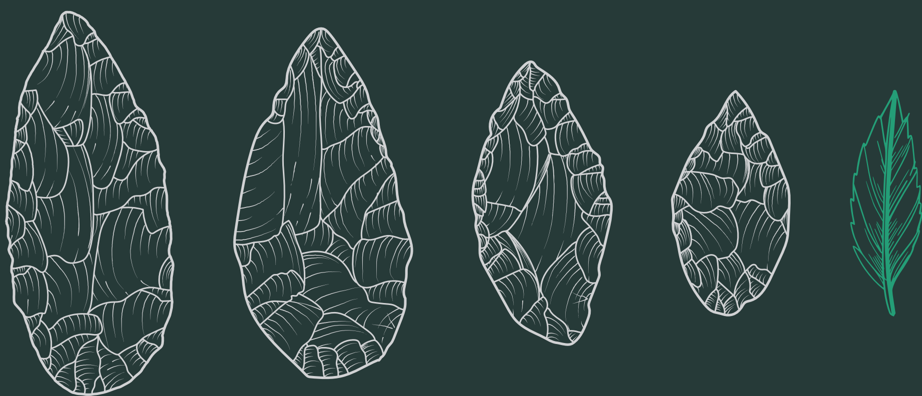
# *From tea leaves to leaf-shaped tools*

STUDIES
IN HONOUR OF ZSOLT MESTER
ON HIS SIXTIETH BIRTHDAY



LITIKUM KÖNYVTÁR 2

EDITED BY
ATTILA KIRÁLY

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Editor:
Attila Király

ELTE
EÖTVÖS LORÁND
UNIVERSITY

LITHIC RESEARCH ROUNDTABLE

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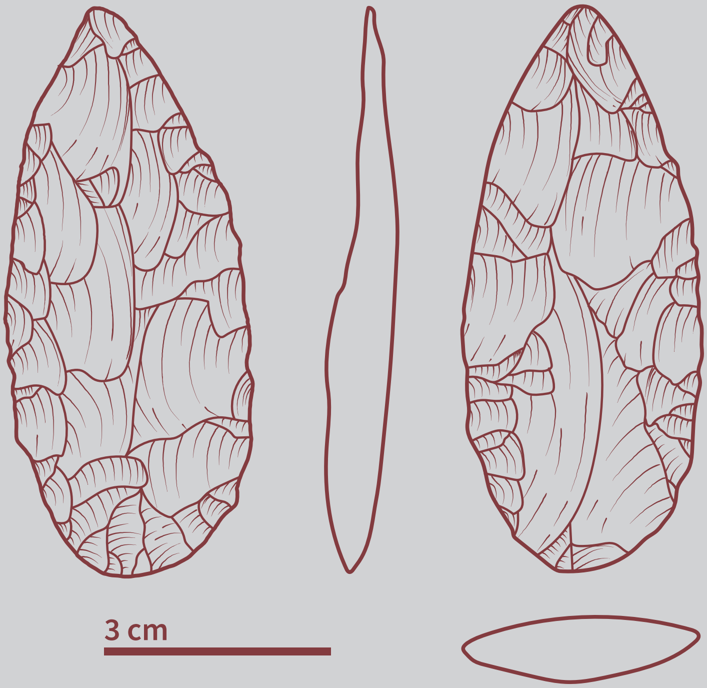
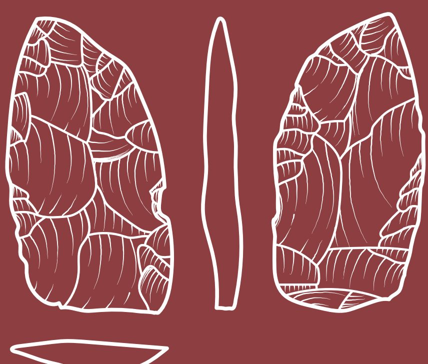



Szeletian leaf-shaped tool.
After Kozłowski *et al.*, 2009, Planche 11.

Eger-Kőporos-tető, August 2003. Zsolt in his element, the Palaeolithic sites in the Eger area. The participants try to collect a sample from concrete-hard sediment with a drill. Everyone had their turn of manual labour that day. From left to right: Wisconsin archaeologist William J. Eichmann; Róbert Kertész, an archaeologist from Szolnok, Sándor Béres, an enthusiastic collector in the Eger area and one of the authors of our volume, and with the tool in hand – Zsolt. It is not visible in the picture, but archaeologist Krisztián Zandler also took a good part in the work that year.
*Photo: Attila Király; drawing: after Kozłowski* et al.*, 2009.*



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# *The Demjén-Szőlő-hegy III Early Upper Palaeolithic site*

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**Abstract.** Szőlő-hegy is located in Northeastern Hungary in the vicinity of Demjén. The archaeological potential of the plateau has been discovered by Viola Dobosi in 1975. However, the Szőlő-hegy III site was only identified during a field survey in 2017.

The main goal of the article is to determine the period and the cultural attribution of the finds by comparing the assemblage with similar archaeological materials. Therefore, a comprehensive technological and typological analysis was carried out. According to the comparison with the Szőlő-hegy I and II sites, Szőlő-hegy III is classified as Aurignacian. The archaeological material contains tool types characteristic of Early and Typical Aurignacian, but their proportion, technology, and closest analogies might leave the possibility open to an Early Aurignacian origin.

