LITIKUM

A Kőkor Kerekasztal folyóirata
Journal of the Lithic Research Roundtable
5. évfolyam • Volume 5 • 2017

HU ISSN 2064-3640
www.litikum.hu

LITIKUM

Volume 5
2017

LITIKUM

Litikum
A Kőkor Kerekasztal folyóirata
Journal of the Lithic Research Roundtable

5. évfolyam • Volume 5 • 2017
Szerkesztők • Edited by
Zsolt Mester, György Lengyel, Viola T. Dobosi,
Attila Király

HU ISSN 2064-3640
www.litikum.hu

LITIKUM – A KŐKOR KEREKASZTAL FOLYÓIRATA

Litikum - Journal of the Lithic Research Roundtable

Volume 5 • 2017

HU ISSN 2064-3640

A Litikum a kőeszközökkel foglalkozó szakembereket tömörítő Kőkor Kerekasztal évente egyszer megjelenő elektronikus folyóirata (ISSN 2064-3640 (Online)). A Litikum célja olyan tudományos cikkek publikálása, amelyek a Kárpát-medence és a környező területek kőkorát érintik, kőeszközökkel kapcsolatos kutatások eredményeit mutatják be, elméleteket fejtenek ki, módszereket és megközelítési módokat ismertetnek. További információk honlapunkon: https://litikum.hu

The Litikum is a platinum open access electronic journal of the Lithic Research Roundtable, an informal assembly of lithic experts in Hungary, with a volume per year (ISSN 2064-3640 (Online)). Litikum publishes articles (1) from the field of archaeology concerning lithic research of the Palaeolithic, Mesolithic, Neolithic and later periods, and (2) developing theoretical and methodological issues related to the field of lithic studies in general. For further information, see https://litikum.hu

Kiadó • Publisher – Kőkor Kerekasztal, Lithic Research Roundtable

A kiadó székhelye • registered office – H-1088 Budapest, Múzeum Krt. 4/B

Honlap • homepage – https://www.litikum.hu • Email – litikum@litikum.hu

TARTALOM • CONTENTS

Preliminary results of the recent excavation of a radiolarite mine area and its surroundings in Sedmerovec 7

FIvan Cheben, Michal Cheben, Adrián Nemergut

Lithic Research Roundtable 8, 2017 15

Attila Király

Litikum - A Kőkor Kerekasztal Folyóirata • 5. évfolyam / 2017 / 7–14
Litikum - Journal of the Lithic Research Roundtable • volume 5 / 2017 / 7–14
HU ISSN 2064-3640 • www.litikum.hu • litikum@litikum.hu

LITIKUM

Preliminary results of the recent excavation of a radiolarite mine area and its surroundings in Sedmerovec

Ivan Cheben[1], Michal Cheben[2], Adrián Nemergut[3]

Abstract

The article deals with the archaeological investigation of Sedmerovec-Kašnák and Sedmerovec-Podjamie sites from 2016. In Sedmerovec-Kašnák mine area, archaeological investigations were carried out in the western half of the pit. Unfortunately, no archaeological material was found. During the surface survey and archaeological excavation in Sedmerovec-Podjamie site, a rich collection of a lithic industry was obtained. Important are rhomboids most probably from the late Mesolithic. A portion of the artifacts belongs to the Neolithic and Eneolithic.

Kivonat

Előzetes jelentés egy radiolarit nyersanyag-kitermelő hely és környezete feltárásáról Sedmerovecben

A közlemény Sedmerovec-Kašnák és Sedmerovec-Podjamie 2016-os ásatásával foglalkozik. A Sedmerovec-Kašnák-i bányaterületen a fejtő nyugati felében végeztünk feltárásokat, itt régészeti anyag sajnos nem került elő. Sedmerovec-Podjamie területén azonban a terepbejárás és az ásatásaok gazdag pattintott kő leletanyaggal szolgáltak, melyek közül kiemelendő a rombuszok jelenléte, melyek valószínűleg késő mezolitikus korúak. A leletek egy része az újkőkor és a rézkor időszakaira keltezhető.

Keywords *Slovakia, White Carpathians, sources of radiolarites, mining areas, lithic industry, late Mesolithic, Neolithic, Eneolithic*

Kulcsszavak *Szlovákia, Fehér-Kárpátok, radiolarit források, bányaterületek, kőipar, késő mezolitikum, neolitikum, rézkor*

Authors • Szerzők 1,2,3 – Institute of Archaeology Slovak Academy of Sciences, Akademická 2, 949 21 Nitra, Slovak Republic. 1 - ivan.cheben@savba.sk, 2 - nraumche@savba.sk, 3 - adrian.nemergut@savba.sk

Cite as • hivatkozás Cheben, I., Cheben, M., Nemergut, A. (2017) Preliminary results of the recent excavation of a radiolarite mine area and its surroundings in Sedmerovec. *Litikum Journal of the Lithic Research Roundtable* 5: 7–14. https://doi.org/10.23898/litikuma0020

Article history • Kézirat történet Received | Érkezés: 2016. 11. 10. Accepted | Elfogadás: 2016. 11. 15. Published | Közzététel: 2017. 01. 07.

In 2016, an archaeological investigation in Sedmerovec was carried out at Podjamie and Kašnák sites. It followed a surface survey from 2015 when several sites in microregion of Nemšová - Červený Kameň were visited (Cheben et al., in print). The aim of the investigation in 2016 was to detect the shape and course of one of the pinges (mine slumps) at the Kašnák site, or possibly, to obtain suitable archaeological material for dating. At the site of Podjamie, the investigation focused on determination of the site's size, verification of stratigraphic situation and obtaining chronologically sensitive artifacts or suitable organic material for radiocarbon dating.

The oldest collected finds from Sedmerovec were published and classified by J. Bárta (1965, 123) to the Gravettian. I. Vlkolinská, Ľ. Illášová and J. Hunka (1998, 170) carried out a surface survey at several sites in Pruské and Sedmerovec in 1996 as part of a survey along the course of D1 motorway. I. Cheben and M. Cheben (2010) have dealt with the topic of the use of primary sources of radiolarites in the territory of the Central Váh river basin more intensely in the last eleven years. In this period, they carried out several surface surveys focused on detection of primary sources of radiolarite as well as trench investigation in exploitation pits in Vršatské Podhradie and Krivoklát. In the early 1990s, several surveys focused on detection of primary sources of radiolarite were conducted in the central part of the White Carpathians (Cheben et al. 1995; Cheben, Illášová, Hromada 1996). A surface survey in Sedmerovce was also led by O. Žaár, P. Schreiber, L. Štec and Ľ. Blašková in 2009 (Žaár et al. 2013). The prospection of I. Cheben, M. Cheben, A. Nemergut and M. Soják in 2015 was focused to primary sources of radiolarites, mining areas and archeological sites located in the central Váh region (Cheben et al., in print).

Sedmerovec-Kašnák

An outcrop of crinoidal limestone belonging to the Czorsztyn succession was detected on the distinct loess ridge in the Váh river valley, in its western end in the foothills of the klippen belt (Mello 2011). It probably contained exclusively nodules (concretions) of radiolarite. This site is situated on the hilltop at the site of Kašnák, approximately 1 km northeast of the village of Sedmerovec (**Fig. 1**). Its altitude is 360 m. Radiolarite raw material outcrops on a distinct terrain elevation where several sunken circular pits of various sizes were

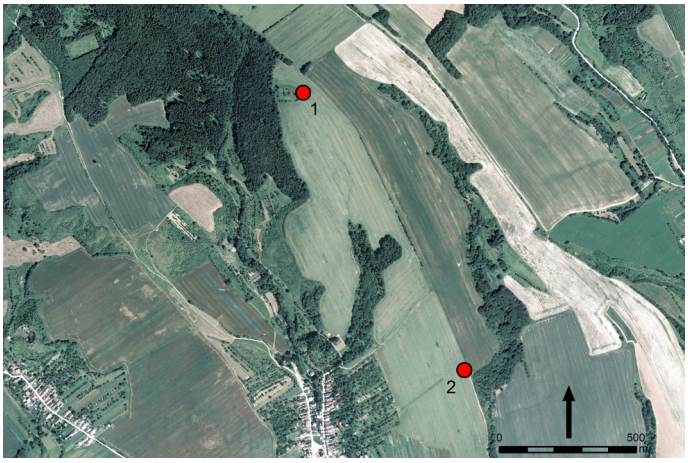


Figure 1. Map of sites. 1 - Sedmerovec-Kašnák; 2 - Sedmerovec-Podjamie. Author: A. Nemergut. // **1. ábra**. A lelőhelyek térképe. 1 - Sedmerovec-Kašnák; 2 - Sedmerovec-Podjamie. Ábra: A. Nemergut.

