade. Length 42 mm, width 17 mm, thickness 6.5 mm. Brown-yellow brecciaed opal. Inv. no. 18785-610/59.

123. Endscraper on blade. Length 36.5 mm, width 24.5 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-611/59 (Plate XLV: 8).

124. Laminar irregular flake. Length 36 mm, width 19 mm, thickness 11 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-612/59.

125. Irregular blade. Length 35.5 mm, width 13 mm, thickness 9.5 mm. Brownish opal. Inv. no. 18785-613/59.

126. Splinter. Siliceous weathering product of serpentinite/opal. Inv. no. 18785-614/59.

127. Laminar flake. Length 26.5 mm, width 16.5 mm, thickness 10.5 mm. SGS. Inv. no. 18785-615/59.

128. Flake, partially cortical. Length 32 mm, width 20 mm, thickness 5.5 mm. SGS. Inv. no. 18785-616/59.

129. Fragment of big retouched blade. Preserved length 19.5 mm, width 29 mm, thickness 6 mm. KL I. Inv. no. 18785-617/59 (Plate XLV: 9).

130. Cortical flake. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-618/59.

131. Splintered piece with three poles. Dimensions: 28 mm x 22.5 x 8 mm. SGS, burnt. Inv. no. 18785-619/59 (Plate XLVI: 2).

132. Cortical flake. Length 43.5 mm, width 26.5 mm, thickness 6.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-620/59.

133. Splinter. SGS. Inv. no. 18785-621/59.

134. Flake. Length 22.5 mm, width 20.5 mm, thickness 9 mm. Crushed quartz to rock crystal. Inv. no. 18785-622/59 (Plate XLV: 2).

135. Flake. Length 22 mm, width 24 mm, thickness 6.5 mm. SGS. Inv. no. 18785-624/59.

136. Remnant core. Dimensions: 23 mm x 21.5 mm x 19.5 mm. KL I. Inv. no. 18785-625/59.

137. Flake. Length 24.5 mm, width 18 mm, thickness 6 mm. KL I. Inv. no. 18785-626/59.

138. Rock chunk. Crystalline part of quartz up to rock crystal. Inv. no. 18785-627/59.

139. Sidescraper with convex working edge. Length 35 mm, width 28 mm, thickness 11 mm. Patinated siliceous rock (chert) of unknown kind. Inv. no. 18785-628/59 (Plate XLVI: 3).

140. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-629/59.

141. Splinter. Olomučany chert. 18785-630/59.

142. Big splinter. Length 26 mm, width 22 mm, thickness 6.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-631/59.

143. Remnant splinter piece. Siliceous weathering product of serpentinite. Inv. no. 18785-632/59.

144. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-633/59.

145. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-634/59.

146. Bladelet. Length 19 mm, width 9 mm, thickness 4 mm. Olomučany chert. Inv. no. 18785-635/59.

147. Flake without distinctive butt. Length 38 mm, width 32 mm, thickness 12 mm. KL I, burnt. Inv. no. 18785-636/59.

148. Bladelet. Length 25 mm, width 9 mm, thickness 3 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-637/59.

149. Technical chunk. Olomučany chert. Inv. no. 18785-638/59.

150. Splinter. Siliceous rock, burnt. Inv. no. 18785-639/59.

151. Big splinter of laminar proportions. Length 25.5 mm, width 15.5 mm, thickness 4 mm. KL I. Inv. no. 18785-640/59.

152. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-641/59.

153. Splinter. Olomučany chert. Inv. no. 18785-642/59.

154. Splinter. KL I. Inv. no. 18785-643/59.

155. Thick splinter. Length 18.5 mm, width 15.5 mm, thickness 7 mm. SGS ?, burnt. Inv. no. 18785-644/59.

156. Splinter. Olomučany chert. Inv. no. 18785-645/59 (Plate LI: 1a/3).

157. Splinter. SGS. Inv. no. 18785-646/59.

158. Technical chunk. Siliceous rock (possibly KL I), deeply burnt. Inv. no. 18785-647/59.

159. Flake. Length 19 mm, width 17 mm, thickness 5.5 mm. Olomučany chert. Inv. no. 18785-648/59.

160. Splinter. Siliceous weathering product of serpentinite (magnetic susceptibility 0.02 x 10^{-3} Si; expertise of A. Přichystal). Inv. no. 18785-649/59.

161. Bladelet. Length 30 mm, width 13.5 mm, thickness 5 mm. Olomučany chert. Inv. no. 18785-650/59.

162. Flake. Length 15 mm, width 19 mm, thickness 5.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-651/59.

163. Splinter. Siliceous rock, deeply burnt. Inv. no. 18785-652/59.

164. Splinter. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-653/59.

165. Blade fragment. Preserved length 16.5 mm, width 17 mm, thickness 3.5 mm. Olomučany chert. Inv. no. 18785-654/59.

166. Splinter. KL I. Inv. no. 18785-655/59.

167. Irregular blade. Length 40.5 mm, width 17 mm, thickness 8 mm. Siliceous weathering product of serpentinite ? Inv. no. 18785-656/59.

168. Irregular blade. Length 34 mm, width 16.5 mm, thickness 6 mm. Siliceous rock, burnt. Inv. no. 18785-657/59.

169. Technical chunk. Olomučany chert. Inv. no. 18785-658/59 (Plate LI: 1a/4).

170. Splinter. Milky opal. Inv. no. 18785-659/59.

171. Remnant splintered piece. Length 30 mm, width 13.5 mm, thickness 5 mm. Brown-yellow opal. Inv. no. 18785-660/59.

172. Flake. Length 30 mm, width 13.5 mm, thickness 5 mm. Olomučany chert. Inv. no. 18785-661/59.

173. Splinter. Brown-yellow opal. Inv. no. 18785-663/59.

174. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-664/59.

175. Small technical chunk or splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-665/59.

176. Irregular blade. Length 30 mm, width 15 mm, thickness 12 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-666/59.

177. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-667/59.

178. Splinter. Siliceous weathering product of serpentinite. Inv. no. 18785-668/59.

179. Blade with functional retouch and sickle gloss on one lateral edge. Length 32 mm, width 11.5 mm, thickness 5 mm. Olomučany chert. Inv. no. 18785-669/59.

180. Small technical chunk or splinter. Milky opal. Inv. no. 18785-670/59.

181. Bladelet. Length 26 mm, width 13.5 mm, thickness 7 mm. KL I or KL II. Inv. no. 18785-671/59.

182. Flake. Length 24 mm, width 16.5 mm, thickness 5 mm. KL I. Inv. no. 18785-672/59.

183. Bladelet. Length 22 mm, width 13 mm, thickness 4 mm. Brown-yellow opal. Inv. no. 18785-673/59.

184. Splinter. KL I ? Inv. no. 18785-674/59.

185. Splinter. KL II. Inv. no. 18785-675/59 (Plate XLVI: 9).

186. Flake fragment. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-676/59.

187. Splinter. SGS. Inv. no. 18785-677/59.

188. Splinter. Milky opal, burnt. Inv. no. 18785-678/59.

189. Splinter. Olomučany chert. Inv. no. 18785-679/59.

190. Bladelet. Length 16 mm, width 11 mm, thickness 3.5 mm. Siliceous weathering product of serpentinite. Inv. no. 18785-680/59.

191. Bladelet fragment. Preserved length 18 mm, width 10 mm, thickness 2 mm. Brown-yellow opal. Inv. no. 18785-681/59.

192. Flake fragment. SGS. Inv. no. 18785-682/59.

193. Splinter. Siliceous rock (possibly KL), burnt. Inv. no. 18785-683/59.

194. Small technical chunk. Siliceous rock (chert), burnt. Inv. no. 18785-684/59.

195. Tiny splinter. Length 9.5 mm, width 7 mm, thickness 1.5 mm. Siliceous weathering product of serpentinite, burnt. Inv. no. 18785-685/59.

196. Flake. Length 30.5 mm, width 22 mm, thickness 5 mm. Olomučany chert. Inv. no. 18785-686/59.

197. Very wide splinter. Length 12 mm, width 35 mm, thickness 4 mm. Spilite tuff ? Inv. no. 18785-687/59.

198. Fan-shaped flake. Length 22 mm, width 35.5 mm, thickness 8 mm. Spilite tuff. Inv. no. 18785-688/59.

199. Fan-shaped flake. Length 20 mm, width 30 mm, thickness 6 mm. Spilite tuff ? Inv. no. 18785-689/59.

200. Flake detached from a polished tool. Length 39 mm, width 30 mm, thickness 5 mm. Spilite tuff ? Inv. no. 18785-690/59.

201. Blade fragment of polished axe. Spilite tuff ? Inv. no. 18785-691/59.

202. Diminutive polished axe. Length 46 mm, width 21 mm, thickness 9 mm. Metabasite up to amphibolite. Inv. no. 18785-692/59.

Collection: Museum Třebíč.
Literature: Medunová 1977; Medunová-Benešová 1977a.

34. Zlín-Prštné, Zlín district
Site: *Nad rybníky* (*Sýkorník*).
Find character: accidental (in 1958).
Cultural affiliation: Globular Amphora culture ?, possibly import into the Bošáca milieu.

1. Axe of trapezoid outline, slightly polished. Dimensions: length 71 mm, width at blade and butt 33 and 22 mm, thickness 195 mm, weight 73g. Banded silicite of the Krzemionki Opatowskie type (after Dohnal 1973, 8: *pruhovaný rohovec*). Inv. no. 3769 (Plate XLVII: 2).

Collection: Museum Zlín.
Literature: Dohnal 1973, 8, obr. 3: 2; Langová 1995, 109; Přichystal, Šebela 2003, 158; *iidem* 2004, 11, Fig. 4: 3.

5.2. Young Eneolithic – Eastern Bohemia

35. Obědovice, Hradec Králové district
Site: *Požáry.*
Find character: settlement site.
Cultural affiliation: Bošáca culture.

During a rescue research in 1996 on the multicultural site two settlement features (3/96 and 60/96)

of the Bošáca culture were excavated. The third feature of the same culture (227/99) was discovered in 1999.

Feature 60/1996

1. Blade fragment with utilization retouch. Preserved length 23 mm, width 17 mm, thickness 5 mm. SGS (after Kalferst, Prostředník 1998, 595: *silicit*). Packet no. 384/96 (Plate XLVIII: 4).

2. Blade fragment reshaped as endscraper. Length 18 mm, width 14 mm, thickness 6 mm. SGS (after Kalferst, Prostředník 1998, 595: *silicit*). Packet no. 384/96 (Plate XLVIII: 2).

3. Blade, partially cortical. Length 50 mm; width 20 mm, width 3 mm. SGS, probably Danian (after Kalferst, Prostředník 1998, 595: *silicit*). Packet no. 384/96 (Plate XLVIII: 1).

Feature 227/1999

1. Blade with two retouched truncations (trapeze). Probably Jurassic silicite from the Cracow-Częstochowa Upland (after Kalferst, Prostředník 2000, 509: *silicit*). Packet no. 266 (Plate L: 1).

2. Irregular blade. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate L: 2).

3. Flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 4).

4. Laminar flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 2).

5. Sidescraper on thick flake formed with semi-flat retouch. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 7).

6. Flake fragment. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate L: 4).

7. Massive flake with traces of utilization retouch on one lateral edge. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 6).

8. Sidescraper on massive flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 9).

9. Massive flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 5).

10. Sidescraper on massive flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 1).

11. Flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 3).

12. Flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 5).

13. Irregular blade. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 266 (Plate IL: 8).

14. Core for flakes with traces of crest preparation on one side. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 302 (Plate XLVIII: 9).

15. Pre-core form of rectangular cross-section, with traces of crest preparation on one side. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 302 (Plate L: 7).

16. Technical chunk of irregular (not pre-shaped) core for flakes. Flake with marginal retouch. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 302 (Plate L: 6).

17. Flake with wide flat butt. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 303 (Plate L: 3).

18. Splinter. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 303 (Plate L: 5).

19. Flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000,

509: *porcelanit typu Kunětická hora*). Packet no. 303 (Plate XLVIII: 3).

20. Massive flake. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*). Packet no. 303 (Plate XLVIII: 7).

21. Blade. Porcellanite from Kunětická hora near Pardubice (after Kalferst, Prostředník 2000, 509: *porcelanit typu Kunětická hora*. Packet no. 303 (Plate XLVIII: 5).

22. Pebble fragment. Reddish quartz. Packet n. 264.

23. Technical chunk. Non-calcareous silty claystone. Packet no. 264.

In addition:
Structure 23/1996

A Axe of trapezoidal outline, with damaged blade and butt. On one side microscopically visible traces of reddish dye. Length 65 mm, width 38 mm, thickness 12 mm. Metabasite of the Jizerské hory type (after Kalferst, Prostředník 1998, 594: *krystalická břidlice*). Packet no. 54 (Plate XLVIII: 8).

B Fragment of a polished artifact, possibly of axe. Length 46 mm, width 38 mm, thickness 6 mm. Probably metabasite of the Jizerské hory type (after Kalferst, Prostředník 1998, 594: *krystalická břidlice*). Packet no. 52 (Plate XLVIII: 6).

Collection: Museum Hradec Králové.
Literature: Kalferst, Prostředník 1998, 594, 595, obr. 7: 1-3 (Feature 60/96), 4 (Feature 23/96); Kalferst, Prostředník 2000 (Feature 227/99); Vokolek, Zápotocký 1990.

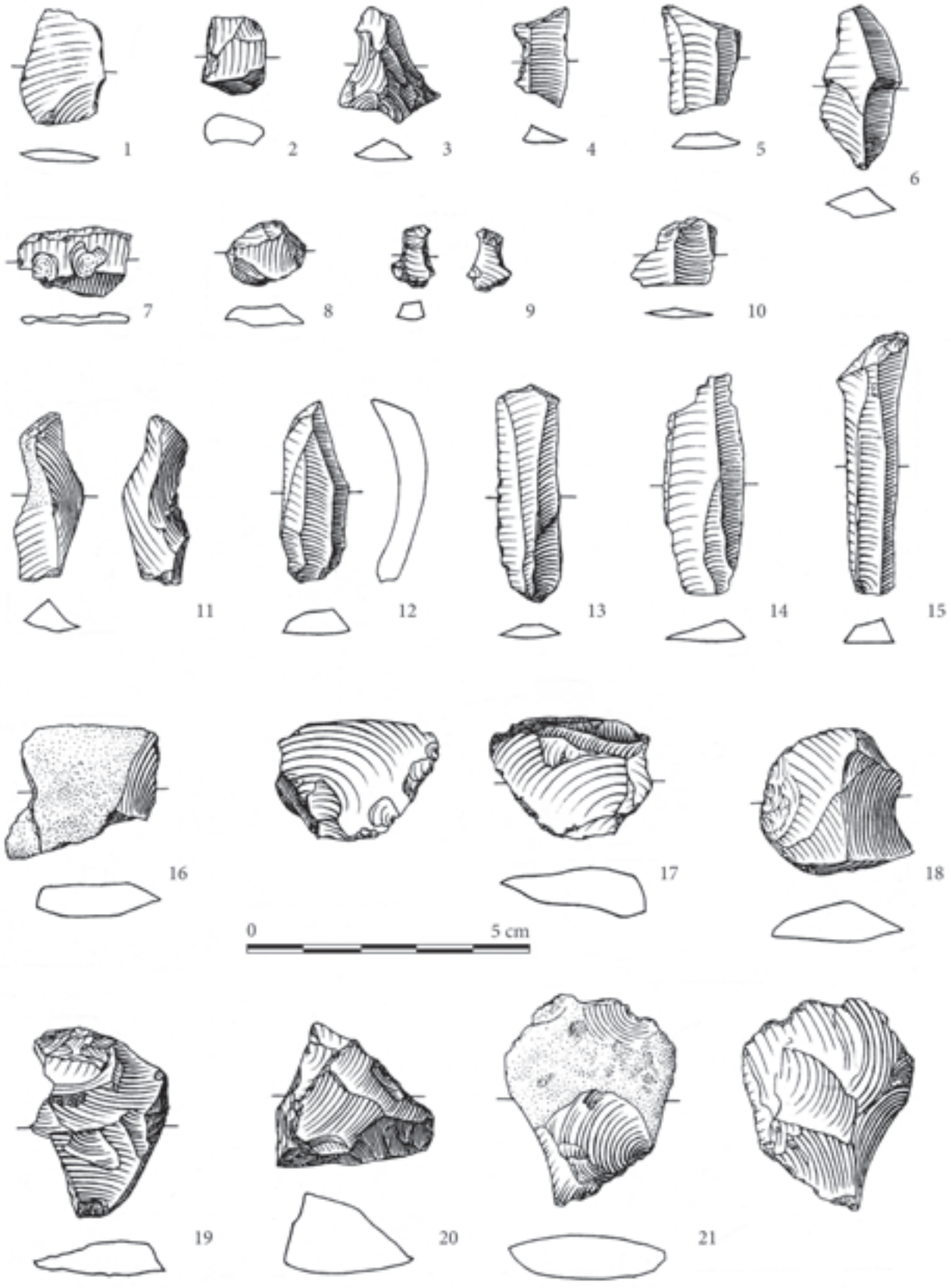


Plate I. Bánov, Uherské Hradiště district: 1-21 – lithic chipped artifacts from the layer of the Bošáca culture (research 1943). Drawn by J. Brenner.

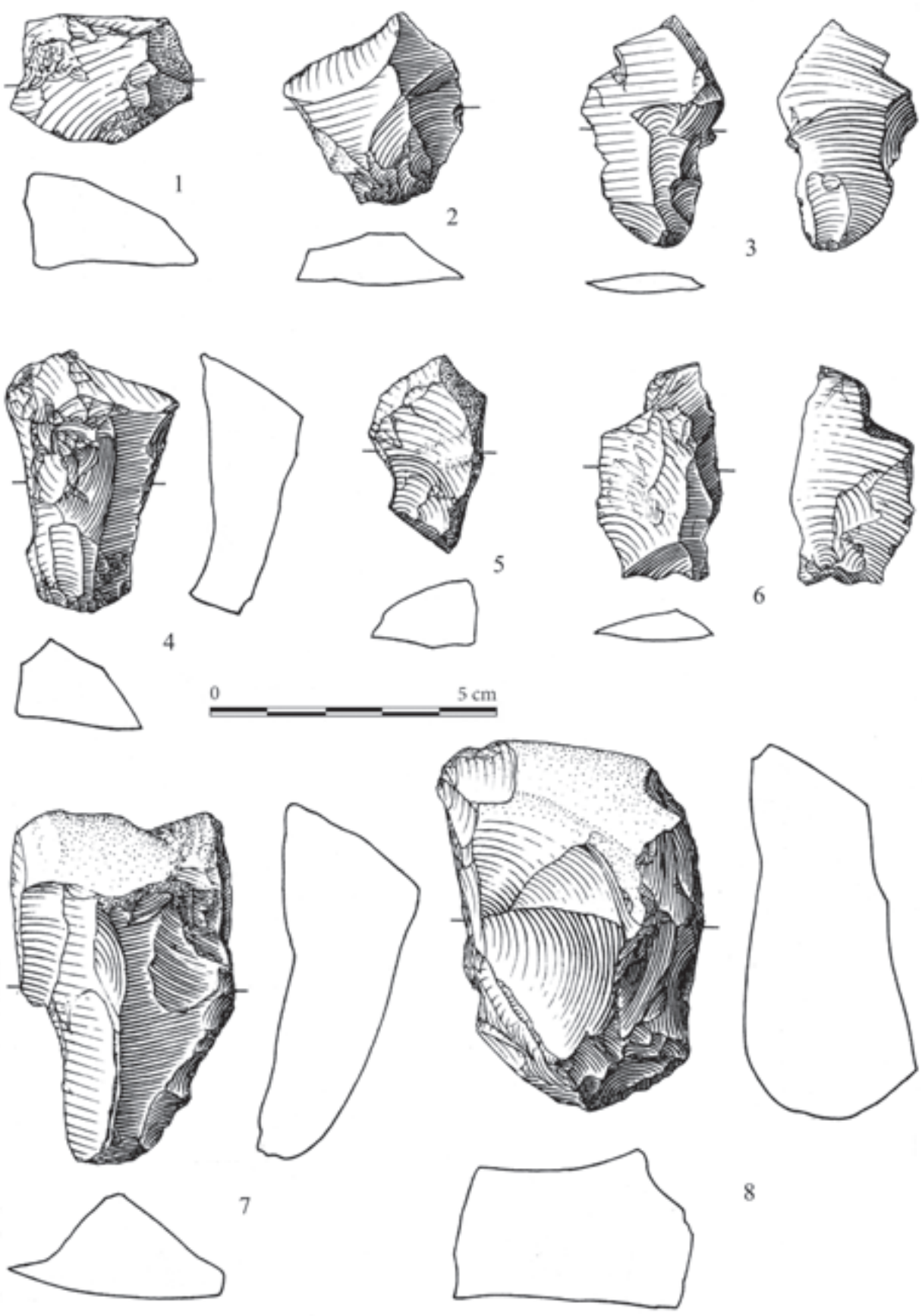


Plate II. Bánov, Uherské Hradiště district: 1-8 – lithic chipped artifacts from the layer of the Bošáca culture (research 1943). Drawn by J. Brenner.

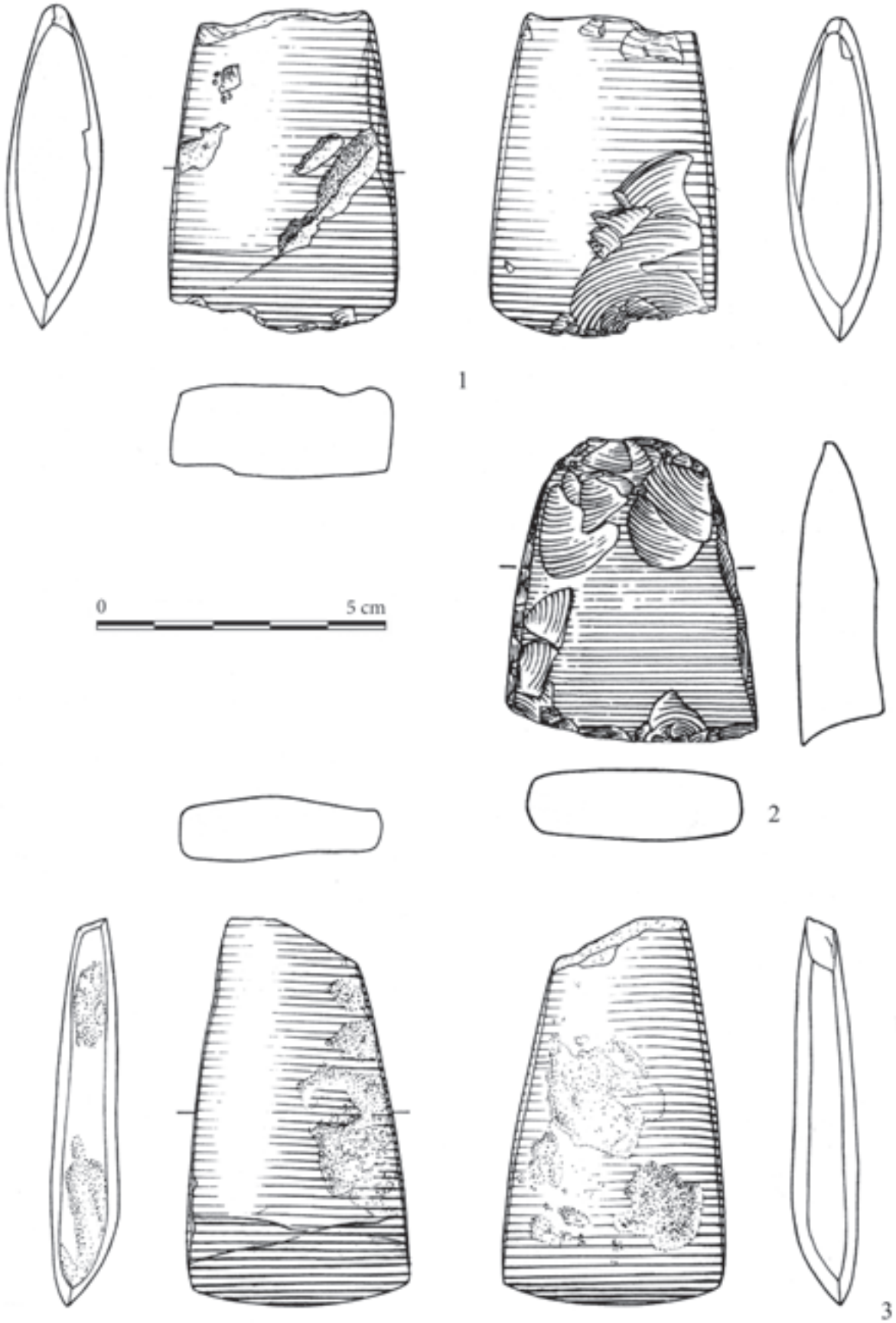


Plate III. Bánov, Uherské Hradiště district: 1-3 – lithic chipped artifacts from the layer of the Bošáca culture (research 1943). Drawn by J. Brenner.

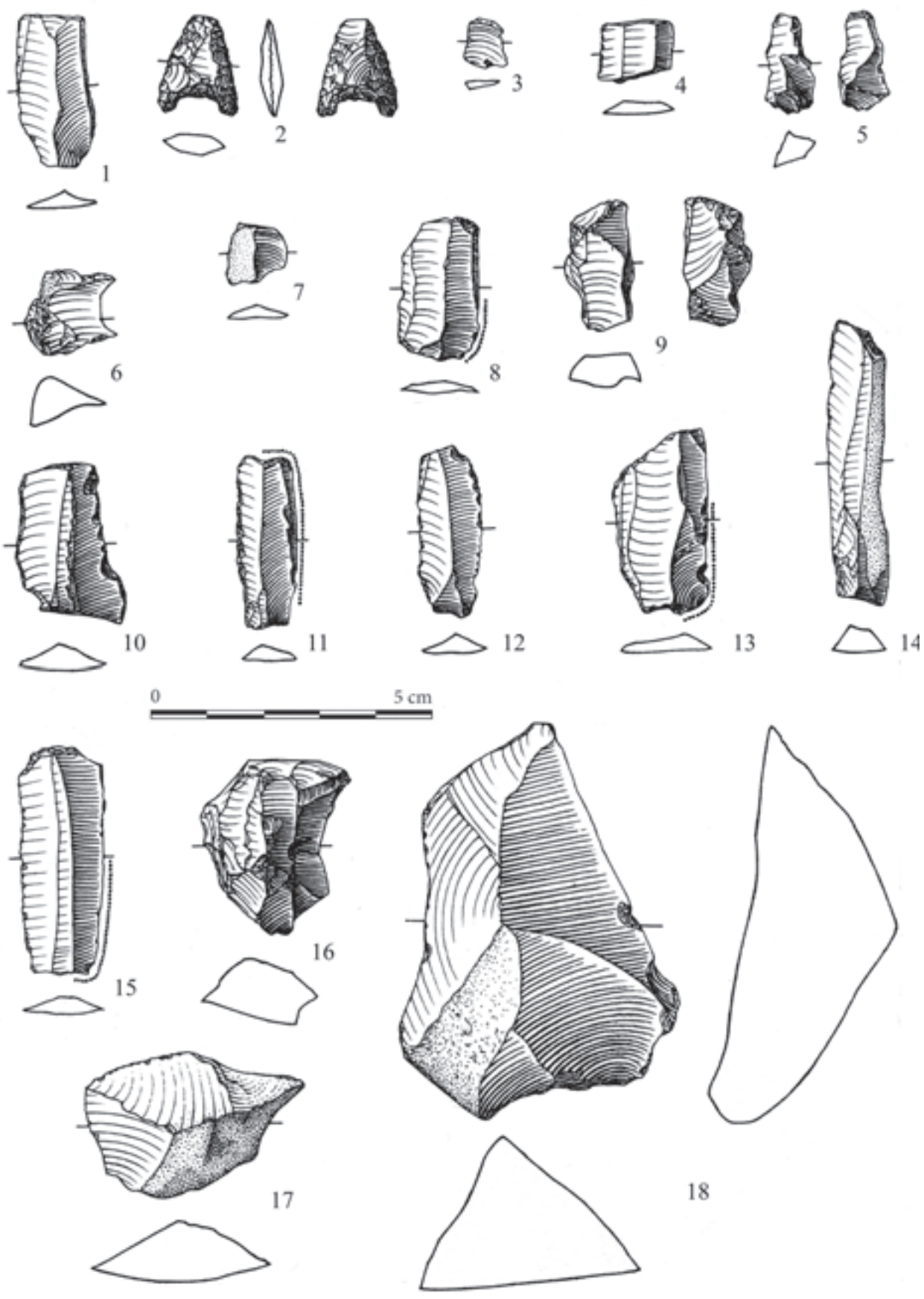


Plate IV. Bánov, Uherské Hradiště district: lithic chipped artifacts from the layer of the Bošáca culture (1-17 – research 1951; 18 – research 1943). Drawn by J. Brenner.

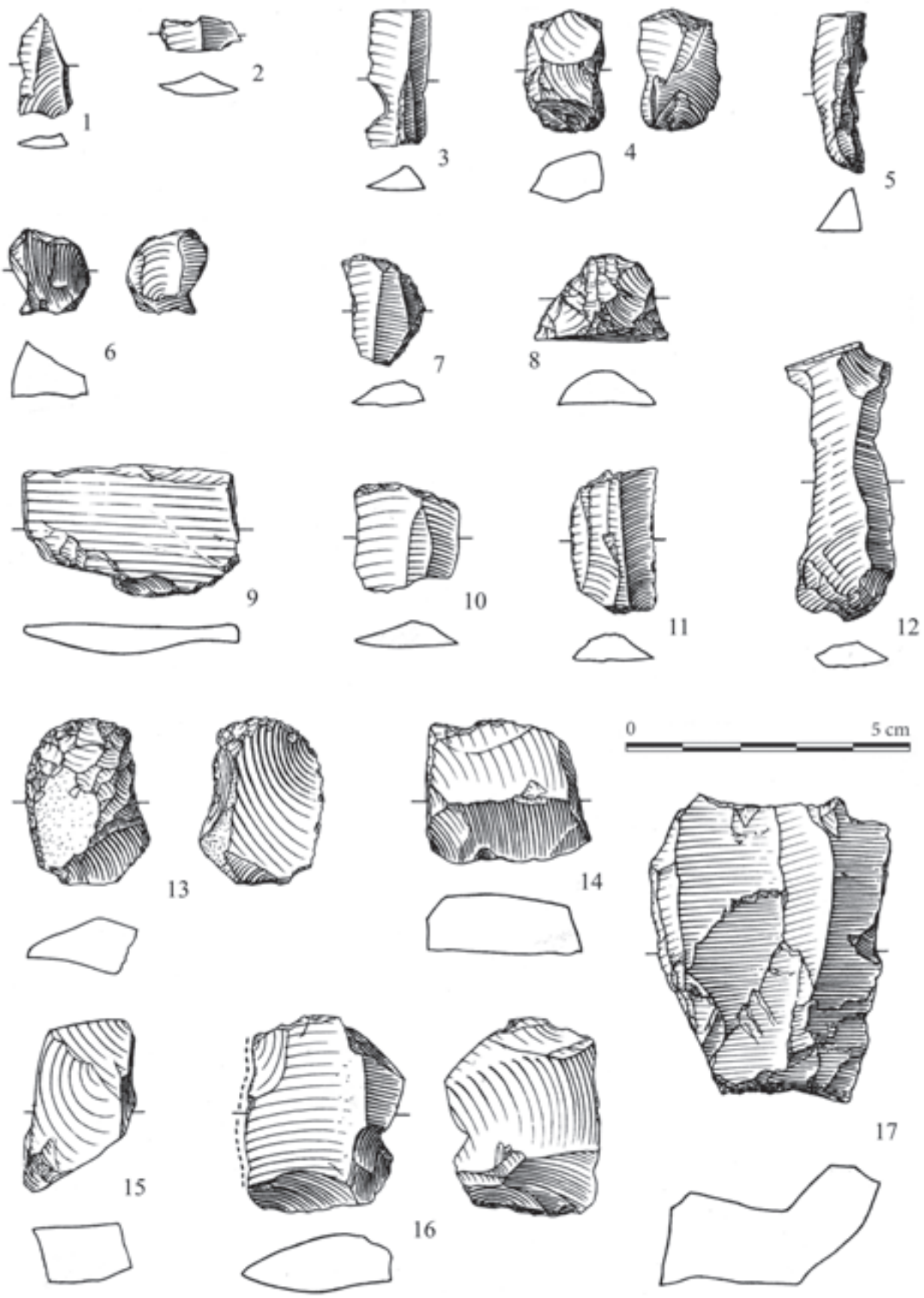


Plate V. Bánov, Uherské Hradiště district: chipped artifacts from the layer of the Bošáca culture (1-7, 9, 11, 17 – research 1948; 8, 10, 12-15 – research 1960/1961; 16 – structure P 2/60). Drawn by J. Brenner.

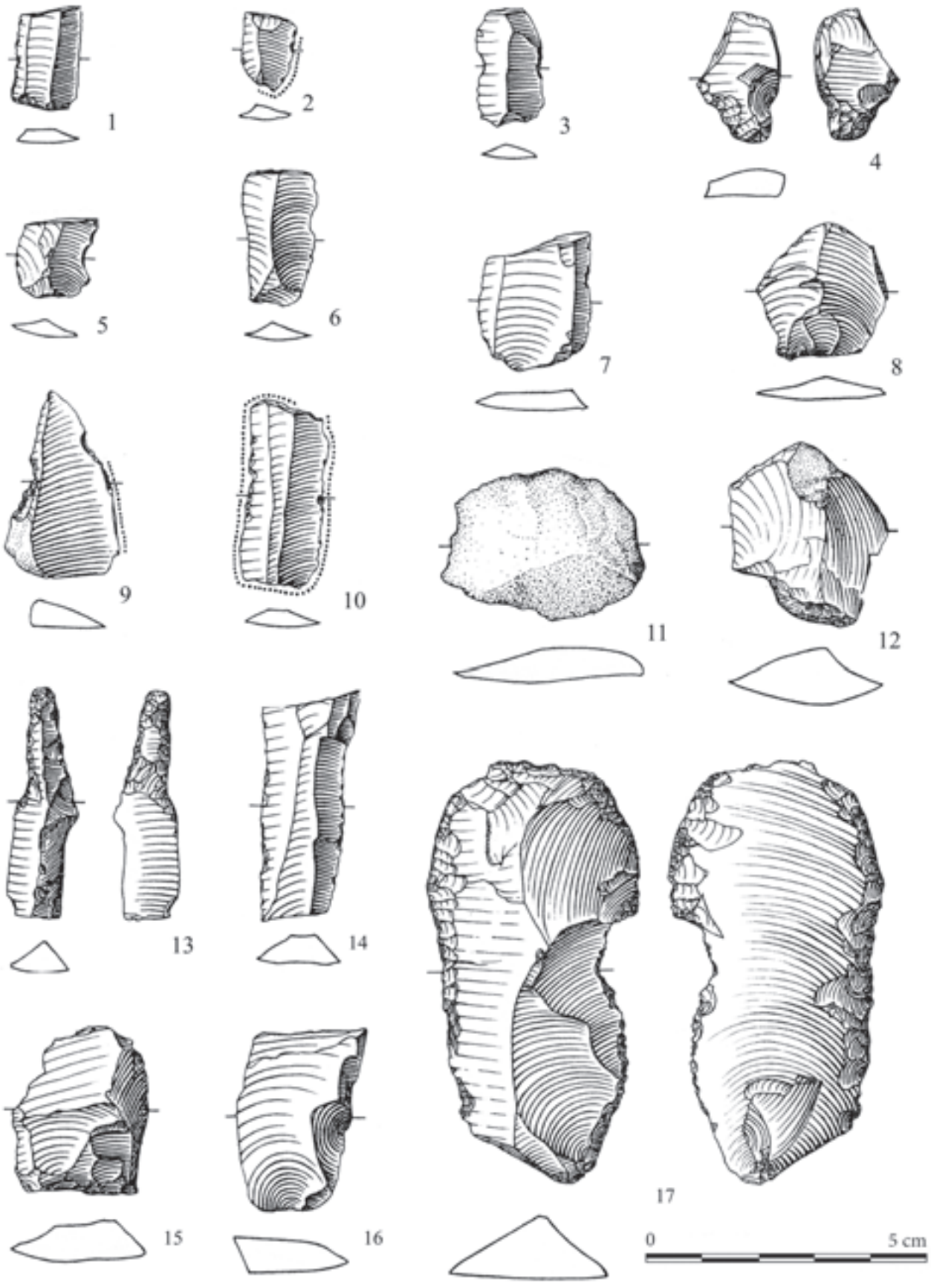


Plate VI. Bánov, Uherské Hradiště district: 1-17 – lithic chipped artifacts from the layer of the Bošáca culture (1-16 – research 1960-1961; 17 – research 1943). Drawn by J. Brenner.

Plate VII. Brno-Líšeň, Brno-město district: 1-11 – lithic chipped artifacts of the Jevišovice culture from the Layer I (after Medunová-Benešová 1964).

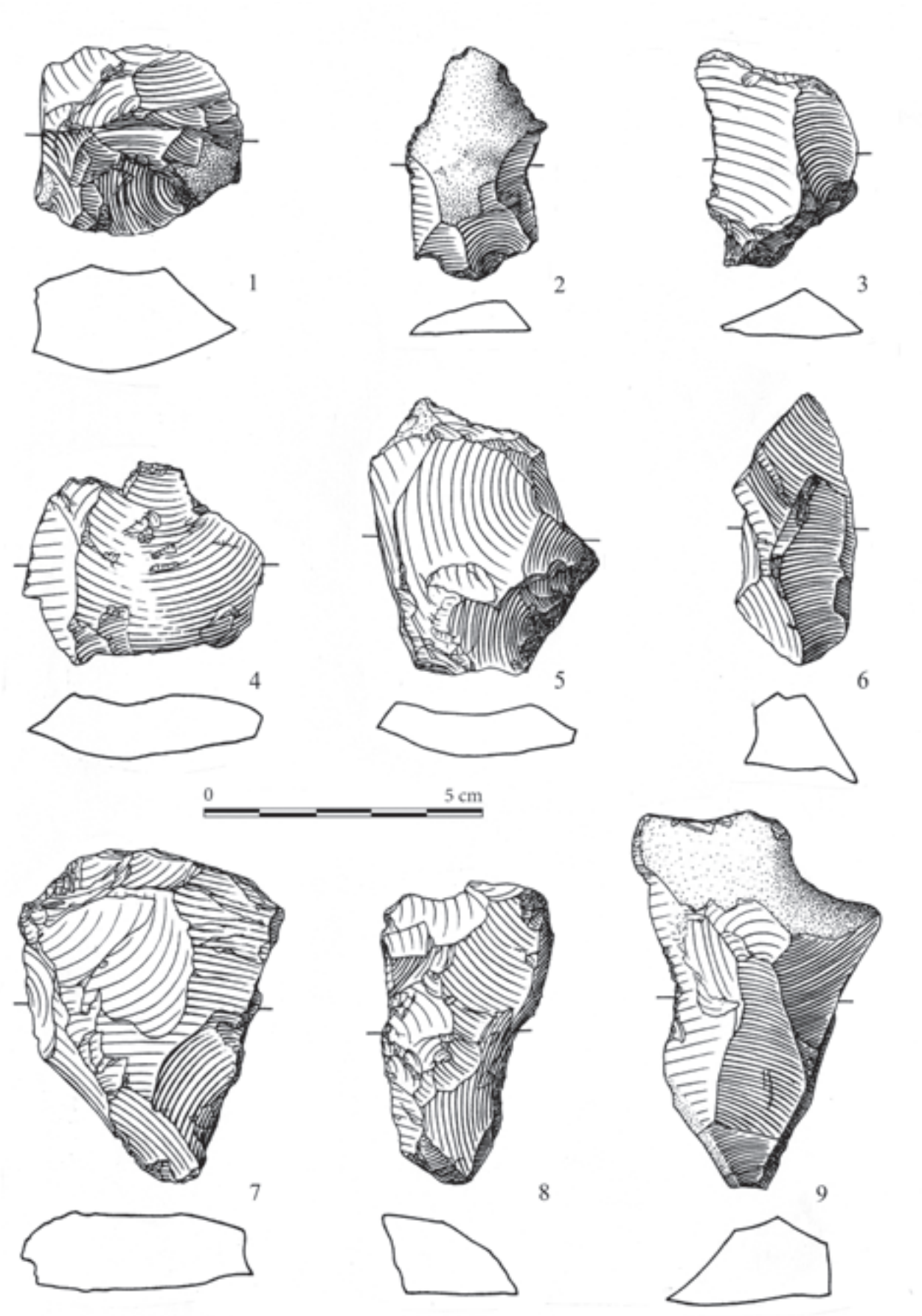


Plate VIII. Brno-Líšeň, Brno-město district: 1-9 – lithic chipped artifacts of the Jevišovice culture from the Layer I. Drawn by J. Brenner.

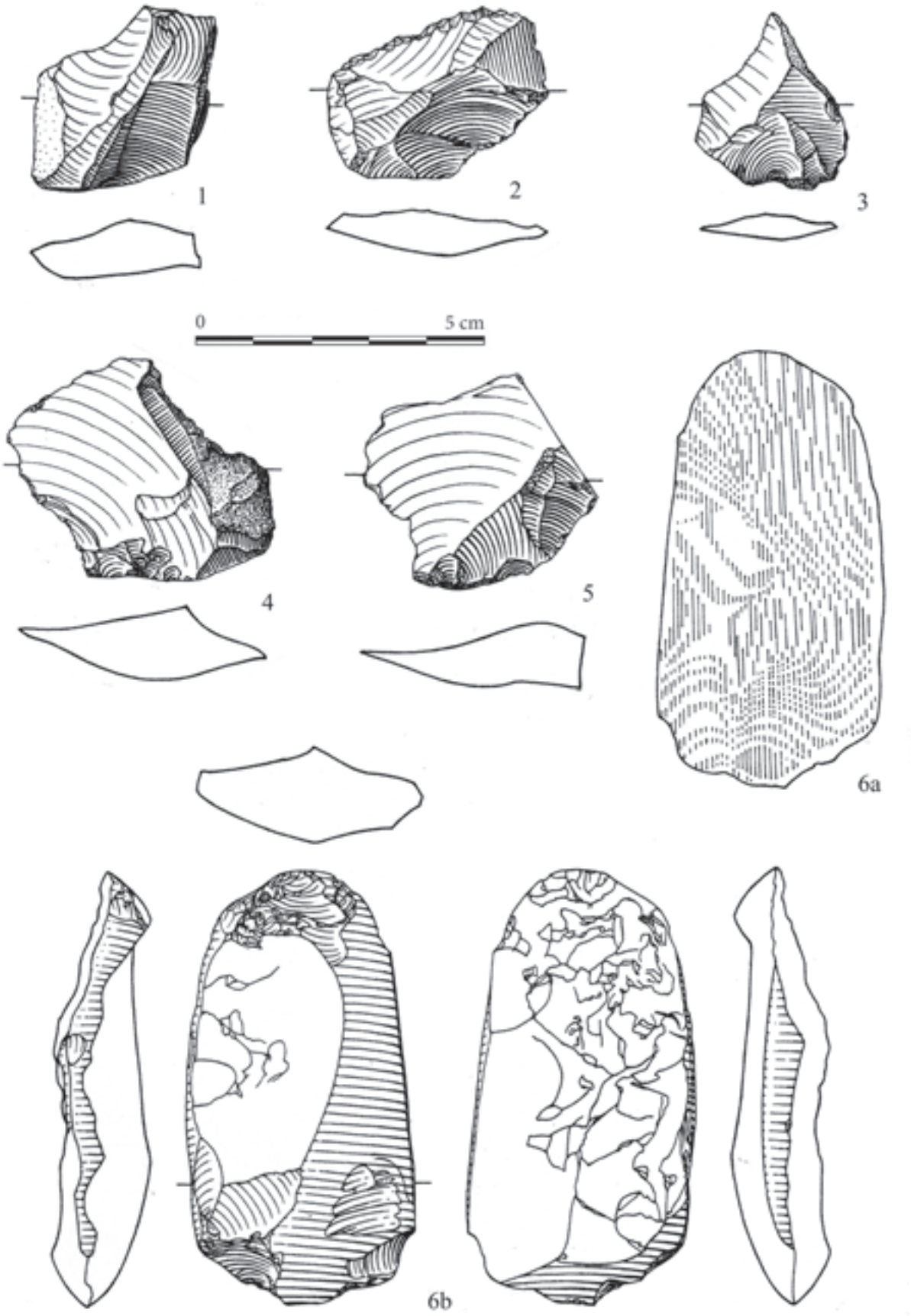


Plate IX. Brno-Líšeň, Brno-město district: 1-6 ab – lithic chipped artifacts of the Jevišovice culture from the Layer I. Drawn by J. Brenner.

