

Dr. Miklós GÁBORI

ARCHEOLOGICAL RESULTS OF INVESTIGATION IN HUNGARIAN CAVES

SUMMARY

The results of the research work of the past 25 years are summarized. Hungary is not rich in Paleolithic localities. The largest caves were explored already from the early 1900's onwards. In spite of this fact the general pattern of the Hungarian Paleolithic, the determination of its sites and cultures, has undergone remarkable changes. This is due to the fact that, on the one hand, the sites have increased in number; on the other hand, that the research has turned to tackle chronostratigraphic problems at an ever increasing rate. The major summarizing works are reviewed; the results of excavations recently undertaken at old sites and their archeological and stratigraphic revisions are expounded. In addition, the major exploratory works are discussed separately, by cultures. In this connection, stress is laid on the problems of the Paleolithic in caves. Final solution to these problems is expected from a well-coordinated study of open-air excavations and cave diggings.

Organised archeological excavations in Hungary began around 1900 in the Bükk Mountains and explored Paleolithic sites. The results were published in a great many early works and reviewed in later summarizing publications in the 1930s. Because of the physical geography, Hungary proved to be not very rich in cave sites of Paleolithic occupation. Significant sites are restricted to the relatively small area of the Bükk, Pilis and Gerecse Mountains. Therefore, the largest and most important sites were already explored during the prewar decades. There follows a brief review of recent results.

Despite limitations mentioned above, our image of the Hungarian Paleolithic, the definitions of its cultures and their chronological position have undergone remarkable revision in recent years. The number of sites, quantity of finds and artifacts recovered have increased; earlier finds have been reinterpreted; new and more exact research methods have been developed; cave research has been increasingly devoted to resolving problems of stratigraphic correlation and to more exact dating of the individual industries, i.e. to chrono-stratigraphic questions.

It must be emphasized that many of these problems are not resolved today. Because of the paucity of new, large cave sites, finds in open air situations have been given preference and have yielded the greatest wealth of recent results. But there are essential questions for which the solutions can only

be expected from caves e.g., more precise archeological determination of individual cultures or groups of special character; more exact definition of their chrono-stratigraphic boundaries and their evolution; finally, the correlation of relationships between cave deposits and those outside i.e. cultures.

In this paper we summarize only the results of Paleolithic research.

Bükk Mountains

Research in recent decades has been concerned first of all with re-investigation of older collections of artifacts. First to be studied was the Mousterian — the industry of Subalyuk Cave. There are two cultural layers at the locality, separated by a considerable thickness of barren sediments. Their industries, however, show a convergent evolution. The lower cultural layer is dated as corresponding to the end of the Riss-Würm interglacial i.e. to the beginning of the Early Würm. The upper cultural layer is dated to the culmination of Würm 1 (in the central European sense). The recent work has established that both industries belong to one of the facies of the Central European Mousterian (Central European typical Mousterian) in which there appear some elements of Seletian of the Bükk Mountains. In addition to common types of implements and local variants, there are bifacial implements. This local "Seletianisation" of the Mouster-



Geographical location of caves investigated from archeological point of view. BÜKK MOUNTAINS: 1 Subalyuk Cave, 2 Büdöspeszt Cave, 3 Szeleta Cave, 4 Lambrecht Cave, 5 Háromkúti Cave, 6 Herman Cave, 7 Istállóskő Cave, 8 Peskő Cave. TRANSDANUBIA: 9 Jankovich Cave, 10 Szelim Cave, 11 Pilisszántó Rock Shelter No. 1 & 2, 12 Bivak Cave, 13 Remete Cave, 14 Remete-Felső Cave

ian have been substantiated by typologico-statistical and metrico-mathematical tests.

The Bükk Mousterian displays no connection with the middle Paleolithic of Transdanubia. It had a narrow distribution and was ready-made, fully developed when it first appeared in this country. Its origin remains obscure. The nature of the raw materials of the implements suggests direct geographical connections with Poland. An additional problem arises from the fact that the industry of Subalyuk and minor associated caverns comprises only a few hundred implements. It is a disproportionately small collection when the long time range of the culture is considered. Problems of the Bükk Seletian may eventually be solved by studies of artifacts from open sites.