Figure 2. Sedmerovec-Kašnák. View of the site. Photo by: M. Cheben. // **2. ábra.** Sedmerovec-Kašnák. Fotó: M. Cheben.

Figure 3. Sedmerovec-Kašnák. Radiolarite of the Kašnák type. Photo by: A. Nemergut. // **3. ábra**. Sedmerovec-Kašnák, Kašnák típusú radiolarit. Fotó: A. Nemergut.

found (**Fig. 2**). The western part of the hill was partly destroyed when a limestone quarry was founded. The depressions are distributed in two rows over the stepped or terraced slope covered with grass and partly with trees and shrubs. The immediate surroundings of the mine area are now intensely used for farming, which enables surface surveys to obtain a large number of examples of the raw material itself as well as chipped industry. As for color varieties, light grey, black, grey-yellow to beige radiolarites with typically rough light yellow to beige limy crust are represented (**Fig. 3**). The crust is 1 to 1.5 cm thick. Alternating dark and light layers of silicite matter can often be observed on the nodules. Such colored varieties of radiolarite and the fact that they have crust have not been discovered within the studied area of this part of the klippen belt before. On the basis of these facts, this color variety of radiolarite was named radiolarite of the Kašnák type, since this raw material is distinguishable from common color varieties at prehistoric settlements. This radiolarite raw material appeared for instance in the collection of chipped lithic industry from the paleolithic site in Moravany nad Váhom-Dlhá (Nemergut, Cheben, Gregor 2012). Its use is also documented in other collections of chipped stone industries from the prehistoric settlements in Sedmerovec-Nad cestou, Podskalčie, Podjamie and Galková sites (Cheben et al., in print).

Before the investigation of the selected pinge itself, a geophysical survey with georadar was carried out; nevertheless, it did not bring the expected results. The georadar did not detect the pinge's shaft. The investigated pinge was funnel-shaped with the diameter of 6 m. The archaeological excavation was carried out in the western half of the pinge. The gradual deepening of the backfill layers started to uncover the bedrock in the north and west. The upper part of the backfill was made of humus soil; a debris layer consisting of the parent rock fragments of different sizes appeared below it. It reached down to the bedrock. Two layers of black clay soil were detected in the debris (**Fig. 4**). The first layer was detected approx. in the middle of the profile, the second one was found above the bedrock. They are probably two soil horizons. Their presence suggests that the pinge was open for a rather long time after it had been abandoned (i. e. it was not filled back immediately). Later, the pinge was probably partly filled with attle from one of the nearby pinges and then, it was abandoned again for some time. Bedrock was detected approx. 1.3 m deep. The pinge's bottom was uneven, with two distinct depressions situated approx. in the middle. The northern and western walls of the pinge were made of crinoidal limestone layers leaning northwards at an angle of 50-60°. The southern wall (towards the hill) was made of one massive limestone plate.

No archaeological material (chipped lithic industry, antler industry, plant remains) or radiolarite raw material was found in the pinge's backfill.

Sedmerovec-Podjamie

The site is situated on a terrace slightly sloping town southeastwards, at the site of Podjamie, with a great view of the Váh floodplain. It is approximately 500 m northeastwards from the residential area of Sedmerovec, at the altitude of approximately 300 m (**Fig. 1**).

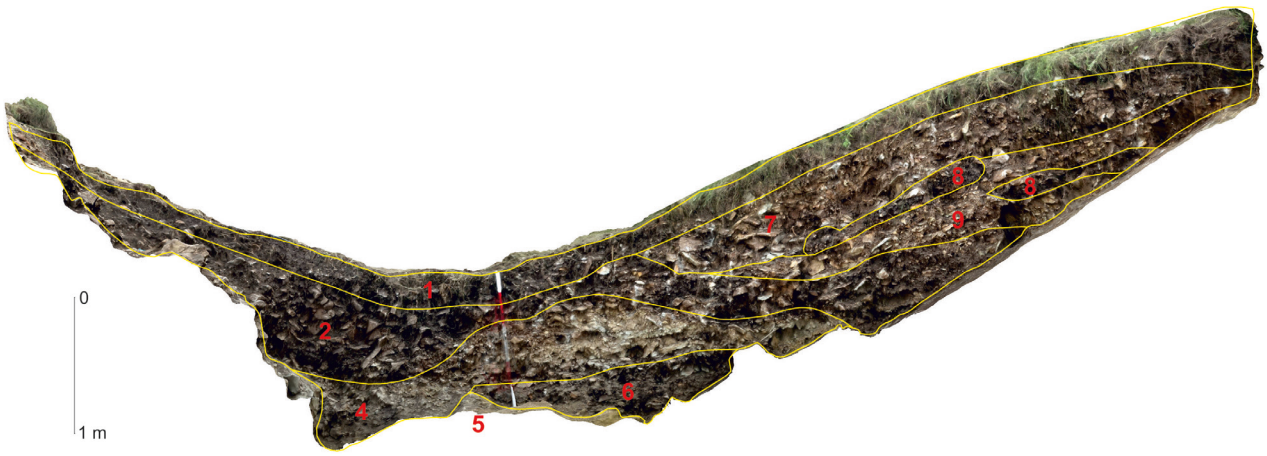


Figure 4. Sedmerovec-Kašnák. Southeastern profile. 1 - humus soil; 2 - light orange layer of debris (parent rock mixed with soil); 3 - debris layer with fine material; 4 - bedrock; 5 - dark grey soil-clay layer with fragments (up to 10 cm) of underlying rock; 6 - grey-yellow debris layer (parent rock mixed with soil); 7 - dark grey to black soil-clay layer with fragments (up to 5 cm) of underlying rock; 8 - grey-yellow layer of fine debris (parent rock mixed with soil). Illustration by: B. Balžan, M. Cheben. // **4. ábra**. Sedmerovec-Kašnák, délkeleti metszet. 1 - humusz; 2 - világos narancssárga törmelékes réteg (anyakőzet és talaj); 3 - finomabb törmelékes réteg; 4 - anyakőzet; 5 - sötétszürke agyagos talajréteg max. 10 cm méretű kőtörmelékkel; 6 - szürke-sárga törmelékes réteg (anyakőzet és talaj); 7 - sötétszürke-fekete agyagos talajréteg max. 5 cm méretű kőtörmelékkel; 8 - szürke-sárga finomabb törmelékes réteg (anyakőzet és talaj). Illusztráció: B. Balžan, M. Cheben.

The investigation was divided into three stages. In the first stage, a surface prospection was carried out. Its goal was to detect the size of the site and obtain material for a more precise chronological classification of settlement. In the second stage, a geophysical survey with magnetometer was conducted, detecting several anomalies (**Fig. 5**). In the third stage, ten trenches were excavated. Trenches 1-5 were arranged along one axis, 10 m from each other, along with the field track crossing the site. Each trench's size was 1 x 1 m. Trench 3 was extended to 2 x 3 m, i. e. five more trenches with sizes of 1 x 1 m. Sediments from the trenches were sifted through a sieve with meshes of 2 x 2 mm.

In relation to the stratigraphic situation, a layer of topsoil was detected in trench 10; it contained archaeological material. Under the topsoil layer, a sterile layer of brown-yellow clay was found. In trenches 1-9, topsoil layers were also detected, covering a light grey-brown layer of earth containing, similarly to the topsoil, some finds of lithic industry and sherds of pottery. Moreover, in trenches 4-6, a pit of irregular oval shape, with the rugged bottom, was detected (**Fig. 6**). Lithic artifacts and pottery finds were found in the feature.