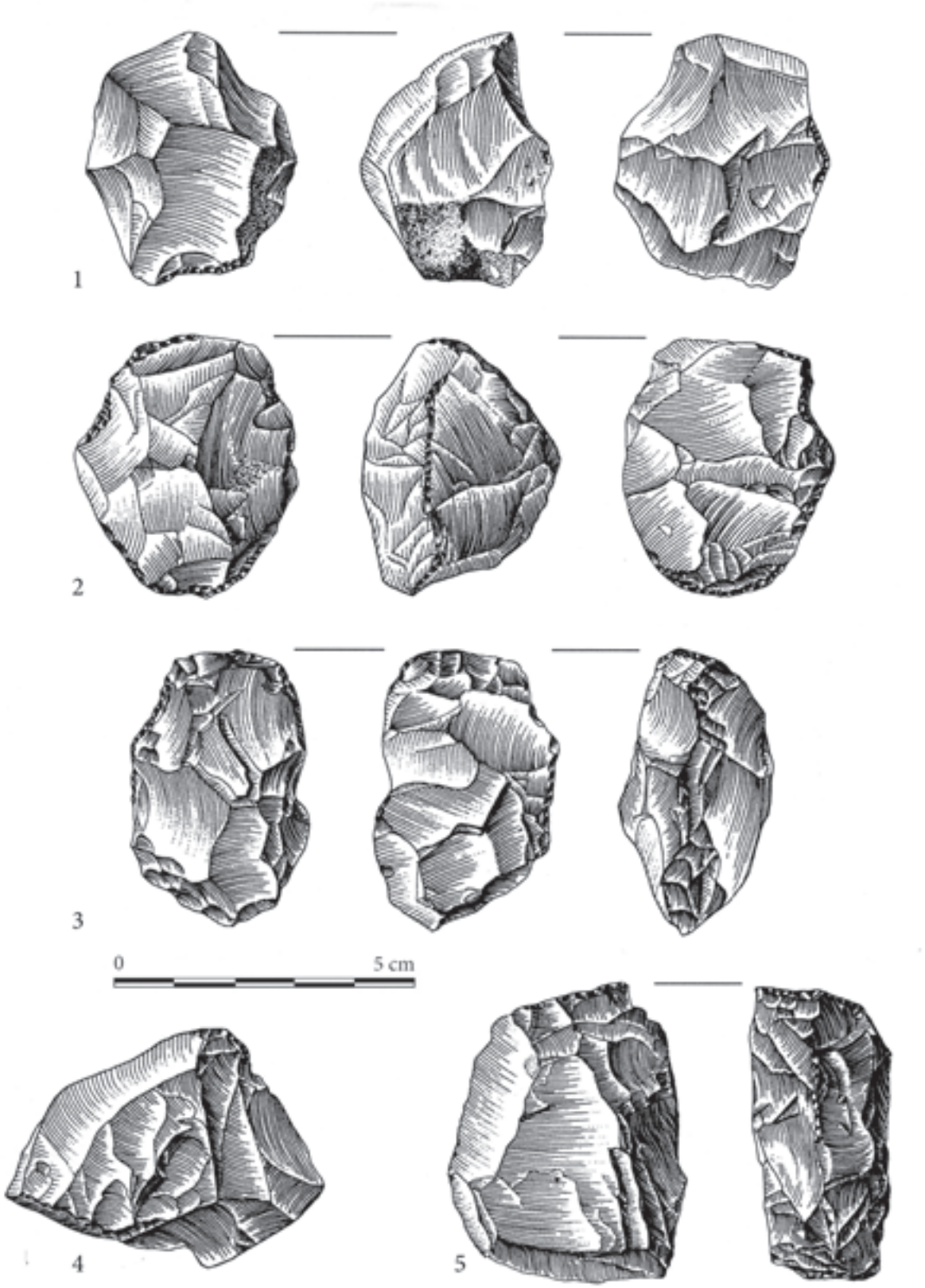


Plate X. Brno-Maloměřice, Brno-město district: 1-5 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

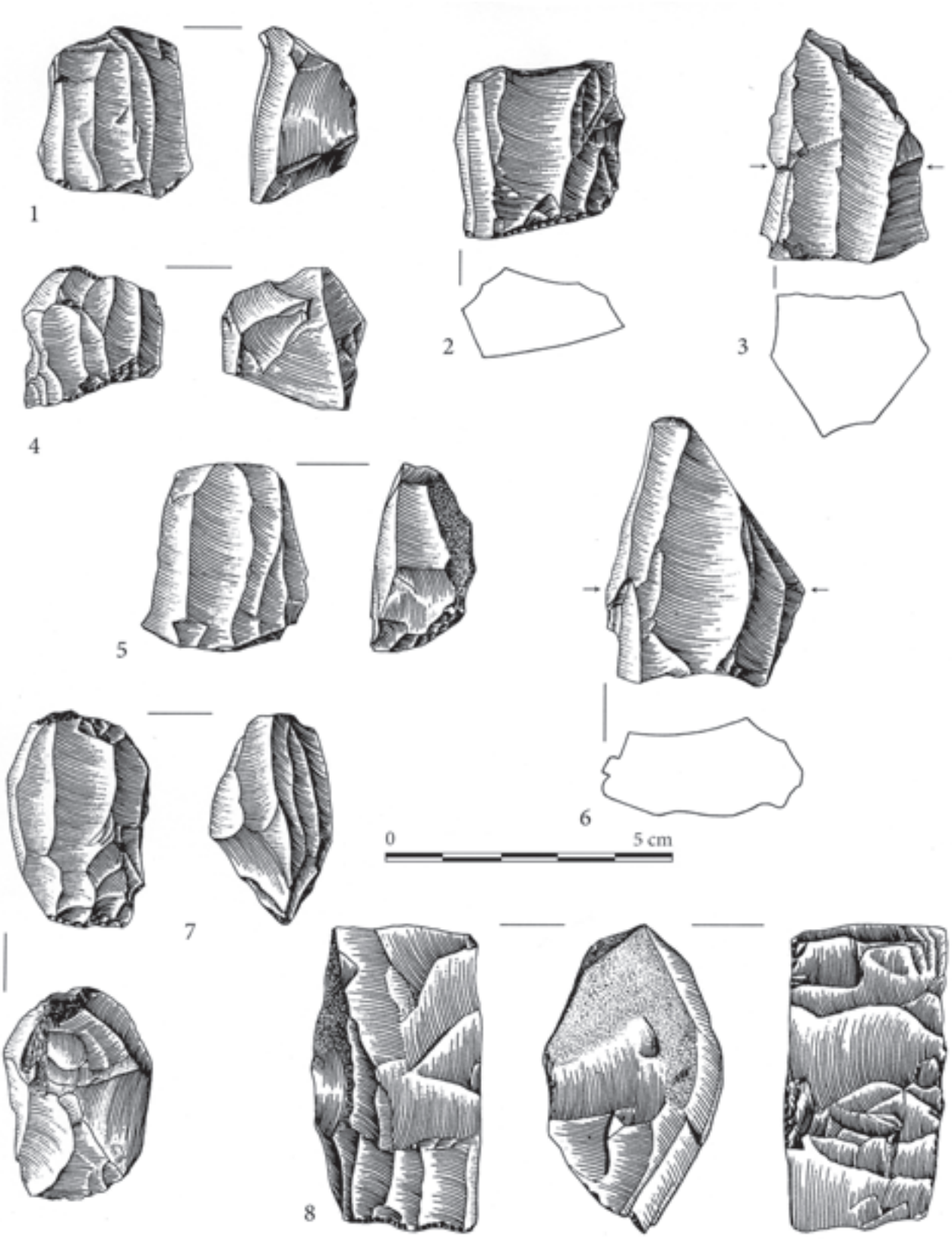


Plate XI. Brno-Maloměřice, Brno-město district: 1-8 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

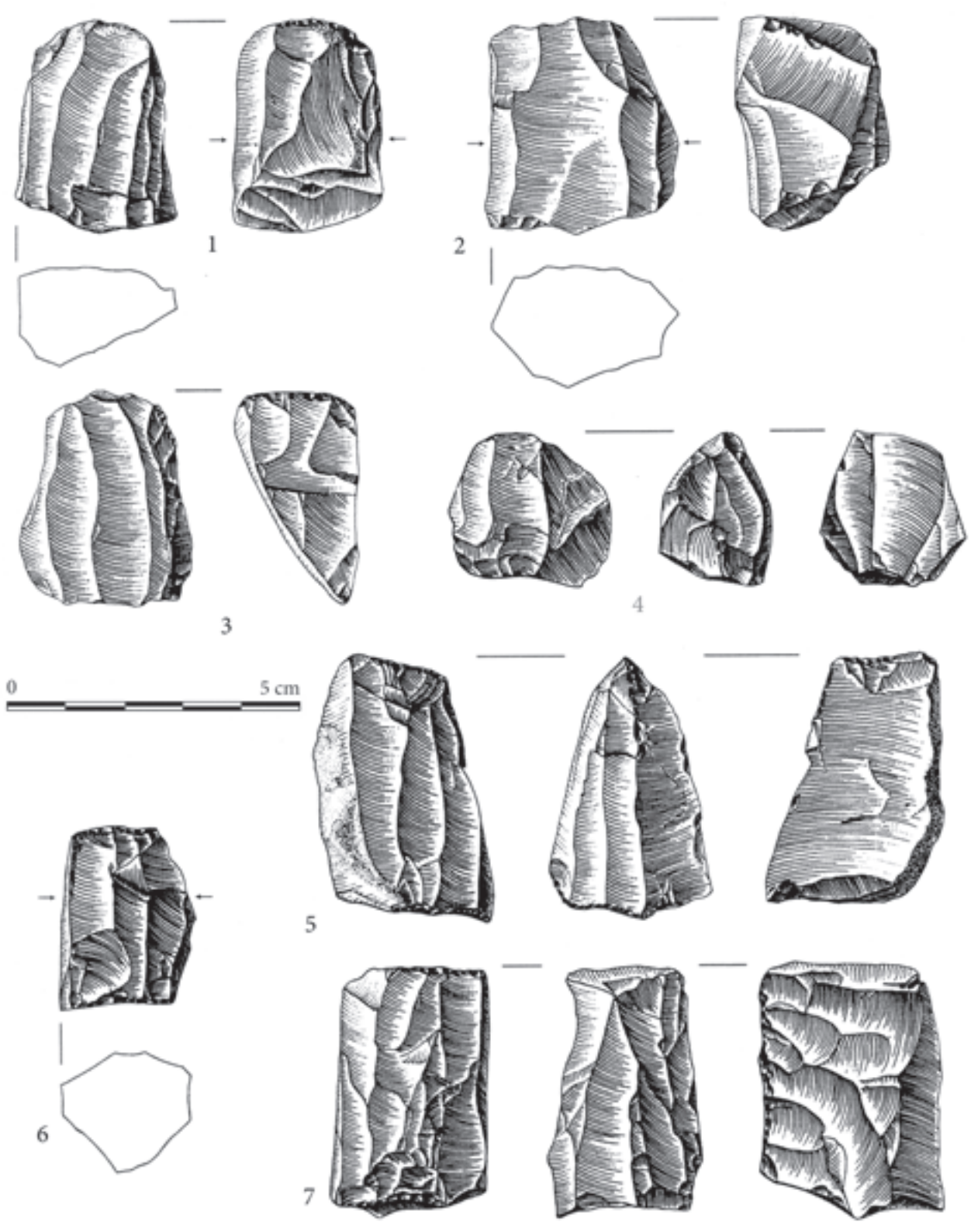


Plate XII. Brno-Maloměřice, Brno-město district: 1-7 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

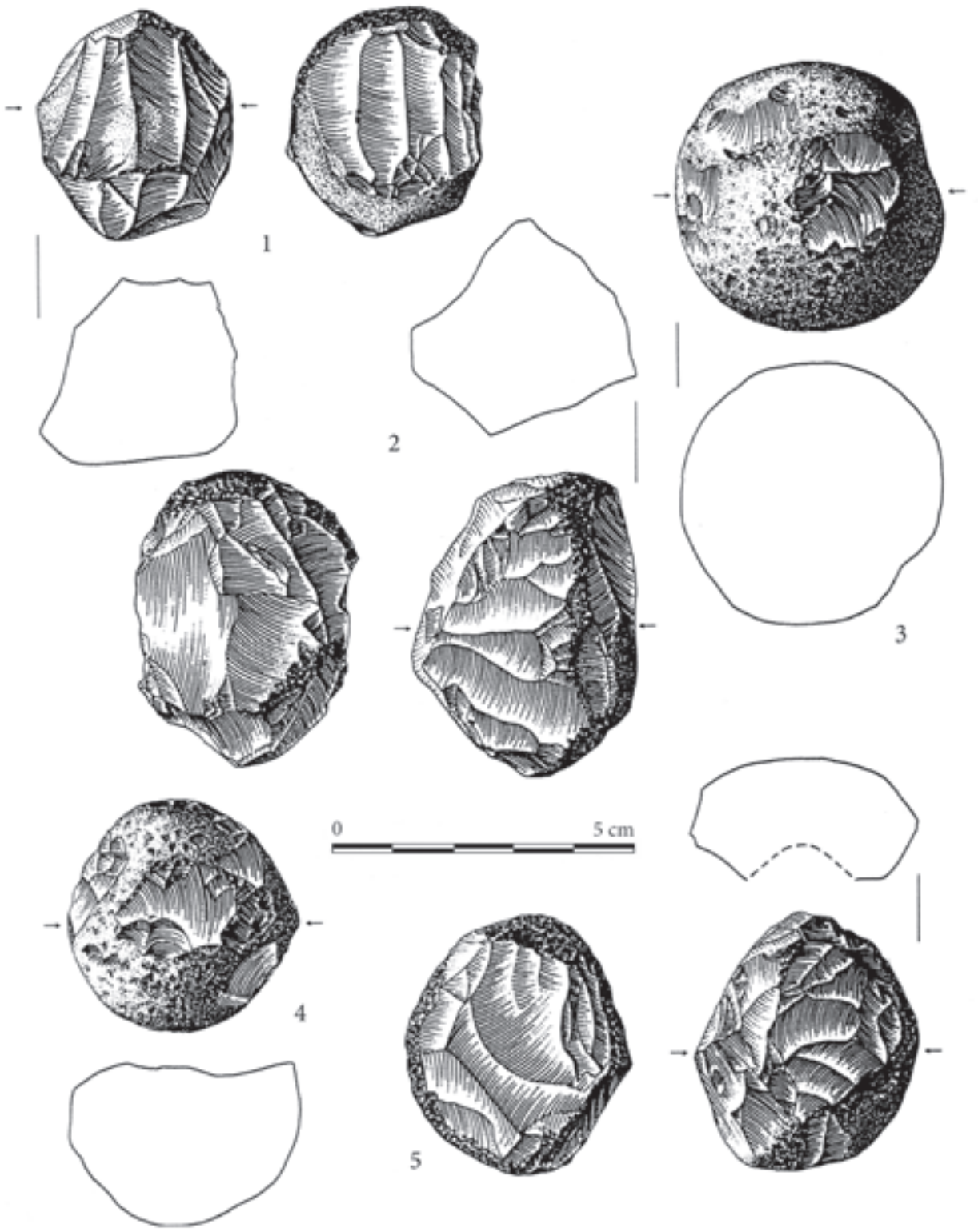


Plate XIII. Brno-Maloměřice, Brno-město district: 1-5 – lithic chipped artifacts from cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

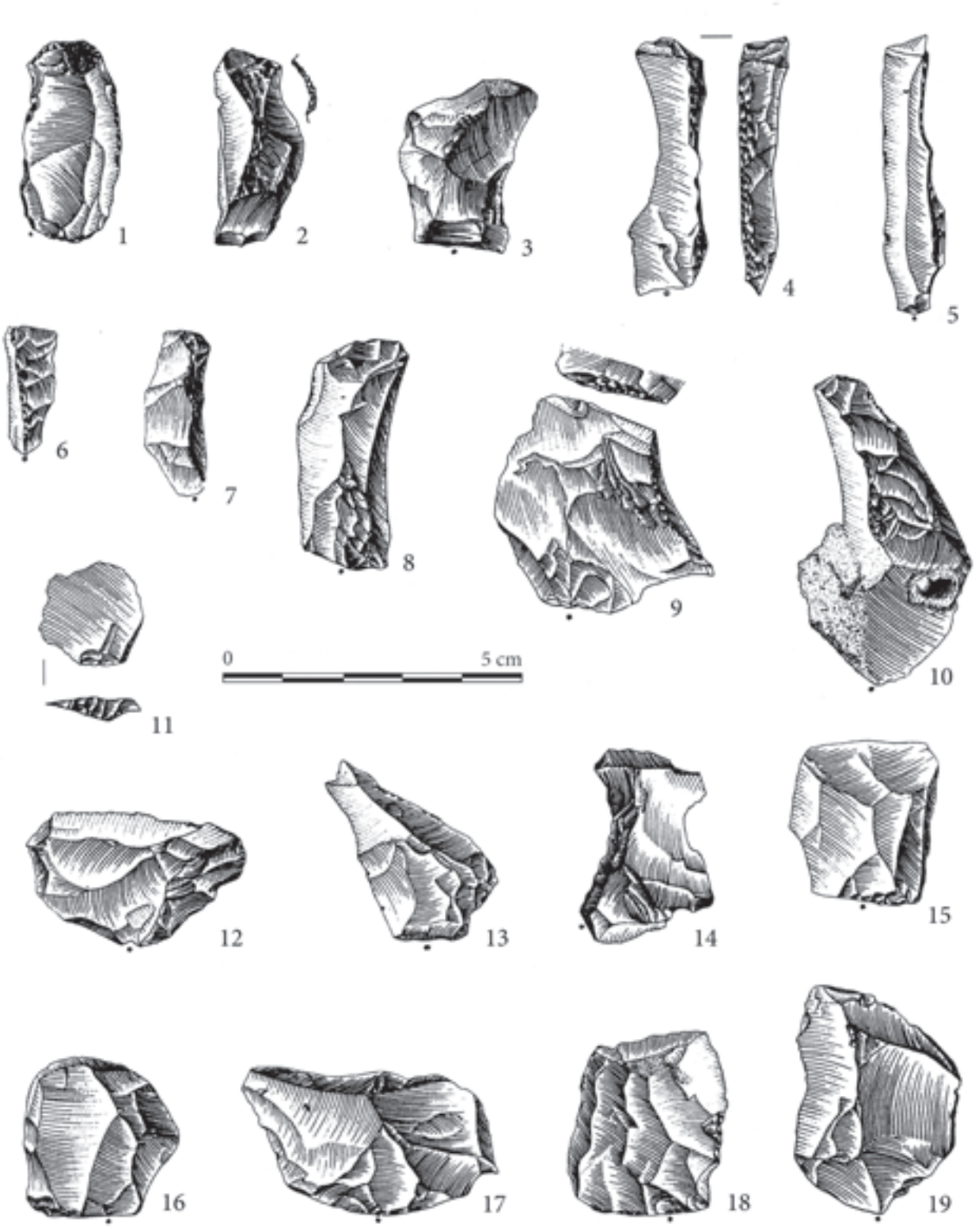


Plate XIV. Brno-Maloměřice, Brno-město district: 1-19 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

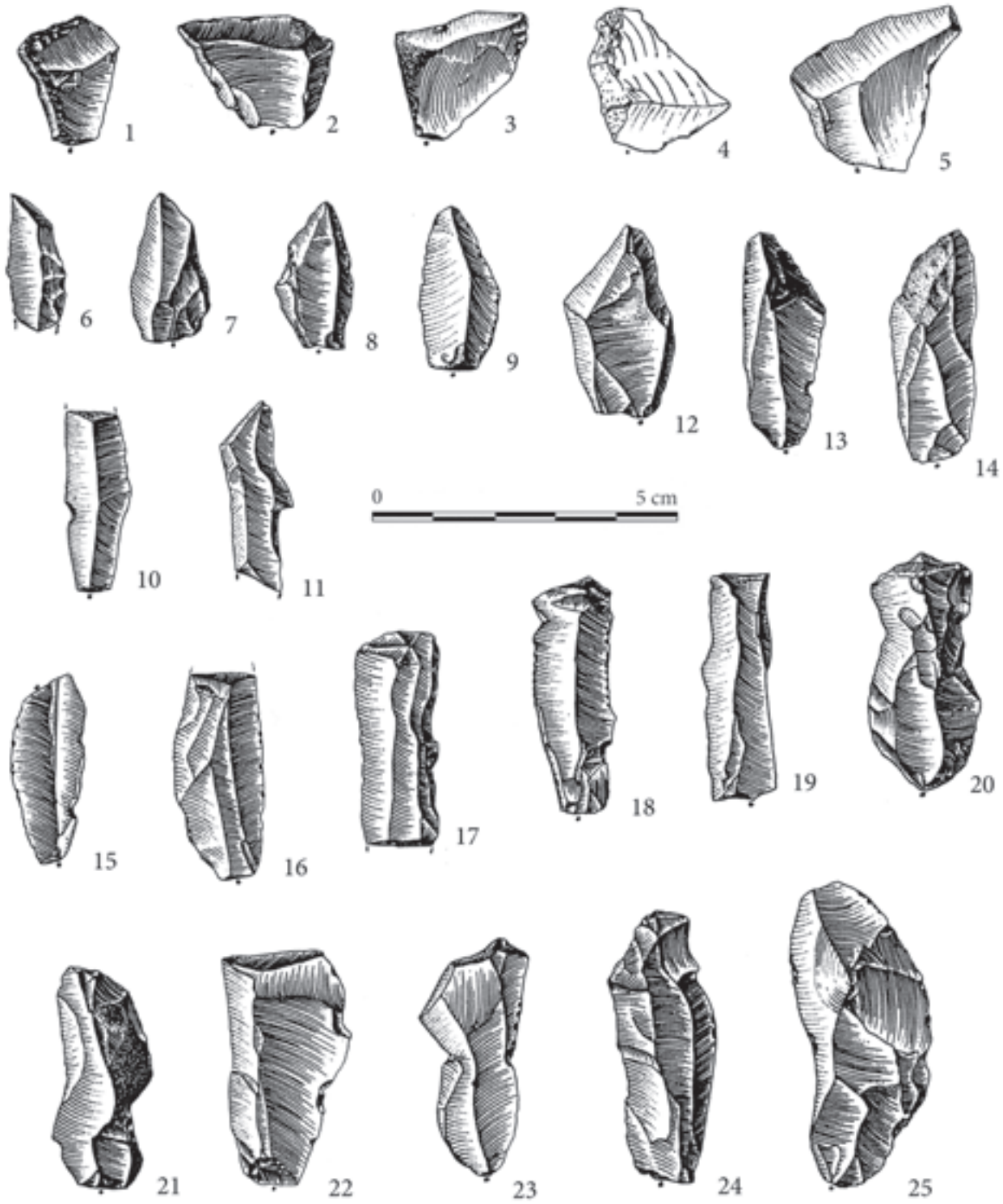


Plate XV. Brno-Maloměřice, Brno-město district: 1-25 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

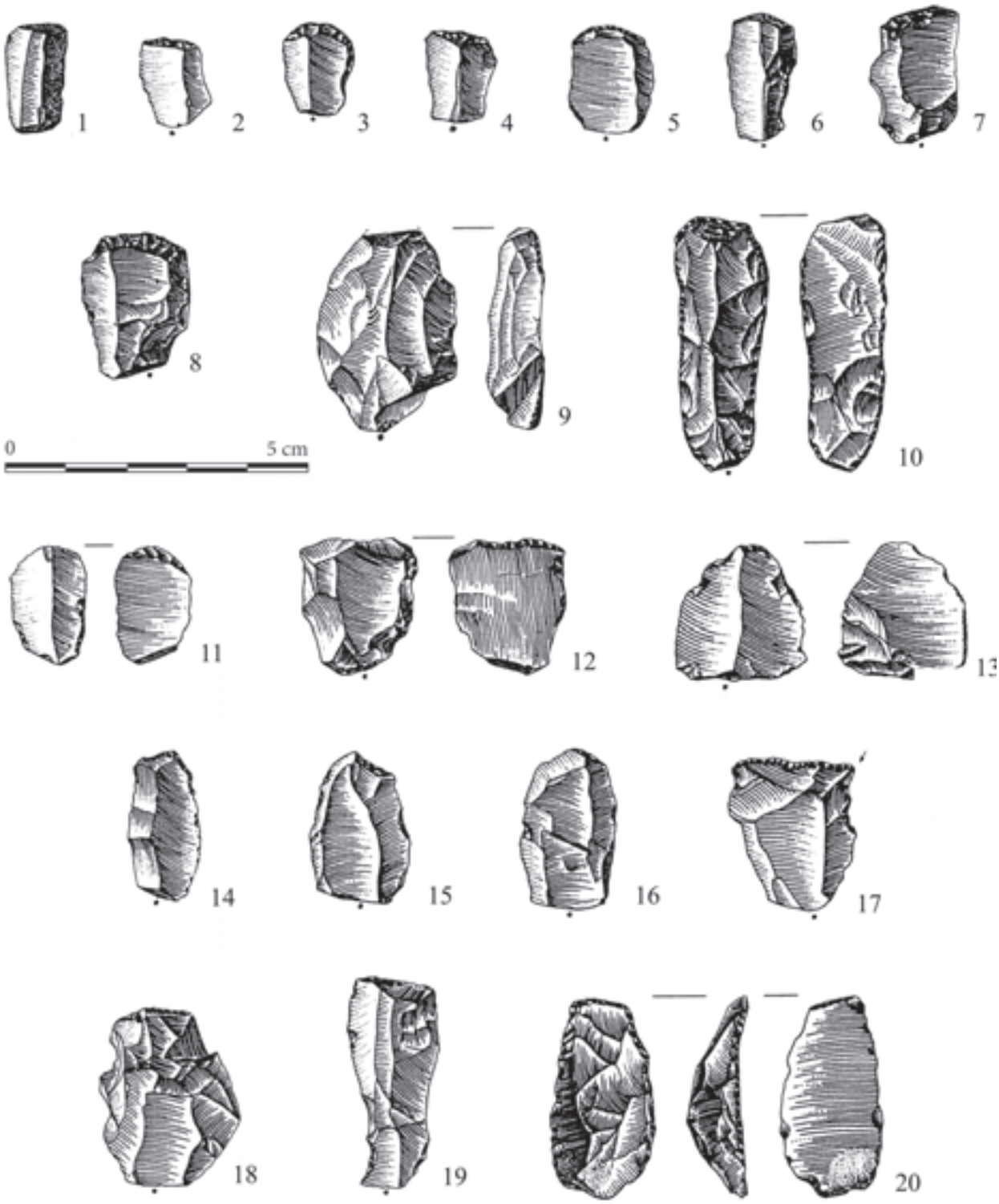


Plate XVI. Brno-Maloměřice, Brno-město district: 1-20 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

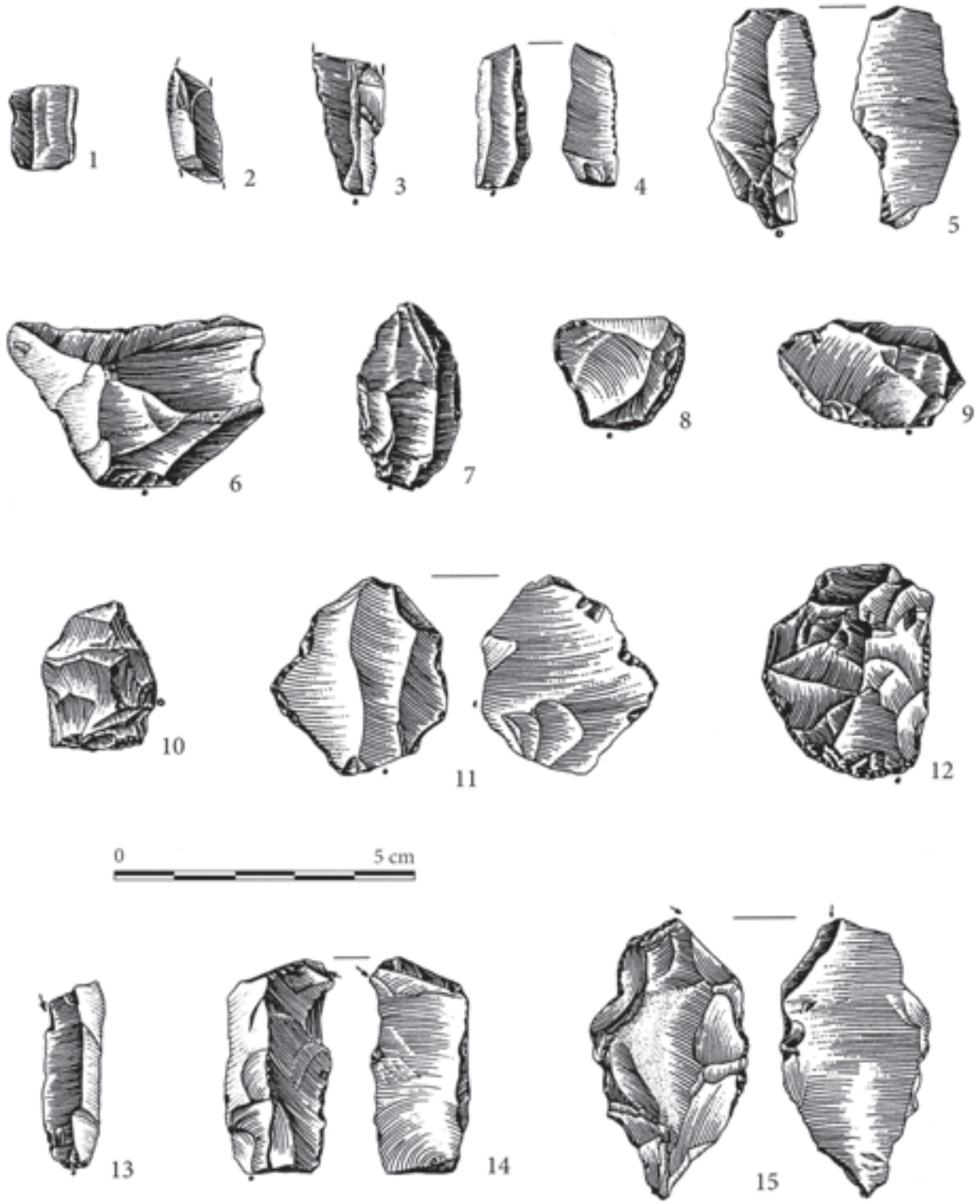


Plate XVII. Brno-Maloměřice, Brno-město district: 1-15 – lithic chipped artifacts from the cultural layer of the Jevišovice culture (after Valoch, Šebela 1995).

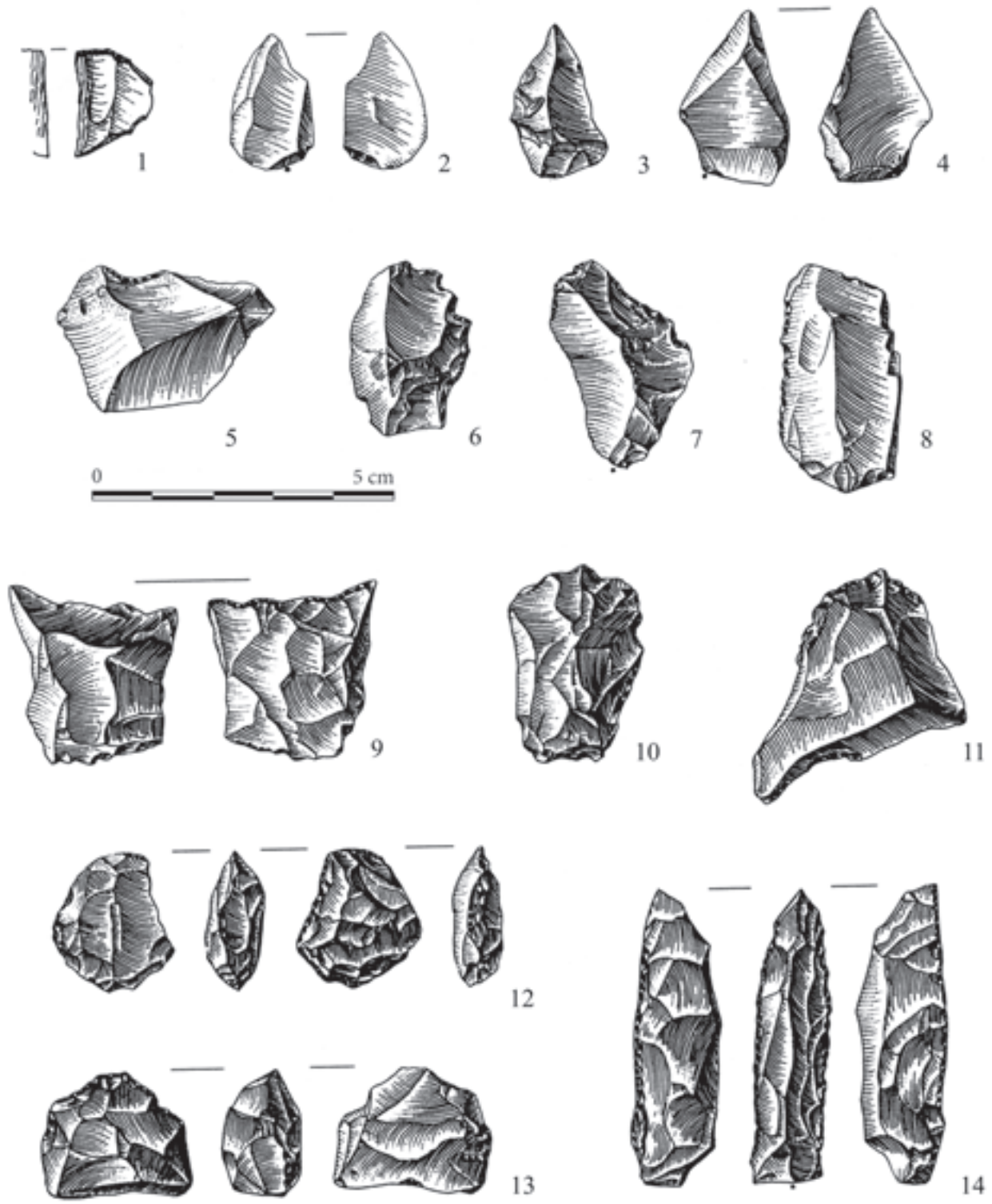


Plate XVIII. Brno-Maloměřice, Brno-město district: 1-14 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

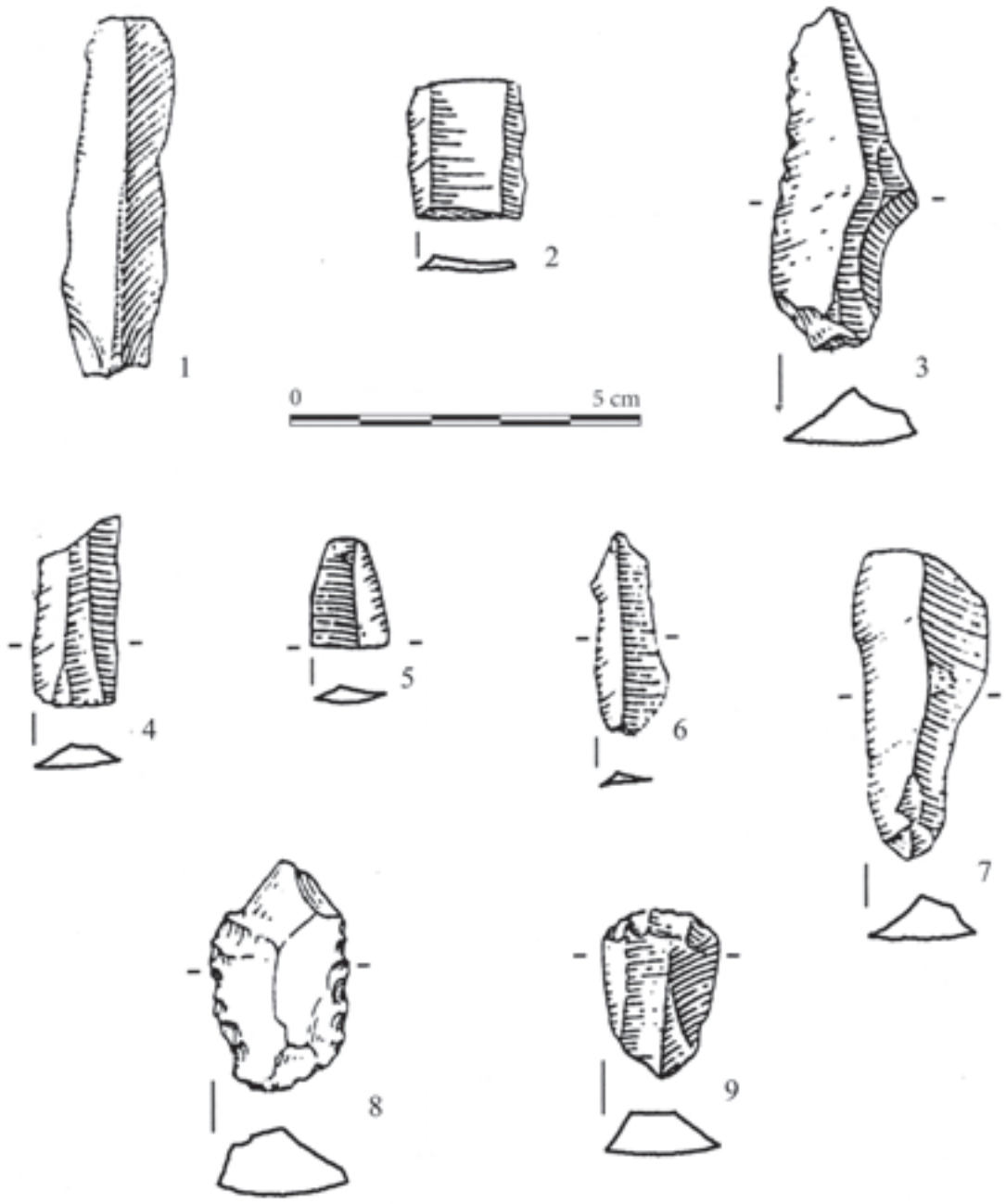


Plate XIX. Brno-Starý Lískovec, Brno-město district: lithic chipped artifacts from the structures of the Jevišovice culture: 1 – structure 2/89; 2 – structure 35/89; 3 – structure 40/89; 4 – feature 48/89; 5 – structure 51a/85; 6 – structure 66/89; 7, 8 – structure 70/89; 9 – structure 94/89. After Medunová-Benešová, Vitula 1994.

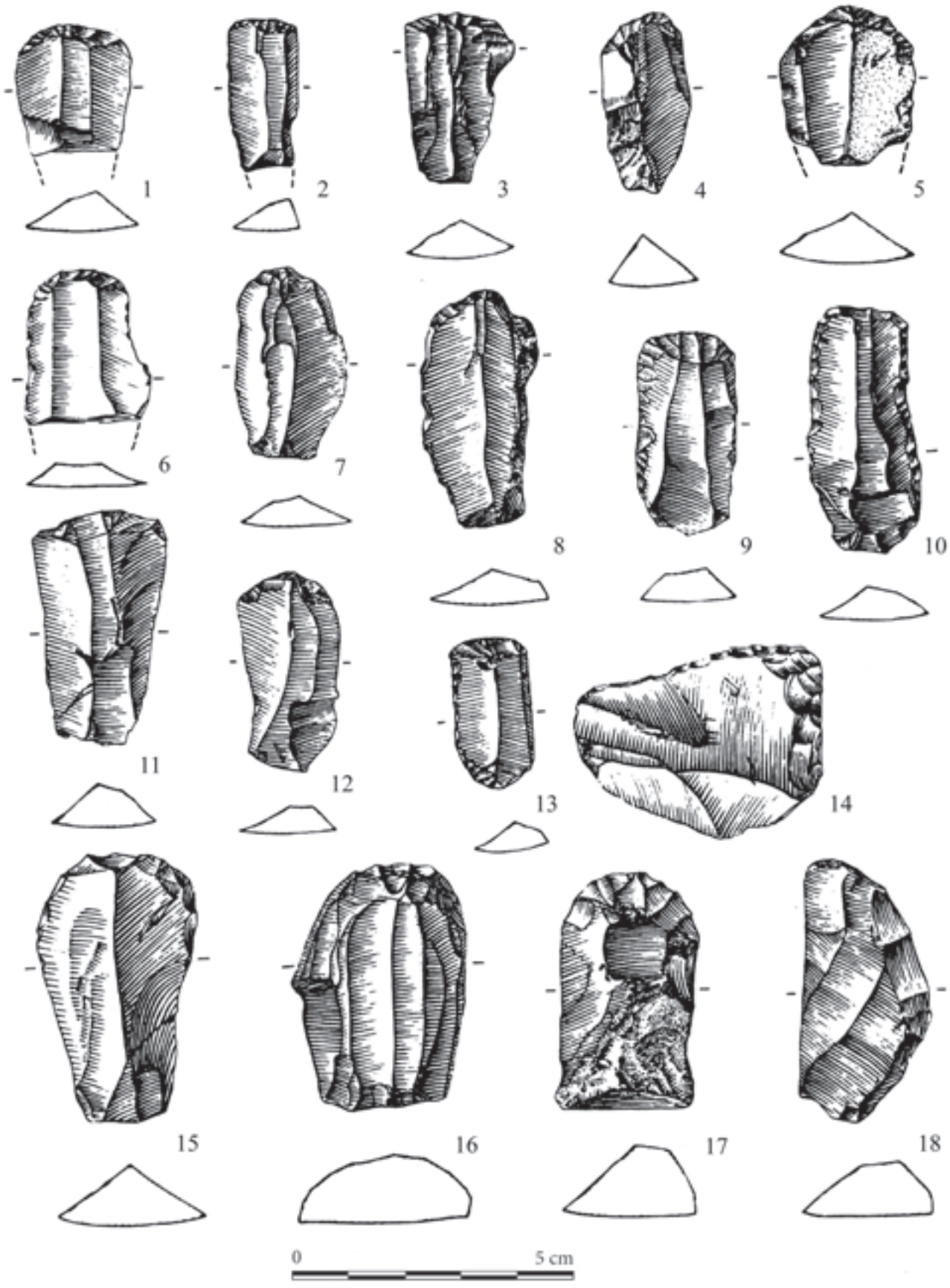


Plate XX. Grešlové Mýto, Znojmo district, Site *Nad Mírovcem*: 1-18 – lithic chipped artifacts of the Jevišovice culture. After Medunová-Benešová 1973.

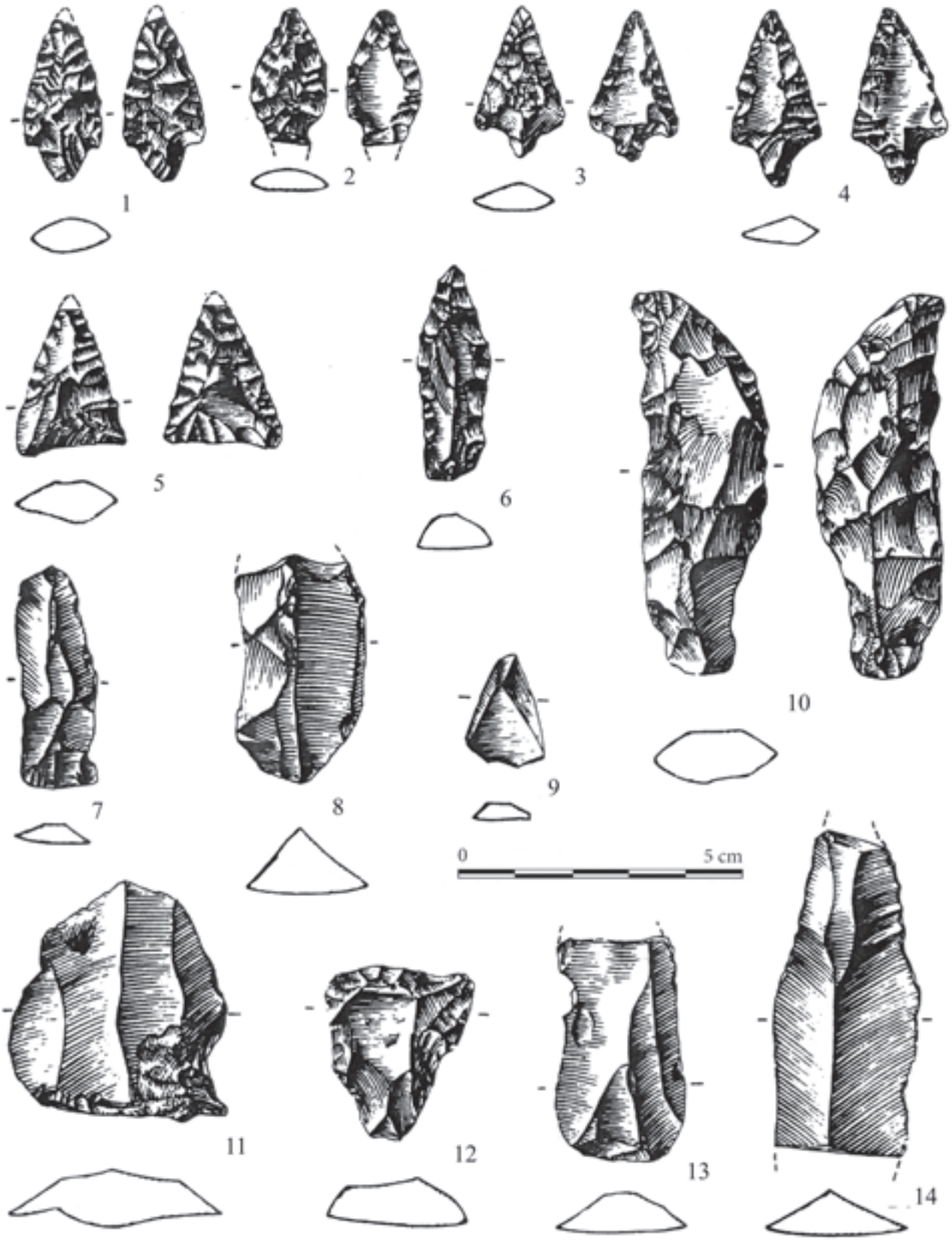


Plate XXI. Grešlové Mýto, Znojmo district, Site *Nad Mírovcem*: 1-18 – lithic chipped artifacts of the Jevišovice culture. After Medunová-Benešová 1973.

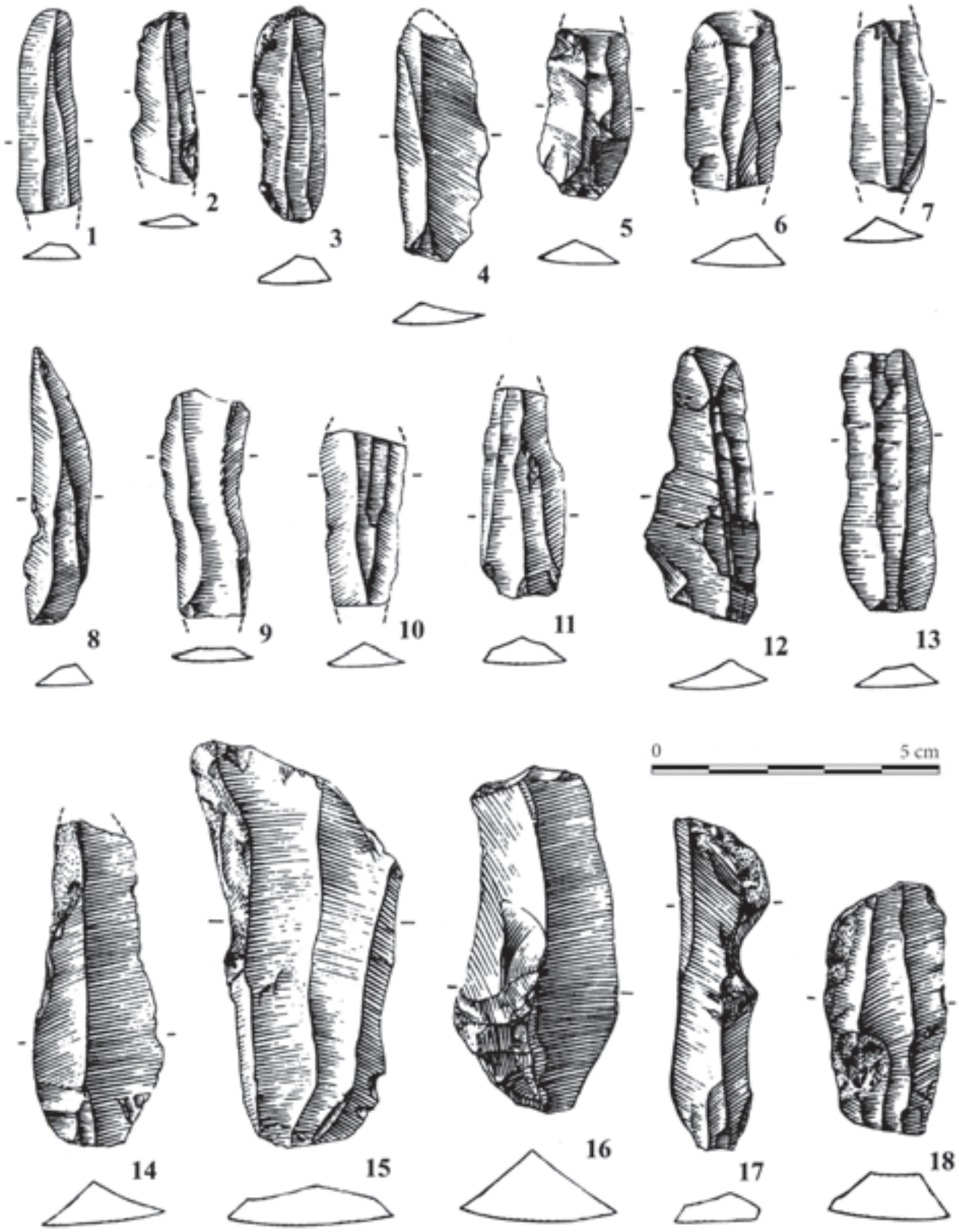


Plate XXII. Grešlové Mýto, Znojmo district, Site *Nad Mírovcem*: 1-14 – lithic chipped artifacts of the Jevišovice culture. After Medunová-Benešová 1973.

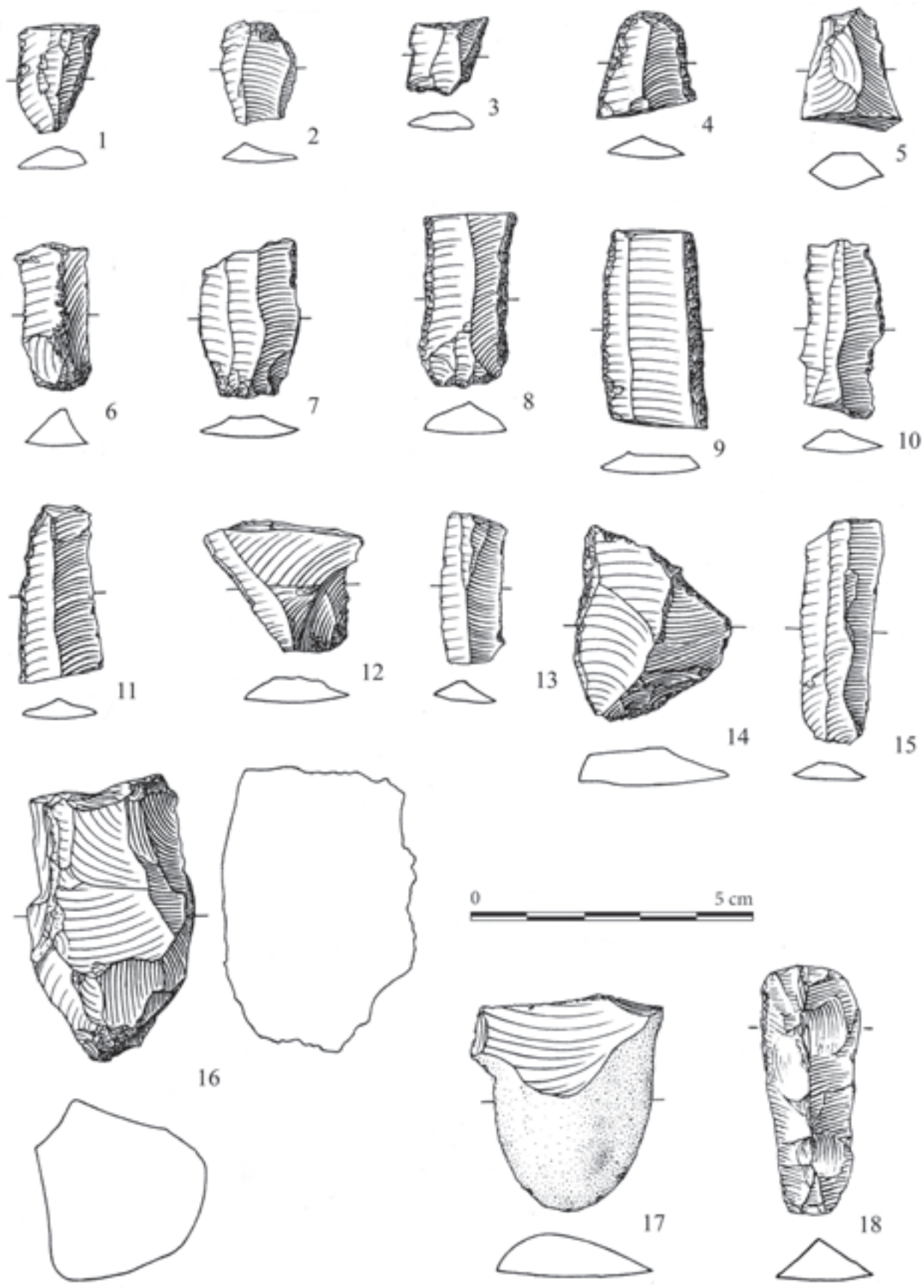


Plate XXIII. Hlinsko, Přerov district: 1-18 – lithic artifacts of the Bošáca culture: 1, 3, 8, 10, 18 – structure 4/73; 2, 7 – structure 8/71; 4, 9 – structure 4/89; 5, 17 – structure 3/69; 6, 14 – structure 26/76; 11 – structure 7/89; 12, 15 – structure 25/69; 13 – structure 8/71, 16 –structure 6/71. Drawn by J. Brenner.

