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TARTALOM • CONTENTS

A SZERKESZTŐK ELŐSZAVA

Negyedik évfolyamunkban folytatjuk a 2014-ben Miskolcon megrendezésre került 11. *SKAM Lithic Workshop: the multifaceted biface - Bifacial technology in Prehistory* konferencia előadásainak közlését. Adriána Voľanská és Petr Škrdla egyaránt a korai felső paleolitikum levéleszközeiről írnak. Janusz Kozłowski nagyívű tanulmánya a korai középső paleolitikum kulturális sokszínűségét tárgyalja. Eleki Ferenc és Péntek Attila egészen szűk fókuszt választottak egy Gravettien kőegyüttes vizsgálatához, Gutay Mónika és munkatársai pedig izgalmas terepi hírekkel jelentkeznek Feldebrő ásatásáról.

Ez évtől kezdve rendre közölni fogjuk a Kőkor Kerekasztal éves gyűlésein elhangzott előadások kivonatait, és a honlapunkon megjelenő rövidebb beszámolók is helyet kapnak. A tartalmi újdonságok mellett kis mértékű formai igazítás is történt, mindezeken túl pedig örömmel adjuk hírül a Magyar Tudományos Akadémia Könyvtár és Információs Központtal való együttműködésünket. Ezentúl a nálunk megjelent tanulmányok digitális tárgyazonosítót (doi) kapnak, az MTA, illetve MTMT repozitóriumokban automatikusan elhelyezésre kerülnek, valamint a Crossref doi ügynökség adatbázisába is beépülnek. Ez által a Litikum tanulmányok könnyen hivatkozhatók lesznek, és tudományos hasznuk is mérhetővé válik. Izgalmas évek következnek!

EDITORIAL

This year we continue to publish studies presented at the 11th *SKAM Lithic Workshop: the multifaceted biface - Bifacial technology in Prehistory* in Miskolc, Hungary. Adriána Voľanská and Petr Škrdla discuss EUP bifacial artifacts from Central Europe. Janusz Kozłowski present a comprehensive study about early Middle Palaeolithic taxonomy in the region, while Ferenc Eleki and Attila Péntek narrow their focus to one Gravettian assemblage from Hungary. Mónika Gutay and her associates share with us fieldwork news about an Epipalaeolithic site with ceramic artifacts in association lithics. Presentation abstracts of the 2016 Lithic Roundtable and several posts from our webpage close this volume.

We are happy to announce a cooperation between Litikum and the Library and Information Centre of the Hungarian Academy of Sciences (HAS). Beginning in this year all the Litikum articles will be equipped with a digital object identifier (doi), and will be archived in the HAS digital repository. The agreement extends to a Crossref database inclusion, through which our publications will be more easy to discover, to cite and to measure their impact.

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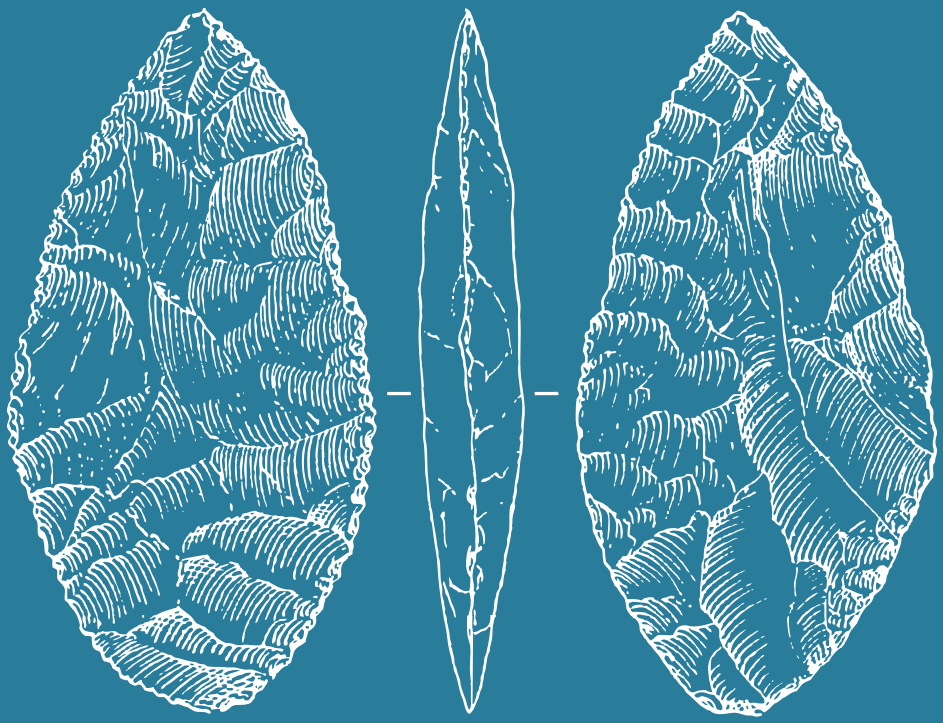