Evolutionary connections between the Mousterian and Seletian of the Bükk were placed in a new light by renewed excavations at Büdöspeszt Cave. The industry there, formerly considered Seletian or in some cases to be workshop materials, is an example of re-evolution. According to our opinion it belongs to the Mousterian group, as proven by fauna from the relevant strata and their 14-C age. Particularly important, the cultural layer of Büdöspeszt Cave proved to be younger than the lower cultural layer of Szeleta Cave. Consequently despite many control excavations connections between Mousterian and Seletian are not yet completely known.

Amongst other achievements of recent years has been exploration of Lambrecht Cave, found to contain older material than that described above.

It is not possible here to detail the entire sequence but mention may be made of the fauna of a lower-most, yellow layer. This includes *Hystrix*, *Asinus hydruntinus*, *Erinacea*, *Spalax* etc., which indicates emphatically the warm phase of the last interglacial, the "Hystrix Horizon" of D. Jánossy. A few amorphous quartzite splinters, alien to the locality were recovered from this horizon. They are believed not to be implements but they prove the presence of Man. Similar pre-Mousterian finds are known in a few other parts of Central Europe.

Other recent results include assignment of the "Varbo Horizon" (Varbó Cave) to the latest phase of the Riss-Würm. Verifying excavations have been made at all known cave sites. The last work of L. Vértes was aimed primarily at examining Hungary's cave sediments by the Lais method and this permitted chronological identification of the individual layers (Szeleta, Büdöspeszt, Háromkúti and Herman Caves and some caves and niches of Transdanubian).

Despite countless preliminary reports and partial publications the material of the Szeleta culture of the Bükk has not been summarised as yet. But all available information on the Seletian has been published with revision and a new proposed new sub-division. Control excavations were undertaken at the eponymous site (Szeleta Symposium), but new problems have since arisen which cannot be solved unless a new site is found and explored.

Like the Mousterian, the Seletian of the Bükk is a culture restricted to a rather small area. It is represented by two layers in Szeleta Cave, once

again separated by an extremely thick deposit that is archeologically sterile. The industry of the lower layer is termed "Early Seletian" and that of the upper layer "Advanced Seletian". The so-called "leaf-points" in the lower layer, the main type of this culture cannot be fully proven as they are worn off (concassé) due to rolling, only the cores being preserved. Strangely, this phenomenon is observed only on this "type". The assemblage also includes Moustierian and Late Paleolithic types. The industry of the upper layer, the so-called "Hochseletian", comprises mainly flatpoints that are finely fashioned in the shape of a willow leaf. Otherwise, the proportion of Moustierian type is even higher than in the lower layer. The industries of the other sites can be associated with either layer. Repeated examinations have been made and present evidence suggests that the lower culture layer at Szeleta Cave may have had a Moustierian culture underneath. It remains unclear however whether the material of this lower layer is not, in reality Middle Paleolithic and whether its evolution may not be interrelated with the implement assemblage (young in character, almost fresh) of the upper layer. Finally, it is entirely uncertain when the upper, Advanced Seletian period ended. The author believes the Advanced Seletian of the Bükk to represent an almost independent, special culture with hosts of Moustierian elements and Late Paleolithic types. As far as the more or less similar "Seletian deposits" of adjacent areas are concerned, they are developed from other roots.

Significant information upon the Aurignacian of Hungary was obtained during recent excavations at Istállóskő Cave by J. Hillebrand and L. Vértes. The latter worker established the stratigraphy during the 1950s—lowermost sterile layer: Würm 1; Aurignacian soil layer above it: Würm 1–2 interstadial; uppermost "Magdalenian layer": Würm 3. Systematic diggings recovered an Aurignacian layer hitherto unknown which contain a very rich bone industry. The new finds clarified the cultures and groups of the Würm 1–2 interstadial. The industry of the new layer consisted primarily of bone implements—bone points with cleft base (*pointes à base fendue*) very small arrowheads, different types of lanceheads, amulets, shafts, a bone flute etc. 40% of the assemblage was of bone; stone implements belong to the Aurignacian *sensu lato*. The culture is called "Middle European Aurignacian 1". It is replaced in the overlying layer by the so-called "Middle European Aurignacian 2" or "Olschewin". The ratio of bone to stone implements here is the inverse of that in Aurignacian 1 and includes bone points and spearheads of great size amongst the 20 or so types of implements.

