

AN ASPECT TO THE RE-EVALUATION OF SÁGVÁR (LYUKAS-DOB) UPPER PALAEOLITHIC SITE

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1. INTRODUCTION

Ságvár is a village in the Southern Transdanubia of Hungary, located about 10 km south of Lake Balaton. The Upper Palaeolithic site itself is situated outside of the village's core, where vineyards are planted, in the hilly loess area of this region, on a moderate slope facing south at 228 m asl above creek Jaba (*Fig. 1.*). Its name, Lyukas-domb (hill with hole), derives from a particular feature, a tunnel burrowed through the hill.

The geological formation that contains the Upper Palaeolithic site is loess situated above a red soil layer. The settlement occupational traces are embedded in the top of the loess stratum several meters above the red soil.¹

The archaeological material available today was collected from several excavations between the 1920s and 1950s.² The site, as widely known, preserved two Upper Palaeolithic occupations of the same culture in superposition separated by sterile loess of 1.50 m. Archaeological features were flint workshops, rein deer butchering areas, hearths, and dwelling structure basements with postholes. Due to the unique character of the lithic artifacts, Ságvár Lyukas-domb archaeological site is the eponym for the Late Upper Palaeolithic archaeological culture called Ságvárian, dated to between 20 and 17 k years BP.³ Besides its archaeological importance, the site takes an integral part in the terminology of the Late Pleistocene period in Hungary, in the name of the Lascaux–Ságvár interstadial⁴ or else Ságvár–Lascaux micro-interstadial.⁵

Recently the knapped lithics of Ságvár are parts of an extensive lithic technology study on the Gravettian in Hungary.⁶ This study involves lithic refitting, which usually demonstrates the sequence of acts performed by prehistoric knappers in the processes of stone tool making.⁷ Besides this benefit of the method, refitting of knapped lithics frequently gives valuable information on site taphonomy.⁸ Similarly to what happened to several lithic assemblages retrieved from stratified Palaeolithic sites and gone through systematic refitting,⁹ the lithic refitting on the material of Ságvár Lyukas-domb also has brought together numerous flakes, blades and cores from the two archaeological layers into single knapping operational sequences. This result indicates that certain points of the site's interpretation are inappropriate.

¹ LACZKÓ–GAÁL–HOLLENDONNER–HILLEBRAND 1930.

² LACZKÓ–GAÁL–HOLLENDONNER–HILLEBRAND 1930; CSALOGOVITS–GAÁL–HOLLENDONNER–HILLEBRAND 1931; Gallus 1936; GÁBORI–GÁBORI 1957; Gábori 1959,

³ KOZŁOWSKI 1978, 1979; TOLNAI Dobosi 2001

⁴ GÁBORI–CSÁNK 1978.

⁵ SÜMEGI–KROLOPP–HERTELENDI 1998

⁶ The lithic assemblage of the Upper Palaeolithic site at Ságvár Lyukas-domb takes part of the author's OTKA post-doctoral research grant entitled Lithic Technology of the Gravettian in Hungary. This paper is supported by OTKA fund no. 75579.