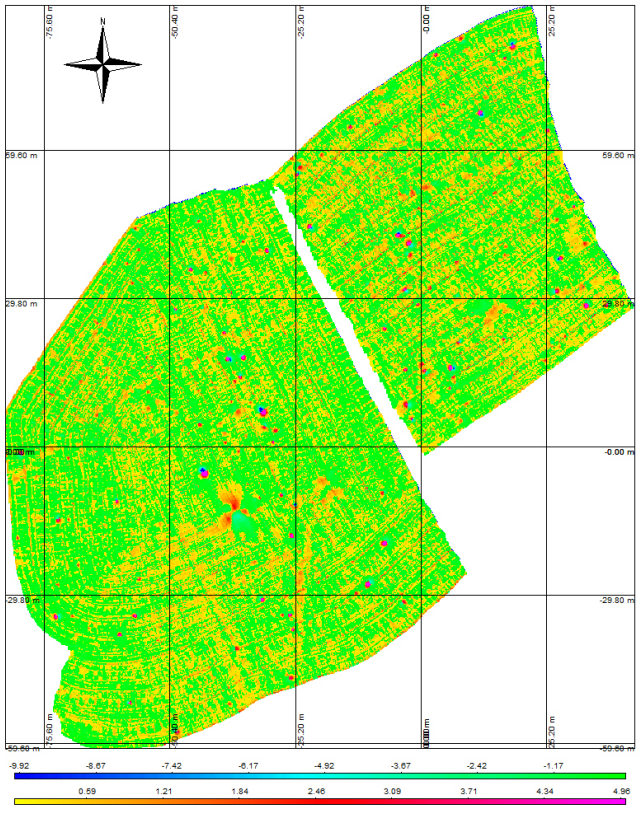


Figure 5. Sedmerovec-Podjamie. The map of anomalies of the geophysical survey with a magnetometer. Author: M. Cheben. // **5. ábra**. Sedmerovec-Podjamie, a magnetométeres felmérés által kimutatott anomáliák térképe. Ábra: M. Cheben.

1300 pieces of chipped stone industry in total obtained in a surface collection. Finds contain 18 pieces of radiolarite raw material with traces of manipulation, 31 single-platform cores of radiolarite, mostly flat, carénoid or prismatic forms, exploited from one side only, with the original surface on other sides, or only struck several times. Only one core was modified with crested blades (**Fig. 10: 2**). There was one pyramid-shaped core with parallel exploitation along all edges (**Fig. 9: 6**). Furthermore, 13 core residues and 55 core fragments were identified; 53 of them were made of radiolarite and 2 were made of burned silicite. As for blades, bladelets and their fragments, 154 examples were made of radiolarite. 27 examples as complete pieces (7 of them were crested) were recognized. 128 fragments altogether were obtained. The collection contains 303 flakes, 302 of them are obtained from radiolarite (three examples were burned), one is from siliceous sandstone. The most numerous group comprises flake fragments and small flakes - 692 radiolarite, 16 burned radiolarite, 2 patinated silicite and 1 siliceous sandstone. A radiolarite burin spall was detected. Retouched tools, all made of radiolarite, include two end-scrapers, a two fragments of

Figure 6. Sedmerovec-Podjamie. View of trenches 3, 5-9 and a pit 1. Photo by: M. Cheben. // **6. ábra**. Sedmerovec-Podjamie, a 3, 5-9-es szelvények és az 1. sz. verem. Fotó: M. Cheben.

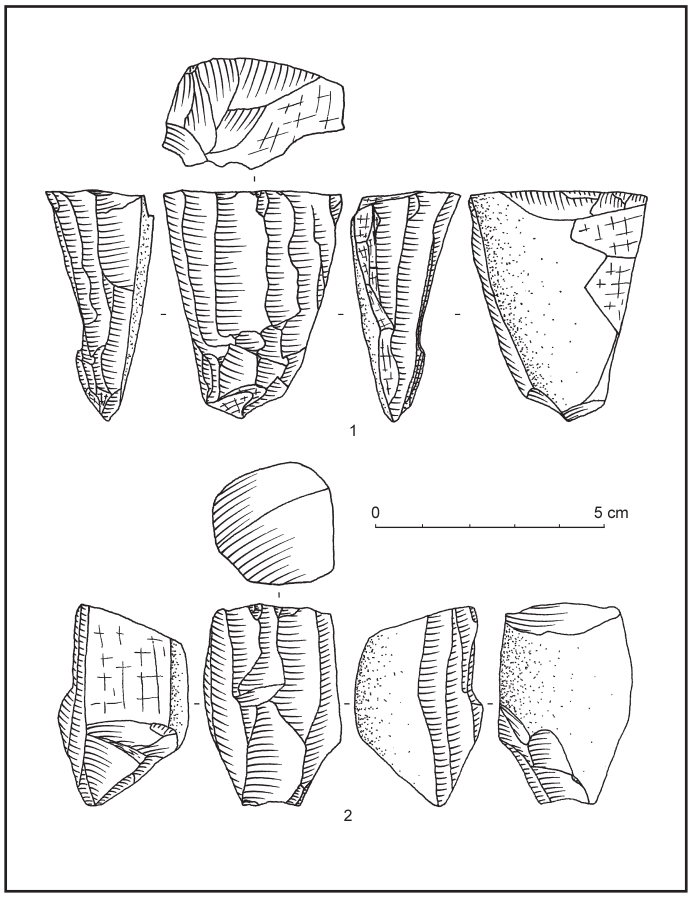


Figure 7. Sedmerovec-Podjamie. Cores. 1 - trench 3, layer 1; 2 - trench 4, feature 1. 1, 2 - radiolarite. Illustration by: A. Nemergut. // **7. ábra**. Sedmerovec-Podjamie magkövek. 1 - 3. szelvény, 1. réteg; 2 - 4. szelvény, 1. jelenség. 1-2 - radiolarit. Illusztráció: A. Nemergut.

end-scrapers, a sickle blade, a fragment of a sickle blade (**Fig. 10: 1**), three fragments of truncated blades (probably sickle blades), three blades with local lateral retouch, three rhomboids - one from burned radiolarite (**Fig. 9: 3**) and two from unburnt radiolarite (**Fig. 9: 4, 5**), flakes with retouch and a fragment of a flake with retouch. The collection also includes a fragment of a polished artifact made of an undetermined raw material (**Fig. 10: 4**).

Finds from the topsoil in trenches 1-10 contain 1052 chipped lithic artifacts and pottery sherds. With the exception of one erratic silicite flake, all lithic finds were made of local radiolarite. Three pieces of raw material with traces of finishing, 25 cores - mostly flat, exploited on one side, with the original surface on a back side (**Fig. 8: 2; 9: 1**). The collection also contains nine core fragments, 194 blades, bladelets and their fragments, a tablet, 375 flakes, 442 fragments and small flakes. As for retouched tools, a notch, a truncated bladelet (**Fig. 9: 2**) and a retouched flake were obtained.

The archaeological material from the grey-brown soil layer (layer 1) under topsoil in trenches 1-9 comprises 749 examples of chipped lithic artifacts of radiolarite and pottery sherds. 19 cores were found; most of them are flat, exploited from one side only, with the original surface on the back side of the core (**Fig. 7: 1**). Carenoide cores are rare (**Fig. 8: 1**). The collection is completed with four core fragments, 130 blades, bladelets and their fragments, 342 flakes and 254 fragments and small flakes.

A collection of 210 pieces of chipped lithic industry made of radiolarite and fragments of pottery were obtained from the pit 1, trenches 4-6 (**Fig. 11**). Lithic artifacts include seven cores (**Fig. 7: 2**), 52 blades, bladelets and their fragments, 136 flakes and 15 fragments and small flakes. Fragment of a polished artifact with a drilled hole made of an undetermined raw material was also discovered in the pit (**Fig. 10: 3**).

Discussion

During the excavation of pinge in the Sedmerovec-Kašnák site, no waste mound made of the mining rock and no archaeological material was detected in 2016. Thus, dating of the pinge itself is not possible. From agricultural used surroundings, an assemblage of lithic artifacts contains mostly raw material blocks with traces of manipulation and waste from the blocks preparation were obtained in 2015. Tools from this surface survey are from Neolithic or Eneolithic (Cheben et al., in print).

Figure 8 (facing page, upper left). Sedmerovec-Podjamie. Cores. 1 - trench 5, layer 1; 2 - trench 6, topsoil. 1, 2 - radiolarite. Illustration by: A. Nemergut.

Figure 9 (facing page, upper right). Sedmerovec-Podjamie. Selected chipped stone industry. 1 - trench 9, topsoil; 2 - trench 10, topsoil; 3-6 - collection. 1-6 - radiolarite. Illustration by: A. Nemergut.

Figure 10 (facing page, lower left). Sedmerovec-Podjamie. Selected chipped and polished stone industry. 1, 2, 4 - collection; 3 - trench 5, feature. 1, 2 - radiolarite; 3, 4 - undetermined raw material. Illustration by: 1, 2 - A. Nemergut; 3, 4 - E. Bakytová.