**Keywords:** Aurignacian, Raw material economy, Technology, Typology

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## 1. Introduction

According to our present knowledge, the beginning of the Upper Palaeolithic in Europe is associated with the appearance of anatomically modern humans on the continent. The first central European Upper Palaeolithic industries (Bohunician, Bachokirian, Proto-Aurignacian) are similar to assemblages made by modern humans in the Levant at an earlier date and represent movements into Europe from the Near East that took place in multiple waves via multiple routes around 48–46 cal ka BP (Hublin, 2015; Mellars, 2004). While some industries are more widespread, others are less apparent. The Proto-Aurignacian occurs in most parts of the Carpathian Basin, including a subcarpathian site cluster near Beregovo and Romania (Banat or Bánát region) with the sites of Coşava, Tincova, and Rumâneşti Dumbrâviţa (Demidenko & Noiret, 2012).

In the Carpathian Basin, the Bohunician was only identified near Nižný Hrabovec in Slovakia (Kaminská *et al.*, 2009; Škrdla, 2017, pp. 80–82); besides, the *Macrolaminaire* assemblages (Initial Upper Palaeolithic, IUP) from the southern Bükk that may be related to the younger stage of the "Bachokirian". However, the emergence of the Aurignacian is still unclear and a subject of long-lasting debate. Nevertheless, dating of the Early Aurignacian layer of Willendorf II AH3 in the Carpathian Basin yielded remarkable old dates: 34,100 + 1200 – 1000 BP (GrN-11192) and 37,930 ± 750 BP (GrA-896) (Nigst, 2006).

The Early Upper Palaeolithic in the Bükk Mountains is represented by several Aurignacian and three *Macrolaminaire* (IUP) sites, where excavations were carried out (Egerszalók-Kővágó-dűlő, Eger-Kőporos-tető, Andornaktálya-Gyilkos-tető). No *Macrolaminaire* lithic artefact was found *in situ*. Therefore, no dating was ever conducted at these sites.

So far, we only know two sites in Hungary, which, based on the culture's "*fossile directeur*" (split-based bone points), can be classified as Early Aurignacian. It is also important that the dates obtained from the split-based bone points from the Istállóskő cave are younger (Davies & Hedges, 2008–2009; Hopkins, 2018) than the ones from Willendorf II AH3 (Nigst, 2006; Nigst *et al.*, 2014). Furthermore, Aurignacian assemblages are also known from Andornaktálya-Gyilkos-tető (Mester *et al.*, 2021), Egerszalók-Kővágó-dűlő (Kozłowski *et al.*, 2009) and Eger-*Kőporos-tető* (Kozłowski *et al.*, 2012) around the area of Demjén, but the Upper Palaeolithic material from Ostoros-Rápca, based on its typology, may also belong to the culture (Dobosi, 2005). However, the late Aurignacian is also present in the region at sites like Andornaktálya-Zúgó-dűlő, where only an OSL date (30,180 ± 330 BP) is available (Kozłowski & Mester, 2003–2004; Mester, 2010). As a result, based on its topographical location, Demjén-Szőlő-hegy can play an important role in future research, which is further amplified by the high variety of stone tools known from the sites.

## 2. The Demjén-Szőlő-hegy site

Szőlő-hegy is located on the left bank of the Laskó stream, directly above the village of Demjén. The current landscape has been developed in the Quaternary. The tufite covering the foothill region of the Bükk Mountains was formed as a result of Tertiary volcanism and during its tectonic uplift in the late Pleistocene, north-south-facing valleys were formed in the area. This was the cause of the uplift of smaller plateaus like Szőlő-hegy (Pentelényi, 2002).

The research on Demjén-Szőlő-hegy started in 1975 (Dobosi, 1976), during the excavation of Demjén-Hegyeskő-bérc, when Viola Dobosi also conducted field surveys on the Szőlő-hegy plateau (Zandler, 2012). The material she collected in the area was sent later to the Hungarian National