⁷ PELEGRIN–KARLIN–BODU 1988

⁸ VILLA 1982

⁹ BORDES 2002

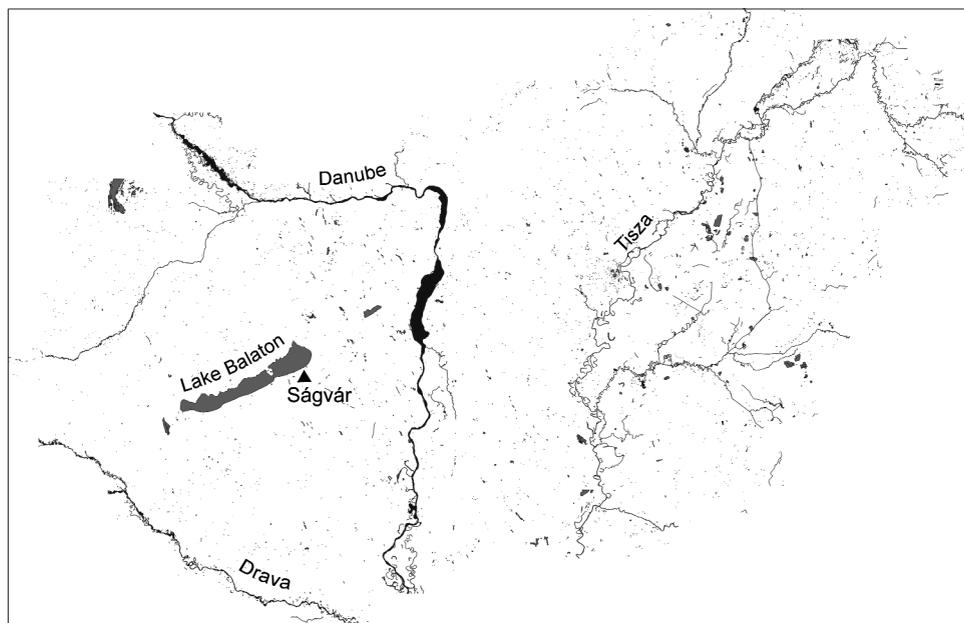


Fig. 1. Location of Ságvár
1. ábra Ságvár elhelyezkedése

2. RESEARCH HISTORY OF SÁGVÁR LYUKAS-DOMB BETWEEN 1922 AND 2007

Palaeolithic human occupation traces at Ságvár were first recognized in 1922 by D. Laczkó. The area of the site was cut through by two semi parallel dirt roads. The first season of excavation in 1928 retrieved a small number of artifacts in the walls of the main dirt road in loess (Fig. 2.).¹⁰

Further field work in 1930 extended the area of the excavation to 64 square meters and retrieved a comprehensive sample from faunal remains, charcoals, and lithic artifacts.¹¹ The archaeological level lay 4–5 meters beneath the surface. Remarkable features were hearths that yielded charred wood pieces 1 to 5 cm large. Microscopic analysis of the wood identified pine tree tissue. The fauna consisted of rein deer, horse of two species, *Equus ferus fossilis* and *Equus Abeli Antonius*, and the mammoth. A perforated shell of *Arca diluvia* and pieces of red ochre were also found. The site's dating, which did not change until the 1950s, was based upon its geological features, faunal remains, and the lithic industry. It placed the site to the stage of the Magdalénian in the sense of the Western European Palaeolithic chronology.¹²

The next season of excavation in 1931 recovered 102 square meters west of the trench of 1930.¹³ Hearth features aligned in superposed parallel levels were noticed. These two levels were separated by 40–60 cm archaeologically sterile loess. The hearths had oval outlines in aerial view and in section they appeared as 2 to 5 cm thick elongated lenses. The upper level yielded two and the lower level yielded five hearths. It is noteworthy that the smallest “hearth” extended 2 m in diameter and the

¹⁰ LACZKÓ 1929.

¹¹ LACZKÓ–GAÁL–HOLLENDONNER–HILLEBRAND 1930.

¹² HILLEBRAND 1935; LACZKÓ–GAÁL–HOLLENDONNER–HILLEBRAND 1930.

¹³ CSALOGOVITS–GAÁL–HOLLENDONNER–HILLEBRAND 1931.