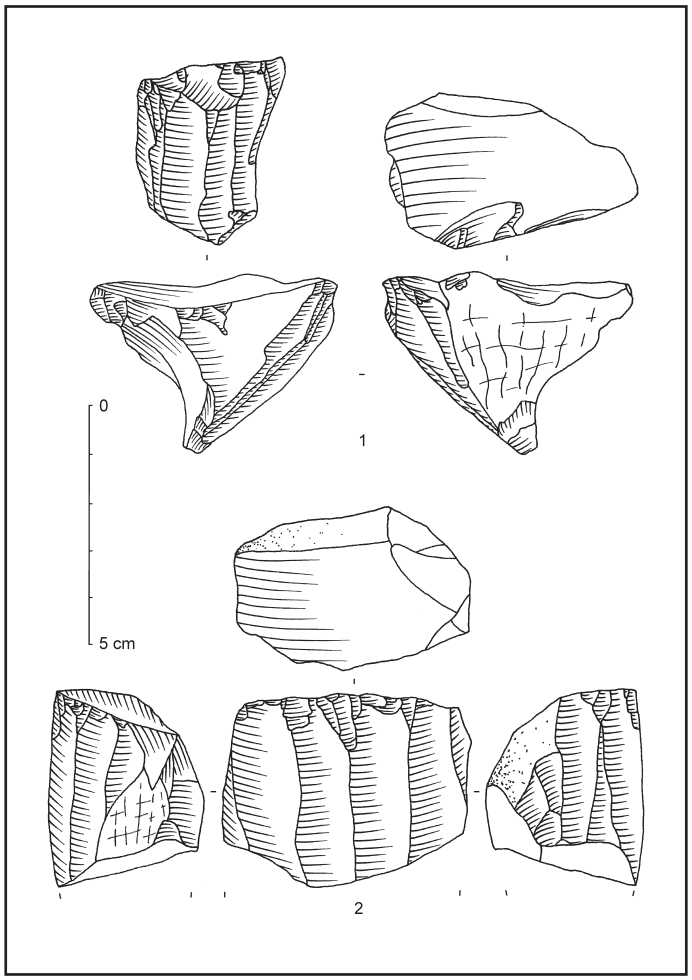
Figure 11 (facing page, lower right). Sedmerovec-Podjamie. Selected pottery material. Illustration by: E. Bakytová. //

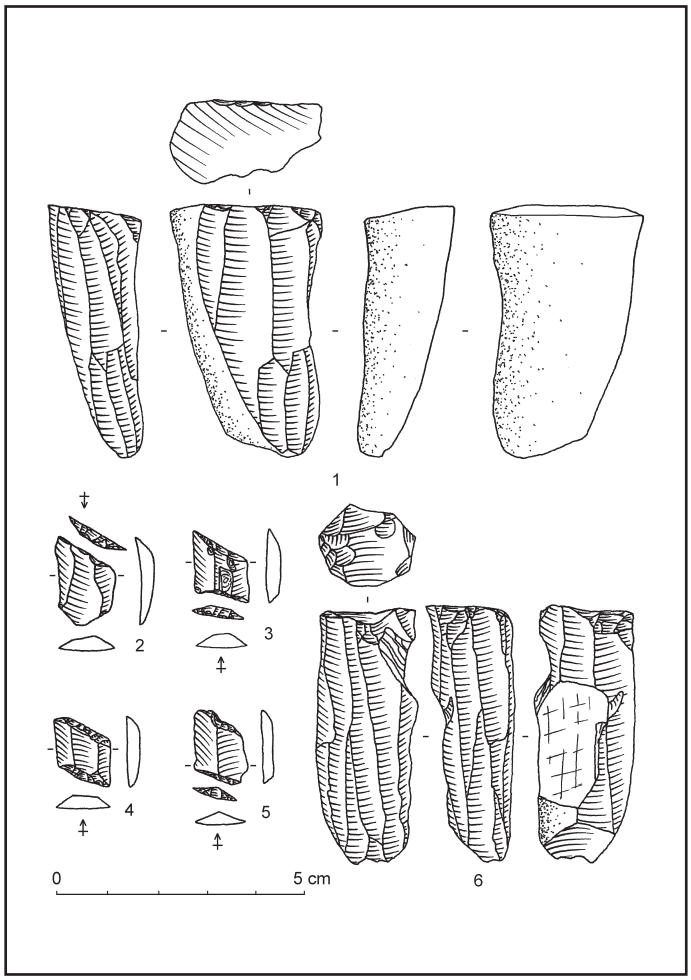
8. ábra (szemközti oldal, fent balra). Sedmerovec-Podjamie magkövek. 1 - 5. szelvény, 1. réteg; 2 - 6. szelvény, felső réteg. 1, 2 - radiolarit. Illusztráció: A. Nemergut.

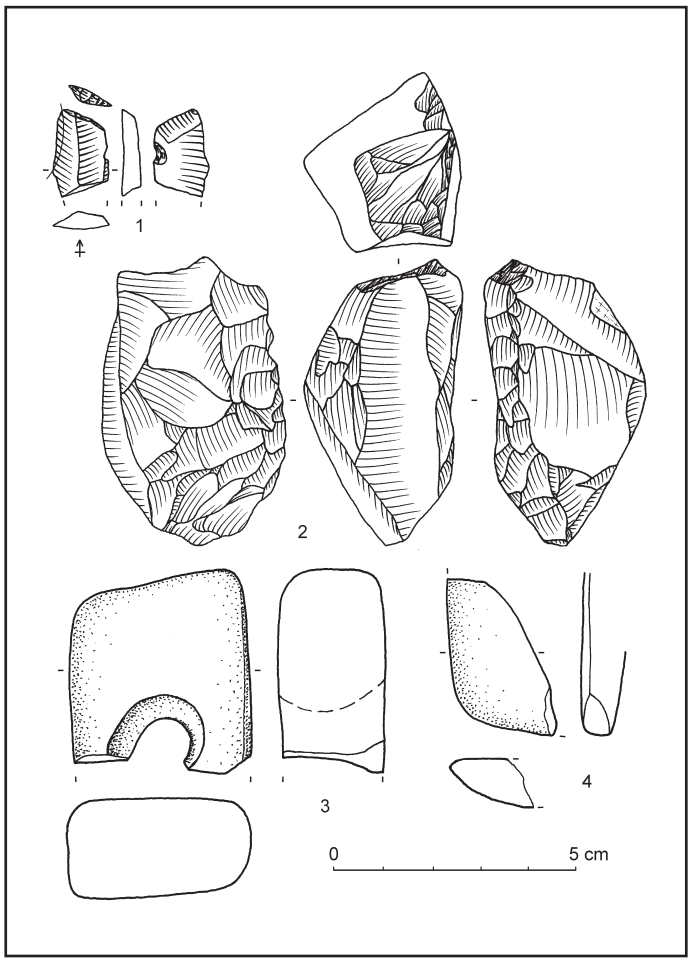
9. ábra (szemközti oldal, fent jobbra). Sedmerovec-Podjamie, válogatott leletek. 1 - 9. szelvény, felső réteg; 2 - 10. szelvény, felső réteg; 3–6 - felszíni gyűjtés. 1–6 - radiolarit. Illusztráció: A. Nemergut.