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Proceedings of the 11th SKAM Lithic Workshop
The multifaceted biface - Bifacial technology in Prehistory
20th-22nd of October, 2014, Miskolc, Hungary

Bifacial technology at the beginning of the Upper Paleolithic in Moravia

Petr Škrdla

Abstract

Leaf points have been documented in the Szeletian, Bohunician and Aurignacian technocomplexes in Moravia. The leaf point undoubtedly represents a Szeletian type-fossil within the Moravian early Szeletian, but in the Bohunician the presence of leaf points is more debatable. Bifacial knapping is an unusual element within the Bohunician Levallois-based industry, and has only been documented in the type-site assemblage. Leaf points in Aurignacian contexts have never been recorded in stratified assemblages; they have been documented only at surface sites so their association with the Aurignacian is doubtful.

Kivonat

Bifaciális technológia Morvaországban a felső paleolitikum kezdete idején

Morvaországban (Cseh Köztársaság) a Szeletai, a Bohunicien és az Aurignacien technokomplexekhez egyaránt rendelünk kétoldali megmunkálású levéleszközöket. A levélhegy kétség kívül a morvaországi korai Szeletai vezérlelete, a Bohunicienben való jelenléte viszont vitatott. A kétoldali megmunkálás a Levallois-alapú Bohunicienben szokatlan jelenség, csak a névadó lelőhely eszközkészletéből ismert ilyen kidolgozású darab. Aurignacien levéleszközök rétegzett lelőhely készleteinek kontextusában nem ismertek, csupán felszíni gyűjtések során kerültek elő, kapcsolatuk az Aurignacien-nel így kérdéses.

Keywords *Late Middle Palaeolithic, Upper Palaeolithic, Aurignacian, Bohunician, Szeletian, leaf points*

Kulcsszavak *Késői középső paleolitikum, felső paleolitikum, Aurignacien, Bohunicien, Szeletai ipar, levéleszközök*

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1. Introduction

The beginning of the Upper Paleolithic in Moravia (**Fig. 1**) is characterized by two so-called transitional technocomplexes – Szeletian and Bohunician – followed by the Evolved Aurignacian that first appears after Heinrich Event 4. Chronologically, both the Bohunician and the Szeletian appear during Greenland Interstadial (GI) 12 (Škrdla et al. 2014, Fig. 10), although the results of luminescence dating (Richter at al. 2008; Nejman et al. 2011) suggest that they may have already appeared during the preceding interstadial (GI 13).

2. Szeletian

The Szeletian in Moravia has been reported from many sites (Valoch 2012), but only three sites (Vedrovice V, Moravský Krumlov IV and Želešice III) have yielded diagnostic assemblages from stratified contexts. The Szeletian industry is characterized by the frequent occurrence of bifacial tools – including leaf points supplemented by different varieties of side scrapers, points, and end scrapers. Bifacial thinning flakes (BTFs) which represent characteristic byproducts of bifacial thinning (**Fig. 2**) (Škrdla et al. 2014) present additional evidence for bifacial reduction.

3. Bohunician

In contrast to the Szeletian, leaf points and flat retouch do not seem to play an important role in stratified Bohunician assemblages. No leaf points have been found at the Stránská skála site cluster, Tvarožná, and Ořechov IV assemblages. The only exception where the leaf points play a more significant role is the Bohunice type site, where a series of leaf points (**Fig. 3**), BTFs and flat-retouched tools were recovered. There are also dozens of surface collections (e.g. Líšeň, Mohelno, Ondratice) where leaf points and artifacts produced using the Bohunician Levallois technology have been reported. Surface collections often originate from large sites located on