In the upper culture layer (??) a single, well developed Seletian leaf point was also found which, together with other observations proves the contemporaneity of the Aurignacian and Seletian of

the Bükk. Two entirely different cultures ethnically, must have lived side by side in the eastern and western parts of the Mountains respectively.

Worthy of attention are remnants of fire places ringed with stones (or, possibly, foundations of a hut?) and burials containing skulls of cave bear. Regarding these latter and their suggestion of a "bear cult", we can only accept them with some reservation in view of experiences in Austria and Switzerland. New investigations in other countries have rendered the definition and even the existence of the Hungarian Aurignacian 1 and 2 rather doubtful. It appears that this small ethnic group of people with a peculiar, highly developed bone industry was an independent group whose origin is for the moment obscure. Without taking a position on this question, let us acknowledge that it warrants further research in the Hungarian Paleolithic.

The excavations at Istállóskő Cave were followed by digging at nearby Peskő Cave. Only one of the Aurignacian layers was found but it has contributed substantially to our knowledge of the stratigraphy of the Würm 1–2 interstadial.

Excavations in Transdanubia

Turning to the western part of Hungary, Transdanubia, the cave excavations worthy of mention have been many fewer. A peculiarity is that excavations in the caves of the Bakony Mountains, part of the Transdanubian Mountain Range, proved abortive. New control diggings were undertaken there in Jankovich Cave, Szelim Cave and Niches 1 and 2 at Pilisszántó. New discoveries are Bivak Cave (Pilis Mountains) the Remete Cave and Remete-Felső Cave near Budapest. The western part of the country has yielded remarkable results from open-air sites—Vértesszőlős, Middle Paleolithic sites of Érd, new excavations at Tata etc.