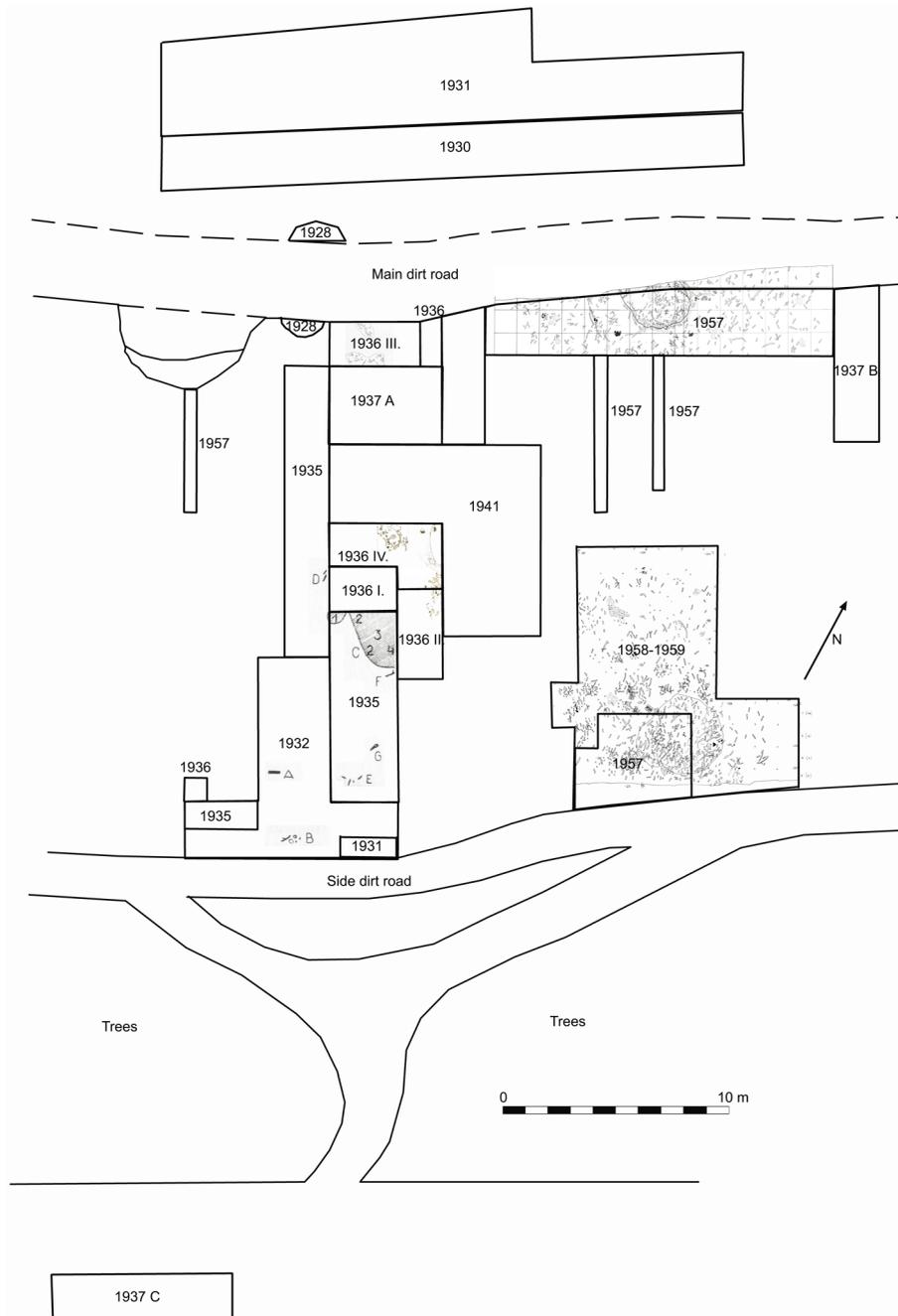


Fig. 2. Map summarizing the excavations at the site. (after the map of Gallus from 1941 and Gábori 1959)

2. ábra A ságvári ásatások összesítő térképe. (Gallus 1941-es térképe és GÁBORI 1959. nyomán)

largest was 4.20 m. One hearth 2.60 m in diameter included numerous knapped flakes and animal bones on its upper surface. The charcoal analysis specified close resemblance with *Pinus rotundata* of wet woodland species for all samples. Fifty meters southward from the 1930–1931 trenches a small unit also was tested. This yielded a few artifacts and bone fragments.

The subsequent season in 1932 recovered the immediate vicinity of the small test trench of south in 1931.¹⁴ The excavated area made up 39 square meters, within which the finds appeared 2.90 m beneath the top soil surface. Starting from this level down to 3.80 m lithics and fragments of animal bones were found throughout a 90 cm thick loess section. Near the upper boundary of the appearance of finds, 3.0 m below the recent soil surface, a wooden object of 50 cm long, 15 cm wide, and 5 cm thick was found. Here, the lower archaeological layer did not show up.

Three years later in 1935 the excavation was extended northwest to the trench of 1932.¹⁵ Archaeological remains were retrieved from a 40–65 cm thick part of the loess, and a “garbage heap” consisting of animal bones, knapped lithics, ash, charcoal and ochre were found. This feature lay in tilting position and some of the bones stood vertically in its matrix. A lower level of finds showed up 1.0 m beneath the upper layer separated by sterile loess in the northwestern terminal of trench 1935. Its thickness was 30 cm and it contained numerous bone fragments and weak remains of fire.

Excavations of 1936, 1937 and 1941 are unpublished. Gábori–Gábori describes these excavations in detail on the basis of the unpublished notes of the S. Gallus, but no documents of such are accessible today.¹⁶

In 1936 four trenches numbered with roman numerals (I–IV) were dug. Two layers were excavated. Field maps of this season mark a large “garbage heap” with 3 holes in trench IV.¹⁷ West of the holes the map displays a box of about 4 square meters that was used to remove an in situ part of the sediment in 1941. The content of this box was excavated in the Hungarian National Museum in the 1970s.