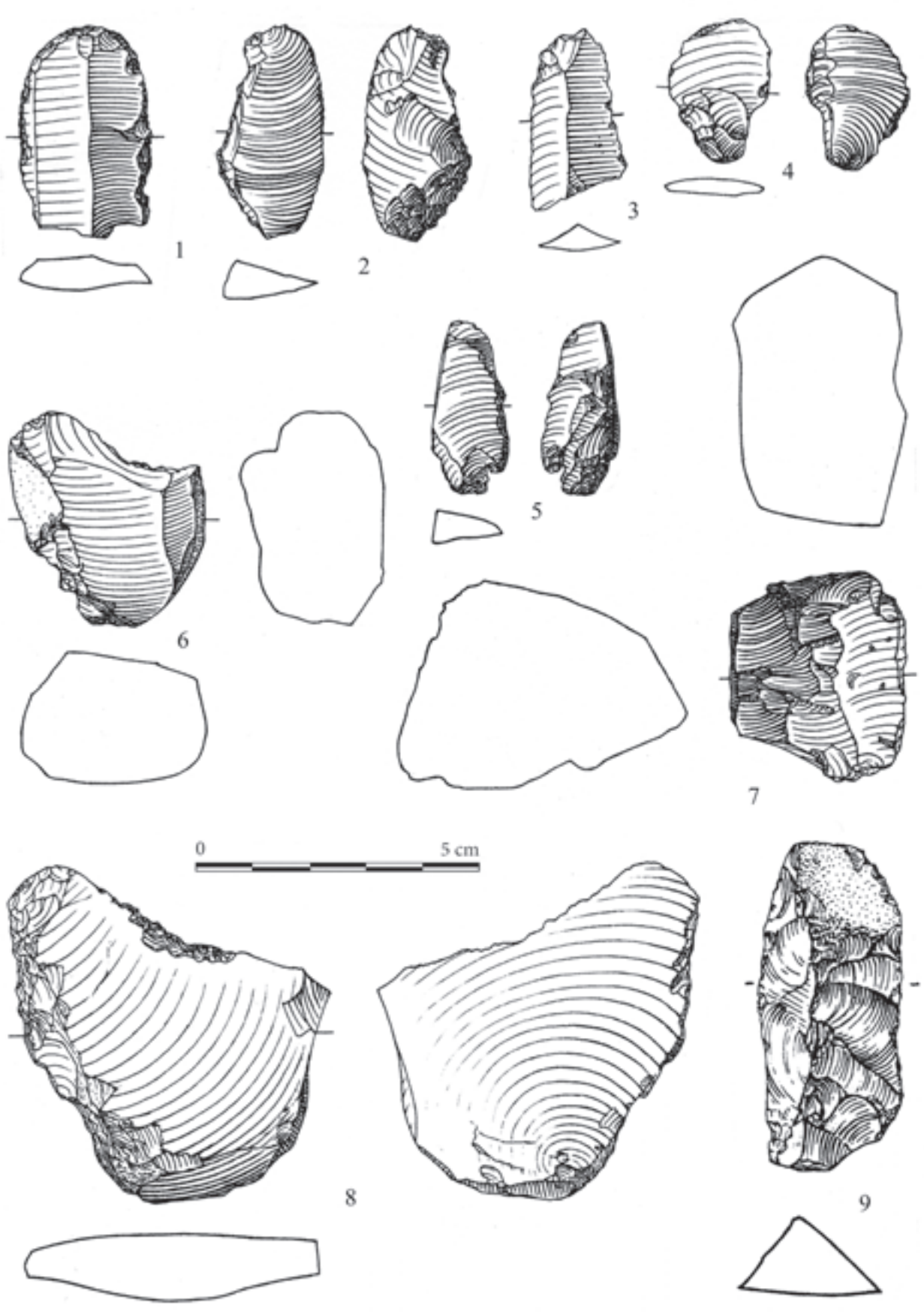


Plate XXIV. Hlinsko, Přerov district: 1-9 – lithic artifacts of the Bošáca culture: 1, 2, 6, 7 – structure 3/69; 3 – structure 7/89; 4 – structure 4/73; 5 – structure 25/69; 8, 9 – structure 4/73. Drawn by J. Brenner.

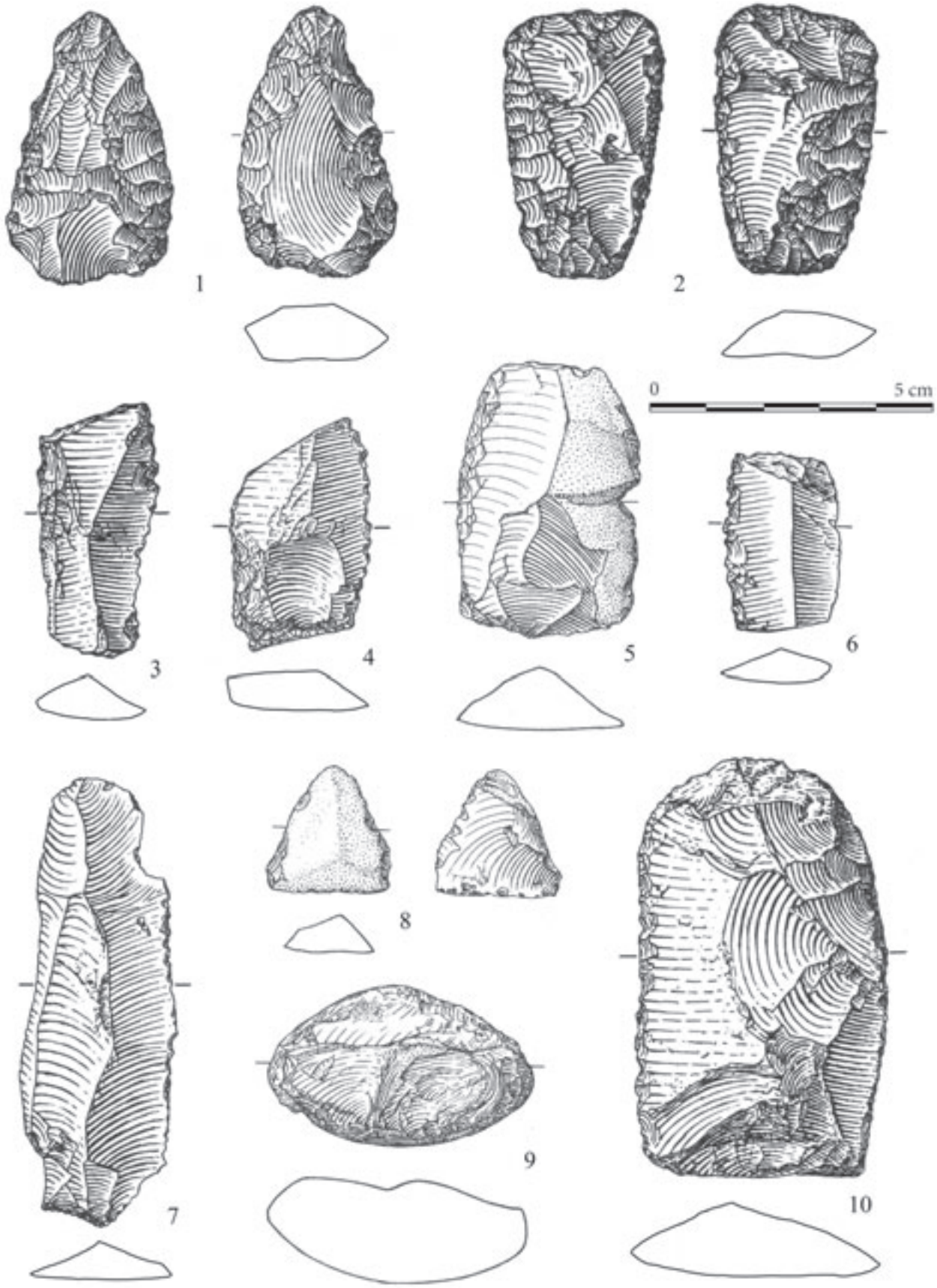


Plate XXV. Ivančice, Brno-město district: 1-8 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. 1-4, 6, 7, 10 – after Šebela, Stuchlík 2002; 5, 8, 9 – drawn by J. Brenner.

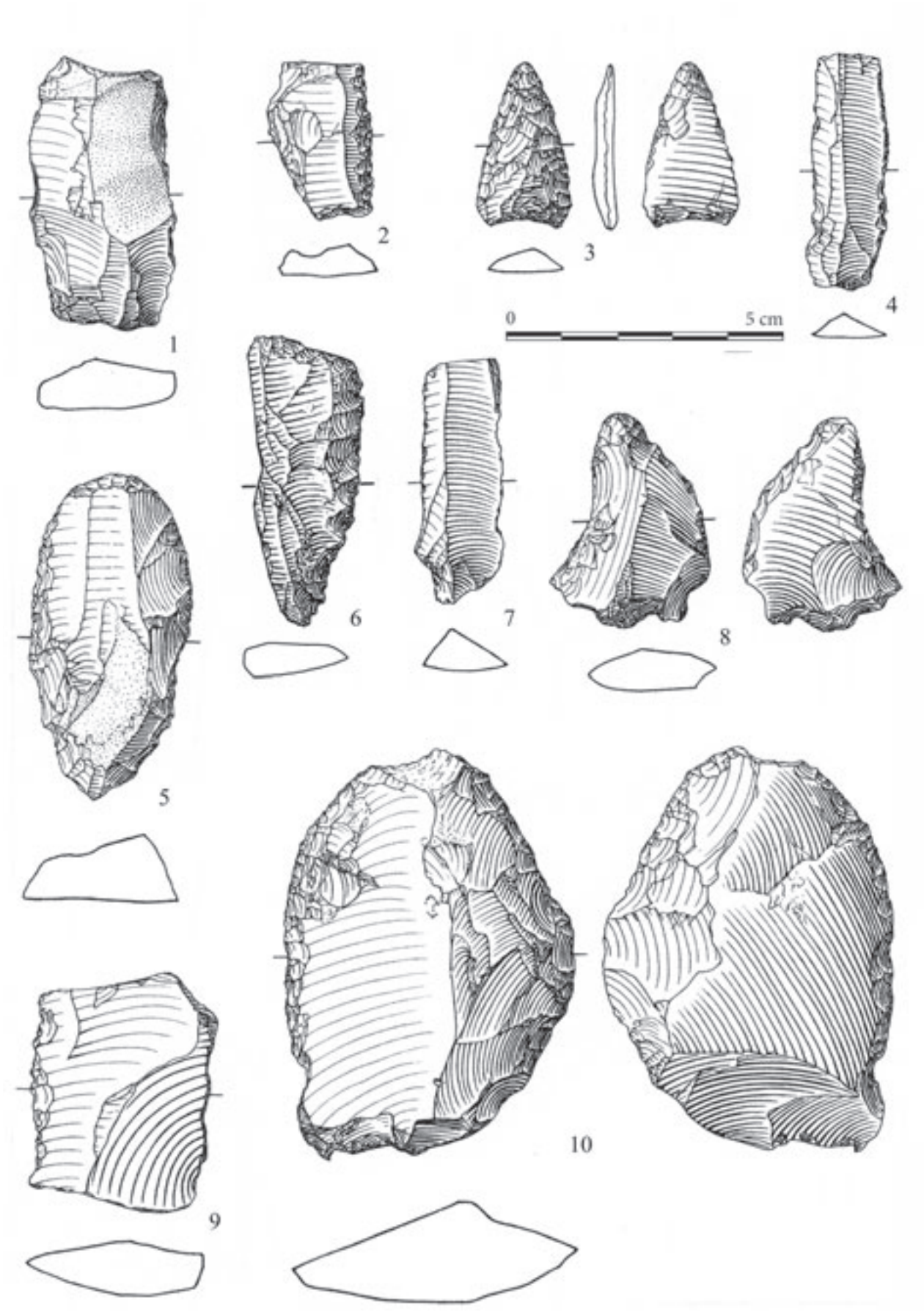


Plate XXVI. Ivančice, Brno-město district: 1-10 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. 1-5, 7-10 – drawn by J. Brenner; 6 – after Šebela, Stuchlík 2002.

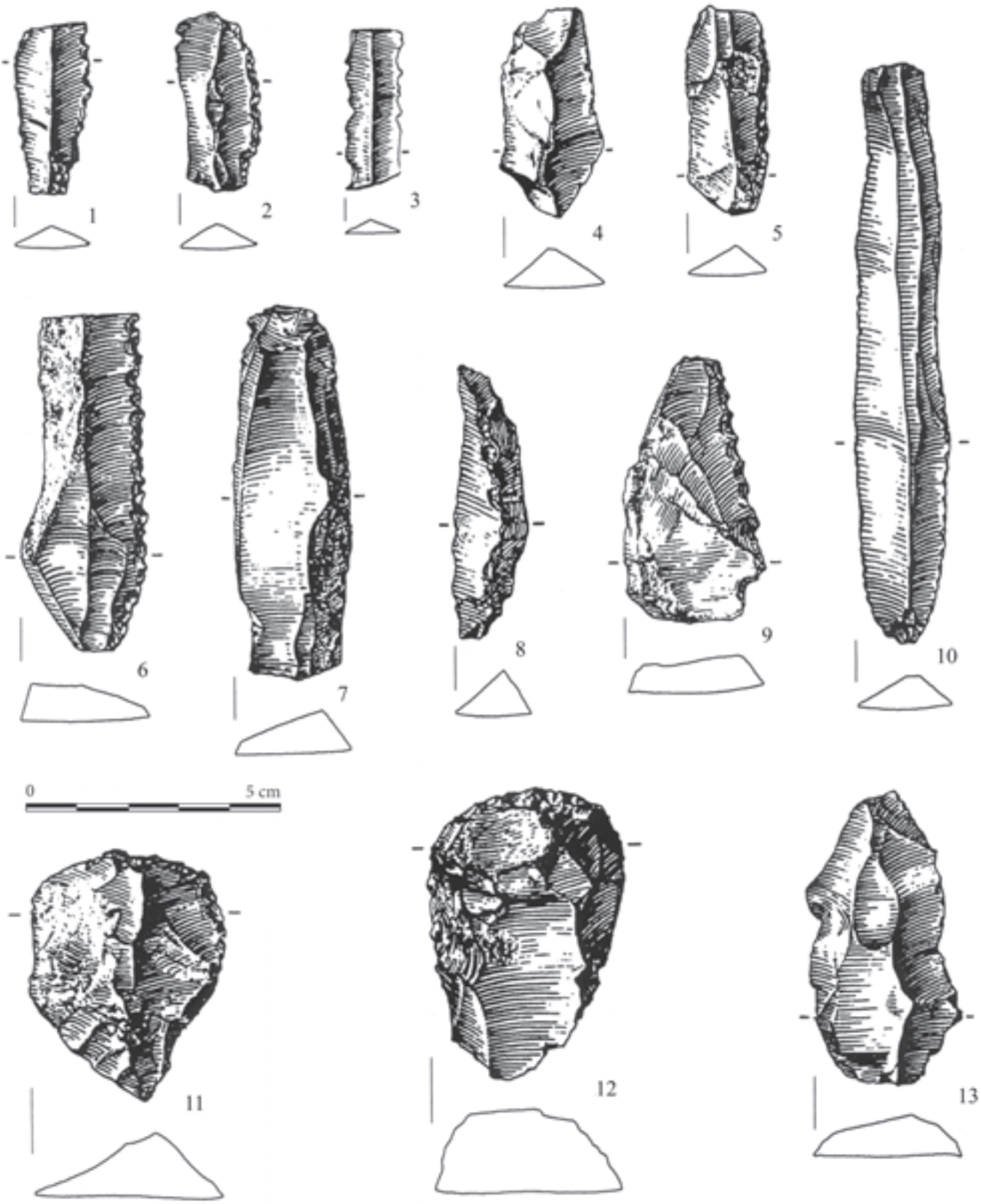


Plate XXVII. Jevišovice, Znojmo district, Site *Starý Zámek*: 1-13 – lithic chipped artifacts of the Jevišovice culture from the Layer B. After Medunová-Benešová 1972.

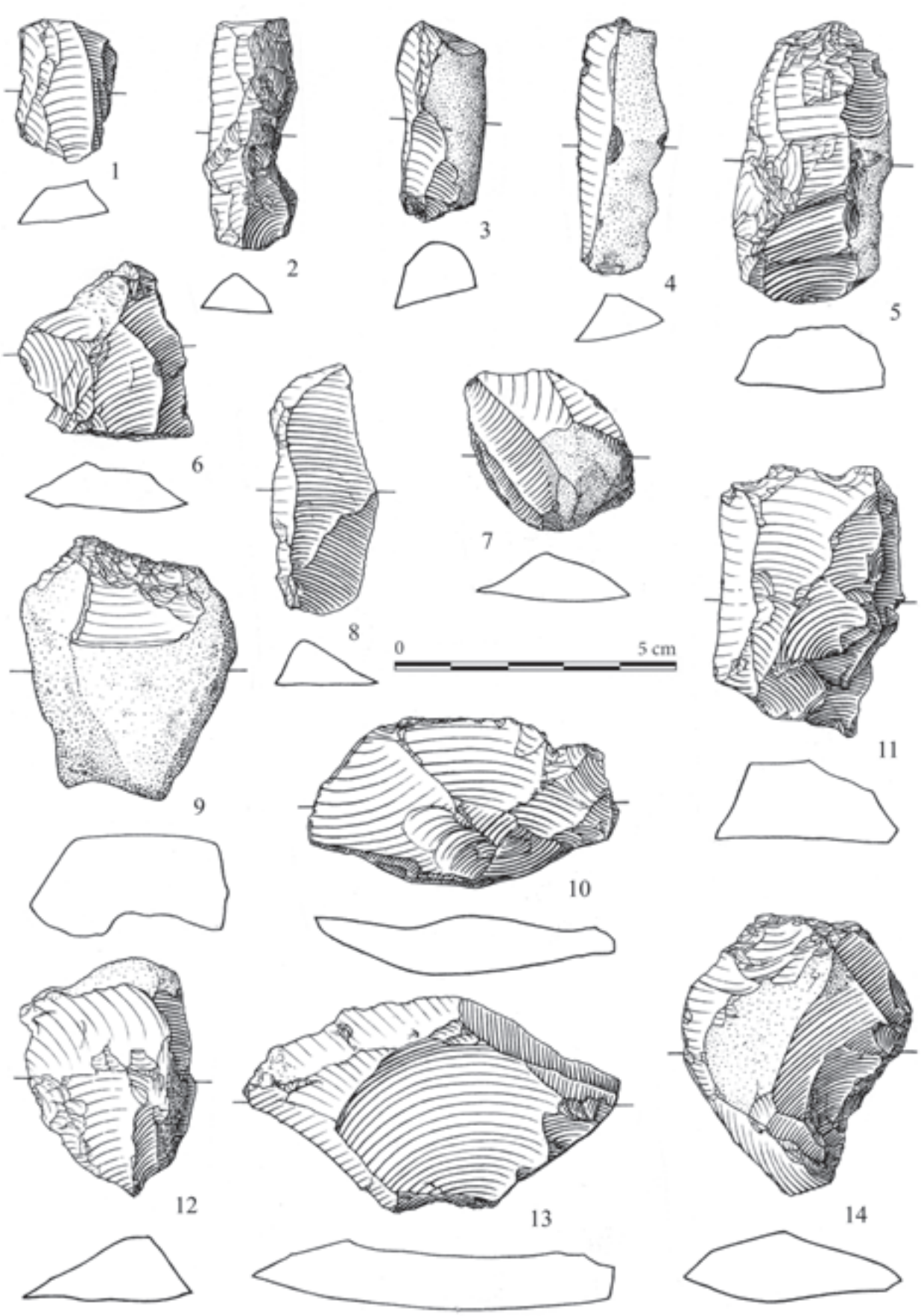


Plate XXVIII. Jevišovice, Znojmo district, Site *Starý Zámek*: 1-14 – lithic chipped artifacts of the Jevišovice culture from the Layer B. Drawn by J. Brenner.

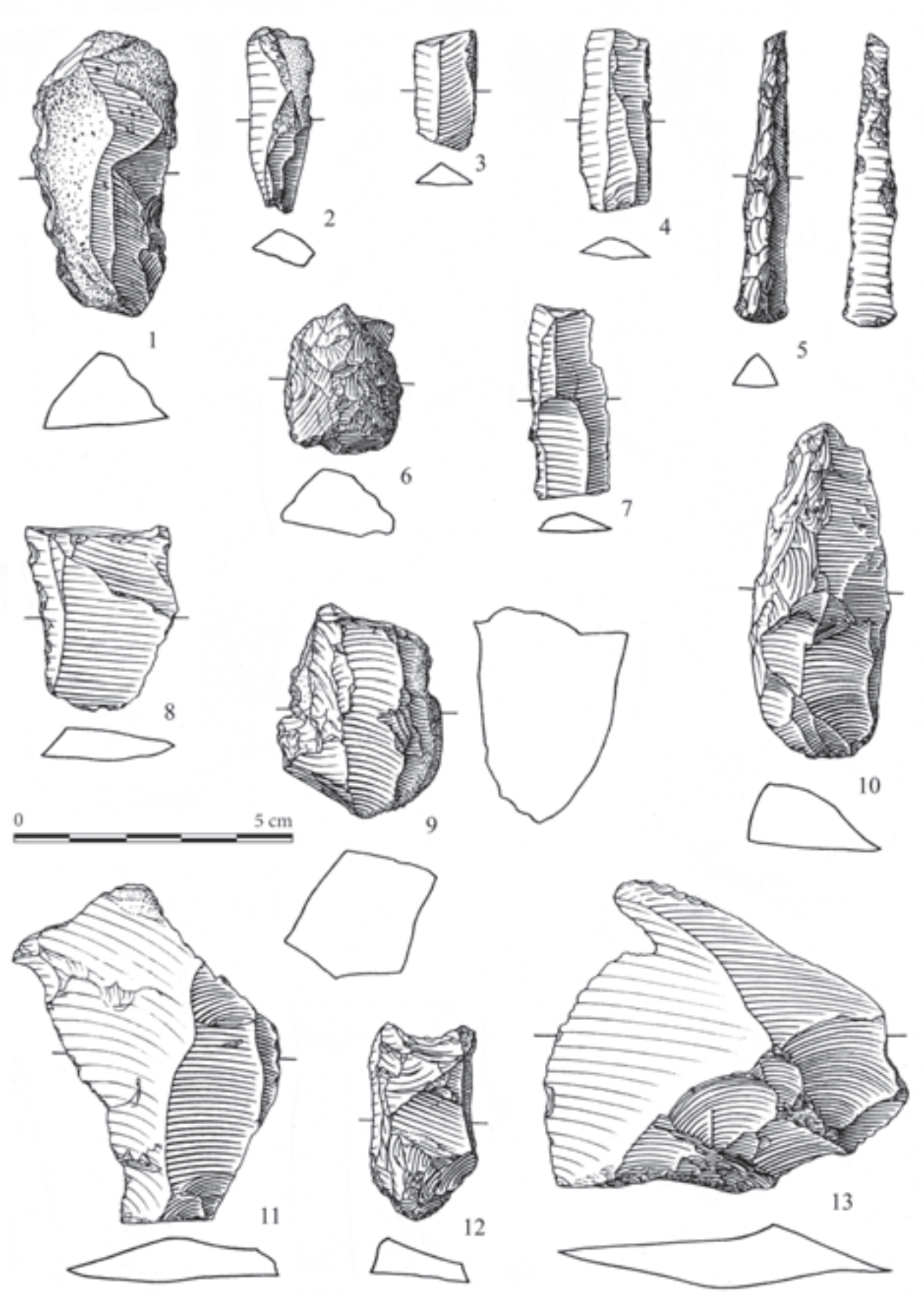


Plate XXIX. Jevišovice, Znojmo district, Site *Starý Zámek*: 1-13 – lithic chipped artifacts of the Jevišovice culture from the Layer B. Drawn by J. Brenner.

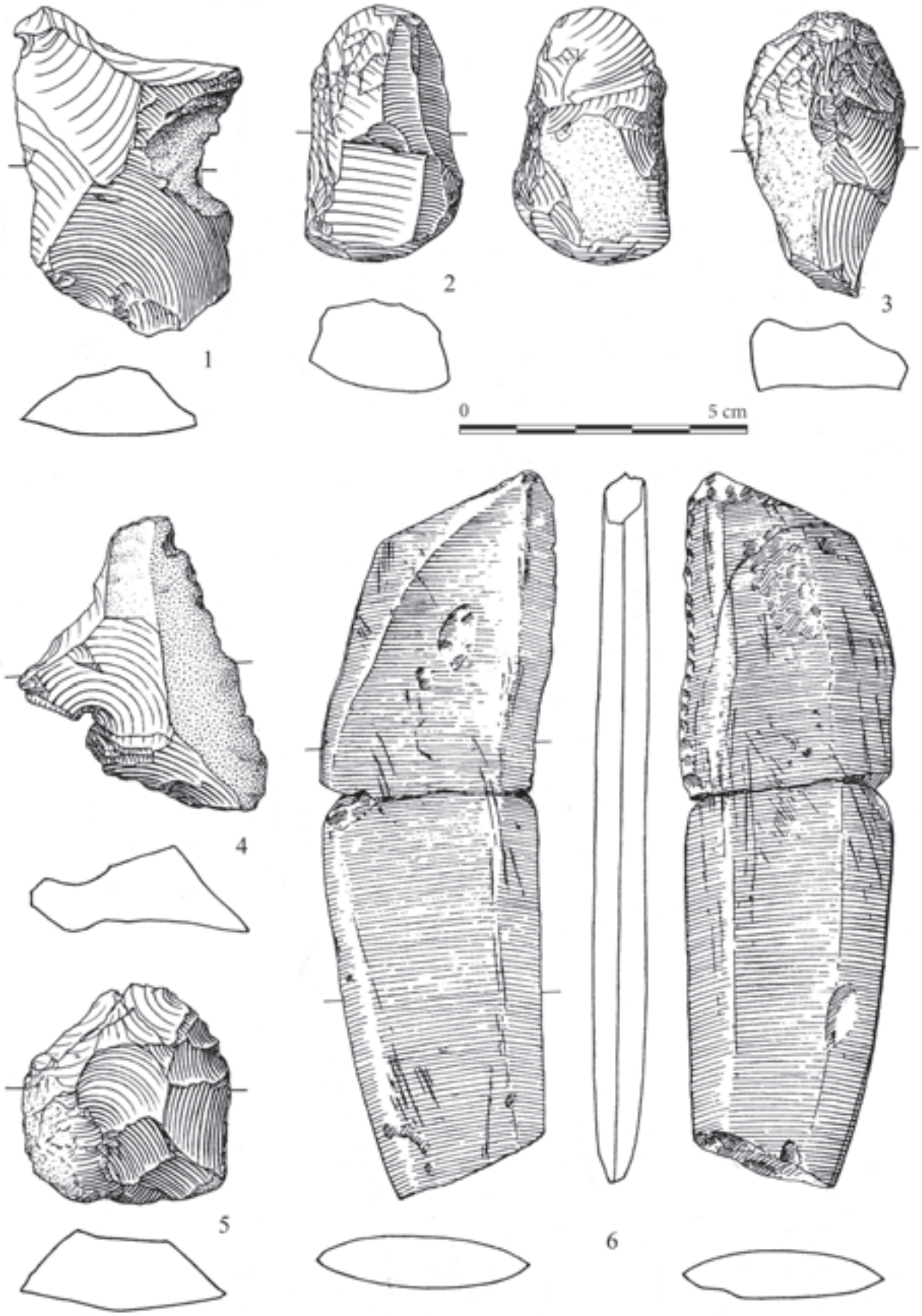


Plate XXX. Jevišovice, Znojmo district, Site *Starý Zámek*: 1-6 – lithic chipped artifacts of the Jevišovice culture from the Layer B. 1-5 drawn by J. Brenner; 6 after Medunová-Benešová 1979.

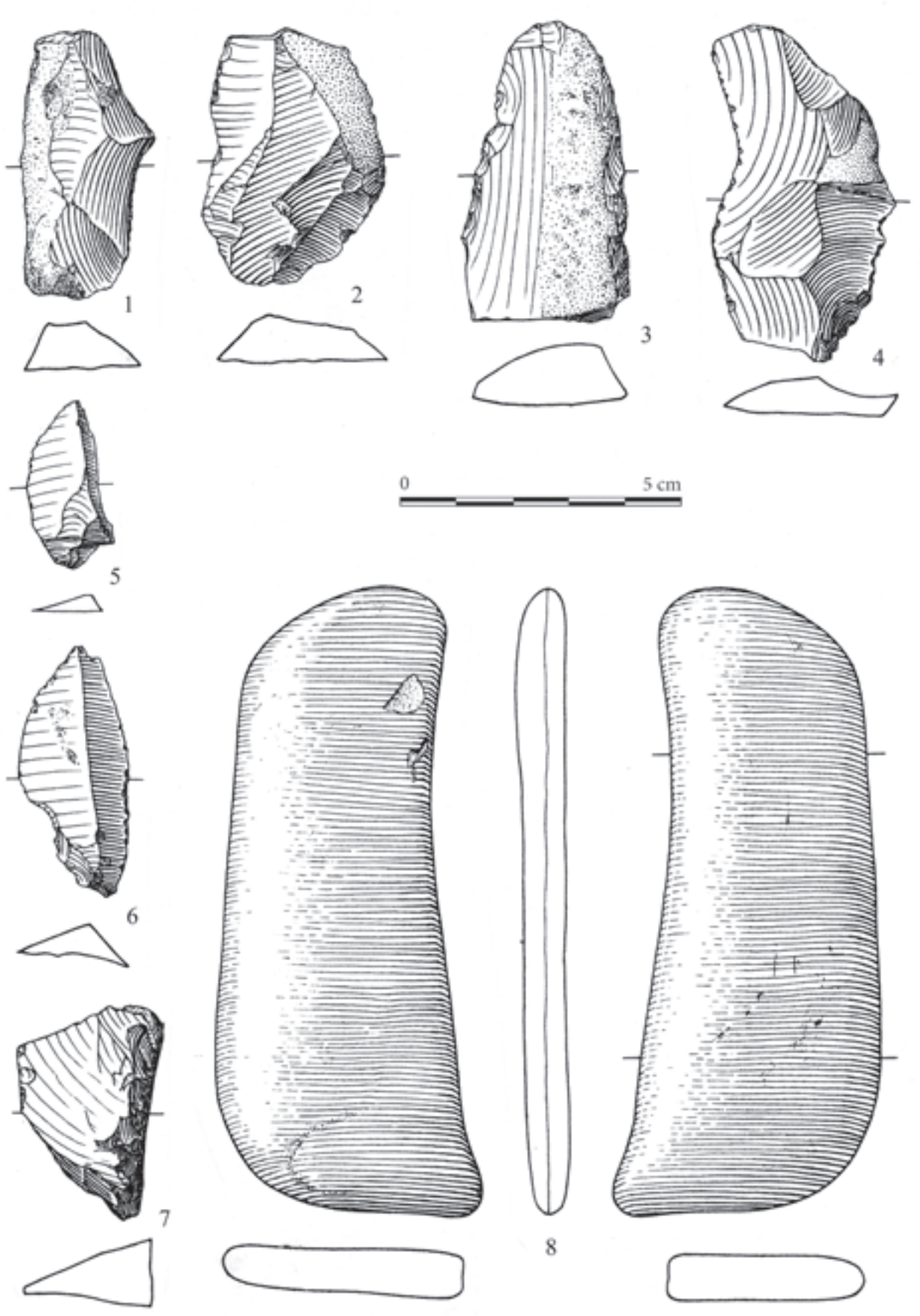


Plate XXXI. Jevišovice, Znojmo district, Site *Starý Zámek*: 1-8 – lithic chipped artifacts of the Jevišovice culture from the Layer B. Drawn by J. Brenner.

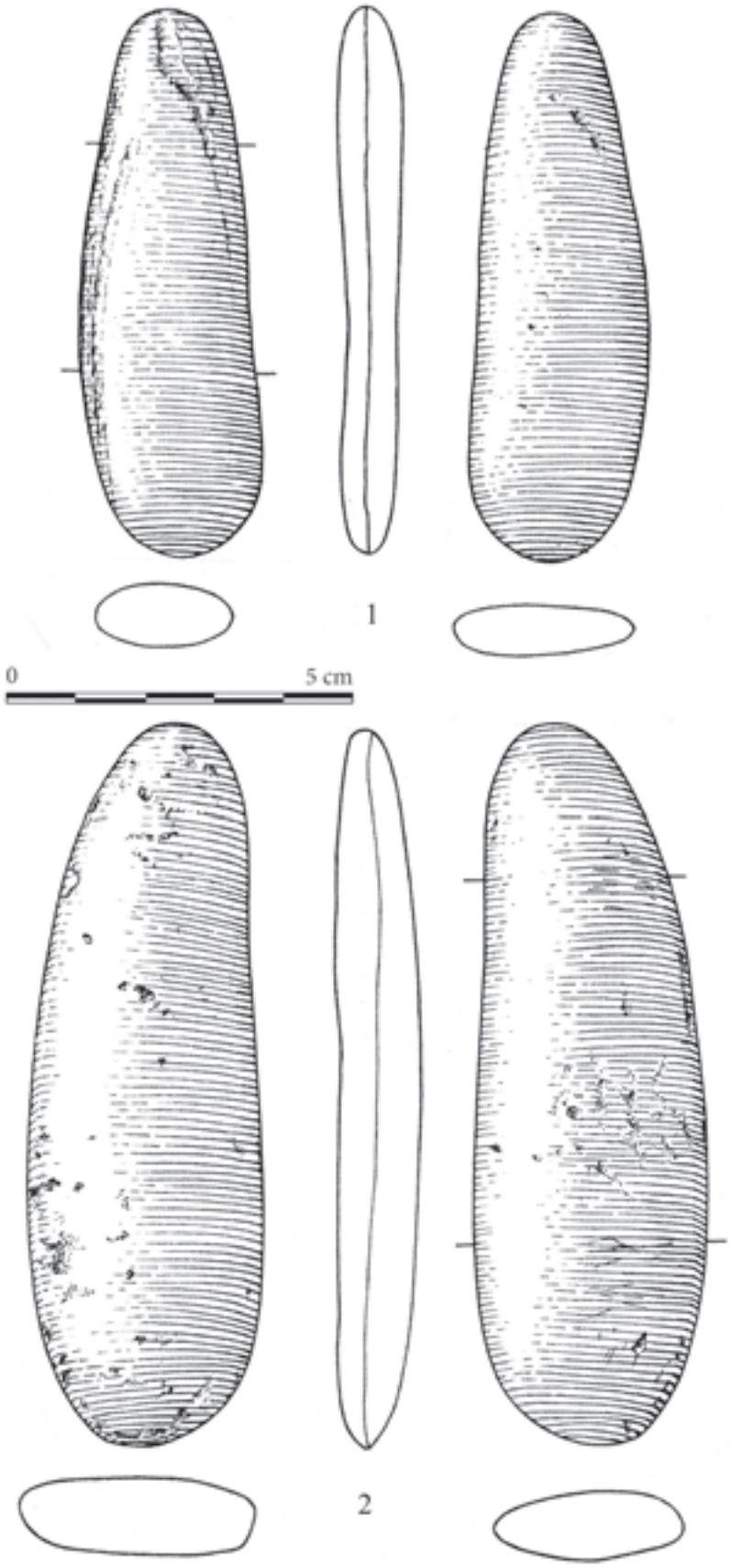


Plate XXXII. Jevišovice, Znojmo district, Site *Starý Zámek*: 1- lithic artifact (*Krummesser*) without cultural context; 2 – lithic artifact (*Krummesser*) of the Jevišovice culture from the Layer B. After Medunová-Benešová 1972.

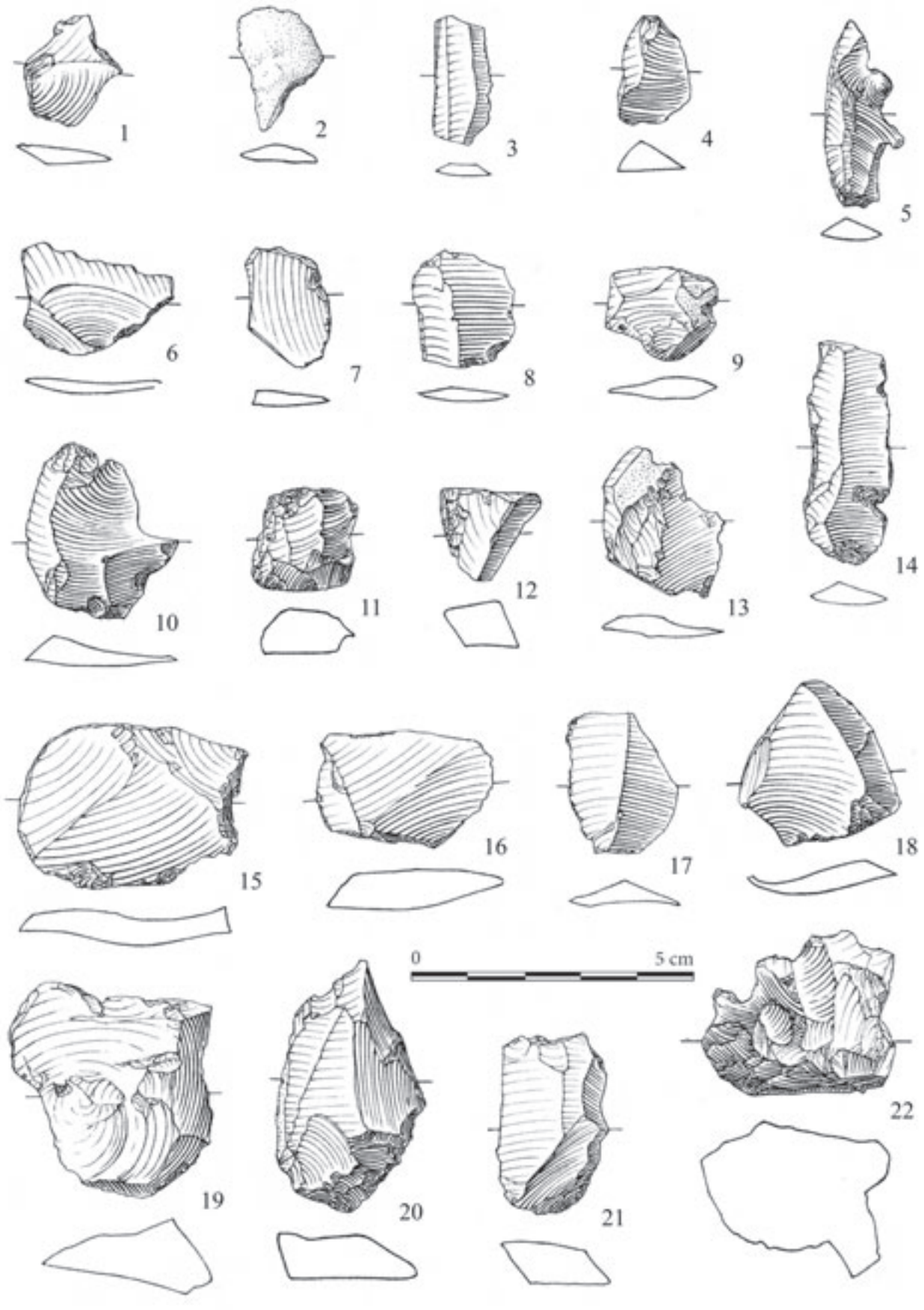


Plate XXXIII. Opava, cadastral areas Kateřinky/Malé Hoštice, Opava district: 1-22 – lithic artifacts from settlement structures of the Globular Amphora culture. 1, 5-7, 11, 13, 15, 18, 20-22 – structure 550; 2, 4, 8, 9, 12, 14 – structure 552; 3, 19 – structure 528; 10, 16, 17 – structure 1517. Drawn by J. Brenner.

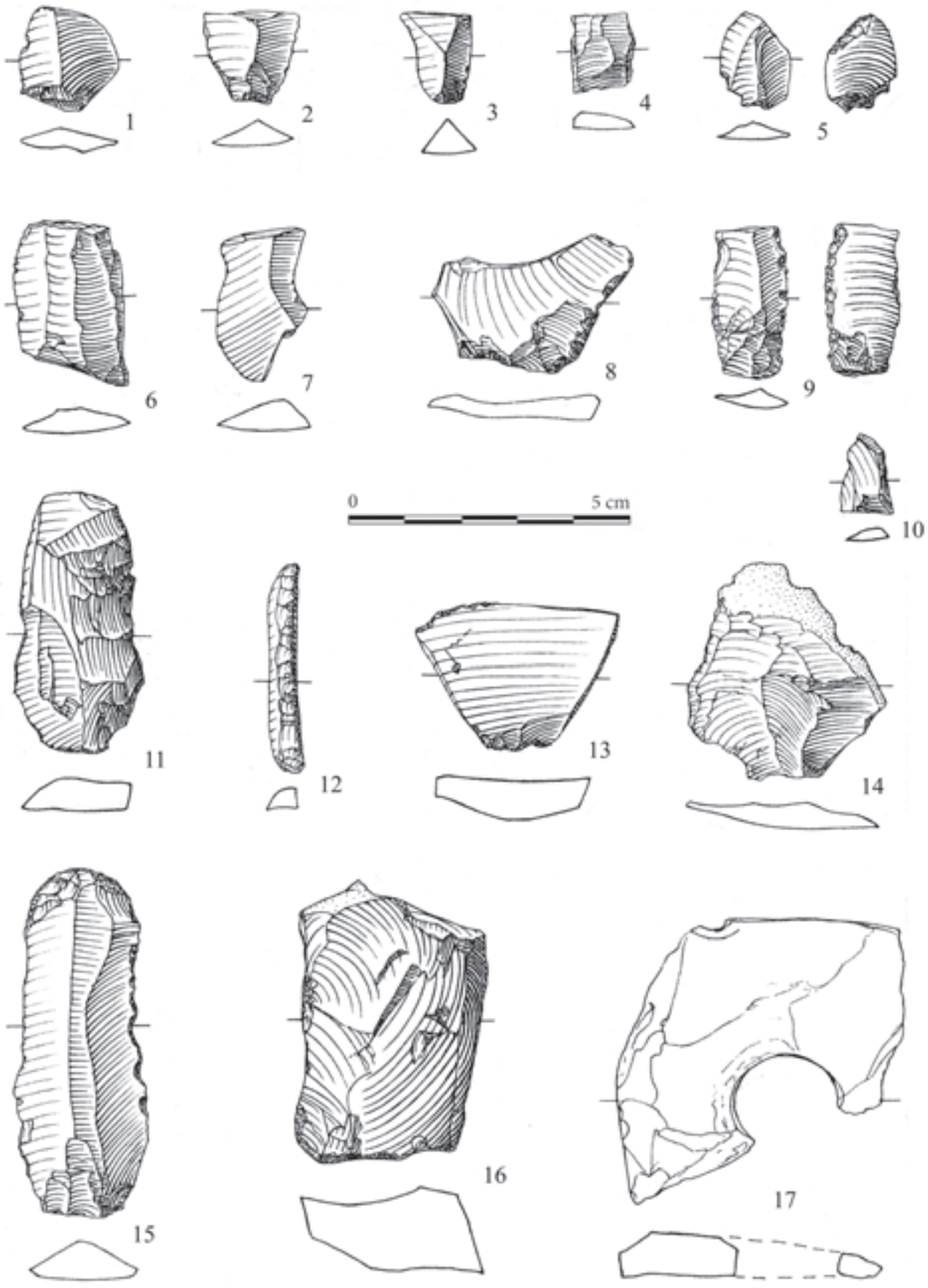


Plate XXXIV. Opava, cadastral areas Kateřinky/Malé Hoštice, Opava district: lithic chipped (1-16) and polished (17) artifacts from the settlement structures of the Globular Amphora culture. 1-7, 9-12, 15, 17 – structure 600; 8, 13, 14, 16 – structure 552; 3, 19 – structure 1517. Drawn by J. Brenner.

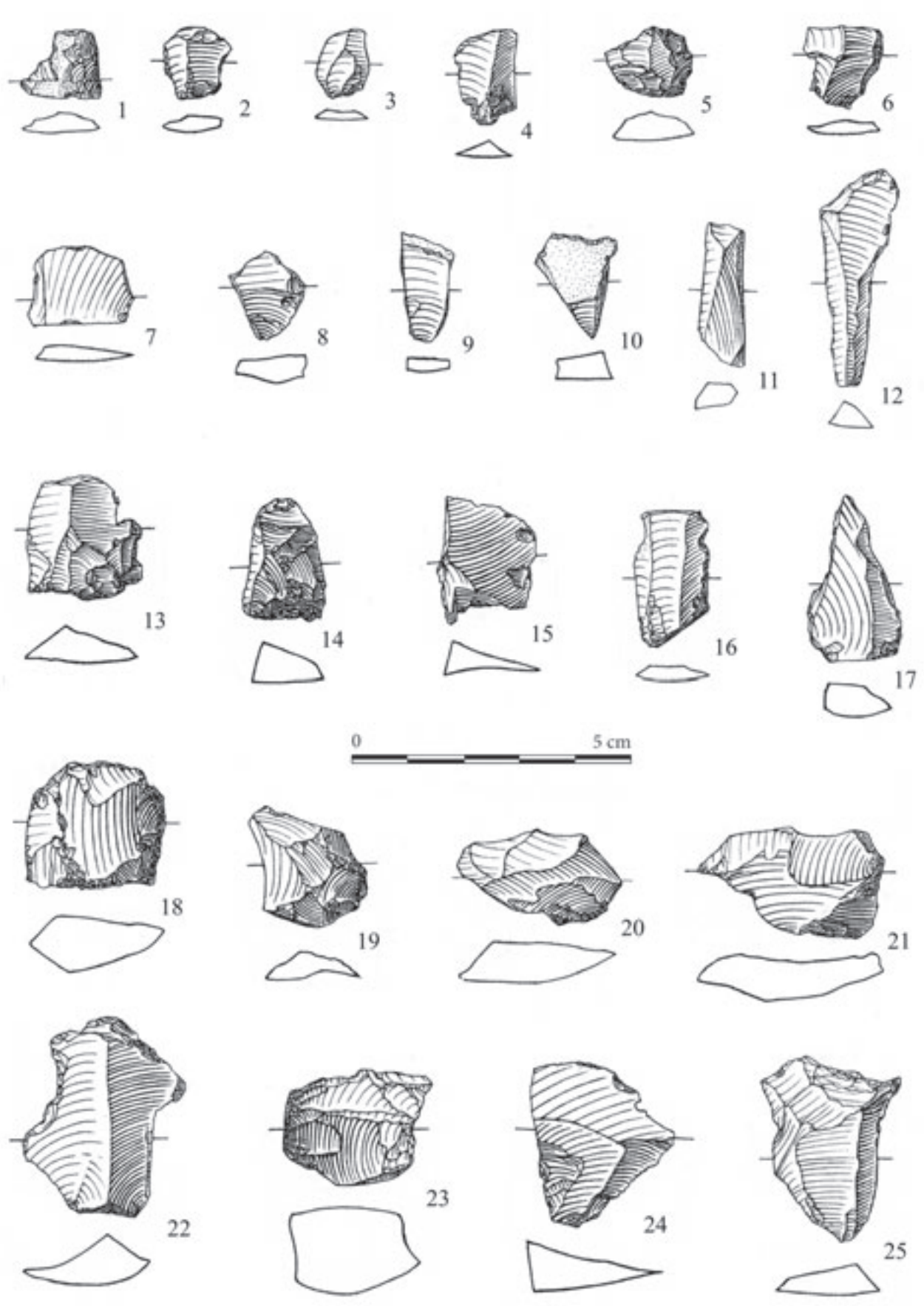


Plate XXXV. Opava, cadastral areas Kateřinky/Malé Hoštice, Opava district: 1-25 lithic chipped artifacts from the Globular Amphora culture, structure 660. Drawn by J. Brenner.

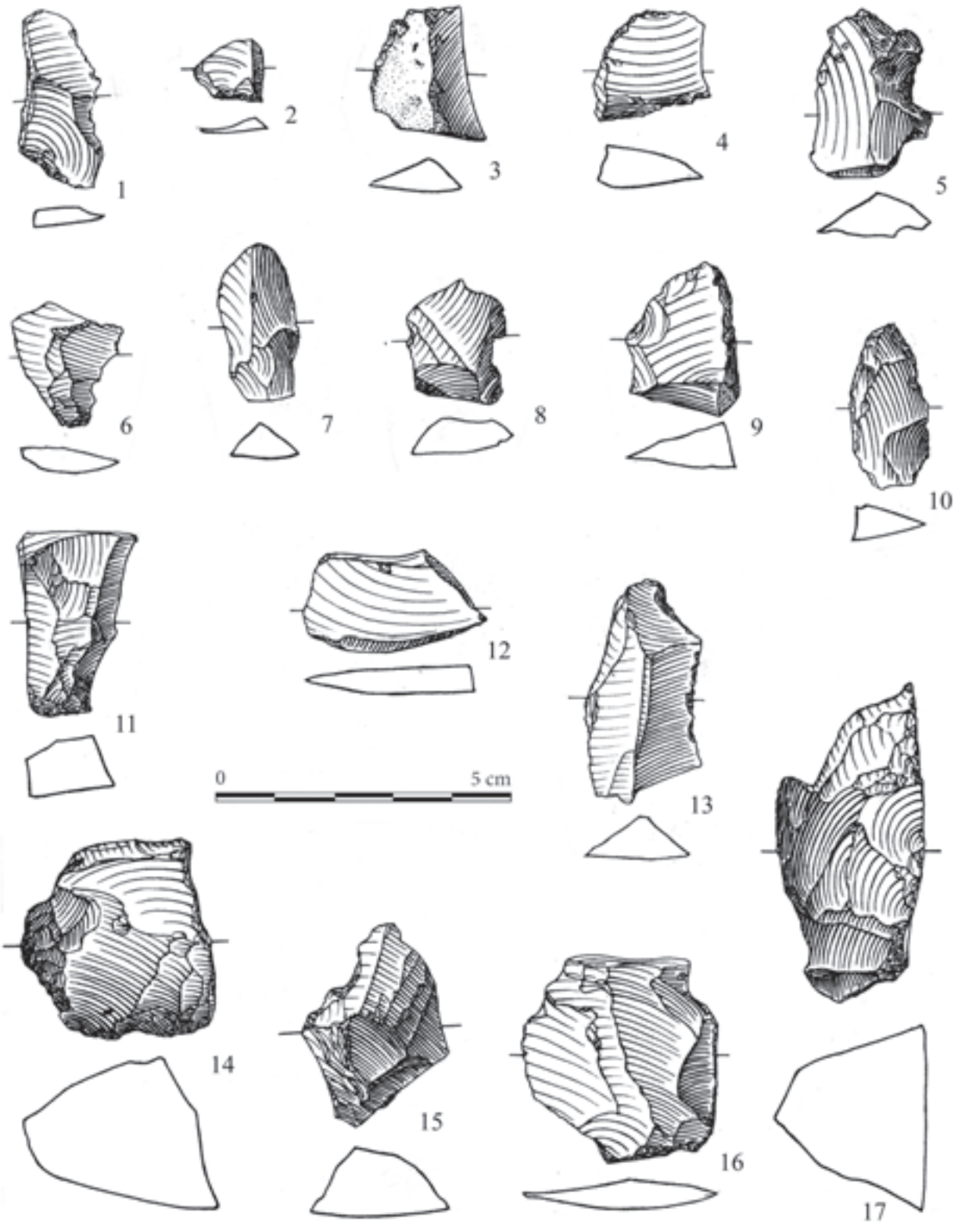


Plate XXXVI. Opava, cadastral areas Kateřinky/Malé Hoštice, Opava district: 1-17 lithic chipped artifacts from the Globular Amphora culture, structure 660. Drawn by J. Brenner.

