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JERZY KOPACZ • ANTONÍN PŘICHYSTAL • LUBOMÍR ŠEBELA

LITHIC CHIPPED INDUSTRY  
OF THE YOUNG ENEOLITHIC  
IN MORAVIA AND CZECH SILESIA



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**LITHIC CHIPPED INDUSTRY OF THE YOUNG ENEOLITHIC  
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by

Jerzy Kopacz, Antonín Přichystal, Lubomír Šebela



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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

<b>1. Birth of the project.</b> . . . . .	<b>3</b>
<b>2. Note on the concept of Terminal Lithic Industries.</b> . . . . .	<b>3</b>
<b>3. Eneolithic in Moravia</b> . . . . .	<b>4</b>
3.2. The Jevišovice culture . . . . .	4
3.3. The Globular Amphora culture . . . . .	6
3.4. The Bošáca culture . . . . .	6
<b>4. Distribution of evidences</b> . . . . .	<b>20</b>
<b>5. Raw materials.</b> . . . . .	<b>23</b>
5.1. Local rocks. . . . .	23
5.1.1. Olomučany chert. . . . .	23
5.1.2. Moravian Jurassic cherts . . . . .	23
5.1.3. Cherts of the Krumlovský les type . . . . .	23
5.1.4. Stránská skála cherts . . . . .	24
5.1.5. Cretaceous spongolite cherts . . . . .	24
5.1.6. Siliceous weathering products of serpentinites . . . . .	24
5.1.7. Quartz. . . . .	24
5.1.8. Rock crystal, smoky quartz and citrine . . . . .	24
5.1.9. Quartzite, so-called <i>sluňák</i> (“sun boulder”) . . . . .	25
5.1.10. Porcellanites . . . . .	25
5.1.11. Opal . . . . .	25
5.2. Imported rocks. . . . .	25
5.2.1. Carpathian radiolarite . . . . .	25
5.2.2. Bavarian tabular chert ( <i>Plattensilex</i> ). . . . .	25
5.2.3. Silicites from glacial sediments (mostly flints) . . . . .	25
5.2.4. Tušimice quartzite (MW Bohemia) . . . . .	26
5.2.5. Obsidian (SE Slovakia, NE Hungary) . . . . .	26
5.2.6. Bohemian spilite volcanoclastic rock . . . . .	26
5.3. Raw material preferences in the Moravian Young Eneolithic . . . . .	26
5.3.1. The Jevišovice culture . . . . .	26
5.3.2. The Globular Amphora culture . . . . .	27
5.3.3. The Bošáca culture . . . . .	27
<b>6. Chipping techniques</b> . . . . .	<b>31</b>
6.1. The Jevišovice culture . . . . .	31
6.2. The Globular Amphora culture . . . . .	31
6.3. The Bošáca culture . . . . .	32
<b>7. Tools</b> . . . . .	<b>32</b>
7.1. The Jevišovice culture . . . . .	32
7.2. The Globular Amphora culture . . . . .	35
7.3. The Bošáca culture. . . . .	35
<b>8. Comparison of lithic chipped industries of the Jevišovice, Globular Amphora, and Bošáca cultures.</b> . . . . .	<b>36</b>
8.1. Raw material aspect. . . . .	36
8.2. Technical aspect. . . . .	37
8.3. Typological aspect . . . . .	37
<b>9. Lithic chipped industries of the Moravian Young Eneolithic as forerunners of epochal transformations.</b> . . . . .	<b>38</b>
<b>10. CATALOGUE.</b> . . . . .	<b>40</b>
5.1. Moravia and Czech Silesia. . . . .	41
5.2. Young Eneolithic – Eastern Bohemia . . . . .	75

## **ANNEX A**

<b>Settlement of the Jevišovice culture at Ostopovice, Brno-venkov district. . . . .</b>	<b>134</b>
I. Introduction . . . . .	134
II. Description of archaeological features and artifacts. . . . .	134
Structure 1/1947 . . . . .	134
Structure 2/1948 . . . . .	136
Structures 3 and 4/1948 . . . . .	136
III. Analysis of archaeological material. . . . .	139
III.1. Pottery . . . . .	139
III.2. Small ceramic artifacts . . . . .	139
III.3. Bone artifacts. . . . .	139
III.4. Stone artifacts . . . . .	140
III.4.1. Polished lithic industry . . . . .	140
III.4.2. Chipped lithic industry . . . . .	140
III.5. Anthropomorphic idols . . . . .	140
III.5.1. Clay figurine . . . . .	140
III.5.2. Stone idols . . . . .	141
IV. Chronology of the Ostopovice assemblage within the Jevišovice culture . . . . .	141
V. Final remarks. . . . .	141

## **ANNEX B**

<b>Cemetery in Opava-Kylešovice and the question of its chronology. . . . .</b>	<b>152</b>
I. Introduction . . . . .	152
II. Descriptions of burials and materials from grave pits . . . . .	152
III. Analysis . . . . .	157
IV. Conclusions . . . . .	158

