THE MOST IMPORTANT OPEN SPELEOARCHAEOLOGICAL SITES IN SLOVAKIA*

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Abstract: In Slovakia there are many different types of presentation of the speleoarchaeological sites to the public. A shining example is the Domica Cave and its presentation of the life of its Neolithic inhabitants. The other example we want to mention is the Jasovská Cave, to which a nature trail with an education panel in the Oblúkova and Fajka Caves and in the old entrance of the Jasovská Cave may be added. Ideal conditions manifest themselves in the case of the Moldavská Cave where tourists may see the consequences of the Mongol-Tartar invasions to Slovakia in 1241. Many caves are situated next to marked hiking trails. Some of them are supplemented by the education panels of the palaeontological and archaeological information. Ideal conditions may be found in some caves situated in the Slovak Paradise, where evidence of coin counterfeiting from Late Middle Ages was discovered. Very interesting is the presentation of Neanderthal way of life in the Prepost Cave near Bojnice, where paleolithic findings were discovered in the castle moat. The presentation of archaeology in Slovak caves is comparable with foreign countries, although in many cases there is a lot to catch up on.

Key words: Slovakia, cave archaeological sites, open archaeological sites and their presentation to the public, speleoarchaeology, samples of archaeological findings, palaeontology, educational trails and boards, exhibitions, Paleolithic Age, Neolithic Age, Bronze Age, Roman Age, Middle Ages, Modern Age, coin forgery workshops

INTRODUCTION

About one third of more than 6,000 caves registered up to now in Slovakia were settled from prehistory to the modern age. Not all of them were suitable for long-term human habitation, definitely not the vertical caves, which were mostly used as the place of worship (the Majda-Hraškova Cave, Babská diera and many others). They also served as transient settlement, in particular underground spaces with a proper entrance position (oriented towards the sunny south), or with huge halls often repeatedly sought by ancient and medieval dwellers. A lot of caves in Slovakia provided remarkable archaeological findings of multi-cultural character. None of them were explored by means of methodical archaeological research. We would like to mention that many of the caves have already been investigated in the past (in the 17th – 19th century) and, therefore, we can hardly find places with intact sediments, cultural layers and objects with "in situ" findings. Dominant are non-methodically researched caves, which are often surprising by their rich findings but due to various reasons are not available to general public. The presented paper introduces those caves in Slovakia which are, on the contrary, open to public. Visitors may see there evidence of perished settlement, although in different forms, more or less appropriate (Soják, 2006). We will also highlight opportunities for further presentations of speleoarchaeology sites, particularly in the case of the easily approachable and from the archaeological point of view significant caves, often located on the outskirts of towns and villages or next to marked hiking trails.

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OPEN SPELEOARCHAEOLOGICAL SITES

Kečovo (Rožňava district) – Domica Cave, a "pearl" among speleoarchaeological sites in Slovakia

Perhaps there is no cave in Slovakia which would be comparable to the Domica Cave as far as importance and abundance of archaeological findings is concerned. The cave is located on the south-western edge of the Silická Plateau in the Slovak Karst National Park and is registered as a World Natural Heritage site (Hlaváč, 1997). Apart from countless paleontological findings and sporadic evidence of Late Paleolithic settlement (a silex spike of the Szeletian Culture), it is known as a Neolithic settlement of producers of the Gemer Linear Pottery and especially as a multi-phase settlement of the Bükk-Mountain Culture (Lichardus, 1968; Soják, 2005a).

The Domica Cave belongs among 12 caves in Slovakia which are opened to general public and operated by the State Nature Conservancy of the Slovak Republic – Slovak Caves Administration in Liptovský Mikuláš (other 4 caves are operated by a different entity). At the beginning the cave was not presented to visitors as a significant prehistoric human settlement, except for a modest archaeological exhibition situated at the foyer. It is, therefore, highly desirable to assess the activity of the aforementioned institution, which completed the Educational Centre within the Domica Cave site. Nowadays, the visitors may see a very nice exhibition including a video projection and an archaeological presentation in the cave. The Activity of the Archaeological Institute consisted in helping to implement the archaeological part in the newly-built exhibition, in the development of a scenario of an archaeological documentary as well as in the archaeological presentation directly in the cave (Gaál *et al.*, 2006; Soják, 2006; 2007a).

A model of an archaeological trench (1,5 × 2 m) was placed in a niche near the Hall of Eleven Fires. The trench was portioned into two parts, which explains a normal procedure of archaeological research. Both parts of the trench are divided by a control block where visitors may also see the soil profile. The south-eastern (researched) half of the trench remained exposed to the depth of 30 cm from the present ground level. It is divided into square sectors with installed fragments of ceramic and working tools (a trowel, a brush). The north-western half of the trench is explored at least to the depth of 90 cm to 100 cm in depth. The stratigraphical division of the layers in the profile was distinguished by three colours. The very bottom layer (1) represents the Pleistocene with bone findings of a cave bear and is outlined in yellow. Highlighted above this layer is the black cultural layer with the position of an imaginary fireplace represented by the red stripe (2). Situated at the top is the top layer symbolized by the brown colour (3). The profile is complemented by a scale bar and replicas of the findings. A decorated pot of the Bükk-Mountain Culture, a stone pad for corn growing and a bone-flattening tool were also placed into the trench. On the control block an original dish of the Bükk-Mountain Culture is placed, along with the north-marking method and some of the standard tools used by an archaeologist – a scraper and, on the edge of the trench, a graph paper with a pencil and a drawing of the trench (Fig. 1).