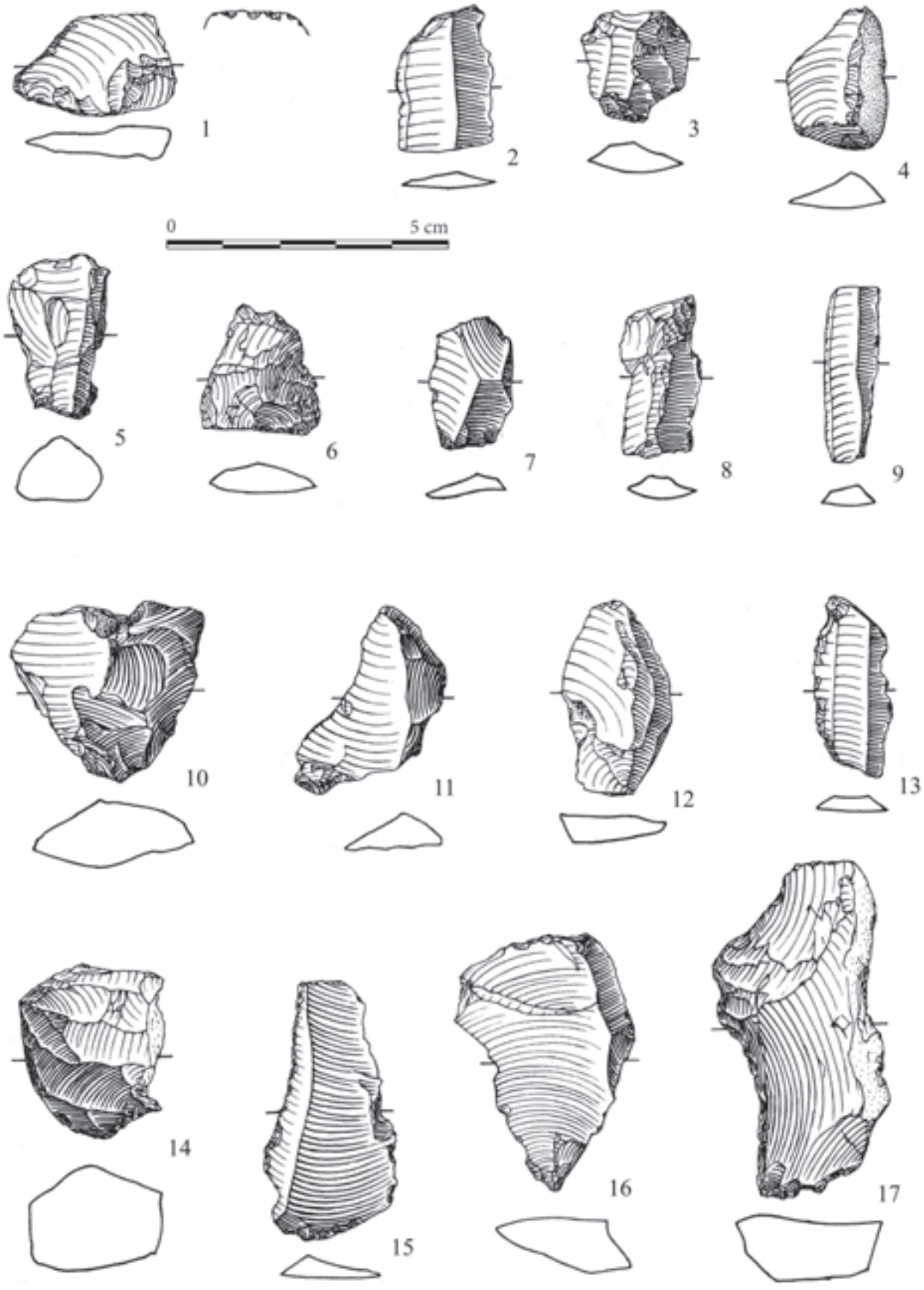


Plate XXXVII. Opava, cadastral area Kylešovice, Opava district: 1, 2, 4-16 – lithic chipped artifacts from the fills of grave pits of the Globular Amphora culture. 1, 10, 11, 16 – Grave 821; 2, 12 – Grave 813; 4, 5 – Grave 831; 6, 7 – Grave 805; 8 – Grave 833; 9, 14 – Grave 802; 13 – Grave 808; 15 – Grave 828. 3, 17 Structure 545 (the Globular Amphora culture). Drawn by J. Brenner.

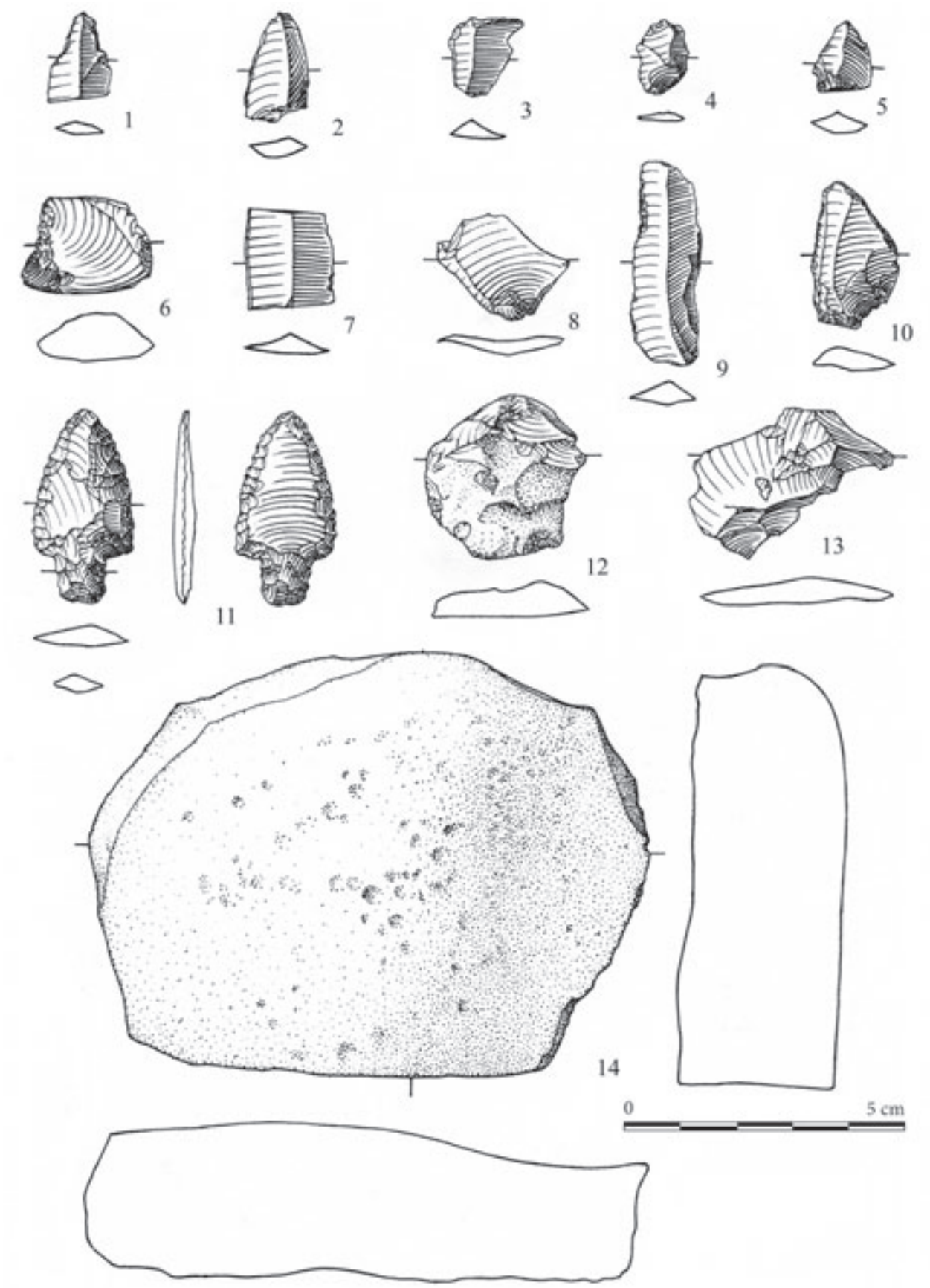


Plate XXXVIII. Opava, cadastral area Kylešovice, Opava district: Lithic chipped (1-13) and polished (14) artifacts from the fills of grave pits of the Globular Amphora culture. 1 – Grave 831; 2 – Grave 815; 3 – Grave 837; 4 – Grave 825; 5 – Grave 802; 6 – Grave 842; 7 – Grave 816; 8, 11, 14 – Grave 809; 9, 10 – Grave 840; 12, 13 – Grave 810. Drawn by J. Brenner.

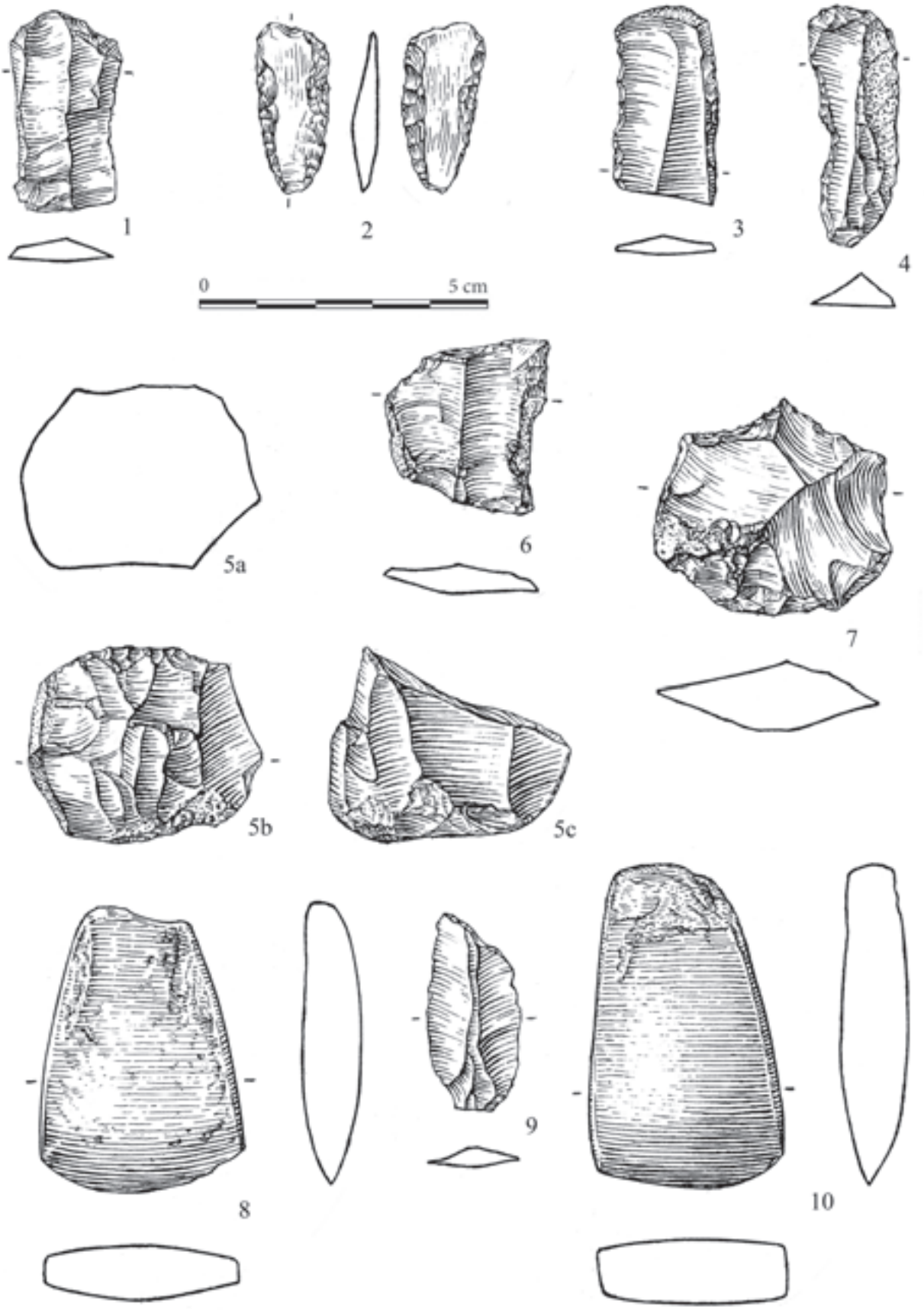


Plate XXXIX. Ostopovice, Brno-venkov district: lithic chipped (1-7, 9) and polished (8, 10) artifacts from the settlement of the Jevišovice culture, structure 1/1947. Drawn by J. Brenner.

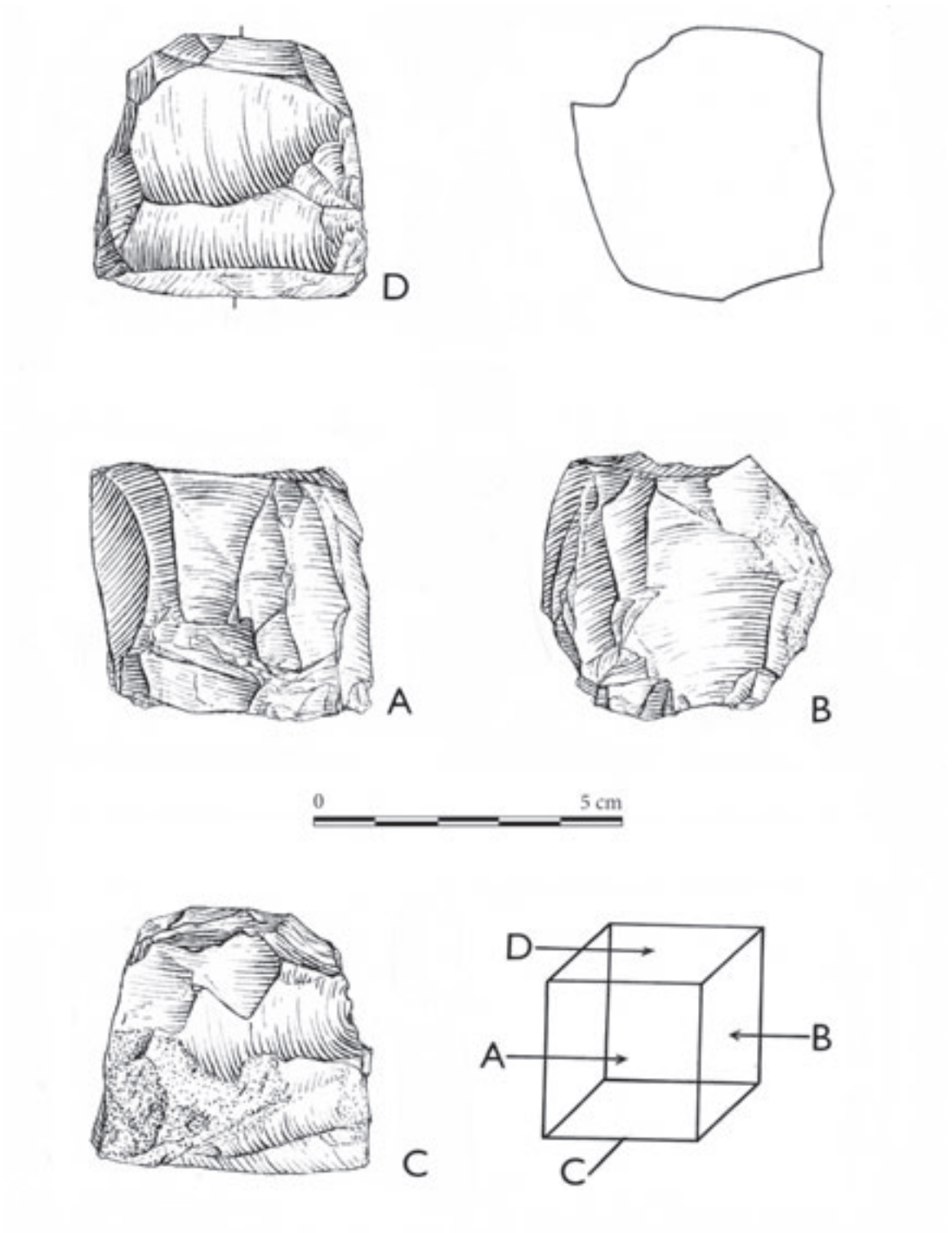


Plate XL. Ostopovice, Brno-venkov district: A-D – lithic chipped artifact from the settlement of the Jevišovice culture, structure 3 or 4/1948. Drawn by J Brenner.

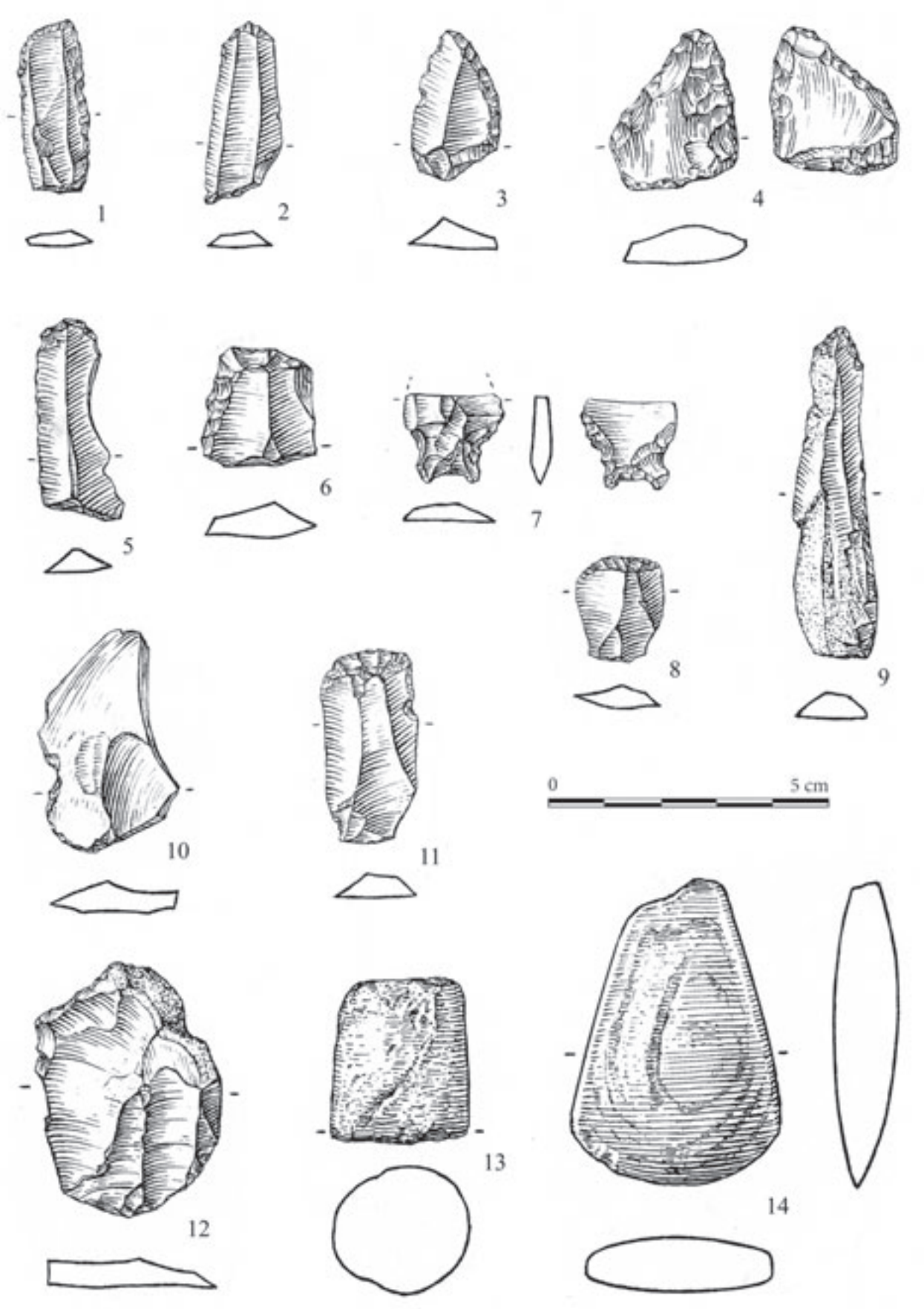


Plate XLI. Ostopovice, Brno-venkov district: 1-14 – lithic chipped artifacts from the settlement of the Jevišovice culture, structures 3 and 4/1948. Drawn by J. Brenner.

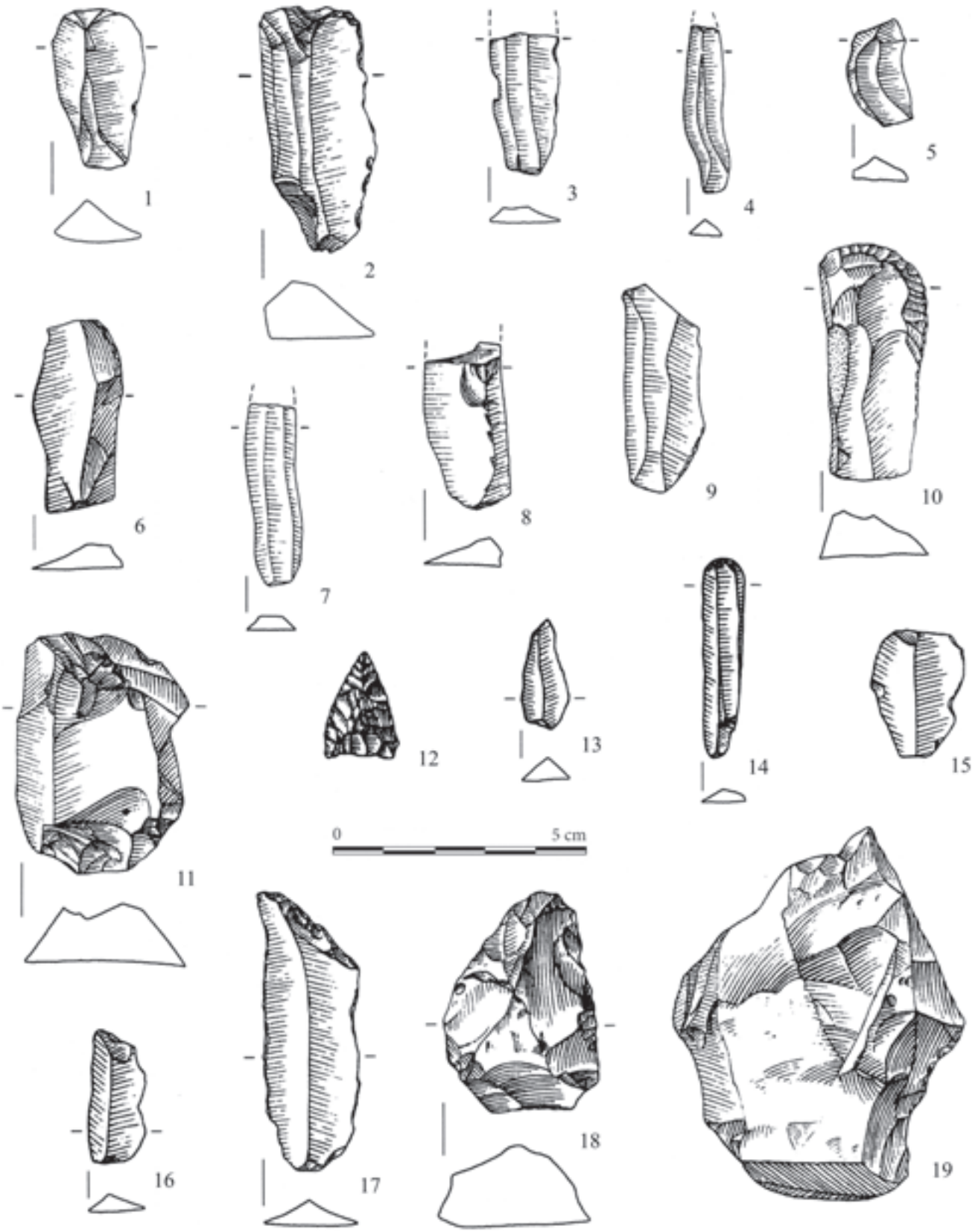


Plate XLII. Vysočany, Znojmo district, Site *Paliardiho hradisko*: 1-19 – lithic chipped artifacts of the Jevišovice culture, J. Sobotka's collection. 1-9 – research 1957; 10-19 – research 1958. After Medunová-Benešová 1977a.

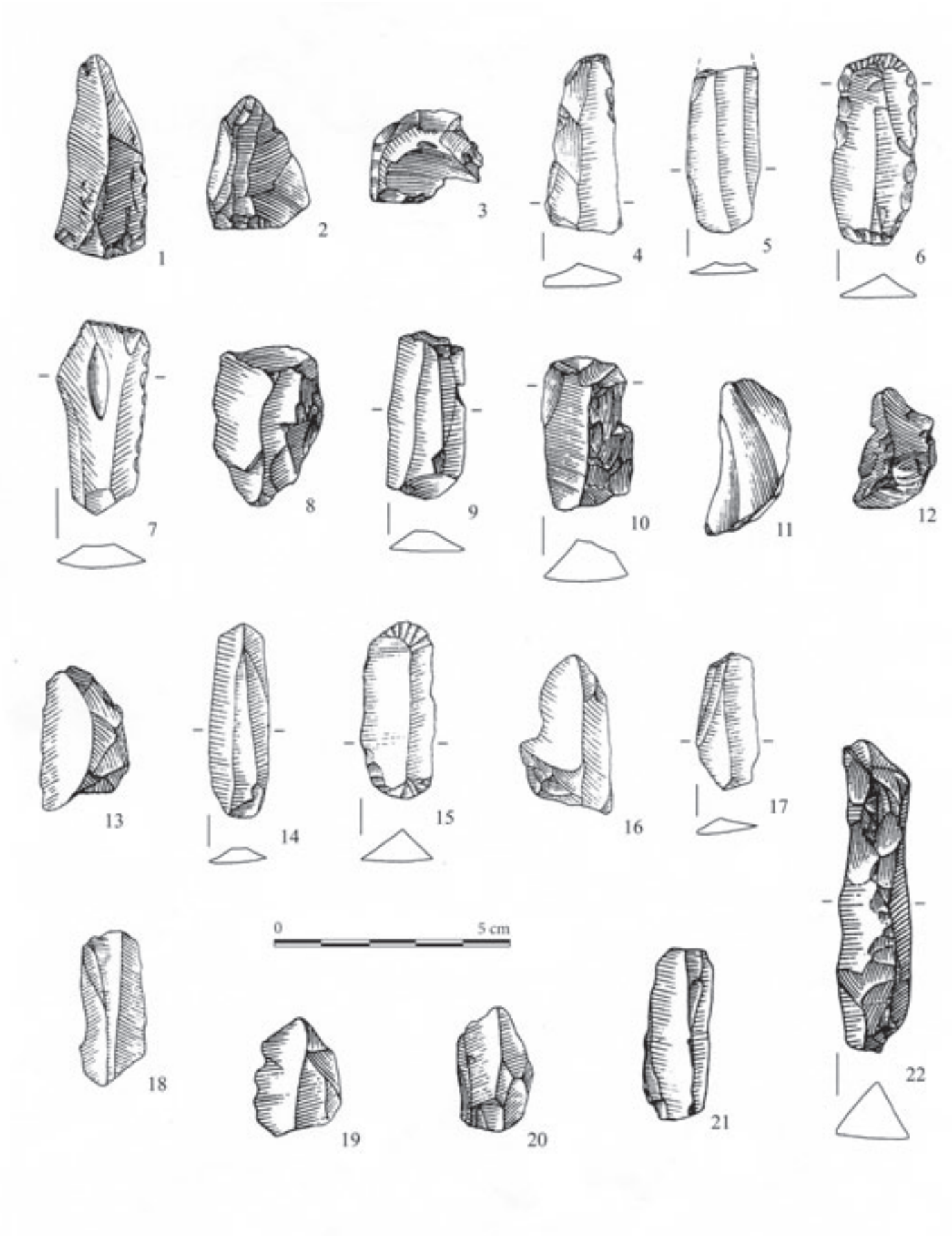


Plate XLIII. Vysočany, Znojmo district, Site *Paliardiho hradisko*: 1-22 – lithic chipped artifacts of the Jevišovice culture, J. Sobotka's collection. 1-21 – research 1958; 22 – research 1957. After Medunová-Benešová 1977a.

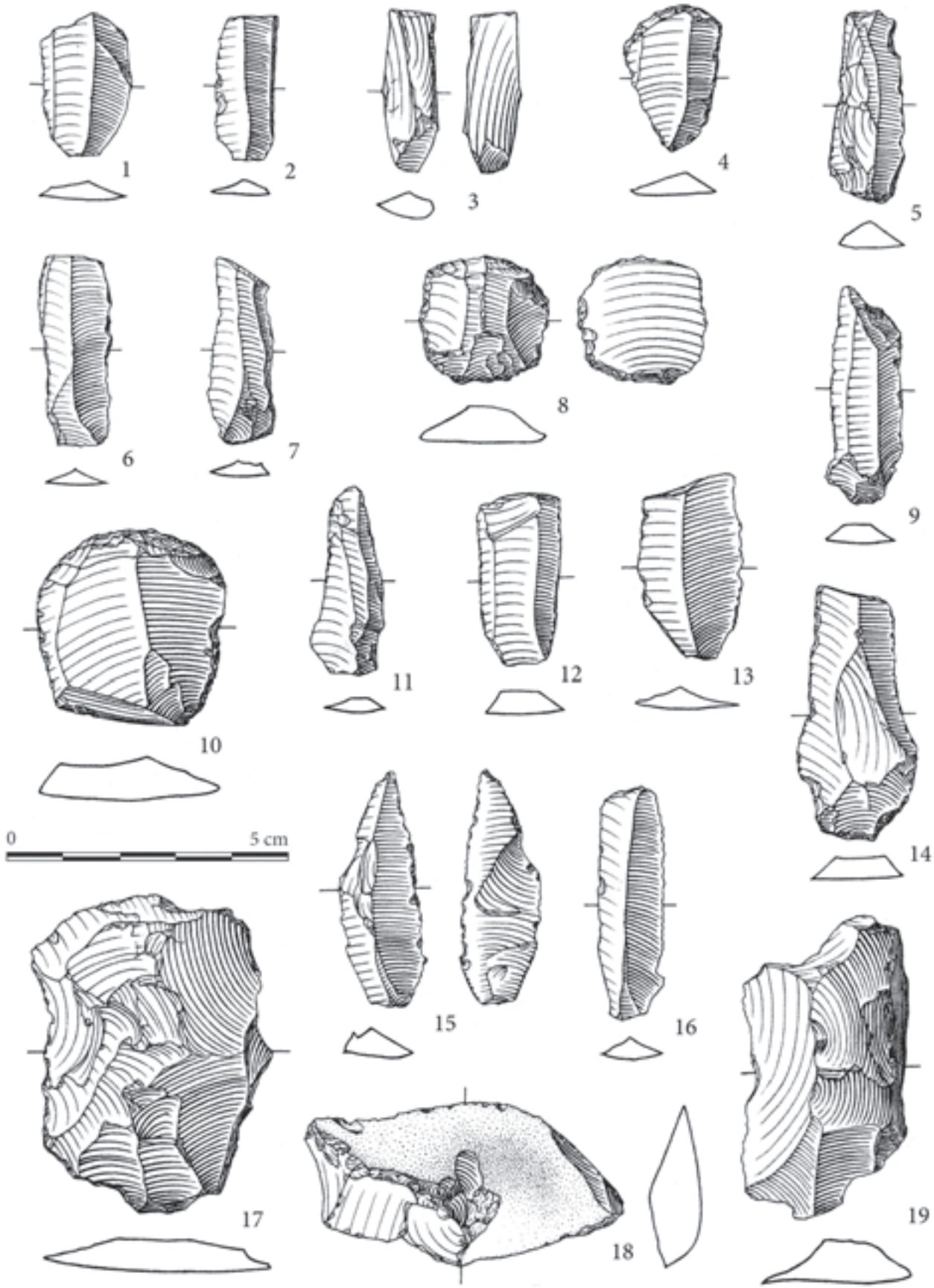


Plate XLIV. Vysočany, Znojmo district, Site *Paliardiho hradisko*: 1-19 – lithic chipped artifacts of the Jevišovice culture, J. Poláček´s collection. 1-19 – research 1959. Drawn by J. Brenner.

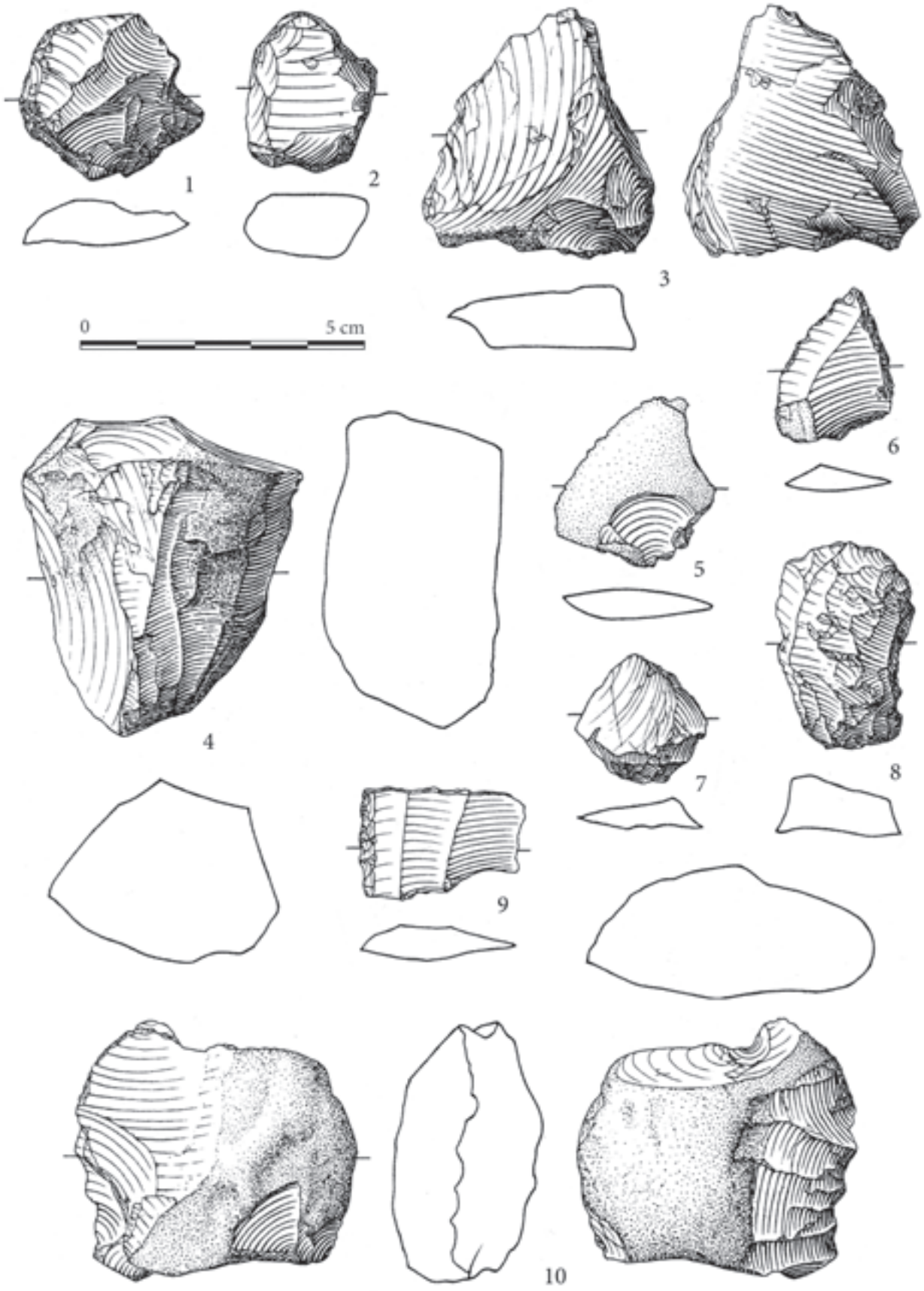


Plate XLV. Vysočany, Znojmo district, Site *Paliardiho hradisko*: 1-10 – lithic chipped artifacts of the Jevišovice culture. Drawn by J. Brenner.

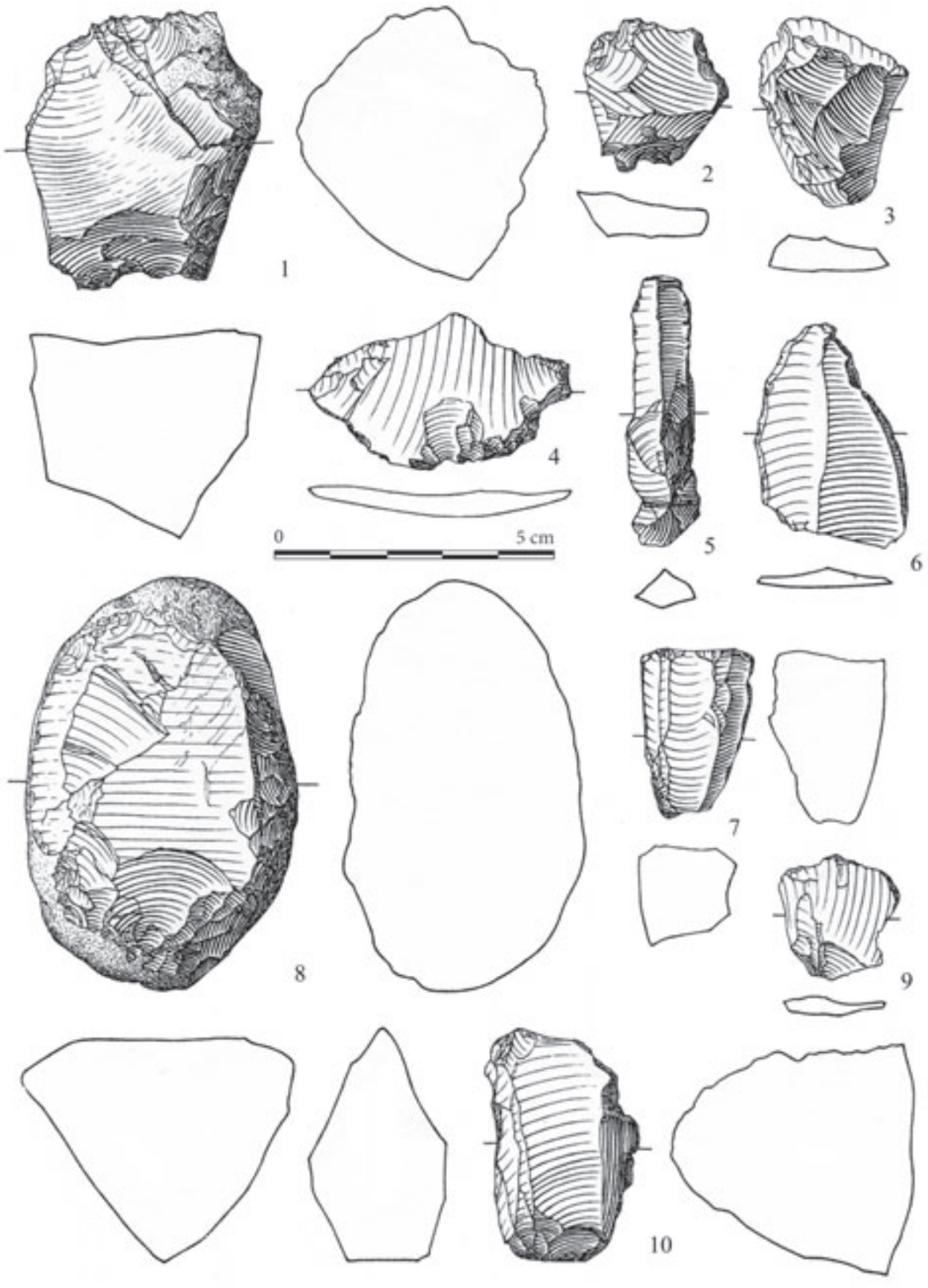


Plate XLVI. Vysočany, Znojmo district, Site *Paliardiho hradisko*: 1-10 – lithic chipped artifacts of the Jevišovice culture. Drawn by J. Brenner.

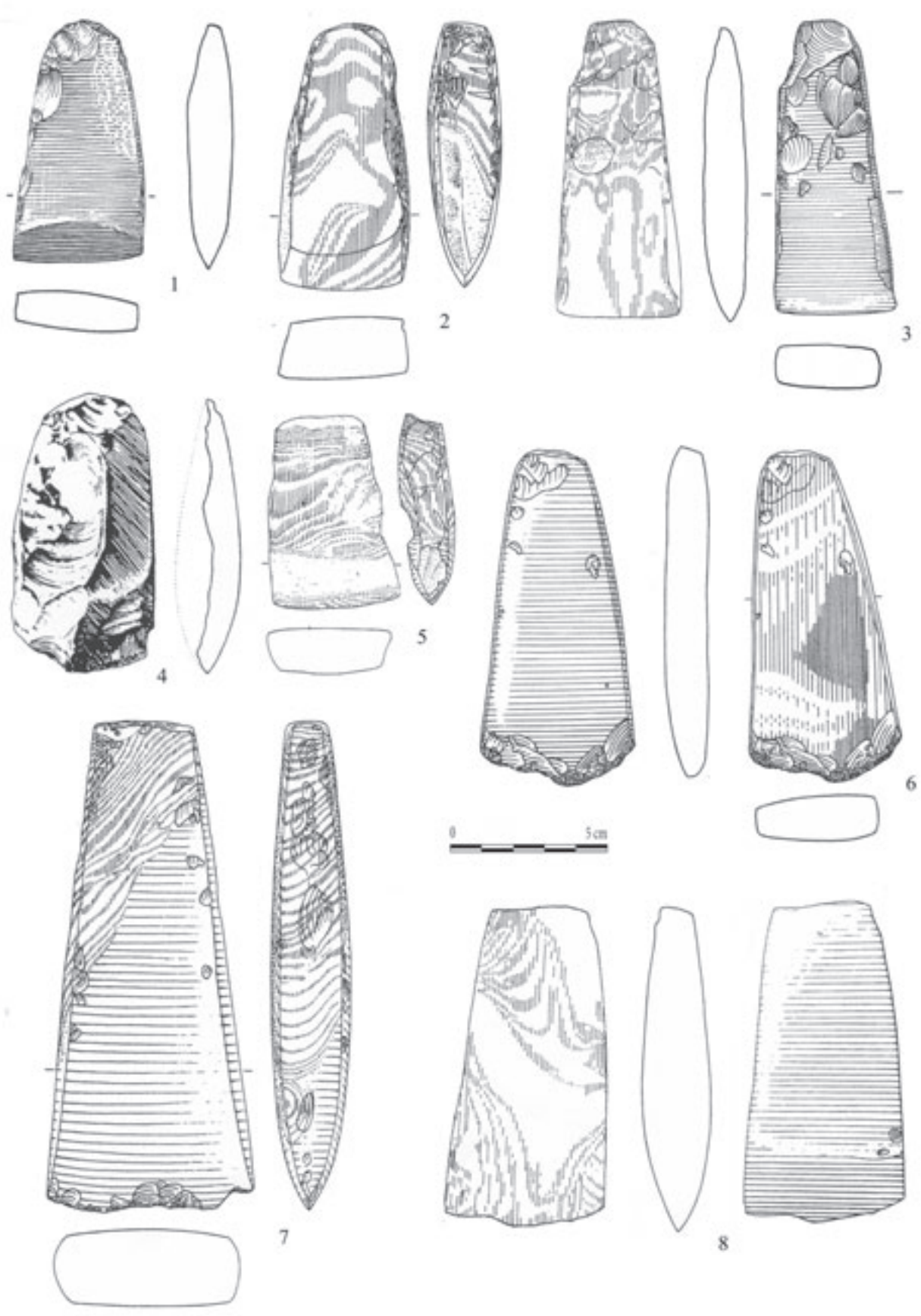


Plate XLVII. Young Eneolithic silicite polished axes from Moravia: 1 – Hlinsko, Přerov district, Sounding Trench 77-D/86; 2 – Zlín-Prštné, Zlín district; 3 – Drslavice, Uherské Hradiště district; 4 – Brno-Líšeň, Brno-město district, Layer I (Jevišovice culture); 5 – Ohrozim, Prostějov district; 6 – Mělčany, Brno-venkov district; 7 – Prusinovice, Kroměříž district; 8 – Bravantice, Nový Jičín district. 1, 6, 8 – after Šebela, in preparation; 2, 3, 5, 7 – after Přichystal, Šebela 2004; 4 – after Medunová-Benešová 1964.

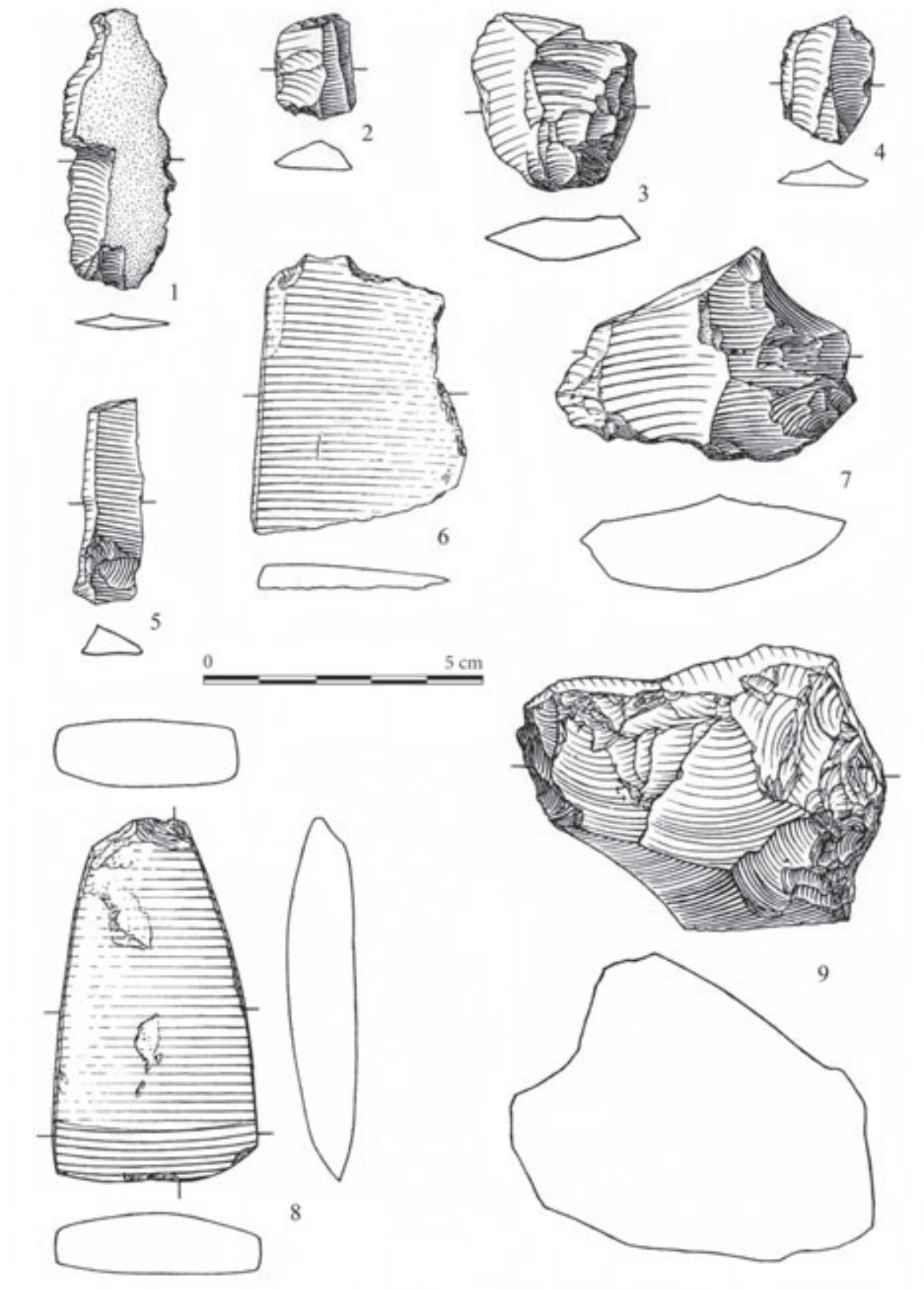


Plate XLVIII. Obědovice, Hradec Králové district (Eastern Bohemia): lithic chipped (1-7, 9) and polished (6, 8) artifacts from the settlement of the Bošáca culture. 1, 2, 4 – structure 60/1996; 3, 5, 7, 9 – structure 227/1999; 6, 8 – structure 23/1996. Drawn by J. Brenner.