<b>KAMENNÁ ŠTÍPANÁ INDUSTRIE MLADÉHO ENEOLITU NA MORAVĚ A V ČESKÉM SLEZSKU . . . . .</b>	<b>167</b>
----------------------------------------------------------------------------------------------	------------

<b>LES INDUSTRIES LITHIQUES TAILLEES DU ENEOLITHIQUE RECENT EN MORAVIE ET AN SILESIE TCHEQUE. . . . .</b>	<b>170</b>
---------------------------------------------------------------------------------------------------------------	------------

<b>KRZEMIENIARSTWO MŁODSZEGO ENEOLITU NA MORAWACH I NA ŚLĄSKU CZESKIM. . . . .</b>	<b>173</b>
----------------------------------------------------------------------------------------	------------

<b>BIBLIOGRAPHIC REFERENCES . . . . .</b>	<b>176</b>
-------------------------------------------	------------

<b>INDEX OF LOCALITY NAMES . . . . .</b>	<b>182</b>
------------------------------------------	------------

<b>THE AUTHORS. . . . .</b>	<b>185</b>
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## 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 than “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 insight 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 has 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.<sup>1</sup>

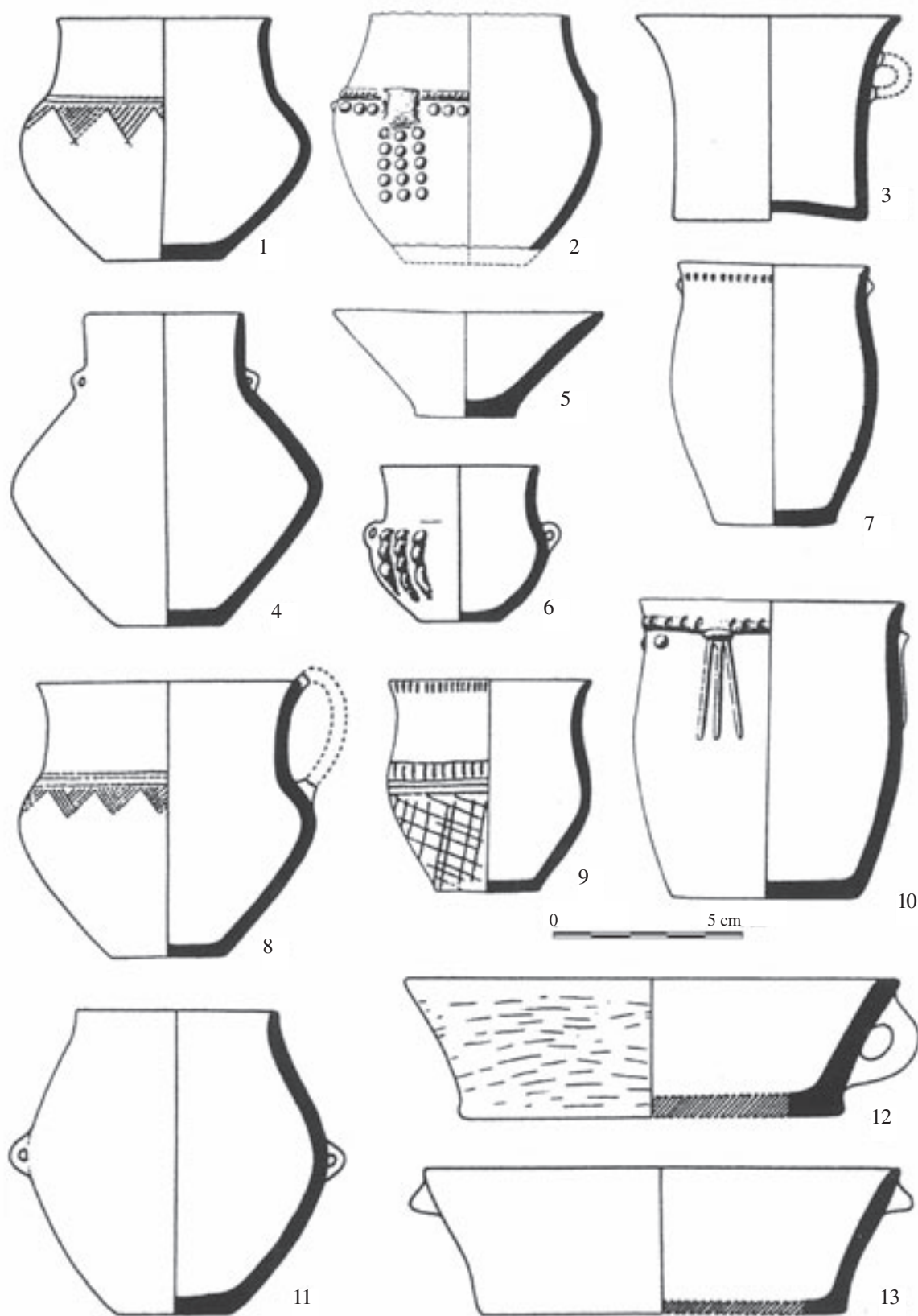
Our interest is focused on times referred as Young Eneolithic, when the first signs of the ongoing epochal crisis can be observed.