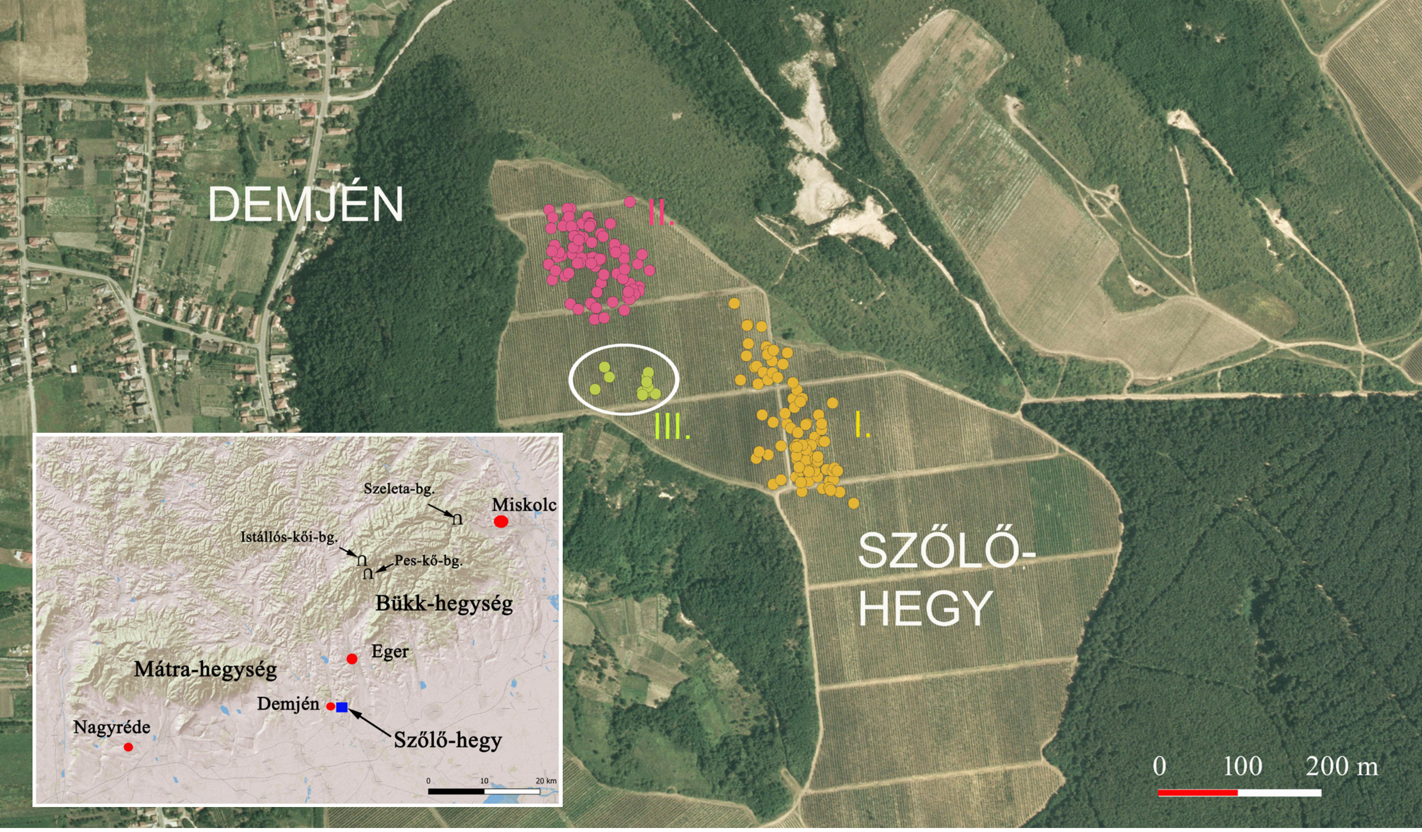



**Figure 1.** Archaeological sites of the Szőlő-hegy plateau in Demjén. Basemap: Google Earth (prepared by Sándor Béres).

Museum, where it is still being kept today. After 1975, the site was only visited again in 1999–2000, however, the investigation only affected the western part of the plateau (the area above the village, now called Szőlő-hegy II). The research became more intensive after 2005, when the current location and extent of the Szőlő-hegy I and II sites, and their cultural attribution were determined. Furthermore, in the spring of 2017, it was possible to locate the Szőlő-hegy III site on the southern slope of the plateau (Fig. 1).

The archaeological material is concentrated in smaller patches at 218 m above sea level. The coordinates of the centre of the site (covers an area of approximately 120 × 100 m) are 47° 49′ 53″ N; 20° 20′ 26″ E. It is still not clear whether the settlement was originally located on the slope or if the archaeological material had been redeposited during the destruction of the culture layer.

## 3. Materials and methods

Every studied artefact was collected during field surveys from 1999 on. Those pieces that were found earlier by Viola Dobosi are not included, because the exact location of the finds cannot be determined.

Currently, on the Szőlő-hegy plateau, we can distinguish three Palaeolithic settlements, but no archaeological excavation has been carried out on any of them yet (it is currently ongoing). Every field survey we conducted in the area was documented, and after 2015, GPS coordinates of the finds were also recorded. However, most of the GPS data derive from Szőlő-hegy III, since that is the most recently discovered site. The spatial data of find distribution are presented here with the help of the open-access QGIS software.

A variety of methods were used to document every lithic artefact, including raw material, typological, and technological examinations. The more detailed research allowed us to determine

**Table 1.** Szőlő-hegy III. Distribution of artefact types by raw materials.

| Find type | Carpathian radiolarite | Volhynian flint | Obsidian | Limnosilicite | Radiolarian marl | Silicified sandstone | Local radiolarite | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| Raw material nodule | | | | 1 | 1 | | | | 2 |
| Core | 2 | | | | 1 | | | | 3 |
| Blade | 3 | | | 3 | 1 | | | | 7 |
| Flake | 17 | 1 | 1 | 2 | 2 | 1 | 1 | | 25 |
| Debris | 1 | | | 2 | 2 | | | | 5 |
| Chips | 10 | | | | | | | | 10 |
| Tools | 21 | | 1 | 3 | 3 | | | 1 | 29 |
| Total | 54 | 1 | 2 | 11 | 9 | 1 | 1 | 1 | 81 |

various raw material categories based on the distance of their geological source (local, regional, long-distance). During the evaluation, the T. Biró–Dobosi model was used (T. Biró & T. Dobosi, 1991), supplemented with our observations. In the case of long-distance raw materials, we also paid attention to the direction of the source area (procurement zone) (Mester, 2009).

During the classification, the Dermars–Laurent typology was used (Demars & Laurent, 1989) in conjunction with the Sonneville-Bordes typology (De Sonneville-Bordes & Perrot, 1953). In the technological analysis, we followed the Inizan–Reduron-Ballinger–Roche–Tixier conceptual system and test methods (Inizan *et al.*, 1999).