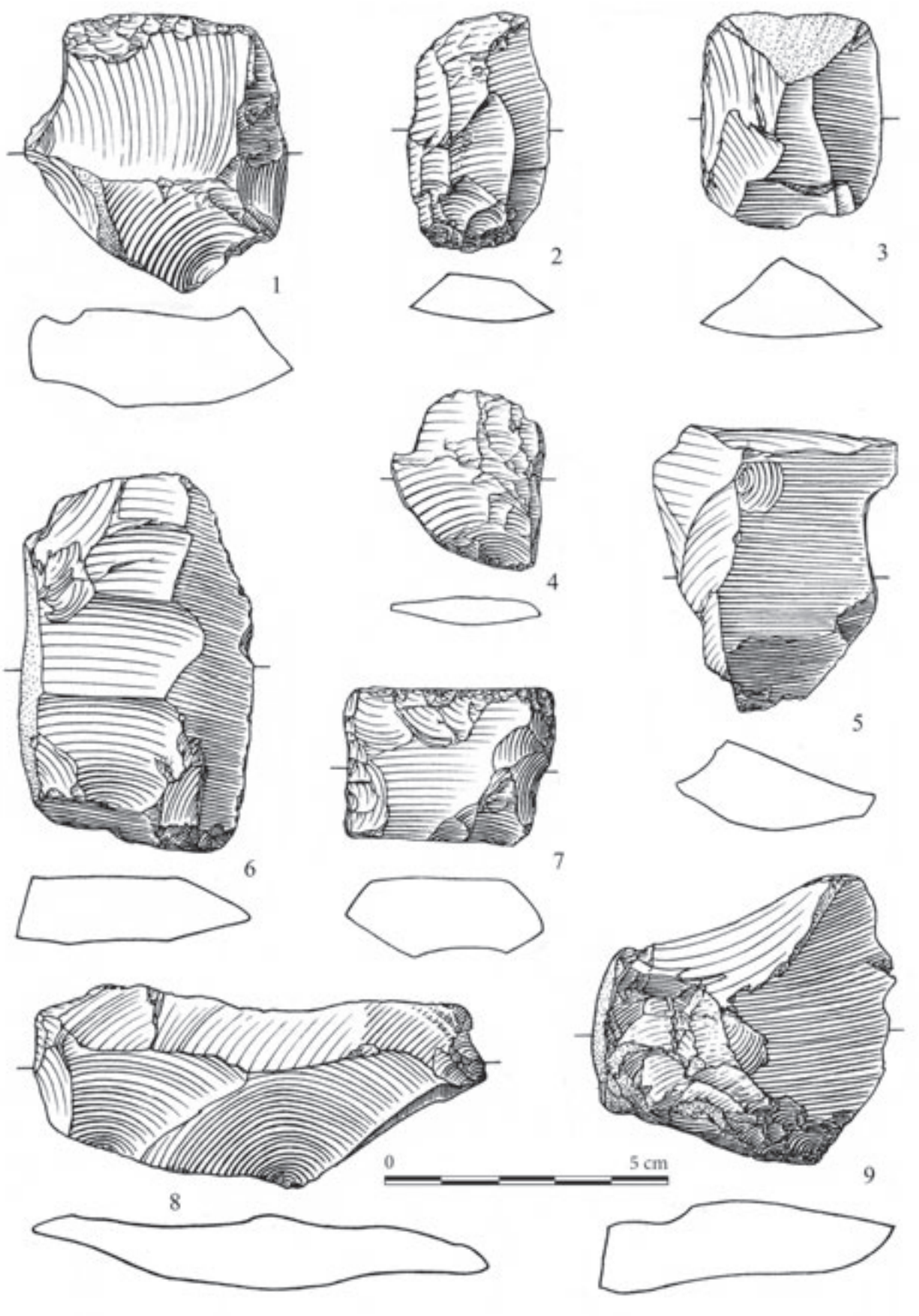


Plate XLIX. Obědovice, Hradec Králové district (Eastern Bohemia): 1-9 – lithic chipped artifacts from the settlement of the Bošáca culture, structure 227/1999. Drawn by J. Brenner.

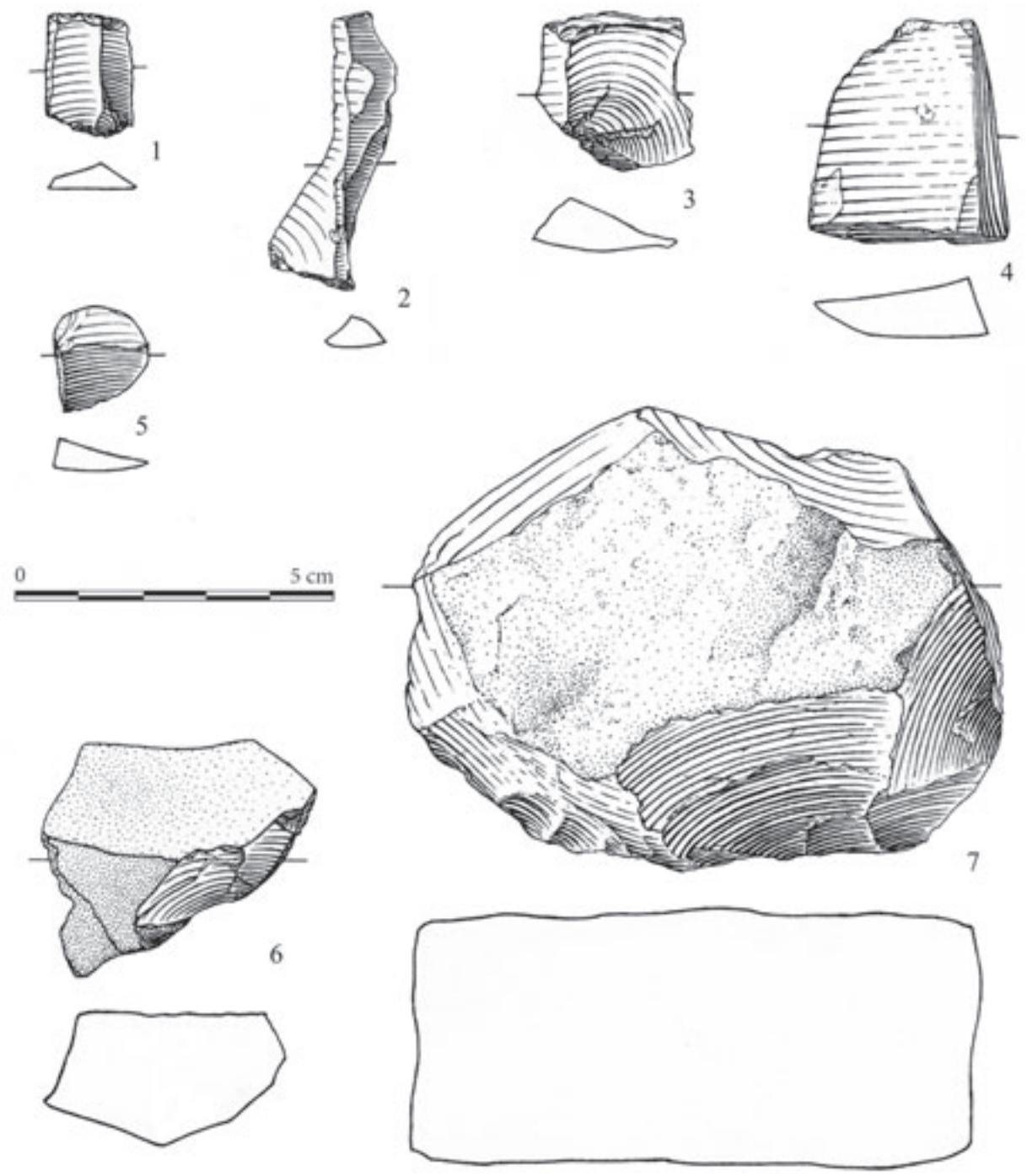


Plate L. Obědovice, Hradec Králové district (Eastern Bohemia): 1-7– lithic chipped artifacts from the settlement of the Bošáca culture, structure 227/1999. Drawn by J. Brenner.

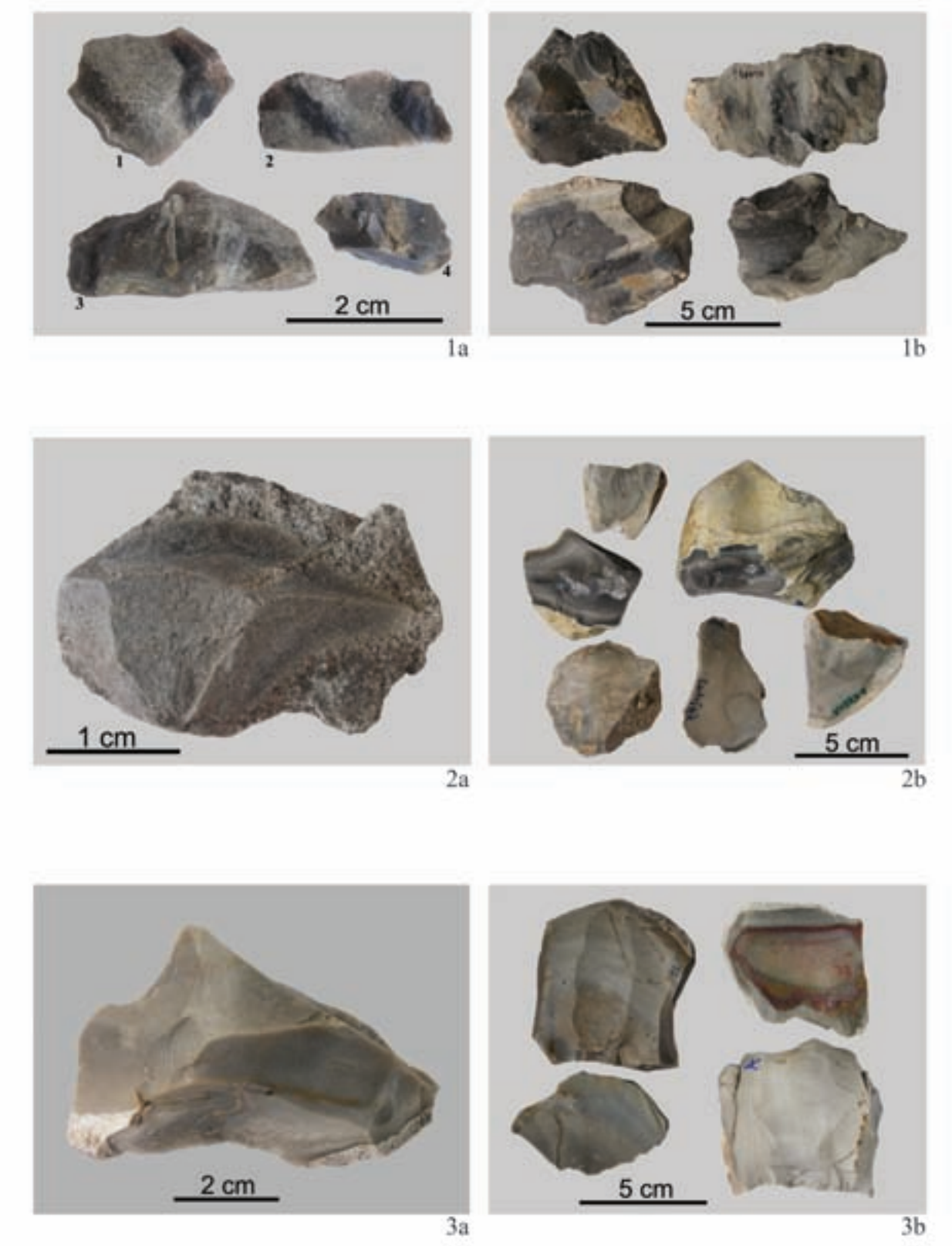


Plate LI. 1a – Vysočany, Znojmo district: artifacts of the Olomučany chert (1 – inv. no. 18785-575/59; 2 – inv. no. MB 1105; 3 – inv. no. 18785-645/59; 4 – inv. no. 18785-658/59); 1b – samples of the Olomučany chert from the mining area at Olomučany; 2a – Vysočany, Znojmo district: artifact of the Moravian Jurassic chert (inv. no. 18785-592/59); 2b – samples of the Moravian Jurassic chert from various natural sources in Tertiary and Quaternary gravels in Moravia (Kupařovice, Lutrštěk, Horní Těšice, Němětice u Kelče); 3a – Brno-Líšeň, Brno-město district: artifact of the Stránská skála chert (inv. no. 147133); 3b – major varieties of cherts from the source area at Stránská skála Hill in Brno. Photo L. Plchová.

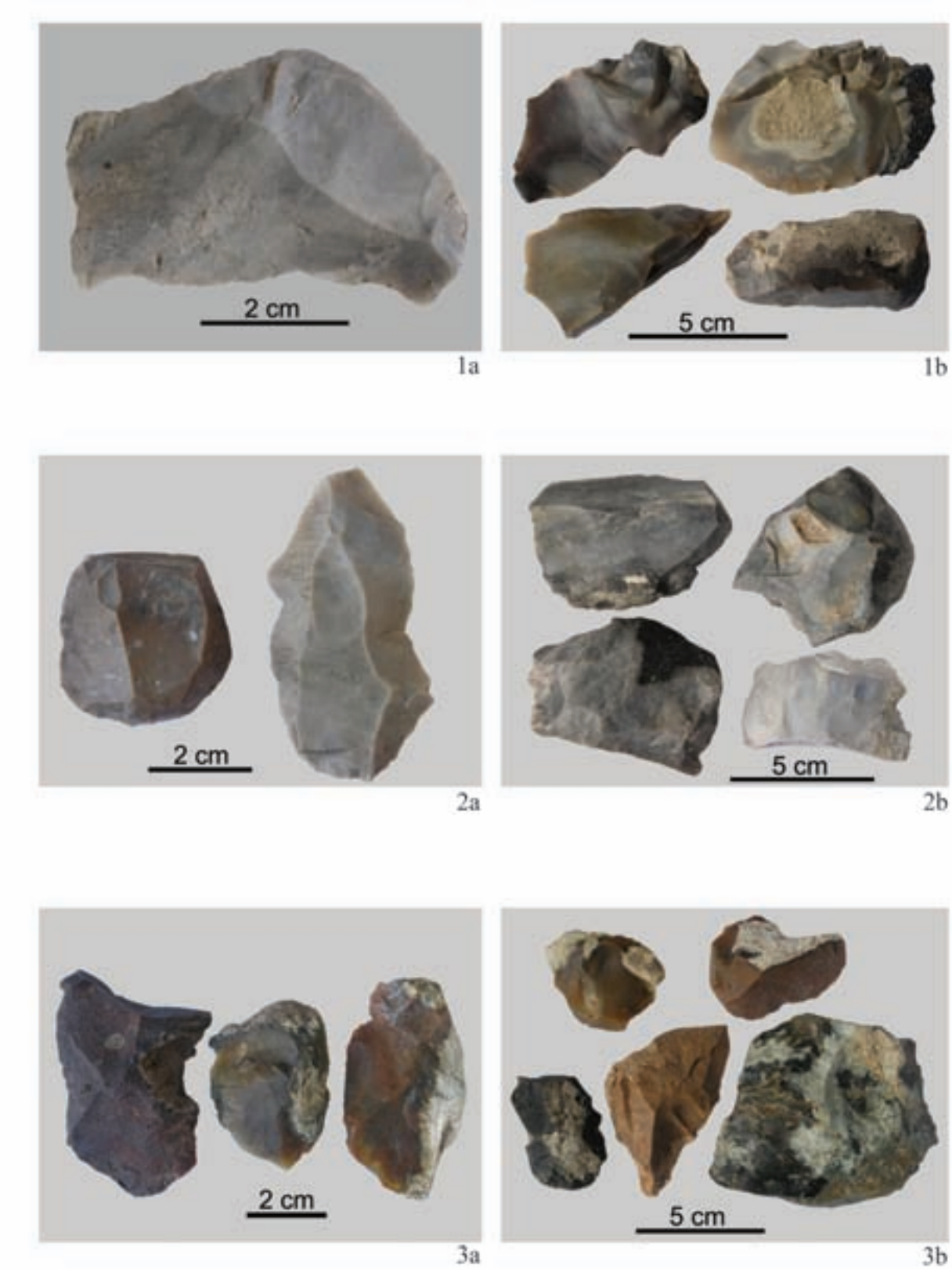
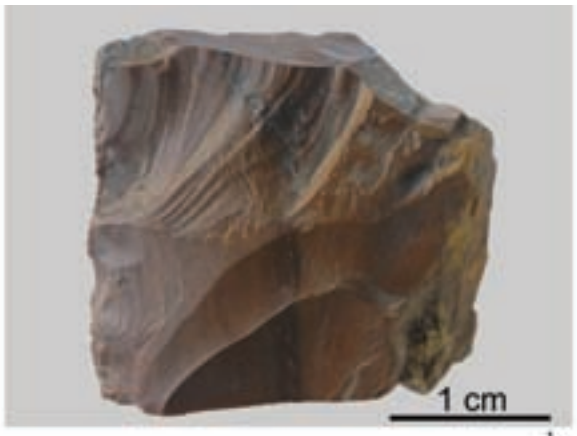
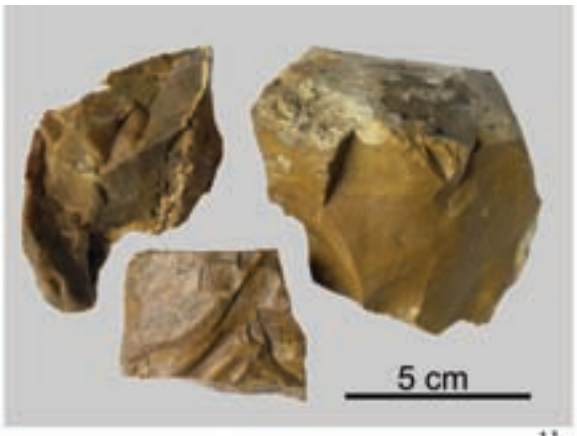


Plate LII. 1a – Jevišovice, Znojmo district: artifact of cherts of the Krumlovský les type, variety I (inv. no. 4903/10); 1b – samples chert of the Krumlovský les type, variety I, from the mining place in the Krumlovský les Highland; 2a – artifacts of chert of the Krumlovský les type, variety II (1 – Vysočany, Znojmo district, inv. no. 18785-500/59; 2 – Jevišovice, Znojmo district, inv. no. 3504); 2b – samples of chert of the Krumlovský les type, variety II from a workshop area between Mělčany and Tikovice, NE of the Krumlovský les Highland; 3a – Jevišovice, Znojmo district: artifacts of siliceous weathering products of serpentinite (1 – inv. no. 4903/21; 2 – inv. no. 4903/30; 3 – inv. no. 4903/13); 3b – samples of siliceous weathering products of serpentinite (so-called plasma) from source areas around Jevišovice and Bojanovice, western Moravia. Photo L. Plchová.



1a

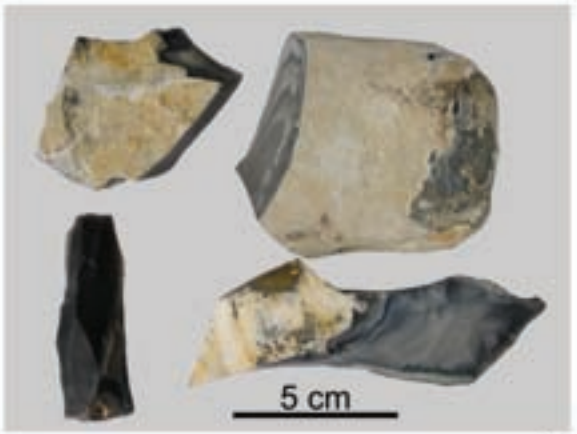


1b

2a

2b

3a



3b

Plate LIII. 1a – Vysočany, Znojmo district: artifact of brown opal (inv. no. 18785-589/59); 1b – samples of brown opals (prevalently weathering products) from gravel at Stará Ves near Přerov, Mešovice near Jemnice, and Brno-Líšeň; 2a – artifacts of smoky quartz (left) and rock crystal (1 – Jevišovice, Znojmo district, inv. no. 4903/3; 2 – Vysočany, Znojmo district, inv. no. 18785-598/59); 2b – samples of rock crystal (1), citrine (2, 3) and smoky quartz (4) from source areas around Žďár nad Sázavou (Řečice, Sklené), western Moravia; 3a – Vysočany, Znojmo district: artifact of tabular chert (*Plattensilex*; inv. no. MB 1079); 3b – sample of tabular chert (*Plattensilex*) from the source area at Arnhofen, Bavaria. Photo L. Plchová.

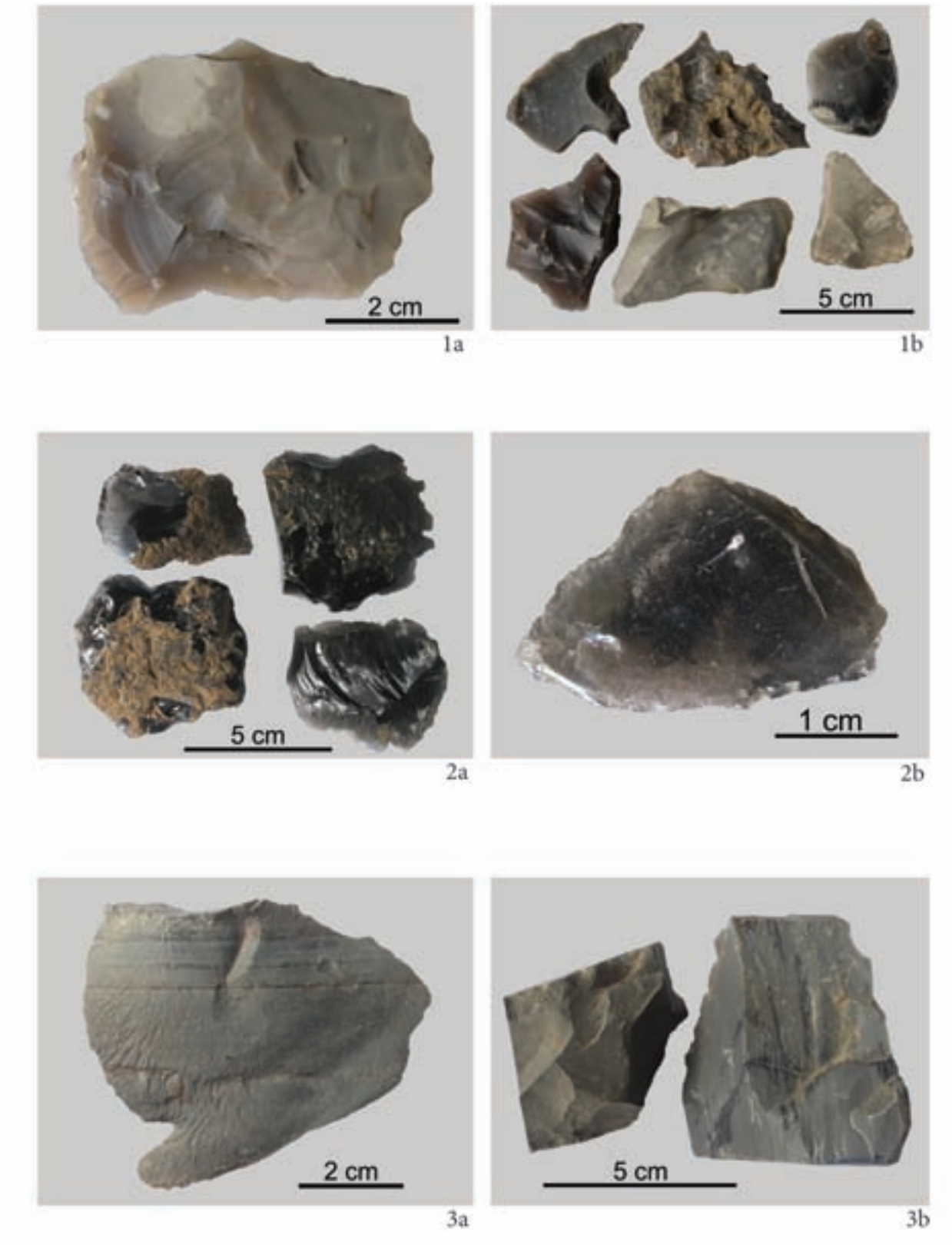
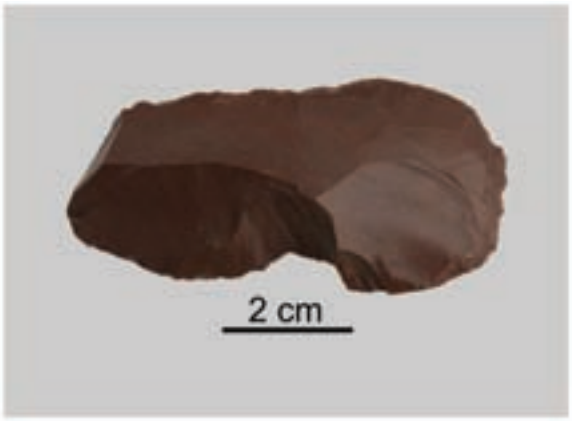
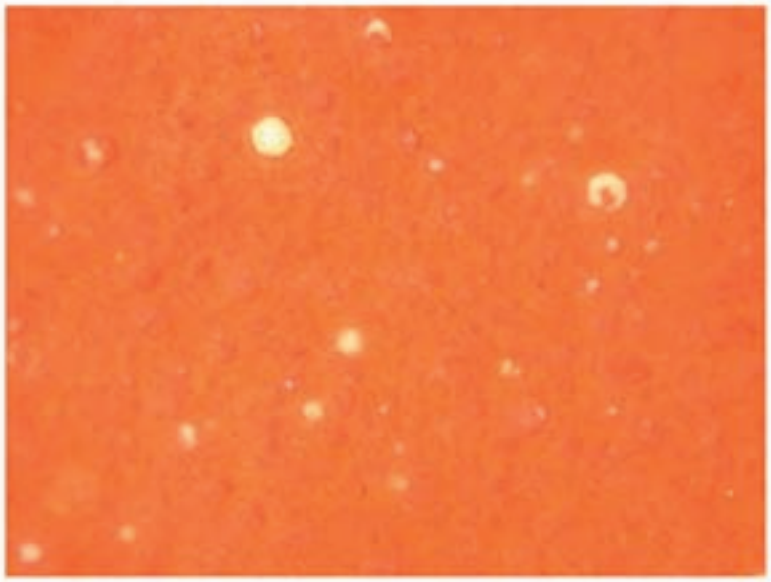


Plate LIV. 1a – Vysočany, Znojmo district: artifact of silicite (flint) from glacial sediments (inv. no. 18785-498/59); 1b – samples of silicites (flints) from glacial sediments of northern Moravia and Czech Silesia; 2a – Vysočany, Znojmo district: artifact of obsidian (inv. no. 18785-600/59); 2b – samples of obsidian from the source area in the NE part of Zemplínské vrchy, SE Slovakia; 3a – Jevišovice, Znojmo district: artifact of spilite volcaniclastic rock (inv. no. 4903/19); 3b – samples of spilite volcaniclastic rocks (left – axe fragment from Hostivice-Palouky, west of Prague, the Řivnáč culture; right – chunk of potential source rock from Vrané nad Vltavou, south of Prague. Photo L. Plchová.

1a



1b



2

3

Plate LV. 1ab – Bánov, Uherský Brod district: artifact of radiolarite (inv. no. 1646); 2 – Microphotograph of the artifact in water immersion under the stereomicroscope, length of the picture is 5 mm ; 3 – Radiolarites from the workshops at Slavnica near Vršatské Podhradie, Slovakia. Photos 1a and 1b – H. Všetečková; 2 and 3 – A. Přichystal.

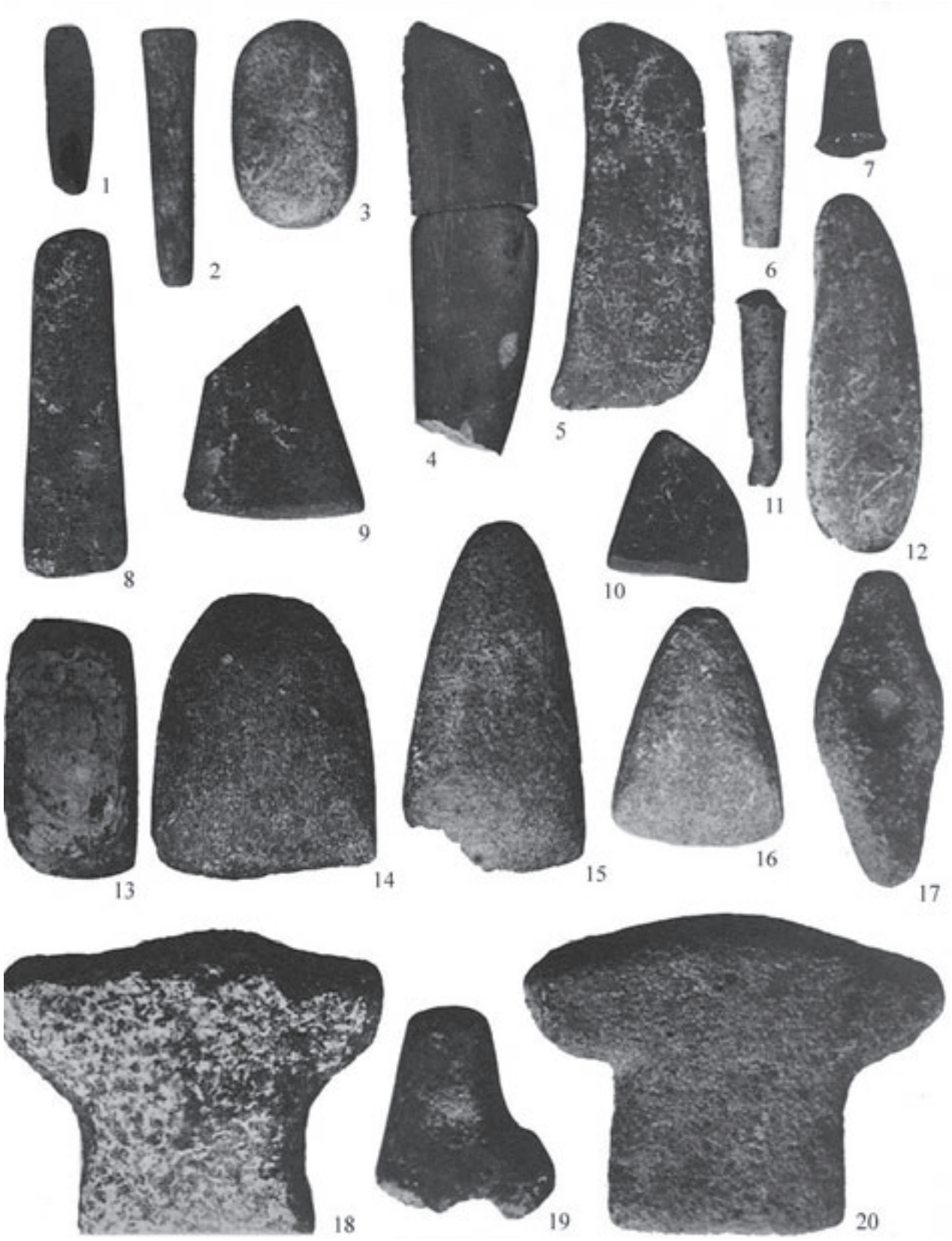


Plate LVI. Jevišovice, Starý Zámek. Stone artifacts from the Layer B. After Palliardi, undated, photo in Archive of Archaelogical Institute Brno.

ANNEX A

Lubomír Šebela

Settlement of the Jevišovice culture at Ostopovice, Brno-venkov district

I. Introduction

In the late 1940s a century passed when Jaroslav Mikulášek, at that time a research worker from Troubsko, carried out the excavation research in Ostopovice (Brno-venkov district), cadastral part *Padělky pod hájem***.** As a result, four structures associated with the settlement complex of the Jevišovice culture were examined. In fact, the site in question was accidentally discovered already in 1939 during construction of a workers' camp (*Musterlager*) related to the construction of the Breslau-Vienna freeway. The line of the intended thoroughfare ran across the area of the neighboring village of Nebovidy where the bridge over the local Moravany-Nebovidy road was constructed. Artifacts saved during the rescue research carried out on spot by Karl Schirmeseisen were passed to the Moravian Museum in Brno (MM Brno), waiting to be elaborated in the future. The excavation report by the same author, entitled *Nordische Kultur bei Wostopowitz*, was intended to be published in the German-language periodical *Sudeta*, however discontinued in 1943 (Hucke 1943, 331). Brief information on discoveries of the freeway line was presented by Karl Schirmeseisen in the magazine *Technik in Donau* dated to 1939 (published in 1940). In relation to Ostopovice he mentioned finds of Lengyel and "Nordic" cultures and two inhumation graves with no precise chronological position. Among settlement pits of the Lengyel culture, potsherds of the Bell Beaker culture were supposedly found (Schirmeisen 1939, 38).

In 1950s the archaeological collection of Jaroslav Mikulášek (among them his finds from Ostopovice) were purchased by the National Museum in Prague. Soon afterwards stone art artifacts of this collection were published by Jiří Neustupný (1956, 29, Tab. 2: 3, 5; III: 1a-d, 2a-c).

Results of Mikulášek's excavation inspired further research of the site in 1951, carried out by Jiří Neústupný from NM in Prague. It brought to light (by means of sounding trenches) other settlement structures, affiliated by the author with the Moravian Painted Pottery culture (results were presented only in excavation report; *cf.* Neustupný 1952, 222).

Locality of Ostopovice is located at the southern outskirt of Brno (Map 2), to the west from the city quarter Brno-Starý Lískovec. Site *Padělky pod hájem* lies on a broad ridge in the southeaster part of the Ostopovice cadastral area. Towards northwest, north, and northeast the ridge sides are steep, while its eastern slope is much easier. In that place, intersected by the connecting villages of Ostopovice and Moravany, several archaeological structures were brought to light – 1/1947 (lot no. 930), 2/1948 (lot no. 933/1), 3/1948 (lots nos. 938/1 and 939, and 4/1948 (lot no. 942/4).

II. Description of archaeological features and artifacts

As already said, Jaroslav Mikulášek sold his archaeological collection to the National Museum in Prague. In relation to Ostopovice, affiliation of artifacts to individual structures is not very precise. Thus, materials from structures 3 and 4 were catalogued in the Museum's inventory book as the whole, under nos. 88.672 through 88.744. Also information in Mikulášek's excavation report does not have the separation of two assemblages.

Structure 1/1947

Settlement feature of oval outline 165 x 180 cm, with even bottom of bigger size than the opening on level 60 cm. It was filled with ash-color clay with daub and charcoal.

The recovered material includes potsherds (1-16), clay and stone fragments of anthropomorphic figurines (17-19), bone implements (20-24), and polished and chipped lithic artifacts (25-42).

1. Two neck fragments of undetermined vessel with engraved decoration. Inv. no. 83569 (Plate A-1:8).

2. Bottom fragment of a vessel with delicate engraved decoration. Well fired blackish surface. Preserved height 60 mm, bottom diameter 85 mm. Inv. no. 83570 (Plate A-1: 7).

3. Fragment of amphora (?) with ledge-like relief decoration and engraved lines. Coarse brown-gray surface. Inv. no. 83571. Inv. no. 83571 (Plate A-1:10).

4. Fragment of neck and belly of a vessel with a projection. Smooth surface, brown in color. Inv. no. 83572 (Plate A-1: 1).

5. Body fragment of jar with banded handle reaching the rim. Polished dark brown surface. Preserved height 58 mm, opening diameter 82 mm. Inv. no. 83573 (Plate A-1: 6).

6. Upper part of vessel (handleless amphora ?) with outward bent neck. Coarse yellow-brown surface. Preserved height – 105 mm, opening diameter 135 mm. Inv. no. 83574 (Plate A-1: 11).

7. Neck fragment of a vessel (?) decorated in the lower part with horizontal row of punctures and *Besenstrich* beneath. Smooth brown surface. Opening diameter 172 mm. Inv. no. 83575 (Plate A-1: 9).

8. Neck fragment of a vessel decorated with horizontal row of punctures and engraved lines. Coarse brown surface. Inv. no. 83576 (Plate A-1: 3).

9. Vessel fragment with banded handle. Smooth light brown surface. Inv. no. 83577 (Plate A-1: 2).

10. Vessel fragment with horizontal row of punctures and fine engraved lines. Light brown-yellow surface. Inv. no. 83578 (Plate A-1: 2).

11. Fragment of upper part of vessel (bowl ?). Smooth medium-gray surface. Inv. no. 83579 (Plate A-2: 8).

12. Neck fragment of a vessel. Smooth medium-gray surface. Opening diameter 140 mm. Inv. no. 83580 (Plate A-2: 4).

13. Neck fragment of a vessel with *Furchenstrich* decoration (?). Smooth blackish surface. Inv. no. 83581 (Plate A-2:3).

14. Potsherd with a horizontal row of triangular stamp impressions. Coarse light gray surface. Inv. no. 83582.

15. Rim fragment of bowl with protrusion in the body part. Smooth light brown surface. Inv. no. 83583 (Plate A-2: 2).

16. Neck fragment of a vessel with oval impressions. Coarse yellow-brown surface. Inv. no. 83584 (Plate A-4: 5).

17. Fragment of an anthropomorphic figurine – foot with marked toes. Fine clay. Preserved height 53 mm. Inv. no. 83585 (Plate A-9: 2).

18. Figurine fragment. Porphyritic microdiorite (magnetic susceptibility – 1, 45 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 118.4 mm, width 81 mm, thickness - 47 mm. Inv. no. 83603. Plate A-7: 1ab).

19. Figurine fragment. Porphyritic microdiorite (magnetic susceptibility – 1, 16 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 54 mm, width 92 mm, thickness 45 mm. Inv. no. 83604 (Plate A-8: 5ab).

20. Figurine fragment. Porphyritic microdiorite (magnetic susceptibility – 1, 5 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 82 mm, width 45 mm, thickness 52 mm. Inv. no. 83605 (Plate A-9: 1).0+

21. Pointed artifact from long bone of small mammal (sheep/goat; expertise of M. Nývltová Fišáková). Length 90 mm. Inv. no 83586 (Plate A-9: 7).

22. Metapodial bone of a small mammal (sheep/goat; expertise of M. Nývltová Fišáková). Length 69 mm. Inv. no 83587 (Plate A-9: 4).

23. Pointed artifact from long bone of a big mammal (expertise of M. Nývltová Fišáková. Length 82 mm. Inv. no. 83588 (not illustrated).

24. Pointed artifact of a metapodial bone of small mammal (sheep/goat; expertise of M. Nývltová Fišáková). Length 74 mm. Inv. no. 83589 (Plate A-9: 3).

25. Horn artifact (probably of elk), possibly lamp stand or tent peg with circular opening (diameter 28 mm), decorated with engraved lines. Preserved length 166 mm; preserved width 146 mm. Inv. no. 83611 (Plate A-9: 5).

26. Stone anvil/grinder with utilization traces. Porphyritic microdiorite (magnetic susceptibility – 0. 39 x 10^{-3} Si; expertise of A. Přichystal). Length 62 mm; width 52 mm; thickness 40 mm. Inv. no. 83606 (Plate A-8: 1).

27. Stone axe fragment. Diorite (magnetic susceptibility – 1. 05 x 10^{-3} Si; expertise of A. Přichystal). Length 80 mm; width 54 mm, thickness 19 mm. Inv. no. 83607 (Plate A-8: 3).

28. Hammerstone (quartz pebble; expertise of A. Přichystal). Length 72 mm; width 37 mm. Inv. no. 83608 (Plate A-8: 6).

29. Stone axe fragment (butt missing). Porphyritic microdiorite (magnetic susceptibility – 0. 78 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 89 mm; blade width 64 mm; thickness 33 mm. Inv. no. 83806 (Plate A-8: 4).

30. Butt fragment of shafted stone axe with preserved opening. Dark fine-grained quartz sandstone (magnetic susceptibility – 0. 15 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 63 mm; width 40 mm; thickness 60 mm. Inv. no. 83610 (Plate A- 8: 2).

31. Stone tablet (pad) with handle (?) or figurine fragment with wear traces (?). Porphyritic microdiorite (magnetic susceptibility – 1. 45 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 118 mm; width 81 mm; thickness 47 mm. Inv. no. 83603 (Plate A-7: 1ab).

32. Stone axe of trapezoid outline. Metabasite (dense ilmenite; expertise of A. Přichystal). Length 56 mm; blade width 36 mm; thickness 11 mm. Inv. no. 83590 (Plate XXXIX: 10).

33. Stone axe of trapezoid outline. Metabasite (magnetic susceptibility – 0. 36 x 10^{-3} Si; expertise of A. Přichystal). Length 49 mm; blade width 35 mm; thickness 10 mm. Inv. no. 83591 (Plate XXXIX: 8).

34. Boring core. Fibrous igneous rock, possibly lamprophyre (magnetic susceptibility – 0. 72 x 10^{-3} Si; expertise of A. Přichystal). Length 25 mm; diameter 15 mm. Inv. no. 83592 (Plate A-7:4).

35. Boring core. Porphyritic microdiorite (magnetic susceptibility – 0. 10 x 10^{-3} Si; expertise of A. Přichystal). Length 45 mm; diameter 17 mm. Inv. no. 83593 (Plate A-7: 5).

36. Boring core. Porphyritic microdiorite (magnetic susceptibility – 0. 05 x 10^{-3} Si; expertise of A. Přichystal). Length 34 mm; diameter 14 mm. Inv. no. 83594 (Plate A-7: 3).

37. Boring core. Contact rock between porphyritic microdiorite a diorite (magnetic susceptibility – 0. 88 x 10^{-3} Si; expertise of A. Přichystal). Inv. no. 88595. Length 32 mm; diameter 12 mm. Inv. no. 83595 (Plate A-7:2).

38. Flake. Inv. no 83596 (Plate XXXIX: 7).

39. Core for blades. Inv. no. 83597 (Plate XXXIX: 5abc).

40. Segment. Inv. no. 83598 (Plate XXXIX: 2).

41. Blade. Inv. no. 83599 (Plate XXXIX: 1).

42. Knife-like tool on wide flake. Inv. no. 83600 (Plate: XXXIX: 6).

43. Endscraper. Inv. no. 83601 (Plate XXXIX: 4).

44. Truncated blade. Inv. no. 83602 (Plate XXXIX: 9).

Strucrure 2/1948

Settlement feature of oval outline 200 x 160 cm, with depths at the center and at the borders 40 and 20 cm respectively. Beneath the thick layer of daub there was ashy clay-like fill with animal bones and a partially preserved jar (1).

1. Jar with broken banded handle attached to the rim. Lower part of the vessel was decorated with two horizontal rows of cord impressions. Gray, partially pilled, well-fired surface. Height 105 mm. Inv. no. 83568. Plate A-1: 5.

Structures 3 and 4/1948

Structure 3/1948*:* settlement pit of oval outline (160 x 275 cm), sheer walls and even bottom 60 cm beneath the ground level (Plate A-6: 7). In the fill there were found potsherds, chipped and polished lithic artifacts, and bone implements.

Structure 4/1948*:* settlement pit of quasi-circular outline 220 x 190 cm), with bottom 50 beneath the ground level (Plate A-6: 6). The fill in upper part (down to 20 cm) was of dark clay with numerous daub pieces. The lower part of the pit was filled with light gray clay containing potsherds, chipped and polished lithic artifacts, bone implements, and weights.

1. Fragment of jar neck with three protrusions and two horizontal lines of rounded impressions. Smooth gray-brown surface. Opening diameter 230 mm. Inv. no. 88672 (Plate A-2: 12).

2. Jar fragment with banded handle protruding over rim. Smooth black-gray surface. Preserved height 65 mm; opening diameter 70 mm. Inv. no. 88673 (Plate A-4: 10).

3. Jar fragment with banded handle with round dimple at the handle base. Smooth brown surface. Preserved height 70 mm; rim diameter 130 mm. Inv. no. 88674 (Plate A-4: 12).

4. Rim fragment with protrusion. Coarse yellow-brown surface. Opening diameter 210 mm. Inv. no. 88675 (Plate A-5: 6).

5. Two rim fragments of a vessel decorated at the neck base with row of punctures and line of grooves beneath. Smooth yellow-brown surface. Opening diameter 160 mm. Inv. no. 88676 (Plate A-5: 2).

6. Neck fragment of a vessel decorated with multiple zigzag motif and horizontal *Furchenstrich* line. Smooth yellow-brown surface. Opening diameter 140 mm. Inv. no. 88677 (Plate A-4: 3).

7. Rim fragment of bowl with opening bent outwards. Smooth gray-brown surface. Opening diameter 180 mm. Inv. no. 88678 (Plate A-4: 14).

8. Rim fragment of a vessel with macroscopically visible darker stripes on the neck. Smooth yellow-brown surface. Opening diameter 160 mm. Inv. no. 88679 (Plate A-5: 4).

9. Rim fragment of a vessel with opening bent outwards with punctured decoration. Smooth blackish surface. Opening diameter 110 mm. Inv. no. 88680 (plate A-4: 7).

10. Fragment of a beaker-type vessel with notches at the rim. Smooth patchy yellow-brown surface. Preserved height 60 mm; opening diameter 40 mm. Inv. no. 88681 (Plate A-3: 1).

11. Rim fragment of a vessel with neck bent outwards. Smooth black surface. Inv. no. 88682.

12. Fragment of a vessel with short cylindrical neck. Smooth brown-gray surface. Opening diameter 70 mm. Inv. no.88683 (Plate A-5: 1).

13. Neck fragment of a beaker-type vessel. Smooth light brown surface. Opening diameter 100 mm. Inv. no. 88684 (Plate A-3: 3).

14. Fragment of upper part of a coarse vessel. Roughen gray surface. Opening diameter 100 mm. Inv. no. 88685 (Plate A-4: 13).

15. Fragmentof a vessel with neck slightly bent outwards. Smooth brown surface. Opening diameter 100 mm. Inv. no. 88686.

16. Neck fragment of an amphora-type vessel (rim missing) with decorated with notched ledge. Diameter of neck 240 mm. Smooth yellow-brown surface. Inv. no. 88687 (Plate A-2: 10).

17. Upper fragment of a vessel (without opening) decorated with horizontal line of punctures. Smooth brown-yellow surface. Inv. no. 88688.

18. Fragment of a vessel between neck and belly, with a protrusion, horizontal punctured line and short decoration composed of short vertical engraved lines bordered from both ends by horizontal ones. Smooth brown surface. Diameter of neck 150 mm. Inv. no. 88689 (Plate A-4: 2).

19. Fragment of a vessel with protrusion and horizontal stroked line. Smooth yellow-brown surface. Inv. no. 88690 (Plate A-4: 8).

20. Fragment with a protrusion, notched ledge and engraved lines beneath. Inv. no. 88691 (Plate A-2: 5).

21. Fragment of a vessel with *Furchenstrich* decoration (three horizontal lines with hanging triangles). Inv. no. 88692 (Plate A-4: 6).

22. Fragment of a vessel with *Furchenstrich* decoration. Smooth black-brown surface. Inv. no. 88693 (Plate A-4: 9).

23. Neck fragment of a vessel without rim, *Furchenstrich* decoration between neck and belly. Smooth brown-gray surface. Inv. no. 88694 (Plate A-2: 6).

24. Belly fragment of a vessel decorated with multiple *Furchenstrich* zigzag pattern. Smooth brown-gray surface. Inv. no. 88695 (Plate A-2: 9).

25. Pottery fragment with circular opening (diameter 5 mm). Smooth light brown surface. Inv. no. 88696 (Plate A-2: 7).

26. Belly fragment of a vessel decorated with two smooth parallel ledges, with coarsening beneath. Smooth light brown-gray surface. Inv. no. 88697 (Plate A-2: 11).

27. Belly fragment of a vessel with horizontal punctures and hachured triangle hanging from two horizontal lines of punctures imitating cord impression. Smooth yellow-brown surface. Inv. no. 88698 (Plate A-5: 3).

28. Pottery fragment with delicate engravings. Light medium-brown surface. Inv. no. 88699 (Plate A-2: 1).

29. Belly fragment of an amphora with preserved banded handle. Dark gray surface. Belly diameter 380 mm. Inv. no. 88700 (Plate A-6: 4).

30. Belly fragment of a vessel with preserved banded handle (amphora with two handles ?). Smooth light gray-brown surface. Belly diameter 180 mm. Inv. no. 88701 (Plate A-6: 1).

31. Belly fragment of a vessel with banded handle. Smooth light brown-gray surface. Inv. no. 88702 (Plate A-3: 2).

32. Belly fragment of a vessel with delicate engravings. Smooth gray-brown surface. Inv. no. 88703 (Plate A-5: 5).

33. Belly fragment of a vessel with coarse engravings. Smooth yellow-brown surface. Inv. no. 88704.

34. Bowl rim fragment. Smooth brown-gray surface. Opening diameter 400 mm. Inv. no. 88705 (Plate A-3: 4).

35. Rim fragment of bowl with hardly visible engravings. Smooth brown-gray surface. Opening diameter 400 mm. Inv. no. 88706.

36. Bowl fragment with rim bent inwards. Smooth yellow-brown surface. Opening diameter 285 mm. Inv. no. 88707 (Plate A-3: 6).

37. Rim bowl fragment. Smooth light-to dark brown surface. Opening diameter 300 mm. Inv. no. 88708 (Plate A-3: 7).

38. Bowl fragment with rim bent inwards, smooth at the neck and coarse in the lower part. Yellow-brown surface. Opening diameter 290 mm. Inv. no. 88709 (Plate A-3: 5).

39. Bowl fragment with rim bent inwards and coarse engravings in the lower part. Brick-red surface. Opening diameter 260 mm. Inv. no. 88710 (Plate A-3: 8).