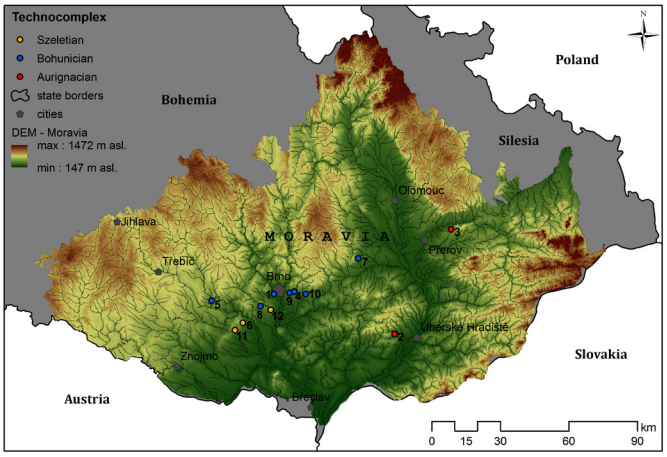

Figure 1. Map showing sites mentioned in text. 1: Bohunice, 2: Boršice / Buchlovice, 3: Lhota / Hlinsko, 4: Líšeň I, 5: Mohelno, 6: Moravský Krumlov IV, 7: Ondratice / Želeč, 8: Ořechov IV, 9: Stránská skála, 10: Tvarožná X, 11: Vedrovice V, 12: Želešice III. //
1. ábra. A cikkben említett lelőhelyek. 1: Bohunice, 2: Boršice / Buchlovice, 3: Lhota / Hlinsko, 4: Líšeň I, 5: Mohelno, 6: Moravský Krumlov IV, 7: Ondratice / Želeč, 8: Ořechov IV, 9: Stránská skála, 10: Tvarožná X, 11: Vedrovice V, 12: Želešice III.

significant positions in the landscape, so they may represent palimpsests resulting from sequential occupations by people with differing technocomplexes. The presence of leaf points in the Bohunice assemblage has been discussed by many authors. All hypotheses have been summarized and tested by Tostevin and Škrdla (2006) using material from the Bohunice 2002 excavation. This collection was excavated using modern methodological standards (including proveniencing of artifacts using a laser total station, wet sieving of sediments) and we were able to reject the "Excavation Bias" hypothesis and Oliva's (1981, 1984) "Traded Point" hypothesis. However, three other hypotheses, namely the "Pedogenic", "Sequential Occupation", and "Landscape" hypotheses, cannot be currently rejected. In order to test the latter three hypotheses, we considered raw material, technological, and typological homogeneity / heterogeneity of Bohunician collections. In recent years, we applied a new survey methodology focused on discovering new stratified sites (Škrdla et al. in press) and subsequently conducted excavations at Tvarožná, Ořechov, Ondratice/Želeč, and Líšeň where artifacts within intact sediments were discovered. To date, we have obtained diagnostic collections from only two sites – Tvarožná X (6.9 km east of Stránská skála) and Ořechov IV (13.9 km west of Stránská skála). As the leaf points and BTFs are absent in both collections, the "landscape" hypothesis can probably be rejected. This project is ongoing and we are currently investigating site formation processes.

AMS dates suggest a long time-span for the existence of the Bohunician and we can hypothesize two or more chronologically distinct phases - one with and one without leaf points. We also need to take into account both the chronological overlap with the Szeletian and the presence of Stránská skála chert originating directly from the Stránská skála rock outcrop within the Želešice III Szeletian assemblage (Škrdla et al. 2014) – both facts may have resulted in Szeletian influence on Bohunician Levallois-based technology. However, the distribution of dates from site to site currently does not support

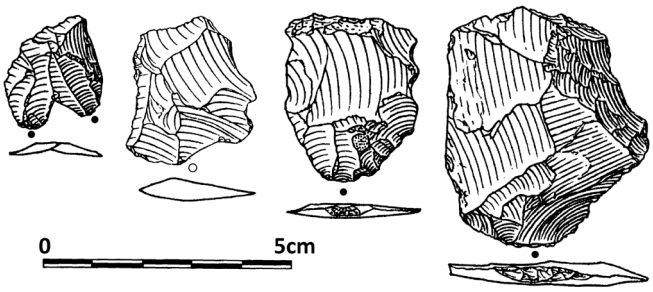

Figure 2. Bifacial thinning flakes from Želešice III. //
2. ábra. Bifaciális felületalakító szilánkok Želešice III. lelőhelyről.

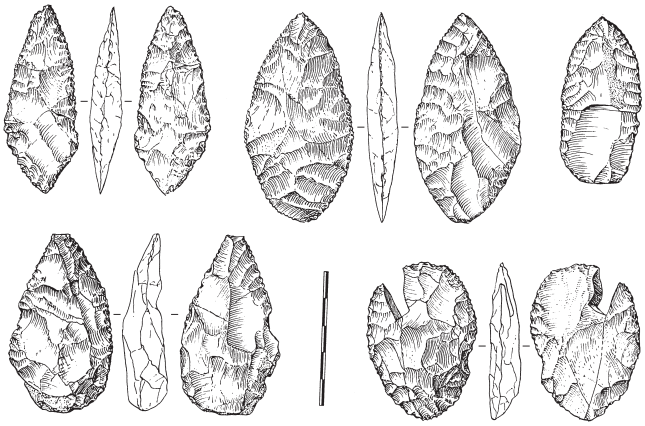

Figure 3. Bohunician leaf points, Bohunice 2002 excavation. //
3. ábra. Bohunician levélhegyek, Bohunice 2002-es ásatás.