From the excavation in 1937 no original documents are available, but Gábori–Gábori describes the fieldwork after the notes of S. Gallus absent today.¹⁸ In trench A of 1937, the upper archaeological layer showed up 1.40 m beneath the top soil surface, and the lower layer was recorded 20 cm beneath the upper one. The elevation difference between the two layers in trench B raised up to 1.54 m. Average thickness of the archaeological layers was 40 cm. In trench A, finds came to light throughout the whole thickness of the exposed sediment from the upper layer downwards. Trench C contained scarce features and finds of archaeology.

In 1941¹⁹ the excavation took place among the trenches of 1935, 1936, and 1937 in the center of the site.²⁰ Documents are unavailable, and similarly to the excavation in 1937, Gábori–Gábori describes some features on the basis of the notes of S. Gallus.²¹ The exact position and the thickness of the upper archaeological layer is unknown, and all what is known about the lower archaeological layer is that it lay 1 m beneath the upper one.²²

In the beginning of the 1950s the stratigraphy of the site was sampled for analysis of particle size, CaCO₃, humus content, and hygroscopicity in the southern wall

¹⁴ GALLUS 1936.

¹⁵ GALLUS 1936.

¹⁶ GÁBORI–GÁBORI 1957.

¹⁷ Inventory number of the Archives of the Hungarian National Museum: 20.S.

¹⁸ GÁBORI–GÁBORI 1957.

¹⁹ Inventory number of the Archives of the Hungarian National Museum: 40.S.II.

²⁰ Inventory number of the Archives of the Hungarian National Museum: 20.S.

²¹ GÁBORI–GÁBORI 1957.

²² Inventory number of the Archives of the Hungarian National Museum: 40.s.II.

of the main dirt road crossing through the site. This time no artifact was recovered.²³ From the top of the road cut down to the road level the section was 3.40 m tall. According to Gábori–Gábori two dark organic material rich layers showed up in the loess from 1.0 to 1.60 m, and from 2.80 to 3.20 m, what they associated with the two archaeological layers and identified as soil formations. These played an important role in the new dating of the site, because Gábori–Gábori correlated the human occupations with the Würm 2/3 interstadial after the geochronological system of Milankovitch and Bacsák.²⁴

The last excavation at Ságvár took place between 1957 and 1959.²⁵ M. Gábori opened two trenches. Trench I was located along the main dirt road's southern wall, 45 square meters area between two earlier trenches, where the sampling in the 1950s took place. Trench II was situated south to trench I, in the wall of a smaller, called side dirt road, east of the area of the 1932–1936 and 1941 excavations. In trench I the upper archaeological level appeared 1.2 m below the topsoil surface and its thickness was 8–10 cm. Its general color was gray with blackish–brown hue, and it consisted of small red granules, bone morsels, and ash. The layer included hearths and a dark colored “garbage heap” that abundantly contained bones, antlers, and knapped lithics. Hearths were marked by red colored patches in the loess. During the excavation of the “garbage heap” a flat bottom pit and two holes situating oppositely near the pit's border came to light. The pit had a very clear border in the loess. The archaeological material in the pit lay in two distinct levels separated by a few centimeters thick sterile sediment. Near the larger hole on the west side three dentalium beads lay. Charcoals surrounded the pit over a 0.50 m wide lane and additionally constituted a larger patch in the center of the pit. These charcoals had good state of preservation while those in the hearths all over the excavated area were scanty and poorly preserved. These charcoals were sampled for radiocarbon dating and resulted in $17,760 \pm 150$ BP (GrN-1959).²⁶

Most knapped lithics of trench I were located within the pit. Outside the pit, lithic artifacts were unevenly distributed, appearing in closed clusters on certain areas of the upper archaeological level. Contrary to this, animal bones lay everywhere.

The lower archaeological level in trench I lay 1.50 m beneath the upper level, separated by archaeologically sterile loess, expanding over a maximum 2-3 square meters area. It contained 7 hearths, the sizes of which remained unreported. The number of artifacts in the lower level was much smaller than in the upper level. The lower layer also yielded charcoal samples from one of the hearth features and resulted in $18,900 \pm 100$ (GrN-1783).²⁷

Trench II revealed the same features, including a dark “heap of garbage” which here contained a hearth in the center and two holes inside. Similarly to trench I, the majority of the archaeological material of trench II was also collected from the heap and from its pit situating underneath. A significant difference between the two trenches was the lack of the lower archaeological layer in trench II.

The garbage heaps and their holes were interpreted as dwelling remains with postholes.²⁸ Characters of lithic tools led Gábori to state that the two archaeological levels yielded the same type of industry. Later, statistical analysis of the lithic tool types also pointed out no differences between the lithics of the two layers.²⁹ In the

²³ GÁBORI–GÁBORI 1957.