In the opposite Hall of Eleven Fires several minor stone fire pits were removed and replaced with a bigger one including firewood.

The daily life of Neolithic dwellers in the Domica Cave is suggested by the visual reconstruction in the Hall of Terraces, also called the Pottery Workshop. Produced at this place was evidence of work activity as for example mining clay, production of ceramics, fireplaces and artificially chiselled steps leading to the underground

Fig. 1. Model of the archaeological trench in the Domica Cave. Photo: M. Soják

River Styx. These activities were indicated by a model of an earth oven with unfired and fired vessels on a stone base. In the corridor leading to the River Styx a model of a fireplace with an electric "flame" was built. A life-sized neolithic woman is sitting at the fire. She is wearing sackcloth and a shell necklace. Next to her there is clay pottery, a stone pad with spilled grain, a grinder and a loom in the background (Fig. 2). The aforementioned reconstructions were later used in the shooting of the film about the life of Neolithic inhabitants in the Domica Cave. The documentary demonstrates scenes from everyday life where in addition to the production of ceramics skinning of deer, woven fabrics, sewing and processing of fur or other work activities round the fire are presented. Other scenes show children playing in the River Styx and ritual ceremonies in front of the Sacred Hall (body painting, drawing on the cave walls with charcoal and a shaman dance; Fig. 3). The film (along with other fields of caving, geology, history, discovery and research of the Domica Cave) is also shown during the exhibition, where visitors may view three-dimensional archaeological artifacts and education panels with texts and supplementary photos. The screening also takes place in the cave itself. In the distance on the cave wall animation of human's and dog's motion using programmed reflectors is shown. The sequence finishes with a view of three well-known charcoal drawings with a typical "crown", which are not physically available to regular visitors. In the Hall of Courage visitors may also see an "in-situ" sintered pot of the Bükk-Mountain Culture.

Fig. 2. A life-sized neolithic women with a loom in the background in the Hall of Terraces, Domica Cave. Photo: M. Soják

Fig. 3. The preparation of a shaman while shooting the documentary in the Domica Cave. Photo: M. Soják

Jasov (Košice-vicinity district), Jasovská Cave vs. Oblúková and Fajka Cave

Within the bilateral Slovak-Hungary project "The Caves of Slovak and Aggtelek Karst", the Jasovská Cave is a part of the World Natural Heritage since 1995. The importance of the cave is not only from the natural but also from the historic and archaeological point of view. Archaeological research in recent years documented evidence of settlement in the Upper Paleolithic, Neolithic Age, followed by the Bronze Age, Iron Age (Hallstatt and Laten), Roman Age, the 13th – 15th century and in the Modern Age. Thanks to the Slovak Caves Administration in cooperation with the Slovak Museum of Nature Protection and Speleology in Liptovský Mikuláš, a new exhibition within designing a new entrance to the cave was installed. The exhibition, open since 1997, presents natural conditions, protection, settlement and history of the cave and its inclusion in the World Heritage List (Bella, 1997a). Archaeological and historical presentation, including the famous inscription on the cave wall of the year 1452 in the Dining Hall, is a part of the third section of the permanent

Fig. 4. Jasov – the old entrance to the Jasovská Cave. The ground plan shows the location of the old archaeological trenches and the place of rescue research in 2004 – 2006 (according to J. Skutil, processed by F. Miháľ and M. Soják).

exhibition, as an attractive way to tour the cave. Visitors are given complete overview not only of its natural, but also social values.

In 2004 – 2006 rescue archaeological research was carried out in the old entrance to the Jasovská Cave (Fig. 4). In the exposed profile the stratigraphic position of the layers from Pleistocene to Holocene were discovered, with findings of the Neolithic, Bronze Age, Iron Age (Hallstatt, Laten), Middle Ages and Modern Times (Soják, 2008a). Thus, the aforementioned research picked up the threads of field activities by E. Nyary, A. Thallóczy in 1878, T. Kormos in 1916, later J. Eisner, J. Bárta and other researchers (Soják, 2007b, 50 nn.). The old entrance to the cave is ideal for a three-dimensional presentation of archaeological findings and partial reconstruction of the prehistoric way of life in the Middle Ages in the manner of the Domica Cave's presentation (3D models of people, work activities, etc.). It also shows the possibility of a panel presentation on the access path to the Jasovská Cave. The main stations with educational boards are suitably fit in the adjacent Oblúková Cave (Fig. 5) and Fajka Cave (Fig. 6). During research into

