
Dolný vrch – Alsó-hegy 2020

EXPLORATION REPORT

Luděk Vlk et. al.



author: uknown

Exploration task:

The goal of our stay on Alsó-hégy in 2020 was in accordance with the permission. The main focus was on exploration new caves and prolongation some known objects.

The summer stay was from 14th to 22th of August. Base camp was in so called "Csehek camp" near the Komjáti jég abyss. Sixteen attendees were present during this stay.

Description of work:

The exploration works were focused to make photo documentation of Esös szakadék (East-West sink-hole lying nearby Nászút-melletti barlang (5452//86)) and further surface exploration.

We found a new object during the surface plateau exploration. It lies not far from Hideglyuk-zsomboly and we named it Sintér barlang.

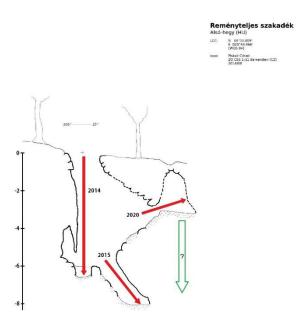
Results:

Éves-zsomboly

We did further exploration in this cave. We found bond fragments during these works. Fortunately, our team joined professional anthropologist, who carefully removed them and everything described. We immediately informed Aggtekek Némzeti park about this finding. After the instruction from National park, we put all the findings back into the cave bottom, to the original position. All the works there were terminated.

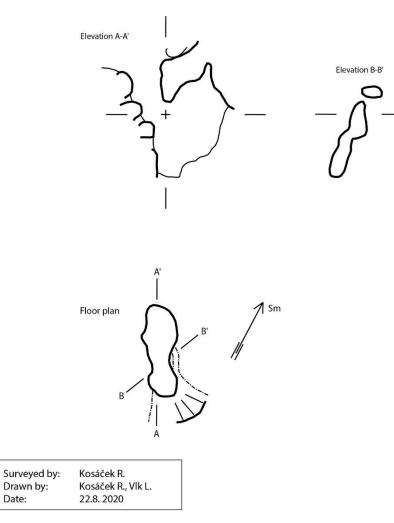
Reményteljes szakadék

We checked status in the cave. We did some works and opened continuation, which leads below nearby lying depression. There is a potential to a vertical continuation.



Sintér barlang (5452/not assigned) GPS: 48.5694108N, 20.7191058E

This abyss lies approx. 100 m NNW from Hideglyuk-zsomboly. Originally, it was a small horizontal cave. It is located in the rock of a shallow doline with strongly eroded stones. The total depth is 3 m.



SINTÉR BARLANG MAP

3 4 5 m 2 1

Date:



Nászút-Esós zs. - photo: Jiří novotný

Prague 17th of January 2021

ZO ČSS 1-11 Barrandien

Basic anthropological evaluation of human remains from the Éves abyss,

expedition Alsó-hegy 2020

Expert report

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Prague 2021

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Site name:	Éves-zsomboly (Éves abyss), Alsó-hegy	
The name of the event:	Expedition Alsó-hegy 2020	
District:	Borsod-Abaúj-Zemplén, Aggteleki karszt, Hungary	
Cadastral area:	Komjati, Hungary	
Location:	GPS: 48.56712°N 20.73998°E	
Organization:	ZO ČSS 1-11 Barrandien	
Year of research:	2020	
Preliminary dating:	subrecent	
Head of expedition:	Mgr. Luděk Vlk	
Depositing the report:	ZO ČSS 1-11 Barrandien and author archives	
Depositing the findings:	in the abyss, at the site of the find	
Date:	Prague 11. 3. 2021	

Mgr. Pavel Kubálek anthropologist

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1. Material

The material for the osteological analysis consists of human skeletal remains, which were found on 15 August 2020 during a summer speleological expedition at Dolný vrch - Alsó-hegy (Aggteleki karszt) plateau during survey in the Éves abyss (Éves-szomboly). The abyss lies approximately 400 m east of the borderline XII / 46. Its mouth is located on the northern slope of the ditch, which is adjacent to the ditch of the Komjáti Jég-zsomboly abyss from the northwest (VIk - Mandel 2019).

The Éves-szomboly survey was conducted by Éva Haász and Attila Kósa in 1967 (Stieber 2012a). The research continued and in 1978 Lukács described the findings of recent animal bones from the site (Stieber 2012b).