²⁴ GÁBORI–GÁBORI 1957.

²⁵ Inventory number of the Archives of the Hungarian National Museum: 203.s.III.; GÁBORI 1959.

²⁶ GÁBORINÉ 1960; VOGEL–WATERBOLK 1964.

²⁷ GÁBORI 1959, 155; VOGEL–WATERBOLK 1964

²⁸ GÁBORI 1959, 1964a, 1965.

²⁹ CSONGRÁDINÉ 1997.

classification of Gábori Ságvár and the similar assemblages were separated from the Danube bend type Gravettian industries which contained a larger portion of blades and blade tools of classical Upper Palaeolithic types.³⁰ Contrary to this, Vértes on the basis of the short endscrapers observed similarities between Arka, Szekszárd-Palánk, and Ságvár,³¹ each of which represented a different archaeological culture in Gábori's system. The twofold division of Gábori was partially adapted by J. K. Kozłowski in the overview of the late Palaeolithic in the Carpathian basin. Kozłowski called all sites dated to the period of Ságvár Ságvárian, including Pilismarót which according to Gábori belonged to the Danube bend group.³² Consequently the Hungarian research did not use Kozłowski's division as he originally proposed.³³

Data of the sediment analysis and the radiocarbon dating the site was discussed in wider European chronological context in the 1970s. Gábori-Csánk concluded that the organic material rich levels at Ságvár were equal to the Lascaux interstadial in France³⁴ and henceforth called this period in Hungary Lascaux–Ságvár interstadial.³⁵ Contrary to what was claimed by Gábori-Csánk, the study of faunal remains of Ságvár pointed out no correspondence to interstadial features,³⁶ and it was proposed to use the term Ságvár stage to sites characterized by reindeer fauna and dated to between 22 and 17 k years BP.³⁷

Lately the quaternary land snail fauna of the loess sequence of Ságvár was studied by Krolopp and Sümegi.³⁸ According to their analysis more or less in the level of the lower archaeological layer of Gábori a 5 cm thick humic level was observed. Mollusk shells and charcoals were dated from this level to $18,510 \pm 160$ (Deb-8822) and $19,770 \pm 150$ (Deb-8821), respectively.³⁹ This research pointed out that the dated level was embedded during a cold and humid climate and snail species allowed to deduce that the mean temperature of July was about 12–12.6 Celsius. This result supports the conclusion of the earlier faunal analysis which also did not point out interstadial features.

3. THE ARCHAEOLOGICAL REVISION OF THE SITE IN 2008–2009

3.1. Excavation archives

The archaeological finds and the original documentation of Ságvár excavations are stored at the Hungarian National Museum. Unfortunately, several excavation documents and field notes are missing or were not made. This archival situation makes any research on the archaeological assemblages difficult.

Accessible documents are two maps dated to 1936 which show the plans of field works between 1928 and 1936,⁴⁰ four maps showing details of the 1936 excavation, a page of summary with handwriting on the excavations between 1928 and 1936 and a two-page report and site map from 1941. While Gábori–Gábori mentions notes of S. Gallus, no documents of such are available on the 1937 fieldworks.⁴¹

³⁰ GÁBORI 1964a, 39, 61; GÁBORI–GÁBORI 1957, 19.

³¹ VÉRTES 1966, 14.

³² KOZŁOWSKI 1978, 1979.

³³ GÁBORI–CSÁNK 1986; GÁBORI 1989; TOLNAI–DOBOSI 2001.

³⁴ LEROI–GOURHAN 1968.

³⁵ GÁBORI–CSÁNK 1978.

³⁶ VÖRÖS 1982, 62.

³⁷ DOBOSI–VÖRÖS 1987.

³⁸ KROLOPP–SÜMEGI 2002.

³⁹ KROLOPP–SÜMEGI 2002.

⁴⁰ Inventory number of the Archives of the Hungarian National Museum: 20.s.

⁴¹ Inventory number of the Archives of the Hungarian National Museum: 40.s.II.

The 1957 season is documented throughout 9 typed pages and 10 plates of photos.⁴² Details of the 1958 and 1959 years are available only in papers.⁴³ Some plans of these seasons are drawn on the original map of Gallus dated to 1941. The original publication's map that summarizes all field works at Ságvár does not contain every trench.⁴⁴ Unmarked are two small trenches in 1936 which recovered small Neolithic features near the top soil surface, three 0.50 m wide and 6.0-7.0 m long probe ditches of Gábori, and the northern extension of trench II in 1959.