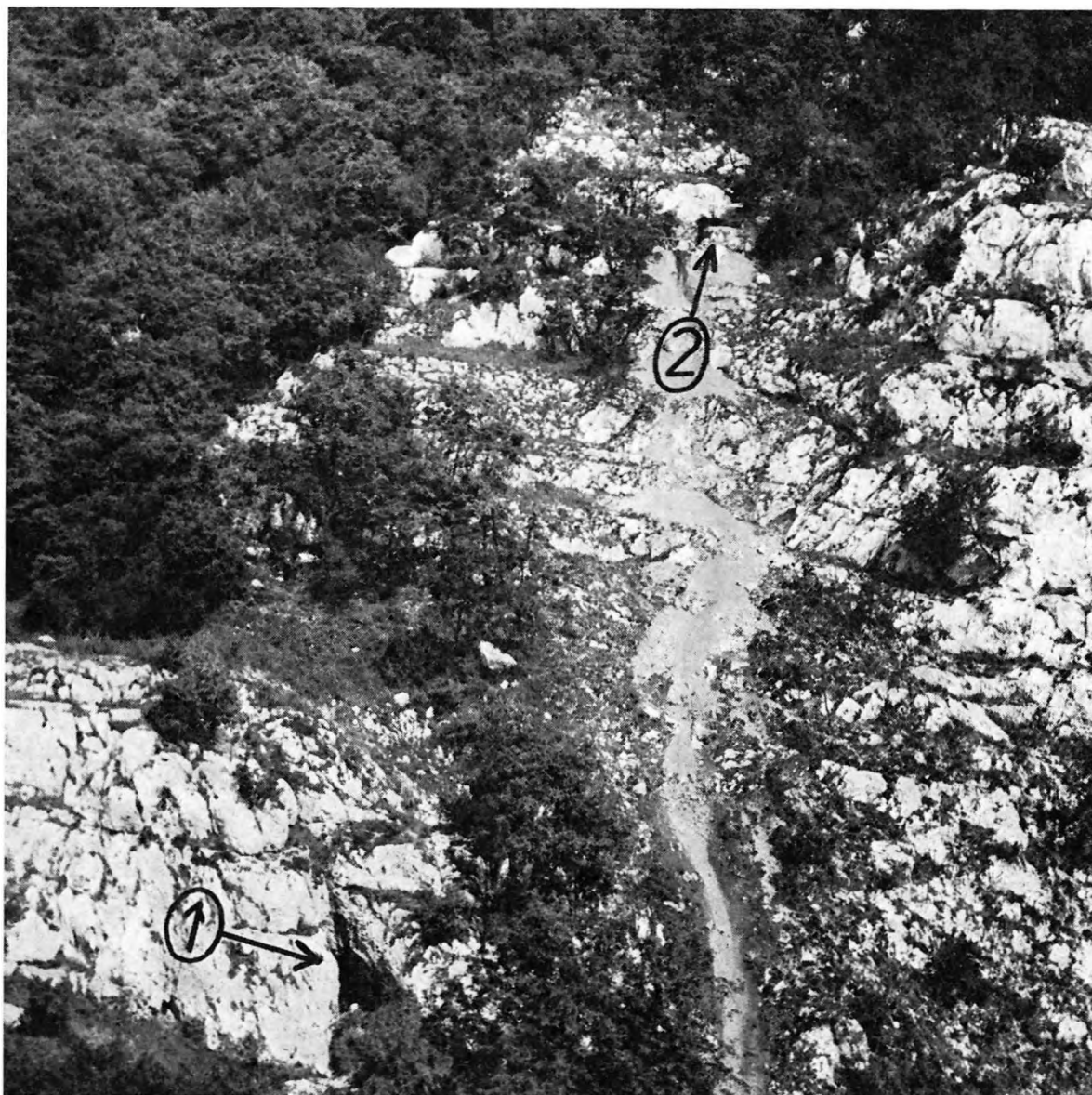


Remete-Felső Cave during the excavations

Description of new results must begin, once again, with a revision of the old sites. Concerning the Middle Paleolithic, no cave site was known in the area and Aurignacian or similar cave industries have not been encountered. We consider the most important result here is re-evaluation of the so-called "Transdanubian Seletian" which was enhanced by excavations at Remete-Felső Cave a couple of years ago. To summarise, the Hungarian Seletian like the "Moustierian", has been found to belong to two regional groups—Bükk and Transdanubian. The question of the Moustierian has been resolved mainly by a complete excavation and

interdisciplinary investigation of the open air sites at Érd. Its industry is a local modification of the South European Charentian. In addition, these investigations furnished a very detailed and interesting picture of the physical conditions and ecology of the Middle Paleolithic. Two cultural layers, the upper containing five horizons or occupation levels were found, yielding 50,000 pieces of animal bones suitable for complex investigation. The culture of the Tata site (known since the 1900s) proves to be a special "Moustierian" different in character, which did not develop into Seletian.

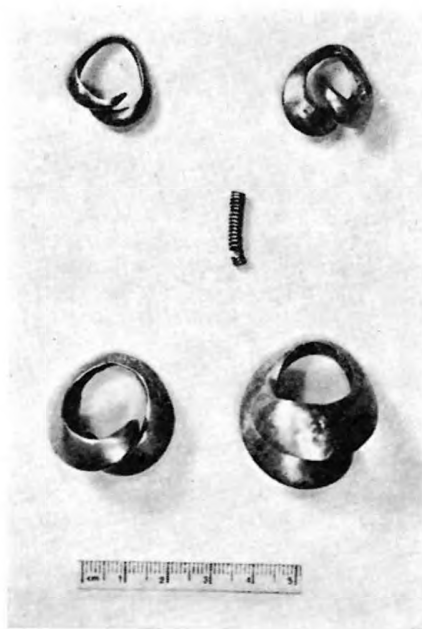
Caves of Remete Hill's Canyon — 1. Remete Cave, 2. Remete-Felső Cave