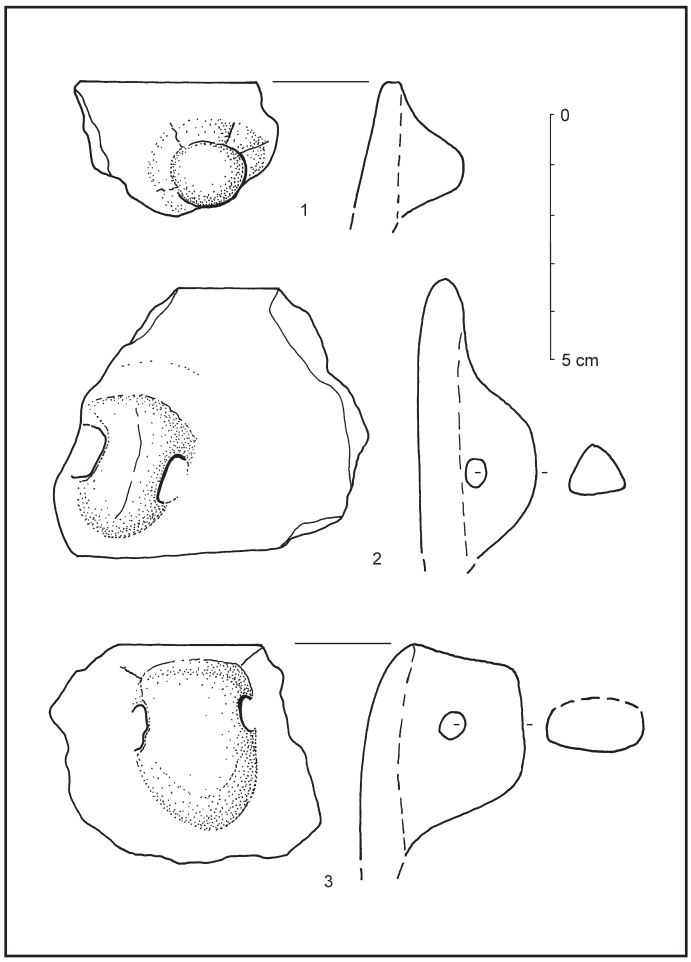
10. ábra (szemközti oldal, lent balra). Sedmerovec-Podjamie, válogatott leletek. 1, 2, 4 - felszíni gyűjtés; 3 - 5. szelvény, 1. jelenség. 1, 2 - radiolarit; 3, 4 - meghatározatlan nyersanyag. Illusztráció: 1, 2 - A. Nemergut; 3, 4 - E. Bakytová.

11. ábra (szemközti oldal, lent jobbra). Sedmerovec-Podjamie kerámiaanyag. Illusztráció: E. Bakytová.


0
5 cm
1
2


1
2
3
4
5
6
0
5 cm


1
2
3
4
0
5 cm


0
5 cm
1
2
3

At Sedmerovec-Podjamie site, removed layers, pit, and a surface assemblage yielded a numerous lithic collection including pottery sherds also. In the lithic assemblage two groups were recognized. The first contains unipolar cores exploited on one side, with the original - cortex surface on a back side. These cores were used for producing of parallel edged blades and bladelets perhaps by using of indirect percussion (**Fig. 7; 8; 9: 1**). Similar production technique was described for example in late Mesolithic during the Castelnovian of northern Italy (Broglio, Kozłowski 1984; Gehlen 2009; 2010a, 417-445; 2010b, 612, 613; Perrin 2009, 518) and northeastern Adriatic (Gehlen 2010a, 395-401; Kozłowski, Kozłowski 1984), which is also connected with rhomboids, known from Sedmerovec-Podjamie site too (**Fig. 9: 3-5**). However, this production of parallel edged blades and bladelets and rhomboids as well continues to the early Neolithic (Gehlen 2010a, 445-465; 2010b, 615; Perrin 2009, 518). Rhomboids during the early Neolithic are missing in lithic assemblages from Slovakia and surroundings (Kaczanowska, Kozłowski, Wasilewski 2015; Kaminská, Kaczanowska, Kozłowski 2008; Kozłowski, Nowak 2010). Relatively near analogies of parallel edged blades and bladelets is possible to find in the late Mesolithic Janislavice culture and early Neolithic Linear Pottery culture in the territory of Poland. On the base of comparative analysis of technology of blade production, there were two methods of preparation of percussion point recognized. In generally, Janislavician cores bear traces of abrasion of core processing edge, and „linear" cores have abraded but facetted edges (Wąs 2011, 22). Comparing of cores from Sedmerovec-Podjamie with mentioned conception could be problematic, for example, because of different raw material use (Sedmerovec - radiolarite, Poland - Chocolate and Świeciechów flint), missing of early Linear Neolithic pottery or unclear finding context. However, cores from Sedmerovec-Podjamie site may at first glance be attributed to both concepts. In the future, it would be good to compare the whole collection, including debitage with this conception, and also with close Sedmerovec-Nad Cestou site with the late Linear Pottery (Cheben et. al., in print). The second part of lithic assemblage of Sedmerovec-Podjamie Podjamie contain cores includes preparation by making a longitudinal crested ridge (**Fig. 10: 2**), sickle blade (**Fig. 10: 1**), polished artifacts as well (**Fig. 10: 3, 4**), which are connected with Neolithic or Eneolithic period, proved also by presence of pottery (**Fig. 11**), perhaps of Lengyel culture.

Conclusion

During the presented excavations in 2016, the authors of the article obtained important information related to the chronology of settlement in the Central Váh region. New finds of microliths from the site of Sedmerovec-Podjamie most probably confirm the first evidence of Mesolithic settlement in the area of radiolarite sources in the White Carpathians and Central Váh region. With regard to the results of the 2015 investigation (Cheben et. al., in print), we must consider much longer time range in study area, supposedly in the Palaeolithic and Mesolithic, but for sure in the Neolithic, Eneolithic and Bronze Age. The investigation also points to the great potential of the studied region in solving the question of the chipped stone industry raw material use in prehistory or the transition between the late Mesolithic and Early Neolithic.

Acknowledgment

We would like to thank P. Allard, B. Gehlen, and S. K. Kozlowski for consultation on the chronological classification of lithic industry and to V. Tejbusová for translation of manuscript to English. The study was supported by Project APVV-14-0742, The dynamics of use of raw material sources in the Paleolithic and Neolithic in Western Slovakia.

References

Bárta J. 1965. *Slovensko v staršej a strednej dobe kamennej*. Bratislava.

Broglio A., Kozłowski S. K. 1984. Tipologia ed evoluzione delle industrie mesolitiche di Romagnano III. *Preistoria Alpina* 19: 93–148.

Cheben I., Illášová Ľ., Hromada J., Ožvoldová L., Pavelčík J. 1995. Eine Oberflächengrube zur Förderung von Radiolarit in Bolešov. *Slovenská Archeológia* 63:185–203.

Cheben I., Illášová Ľ., Hromada J. 1996. Povrchový prieskum rádiolaritov v Bolešove. *AVANS* 1994: 98–99.

Cheben I., Cheben M. 2010. Research on Radiolarites of the White Carpathian Klippen Belt. *Slovenská archeológia* 58: 13–52.

Cheben I., Cheben M., Nemergut A., Soják M. in print. The latest knowledge in use of primary sources of radiolarites in the central Váh region (the microregion of Nemšová-Červený Kameň). In: Budziszewski J., Werra D. H., Woźny M. (eds.), *Jacek Lech - special dedicatory volume*. Warszawa.

Gehlen B. 2009. Innovationen und Netzwerke. Das Spätmesolithikum vom Forggensee (Südbayern) im Kontext des ausgehenden Mesolithikums und des Altneolithikums in der Südhälfte Europas. *Archäologische Informationen* 32: 173–185.

Gehlen B. 2010a. *Innovationen und Netzwerke. Das Spätmesolithikum vom Forggensee (Südbayern) im Kontext des ausgehenden Mesolithikums und des Altneolithikums in der Südhälfte Europas. Edition Mesolithikum 2*. Kerpen-Loogh.

Gehlen B. 2010b. Neolithic transition processes in Southern Europe: The present state of knowledge and its deficiencies in Northern Italy and Southwestern France. In: Gronenborn D., Petrasch J. (eds.), *Die Neolithisierung Mitteleuropas. Internationale Tagung, Mainz 24. bis 26. Juni 2005. The Spread of the Neolithic to Central Europe. International Symposium, Mainz 24 June - 26 June 2005*. RGZM Tagungen. Mainz, 607–635.

Kaczanowska M., Kozłowski J. K., Wasilewski M. 2015. Chipped, ground and polished stone industries at the early Neolithic settlement of Moravany. In: Kozłowski J. K., Nowak M., Vizdal M. (eds.), *Early Farmers of the Eastern Slovak Lowland: The Settlement of the Eastern Linear Pottery Culture at Moravany*. Kraków, 163–196.

Kaminská Ľ., Kaczanowska M., Kozłowski J. K. 2008. Košice-Červený rak and the *Körös*/Eastern Linear transition in the Hornád basin (eastern Slovakia). *Přehled výzkumů* 49: 83–91.

Kozłowski J. K., Kozłowski S. K. 1984. Le Mésolithique a l'est des Alpes. *Preistoria Alpina* 19: 37–56.

Kozłowski J. K., Nowak M. 2010. From Körös/Criş to the early Eastern Linear Complex: multidirectional transitions in the north-eastern fringe of the Carpathian Basin. In: Kozłowski J. K., Raczky P. (eds), *Neolithization of The Carpathian Basin, Northernmost Distribution of The Starcevo/Koros Culture*. Kraków - Budapest, 65–90.