#### 3.2. The Jevišovice culture

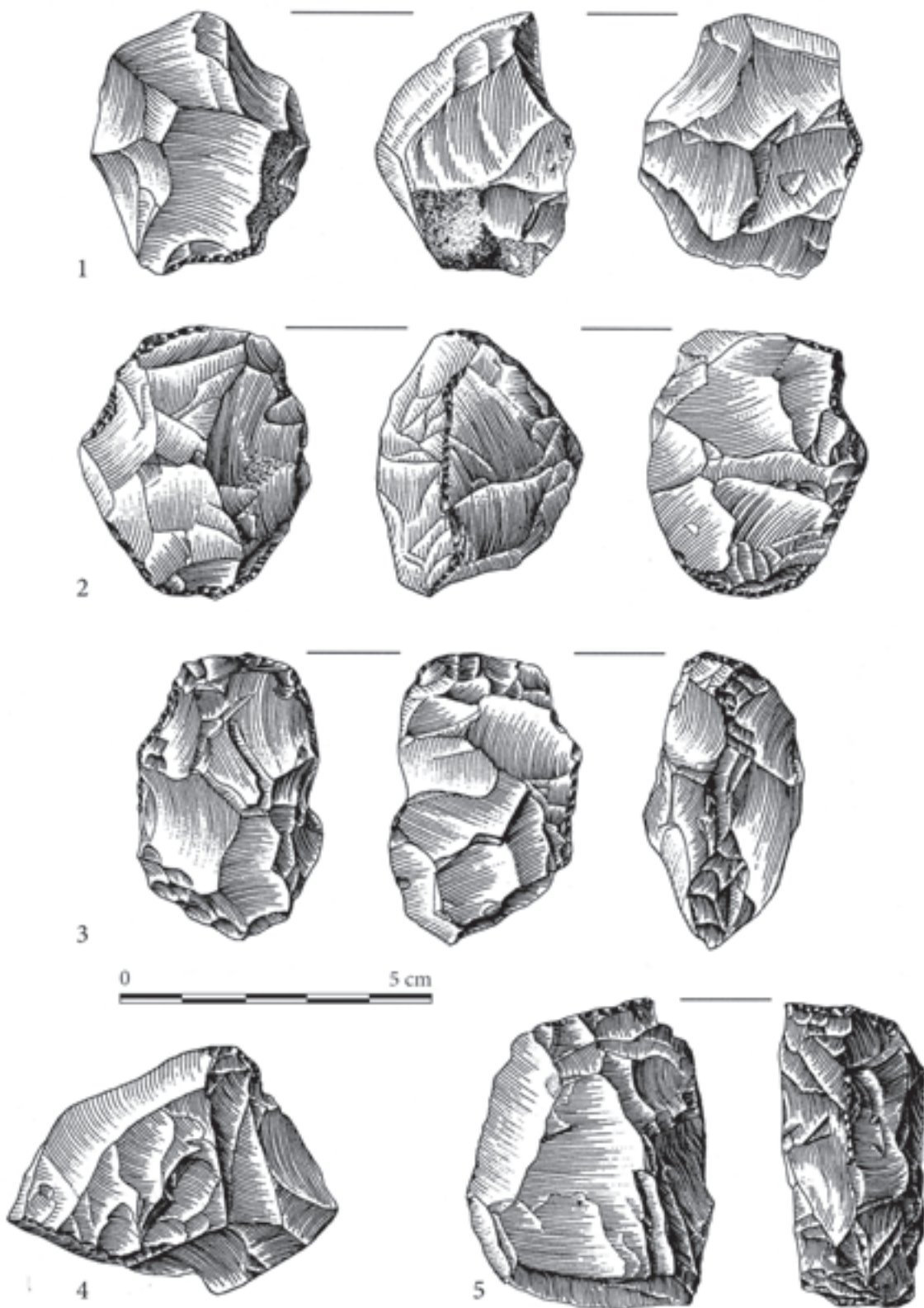
The Jevišovice culture appears as the most significant manifestation of the Late Neolithic period in southern Moravia. The first archaeological material which was subsequently classified as Jevišovice culture was discovered at the end of the 19th century by Jaro-

<sup>1</sup> In the shortened division, the last two stages are merged into one.





**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.



**Plate X.** Brno-Maloměřice, Brno-město district: 1-5 – lithic chipped artifacts from the cultural layer of the Jevišovice culture. After Valoch, Šebela 1995.

Jerzy Kopacz - Antonín Přichystal - Lubomír Šebela

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