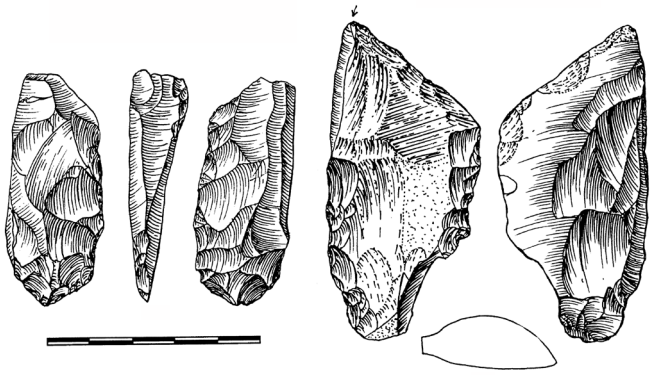

Figure 4. Bladelet removals on broken leaf points from the Aurignacian surface site of Boršice / Buchlovice. //
4. ábra. Mikropenge-leválasztások nyomai törött levéleszközökön Boršice / Buchlovice felszíni Aurignacien lelőhelyről.

this patterning. In addition, the problems with reliability of dates from this time period (Jöris, Street 2008) will currently not allow us to test this hypothesis.

4. Aurignacian

Although several surface sites classified as Aurignacian contain leaf points, they have not been documented within any stratified collection, which makes their association with the Aurignacian technocomplex disputable. The so-called industries "Aurignacian with leaf points" including "Morava-type Aurignacian" (Klíma 1978) and "Míškovice-type industry" (Oliva 1990), are based on surface collections which may not

be homogeneous. An alternative hypothesis for the presence of bifacially worked artifacts within Aurignacian assemblages asserts that the leaf points in Aurignacian contexts represent prepared bladelet cores (or a lithic form, in which raw material was transported from outcrops in general; cf. Oliva's (1981) "handaxe" from Karolín), rather than projectile points. This hypothesis is supported by several broken leaf points that possess bladelet removals from the broken surface along their "crested" edge (**Fig. 4**).

5. Triangular bifacially worked points

Triangular bifacially worked points have a specific character and they are particularly concentrated in the Lhota / Hlinsko site cluster (Moravian Gate) with isolated items also collected at sites outside of this site-cluster (Škrdla 2007). Again, all sites are surface sites. Although those artifacts were collected within assemblages together with characteristic Aurignacian artifacts, they could indicate some influence of the Kostenki-Streletskaya technocomplex from the east (Škrdla 2007).

6. Conclusion

The Szeletian technocomplex is characterized by ubiquitous bifacially worked tools including leaf points of different shapes.

In sites classified as Bohunician, leaf points have been documented only in the Bohunice type-site assemblage, where they are made from a different raw material than the rest of Levallois industry. There are sites Stránská skála (III, IIIa, IIIc, IIa), Tvarožná X and Ořechov IV, where bifacially worked artifacts are not present. Bifacial knapping is also not present at some Eurasian IUP sites including Boker Tachtit (Negev Desert, Israel; Marks, Kaufman 1983), Kremenets-Kulychivka (Ternopil Area, Western Ukraine; Škrdla, Nikolajev 2014), and Kara Bom (Altai Republic, Russian Federation; Derevianko, Petrin, Rybin, 2000). An important question that needs to be asked is: Are the leaf points actually an integral part of the Bohunician (or, in general, IUP) technocomplex? Or do they merely represent local innovation / intrusion?

Although several evolved Aurignacian (~30–33 14C BP) assemblages have been reported, none of them yielded any leaf points. On the other hand, the bifacial reduction can be interpreted as part of raw material transport, or bladelet core preparation.

Triangular bifacially worked points have never been discovered in a stratified context. The chronological categorization of this technocomplex and its possible relationship to the Kostenki-Streletskaya technocomplex are currently unresolved issues.

Acknowledgments

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SKAM 2014 Article

This study was presented at the 11th SKAM Lithic Workshop: the multifaceted biface - Bifacial technology in Prehistory. 20th-22nd of October, 2014, Miskolc, Hungary. The conference papers are published in the Litikum Journal volumes as special contributions. Informations about the conference as well as the abstract book are available on the SKAM 2014 website: http://skam.pannontenger.hu