3.2. Relocation of lithic artifacts in the excavated areas

Besides the incompleteness of the excavation archives the relocation of the finds within their original field context is also problematic. According to the inventory, the season of 1928 and 1937 brought no finds to the Hungarian National Museum. However, Hillebrand shortly describes finds from 1928⁴⁵ and Gábori-Gábori mentions lithics from 1937.⁴⁶ A group of finds catalogued under inventory number 37/1948 have no date of excavation, however a note relate these finds with the "old excavation of Gallus" taken place in 1932.

All finds of both layers of 1931 are stored together with a small portion of finds from 1930. A major component of finds from 1930 conversely clearly can be identified and relocated to the excavation trench.

Although finds of 1935 were recovered from within two layers, only a single find has a mark of lower layer. A number of artifacts, called debris in the inventory, are not found in the collection. Refining the location of artifacts within the trench of 1935 is impossible.

The material of 1936 is catalogued by four blocks numbered with roman numerals (I-IV) and three layers (1-3). This inventory provides contradictory information, because the garbage heap is marked block I while it lay originally in the area of block IV. Another example of contradiction is that according to the inventory layer 3 was recovered in block IV, but the excavation maps solely show two layers in this area.

Gallus mentions in the two-page report of 1941 that he reached the lower archaeological level, but the 1941 material is inventoried by artificial levels (1-4) from a single layer (1).

In 1957-1959 the trenches were divided into squares of 1×1 m, but only a few finds are catalogued according to this grid. The inventory mentions solely two groups of find which can be relocated within the area of trench I and trench II. Group one is located in trench I squares II/11 (93 items) and group two (73 items) derive from the northern extension of trench II (squares I-VI/1-6). All other finds are catalogued by archaeological level without marking their trench number, except a group of finds which cannot even be associated with any of the archaeological levels neither with excavation trenches. This error in documentation especially renders difficulties to relocate the finds of the upper level, since this horizon was recovered in both trenches while the lower level emerged limited to a few square meters in trench I. Consequently, besides the lower layer in trench I, the 93 items in square II/11 in trench I, and the 73 items from squares I-VI/1-6 in trench II, all other finds derive from the upper layer of any of the trenches of 1957-1959.

⁴² Inventory number of the Archives of the Hungarian National Museum: 203.s.III.

⁴³ GÁBORI 1964a, 1965; GÁBORI-CSÁNK 1978.

⁴⁴ GÁBORI 1959, 1. kép.

⁴⁵ LACZKÓ-GAÁL-HOLLENDONNER-HILLEBRAND 1930.

⁴⁶ GÁBORI-GÁBORI 1957.

3.3. Lithic refittings

The lithic assemblage of Ságvár has undergone a systematic refitting analysis for breakage surfaces and removal negatives. In the following paragraphs a refitted unit means when at least two pieces of stone fit together, either at their breakage surfaces or with their knapping scars..

Lithic material of the excavations prior to World War II yielded 14 refitted units from four excavation seasons, 1930, 1935, 1936 and 1941. The 1941 trench yielded refits only from the upper layer, while the items of the 1936 trench solely derive from the garbage heap of the lower layer.

The trench of 1936 has the most refitting connections with other trenches. There are two refitted units between the upper layer of the 1941 excavation and the lower layer of the 1936 excavation.

	1930	1936	in situ removed sediment of block IV lower layer of 1936 excavation
1930	3	2	2
1935		1	
1936		2	2
1941		1	1

Table 1. The numbers of refitted units between excavation seasons 1930–1941.

1. táblázat Pattintott kövekből összeillesztett egységek száma az 1930 és 1941 közötti ásításokból

Lithics of 1957–1959 yielded 75 refitted units. Artifacts in the refitting derive from four locations of the excavation (*Fig. 3.*). The first is generally the upper layer. This means that these finds may derive either from trench I or trench II. The second location is trench I square II/11. The third is the lower layer in trench I, and the fourth is trench II squares I-VI/1-6.