In a survey of the cave of members of ZO ČSS 1-11 Barrandien, in 2020, in addition to new animal bones, fragments of human bones were also found. Since no accompanying artifacts were captured during the retrieval of the remains, so, determination of the findings age is only roughly estimated according to the preserved bones for the modern period. The estimation is around a hundred years.

2. Methods

The evaluation used internationally valid standard methodologies according to Knussmann (1988), "Recommendations for determining age and sex" (Ferembach et al. 1980) and according to Stloukal (1999). The age estimation was based on evaluation of changes in the *facies auricularis* of the hip bone (os coxae) (Lovejoy et al. 1985). The sex estimation was made according to the morphoscopic evaluation of the hip bone (os coxae) according to the Brůžek method (2002).

Internationally valid standard methodologies according to Dokládal (1999) were used in the processing of burnt human remains.

3. Description of findings

Context description

During the summer speleological expedition to Dolný vrch - Alsó-hegy, cavers from ZO ČSS 1-11 Barrandien surveyed the Éves abyss (Éves-szomboly). The survey took place in a small hall below the step from the entrance hall and under the chimney, which led freely to the surface. In the past, Hungarian cavers worked in this place. Modern interventions in the recent past in the place can be evidenced by the local modification of the narrowed place of the cave and displaced sediments.

A torso of the human left ulna was found during exploration. The activity was stopped, the site was examined in detail to see if the bone was in an anatomical position with the rest of the body or if any artifacts were present. Only fragments of bones were recorded in situ, which, according to the state of preservation, are very probable of subrecent origin and clearly secondary deposition. Furthermore, only modern fragments of animal bones were found. Artifacts not found.

The bones found were in a fluffy soil layer, mostly dark brown in colour. Depending on the structure of the layer, it can be assumed that it was probably transported to the place by gravity or flushing in the last century and was mixed by small mammals, probably beasts (badgers, foxes?). The findings of excrement correspond to this. There was a laid reddish-brown soil with an admixture of stones beneath this layer.

After finding a fragment of the human left ulna, a control of the extracted sediments was introduced and the dump was checked. Several other bone fragments could be traced.

Description of human remains

Damaged bones and bone fragments have been preserved. Fragments of the left and right ulna, a fragment of the left radius, a fragments of the left and right hip bone (*os coxae*), a fragment of the left femur, the right patella, a fragment of the fibula and the right calcaneus have been preserved.

A fragment of the right hip bone and a fragment of the femur are burned. The burning of bone fragments is of the second degree (bone fragments are brown and black) according to Dokládal (1999).

Evaluation of the facies auricularis of the right hip bone (according to Lovejoy et al., 1985): 5th degree

Evaluation of the right hip bone according to Brůžek (2002):

Facies	Incisura ischiadica	Arc
praeauricularis	major	compose
B-b-2	B-b-2	2

Conclusions

An adult male from the *maturus I* age group (40 to 50 years). According to Dokládal, the burning temperature of the found bones can be estimated at about 400 $^{\circ}$ C.

According to the local inspection, it can be assumed that it is a multiple deposit of bones. The bones were moved to the hall in the cave as isolated from another place at least a few decades ago. In the recent past, the rubble cone with its findings has been repeatedly dug up by small mammals (badgers?) and disturbed by the activities of cavers.

Because some of the bone fragments are burned, it is likely that they were burned outside the cave and brought into the cave. The bones could originally have been stored in a cave in a horizontal entrance hall or thrown in a chimney (above the hall) or stored near it, from where they could be flushed into the cave.

After the consultation with the local responsible person, the findings were stored back in the cave.

4. References

Brůžek, J. 2002: A Method for Visual Determination of Sex, Using the Human Hip Bone. *American Journal of Physical Anthropology* 117, s. 157 – 168.

Dokládal, M. 1999: Morfologie spálených kostí. Význam pro identifikaci osob. (Morphology of Burnt Bones. Significance for Identification of Persons) Sborník prací Lékařské fakulty v Brně č. 113.

Ferembach, D. – Schwidetzky, I. – Stloukal, M., 1980: Recommendations for Age and Sex Diagnoses of Skeletons, *Journal of Human Evolution 9*, 517-549.

Knussman R., 1988: Anthropologie. Handuch der vergleichenden Biologie des Menschen. Band 1: Wesen und Methoden der Anthropologie. *Gustav Ficher Verlag*. Stuttgart, New York.