An important question raised by the "Transdanubian Seletian" industry is whether it is truly a facies of the Seletian complex *sensu lato*. Jankovich Cave is the most important site and there are evidences at a few smaller caves in the northeastern corner of Transdanubia. Revision of the material and the stratigraphy has shown that this culture has no connection with the real Seletian of the Bükk Mountains, not even in the genetic sense. Consequently the term "Seletian" does not apply. The assemblage of implements comprises leaf-shaped scrapers and massive-base "leaf points", thus being explicitly archaic and Mousterian in character: a rather bifacial, "Blattspitzenführendes Mittelpalaolithikum" (Faustkeil-Blattschaber-Komplex) which may be compared with similar industries occurring farther west. It follows that its age is not the first interstadial but corresponds to Würm 1 and, locally, to immediate post-Würm 1. The new name of this industry is "Jankovichian".

Resolution of this problem was greatly aided by explorations at the new Felső (Upper) Cave of Máriaremete. In this small cave, directly below the Holocene humus the Würm 1 layer was recovered. Fauna of the cultural layer displayed an artificial composition to quite a degree, a result of hunting. Faunal species place the age of the layer at a date before culmination of Würm 1. The few implements recovered belong to the afore-mentioned culture and were found together with three intact teeth of *Homoneanderthalensis*. It is also interesting to

Gold finds found in the Remete-Felső Cave



Middle Bronze Age necklace found in the Remete-Felső Cave

record that a Bronze Age treasure was found in the upper, Holocene layer, concealed in a specially dug pit. It comprises about 50 pieces (bronze pectoral ornament, diadem, bracelet, bronze axes, golden lock-rings, amber beads, etc.) which can be precisely dated.

New excavations have been carried out in Bivak Cave (Pilis Mountains), where traces of the Jankovichian and a much later "Cave Gravettian" industry were discovered. Revision of the relevant faunal, sedimentological, etc., investigation led once again to a clarification of the chronological position of the Jankovichian. Its age can be placed somewhere around Würm 1.

New verification excavations have been made in the niches, Pilisszántó I and II. Results from the first led to the change of definition of the "Magdalenian" described above.

The youngest Paleolithic culture found in Hungarian caves is the so-called "Cave Gravettian". This was earlier believed to be Magdalenian. New research has shown that this civilization, essentially quite a small group is one of the varieties of the Gravettian known in open-air loess areas. Once again, localities are restricted to the northeastern corner of Transdanubia. A peculiar feature is the fact that only two kinds of the range of implements of the group have been found in caves. These are the microgravette point and the blunt-backed blade (*pointe micro-gravette* and *lame à dos abattu*). This restriction of the assemblage is quite striking as is the fact that these cave sites all occur at highland margins facing an open plain. It seems that they were merely casual occupation sites of hunters. This probability is also suggested by the remains of hunted fauna; only the humerus and joints of reindeer were left, suggesting removal of the trophy.

Recent research, therefore, indicates that the micro-gravette group must have been connected with open air Gravettian stations. However, we should like to find such an open air station where *these same implements* occur! The age of the group is the last culmination of the Würm (Würm 3 in Hungary) and in some cases the period immediately subsequent.

Material of the same culture was recovered from Niche II at Pilisszántó and, finally, in Remete Cave where entrenchment to a depth of 11 metres only reached the base of the post-glacial layer. The prime significance of Remete Cave is that it offers an unparalleled cross-section of the archeological history of the Budapest region. Beginning with the Holocene, finds of 12 cultures have been recovered. There is an upward succession of representatives of the Neolithic, the Copper Age, several Bronze Age episodes and cultures and Celtic-Eravisian populations followed by traces of occasional occupation in Roman and mediaeval times up to the 13th and 14th centuries.

Only the major archeological results of recent speleological research have been touched upon in this brief review. Because of lack of space it has not been possible to cite all caves surveyed, excavated etc. in recent decades. This review has stressed selected problems and results dealing with the Paleolithic at a few key sites. It is emphasised once more that there has also been research at a much greater number of open-air stations. Hungarian Paleolithic research projects extend to both loess and travertine areas and to both old, classic caves and newly discovered ones. Future research will be founded upon discovery of new cave sites.