## 4. Raw materials of Szőlő-hegy III

The lithic raw materials have been divided into three groups (T. Biró & T. Dobosi, 1991, p. 8). Based on this, every raw material that can be found within a radius of 25 km is considered local, while regional lithic sources occur within a distance of 25–100 km. Moreover, raw material sources farther than 100 km are classified as long-distance materials.

The local raw material group includes every raw material that occurs in the western and southern *Bükk* Mountains. Among these, the radiolarian marl is considered to be the most significant, because retouched artefacts were only made from this local lithic. Presumably, its main geological source is located around the southwestern Bükk pediment area where it is also present in pebble form in secondary deposits (gravel beds, e.g., Monósbél, Bükkzsérc) (Pelikán, 1986). From this raw material, mostly high-quality variants are present at the site.

Other local raw materials (from the south Bükk area), such as Egerbakta-type silicified sandstone and local radiolarite, are also present in the assemblage. However, based on the few pieces we found, they probably played a secondary role in tool production. The pieces made of these raw materials bear pebble cortex in many cases, which indicates that they were collected from gravel beds as well.

Moreover, materials like silicified sandstone, silicified tuff and local opals, which also occur in the Laskó stream valley, were placed into a subgroup called “Local 1”, while other lithic sources

**Table 2.** Szőlő-hegy III. Distribution of tool types by raw materials.

| Tool type | Carpathian radiolarite | Volhynian flint | Obsidian | limnosilicite | Radiolarian marl | Silicified sandstone | Local radi-olarite | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| Endscraper on blade | 4 | | | | | | | | 4 |
| Endscraper on flake | 1 | | 1 | 1 | | | | | 3 |
| Carenoid endscraper | 1 | | | | | | | | 1 |
| Borer | 1 | | | | | | | | 1 |
| Dihedral Burin | 1 | | | | 1 | | | | 2 |
| Burin on truncation | 1 | | | | | | | | 1 |
| Retouched blade | 5 | | | 1 | | | | 1 | 7 |
| Truncation | 2 | | | | 1 | | | | 3 |
| Notch | 1 | | | | | | | | 1 |
| Denticulate | 1 | | | | | | | | 1 |
| Sidescraper | 1 | | | | | | | | 1 |
| Other | 2 | | | 1 | 1 | | | | 4 |
| Total | 21 | 0 | 1 | 3 | 3 | 0 | 0 | 1 | 29 |

from within the 25 km radius, such as radiolarian marl and local radiolarite were classified as "Local 2". The categorization is based on the experience that some Palaeolithic cultures (e.g., Aurignacian) rarely used "Local 1" raw materials, while others preferred them in large quantities over other high-quality materials.

Regional raw materials are usually non-local limnosilicite variants originating from the North Hungarian Range, although their geological source in most cases cannot be determined. High-quality materials such as flint pebbles were also identified, however, the cortex and the patina on their surface make it harder to distinguish them from limnosilicite (e.g., nummulitic chert).

Carpathian obsidian is also present, although only one retouched artefact and one fragment were discovered. Unlike limnosilicite, these raw materials can easily be linked to a specific source in Hungary (Zemplén Mountains). According to the two most common microscopically recognizable obsidian variants (T. Biró, 1981), only the Carpathian I type occurs on the site, in contrast with Szőlő-hegy II, where the Carpathian II type was identified.

The long-distance raw material group includes the most important raw material of the assemblage, the Carpathian radiolarite because 72 % of the tools and 68% of all finds were made of this rock. It is also important to mention that pebble cortex seldom occurs on these artefacts, which means the raw material had been collected from its primary source and carried from a great distance to the site. Unfortunately, the exact geological source cannot be determined, because Carpathian radiolarite occurs over 250 km along the Pieniny Klippen Belt formation in the Central Western Carpathians (intra-Carpathian source