Lovejoy, C. O. – Meindl, R. S. – Pryzbeck, T. R. – Mensforth, R. P. 1985: Chronological Metamorphosis of the Auricular Surface of the Ilium: A New Method for the Determination of Adult Skeletal Age at Death. American Journal of Physical Anthropology 68, 15-28.

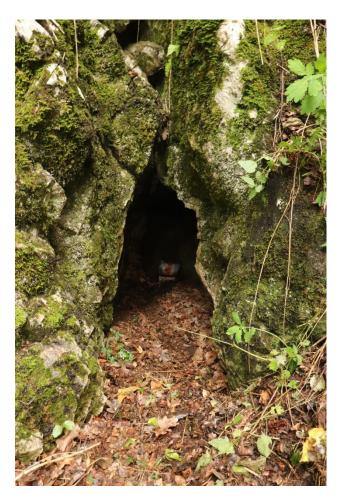
Stieber, J. 2012a: Éves-zsomboly. [online] *Available at* <u>https://mandadb.hu/tetel/537489/Eveszsomboly</u> Retrieved March 6, 2021.

Stieber, J. 2012b: Éves-zsomboly (5452/59). [online] *Available* at <u>https://mandadb.hu/dokumentum/851487/Eves_zsomboly_leiras.pdf</u>. Retrieved March 6, 2021.

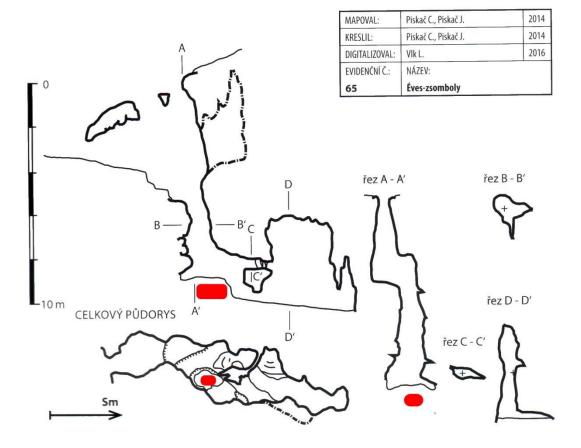
Stloukal, M. et al. 1999: Antropologie. Příručka pro studium kostry. (Anthropology. A Guide to the Study of the Skeleton). *Národní muzeum*. Praha.

Vlk, L. – Mandel., M. 2019: Atlas of Karst Phenomena at Dolný vrch - Alsó-hegy. Czech Speleogical Society, ZO ČSS 1-11 Barrandien, Praha.

5. Attachments



Picture No. 1. View of the entrance portal of the Éves abyss (Éves-szomboly).



Picture No. 2. Plan of the cave with a red marked place of found bones. According to Piskač C. - Piskač J. (in Vlk-Mandel 2019).



Picture No. 3. View up from the site of the find.



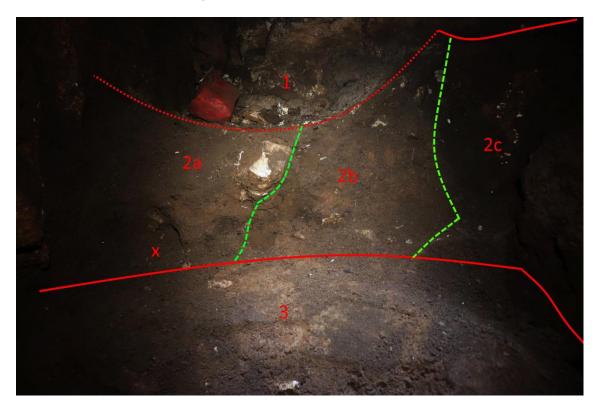
Picture No. 4. Finding place, detailed view from the west.



Picture No. 5. Place of discovery. General view from the west.



Picture No. 6. Place of discovery. General view from the west.



Picture No. 7. Place of discovery. General view from the west. Schematic marking of layers. 1 - excavation of Hungarian cavers, 2a-2c fluffy soil formation, 3 recumbent soil. X - instead of finding bone fragment (see Picture No. 4)



Picture No. 8. View of the inside of a fragment of the right hip bone. Bone color is caused by bone burning.



Picture No. 9. View of the outside of a fraction of the right hip bone.