Mello J., et al. 2011. *Vysvetlivky ku geologickej mape Stredného Považia*

1:50 000. Bratislava.

Nemergut A., Cheben M., Gregor M. 2012. Lithic raw material use at the Palaeolithic site of Moravany nad Váhom-Dlhá. *Anthropologie* 50/4: 379–390.

Perrin T., 2009. New perspectives on the Mesolithic/Neolithic transition in northern Italy. In: McCartan S., Schulting R., Warren G., Woodman P. (eds.), *Mesolithic horizons, Vol. 2*. Oxford: Oxbow Books, 514–519.

Vlkolinská I., Illášová Ľ., Hunka J. 1998. Výsledky prieskumu na trase diaľnice. *AVANS* 1996: 170–171, 127–279.

Wąs M., 2011. „Janisławickie" i „wstęgowe" koncepcje rdzeniowania wiórowego. Próba konfrontacji technologicznej. *Acta Universitatis Lodziensis. Folia Archaeologica* 2012/28: 5–23.

Žaár O., Schreiber P., Štec L., Blašková Ľ. 2013. Nové povrchové nálezy z Bohuníc a Sedmerovca. *AVANS* 2009: 264–265, 342–346.

Litikum - A Kőkor Kerekasztal Folyóirata • 5. évfolyam / 2017 / 15–19
Litikum - Journal of the Lithic Research Roundtable • volume 5 / 2017 / 15–19
HU ISSN 2064-3640 • www.litikum.hu • litikum@litikum.hu

Lithic Research Roundtable 8, 2017

Attila Király[1]

Abstract • Kivonat The eighth annual meeting of Hungarian lithic specialists was held on December 8, 2017, from 10:00 a.m. to 5:00 p.m. at the Hungarian National Museum, Budapest, Hungary. The abstracts of the presentations and posters are as follows.

Keywords • Kulcsszavak *Lithic Research Roundtable, Litikum, Hungarian National Museum*

Author • Szerző 1 – Institute of Archaeological Sciences, Eötvös Loránd University, Budapest. Email: attila@litikum.hu

Cite as • hivatkozás Király, A. (2017) Lithic Research Roundtable 8, 2017. *Litikum – Journal of the Lithic Research Roundtable* 5: 15–19. https://doi.org/10.23898/litikuma0020b

Article history • Kézirat történet Received | Érkezés: 2017. 12. 02. Accepted | Elfogadás: 2017. 12. 03. Published | Közzététel: 2017. 12. 21..

Possibilities of Lower Paleolithic Research in Northeast Hungary

Péter Szolyák[1]
1 Herman Ottó Museum, Miskolc

Today, the number of archaeological sites in Europe that are well documented, as well as those known only from surface scatters, but most likely dating to the Lower Paleolithic period, is more than 170. Three-quarters of these sites are located in Western Europe. This geographical distribution is difficult to accept given the presumed southern and eastern migration routes – Asia Minor–Balkan–Carpathian Basin, Asia Minor–Caucasus–East European Plain, Turan–East European Plain – but at least needs an explanation. The Danube Valley, the Carpathian Basin, and especially the part of them that falls within the territory of our country, seem strikingly "uninhabited" during the Lower and Middle Pleistocene. What is the reason why domestic Paleolithic research has not been able to end the "loneliness" of Vértesszőlős for half a century now, in addition to the well-proliferated Middle and especially Upper Paleolithic sites that have been sought and researched almost according to plan? Could there be geographical, geological or simply methodological reasons, or perhaps the desire to search for reasons behind the fact that we can list only a few uncertain sites and finds next to the legacy of „Samu"? In my presentation, through the example of Northeastern Hungary, perhaps the most diverse region in terms of geomorphology and geology, I would like to explore our future possibilities both from the natural endowments of the area, as well as from the side of a new approach and newly applicable methods.

The Demjén 5 Early Upper Paleolithic site

Sándor Béres[1], Krisztián Zandler[2]
1 Independent researcher, Budakalász
2 Béla Dornyay Museum, Salgótarján

The Szőlő-hegy in Demjén was put on the map of Hungarian Paleolithic research in 1972 when Viola T. Dobosi found the group of sites during her excavations in Hegyeskőbérc and collected material in the area. Today, it is difficult to reconstruct the exact locations of the field trip at that time, but the collected finds partly refer to the area around the high point, and partly to the discussed site on the edge of the plateau. On Szőlő-hegy, the finds of two cultures, clearly distinguishable based on raw material, technological and typological characteristics, have surfaced. In addition to the characteristically Aurignacian material around the high point, which was presented earlier, we found a more archaic but Upper Paleolithic assemblage on the edge of the plateau towards the Laskó stream. The group, which mainly used local (opal, tuffite, Felnémet opal) and to a lesser extent regional raw materials (quartz porphyry, limnoquartzite) and applied Levallois-debitage-like "flat-faced" technology, mainly made their tools on larger blades and blade-like, often massive flakes. In the collection, the typical Aurignacian types are still missing or can only be discovered in rudimentary form, in addition, there are a significant number of Mousterian types, while no cores referring to the Middle Paleolithic were found.

Some comments on the possible relationship between the Aurignacian technocomplex and leaf-shaped tools

Attila Péntek[1], Krisztián Zandler[2]
1 Independent researcher, Kistarcsa
2 Béla Dornyay Museum, Salgótarján

We would like to deal with the question that relates to one of the fundamental typo-genetic problems related to the sites of the Aurignacian technocomplex. Due to the co-existence of Middle and Upper Paleolithic types, the finds from open-air sites are considered to be mixed and inhomogeneous based on the traditional approach. Sidescrapers, as Middle Paleolithic types, are generally considered to belong to the archaic features of the given site, because they also occur in assemblages of finds from excavated stratified contexts. A high proportion of sidescrapers is characteristic of the Aurignacian sites of the Kosice Basin, Moravia or the Coşava site in the Banat region.

However, the presence of leaf tools and other bifacial tools in an Aurignacian-type archaeological context is quite problematic. Primarily because they come from an unclear, ambiguous stratigraphic position or open-air surface sites. In the course of the presentation, we will outline the material of the sites with the most significant artefacts located primarily in the Cserhát Mountains, which are typologically Aurignacian, but at the same time, leaf implements and other bifacial tools can also be found among the artefacts.

Pilismarót-Bitóc, Upper Paleolithic settlement, new results

Viola T. Dobosi[1]
1 Hungarian National Museum, Budapest

Pilismarót-Bitóc is the largest and most fully processed site among the settlements excavated on the late Ice Age terraces stretching from Basaharc to Dömös. Joining Anna Zsófia Biller's thorough faunal analysis (Archaeologiai Értesítő 2009), we take a look at the settlement phenomena, the stratigraphy of the site, the relationship and typology of the two cultural layers, the diversity of the raw materials used, the contradictions of the absolute chronological data, and the possibilities for further research.

Reference to technological studies of the Upper Paleolithic

György Lengyel[1]
1 Department of Prehistory and Archaeology, University of Miskolc

When studying knapped lithic tools, we regularly touch on aspects of their technology of production. The comparative results of experimental archaeology allow us to conclude the execution, methods and techniques of the knapping process. There are two approaches to experimental research on knapping. According to one of them, the factor of human error should be excluded from the experiments and, therefore, replaced by machines, research concentrates on the correlations between the stigmata on the stone tools and the physical aspects of knapping. The other approach employs people to perform experiments. It considers the possibility of error inherent in the sequence of human actions to be a part of knapping since the knappers of the past also made mistakes. An important difference between the two approaches, however, is that the first one usually shows the correlations on a statistical basis, while the second one emphasizes the frequency of a phenomenon among the results, many times without showing the exact frequency quantified. In the last 10 years, the experiments of the second approach also contain plenty of data. In the presentation, based on the latter approach, I present the first phase of a series of experimental archaeological studies, which provides reference data produced by statistical tests for the technological investigations of finds from the Upper Paleolithic.

Data about the raw material sources of the Buda hornstone

Zsolt Mester[1], Réka Péter[1], Ferenc Cserpák[2], Norbert Faragó[1]
1 Institute of Archaeology, Eötvös Loránd University, Budapest
2 Independent researcher, Budapest

At the Budapest-Farkasrét site, Veronika Gáboriné Csánk excavated a prehistoric extraction site of Buda hornstone in 1984-1987. At that time, the prehistoric use of the raw material in question had not yet been confirmed archaeologically. In the 2000s, the existence of knapped stone tools made of Buda hornstone was demonstrated at several Bronze Age sites – Katalin T. Biró in Budapest, Horváth Tünde in Százhalombatta-Földvár. In recent years, Ferenc Cserpák found many natural occurrences and outcrops in the Buda Mountains, where he noticed phenomena indicating human activity. The research of these began this year, which in several cases established the promising possibility of further research. The presentation will discuss the results of this research so far and the further possibilities.