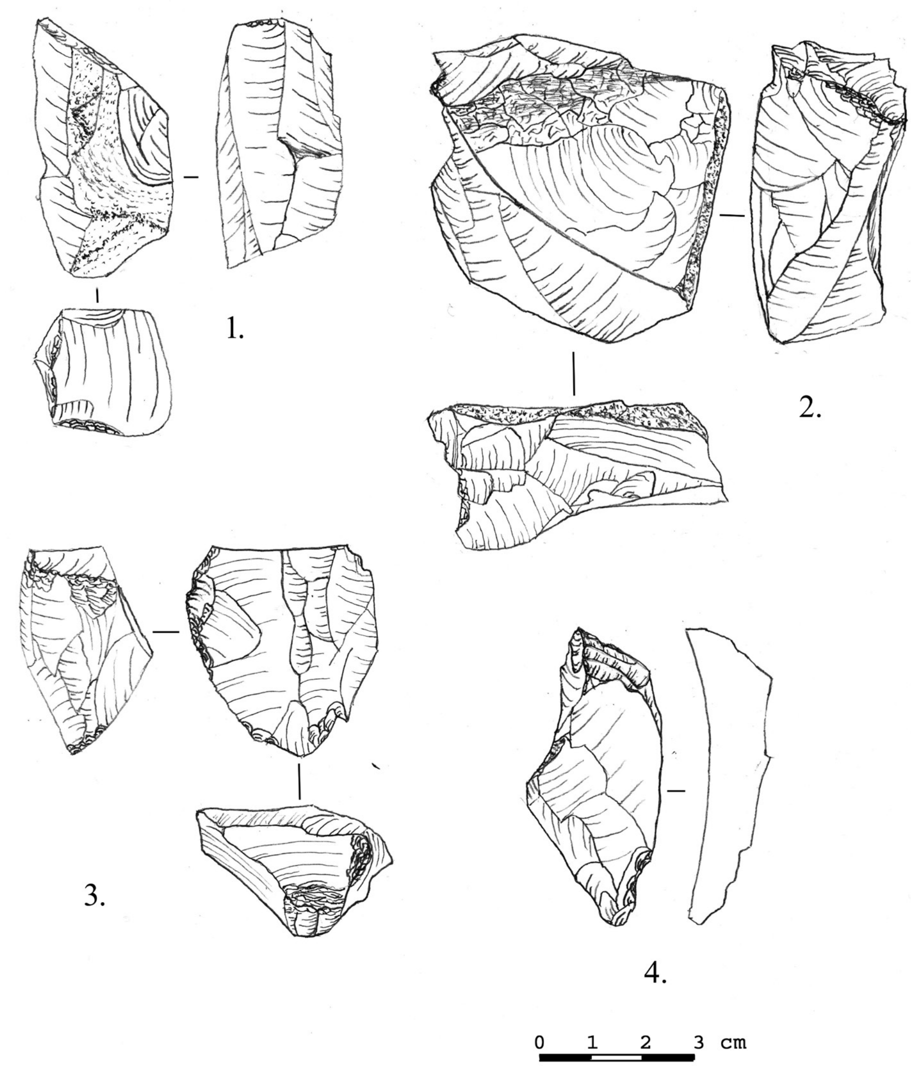
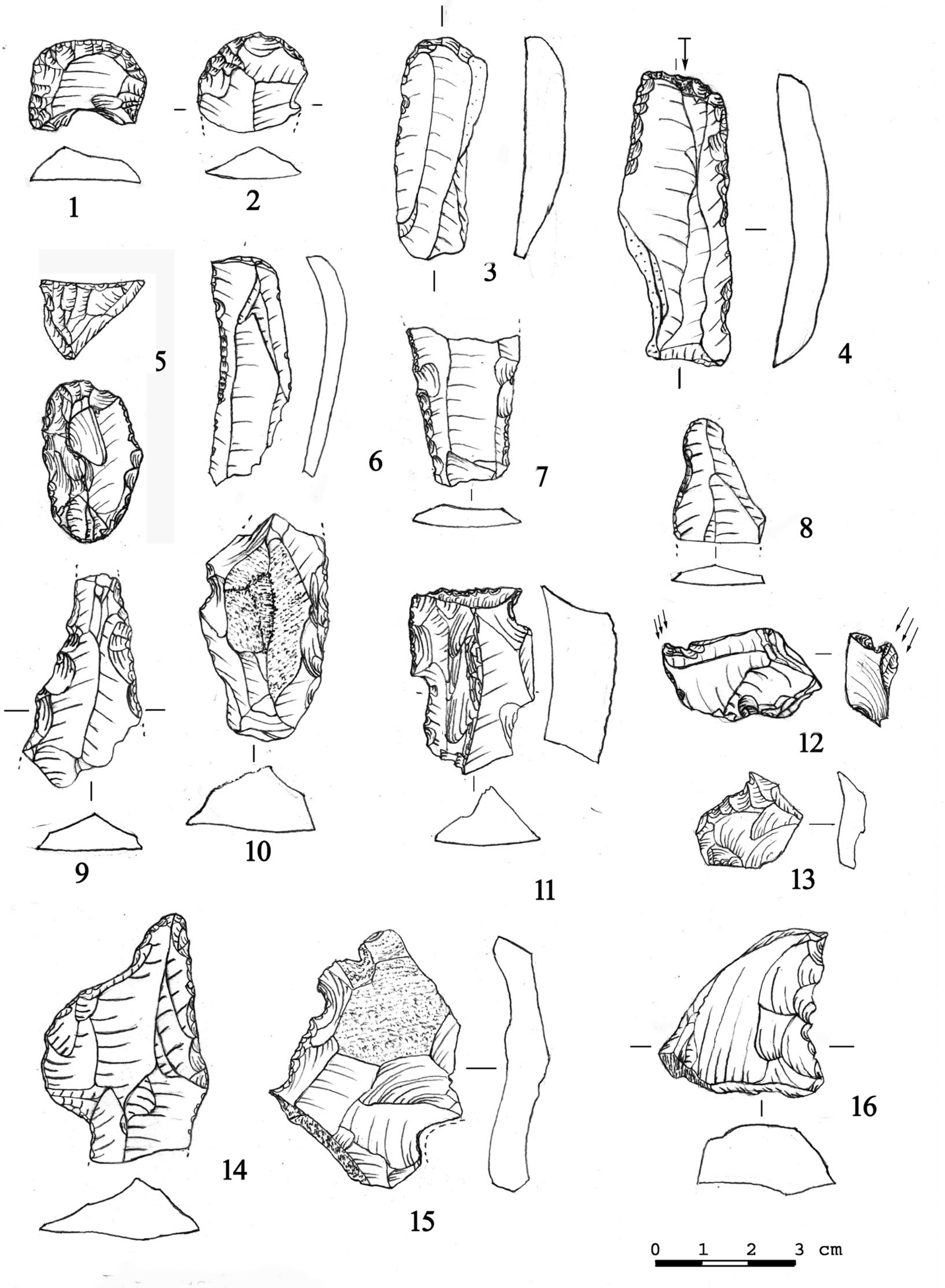



**Figure 2.** Szőlő-hegy III. Cores. Prepared by Sándor Béres.

**Figure 3 (next page).** Szőlő-hegy III. Tools. Prepared by Sándor Béres and Dalma Kerekes.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zone) (Plašienka, 2018). However, the closest primer source to Demjén is located northwest of Prešov (Eperjes) in the Torysa (Tarca) river valley (Voľanská, 2014, p. 175).