40. Bowl fragment with pointed bottom. Smooth black-gray surface. Height 25 mm; opening diameter 50 mm. Inv. no. 88711 (Plate A-4: 4).

41. Fragment of handled bowl. Smooth gray-brown surface. Inv. no. 88712 (Plate A-4: 1).

42. Fragment of vessel of unknown type. Smooth metallic brown-gray surface. Preserved height 85 mm; rim diameter 50 mm. Inv. no. 88713 (Plate A-6: 3).

43. Handle fragment. Smooth light gray surface. Inv. no. 88714 (Plate A-4: 2).

44. Circle of clay. Light gray surface. Diameter 60 mm; thickness 8 mm. Inv. no. 88715.

45. Fragment of circle (?) of fired clay. Smooth light brown surface. Diameter 120 mm. Inv. no. 88716.

46. Clay weight. Smooth brown-gray surface. Height 80 mm; diameter 80 mm. Inv. no. 88717 (Plate A-6: 5).

47. Fragment of a handled spoon of fired clay. Smooth brown-gray surface. Height 30 mm; preserved length 82 mm. Inv. no. 88718 (Plate A-4: 11ab).

48. Figurine fragment of slightly fired clay. Smooth yellow-brown surface. Preserved height 60 mm, Inv. no. 88719.

49. Stone pad (tablet) with microscopically visible traces of red dye). Dark diorite (magnetic susceptibility – 8. 05 x 10^{-3} Si; expertise of A. Přichystal). Length 77 mm; width 57 mm; thickness 34 mm. Inv. no. 88720 (Plate A-5:8).

50. Butt part of a shafted axe, broken at the opening. Porphyritic microdiorite (magnetic susceptibility – 1. 56 x 10^{-3} Si; expertise of A. Přichystal). Preserved length 60 mm; width 34 mm; thickness 48 mm. Inv. no. 88721 (Plate A-5: 7).

51. Stone borer with utilization traces. Diorite of the Rokle type (magnetic susceptibility – 1.18 x 10^{-3} Si; expertise of A. Přichystal). Length 29 mm; diameter 24 mm. Inv. no. 88738 (Plate: XLI: 13).

52. Stone axe of trapezoid shape. Greenschist (magnetic susceptibility – 1.18 x 10^{-3} Si; expertise of A. Přichystal). Length 54 mm; width at blade and butt 37 mm and 15 mm; thickness 12 mm. Inv. no. 88737 (Plate:XLI: 14).

53. Adze fragment with shaft opening, made probably from elk antler (expertise of M. Nývltová Fisáková), with visible traces of rodent bites on one side. Length 113 mm. Inv. no. 88722 (Plate A: 10:2).

54. Awl of a metatarsal ruminant bone (sheep/goat or road deer; expertise of M. Nývltová Fišáková). Length 130 mm. Inv. no. 88739 (Plate A-10: 4).

55. Awl of a long bone of big mammal (expertise of M. Nývltová Fišáková). Length 85 mm. Inv. no. 88740.

56. Awl of a bone of undetermined kind. Length 75 mm. Inv. no. 88741 (Plate A- 9:6).

57. Chisel (?) of a rib of big mammal (expertise of M. Nývltová Fišáková). Length 54 mm. Inv. no. 88742 (Plate A-10: 2).

58. Small shovel (?) of an aurochs rib (expertise

of M. Nývltová Fišáková). Length 113 mm. Inv. no. 88743 (Plate A-10: 5).

59. Perforated pendant of a long bone of a big mammal (expertise of M. Nývltová Fišáková). Length 49 mm; width 35 mm; thickness 3 mm; opening diameter 5 mm. Inv. no. 88744 (Plate A-10: 1).

60. Polyhedral core. Inv. no. 88723 (Plate XL: A-D).

61. Endscraper on blade Inv. no. 88724 (Plate XLI: 11).

62. Short endscraper of the *ungiforme* type on blade. Inv. no. 88725 (PlateXLI: 8).

63. Endscraper on blade. Inv. no. 88726 (Plate XLI: 6).

64. Small knife-like tool. Inv. no. 88727 (Plate XLI: 3).

65. Combined tool on blade. Inv. no. 88728 (Plate XLI: 2).

66. Base part of an arrowhead. Inv. no. 88730 (Plate XLI: 7).

67. Endscraper on long blade. Inv. no. 88731 (Plate XLI: 5).

68. Perforator on long blade. Inv. no. 88732 (Plate XLI: 9).

69. Bifacially retouched knife-like tool on flake. Inv. no. 88733 (Plate XLI: 4).

70. Blade with proximal part broken. Inv. no. 88729 (Plate XLI: 1).

71. Irregular laminar flake with notch. Inv. no. 88735 (Plate XLI: 10).

72. Massive flake. Inv. no. 88736 (Plate XLI: 12).

III. Analysis of archaeological material

III. 1. Pottery

The pottery assemblage from Ostpovice accounts to 60 potsherds. Only one form – a jar, could have been reconstructed into its original form. Moreover, well preserved fragments come from a jar-like pot with banded handle drawn over the rim, decorated in the lower part of the neck with two horizontal lines of cord impressions (Plate A-1: 5). Such a decoration has as so-far no analogies in the whole in the Jevišovice milieu Three other fragments, also with banded neck protruding over the rim, represent vessels with distinctive neck and well defined belly. One has an oval opening in the upper termination of the handle (Plate A-1: 6; A-4: 10, 12). Pots – the most common forms in the culture in question, are represented by a fragment with rim bent outwards, a double protrusion and a fragment of coarsen surface (Plate A-1: 9). Two potsherds can be associated with amphorae with two massive banded handles (Plate A-6: 1, 4). The most frequent (11 fragments) come from bowls with rim either bent inwards (A-3: 4, 6, 8) or with funnel-shape neck (plate A-2: 8, 12), known also from upland settlements of the Jevišovice culture (Medunová-Benešová 1977b, obr. 4: C1, C2). At the end of the list there is a diminutive bowl with slightly rounded bottom (Plate A-4: 4).

The collection includes fragments of hard fired pottery with a 0glossy "metallic" surface (Structures 3 and 4/1948). Among them, there is a fragment of a vessel decorated with two horizontal smooth ledges and coarsened walls beneath (Plate A-2: 11), elements typical for storage vessels of the Únětice culture from the Early Bronze Age (Stuchlík 1981, obr. 12: 15, 16; Podborský *a kol*. 1993, obr. 156: 24; 157: 15). The same chronological affiliation can be attributed to an amphora fragment with a ledge separating the neck and the belly (A-2: 10), and a fragment of an undetermined vessel with a cylindrical neck and a cone-shaped belly (Plate A-6: 3).

III.2. Small ceramic artifacts

In comparison with the upland settlements of the Jevišovice culture (Grešlové Mýto, Jevišovice, Vysočany) abundant with all kinds of artifacts the assemblage of small ceramic artifacts from Ostopovice is very limited. It includes handled spoons (Plate A-4: 11ab) and their fragments (Plate A-4: 1, 2), known also from other sites of the culture in questions (*cf.* Medunová-Benešová 1972, Taf. 85: 4; *eadem* 1973, Taf. 59: 1, 14). There is also a fragment with a circular opening (Plate A-2: 7), two partially preserved clay circles and a weight fragment (Plate A-6: 5). The latter has quasi-conical shape, with flat base and rounded proximal termination with horizontal perforation. Analogous forms are known from Layer B in Jevišovice (Medunová-Benešová 1972, 137, Taf. 84: 13).

III. 3. Bone artifacts

Artifacts made of bone are represented by 11 pieces. Most frequent among them 5 artifacts) are awls with well shaped points, manufactured from split bones (Plate A-9: 3, 4, 6, 7; A-10: 4). One artifact, shaped from animal rib, is not pointed and,

as such, can be interpreted as a chisel (Plate A-10: 2). A rib was also used for producing an implement with one end rounded and the other tapered, interpreted as a shovel (Plate A-10: 5). Similar artifacts, however ornamented with engraved lines, known in Moravia from Paleolithic Magdalenian assemblages, are interpreted as spoons (Podborský *a kol*. 1993, obr. 32: 6, 8). Fragment of an antler artifact with opening probably served as an adze (Plate A-10: 3). On its side there are visible traces of gnawing by rodents.

A flat bone pendant with an opening (Plate A-10: 1) belong to the category of ornamentations. Analogical artifact is known from Layer B on the upland sediment in Jevišovice (Medunová-Benešová 1972, Taf. 87: 14). However, the artifact from Ostopovice is distinctive by trapezoid outline and rounded corners.

Among interesting artifacts there is an antler implement with a circular opening at one end, decorated with three bands of engraved lines (Plate A-9: 5). It has its analogies (yet not ornamented) in Jevišovice, Layer B (Medunová-Benešová 1972, 139, Taf. 89: 3), classified as shafted axe, and in Grešlově Mýtě (Medunová-Benešová 1973, Taf. 68: 3). Similar finds, yet with slightly diffrent decoration, are known from the upland fortified settlement *Denemark* of the Řivnáč cultur in Kutná Hora in eastern Bohemia (Zápotocký, Zápotocká 2008, obr. 128: 4-60). It is rather questionable that the decorated artifact from Ostopovice was used for strictly utilitarian purposes. More probable is its symbolic function – as a sign of prestige or as a ritual object.

III.4. Stone artifacts

III. 4. 1. Polished lithic industry

On the first place, two fragment of a stone shafted axe with partially preserved opening (Plate A-5: 7; A-8: 2) should be mentioned. Producing tools of that type on the site is confirmed by four boring cores from Structure 1/1947 (Plate A- 7: 2-5). The assemblage includes also four polished stone axes. Three of them, slightly damaged at the butt, have trapezoidet shapes (Plate XXXIX: 8, 10; XLI: 14), the other is wedge-like. Generally, all of them represent the same type (with broad butt), known also from Jevišovice, Layer B (Medunová-Benešová 1972, Taf. 96: 1-9).

Two stone tablets (pads) from Ostopovice are first artifacts of that type registered in the Jevišovice milieu. Both are trapezoid sdhape, with dimensions 77 x 57 x 34 mm (Plate-A-5: 8) and 62 x 52 x 40 mm (Plate A-8: 1) respectively. Microscopic examination revealed the presence of a red dye of the latter artifact.

Stone tablets, similar in size to artifacts from Ostopovice yet rectangular, are known from burials of the Moravian Bell Beaker culture (e.g. in Holešov, Grave X: Ondráček, Šebela 1985, tab. 46: 12, 14). It is possible that artifacts of that type served as anvil (Bátora 2002, 199-205).

The assemblage of polished stone artifacts also includes pebble fragment interpreted as borer (Plate A-8: 6) and partially preserved flat-convex form of unknown function (Plate A-8: 3). As the transversal cross-section of the latter artifact is rectangular, we cannot exclude that the fragment might have come from an axe (*cf.* Plate XXXIX: 8, 10; XLI: 14).

III. 4. 2. Chipped lithic industry

The lithic chipped assemblage from Ostopovice accounts to 20 artifacts – cores (Plate XXXIX: 5; XL: A-D), blades (Plate XXXIX: 1, 9; XLI: 1, 5), flakes (Plate XXXIX: 7, XLI: 10, 12), and tools (Plate XXXIX: 2, 4, 6; XLI: 3-5, 6, 8, 11). They are presented in details in Chapters 6 and 7 in this volume. Especially interesting is a bifacially retouched from on blade from Structure 1/1947 (Plate XXXIX: 2). Similar forms from Moravian Final Eneolithic the Early Bronze Age are classified as "segments". For the first time they appear in significant numbers in assemblages of Find Group II of the Bell Beaker culture (Kopacz, Přichystal, Šebela 2009, 98-100) and reach their peak in assemblages of the Únětice culture and the Věteřov group (Kopacz, Šebela 2006, 63-50; Kopacz e*t al*. 2006). They appear to be absent on big hillfort sites of the Jevišovice culture (Grešlové Mýto, Jevišovice, Vysočany), upon which chronological sequence of that unit was elaborated (*cf.* Medunová-Benešová 1977b, 78). The segment from Ostopovice, as well as a similar artifacts from the hillfort site *Réna* in Ivančice (Plate XXV: 2), might have been the earliest appearances of segments Moravia.

III.5. Anthropomorphic idols

III. 5. 1. Clay figurine

In Structure 1/1947 a fragment of leg presentation of burnt clay, with marked toes, was found (Plate A-9: 2). It was a part an anthropomorphic figurine, similar to those registered on several sites of the Jevišovice culture (e.g. Vysočany-*Palliardiho hradisko*; Medunová-Benešová 1977, tab. XVI: 1ab) and the Řivnáč culture (e.g. Stehelčeves, Site *Homolka*, or Žalov, Site *Řivnáč*; Neustupný 1941, 144-145, Bild 1 -3). However, analogies listed above, in contrast to the artifact from Ostopovice, feature simple flat "feet" (a figurine from Grešlové Mýto has marked projections on ends of both "feet"; Medunová-Benešová 1973, 62, Taf. 59: 11).

Formally, the artifact from Ostopovice resembles presentations of that kind known from assemblages of the Moravian Painted Pottery culture, respecting to a certain extent anatomy of human leg (Podborský *a kol*. 1993, obr. 83). For that reason we cannot exclude the case of alien intrusion, especially if the site had been occupied in earlier periods (Neustupný 1952, 222).

Another fragment of clay figurine from Ostopovice, found in Structure 3-4/1948, is of different shape. It is a conical object with flat base and convergent concave sides, with a small oval recess. Nonetheless, it might have also been a presentation of human leg.

III. 5. 2. Stone idols

In Structure 1/1947 there were found, besides fragments of clay figurines, also three incomplete stone presentations (Plate A-7: 1ab; A-8: 5ab; A-9:1). According to the expertise of A. Přichystal, they were shaped in porphyritic microdiorite, sources of which can be found in the Brno Massif (Přichystal 2009, 201). Two analogous, completely preserved artifacts are known from Jevišovice, Layer B (Figure 5: 5, 7). All these artifacts (*i.e*. from Ostopovice and from Jevišovice) differ very much in forms and expressions from their clay counterparts from the same period. Stone presentations are much more stylized. Their interpretation as anthropomorphic figurines is based on interpretations of similar finds from other territories. Artifact from Ostopovice is similar to "two-headed idols known from the Balkans and the eastern Mediterranean" (Neustupný 1956, tab. X; Medunová-Benešová 1977b, 47-48), dated without doubts to the Young Eneolithic. Rock used for production of the artifact excludes possibility of a long distant import. Deposits of porphyritic microdiorite closest to Ostopovice can be observed in a quarry near Želešice and in the area between Želešice and Střelice.

IV. Chronology of the Ostopovice assemblage within the Jevišovice culture

Cultural interpretation of the Ostopovice site is based mainly on materials from Structures 1/1947 and 2/1948. Fragmentarily preserved pottery can be generally linked with the Jevišovice culture. More precise chronological position within the Jevišovice complex can be deduced on the ground of stone artifacts, especially figurines and the fragment of the shafted axe. All of them have their analogies in the assemblage from Layer B in Jevišovice, emblematic for the young stage of the culture in question. Significant is also the presence of an implement shaped with flat bifacial retouch (segment), analogous to the find from the *Réna* site near Ivančice. It indicates that the Ostopovice assemblage might have been even younger than the assemblage from Layer B on the eponym site (Šebela, Stuchlík 2002). Therefore, its affiliation with the hypothetical youngermost phase of the Jevišovice culture, in Moravia represented also by settlements in Brno-Starý Lískovec, Křenovice, and Miňůvký (*cf*. Peška 2011, 318), is very probable.

V. Final remarks

Settlement pits excavated by J. Mikulášek in Ostopovice, in the cadastral part *Padělky pod hájem*, indicate the presence there the domestic site of younger stage of the Jevišovice culture. Among important finds from Ostopovice there is a series of anthropomorphic presentations, locally made of rocks from nearby deposits. Lithic industries, both polished and chipped, revels similarities with local Corded Ware and Bell Beaker cultures from the final stage of the Moravian/Silesian Stone Ages.

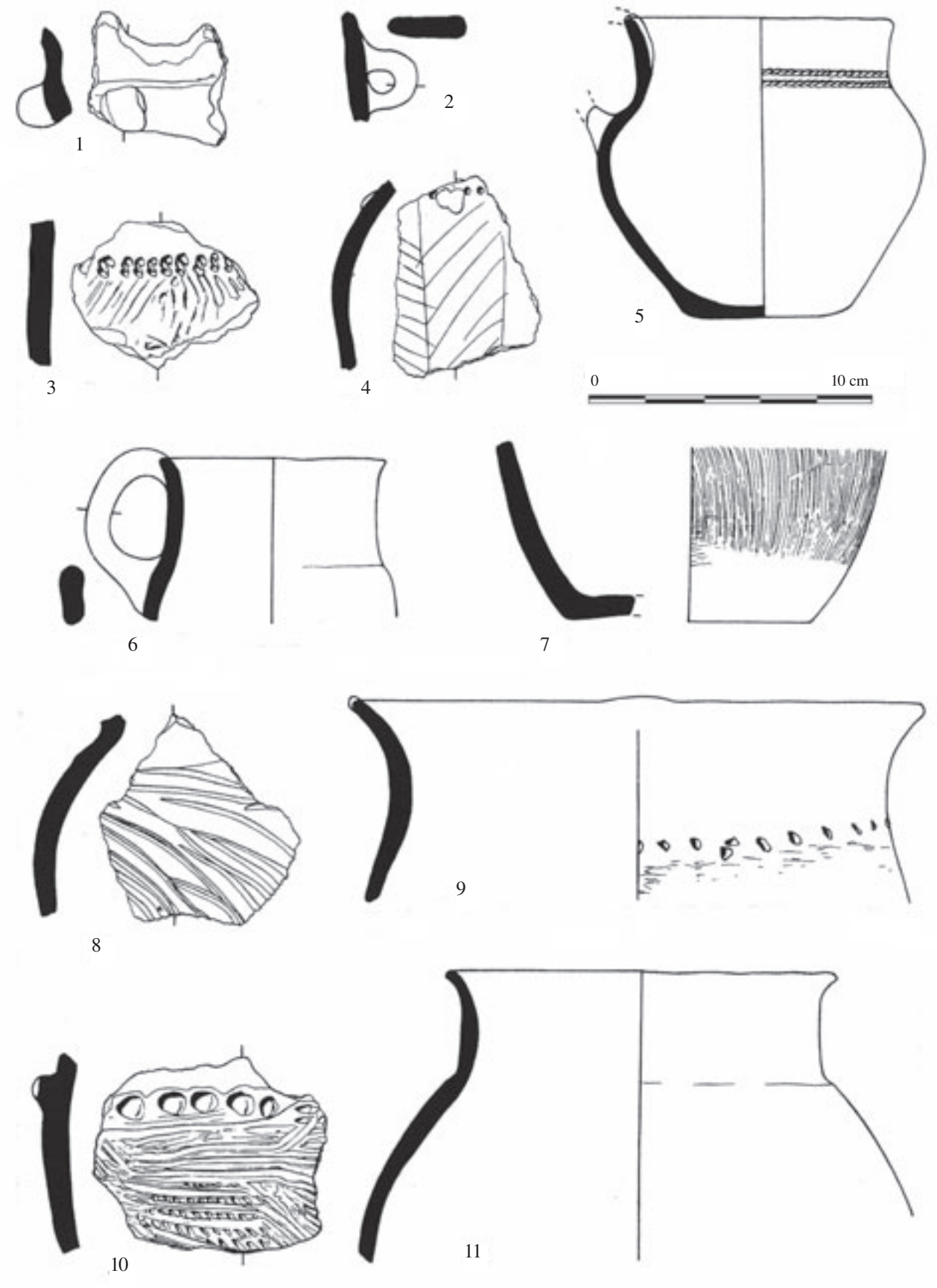


Plate A-1: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-4, 6-11 – Structure 1/1947; 5 – Structure 2/1948. Drawn by J. Brenner.

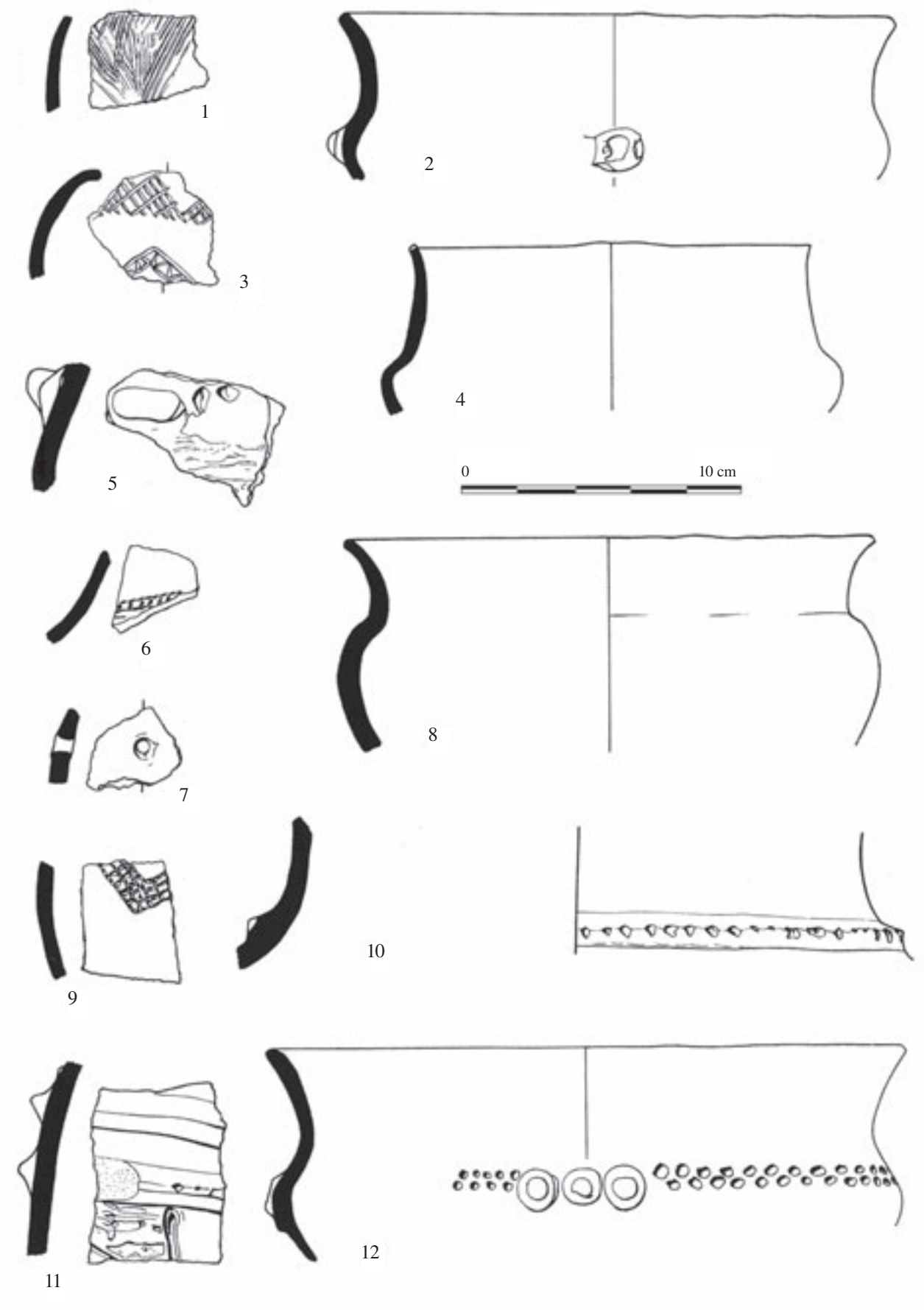


Plate A-2: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1, 5-7, 9-12 – Structures 3 and 4/1948; 2-4, 8 – Structure 1/1947. Drawn by J. Brenner.

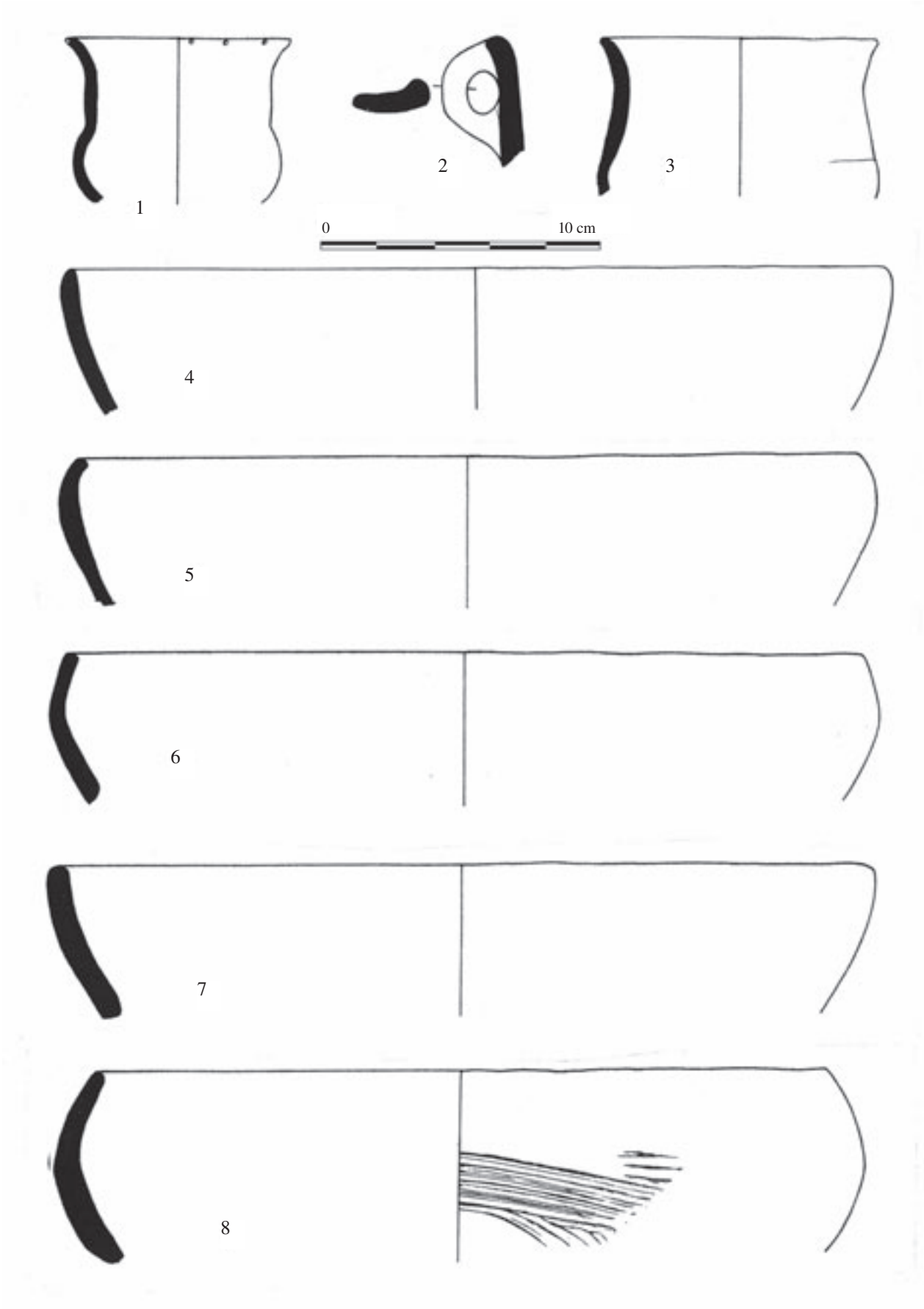


Plate A-3: Ostopovice (Brno-venkov district), settlement of Jevišovice culture: 1-8 – Structures 3 and 4/1948. Drawn by J. Brenner.

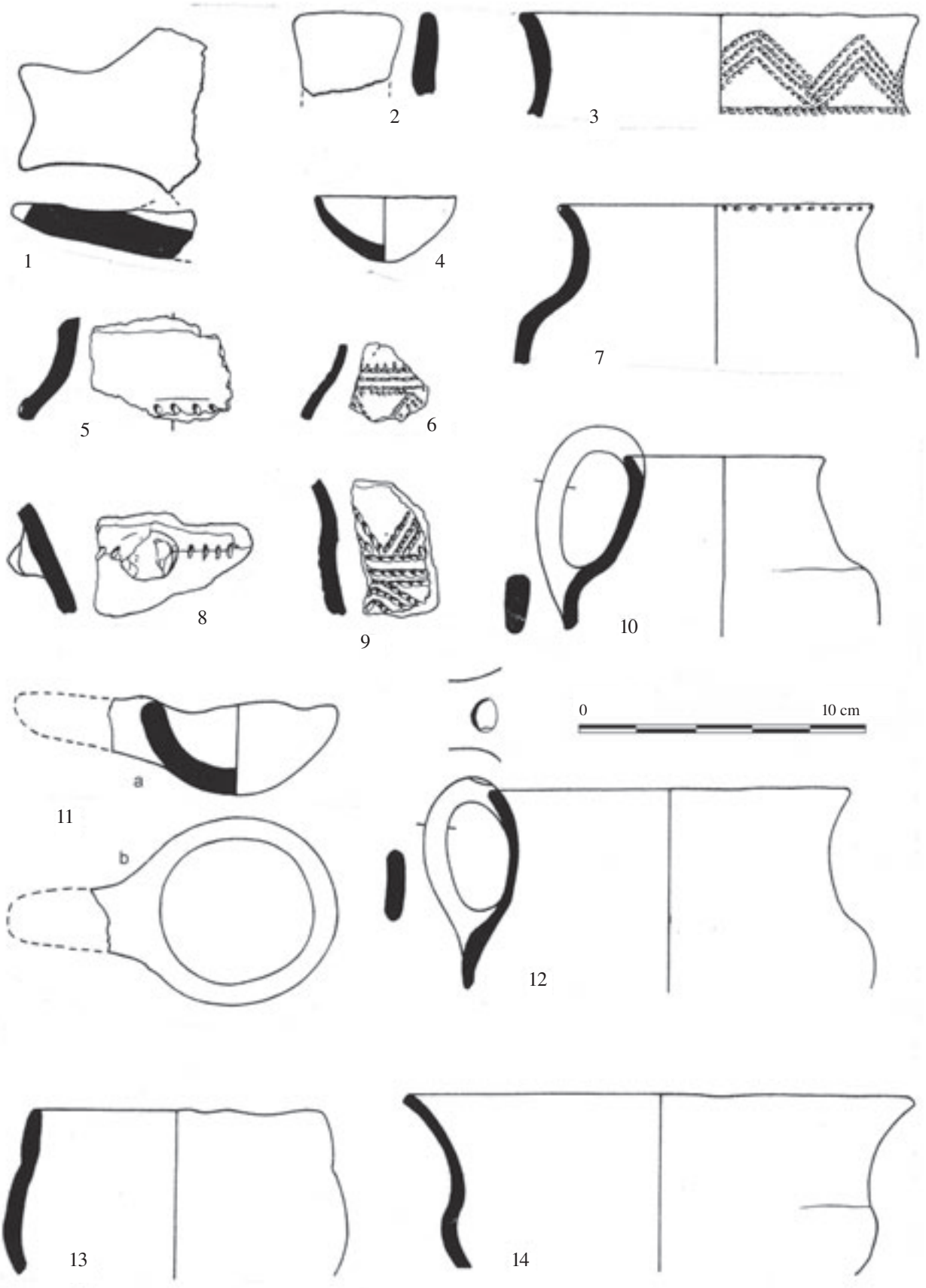


Plate A-4: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-4, 6-13 –Structures 3 and 4/1948; 5 – Structure 1/1947. Drawn by J. Brenner.

Plate A-5: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-8 – Structures 3 and 4/1948. Drawn by J. Brenner.

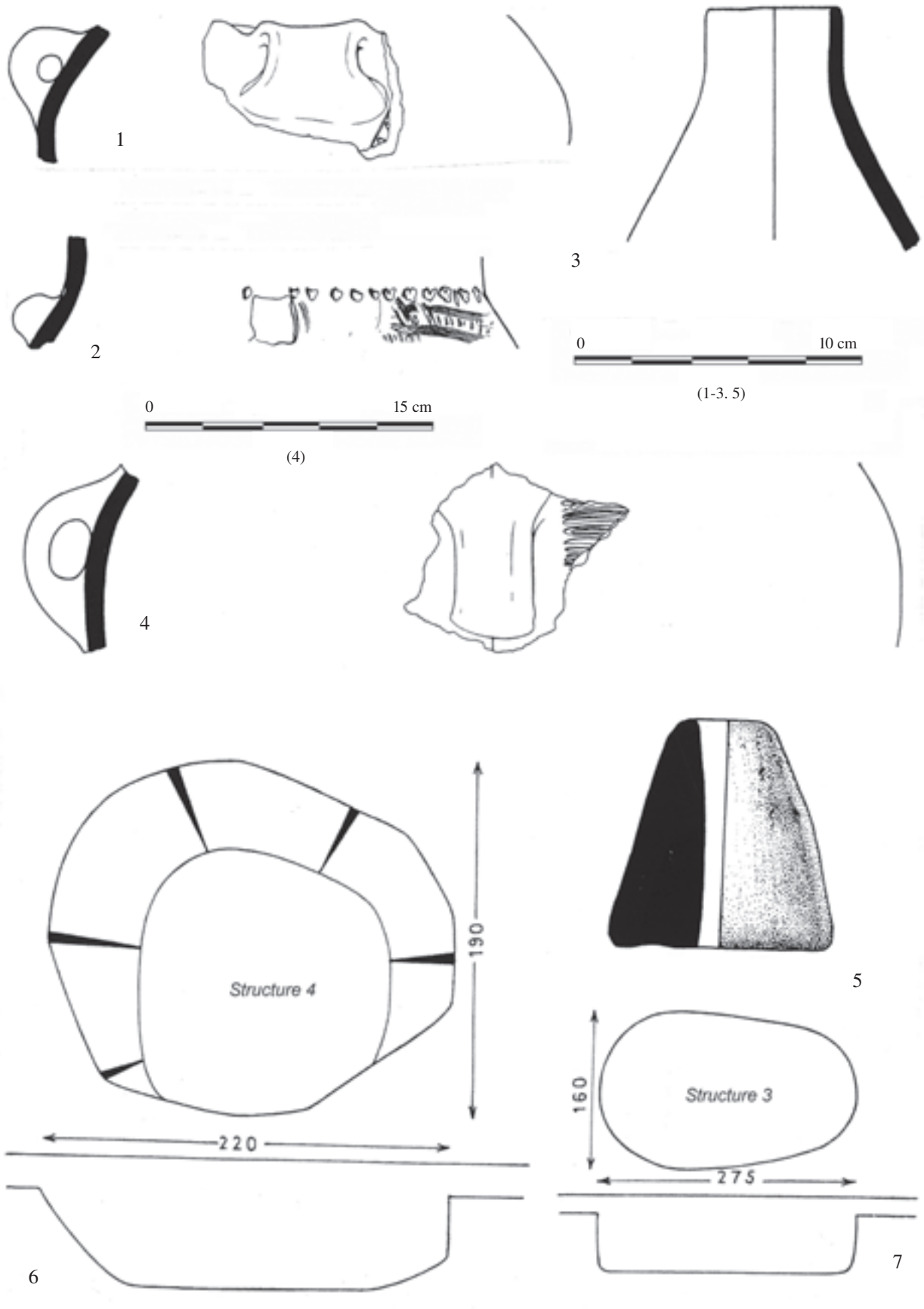


Plate A-6: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-5 – Structures 3 and 4/19488; 6 – Structure 4/1948; 7 – Structure 3/1948. Drawn by J. Brenner.

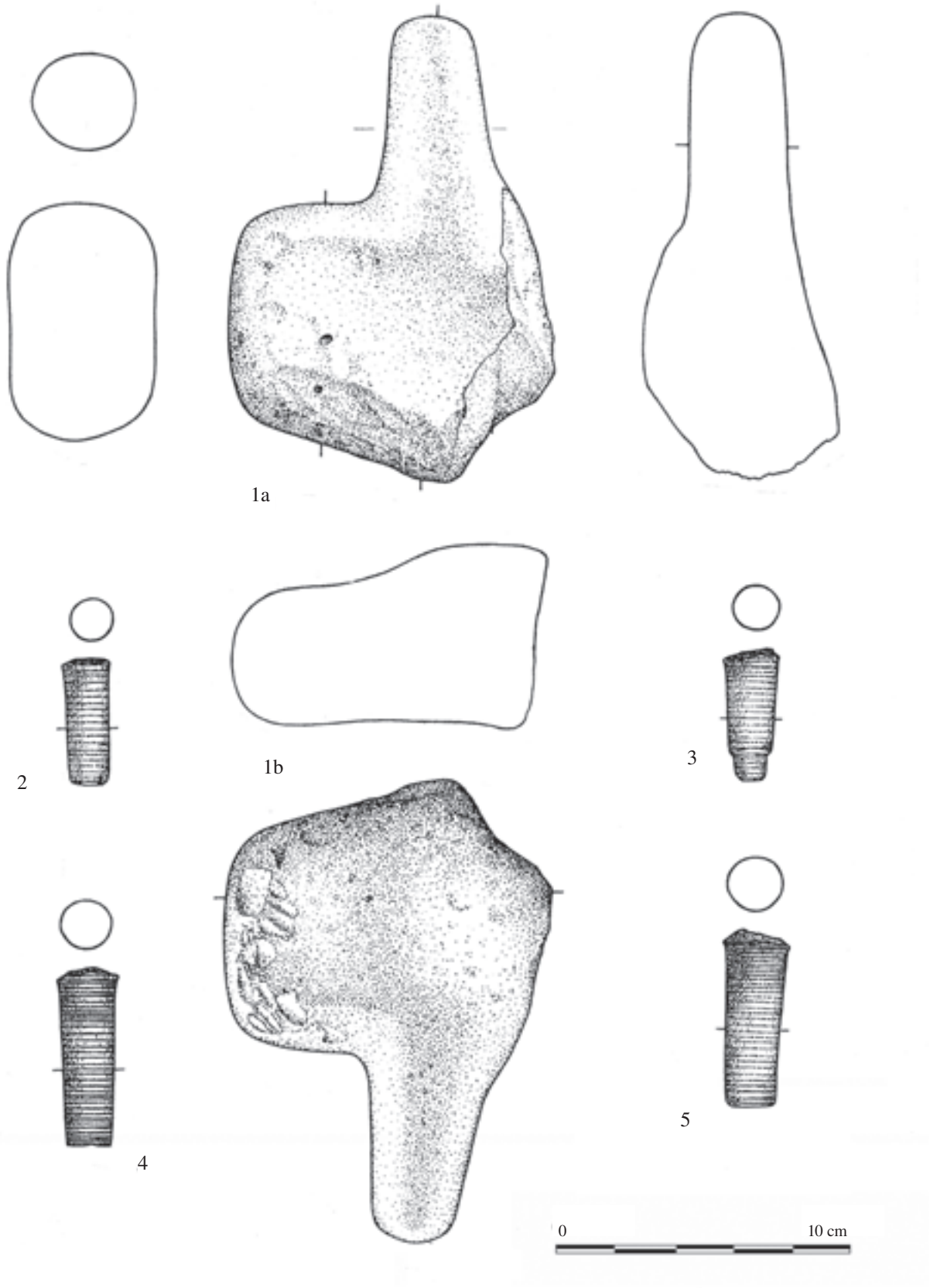


Plate A-7: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-5 – Structure 1/1947; 6 – Structures 3 and 4/1948. Drawn by J. Brenner.

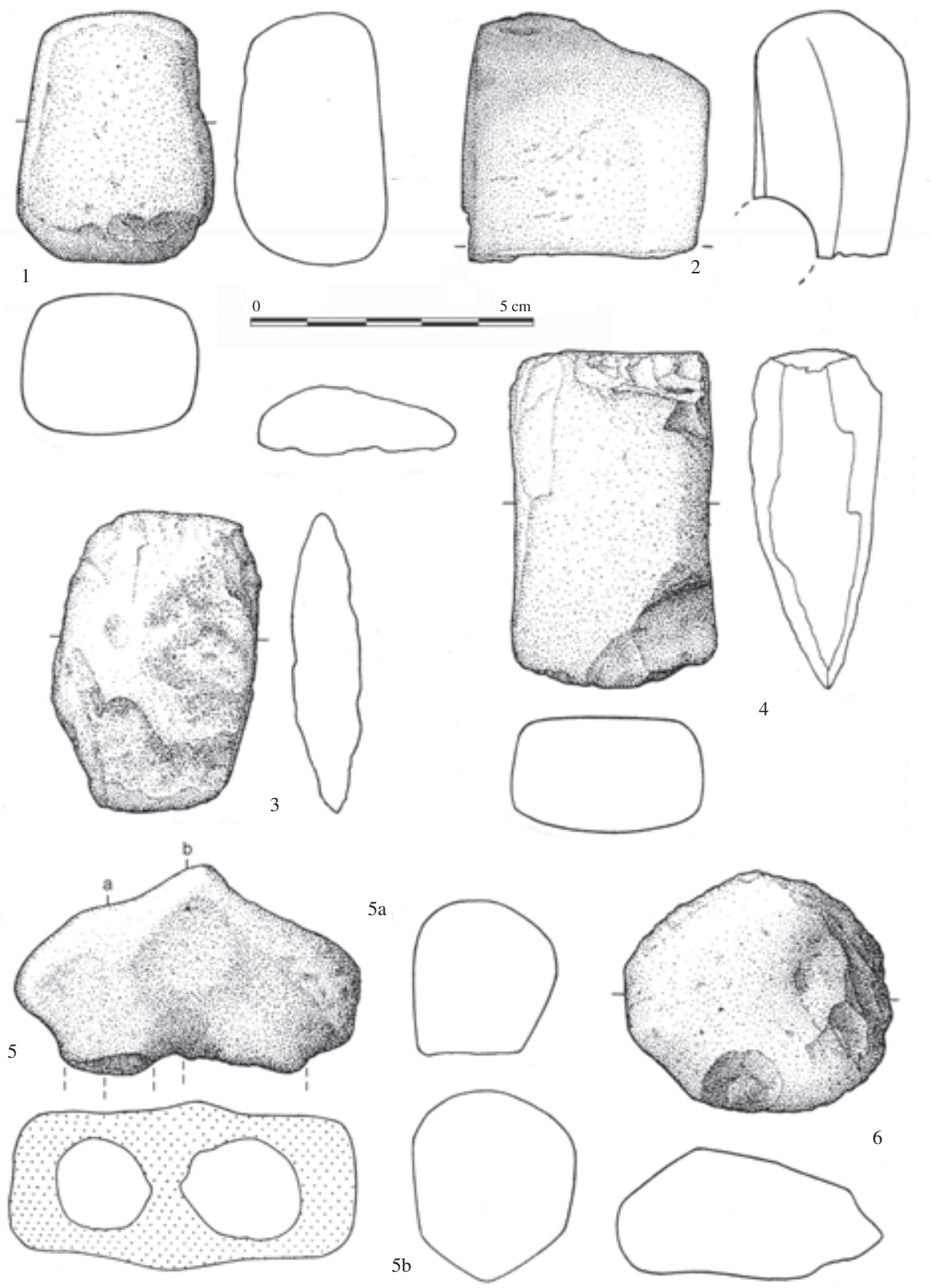


Plate A-8: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-6 – Structure 1/1947. Drawn by J. Brenner.

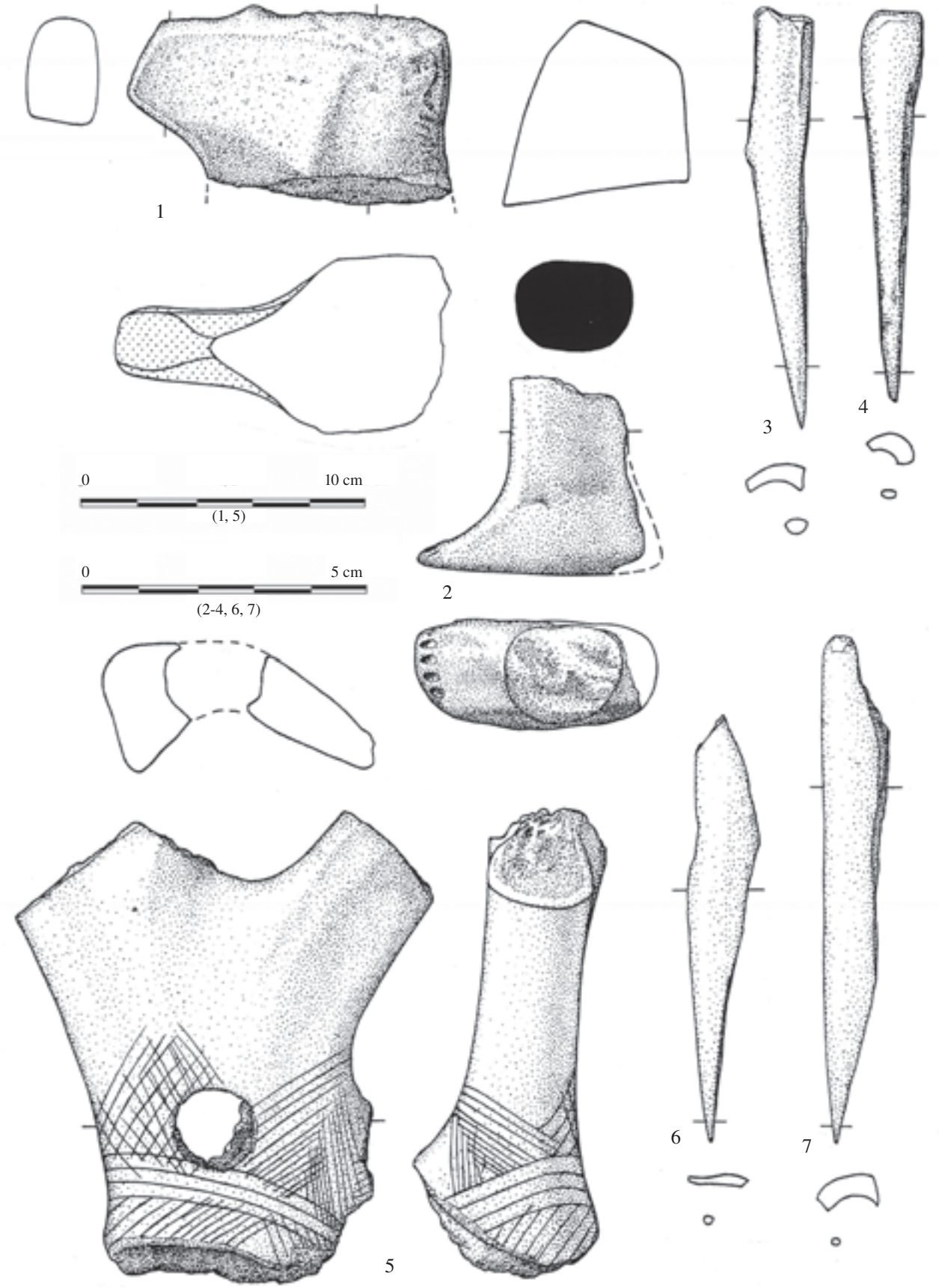


Plate A-9: Ostopovice (Brno-venkov district), settlement of Jevišovice culture: 1-5, 7 – Structure 1/1947; 6 – Structures 3 and 4/1948. Drawn by J. Brenner.

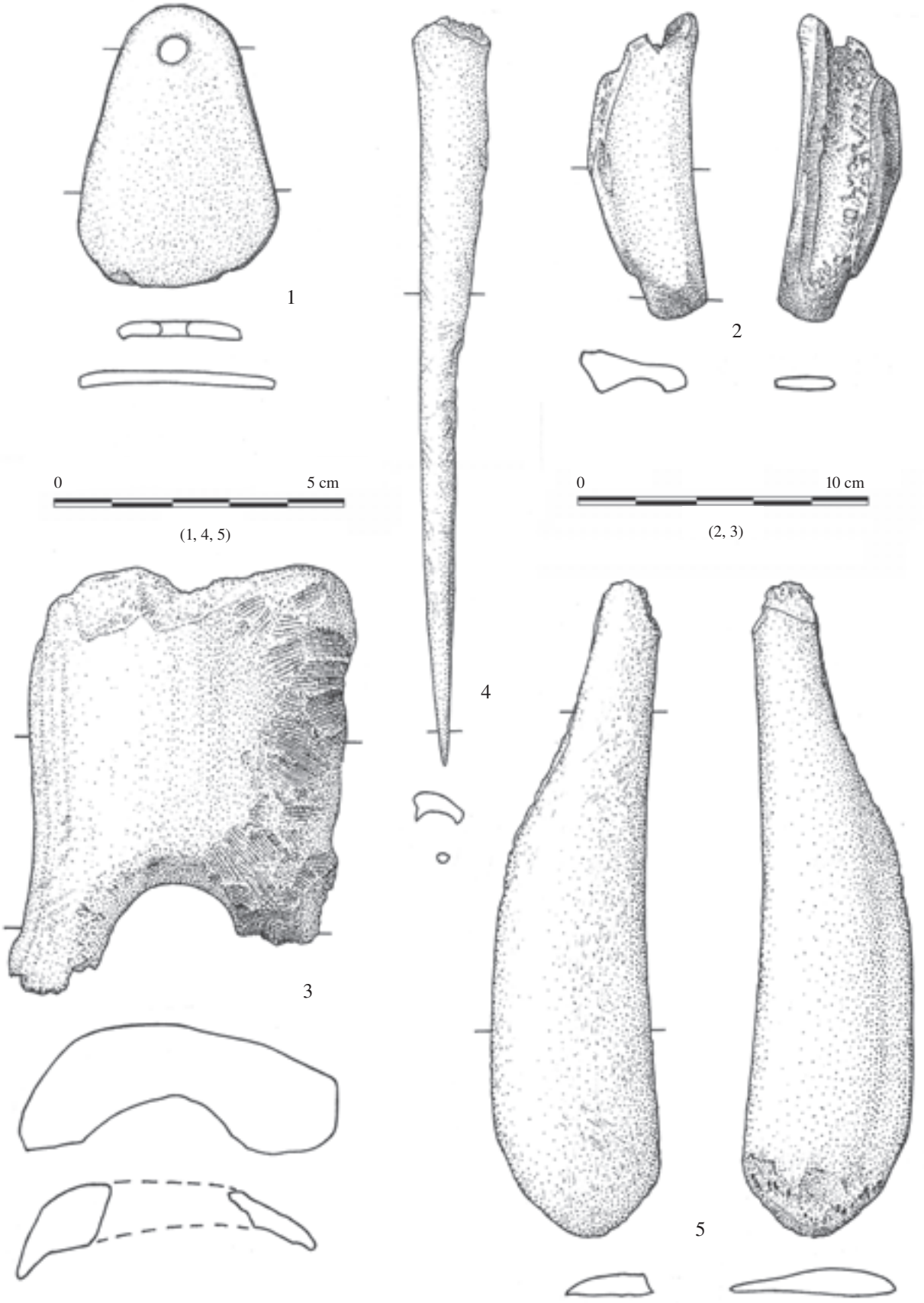


Plate A-10: Ostopovice (Brno-venkov district), settlement of the Jevišovice culture: 1-5 – Structures 3 and 4/1948. Drawn by J. Brenner.