CIII – Homage to Pál Patay

Katalin T. Biró[1]
Hungarian National Museum, Budapest

In general, the hosts of a conference should exercise restraint and not burden the limited conference time with new and unannounced presentations. If we make an exception now and pay tribute to the exceptional work of an exceptional specialist in a previously unannounced presentation, the reason for this is the fortunate circumstance that the "Lithic Research Roundtable" conference held at the Hungarian National Museum coincides with the date of Pál Patay's birthday, which happens to be the 103rd. birthday. Pál Patay's oeuvre, which fortunately continues to expand even today, covers many areas of archaeology and museology. From this exceptionally rich and productive work, I have now selected only those pieces that brought significant, forward-looking results in terms of the research topics also represented by the " Lithic Research Roundtable".

Antler tools from the Ságvár site

Bence Rácz[1]
1 Eötvös Loránd University, Budapest

The antler industry at the Ságvár-Lyukas-domb site is uniquely rich among Late Upper Paleolithic sites in Hungary and has been unfairly relegated to the periphery of archaeological research in recent decades. Miklós Gábori examined some of the antler tools nearly 60 years ago, and before him, only Jenő Hillebrand dealt with one of the finds more than 85 years ago. Of course, the results of these analyzes have been surpassed in many respects. However, the re-examination of the find material is problematic from several points of view: the excavation documentation is missing in most cases, a significant part of the finds has been lost, and the objects have been inventoried incorrectly in several cases.

The analogues collected by M. Gábori are distant in space and time, and his conclusions about antler tools from these are probably wrong. The vast majority of the antler tools come from the upper cultural layer, the age of which - based on uncalibrated radiocarbon data - is approximately 17760 BP. According to the current state of the research, the closest parallels to the site can be found in the Cotu Miculinți (Prut Valley, Romania) and Grubgraben (Lower Austria) sites.

Reviewing the antler tools, we can see that the majority of the finds are badly damaged, the vast majority of them have traces of roots and wear, and cracks due to drying are not uncommon. Their examination is further complicated by the restoration methods adopted in the last century, which were used to treat the surface of the antlers. Taking into account the shape of the antlers, we can see that in the Ságvár material, it is not primarily the antler tools, but the waste, as well as the preforms and roughouts that stand out in quantity. Based on this, the excavated part of the site may have been an antler processing area, from where the finished tools were taken away. Examining the finds, the first steps of tool production seem to be uniform: their primary purpose may have been the creation of antler sticks, which were made from straight parts of the stem or from "T" type, cut brow tines. We only have fragmentary antler plates from the Ságvár site, but based on foreign parallels, we can assume that among other things, points, harpoons, and spatulae were made of this material.

Among the finished tools, soft hammers and other hammers stand out in their quantity, which could be used, among other things, to produce stone tools. In addition to them, we can also assume the presence of tools with lithic inserts and a splitting or cutting tool in the find material. It is also important to highlight the best-known find of the site, the stick with a hole, which is unique among the Late Upper Paleolithic finds in Hungary.

Presentation of the Jászberény – Zsombékos site

Mónika Gutay[1], Attila Péntek[2], Gyula Kerékgyártó[3], András Gulyás[4]
1 István Dobó Castle Museum, Eger
2 Independent researcher, Kistarcsa
3 Independent researcher, Jászberény
4 Jász Museum, Jászberény

Since the mid-1980s, following the surface collections of the field researcher Gyula Kerékgyártó, Epigravettian sites were located in the area of Szentlőrinkákata, Jászfelsőszentgyörgy and Pusztamonostor, and Epipaleolithic and Mesolithic sites around Jászberény, Jászjákóhalma and Alattyán. Additional Upper Paleolithic Gravettian and Epigravettian sites are known in the southern and western parts of Jászkísér near the dried-up riverbed of the ancient Tarna. The Gravettian and Epigravettian sites in the northwestern part of the Jászság, along the Zagyva, are related to Pleistocene formations that stand out from their surroundings, on high ridges and sandbanks covered with loess or Late Pleistocene sediments, at an altitude of 110–115 m above sea level. The Mesolithic sites are located on the lower ridges of the ancient Zagyva and Tarna rivers covered with Holocene sediments, at an altitude of approximately 95 m above sea level.

We started field research in 2004 with Gyula Kerekygyártó. In the Zagyva Valley, Heves and Nógrád Counties, and in the Mátraalja region and the Tarna Valley, we located nearly 300 Palaeolithic sites/collection points. We have identified several Mesolithic sites along the Tarna and Zagyva rivers. We started field research in the Jászság region in 2017 with the archaeologist of the Jász Museum, András Gulyás. The main goal of our field trips is to identify Paleolithic and Mesolithic sites, to record the sites we have identified in the appropriate repository, to assess the extent and intensity of the sites and to select sites suitable for excavations.

The Jászberény – Zsombékos site is located in the northern part of Jászberény, on a hillock that stands out modestly from its surroundings, on the former bank of the Zagyva River. Based on the scattering of surface finds, its extent can be estimated at 70 m × 70 m. In the vicinity of the site, we identified several areas of artefact scattering within 400 m × 350 m. It can be assumed that in the area of Zsombékos, within a large site complex, there may have been several settlements starting from the Late Paleolithic. The findings of the Zsombékos site do not show a uniform picture. Based on typology and raw material use, within the prehistoric age, Palaeolithic, Mesolithic and Neolithic finds can be distinguished. The number of chipped stones collected and processed so far is 606. Of these, 101 are typologically formal, 48 are non-formal tools, and 21 are backed pieces, points and microlithic tools. Such a high proportion of tools may show a distorted picture of the lithic assemblages, which can perhaps also be explained by the fact that surface collection may have been selective in the past. The use of raw materials in the 170-piece tool set is very diverse, but Mátra limnosilicite dominates with 80.59%.

Knapped stone implements in the burial rite – an interpretation possibility in the light of an Alsónyék assemblage

Kata Szilágyi[1]
1 Ferenc Móra Museum, Szeged

The knapped stone material of the Late Neolithic Alsónyék-Bátaszék site forms the backbone of this presentation, especially the stone tools recovered from the burials. The nearly 1,300 pieces of grave material are particularly interesting in terms of how they differ and are similar to

the lithics of the settlement. The presentation reports on the current situation and recent results of the research. The complete processing of the knapped lithic material was done in the past, which resulted in a sufficient amount of data that can be evaluated and significantly compared. In contrast to the previous working hypothesis, the proportion of long-distance import material is not so decisive, and it does not only come from graves with timber construction, that are richer in grave goods. On the contrary, the local Mecsek radiolarite dominates, which is also a defining element of the raw material of the settlement. In the case of Alsónyék, a more closed system of raw materials can be seen, which is not oriented towards the outside, but rather directed towards the micro-region of Southern Transdanubia, especially the area of Eastern Mecsek.

Stone tools from periods younger than the Neolithic

Nikolett Kovács1, Zsuzsanna Tóth[1]
1 Institute of Archaeology, Eötvös Loránd University, Budapest

The basis of our research is an MA thesis, which examines the Late Copper Age and Early Bronze Age lithic material of the Kaposújlak-Várdomb site, which was partially excavated by Krisztina Somogyi in 2002, during the construction of a bypass road. The research was inspired by special crescent-shaped pieces with traces of use found among the Early Bronze Age stone tools, which can be linked to the Somogyvár-Vinkovci culture. Our macroscopic and microscopic study aims to describe the material, to replicate and test them during work, from which traces of use may come.

The experimental harvesting took place in the Archeological Park of Százhalombatta, during which we used 6 tools, testing their effectiveness with different movements and stem heights. The presentation presents the preliminary results and the difficulties of the experiment.