Volhynian flint can also be found in the collection (extra-Carpathian source zone). The raw material is also present over a large area along the Dniester in western Ukraine, but its closest occurrence to Demjén is 300 km away near the town of Halych (Halics, *Галич*) (Sytnyk *et al.*, 2009, pp. 241–171). Throughout the research, only one artefact was identified, however, its great distance makes it important during the interpretation.

## 5. The composition of the archaeological assemblage

The archaeological material counts a total of 81 pieces. 29 were identified as tools (36%), and 2 as raw material nodules, which represents the initial stage of tool production. In addition, 3 cores, 7 blades and 25 flakes were also found. Five raw material chunks and 10 small chips are included in the knapping debris category (Table 1).

Raw material nodules: One is presumably a tested limnosilicite pebble, but its geological source cannot be determined. The other one is a radiolarian marl block. Each was collected within 25-50 km of the site.

Cores: One was made of radiolarian marl (Fig. 2: 1), two of Carpathian radiolarite. One Carpathian radiolarite core (Fig. 2: 2) and the radiolarian marl core were classified as prismatic blade cores with negatives of unidirectional blade debitage. The radiolarian marl core has plain striking platform, but the striking platform of the Carpathian radiolarite core shows signs of preparation.

The other radiolarite core (Fig. 2: 3) has been rejuvenated and its original structure can no longer be seen. After the removal of the lower part (foot preparation), blade and bladelet production was continued in the opposite direction until the core became exhausted. However, a new crest was made on the exploited core edge, although the blade detachment ceased. The rejuvenated core's striking platform is plain and unprepared, the flaking surface shows unidirectional debitage.

Blades: Out of the seven blades, three were made of Carpathian radiolarite, three of limnosilicite (or flint pebble) and one of radiolarian marl. Four of them are mesial fragments, one is proximal, one is distal, and one is unbroken. Only two pieces display the method of detachment, which was soft hammer percussion. The length of the blades varies between 36–46 mm.

Flakes: The total number of flakes is 25. Their main raw material is Carpathian radiolarite (17 pieces, 68%), but radiolarian marl (2 pieces), limnosilicite or flint pebble (2 pieces), local radiolarite (1 piece), Egerbakta-type silicified sandstone (1 piece), Carpathian obsidian (1 piece) and Volhynian flint (1 piece) are also encountered (Table 1). The cortex is only visible on two pieces. Except for two artefacts, hard hammer percussion was used for flake detachment. Their size varies between 61 × 48 mm and 21 × 16 mm.

## 6. Retouched tools

The low number of retouched pieces (29) prevents us from statistical evaluation, however, certain tendencies can be observed and can be compared to similar lithic assemblages (Table 2).

Retouched blades: It is the most frequent tool type category (9 pieces). Seven of them are retouched, while two are classified as truncated-retouched fragments. One blade fragment was made of limnosilicite, one fragment's raw material is an unidentified black flint, and Carpathian radiolarite was used for five pieces. Two of them are proximal, one is distal and four are mesial fragments. Their size ranges between 47 × 26 × 14 mm to 18 × 20 × 2 mm.

Retouch in two cases is bilateral (Fig. 3: 7, 9), and in four cases it is unilateral (Fig. 3: 8).

However, Aurignacian retouch is only visible on one massive blade (Fig. 3: 10). One mesial fragment of a massive crested blade is retouched and shouldered on the left edge and notched on the right edge (Fig. 3: 11) (size: 40 × 25 × 13 mm).

Truncated pieces: Truncation were observed on three artefacts. One is a Carpathian radiolarite retouched blade fragment (Fig. 3: 6) (size: 47 × 15 × 4 mm); one is a radiolarian marl blade with ventral, partial retouch on the left edge (size: 52 × 25 × 10 mm); one is an unretouched Carpathian radiolarite flake, the distal end of which has been truncated after a fracture (size: 50 × 28 × 13 mm).

Endscrapers: It is the second most significant tool type category (8 pieces) besides retouched blades. Four were made on blades, three on flakes. At the site, only one carenoid double endscraper was discovered. Except this, all pieces have thin supports.

Endscrapers on blade: Opposed endscraper made of Carpathian radiolarite (Fig. 3: 4). The right edge is partially retouched and the left edge was formed by alternating retouch. The working edge is at the proximal end. The distal end is broken and partly truncated (size: 62 × 23 × 10 mm).

Endscraper made of Carpathian radiolarite. The right edge is retouched. The butt was removed during shaping (truncation) (size: 36 × 16 × 6 mm).

Endscraper made of Carpathian radiolarite (Fig. 3: 3). The left edge is ventrally retouched. The butt is partially removed. The dorsal face is mostly covered with cortex (size: 45 × 16 × 5 mm).

Endscraper made of Carpathian radiolarite (Fig. 3: 1). The support is a short blade fragment. Both edges are retouched. The proximal end is notched (size: 16 × 22 × 5 mm).