English translation revised by D.C. Ford.

Dr. Miklós GÁBORI,
Historical Museum of Budapest
H-1053 Budapest
Károlyi u. 16.
HUNGARY

REFERENCES

- KADIC, O.: Der Mensch zur Eiszeit in Ungarn. — *FIÉK*, 30, 1934.
HILLEBRAND, J.: Die ältere Steinzeit in Ungarn. — *Arch. Hungarica*, 17, 1935.
GÁBORI, M.: L'industrie en os du Paléolithique en Hongrie. — *Arch. Értésítő*, 78, 1951.
GÁBORI, M.: A Pilisszántói-köfűlke magdaléni kultúrája és eredete. (La civilisation magdalénienne de l'abri Pilisszántó et son origine.) — *Arch. Értésítő*, 81, 1954.
GÁBORI, M.: Der heutige Stand der Paläolithforschung in Ungarn. — *Archaeologia Austriaca*, 1960.
GÁBORI, M.: Regionale Verbreitung paläolithischer Kulturen in Ungarn. — *Acta Arch. Hung.* 21, 1960.
GÁBORI, M.: 25 Jahre Paläolithforschung in Ungarn. — *Acta Arch. Hung.* 1970.
GÁBORI, M.: Les civilisations du Paléolithique moyen entre les Alpes et l'Oural. — *Budapest*, 1976.
GÁBORI, M.: Type of Industry and Ecology. — *Felvitatások Volume of Francois Bordes*, Paris, 1976.
GÁBORI-CSÁNK, V.: Gerätentwicklung und Wirtschaftsänderung im Mittelpaläolithikum. — *Acta Arch. Hung.* 20, 1968.
GÁBORI-CSÁNK, V.: La Station du Paléolithique moyen d'Erd — Hongrie. — *Budapest*, 1968.
GÁBORI-CSÁNK, V.: Hungarian Palaeolithic C-14 Dates. — *Acta Arch. Hung.* 22, 1970.
GÁBORI-CSÁNK, V.: Les problèmes du Szélétien en Hongrie. "Analyse des attributs du matériel des phases initiales du Paléolithique supérieur: Aurignacien — Szélétien — Perigordien". — *Symposium*, Paris, 1974.
GÁBORI-CSÁNK, V.: Le mode de vie et l'habitat au Paléolithique moyen en Europe Centrale — *IX Congrès Int. Sci. Préhistoriques et Protohistoriques*, Nice-France, 1976.
JÁNOSSY, D.—VARRÓK, S.—HERMANN, M.—VÉRTES, L.: Forschungen in der Bivak-Höhle. — *Eiszeitalter und Gegenwart*, 8, 1957.
VÉRTES, L.: Nouvelles fouilles dans la grotte de Istállóskő. — *Acta Arch. Hung.* 1, 1955.
VÉRTES, L.: Paläolithische Kulturen des Würm I/II. Interstadials in Ungarn. — *Acta Arch. Hung.* 6, 1955.
VÉRTES, L.: Les conditions de l'interstadial würmien I/II hongrois élucidé par l'examen des remplissages des grottes. — *Acta Geologica Hung.* 3, 1955.
VÉRTES, L. et al.: Die Höhle von Istállóskő. — *Acta Arch. Hung.* 5, 1955.
VÉRTES, L. et al.: Ausgrabungen in der Petényi- und Peskő-Höhle. — *Folia Archaeologica*, 8, 1956.
VÉRTES, L.: Gruppen des Aurignacien in Ungarn. — *Archaeologia Austriaca*, 19–20, 1956.
VÉRTES, L.: Untersuchungen über Höhlensedimenten. — *Régészeti Füzetek*, 1959.
VÉRTES, L.: Einige Angaben des ungarischen Szeletiens. — *Arch. Vestník*, 13–14, 1963.
VÉRTES, L. et al.: Tata. Eine mittelpaläolithische Travertin-Siedlung in Ungarn. — *Arch. Hung.* 43, 1964.