Infrared spectroscopic studies of Avas limnosilicites bearing thermal stigmas found at the northeastern foot of the Avas hill in Miskolc

Henrik Zoltán Tóth[1], Ferenc Kristály[2], Péter Szolyák[3]
1 University of Miskolc, Mikoviny Sámuel Doctoral School of Earth Sciences, Miskolc
2 University of Miskolc, Institute of Mineralogy and Geology
3 Otto Herman Museum, Miskolc

During the archaeometric examination of lithics made of Avas limnosilicite found during excavations in Avas-Tűzköves in Miskolc in 2002, it was revealed that some pieces underwent a strong thermal effect. This may support the theory that prehistoric people could also use fire ("baking") to extract the local raw material. During the tests, samples of a few milligrams taken from selected archaeological finds were compared with reference samples produced in a laboratory heat treatment furnace. Based on the results, it is almost certain that a lithic artefact made of white Avas limnosilicite, the surface of which has a greasy shine and reddish-brown or burgundy bands can be seen on it, was affected by heat between 260–360 °C. During our previous measurements, we were only able to examine stray finds and quarry waste from the Avas site, but in this presentation, we deal with blanks found in the Palaeolithic sites at the northeastern foot of the Avas hill, which were made available to us by the Herman Ottó Museum in Miskolc.

New buttons for the andesite jacket from Domoszló: Avar millstones from Hajdúnánás

Bálint Péterdi[1], Katalin T. Biró[2], Zoltán Henrik Tóth[3], Rozália Bajkai[4], Ivett Tóth[5], Zsolt Bendő[6]
1 Hungarian Mining and Geological Survey, Budapest
2 Hungarian National Museum, Budapest
3 University of Miskolc, Mikoviny Sámuel Doctoral School of Earth Sciences, Miskolc
4 Institute of Archaeology, Hungarian Academy of Sciences, Budapest
5 ELTE TTK FFI Department of General and Applied Geology, Budapest
6 ETLE TTK FFI Department of Geology and Geochemistry, Budapest

Concerning the grindstone- and millstone-making workshops and raw material extraction areas near Domoszló (Mátra Mountains – Pipis-hegy, Középső-hegy, Hosszú-hegy, Hegyes-hegy, etc.) presented earlier (e.g. at the 2016 Lithic Research Roundtable) we began the investigation of the archaeological distribution of their raw materials in 2015 by examining the grind- and millstones in the collections of the Hungarian National Museum (Péterdi et al. 2016). We have extended the examination of the archaeological distribution to the finds of other collections and ongoing or recently finished excavations as well.

Here we present the results of the examination of millstones and millstone fragments from the Avar period, which were discovered at the Hajdúnánás, Mácsi-dűlő and Fekete-halom sites, about 100 km from Domoszló, on the other side of the Tisza (Bajkai 2012).

Polarization microscopic examinations were performed on representative samples of millstones and fragments found in Hajdúnánás and Mácsi-dűlő (on thin sections). Whole-rock chemistry tests were carried out on some of the samples that were similar to the raw material from Domoszló in terms of thin sections (ICP-OES and ICP-MS analyses were carried out at the MFGI Laboratory Department). We also had the opportunity to examine the mineral chemistry of some samples (the SEM-EDX analyses were made at the Department of Geology and Geochemistry of the ELTE TTK), the results of which were compared with the results of similar analyzes previously made from the Domoszló raw material.

The raw material of the examined archaeological findings is very similar to the Domoszló types both in terms of mineral composition and fabric (see Péterdi et al. 2016). The whole rock chemical composition also shows good agreement. To identify the raw material even more reliably, mineral chemistry tests were performed on orthopyroxene, clinopyroxene and plagioclase phenocrysts, as well as on the pyroxene, plagioclase and opaque grains that make up the raw material. The data measured on the archaeological finds are in good agreement with the data measured on the raw material.

In our previous works (e.g. Péterdi et al. 2016), we have verified the use of Domoszló raw material in Bronze Age, Scythian, early-medieval (9th century) and early-modern (17th century) cultures and peoples. By proving the use of raw materials in the Hajdúnánás, Mácsi-dűlő and Fekete-halom sites from the Avar period, we prove the continuity of extraction and use in pre-conquest times.

We are grateful to the Hungarian Mining and Geological Service (formerly the Hungarian Geological and Geophysical Institute), the municipality of Domoszló, and the NKFIH (formerly OTKA) K 100385 and NK 104533. application.

Petrographic examination of polished stone tools on ethnographic material from New Guinea

György Szakmány[1], Judit Antoni, Zoltán Kovács[1]
1 ELTE Geology-Geochemistry Department

We examined four polished stone blades from Papua New Guinea stored in the collection of the Gödöllő City Museum. Three of the four blades were collected by Emese Molnár-Bagley, two of them from the Lumi site (originally called "West Sepik"; now "Sandaun Province"), one from the Mendi site ("Southern Highlands Province"). The fourth stone tool was collected by Ferenc Ignácz in the "Western Highlands Province", probably from members of the Melpa tribe. All four polished stone tools are axes or adzes, among them there are also flat, slightly convex and asymmetrical types. During their examination, we used exclusively non-destructive methods: macroscopic petrography, magnetic susceptibility testing, and electron microscopic (SEM-EDX) "original surface" testing.

Based on our test results, the raw materials of the three stone tools are rocks of ophiolitic origin: gabbro and dolerite, and one is probably made of high-pressure metamorphite, Na-pyroxenite. Both ophiolites and high-pressure metamorphites occur on the island of New Guinea and its surroundings. The results suggest that the raw material of the stone tools is assumed to be local or regional.

Szécsénke – the 2017 excavation at the Late Middle Paleolithic site (poster)

Krisztián Zandler[1], Attila Péntek[2], András Markó[3]
1 Béla Dornyay Museum, Salgótarján
2 Independent researcher, Kistarcsa
3 Hungarian National Museum, Budapest

On the Kis Ferenc hill above Szécsénke, with the support of the NKA, we carried out test excavations for the third year. After the attempts in 2015, last year we surprisingly found such an intensive find level at a depth of 70–90 cm, the find material of which differs from the leaf tool material collected on the surface. In 2017, we continued the exploration of this layer. Fortunately, this time characteristic stone tools (a large number of flake end-scrapers, sidescrapers and a characteristic leaf point or leaf scraper) as well as cores were found, which facilitate a more precise understanding of the often misinterpreted and wrongly called "Szeletian" industry.

Pécel - excavation of an Upper Paleolithic site (poster)

András Markó[1], Mihály Gasparik[2]
1 Hungarian National Museum, Budapest
2 Hungarian Museum of Natural Sciences, Budapest

In December 2017, we unearthed the bone remains of a woolly rhinoceros and three obsidian blade fragments at Kis Hársas near Pécel. In recent years, points made of "northern" (probably from the middle course of the Vistula) flint were found next to the bones of the same old female rhinoceros.

As a result of the excavations, it was possible to save one of the most complete finds of woolly rhinoceros in Hungary, along with tools similar to the blade industry found in the upper layer of the Istállós-kői cave. Accordingly, before the radiocarbon measurements, based on the uncalibrated chronology, we estimate the remains to be around 30–28 thousand years old.

Brighter-than-usual pebbles or prettier shells (poster)

András Markó[1], Alfréd Dulai[2]
1 Hungarian National Museum, Budapest
2 Hungarian Museum of Natural Sciences, Budapest

In the Upper Paleolithic site of Mogyorósbánya, which was excavated between 1984 and 2009, many types of finds without obvious utilitarian purpose were found. In addition to the previously reported pieces of fossil resin (amber) and red earth paint, more than ninety fossil snails, *Dentalium*, nummulites and coral skeletons, as well as numerous phyllite debris were unearthed. The poster presents the current results of the examination of these latter types of finds.

Obsidian cache find from Váncsod, Szénás-dűlő (poster)

Anna Priskin[1], Zsolt Kasztovszky[2], Artúr Nyírő[3], Vajk Severényi[4], Veronika Szilágyi[2], Balázs Wieszner[5]
1 Déri Museum, Debrecen / Departament de Prehistória, UAB, Barcelona
2 Hungarian Academy of Sciences Energy Research Center, Nuclear Analytical and Radiographic Laboratory, Budapest
3 Institute of Archaeology, Eötvös Loránd University, Budapest
4 Déri Museum, Debrecen / MTA BTK Institute of Archaeology, Budapest
5 Déri Museum, Debrecen

We started the work in mid-September 2017 at the Szénás-dűlő site in Váncsod in connection with the preliminary excavation of the M4 motorway route. On the first day of the excavation, during humus removal from the surface, a depot of 13 pieces of obsidian raw material came to light. In our poster presentation, in addition to the description of the finds, we would like to present a brief analysis of the archaeological context and the preliminary results of the provenance investigation.