Endscrapers on flake: Endscraper made of limnosilicite. The support is an irregular flake with broken base. The left side of the distal end is ventrally retouched. The 20-mm wide endscraper front was formed on the right edge (size: 46 × 39 × 8 *m*m).

Endscraper made of dark-grey (Carpathian?) radiolarite (Fig. 3: 2). The support is a round flake. The left edge is retouched, the base is broken and the working edge has a rounded shape (size: 17 × 22 × 7 mm).

Endscraper made of Carpathian I obsidian. The left edge is partially retouched and the base is missing. The endscraper front was formed by ventral retouch (atypical) (size: 20 × 20 × 4 mm).

Only one carenoid endscraper was found at the site (Fig. 3: 5). The support may have been a thick Carpathian radiolarite blade fragment, which was bilaterally retouched. Typologically, it is a double carenoid endscraper with a carinated distal end and a nosed proximal end. Microblade negatives are also visible on both ends (size: 33 × 19 × 16 mm).

Borer: One borer has been identified in the assemblage (Fig. 3: 14). It was made on a Carpathian radiolarite flake. Both edges are retouched and the base is absent (size: 48 × 34 × 10 mm).

Burins: The collection contains three burins. These are the following:

Dihedral burin on a Carpathian radiolarite flake (Fig. 3: 12). The left edge is retouched. The base was removed by fracture (size: 38 × 19 × 6 mm).

Burin on a Carpathian radiolarite flake (Fig. 3: 13). Probably a transverse type (size: 17 × 33 × 8 mm).

Dihedral burin on a radiolarian marl blade. The burin edge is unfinished. The dorsal surface is partially covered with cortex (size: 46 × 13 × 8 mm).

Sidescraper: One sidescraper was found at the site. It is a simple sidescraper made of Carpathian radiolarite. The support is a flake with straight working edges. The base is broken (sizes: 30 × 22 × 6 mm).

Denticulated and notched tools: Two pieces were identified at the site from these tool categories altogether. Notched tool made on a Carpathian radiolarite flake (Fig. 3: 15). The notches are located in three different parts of the artefact: one on the right edge, and two on the left edge where traces of denticulation can also be observed (size: 54 × 42 × 12 mm). Denticulated tool on a Carpathian radiolarite flake (Fig. 3: 16) with ventral retouch and a convex working edge (size: 41 × 34 × 13 mm).

The assemblage also contains 4 unclassified retouched pieces: A small Carpathian radiolarite flake bears retouch on its distal end (Fig. 3: 13). Presumably, the main goal was to make an endscraper, but the tool remained unfinished.

A radiolarian marl flake has an alternate retouch on the left edge, and at the distal end, an unfinished nosed endscraper front is visible (size: 34 × 23 × 8 mm).

A Carpathian radiolarite core-edge removal flake bears microblade negatives (atypical carinated core?) (Fig. 2: 4). The distal end is partially retouched and its proximal part is shouldered.

A retouched limnosilicite flake is quite similar to an endscraper in its morphology. On the left edge partial retouch can be observed (size: 29 × 20 × 6 mm).

## 7. Technological observations

According to our morphological observations on the three cores and on one other artefact with bladelet negatives, the production was mainly focused on producing blades and bladelets. No flake cores were found at the site, however, only 48% of the retouched artefacts were made on blades, the rest on flakes. The same can be observed among the unretouched artefacts, their ratio compared to blades is 25:7 (76%: 24%). On the other hand, bladelets and microblades are completely absent from the assemblage, while cores and artefacts derived from core reduction show several instances of lamelle negatives. The lack of these supports can be attributed to the difficulty of noticing small pieces on the ground during field surveys.

As previously mentioned, mostly Carpathian radiolarite was used in tool production. However, the raw material has a low proportion among the unretouched blades (3 out of 7, 37%), while there is a significant predominance among the unretouched flakes (17 out of 25, 68%). The difference is even more striking if we compare the number of unretouched Carpathian radiolarite blades to the total count of retouched radiolarite blade tools (3 out of 13). Therefore, we can state that 81% of all found radiolarite blades were selected for further shaping and then were used as tools.

In the blade debitage group, butts were identified only in two cases, one linear and one dihedral. Both of those blades were made of limnosilicite and were struck with a soft hammer. However, among blade tools, the butt is visible in five cases. Four of them were detached by a soft hammer, while a hard hammer was used only for one Carpathian radiolarite blade with Aurignacian retouch and a plain butt (Fig. 3: 10). The other two Carpathian radiolarite blades have plain and prepared butts, the radiolarian marl truncated blade tool has a punctiform butt and the radiolarian marl dihedral burin has a plain butt.

The dorsal negatives were observed on 11 blade and blade tools. Unidirectional dorsal scar patterns were recognized in 10 cases (all were made of Carpathian radiolarite), while one radiolarian marl artefact bears opposed bidirectional scars.

According to our observations, the majority of flakes were likely produced during the shaping and transformation of cores. Four flake tools with plain butts were detached with a hard hammer. Unretouched flakes are more varied in this aspect. Four out of six Carpathian radiolarite flakes were detached with a hard hammer (two faceted, one dihedral, one winged), and the remaining two with a soft hammer (plain butts). Furthermore, the radiolarian marl flake dorsal surface is fully covered with cortex which extends to its butt, while the Egerbakta-type silicified sandstone has a faceted butt with a dorsal cortex coverage varying between 50%-25%.