ANNEX B

Lubomír Šebela

Cemetery in Opava-Kylešovice and the question of its chronology

I. Introduction

In 2007 and 2010 the Opava Branch of the Archaeological Institute of AV ČR, Brno, v. v. i., carried out the rescue research in Kylešovice, the suburb of Opava (further referred as Opava-Kylešovice). It resulted in discovering the multi-cultural settlement place, utilized by people of the Upper Silesian group of the Lengyel culture, Globular Amphora culture, Únětice culture, Lusatian culture, and during the Roman and People's Migration periods. The research revealed also the presence of burial ground with 54 graves (excavation 2007 – 42 graves, 2010 – 12 graves). Sepulchral finds discovered in 2007 were published by Jiří Juchelka (2007), the head of the excavation team. He linked them with the Chłopice-Veselé group (Juchelka 2009a, 91-95). Later the same affiliation was attributed to graves discovered in 2010 (Juchelka 2010).

In graves from Opava-Kylešovice skeletal remains have not survived, with exceptions of teeth. In the grave pits there were found potsherds and lithic chipped artifacts. However, the recovered material does not show characteristics typical for the Chłopice-Veselé group (referred also as the culture), as recognized in territories of Poland and in adjacent territories (*cf.* Machnik 1978; 1981). It leaves open the question of chronology of the burial ground.

Locality of Kylešovice is today a peripheral suburb of Opava. The multi-cultural site with the burial ground is located in the cadastral part *Na Stanech*, on the left-hand terrace of the Moravice River, on an easy slope descending southeast, not far away from the Kylešovice residential area.

II. Descriptions of burials and materials from grave pits

The analytical base of this work are lithic chipped artifacts found in fills of pit graves during the excavation season 2007 (Plate B-1)

Grave 800 (Plate B-2)

The grave pit had rectangular outline with rounded corners, dimensions 170 x 90 x 15, E-W orientated. Of skeletal remains only human teeth survived (not available for research). No grave goods have been registered. In the fill of the grave pit (dark brown loamy material) two potsherds were found (1, 2).

1. Bottom fragment of a vessel of an unknown form. Brown-gray coarse surface. Inv. no. P 8066.

2. Small fragment of the belly of a vessel of an unknown form. Medium-black coarse surface. Inv. no. P 8067.

Grave 801 (Plate B-2)

The grave pit had a rectangular outline with rounded corners, dimensions 180 x 60 x 10 cm, E-W orientated. In the southern part it was destroyed by Structure 512. Skeletal remains did not survive, grave goods were absent. In the fill (dark brown loamy material) one potsherd was found (1).

1. A small bottom fragment of a vessel of anunknown form. Brown coarse surface. Inv. no. P 8070.

Grave 802 (Plate B-3)

The grave pit had a rectangular outline with rounded corners, dimensions 200 x 95 15 cm, E-W orientated. Skeletal remains did not survive. At the N side of the grave pit four potsherds were found (1-4) and three lithic artifacts (5-7) were recovered from the fill (medium-brown loamy material).

1-3. Three potsherds with no distinctive features. Inv. no. P 8071-P 8073.

4. Six potsherds with no distinctive features. Inv. no. P 8074.

5. Regular blade. Inv. no. P 8075 (Plate XXXVII: 9).

6. Splinter. Inv. no. P 8076 (Plate XXXVIII: 5).

7. Small core for blades. Inv. no. P 8077 (Plate XXXVII: 14).

Grave 803 (Plate B-3)

Of the grave, located at the limit of the excavation trench, was excavated only its southwestern corner. Neither skeletal remains nor grave goods have been registered.

Grave 804 (Plate B-3)

Of the grave, located at the limit of the excavation trench, was excavated only its southwestern corner. Neither skeletal remains nor grave goods have been registered.

Grave 805 (Plate B-3)

Grave pit had rectangular outline with rounded corners, dimensions 200 x 80 x 5 cm, E-W orientated. Of skeletal remains in the eastern part of the grave only human teeth survived (not available for research). In the fill (medium-brown ashy loamy material) two lithic chipped artifacts were found (1, 2).

1. Small laminar flake. Inv. no. P 8078 (Plate XXXVII: 7).

2. Retouched flake. Inv. no. P 8079 (Plate XXXVII: 6).

Grave 806 (Plate B-3)

The grave pit of irregular outline was partially damaged by melioration works. Neither skeletal remains nor grave goods have been registered.

Grave 807 (Plate B-3)

The grave pit had oval outline, dimensions 170 x 80 x 5 cm, E-W orientated. Skeletal remains did not survive, grave goods were absent. In the fill (medium-brown loamy material) two potsherd were found (1, 2).

1. Belly fragment of a vessel of anunknown form. Medium-black coarse surface. Inv. no. P 8081.

2. Potsherd with no distinctive features. Inv. no. P 8082.

Grave 808 (Plate B-3)

The grave pit had rectangular outline with rounded corners, dimensions 175 x 80 x 5 cm, E-W orientated. Of skeletal remains in the eastern part only human teeth survived (not available for research), grave goods have not been registered. In the fill (medium-brown loamy material) a lithic chipped artifact was found (1).

1. Truncated blade. Inv. no. P 8083 (Plate XXXVII: 13).

Grave 809 (Plate B-3)

Of the grave, located at the limit of the excavation trench, only the eastern part, dimensions 140 x 120 x 15 cm, was excavated. Neither skeletal remains nor grave goods have been registered. In the fill medium-brown loamy material) there were potsherds (1-5), daub (6), and stone artifacts (7-9).

1. A neck fragment of a vessel of an unknown form. Fine loamy material. Inv. no. P 8085.

2. A fragment of a vessel (amphora ?) with ledge. Yellow-red coarse surface. Inv. no. P 8086 (Plate B-6: 5).

3. A belly fragment with a handle. Yellow-brown coarse surface. Inv. no. P 8087 (Plate B-6: 6).

4. A fragment with no distinctive features. Inv. no. P 8088.

5. Three small potsherds with no distinctive features. Inv. no. P 8089.

6. Two daub pieces. Inv. no. P 8090.

7. A thin tanged point with finely denticulated leaf. Inv. no. P 8091 (Plate XXXVIII: 11).

8. A splinter. Inv. no. P 8092 (Plate XXXVIII: 8).

9. A fragment of stone tablet. Inv. no. P 8093 (Plate XXXVIII: 14).

Grave 810 (Plate B-4)

The grave pit had a rectangular outline with rounded corners, dimensions 210x 110 x 25 cm, E-W orientated. Of skeletal remains only a jaw survived in the eastern part (not available for research). No grave goods were found. In the fill (bray-brown loamy material) potsherds (1-4) and two lithic chipped artifacts (5, 6) were found.

1. A rim fragment of vessel with forked knob. Inv. no. P 8094. (Plate B-6: 2).

2. A fragment of vessel decorated with vertical (?) cord impressions. Smooth brown-gray surface. Inv. no. P 8095 (Plate B-6: 9).

3. Potsherds with no distinctive features. Inv. no. P 8096-P 8191.

4. Three potsherds with no distinctive features. Inv. no. P 8102.

5. An irregular flake. Inv. no. P 8103/1 (Plate XXXVIII: 13).

6. A cortical flake. Inv. no. P 8103/2 (Plate XXXVIII: 12).

Grave 811 (Plate B-4)

Of the grave, located at the limit of the excavation trench, only the western part was escavated dimensions 80 x 45 x 20 cm. Neither skeletal remains nor grave goods have been registered. In the fill (medium-brown loamy material) two potsherds were found (1, 2).

1-2. Two fragments (one decorated with cord impressions). Inv. no. P 8105, P 8106 (Plate B-6: 11).

Grave 812 (Plate B-4)

Of the grave, located at the limit of the excavation trench, only the western part was excavated, dimensions 120 x 100 x 15 cm. Neither skeletal remains nor grave goods have been registered. In the fill (medium-brown loamy material) there were found three potsherds (1-3).

1. Fragment of a vessel with hollowed handle (amphora ?). Smooth brown-black surface. Inv. no. P 8107 (Plate B-6: 4).

2. A potsherd with no distinctive features. Inv. no. P 8108.

3. A bottom fragment of a vessel of an unknown form. Smooth brown-black surface. Inv. no. P 8109.

Grave 813 (Plate B-4)

The grave pit had a rectangular outline with rounded corners, dimensions 190 x 80 x 15 cm, E-W orientated. Of skeletal remains only human teeth in the eastern part were found (not available for research). In the fill (medium-brown loamy material) pottery fragments (1-5) and two lithic artifacts (6-7) were found.

1. A small neck fragment of a vessel of an unknown form. Smooth light brown surface. Inv. no. P 8110.

2. A rim fragment of a vessel of an unknown form. Inv. no. P 8111 (Plate B-6: 3).

3-5. Three potsherds with no distinctive features. Inv. no. P 8112-P 8113.

6. A distal blade fragment. Inv. no. P 8114 (Plate XXXVII: 2).

7. A flake. Inv. no. P 8115 (Plate XXXVII: 12).

Grave 815 (Plate B-4)

The grave pit of an irregular outline, dimensions 170 x 100 x 50 cm, was in the northwestern part destroyed by Structure 585. In its eastern part human teeth were found (not available for research), grave goods were absent. In the fill (medium-brown loamy material) potsherds (1-4) and one lithic chipped artifact (5) were found

1. A neck fragment of a large bowl (?). Smooth dark brown surface. Inv. no. P 8117 (Plate B-4: 10).

2-4. Three potsherds with no distinctive features. Inv. no. P 8118-P 8121.

5. A small triangular laminar flake. Inv. no. P 8122 (Plate XXXVIII: 2).

Grave 816 (Plate B-4)

The grave pit had a rectangular outline with rounded corners, dimensions 160 x 80 x 30 cm, was E-W orientated. Of skeletal remains only human teeth survived in the western part (not available for research). Grave goods were absent. In the fill (medium-brown loamy material) a potsherd (1) and a lithic chipped artifact (2) were found.

1. A potsherd with no distinctive features. Inv. no. P 8124.

2. The middle part of regular blade. Inv. no. P 8125 (Plate XXXVIII: 7).

Grave 817 (Plate B-4)

The grave pit with an outline of an irregular rectangle with rounded corners (width 100 cm, depth 20 cm) was in eastern and western part in stratigraphic relations with Structures 594 and 596 (the first one was earlier). In the eastern part there were found human teeth (not available for research) and in the fill of the grave pit (medium-brown loamy material) several potsherds (1-6).

1. A belly fragment of a vessel decorated with double cord impressions. Black-brown coarse surface. Inv. no. P 8127 (Plate B-6: 8).

2-3. Two fragments of vessels of unknown type. Smooth brown-gray surface. Inv. no. P 8128, 8130.

4-6. Seven potsherds with no distinctive features. Inv. no. P 8129, 8131, 8132.

Grave 818 (Plate B-4)

The grave, located at the limit of the excavation trench, was excavated only in its eastern part (registered length 90 cm, width 70 cm, depth 20 cm). It contained human teeth (not available for research) but no grave goods.

Grave 819 (Plate B-4)

The grave pit, located at the limit of the excavation trench, was excavated only in its eastern part (registered length 100 cm, width 90 cm, depth 10 cm). Skeletal remains did not survive, grave goods were absent.

Grave 820 (Plate B-5)

The grave pit had a rectangular outline with rounded corners, dimensions 140 x 80 x 25 cm, was E-W orientated. Skeletal remains did not survive, grave goods were not registered. In the fill (medium-brown loamy material) five potsherds were found (1-5).

1-5. Five potsherds with no distinctive features. Inv. no. P 8134-P 8138.

Grave 821 (Plate B-5)

The grave pit of a rectangular outline with rounded corners, dimensions 200 x 90 x 20 cm, was E-W orientated. In its middle part human teeth survived (not available for research). No have goods have been registered. In the fill (medium-brown loamy material) potsherds (1-8) and lithic chipped artifacts (9-12) were found.

1-8. Eight potsherds with no distinctive features. Inv. no. P 8139-8142.

9. A massive flake. Inv. no. P 8143/D (Plate XXXVII: 10).

10. A massive flake. Inv. no. P 8143/B (Plate XXXVII: 16).

11. An irregular flake. Inv. no. P 8142/A (Plate XXXVII: 11).

12. A retouched blade. Inv. no. P 8143/4 (Plate XXXVII: 1).

Grave 822 (Plate B-5)

The grave pit of a rectangular outline with rounded corners, dimensions 180 x 80 x 20 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the western part. Grave goods were absent. In the fill (medium-brown loamy material) pottery fragments were found (2-6).

1-5. Five potsherds. Inv. no. P 8144-P 8148.

Grave 823 (Plate B-5)

The grave, located at the limit of excavated area, was examined only in its eastern part (registered length 120 cm, width 110 cm, depth 50 cm). Skeletal remains did not survive, grave goods were not registered.

Grave 824 (Plate B-5)

The grave pit of oval outline, dimensions 190 x 80 x 10 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the western part. Grave goods were absent. In the fill (medium-brown loamy material) a potsherd was found (1).

1. A potsherd with no distinctive features. Inv. no. P 8150.

Grave 825 (Plate B-5)

The grave pit of irregular outline similar to rectangle, dimensions 150 x 70 x 5 cm, was E-W orientated. Of skeletal remains only a human tooth (not available for research) survived in the central part. Grave goods were absent. In the fill (medium-brown loamy material) a potsherd (1) and a lithic chipped artifact were found (2).

1. A potsherd with no distinctive features. Inv. no. P 8152.

2. A splinter. Inv. no. P 8153 (Plate XXXVIII: 4).

Grave 826 (Plate B-5)

The grave pit of oval outline, dimensions 170 x 60 x 5 cm, was E-W orientated. Skeletal remains did not survive. No grave goods have been registered.

Grave 827 (Plate B-5)

The grave pit of a rectangular outline with rounded corners, dimensions 150 x 70 x 10 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the western part. No grave goods have been registered.

Grave 828 (Plate B-5)

The grave pit of an oval outline, dimensions 200 x 90 x 20 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the eastern part. Grave goods were absent. In the fill (medium-brown loamy material) potsherds (1-3) and a lithic chipped artifact (4) were found.

1-3. Three potsherds with no distinctive features. Inv. no. P 8156-P 8158.

4. A massive blade with dihedral butt and utilization retouch on both lateral side. Inv. no. P 8159 (Plate XXXVII: 15).

Grave 829 (Plate B-5)

The grave pit of an oval outline, dimensions 130 x 55 x 10 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research).survived in the eastern part. No grave goods were registers. In the fill (medium-brown loamy material) a potsherd was found (1).

1. A rim fragment of a vessel of an unknown form. Coarse brown surface. Inv. no. P 8161 (Plate B-6: 1).

Grave 830 (Plate B-5)

Grave pit of a rectangular outline with rounded corners, dimensions 160 x 60 x 5 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the eastern part. No grave goods have been registered.

Grave 831 (Plate B-5)

The grave pit of an oval outline, dimensions 170 x 85 x 10 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the eastern part (not available for research). No grave goods have been registered. In the fill (medium-brown loamy material) potsherds (1-4) and lithic chipped artifacts (5-7) were found.

1-4. Five potsherds with no distinctive features. Inv. no. P 8164, P 8165.

5. A blade fragment retouched in the distal part. Inv. no. P 8166 (Plate XXXVIII: 1).

6. A splintered piece. Inv. no. P 8167/1 (Plate XXXVII: 5).

7. A splintered piece. Inv. no. P 8167/2. Plate XXXVII: 4).

Grave 832 (Plate B-5)

Of the grave, located at the limit of the excavation trench, only the eastern part (length 150 cm, width 130 cm, depth 40 cm) was excavated. Skeletal remains did not survive. No grave goods have been registered.

Grave 833 (Plate B-5)

The grave pit of an irregular outline, dimensions 170 x 85 x 20 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the western part. Grave goods were not registered. In the fill (medium-brown loamy material) a lithic chipped artifact was found (1).

1. A blade. Inv. no. P 8169 (Plate XXXVII: 8).

Grave 834 (not presented on the plan)

The grave of an outline close to rectangle with rounded corners, dimensions 190 x 120 x 20 cm was E-W orientated. Skeletal remains did not survive. No grave goods have been registered.

Grave 835 (Plate B-5)

The grave of an outline close to rectangle with rounded corners, dimensions 60 x 60 x 22 cm was E-W orientated. Skeletal remains did not survive, grave goods are absent. In the fill (medium-brown loamy material) pottery fragments were found (1-4).

1-4. Four potsherds with no distinctive features. Inv. no. P 8172-P 8175.

Grave 836 (Plate B-5)

The grave pit, located at the limit of the excavation trench, was excavated only in the eastern part (length 110 cm, width 65 cm, depth 20 cm). Skeletal remains did not survive. No grave goods have been registered.

Grave 837 (Plate B-5; B-7: 2)

The grave pit of an irregular outline, dimensions 220 x 80 x 15 cm, was E-W orientated. Its northeastern corner was damaged by Structure 597. Skeletal remains did not survive, and grave goods were absent. In the fill (medium-brown loamy material) several pottery fragments (1-6) and a flint artifacts (7) were found.

1-6. Six potsherds with no distinctive features. Inv. no. P 8176-P 8179.

7. A splinter. Inv. no. P 8180 (Plate XXXVIII: 3).

Grave 838 (Plate B-5)

The grave pit, located at the limit of the excavation trench, was excavated only in the eastern part (length 90 cm, width 110 cm, depth 20 cm). Skeletal remains did not survive and grave goods have not been registered. In the fill (medium-brown loamy material) a potsherd was found (1).

1. A potsherd with no distinctive features. Inv. no. P 8181.

Grave 839 (Plate B-5)

The grave pit of a rectangular outline with rounded corners, dimensions 200 x 85 x 25 cm, was E-W orientated. Skeletal remains did not survive and grave goods were absent. In the fill (medium-brown loamy material) two potsherds were found (1-2).

1-2. Two potsherd with no distinctive features. Inv. no. P 8183-P 8183.

Grave 840 (Plate B-5)

The grave pit of am outline close to rectangle with rounded corners, dimensions 220 x 90 x 30 cm, was E-W orientated. Skeletal remains did not survive, grave goods were absent. In the fill (medium-brown loamy material) potsherds (1-6) and lithic chipped artifacts (7-8) were found.

1-6. Six potsherds with no distinctive features. Inv. no. P 8184-P 8187.

7. A blade with utilization retouch on one lateral edge. Inv. no. P 8188 (Plate XXXVIII: 9).

8. A flake. Inv. no. P 8189 (Plate XXXVIII: 10).

Grave 841 (not presented on the plan)

The grave pit, located at the limit of the excavation

trench, was excavated only in the eastern part (length 180 cm, width 80 cm, depth 20 cm). Of skeletal remains only human teeth survived (not available for research). Graves good were absent. In the fill (medium-brown loamy material) several pottery fragments were found (1-48).

1. A rim fragment of a decorated vessel of an unknown form. Inv. no. P 8190.

2. A rim fragment of a vessel of an unknown form. Inv. no. P 8191.

3. A rim fragment of a vessel of an unknown form. Inv. no. P 8192.

4. A rim fragment of a vessel of a unknown form. Inv. no. P 8193.

5. Two potsherds with no distinctive features. Inv. no. P 8194.

6. A belly fragment with two knobs. Coarse brown-gray surface. Inv. no. P 8195 (Plate B-6: 7).

7-21. Fifteen potsherds with no distinctive features. Inv. no. P 8196-P 8204.

22-48. Twenty-seven potsherds with no distinctive features. Inv. no. P 8205-P 8209.

Grave 842 (not presented on the plan)

The grave pit of irregular outline, dimensions 140 x 40 x 10 cm, was destroyed in the southern part by Structure 539. Of skeletal remains only teeth (not available for research). urvived in the eastern part. Grave goods were absent. In the fill (medium-brown loamy material) potsherds (1-8) and a lithic chipped artifact were found (9).

1-8. Eight potsherds with no distinctive features. Inv. no. P 8210-P 8214.

9. A two-poled splintered piece. Inv. no. P 8215 (Plate XXXVIII: 6).

Grave 843 (not presented on the plan)

The grave pit of rectangular outline with rounded corners, dimensions 120 x 65 x 10 cm, was E-W orientated. Of skeletal remains only human teeth (not available for research) survived in the eastern part. No grave goods have been registered. In the fill (medium-brown loamy material) a potsherd was found (1).

1. A potsherd with no distinctive features. Inv. no. P 8217.

III. Analysis

On the site there were discovered 43 burials. Twenty-nine of them were fully excavated (the remaining 14 burials, located on borders of the excavated area, were not completely examined). Grave pits had most often rectangular outline with rounded corners, wit longer sides orientated along the E-W line. Length of pits was 100-200 cm (pits longer than 2 m were exceptional), length between 50 and 150 cm (Juchelka 2009a, 93).

Human remains have not survived, with the exception teeth which were found in 19 graves, either in eastern parts of the pits (nos. 805, 808, 810, 813, 817, 818, 828, 829, 830, 831, 841, 843) or western parts (nos. 800, 816, 821, 822, 824, 827, 833). According to this location we can infer that in 12 graves bodies were placed with the head directed to the east and in 7 graves directed to the west. None of the burials contained any grave offerings, although from pit fills several small potsherds, lithic chipped artifacts, a fragment of a stone tablet, and partially preserved spindle were recovered.

Pottery, found in 39 pits, survived very fragmentarily. Of a special interest are four potsherds with cord impression from Graves 810 (Plate B-6: 9), 811 (Plate B-6: 11) 817 (Plate B-6: 8), and 841 (Plate B-6: 10). Decoration of that kind is common for vessels of the Globular Amphora culture, the Corded Ware culture and in the Epi-Corded cultural complex.

Apart from burials, potsherds of the Globular Amphora culture appeared on the site in four settlement pits – Structures 531, 534, 535 (all on Plate B-3), and 545 (Plate B-4). It is very probable that pottery fragments with cord impressions from grave pits are of the same cultural affiliation. Although no burials of the Globular Amphora culture have been so-far registered in Czech Silesia (Jánák 1999, 101), they are known from the Polish part of that region (Wiślański 1979, 293).

Lithic chipped artifacts were found in fills of 16 graves (nos. 802, 805, 808, 809, 810, 813, 815, 816, 821, 825, 828, 831, 833, 837, 840, 842). There are: small core (Plate XXXVII: 14), blades (Plate XXXVII: 2, 8, 9, 13, 15; XXXVIII: 1, 7, 9), flakes (Plate XXXVII: 1, 2, 6, 7, 10-12, 16; XXXVIII: 10, 12, 13), splinters (Plate XXXVII: 4; XXXVIII: 3, 5, 6, 8; XXXVIII: 4), and a thin tanged point with finely denticulated leaf (Plate XXXVIII: 11). Analysis of the assemblage (Chapters 6-8 in this volume) shows its similarity in scope of raw material and typology to the assemblage from the Globular Amphora settlement site in Opava-Kateřinky/Malé Hostice (*cf.* Plates XXXIII-XXXV).

The analyzed material (potsherds and lithic chipped industry) got to grave pits probably from the settlement layer on the site. It leaves open the question of the chronology of the burial ground. Jiří Juchelka (2009ab), on the ground of pottery fragments links it with the Chłopice-Veselé group. Such an affiliation does not correspond with characteristics of the lithic material, and the presence of corded decoration should is by no means decisive, as it appears also on vessels of other cultures, including the Globular Amphora (presented also on the *Na Stanech* site).

Poorly equipped graves (often only with few lithic chipped artifacts) of E-W orientation is typical of the Epi-Corded cultural circle, developing in the Bronze Age in the eastern part of Central Europe (including the Chłopice-Veselé and Nitra groups, and the Mierzanowice culture in southeaster Poland). People of that circle buried their dead in a specific way – in constrained position, with head pointed either to the east (women) or to the west (men). Inferring from positions of teeth, similar ritual was practiced also in Opava-Kylešovice, and also in the inhumation cemetery of the Nitra culture in Holešov, Kroměříž district, were 420 were excavated (Ondráček 1972, 168; Ondráček, Šebela 1985).

For the question of chronology of burials from Opava-Kylešovice important are stratigraphic observations. Thus, Grave 817 overlapped Structure 596 linked with the Upper Silesian group of the Langyel culture and Graves 801, 815, 842 were partially damaged by settlement pits from the Roman and People's Migration periods (Juchelka 2009a, 93). In one case the grave was disturbed by an Early Bronze structure (grave 837 by Structure 597; Plate B-7: 2). From the latter several potsherds were recovered, including the fragment of two-handled amphora with neck bent outwards (Plate B-7: 1), similar to an amphorae from the Post-Classic phase of the Únětice culture in Moravia (Podborský *a kol*. 1993, obr. 165: 25). Structure 551 on the same site (located in a distance of *ca*. 40 m from Structure 597) also contained potsherds with characteristics typical for younger stages of the Únětice culture (Juchelka 2009b, 323, obr. 1: 2; 2).

Finds of the Únětice the culture from the Kylešovice site are not unique in the Opava region. For example, there is a settlement of that affiliation rescue excavated in Opava-Malé Hoštice (Juchelka 2009b, 324-325, obr. 5) and also some burial discovered at the and of the 19th century in clay pits in Opava-Kateřinky. Although pottery from the finds has not survived, the preserved bronze artifacts (dagger with seven rivets and an axe with low rims; Hoernes 1901), indicate the presence of a burial ground of the Únětice (Jánák 2012, 160).

IV. Conclusions

Taking into accounts of materials obtained from grave pits and stratigraphic relations it is save to say the burials discovered in Opava-Kylešovice are younger then the settlement of the Globular Amphora culture on the same site but older than the settlement from a younger stage of the Únětice culture. Most probably it can be linked with the Epi-Corded cultural circle but rather not with the Chłopice-Veselé group in the exact sense of that term (the so-called Chłopice-Veselé of Type A, *cf.* Machnik 177; *idem* 1978, *idem* 1981). Such a presumption based on the fact that burials of that unit (recently usually referred as the Proto-Mierzanowice phase, in contrast to burials from Opava-Kylešovice, were always equipped with a characteristic sets of artifacts, especially cups with specific corded decorative motives but often also with metal, bone tools and lithic artifacts, especially arrowheads with a concave base and knife-like tools on long blades, both of the Corded Ware tradition (*cf.* Kadrow, Machnik 1997, 15-25). Moreover, they never appear in great numbers. The situation changed in younger units of the Epi-Cored cultural circle, what is well observable e.g. in Iwanowice-Babia Góra (150 graves; *cf.* Kadrow, Machnikowie 1992) or in Holešov, Kroměříž district (about 400 graves; *cf.* Ondráček, Šebela 1985). Returning to the cemetery in Opava-Kylešovice we should take into account its connection with younger phases of the Mierzanowice culture, often poorly equipped (*cf.* Kadrow, Machnikowie 1992, 74-81)[4]. It is also possible that the affiliation with the vaguely defined Type B of Chłopice-Veselé which should be understood as Early Bronze Age conglomeration of various units, rather indirectly linked to their Epi-Corded predecessors. If so, the cultural designation of the graves from Opava-Kylešovice as proposed by J. Juchelka might be correct in a general sense. It is possible that pottery fragments found near the sugar mill in Opava-Kateřinky (Kouřil 2001/1, 3) came from the same cultural milieu.

No matter what was the exact cultural/chronological position of graves from Opava-Kylešovice, materials from grave pits do not appear to be grave goods but rather vestiges of earlier occupation of the site, most probably of people of the Globular Amphora culture. The main argument for such cultural/chronological interpretation was supplied by the find of the tanged arrowhead from Grave 809 (Plate XXXVIII: 11) of the form alien in the Epi-Corded cultural circle, but registered in Globular Amphora assemblages (e.g. in Pikutkowo, Włocławek district, north-central Poland; (Plate B-8: 2, 3; *cf.* Wiślański 1966, 225, ryc. 61: 2, 3). On that ground the materials from grave pits in Opava-Kylešovice have been included into our Catalogue of Young Eneolithic lithic assemblages, cautiously with the question mark.

4 In Moravia, to the north of the Moravian Gateway, materials of the Mierzanowice culture are known from Čertova díra Cave in Štramberk, Nový Jičín district (Šebela *et. al*. 1990).

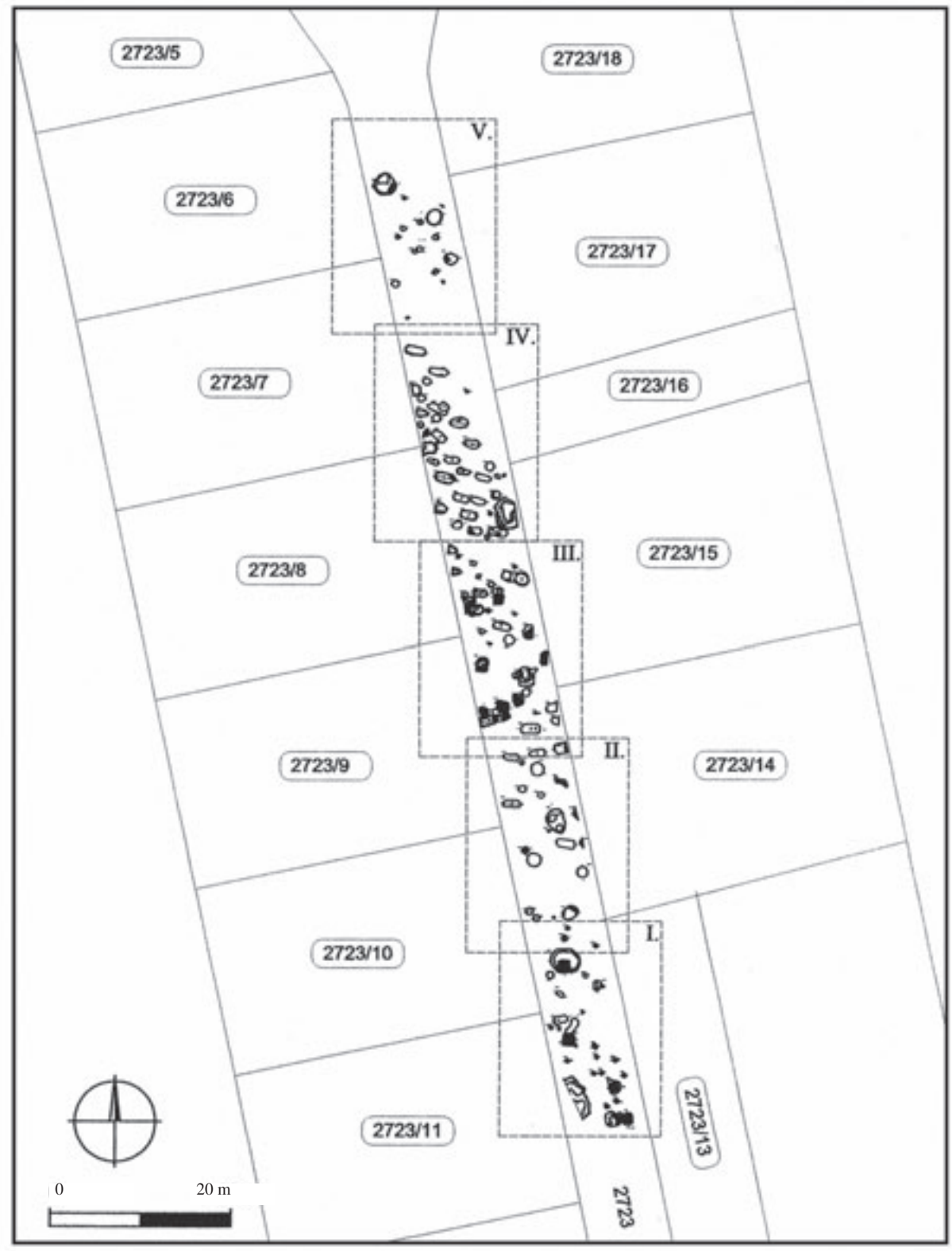


Plate B-1. Opava-Kylešovice. Site *Na Stanech*. Excavation 2007. After Juhelka 2009a, modified by the author.

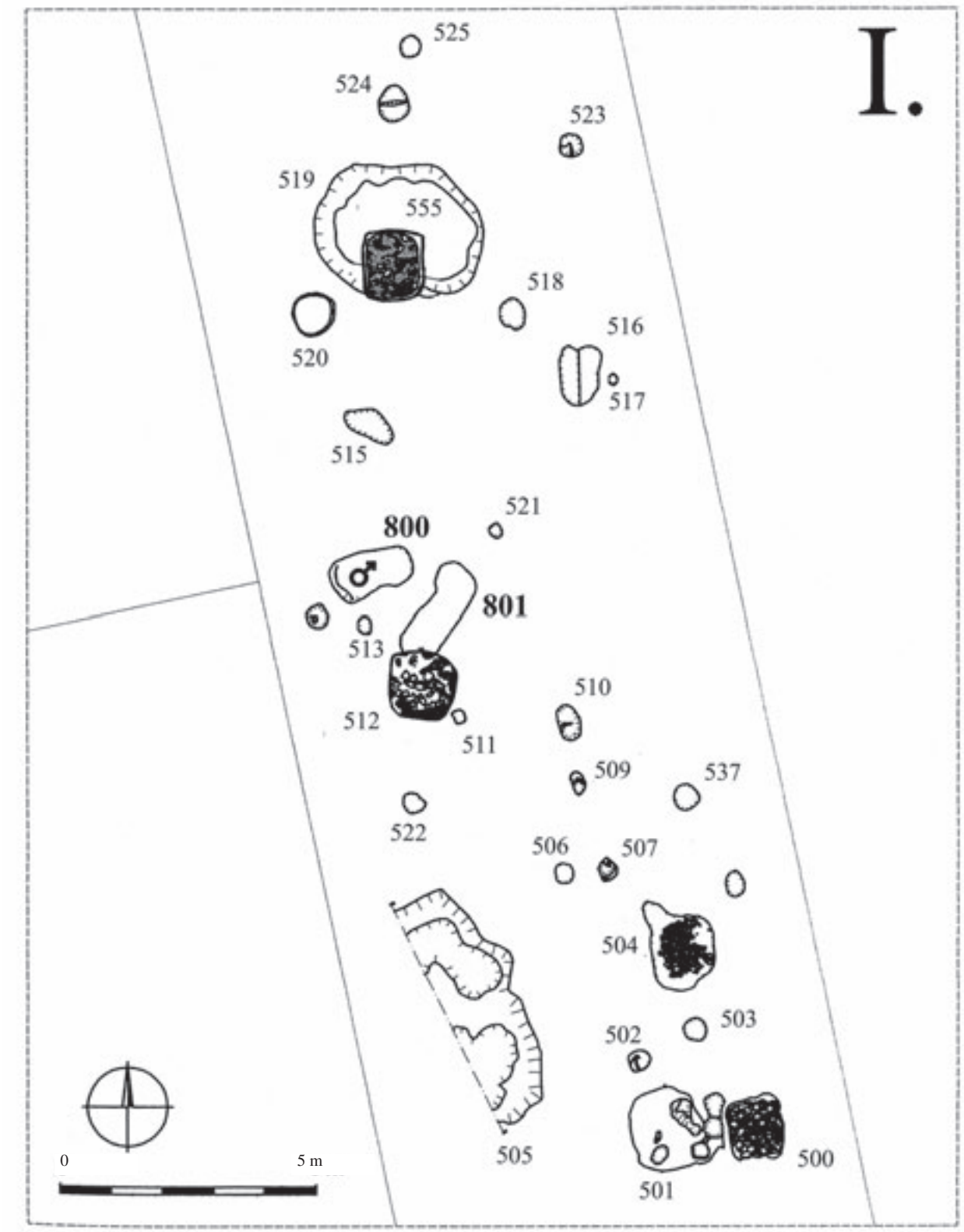


Plate B-2. Opava-Kylešovice. Site *Na Stanech*. Sector I (numbers in **bold** refer to graves). After Juhelka 2009a, modified by the author.

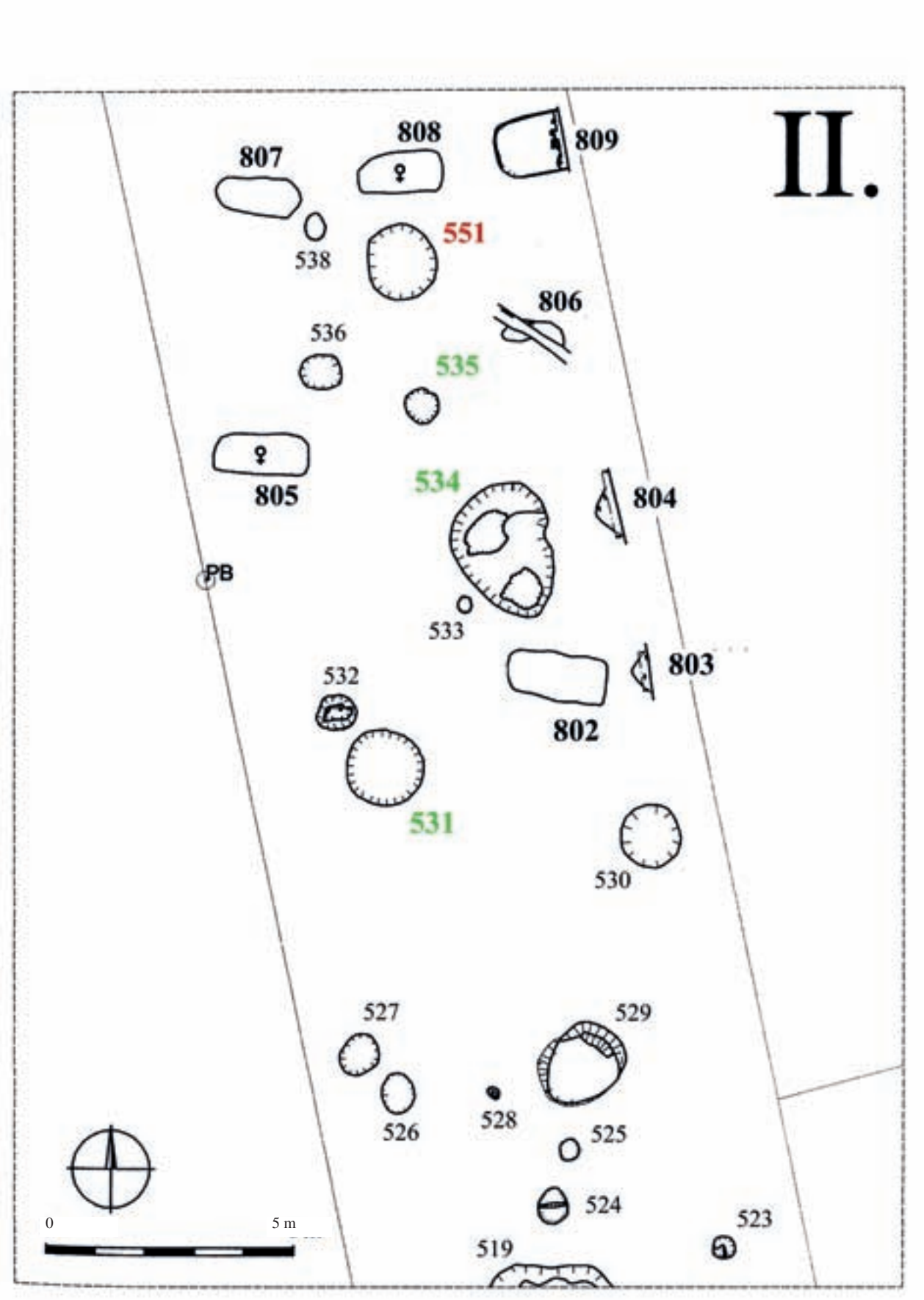


Plate B-3. Opava-Kylešovice. Site *Na Stanech*. Sector II (numbers in **bold** refer to graves, in green to settlement pits of the Globular Amphora culture, in red to a settlement pit of the Únětice culture). After Juhelka 2009a, modified by the author.

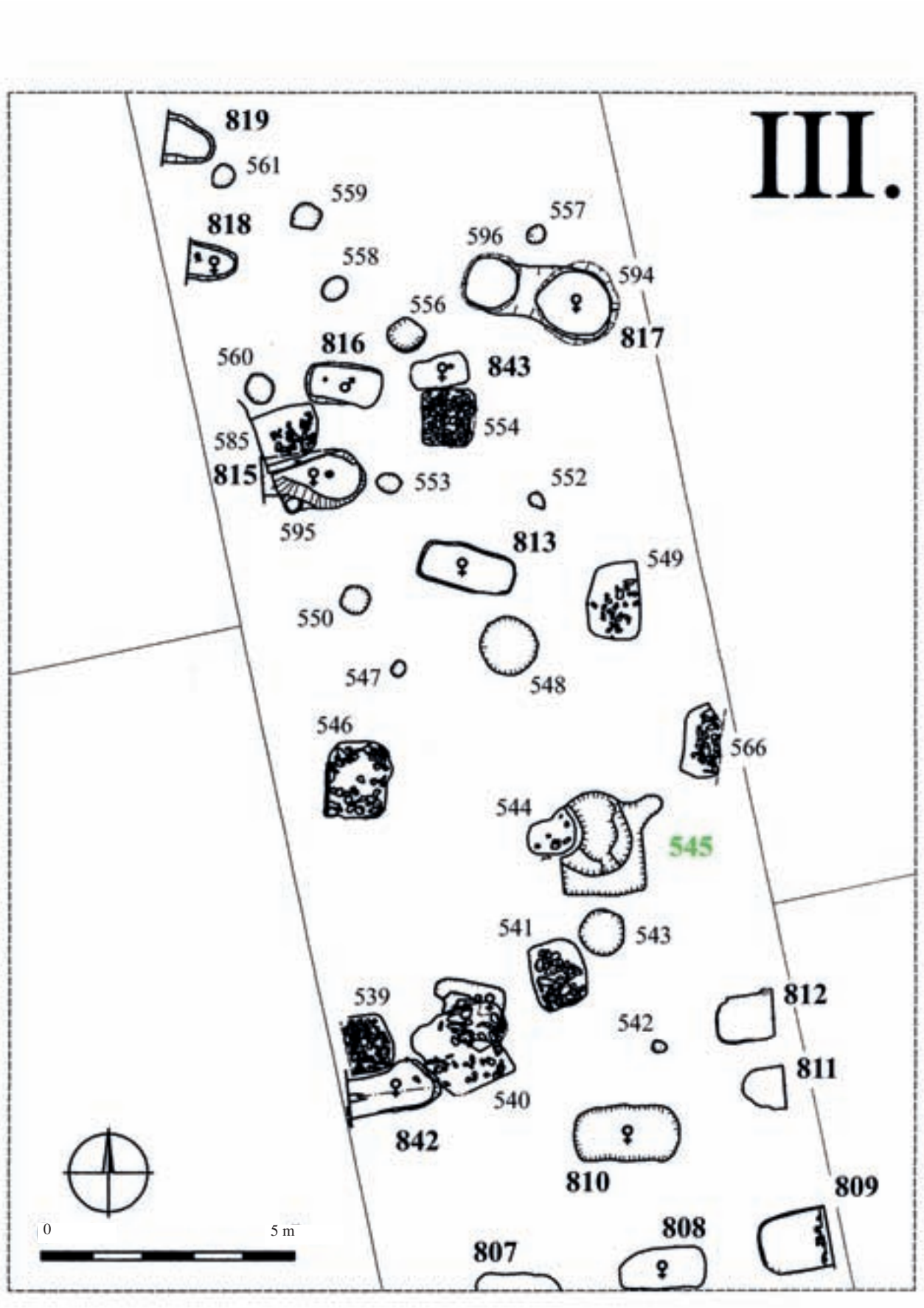


Plate B-4. Opava-Kylešovice. Site *Na Stanech*. Sector III (numbers in **bold** refer to graves, in green to settlement pits of the Globular Amphora culture). After Juhelka 2009a, modified by the author.

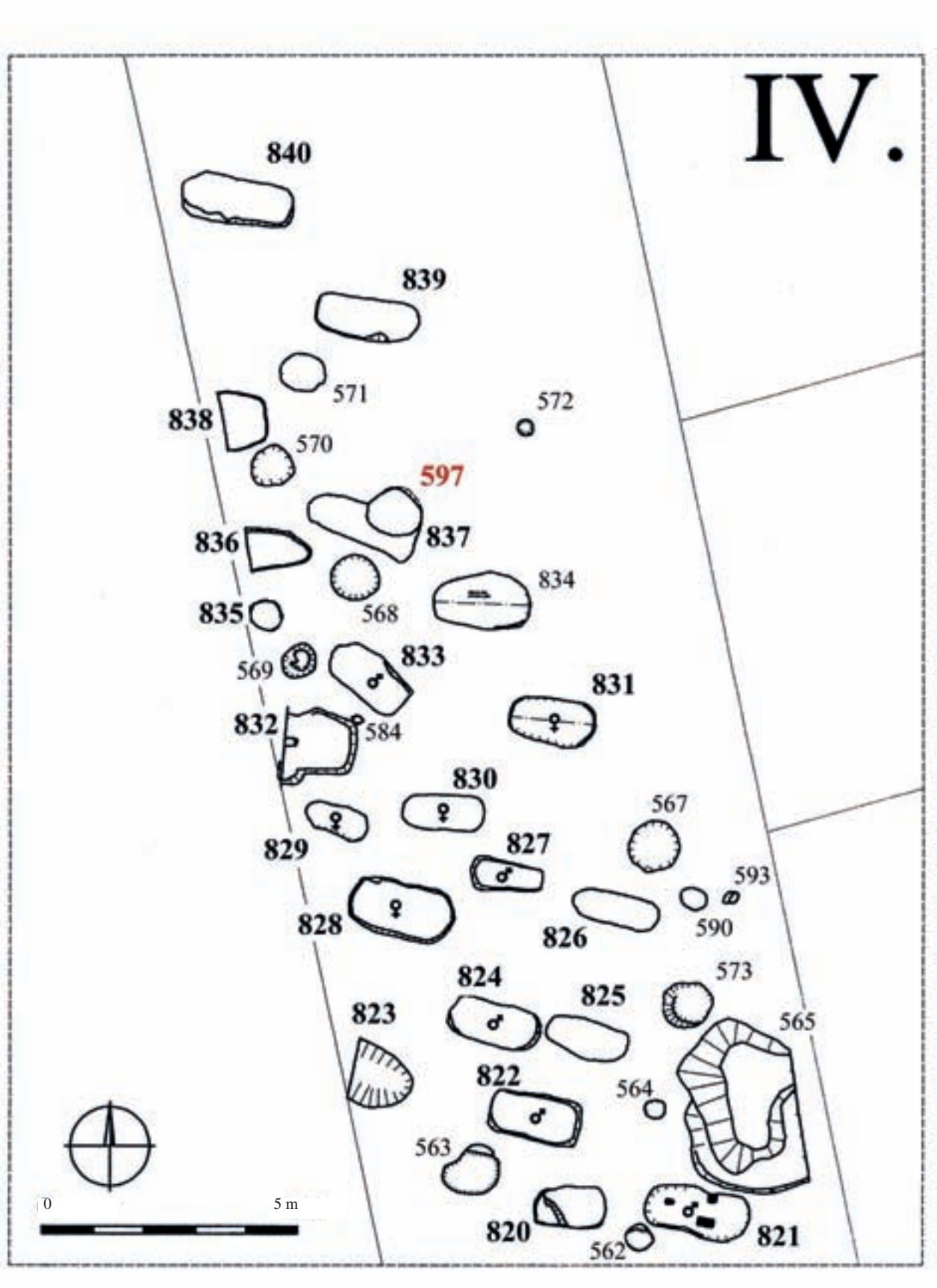


Plate B-5. Opava-Kylešovice. Site *Na Stanech*. Sector IV (umbers in **bold** refer to graves, in red to a pit of the Únětice culture). After Juhelka 2009a, modifications by the author.

Plate B-6. Opava-Kylešovice. Site *Na stanech*. Artifacts from fills of grave pits. 1 – Grave no. 829; 2 – Grave no. 810; 3 – Grave no. 813; 4 – Grave no. 812; 5, 6 – Grave no. 809; 7 – Grave no. 841; 8 – Grave no. 817; 9 – Grave no. 810; 10 – Grave no. 815; 11 – Grave no. 811. Drawn by J. Brenner.