Most of the refitted units belong to the upper layer (31 units). Surprisingly, the second largest number of refitted units (25 units) consists of artifacts from the lower and the upper layers. Between the upper layer and trench I square II/11 of upper layer 4 refits were found. Three refits showed up between the upper layer, lower layer and trench I square II/11 of upper layer. Single specimens were refitted between the lower layer and trench I square II/11, lower layer and trench II northern extension, finally between lower layer, trench II northern extension, upper layer general and trench I square II/11 upper layer. Within lower layer 8 refits and within trench II northern extension 1 refit were found.

	trench II northern extension	upper layer (UL)	trench I square II/11	lower layer
upper layer		31	4	25
trench II northern extension	1	3		1
trench I square II/11	3			1
lower layer				8

Table 2. The numbers of refitted units between different parts of the 1957–1959 excavation

1. táblázat Pattintott kövekből összeillesztett egységek száma az 1957–1959-es ásításokból

The distribution of lithics in refitting shows similar features from all parts of the site. While the exact origin of most of the upper layer artifacts of 1957–1959 excavation is unknown, it is known from the archives that most of the finds were found

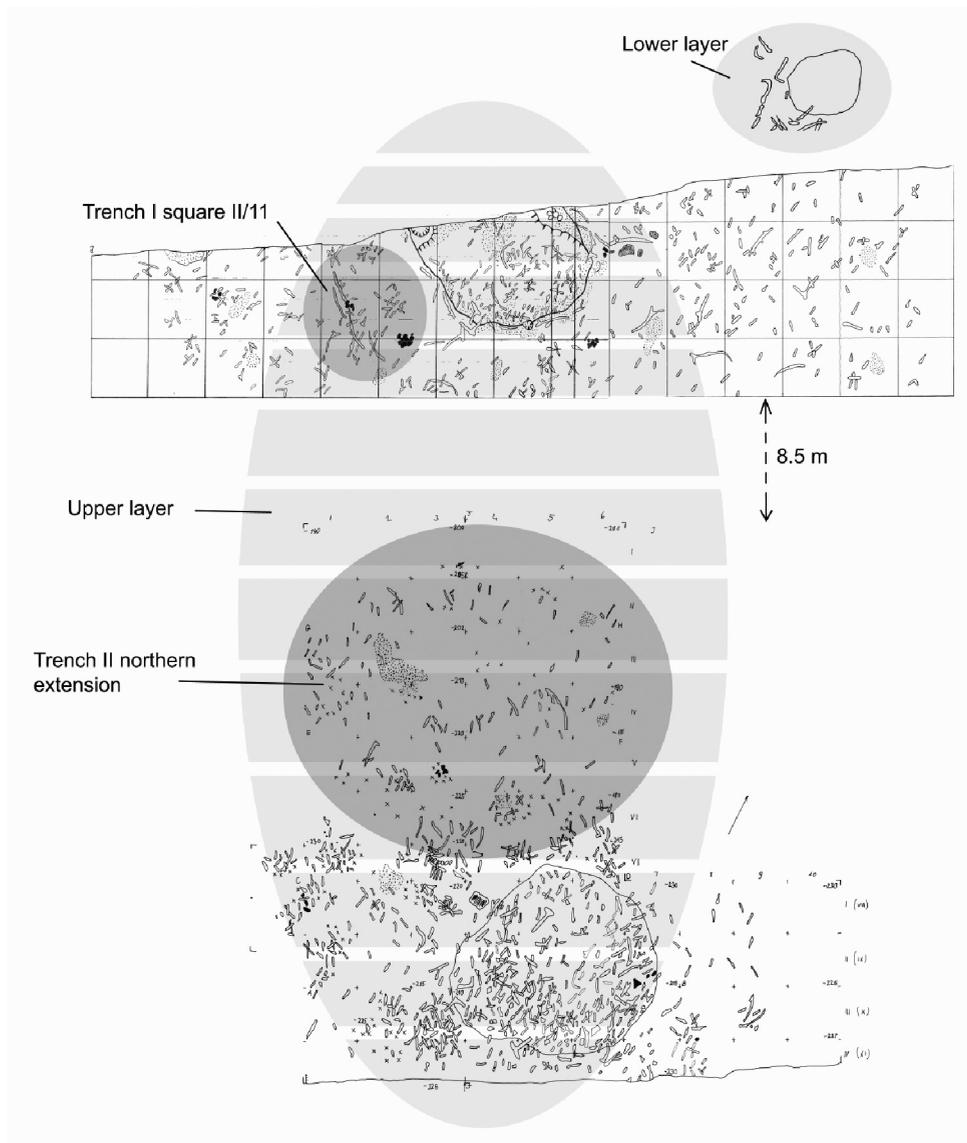


Fig 3. Spatial distribution of refittings from 1957-1959.

3. ábra Egymáshoz illeszkedő pattintott kődarabok területi eloszlása az 1957–1959-es ásatásokból

within dwelling pits. This means that most refits may have come together from close distances. Although the number of interlayer refits from the pre-World War II excavations is low, it constitutes 35 % of all refits from the 1957–1959 excavations, making up 27 refitted units.