## 8. Palaeolithic sites at Demjén-Szőlő-hegy

Next to Szőlő-hegy III, two other sites are also known on the plateau (Fig. 1). Szőlő-hegy I is located near Szőlő-hegy III. The assemblage contains 414 lithics with 140 tools, 6 cores, 2 core fragments and 2 tested raw material fragments. The proportion of the retouched tools in the archaeological material is significant (33%) and its find material is also dominated by Carpathian radiolarite (56% among retouched tools). In addition, the assemblage yielded a considerable amount of carenoid endscrapers, which is the "*fossile directeur*" of the Aurignacian. For this reason, we classify Szőlő-hegy I as an Aurignacian base camp, where only moderate workshop activity took place.

Szőlő-hegy II is located on the edge of the plateau, above the Laskó stream. The site is surprisingly rich in archaeological material. In the assemblage, the total number of the retouched pieces is 197, accompanied by 1049 other artefacts, including 49 cores. Apart from limnosilicite, the archaeological material is dominated by various other "Local 1" lithic raw materials, such as the Egerbakta-type silicified sandstone. The high number of cores, blanks and waste indicates significant workshop activity, with primary production based on "Local 1" raw materials.

Unlike at Szőlő-hegy I, emblematic Aurignacian types are missing at Szőlő-hegy II, thus the archaeological material does not belong to this culture. Assemblages, that might be similar to the Szőlő-hegy II material, are exceedingly rare. A non-Aurignacian Early Upper Palaeolithic industry mixed with material of other cultures was only identified at the Eger-Kőporos-tető, Egerszalók-Kővágó-dűlő and Andornaktálya-Gyilkos-tető sites (Kozłowski & Mester, 2003–2004; Kozłowski *et al.*, 2009; Kozłowski *et al.*, 2012; Mester *et al.*, 2021). The Szőlő-hegy II collection seems relatively homogeneous and the absence of Carpathian radiolarite indicates that no admixture happened with the Szőlő-hegy I and III assemblages, despite their proximity. Only a few bifacial tools raise questions about the homogeneity of the Szőlő-hegy II assemblage.

Szőlő-hegy III, which is the main topic of this paper, is located on the slope, just below Szőlő-hegy II. Although its archaeological material is significantly more modest than the other assemblages, the raw material spectrum is remarkably similar to Szőlő-hegy I. This is important because none of the known EUP sites from the North Hungarian Range show similar Carpathian radiolarite dominance. However, there is an apparent difference in raw material utilisation between Szőlő-hegy I and II. At Szőlő-hegy II retouched tools made of Carpathian radiolarite or other long-distance raw materials were not identified, however, the presence of Egerbakta-type silicified sandstone is significant, which was not used at the other sites on the plateau.

## 9. Discussion

Based on our analysis, the Szőlő-hegy III archaeological material, like the Szőlő-hegy I assemblage, can be classified as Aurignacian. The collection contains both Early and Typical Aurignacian retouched tool types, but close analogies are might known in Austria and Germany, e.g., Vogelherd, layers AH IV and AH. However, a large number of characteristic burins have been found in Vogelherd, which is quite rare in the Szőlő-hegy archaeological materials.

It also should be emphasized that the Typical Aurignacian assemblages from the Carpathian Basin are bear some similarities with the Szőlő-hegy sites, but the proportion of the tools and the lithic technology show some difference. This is particularly evident in the quantity of retouched blades, as their ratio in the Nagyréde-Öreg-hegy and Nagyréde-Vájsz assemblages are 5% and 15%, while in the Szőlő-hegy assemblage 31%. The Nagyréde archaeological materials are mostly characterised by flake debitage and opposed blade detachment, which is rare at Szőlő-hegy. In addition, characteristic Early Aurignacian tool types, such as Aurignacian endscrapers and points on retouched blades (*Spitzklinge*) are present at Szőlő-hegy I, but the pointed blades are absent in the Typical Aurignacian assemblages of Nagyréde (Lengyel *et al.,* 2006).

The results are similar if we compare the Szőlő-hegy assemblages to the Late Aurignacian materials. The lack of narrow-nosed endscrapers (e.g., Lhotka type), busked and carenoid burins (Which is the "*fossile directeur*" of the late phase) are noticeable. Therefore, a late Aurignacian interpretation can also be excluded.

Similar blade dominated Aurignacian assemblages currently are only known from the Bükk mountains in Hungary (Istállóskő, Peskő caves), however, the archaeological material at these sites are poorly represented and does not contain characteristic tool types (Vértes, 1965; Adams, 1998; Markó, 2015; Patou-Mathis *et al.,* 2016). Another interesting analogy of Szőlő-hegy III might can be found in Austria, at Willendorf II (AH 3), where P. Nigst summarized the technological aspects of the Early Aurignacian (Nigst, 2006). According to his research, the blades were made on unidirectional prismatic cores, which can also be observed by the dorsal scare pattern in the Szőlő-hegy material. Moreover, Bladelets and microblades were also most likely produced at the site, despite their absent.

However, it is important to mention that at this stage of our research we cannot emphasize the Early Aurignacian origin of the Szőlő-hegy assemblages since more research is needed. Our goal was to just simply provide information of the newly discovered sites in the vicinity of Eger by comparing them with other similar archaeological materials that can give us opportunity to understand the above mentioned phenomena better.

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