(1)

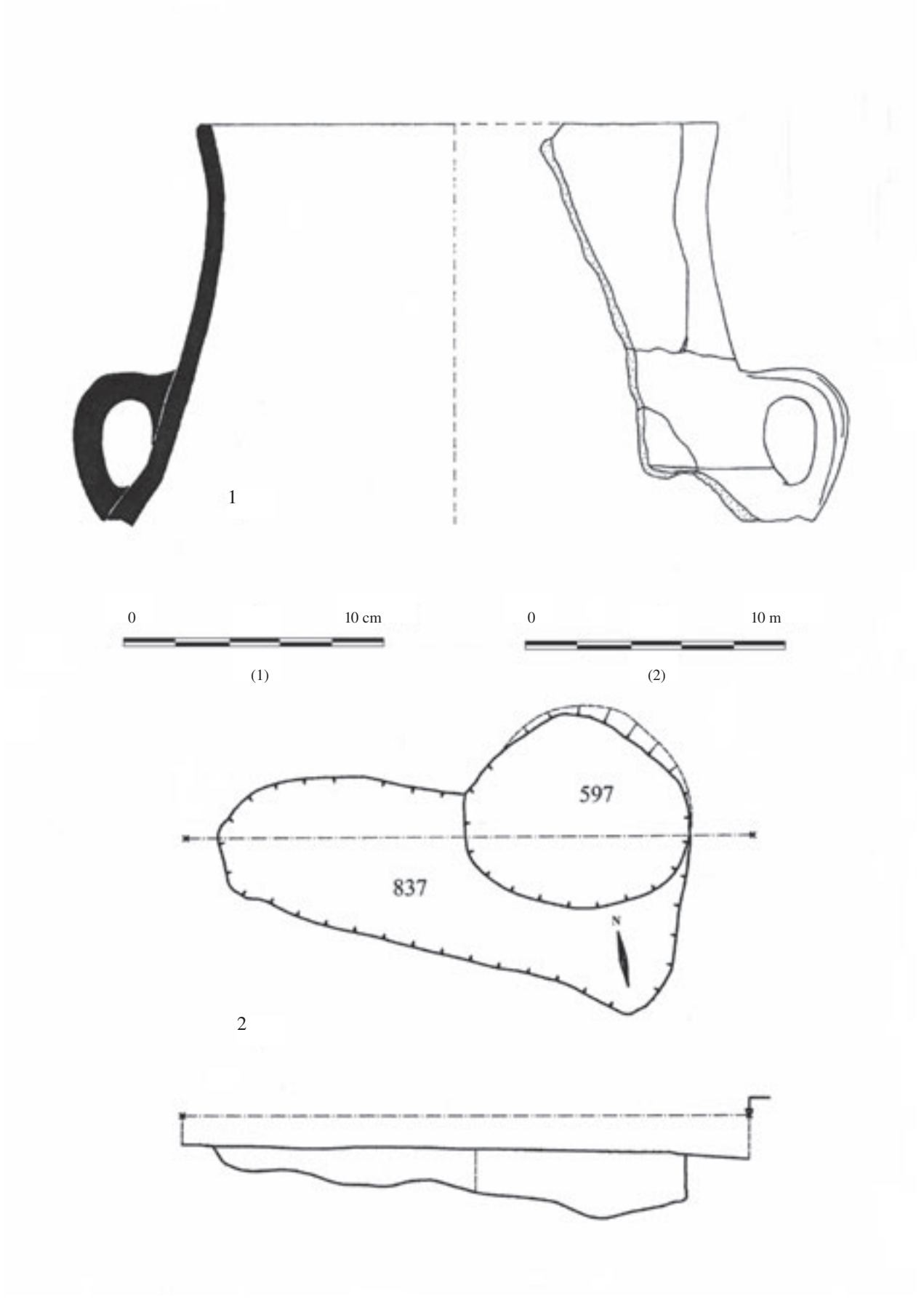


Plate B-7. Opava-Kylešovice. Site *Na stanech*. 1 – Structure 597; 2 – Grave no. 837 disturbed by Structure 597 of the Únětice culture. After Juchelka 2009b.

Plate B-8. Cemetery of the Globular Amphora culture in Pikutkowo, Włocławek district 1-3 – Grave VIIa; 4-7, 18 – Grave XIII; 8, 16 – Grave VIa; 9-10; 14 – animal burial I; 11-13, 15 – animal burial II; 17 – Grave XXII. After Wiślański 1966.

KAMENNÁ ŠTÍPANÁ INDUSTRIE MLADÉHO ENEOLITU NA MORAVĚ A V ČESKÉM SLEZSKU

(Souhrn)

Období pozdní doby kmenné (eneolitu) na Moravě trvalo cca 2.000 let. Dělí se na menší úseky, převážně na 5 nebo 6 vývojových fází:

(1) časný eneolit, cca 4000 až 3700 let před Kristem, reprezentovaný mladším stupněm kultury s moravskou malovanou keramikou a kulturou jordanovskou;

(2) starší eneolit, cca 3700 až 3200 let před Kristem, reprezentovaný kulturou nálevkovitých pohárů;

(3) střední eneolit, cca 3200 až 2900 před Kristem, reprezentovaný kulturou badenskou;

(4) mladší eneolit, cca 2900 až 2700 let před Kristem, reprezentovaný kulturou jevišovickou, bošáckou a kulturou kulovitých amfor;

(5) pozdní eneolit, cca 2700 až 2200 let před Kristem, reprezentovaný kulturou se šňůrovou keramikou a kulturou zvoncovitých pohárů;

(6) závěrečný eneolit, cca 2200 až 2000 let před Kristem, reprezentovaný kulturou protoúnětickou a kulturou Chłopice-Veselé.

Nejdůležitější skupinou památek mladého eneolitu v moravském sídelním prostoru je jevišovická kultura, rozvíjející se hlavně na jižní Moravě. Východní hranici jejího rozšíření tvoří řeka Morava. Na severu zasahuje do oblasti Boskovické brázdy. Tamní lokality signalizují pravděpodobnou cestu její expanze do oblasti východních Čech.

Na základě analýzy keramiky se jevišovická kultura dělí podle A. Medunové-Benešové (1977b) na tří vývojová stádia. Nejstarší (protojevišovické) je reprezentované materiály z výšinné osady v Grešlovém Mýtě, starší souborem nálezů z Palliardiho hradiska u Vysočan a mladší kolekcí nálezů z vrstvy B na výšinném hradisku Starý Zámek u Jevišovic. Na základě námi provedené analýzy můžeme předpokládat její delší vývoj, jak to naznačují nálezy ze sídliště z Ostopovic (okr. Brno-venkov), které jsou pravděpodobně mladší než kolekce nálezů z eponymního hradiska v Jevišovicích (viz anex A).

V rámci eneolitu představuje kultura kulovitých amfor na území Čech a Moravy invazní kulturu, její nositelé přišli ze severu. V námi sledovaných regionech registrujeme doklady jejích sídlišť v českém Slezsku na Opavsku a na střední Moravě (Olomoucko, Prostějovsko, částečně i Přerovsko). Dokladem této kultury mohou být i pazourkové sekery zhotovené z páskovaného silicitu typu Krzemionki, vyskytující se jak na území obývané nositeli kultury kulovitých amfor, kteří je produkovali, tak i v regionech osídlených tvůrci jevišovické a bošácké kultury.

Třetím subjektem mladého eneolitu na Moravě je bošácká kultura, rozvíjející se hlavně na západním Slovensku (horní tok řek Váhu, Nitry a Žitavy). Zasahovala rovněž na území Moravy, hlavně na její jihovýchodní část, v oblasti vymezené mezi řekou Olšavou a Dřevnicí, dále pak na Kroměřížsku a v Moravské bráně.

Velmi zajímavé jsou doklady bošácké kultury, odkryté v okolí Hradce Králové ve východních Čechách. Materiály z tohoto regionu jsou geneticky spjaty s územím Moravy a proto byly zahrnuty do naší syntézy (Obědovice, okres Hradec Králové).

Pro náš výzkum bylo využito 2155 kusů kamenné štípané industrie pocházející ze 36 archeologických lokalit na katastru 36 obcí. Osm lokalit, jež jsou sídlištního charakteru, se váže k jevišovické kultuře. Pochází z nich 1847 artefaktů. Dvacet pět lokalit (dvě z nich jsou na katastru jedné obce) poskytlo předměty, uznané námi za artefakty produkované nositeli kultury kulovitých amfor (jedná se i o sekery z páskovaného silicitu typu Krzemionki), celkem 157 kusů. Přihlédnuto bylo rovněž ke třem sídlištím bošácké kultury (z nich jedno je ve východních Čechách), které poskytly 151 produktů kamenné štípané industrie.

Jak ukázala petrografická analýza, většina zkoumaných předmětů je zhotovena ze surovin, jejichž zdroje jsou na Moravě. Jedná se o rohovce typu Olomučany, Krumlovský les (varieta KL I a KL II) a Stránská skála, moravský jurský rohovec nebo křídový spongolit. Často byl využíván rovněž křišťál (surovina o efektním vzhledu ale špatně štípatelná). Vážnými horninami byly taktéž silicity z glaciálních sedimentů (snad ze severní Moravy a Horního Slezska), radiolarity,

bavorský plattensilex a kvarcity typu Tušimice (severozápadní Čechy). Ojediněle byl využíván obsidián a jiné suroviny. S přihlédnutím k preferenci surovin můžeme konstatovat, že kamenná štípaná industrie jevišovické kultury byla produkována ze surovin nacházejících se v nejbližším okolí dané lokality (např. rohovce typu Olomučany, Krumlovský les ale i Stránská skála). Kamenná štípaná industrie kultury kulovitých amfor se opírala výlučně o silicity z glaciálních sedimentů (na území českého Slezska je možné je považovat za surovinu domácího původu). I když v případě bošácké kultury disponujeme na Moravě pouze dvěma soubory (Bánov a Hlinsko), můžeme konstatovat že její produkce se opírala hlavně o radiolarity, pocházející z Bílých Karpat na československém pomezí. V případě Obědovic (východní Čechy) byly artefakty štípány převážně z tamní lokální suroviny (porcelanitu typu Kunětická hora).

Produkci kamenné štípané industrie mladého eneolitu v moravském prostředí tu představujeme z hlediska jak použité technologie, tak i typologie podle jednotlivých kultur. Techniku štípání jevišovické kultury je možné charakterizovat na základě souboru z Brna-Maloměřic. Byla výrazně orientována na produkci čepelových polotovarů odbíjených z upravených jader, převážně jednopodstavových, pravděpodobně pomocí prostředníka (např. Plate XI: 1-7). Tímto způsobem získané čepele byly většinou dlouhé 4-7 cm (např. Plate XIV: 5; XV: 15-19), jejichž délku potvrzují rovněž nástroje zhotovené na čepelích.

Produkce štípané industrie kultury kulovitých amfor může být popsána na základě materiálů ze dvou lokalit v českém Slezsku, a to Opavy-Kateřinek/Malých Kosih a Opavy-Kylešovic (ve vztahu k druhé lokalitě viz anex B). Pravděpodobně bylo exploatováno hlavně malé jednopodstavové jádro (žádným způsobem upravované) pomocí úderu, provedeným tvrdým úderníkem. Dokladem toho jsou malé polotovary (čepele a úštěpy), jejichž délka se pohybuje kolem 3 cm. Často byla využívána rovněž i úštěpová technika (např. Plate XXXIII: 11, 12; XXXV: 8; XXXVII: 5).

Prameny, které by mohly charakterizovat techniku kamenné štípané industrie bošácké kultury, jsou velmi skromné. Materiály z Bánova, Hlinska i Obědovic naznačují, že těžba jader byla orientována hlavně na získání úštěpů a náhodných čepelí o délce do 5 cm (např. Plate I: 16-19, 21; IV: 8, 9-14).

Typologická analýza kolekcí z moravského mladšího eneolitu ukazuje na jejich různorodost. Nejúplnější informace na téma užívaných nástrojů poskytují velké osady jevišovické kultury. Indikují, že nejužívanějšími nástroji byla škrabadla, zastoupená ve všech analyzovaných souborech - 16 kusy v Grešlovém Mýtě (Plate XVIII: 1-13, 15-17), 15 exempláři v Brně-Maloměřicích (např. Plate XVI: 2-8), 7 kusy ve Vysočanech (Plate XLIII: 6, 10, 15; XLIV: 4, 8 a 10), dvěma exempláři v Jevišovivcích - Starém Zámku (Plate XXIII: 11, 12) a jedním kusem v Brně - Starém Lískovci (Plate XIX: 9). Zajímavé je, že škrabadla z Grešlového Mýta a Vysočan jsou zhotoveny z regulérních čepelí, zatímco jejich ekvivalenty z Brna-Maloměřic a Ostopovic (Plate XLI: 8) jsou povětšinou z úštěpových polotovarů (některé z nich mohou být popsány jako „nehtovité“). Je možné, že posledně jmenované formy mohou signalizovat rozdíly v chronologickém postavení nálezových celků.

Kromě škrabadel zaujímají významné místo v souborech jevišovické kultury rydla, hojně zastoupené v Brně-Maloměřicích (15 kusy). Mezi nimi jsou rydla na zlomu (Plate XVII: 13), plochá rydla (Plate XVII: 14) a rydla na retušované hraně (Plate XVII: 15). Mezi nástroji reprezentujícími neolitické tradice jsou také čepele s příčnou retuší, vyskytující se ve všech kolekcích (např. Plate XVIII:1; XXII:2; XXV: 6; XXXIX: 9; XLI: 1, XLII: 17; XLIV: 4). Mimo to se objevují drásadla (Plate XIX: 8), nožovité nástroje (Plate XX: 14; XXI: 10 XXVII: 9) a rozličné formy s náhodnou retuší, častou zoubkovanou nebo vrubovou. Sporadicky se objevují nástroje námi označované jako „segmenty“ (Plate XXV: 2; XXVI: 9; XXXIX: 2), které se později stanou charakteristickými formami kamenné štípané industrie starší doby bronzové na Moravě (srov. Kopacz *et al*. 2006; Kopacz, Šebela 2006, 64).

Výjimečnými nálezy v souborech jevišovické kultury jsou šipky. Exempláře z Grešlového Mýta (Plate XXI: 5) a Vysočan (Plate XLII: 12) mají lehce konkávní podstavu a málo výrazná křidélka. Bereme v tomto případě v úvahu fakt, že podobné šipky jsou typické pro pozdní a závěrečný eneolit, nevylučujeme, že by se mohlo v daném případě jednat o příměs. Takovou pochybnost nebudí šipky s trnem z Grešlového Mýta (Plate XXI: 1- 4) Jedna z nich se dvěma vruby na trnu (Plate XXI: 2) připomíná tak zvané hroty typu Štramberk, které jsou svázány s časnějšími vývojovými fázemi pozdní doby kamenné.

Závěrem je nutné se ještě zmínit o hlazených artefaktech, zhotovených z nesilicitových surovin, napodobující nástroje typu *Krummesser* (křivé nože; Plate XXX: 6); XXXI: 8, XXXII: 1, 2). Ačkoli byla při jejich produkci často využívána technika štípání, můžeme jmenované předměty klasifikovat jako vedlejší produkty kamenné štípané industrie (viz Kopacz 2011).

Sortiment nástrojů v souborech kultury kulovitých amfor v námi zkoumaných oblastech není příliš bohatý. Mezi formami, charakterizovanými jako typologické nástroje, jsou nejdůležitějšími škrabadla, povětšinou zhotovená na čepelích (např. Plate XXXIV: 6, 15). Sporadicky se objevují i jiné formy, pravdě-

podobně rydla (Plate XXXIV: 12) nebo vrtáky (Plate XXXV: 17). Unikátním nálezem je šipka z Opavy-Kylešovic (Plate XXXVIII: 11) s tenkým trnem bez křidélek s lehce konkávní podstavou. Inventář doplňují dosti hojné nástroje zbavené výrazných typologických znaků, které jsou často zhotoveny z čepelí (Plate XXXIII: 14; XXXIV:8, 9; XXXVII: 13).

Zvláštní místo v naší analýze zaujímají sekery z páskovaného silicitu typu Krzemionki (celkem 24 kusů, viz Plate XLVII: 1-7). Ačkoliv většina z nich je bez kulturního kontextu, můžeme je považovat za výrobky lidu kultury kulovitých amfor (z oblasti na jih od Svatokřížských hor v Malopolsku). Jak bylo uvedeno na jiném místě, vyskytují se mimo oblast rozšíření kultury kulovitých amfor, obzvláště na území osídlené nositeli jevišovické kultury. Z tohoto důvodu kulturní příslušnost u těchto nalezišť je nejistá a proto v katalogu kamenné štípané industrie je u těchto lokalit pro vyjádření pochybnosti otazník.

Kolekce nástrojů bošácké kultury je skromná, ale významná. Shodně s dominující technikou většina nástrojů byla zhotovena z čepelí. Mezi „typologickými nástroji" jsou nejpočetnější čepele s příčnou retuší (Plate IV: 13; V: 7, 10, 11; L: 1), někdy i se zachovaným leskem. Často se objevují rovněž retušované čepele (Plate IV: 10-12; V: 3), škrabadla (Plate V: 8, 13; VI: 17; XLIX: 2) a dírkovače (Plate V: 5; VI: 13). Jedním kusem je tu zastoupena šipka trojúhelníkovitého tvaru s konkávní bází (Plate IV: 2). Je nutné podotknout, že podobné formy jsou charakteristickými tvary pozdějšího seskupení východních skupin kultury zvoncovitých pohárů (srov. Kopacz *et al*. 2009, 84-97). „Netypologické" nástroje jsou reprezentovány úštěpy a čepelemi s marginální a užitkovou retuší.

Specifickými formami v kolekcích bošácké kultury jsou hlazené sekery (Plate III: 1-3; XLVII: 1; XLVIII: 6, 8), produkované jak ze surovin silicitových, tak i nesilicitových. Zvláště zajímavý je exemplář z Bánova (Plate III: 2), zhotovený ze silicitu krakovsko-čenstochovské jury, variety G, jehož zdroje jsou na území Malopolska. Silicitová sekera z Hlinska je z páskovaného silicitu typu Krzemionki (Plate XLVII: 1), byla vyrobena v prostředí kulovitých amfor a je součástí inventáře bošácké kultury na tamním výšinném hradisku.

Srovnáním produkce všech tří jednotek mladého eneolitu na Moravě a v českém Slezsku docházíme k zajímavý závěrům. Z pohledu použité techniky nositelé jevišovické kultury, kteří využívají především regulérní čepelové formy, navazují na produkci kamenné předcházejícího období. Zatímco u tvůrců kulovitých amfor, kde hlavní roli sehrávají drobné polotovary, má významné postavení úštěpová technika. Naproti tomu můžeme techniku bošácké kultury, i když disponujeme malou kolekcí, charakterizovat jako "mikro nebo mesiolitickou, spíše čepelového charakteru".

Typologická analýza přinesla podobné výsledky. Sortiment nástrojů jak jevišovické, tak i bošácké kultury, kde dominují škrabadla a odštěpovače na čepelích, více zachovává tradiční ráz, než jak je tomu v produkci kulovitých amfor.

Materiály kamenné štípané industrie mladého eneolitu je možné využít jako pramen pochopení kulturních změn na Moravě na konci doby kamenné, vedoucích ke zformování civilizace doby bronzové. Můžeme k tomu poznamenat, že v souborech kamenné štípané industrie domácích kultur (t. j. jevišovické a bošácké), reflektující na evoluci karpatského centra, se objevují první rysy konečné produkce kamenné štípané industrie (viz Kopacz 2012). Ty se projevují v upřednostnění surovin z nedalekých zdrojů, ve vysokém podílu funkčních nástrojů, v přítomnosti segmentů, atd. Tomu odpovídá i postavení Moravy jako jednoho z center kulturních přeměn v rámci východní části střední Evropy.

Česká verze
Lubomír Šebela

LES INDUSTRIES LITHIQUES TAILLEES DU ENEOLITHIQUE RECENT EN MORAVIE ET AN SILESIE TCHEQUE

(Résumé)

La période de Enéolithique en Moravie durait deux milles d'ans environ. Elle est sub-divisée sur quelques stades, ordinairement cinq ou six. C'est sont :

(1) Enéolithique initial, *ca*. 4000-3700 avant J.-C., représenté par la culture de la céramique peinte moravienne et la culture Jordanov ;

(2) Enéolithique ancien, *ca*. 3700-3200 avant J.-C., représenté par la culture des gobelets à Entonnoir ;

(3) Enéolithique moyen, *ca*. 3200-2900 avant J.-C., représenté par l'horizon Baden ;

(4) Enéolithique récent, *ca*. 2900-2700 avant J.-C., représenté par la culture Jevišovice, la culture Bošáca et la culture des amphores Globulaires ;

(5) Enéolithique final, *ca*. 2700-2200 avant J.-C., représenté par la culture de la céramique Cordée et la culture Campaniforme ;

(6) Enéolithique terminal, *ca*. 2200-2000 avant J.-C., représenté par la culture Proto-Únětice et la culture Chłopice-Veselé[5].

Le plus significative entité du Enéolithique récent en Moravie est la culture Jevišovice qui se développait principalement dans le sud du pays. La limite d'est de son milieu constituait le fleuve Morava. Vers le nord, quelques sites de cette culture dans le Sillon de Boskovice marquent probablement le chemin de son expansion vers l'est de Bohême.

Sur la base d'évolution de céramique, la culture Jevišovice en Moravie a été divisée sur trois stades (Medunová-Benešová 1977b). Le stade ancien (Proto-Jevišovice) est représenté principalement par les matériaux du site d'habitation à Grešlové Mýto. Emblématique pour le stade moyen sont les matériaux de Vysočany et pour le stade récent ceux du site-éponyme Jevišovice *Starý Zámek* (couche B). C'est possible que le développement de la culture en question durait encore plus long, comme les matériaux d'Ostopovice et de quelques outres sites indiquent (*cf.* Annexe A)

5 Dans la division pentatonique, le sixième stade est incorporé au cinquième stade.

Dans le milieu tchèque la culture des amphores Globulaires s'apparaît comme un élément étranger, importé du nord. Sur les territoires de notre intérêt la colonisation consistante de cette culture était concentrée essentiellement dans la région Opava (la Silésie tchèque). Néanmoins, certains éléments de cette culture, notamment les haches en silex rubané du type Krzemionki Opatowskie s'affichent aussi sur les étendues qui à cette époque-là étaient le domaine de la culture Jevišovice.

La culture Bošáca, le troisième entité du Enéolithique récent, se développait principalement sur les territoires de la Slovaquie d'ouest, notamment dans les bassins de Váh, Nitra et Žitava. Selon de notre connaissance actuelle, la colonisation de Bošáca en Moravie se concentrait dans la partie de sud-ouest du pays, sur les rivières d'Olšava et Dřevnice, mais aussi dans la région de Kroměříž et dans la Porte moravien. Principalement, la limite d'ouest de l'étendue de la culture Bošáca atteignait la rivière Morava.

Très intéressant sont les traces de la culture Bošáca près de Hradec Králové en Bohême de l'est. Les matériaux de cette région, génétiquement liés au milieu moravien, ont été inclus au dans le travail (Obědovice, district Hradec Králové).

Dans nos études nous avons utilisé 2155 pièces en silex descendants de 36 sites archéologiques à 35 localités. Huit sites (tous du caractère d'habitation) sont liés avec la culture Jevišovice. Elles ont procuré en somme 1847 pièces lithiques. Vingt-cinq sites (deux entre d'eux dans le même localité) ont fourni les objets reconnus par nous comme la production de la culture des amphores Globulaires (incluant les haches en silex rubané du type Krzemionki Opatowskie) – 157 pièces en entier. Finalement, nous avons trois sites d'habitation de la culture Bošáca (un dans l'est de Bohême) avec 151 pièces lithiques.

L'analyse pétrographique démontre que la plupart d'objets analysés ont été effectué à partir des roches venantes des gisements locales, notamment des cherts des types Olomučany, Krumlovský les (KL I et KL II) et Stránská skála, le chert jurassique moravien et spongiolithe crétacé. Assez souvent on était utilisé aussi cristal de roche, d'aspect meublant mais de faible clivage. Les matières premières importées

sont représentées par les silex de sédiments glaciaires (peut être du nord de Moravie ou de Silésie Supérieure), le radiolarite Carpatique, le silex tabulaire bavarois, le quartzite du type Tušimice (dans le nord-est de Bohême) et occasionnellement l'obsidienne et les autre roches. En relation à la préférence des cultures individuelles, l'industrie lithique de la culture Jevišovice constituaient les radiolarites en général les roches acquises des distances aussi proche que possible des sites d'habitation (notamment les cherts du type Olomučany, Krumlovský les et Stránská skála) et cella des amphores Globulaires les silex de sédiments glaciaires (dans l'aire de Silésie tchèque cette matière première peut être considérées comme locale). La culture Bošáca est singulière dans cet aspect – malgré de maigres evidences on peut dire que la matière première principale de son industrie lithique en Moravie était radiolarite des Carpates Blanches, et en Bohême – porcellanite locale de Kunětická hora.

Les industries lithiques du Enéolithique récent en Moravie sont présentées dans deux aspects – technique et typologique, séparément pour chaque culture analysée. La technique de tailler de la culture Jevišovice peut être bien reconstituée sur la base de matériaux de Brno-Maloměřice. Elle était évidement orientée sur la production des supports laminaires des nucleus préparés, pour la plupart à plan de frappe unique, probablement par l'application de la percussion indirecte (par exemple: Plate XI: 1-7). Les lames obtenues de cette manière étaient pour la plupart 4-7 cm long (par exemple: Plate XIV: 5; XV: 15-19), ce qui est confirmé par longueur des outils laminaires.

Débitage de la culture des amphores Globulaires peut être décrite seulement sur la base des matériaux de deux sites en Silésie tchèque – Opava-Kateřinky/Malé Hoštice et Opava-Kylešovice (à propos du dernier *cf.* Annexe B). On exploitait principalement des petits nucleus à plan de frappe unique, sans distinct préparation, par percussion directe du percuteur dur (Plate XXXV: 23; XXXVI: 17). Cette méthode était suffisante pour produire de petits supports, éclats ou lamelles, de longueur *ca*. 3 cm. De plus, la technique d'esquille était souvent utilisée (par exemple: Plate XXXIII: 11, 12; XXXV: 8; XXXVII: 5).

En ce qui concerne la technique de débitage de la culture Bošáca, notre evidences sont plutôt pauvres. Les découvertes de Bánov, Hlinsko et Obědovice suggèrent que le débitage était orientée surtout pour obtenir des éclats et des lames d'occasion, de longueur jusqu'à 5 cm (par exemple: Plate I: 16-19, 21; IV: 8, 9-14).

L'analyse typologique des ensembles d'Enéolithique récent en Moravie démontre démontre qu'elles sont considérablement diverses. Les informations les plus complètes sur les outils utilisés viennent des grands sites d'habitation de la culture Jevišovice. Ils indiquent que les formes les plus nombreuses sont les grattoirs, présents dans les tous ensembles analysées – 16 pièces de Grešlové Mýto (Plate XVIII: 1-13, 15-17), 15 pièces de Brno-Maloměřice (par exemple: Plate XVI: 2-8), 7 pièces de Vysočany (Plate XLIX: 4, 8, 10; XLIII: 6, 10, 15), 2 pièces de Jevišovice-*Starý Zámek* (Plate XXIII: 11, 12) et une pièces de Brno-Starý Lískovec (Plate XIX: 9). C'est intéressant que quand les grattoirs de Grešlové Mýto et de Vysočany sont les formes laminaires réguliers, alors que plupart des grattoirs de Brno-Maloměřice et aussi d'Ostopovice (par exemple: Plate XLI: 8) étaient effectués sur les supports d'éclat (certains d'eux peut être décrit comme unguiformes). C'est possible que ces distinctions tiennent le rapport chronologique.

A part de grattoirs, la position distincte dans les mobiliers lithiques de la culture Jevišovice est occupée par les burins, notamment nombreux à Brno-Maloměřice (15 pièces). La collection comprend les burins sur cassure (Plate XVII: 13), plans (Plate XVII: 14) et sur troncature retouchée (Plate XVII: 15). Parmi des outils de tradition néolithique nous trouvons, pratiquement dans tous les ensembles, les lames tronquées (par exemple: Plate XVIII: 1; XXII: 2; XXV: 6; XXXIX: 9; XLI: 1; XLII: 17; XLIV: 4). Il y a aussi les racloires (Plate XIX: 8), les outils du type couteau (Plate XX: 14; XXI: 10; XXVII: 9) et les formes à retouche d'occasion, souvent denticulées ou à l'encoche. Occasionnellement s'affichent les outils dénomés par nous « les segments » (Plate XXV: 2; XXVI: 9; XXXIX 2) qui deviendront emblématiques pour les industries lithiques de l'âge du Bronze ancien en Moravie (*cf.* Kopacz *et al*. 2006 ; Kopacz, Šebela 2006, 64).

Pointes de flèches sont très exceptionnelles dans la culture Jevišovice. Les pièces de Grešlové Mýto (Plate XXI: 5) et de Vysočany (Plate XLII: 12) ont la base légèrement concave et les ailerons peu distincts. Vu que les formes pareilles sont typiques pour l'Enéolithique final et terminal nous ne pouvons pas exclure le cas de pollution des inventaires par le matériel étrange. On n'a pas de doutes de cette nature en relation aux pointes de flèches à pédoncule de Grešlové Mýto (Plate XXI: 1-4). Une d'eux (Plate XXI: 2), avec deux encoches indistinctes sur la pédoncule, ressemblent les soi-disant pointes de type *Štramberk*, regardées plutôt comme indicatifs des plus anciens stades de l'Enéolithique.

Finalement il faut mentionner la présence de formes polisses réalisées des roches non siliceuses, ressemblant le type *Krummesser* (couteaux courbes; Plate XXX: 6; XXXI; 8; XXXII: 1, 2). Bien que dans leur production la technique du débitage était souvent mise en œuvre, on ne les peut regarde que la production « périphérique » des industries lithiques tailles (*cf.* Kopacz 2011).

L'assortiment des outils dans les ensembles de la culture des amphores Globulaires sur le territoire de notre intérêt est plutôt étroit. Parmi les formes décrites comme « typologiques » le plus nombreux sont grattoirs, pour la plupart réalisés à partir des supports laminaire (par exemple: Plate XXXIV: 6, 15). En plus, on peut trouver probablement les burins (*cf.* Plate XXXV: 12) ou les perforateurs (Plate XXXV: 17). Le découverte unique est la pointe de flèche de Opava-Kylešovice (Plate XXXVIII: 11) – très fine, à pédoncule, sans ailerons, la base légèrement concave. L'inventaire est complété par assez nombreux outils sans clairs traits typologiques, de préférence sur lames (par exemple: Plate XXXIII: 14; XXXIV: 8, 9; XXXVII: 13).

Les haches en silex rubané du type Krzemionki Opatowskie tiennent la place singulière dans notre analyse (par exemple: Plate XLVII: 7). Bien que pour la plupart ce sont des découvertes sans contexte culturelle, il faut les regarder comme la production de la culture des amphores Globulaires de la région au sud des Montagnes de Sainte Croix, Petite Pologne. Néanmoins, l'affiliation culturelle des haches trouvées hors de la portée de cette culture est présomptive (point d'interrogation dans le Catalogue).

L'outillage de la culture Bošáca n'est pas ample. Conformément à la technique de débitage prédominante, la majorité d'outils était réalisée sur lames. Parmi les outils « typologiques » le plus fréquent sont les pièces tronquées (Plate IV: 13; V: 7, 10, 11; L: 1), quelques avec du lustre de faucille. Souvent s'affichent aussi les lames retouchées (Plate IV: 10-12; V: 3), les grattoirs (Plate V: 8, 13 ; VI: 17, XLIX: 2) et les perçoirs (Plate V: 5; VI: 13). Nous avons aussi un seul représentant de pointes de flèches (de Bánov) – triangulaire en forme, à base trapézoïdale (Plate IV: 2). Il faut remarquer que les pointes pareilles deviendront emblématiques pour les groupes orientaux du cercle Campaniforme (*cf.* Kopacz *et al*. 2009, 84-97). Les outils « non-typologiques » (fonctionnels) sont représentés par les éclats et les lames à retouche marginale et d'utilisation.

Spécifiques formes dans les mobiliers lithiques de la culture Bošáca sont les haches polies (Plate III: 1-3; XLVII: 1; XLVIII: 6, 8). Elles étaient produites aussi bien du silex comme et de roches non siliceux. Spécialement intéressante est la pièce de Bànov (Plate III: 2), réalisée à partir du silex jurassique du Plateau Cracovie-Częstochowa (Petite Pologne), variante G. La hache de Hlinsko du silex rubane du type Krzemionki Opatowskie (Plate XLVII: 1), crée probablement dans le milieu des amphores Globulaires, est néanmoins la partie de l'inventaire de people du Bošáca qui habitaient le site.

La confrontation des industries lithiques de trois entités du Enéolithique récent moravien mène aux conclusions intéressantes. La culture Jevišovice qui utilisait en général des formes laminaires regulières de dimensions moyenne, se montre comme la continuatrice des traditions de débitage de périodes antérieures. Différente dans ce respect est la culture des amphores Globulaire, orientée sur les petits supports, les éclats pour la plupart. En relation au débitage de la culture Bošáca, malgré de sources maigres, on peut le décrire comme « micro- ou mediolithique, plutôt laminaire ».

L'analyse d'aspects typologique mène à la même direction. Outillages de la culture Jevišovice et de la culture Bošáca, prédominés par les grattoirs et les lames tronquées, sont du caractère plus traditionnel que celui de culture des amphores Globulaire.

Les matériaux lithiques du Enéolithique récent peuvent être utilisés comme la source des informations supplémentaires sur les transformations culturelles en Moravie vers la fin de l'âge de la Pierre, précédentes la formation de la civilisation de l'âge du Bronze. On peut apercevoir que les ensembles de cultures locales (Jevišovice, Bošáca), qui reflètent le développement du milieu carpatique, mettent en lumière de premiers éléments caractéristiques pour les « industries lithiques terminales» (*cf.* Kopacz 2012), par exemple la préférence des roches de sources peu éloignées, haute participation des outils fonctionnels, la présence des segments, *etc*. Cela confirme l'importance de Moravie comme le territoires des transmutations civilisatrices importantes dans le cadre d'Europe centre-orientale.

Version française par
Jerzy Kopacz

KRZEMIENIARSTWO MŁODSZEGO ENEOLITU NA MORAWACH I NA ŚLĄSKU CZESKIM

(Streszczenie)

Okres eneolitu na Morawach trwał ponad dwa tysiące lat. Dzieli się go na szereg stadiów, przeważnie pięć lub sześć. Są to:

(1) eneolit wczesny, około 4000-3700 przed Chr., reprezentowany przez kulturę morawskiej ceramiki malowanej i kulturę jordanowską;

(2) eneolit starszy, około 3700-3200 przed Chr., reprezentowany przez kulturę pucharów lejkowatych;

(3) eneolit środkowy, około 3200-2900 przed Chr., reprezentowany horyzont badeński;

(4) eneolit młodszy, około 2900-2700 przed Chr., reprezentowany przez kultury: jewiszowicką, boszacką i amfor kulistych;

(5) eneolit późny, około. 2700-2200 przed Chr., reprezentowany przez kulturę ceramiki sznurowej i kulturę pucharów dzwonowatych;

(6) eneolit schyłkowy, około 2200-2000 przed Chr., reprezentowany przez kultury protounietycką i kulturę Chłopice-Veselé[6].

Najważniejszym ugrupowanie młodszego eneolitu na Morawach jest kultura jewiszowicka, rozwijająca się głównie w południowej części tej krainy. Granicę wschodnią jej zasięgu wyznacza rzeka Morava. W kierunku północnym stanowiska omawianej kultury sięgają Bruzdy Boskovickiej. Wyznaczają one prawdopodobne drogę jej ekspansji w kierunku wschodnich Czech.

Przyjmując za podstawę ewolucję ceramiki, kultura jewiszowicka dzielona jest na trzy stadia (Medunová-Benešová 1977b). Stadium wczesne (protojewiszowickie) reprezentują przede wszystkim przez materiały z osady w Grešlovym Mýcie. Dla stadium środkowego typowe są materiały z Vysočan, a dla stadium młodszego ze stanowiska eponimicznego Jevišovice *Starý Zámek* (warstwa B). Jest możliwe, że rozwój kultury jewiszowickiej trwał jeszcze dłużej, na co wskazują między innymi materiały z Ostopovic (*cf.* Annex A)

W środowisku eneolitu morawskiego i czeskiego kultura amfor kulistych jest elementem obcym, importowanym z północy. Na obszarach naszych zainteresowań jej trwałe osadnictwo zostało potwierdzone tylko regionie opawskim (Śląsk Czeski). Tym niemniej pewne elementy tej kultury, ściślej zaś siekiery z krzemienia pasiastego typu Krzemionki Opatowskie pojawiają się również na obszarach stanowiących w owym czasie domenę innych kultur (w szczególności kultury jewiszowickiej).

Trzecie ugrupowanie morawskiego młodszego eneolitu – kultura boszacka, rozwijała się zasadniczo na obszarach zachodniej Słowacji, szczególnie w dorzeczach Wagu, Nitry i Žitavy. Według aktualnego stanu wiedzy osadnictwo boszackie na Morawach koncentrowało się w jej części południowo-wschodniej, nad rzekami Olšavą i Dřevnicą, lecz również w rejonie Kroměříža i w Bramie Morawskiej. W sensie ogólnym wschodnią granicą zasięgu kultury boszackiej wyznaczała rzeka Morava.

Bardzo interesujące są ślady kultury boszackiej odkryte w okolicach Hradec Králové we wschodnich Czechach. Materiały z tego regionu, genetycznie powiązane ze środowiskiem morawskim, zostały uwzględnione w niniejszej pracy (Obědovice, okres Hradec Králové).

W naszych badaniach wykorzystano 2155 wyrobów krzemieniarskich pochodzących z 36 stanowisk archeologicznych w 35 miejscowościach. Osiem stanowisk (wszystkie o charakterze osadniczym) wiążą się z kulturą jewiszowicką. Pochodzi z nich łącznie 1847 przedmiotów. Dwadzieścia pięć stanowisk (dwie spośród nich w tej samej miejscowości) zawierały przedmioty uznane przez nas za wytwory ludność kultury amfor kulistych (łącznie z siekierami z krzemienia pasiastego typu Krzemionki Opatowskie) – w sumie 157 przedmiotów. Uwzględnione zostały także trzy stanowiska osadowe kultury boszackiej (jedno ze wschodnich Czech), które dostarczyły 151 przedmioty.

Jak wykazała analiza petrograficzna, większość badanych przedmiotów wykonana została ze skał pochodzących ze źródeł morawskich, szczególnie z rogowce typów Olomučany, Krumlovský les (warianty KL I i KL II) i Stránská skála, morawskiego rogowca jurajskiego oraz spongiolitu kredowego. Często

6 W podziale pięciostopniowym stadium szóste jest włączane do stadium piątego.

wykorzystywano kryształ górski, skałę o efektownym wyglądzie, lecz słabej łupliwości. Ważnymi surowcami były również sylicyty z osadów lodowcowych (być może w północnych Morawach lub na Śląsku Górnym), radiolaryt karpacki, bawarski krzemień tabularny, kwarcyty typu Tušimice (w północno-zachodnich Czechach). Okazjonalnie wykorzystywano obsydian i inne skały. Odnośnie do preferencji surowcowej można powiedzieć, że krzemieniarstwo jewiszowickie oparte było na surowcach pozyskiwane z możliwie najbliższej odległości od miejsc zamieszkania (szczególnie na rogowcach typów Olomučany, Krumlovský les i Stránská skála), a krzemieniarstwo kultury amfor kulistych na sylicytach z osadów lodowcowych (na obszarach Czeskiego Śląska można je uważać za skały lokalne). Kultura boszacka wyróżnia się pod tym względem – mimo ubóstwa źródeł można przypuszczać, że społeczności morawskie bazowały głównie na radiolarytach z Białych Karpat, a społeczności wschodnich Czech na lokalnych porcelanitach z Kunětickiej hory.

Krzemieniarstwo młodszego eneolitu na Morawach zostało przedstawione w aspektach technicznym i typologicznym, oddzielnie dla każdej z analizowanych kultur. Technikę krzemieniarską kultury jewiszowickiej można w znacznej mierze odtworzyć na podstawie materiałów z Brna-Maloměřic. Była ona wyraźnie ukierunkowana na produkcję półsurowca wiórowego odbijanego z przygotowanych rdzenie, przeważnie jednopiętowych, prawdopodobnie z pomocą pośrednika (np. Plate XI: 1-7). Uzyskane w ten sposób wióry były przeważnie długie na 4-7 cm (np. Plate XIV: 5; XV: 15-19), którą to wartość potwierdzają równie narzędzia wiórowe.

Technika krzemieniarska kultury amfor kulistych może być opisana jedynie na podstawie materiałów z dwóch stanowisk na Czeskim Śląsku – Opava-Kateřinky/Malé Hoštice i Opava-Kylešovice (w odniesieniu do drugiego z nich patrz Annex B). Prawdopodobnie eksploatowano głównie małe rdzenie jednopiętowe bez wyraźniejszego przygotowania, przy pomocy uderzenia bezpośredniego twardym tłukiem (Plate XXXV: 23; XXXVI: 17). Dostarczały one małego półsurowca (długości około 3 cm) – odłupkowego lub wiórowego. Często wykorzystywano również technikę łuszczniową (np. Plate XXXIII: 11, 12; XXXV: 8; XXXVII: 5).

Źródła odnoszące się do technik krzemieniarskiej kultury boszackiej są bardzo skromne. Materiały z Bánova, Hlinska i Obědovic sugerują, że eksploatacja rdzeni ukierunkowana była głównie na pozyskiwanie odłupków i okazjonalnych wiórów o długości do 5 cm (np. Plate I: 16-19, 21; IV: 8, 9-14).

Analiza typologiczna morawskich zespołów z młodszego eneolitu ujawnia ich wyraźne zróżnicowanie. Najpełniejsze informacje na temat wykorzystywanych narzędzi pochodzą z wielkich osad kultury jewiszowickiej. Wskazują one, że najliczniejszymi formami były drapacze, obecne we wszystkich analizowanych inwentarzach – 16 w Grešlovym Mýcie (Plate XVIII: 1-13, 15-17), 15 w Brnie-Maloměřicach (np. Plate XVI: 2-8), 7 w Vysočanach (Plate XLIII: 1, 2, 10, 14; XLIV: 4, 8, 10), 2 w Jevišovicach-*Starý Zámek* (Plate XXIII: 11, 12) i jeden egzemplarz w Brnie-Starým Lískovcu (Plate XIX: 9). Interesującą jest obserwacja, że drapacze z Grešlovego Mýta, a także z Vysočan, wykonane zostały z regularnych wiórów, podczas gdy większość narzędzi tego typu z Brna-Maloměřic i Ostopovic (np. Plate XLI: 8) to formy odłupkowe (niektóre z nich mogą być opisane jako „paznokciowate"). Jest możliwe, że zauważone różnice mogą mieć odniesienie chronologiczne.

Oprócz drapaczy, znaczące miejsce w inwentarzach kultury jewiszowickiej zajmują rylce, szczególnie liczne w Brnie-Maloměřicach (15 okazów). Są wśród nich rylce łamańce (Plate XVII: 13), płaskie (Plate XVII: 14) i węgłowe (Plate XVII: 15). Wśród narzędzi reprezentujących tradycję neolityczną są także półtylczaki, obecne praktycznie we wszystkich zespołach (np. Plate XVIII: 1; XXII: 2; XXV: 6; XXXIX: 9; XLI: 1; XLII: 17; XLIV: 4). Znajdujemy ponadto zgrzebła (Plate XIX: 8), narzędzia nożowate (Plate XX: 14; XXI: 10; XXVII: 9) i rozliczne formy z retuszem okazjonalnym, często zębatym lub wnękowym. Sporadycznie pojawiają się narzędzia (zbrojniki) określane przez nas jako „segmenty" (Plate XXV: 2; XXVI: 9; XXXIX: 2), które w przyszłości staną się formami charakterystycznymi krzemieniarstwa wczesnego okresu epoki brązu na Morawach (por. Kopacz *et al*. 2006; Kopacz, Šebela 2006, 64).

Wyjątkowymi znaleziskami w zespołach kultury jewiszowickiej są grociki. Okazy z Grešlovégo Mýta (Plate XXI: 5) i Vysočan (Plate XLII: 12) mają lekko wklęsłą podstawę i mało wyraźne skrzydełka. Mając na uwadze fakt, że podobne grociki są typowe dla eneolitu późnego i schyłkowego, nie można tu wykluczyć przypadku obcej domieszki w inwentarzu. Wątpliwości takich nie budzą dwa grociki trzoneczkowate z Grešlovégo Mýta (Plate XXI: 1-4). Jeden z nich, z dwoma mało wyraźnymi wnękami na trzonku (Plate XXI: 2), przypomina tak zwane grociki typu *Štramberk*, uznawane raczej za formy związane z wcześniejszymi stadiami eneolitu.

W końcu należy wspomnieć o obecności form gładzonych, wykonanych ze skał niekrzemionkowych, nawiązujących do typu *Krummesser* (krzywe noże; Plate XXX: 6; XXXI; 8; XXXII: 1, 2). Chociaż przy ich produkcji wykorzystywano często technikę krzemieniarską, może traktować co najwyżej jako produkty „peryferyjne" krzemieniarstwa (por. Kopacz 2011).

Asortyment narzędzi w zespołach kultury amfor kulistych na obszarach naszych zainteresowań jest dość wąski. Wśród form określanych jako narzędzia typologiczne najliczniejszymi są drapacze, w większości wykonane z półsurowca wiórowego (np. Plate XXXIV: 6, 15). Sporadycznie pojawiają się także inne formy, wśród nich prawdopodobnie rylce (*cf.* Plate XXXV: 12) oraz przekłuwacze (Plate XXXV: 17). Unikalnym znaleziskiem jest grocik z Opavy-Kylešovic (Plate XXXVIII: 11) – bardzo cienki, trzoneczkowaty, bez skrzydełek i z lekko wklęsłą podstawą. Inwentarz uzupełniają dość liczne narzędzia pozbawione wyraźnych cech typologicznych, często wykonane z wiórów (np. Plate XXXIII: 14; XXXIV: 8, 9; XXXVII: 13).

Szczególne miejsce w naszej analizie zajmują siekiery z krzemienia pasiastego typu Krzemionki Opatowskie (w sumie 24 egzemplarze; np. Plate XLVII: 7). Chociaż większość z nich to znaleziska bez kontekstu kulturowego, należy je traktować jako wytwory ludności kultury amfor kulistych (z rejony na południe od Gór Świętokrzyskich, Małopolska). Jak wspomniano wcześniej, znaleźć je można daleko poza zasięgiem tej jednostki, szczególnie na obszarach będących domeną kultury jewiszowickiej. Dlatego przynależność kulturowa znalezisk przypadkowych jest niepewna (znak zapytania w Katalogu).

Inwentarz narzędziowy kultury boszackiej jest skromny, lecz znaczący. Zgodnie z dominującą techniką, większość narzędzi została wykonana została z wiórów. Wśród narzędzi „typologicznych" najliczniejsze są półtylczaki (Plate IV: 13; V: 7, 10, 11; L: 1), niekiedy z wyświeceniem żniwnym. Często spotyka się również wióry retuszowane (Plate IV: 10-12; V: 3), drapacze (Plate V: 8, 13; VI: 17, XLIX: 2) i przekłuwacze (Plate V: 5; VI: 13). Jest również jeden grocik (z Bánova) – trójkątny, z trapezowato wciętą podstawą (Plate IV: 2). Należy podkreślić, że podobne formy staną się w przyszłości wyznacznikami wschodnich ugrupowań kultury pucharów dzwonowatych (*cf.* Kopacz *et al*. 2009, 84-97). Narzędzia „nietypologiczne" (funkcjonalne) są reprezentowane przez odłupki i wióry z retuszem marginalnym i użytkowym.

Specyficznymi formami w inwentarzach kamiennych kultury boszackiej są gładzone siekiery (Plate III: 1-3; XLVII: 1; XLVIII: 6, 8). Wykonywano je ze skał krzemionkowych ja i niekrzemionkowych. Szczególnie interesujący jest egzemplarz z Bànova (Plate III: 2), wykonany z krzemienia jurajskiego z Wyżyny Krakowsko-Częstochowskiej (Małopolska), wariant G. Siekiera z Hlinska, wykonana z krzemienia pasiastego typu Krzemionki Opatowskie (Plate XLVII: 1) prawdopodobnie w środowisku kultury amfor kulistych, byłą jednakże częścią inwentarza boszackiej ludności tego stanowiska.

Porównanie przemysłów krzemieniarskich trzech ugrupowań kulturowych morawskiego młodszego eneolitu prowadzi do ciekawych wniosków. W sensie technicznym, kultura jewiszowicka, która wykorzystywała przede wszystkim regularne formy wiórowe, wydaje się być kontynuatorką tradycji okresów wcześniejszych. Odmienną w tym względzie jest kultura amfor kulistych, w której główną rolę odgrywa drobny półsurowiec, głównie odłupkowy. Natomiast technikę krzemieniarską kultury boszackiej, mimo ubóstwa danych, można określić, jako „mikro- lub mediolitczną, raczej wiórową".

Analiza typologiczna prowadzi do podobnych wniosków. Asortyment narzędziowy kultury jewiszowickiej oraz (kultury boszackiej, zdominowany przez drapacze i wiórowe półtylczaki, ma charakter bardziej tradycjonalny niż w kulturze amfor kulistych.

Materiały krzemieniarskie z okresu młodszego eneolitu można wykorzystać jako źródło dodatkowych informacji o przemianach kulturowych na Morawach u schyłku epoki kamienia, prowadzących do uformowania się cywilizacji epoki brązu. Można zauważyć, że zespoły kultur miejscowych (jewiszowickiej i boszackiej), odzwierciedlające ewolucję środowiska karpackiego, ujawniają pierwsze elementy „krzemieniarstwa schyłkowego" (por. Kopacz 2012), np. preferencję surowców z nieodległych złóż, wysoki udział narzędzi funkcjonalnych, obecność segmentów itp. Podkreśla to rolę Moraw jako obszaru przemian cywilizacyjnych w skali Europy Środkowo-Wschodniej.

Wersja polska
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