4. THE IMPACT OF LITHIC REFITTING ON THE SITE

Interlayer refittings occur most often at stratified cave sites where human occupation traces are in direct superposition likewise at Geissenklösterle Aurignacian layers or Le Roc-de-Combe or Le Piage Aurignacian-Chatelperronian layers.⁴⁷ Usually such result refers to post-depositional disturbances.⁴⁸

The high percentage of interlayer refittings at Ságvár proves that the lithic material of the two archaeological layers is the product of a single knapping activity and therefore they constitute a single lithic industry. This result does not support the earlier observations which distinguished two individual archaeological levels at the site. This is not surprising, because the archaeological finds were recovered from various stratigraphic context. The 1957–1959 excavation found ca. 10-30 cm thick layers and others recorded 30 to 90 cm thickness. Quite often the finds were found in the unstratified loess without being part of any archaeological feature. In these cases the archaeological layers were marked by the distribution of the finds in the loess stratum. Although each excavator reports no disturbances between the cultural levels, it is highly possible that the reworking of the loess during both the formation of the archaeological record and post-depositional events remained invisible to the naked eye in the present geological stratum. Although it is yet unknown what may have caused the displacement of artifacts, today the most obvious post-depositional disturbance is caused by densely and deep penetrating roots of wattle (*Fig. 4.*).

5. CONCLUSION

Contrary to what has been claimed previously, most probably the Upper Palaeolithic site at Ságvár Lyukas-domb was formed after a single human occupation. The varying appearance of the archaeological finds is due to the agencies of different site formation processes and post-depositional events of yet unidentified agencies. This taphonomic character of the archaeological site contradicts the hypothesis of the two human occupations.

⁴⁷ HAHN–OWEN 1985.

⁴⁸ BORDES 2002; VILLA 1982.



Fig 4. Picture of the main dirt road's southern wall with archaeological settlement feature (white arrow marks) and thick roots going through it

4. ábra A nagyhorhos déli falának metszete; a fehér nyíllal jelölt régészeti jelenséget átszövik a gyökerek

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A SÁGVÁRI FELSŐ PALEOLIT TELEP (LYUKAS-DOMB) ÚJRAÉRTÉKELÉSÉNEK EGYIK SZEMPONTJA

A ságvári felső paleolit lelőhely az 1920-as évek végén vált ismertté Laczkó Dezső munkájának köszönhetően. Laczkó felfedezése után 1930 és 1959 között több ásatás folyt a területen, melyek kőszközöket, állatsontokat, tűzhelyeket és lakóépítmények földbe mélyített alapjait tárták fel. A régészeti leletek és jelenségek löszbe ágyazódva kerültek elő, néhol a szórványosan, helyenként egy, kettő, és nagyon ritkán három egymás fölötti szintben. A kőszközök túlnyomó része kis méretű. Közöttük jellemzőek az apró méretű pengék, melyek egyik éle meredeken retusált, valamint a szilánkokból és rövid pengékből készült a vakarók és vésőszközök. Az állatsontok nagy része rénszarvas, kisebb arányban pedig ló. A rénszarvas agancsok egy részéből eszközöket is készítettek, melyek között egy átfúrt darab a legismertebb. A növényi maradványok között a fenyő mutatható ki. A második világháború előtt a lelőhelyet a Magdalénien régészeti kultúrához sorolták, majd azt követően Keleti Gravettinek határozták át. Az elmúlt 30 évben a lelőhely a Ságvári (Ságvárien) régészeti kultúra névadója. A radiokarbon mérések alapján a legfelső szintből előkerült leletek megközelítőleg 18 ezer évesek, míg az alsó réteg közel 19 ezer évvel ezelőttre datálható. A két réteget erős szervesanyag felhalmozódás és az őket beágyazó löszhöz képest magasabb agyagtartalom jellemzi. Ezek azt a következtetést engedték levonni, hogy a megtelepedések interstadiális időszakokhoz kapcsolódnak.

A lelőhely pattintott kőanyaga ma a magyarországi Gravetti technikai viselkedésének kutatásában a Ságvári kultúrát képviseli. A kutatás a pattintott kődarabok összeillesztésének elemzése azt mutatta ki, hogy a két kultúrréteg kőanyaga egy pattintási művelet termékei. Ez alapján kétségbe vonható az eddig uralkodó elmélet, miszerint a leletek egy ezer év különbséggel kerültek a telepre, továbbá valószínűsíthető, hogy a két réteg leletanyaga korábban egységet alkotott és az eltemetődésük folyamán vagy az után kerültek a jelenlegi helyükre.

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