Fig. 5. Jasov – Oblúková Cave. The place for the appropriate archeological presentation in the form of education boards. Photo: M. Soják

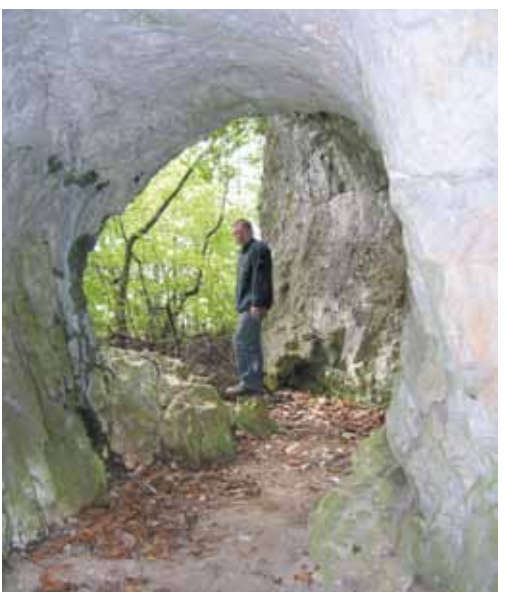

Fig. 6. Jasov – Fajka Cave. After some reconstruction of the platform in front of the cave it could be a right place for an archaeological presentation through educational boards. Photo: M. Soják

the platform in front of the Fajka Cave led by J. Eisner in 1924, a part of a buried structure was uncovered. It was partially protected by a rock wall, with stones laid around a fireplace, animal bones, abundant ceramics, two massive iron axes with sockets and two pieces of iron bloom. J. Eisner interpreted this structure as a blacksmith's abode dated to the Hallstatt period of the Iron Age. Therefore, the reconstruction of the dwelling from the Iron Age could serve to diversify the educational tourist trail.

Bojnice I. (Prievidza district), Prepost Cave

The cave is located in the Hornonitrianska Basin in the Prievidza district and the territory of the town of Bojnice, on the edge of a larger cascade called Parsonage Travertine Mound just below the historic centre of the town. The entrance is at the elevation of 242 m, 11 m above the present small lake in the patronage garden. It has a character of a rocky overhang, which is about 12 m wide and 4.5 to 8 m high. Its internal space reaches only 6 m with a narrow, 8m-long passage on the north-eastern side. The Museum of Prehistoric Slovakia was established on the grounds of the Prepost Cave in 2007 with the help of the Slovak Caves Administration in Liptovský Mikuláš with active cooperation of the Institute of Archaeology SAV Nitra (Ľ. Kaminská, M. Soják) and the Upper Nitra Museum in Prievidza (I. Géczyová). The exhibition (HAUFO Bratislava, design by F. Hauskrecht, dummies by F. Finta), through a series of sculptures of Neanderthals clad in furs, gets a closer view of life at the end of the Middle Paleolithic in the cave's vicinity. Visitors may see a different work activity round the fireplaces, production and usage of chipped stone tools and hunting weapons (a wooden spear), childcare, worship of the cave bear (the skull in the wall niche) and supposed appearance of a leather screen leaning on abri (rock overhangs) (Fig. 7). The whole area is fenced off with wooden poles and supplemented by bilingual educational boards (besides Slovak also in English language) with the theme of travertine rock (a geological map of the vicinity, a text explaining the origin of the hot solution and formation of travertine), formation of the Prepost Cave (stages of the cave formation with drawings, a text, a map marked with other travertine caves in Slovakia) and information about other caves open to public. Primary is the archaeological educational board developed in collaboration with the Institute of Archaeology SAV Nitra (M. Soják; Fig. 8). According to the manager Emil Medera, the aim of the Museum of Prehistoric Slovakia is to connect the past with present by means of supporting today's young and talented artists in an attractive way (displaying their works of art). But the main emphasis is placed on interactive cooperation with pupils, i.e. their active involvement in the program content – solving various practical "prehistoric" tasks, work in a small group – "a Neanderthal clan" – and so on. Except for the educational program for elementary and secondary schools, a day and night guided tour, the museum also features a small souvenir shop (www.muzeumpraveku.sk). If one considers that in the Bojnice vicinity there are several positions with documented settlement in the Middle Paleolithic, the presentation here is in right place (Bárta, 1972). This kind of interactive museum does not have any match in Slovakia and serves certainly in favour of tourism development and extending the horizon of the ancient history of our territory. Similar evidences of Middle Paleolithic settlement were obtained for example from the territory of Poland (Jaskinia Ciemna –

Fig. 7. Bojnice I. – Prepost Cave. Sculpture of a Neanderthal child underneath the portal of the cave. Photo: M. Soják

Fig. 8. Bojnice I. – Prepost Cave. Educational board in front of the cave. Photo: M. Soják

the Dark Cave) in Ojców. Its presentation of a Neanderthal man strikingly resembles the Prepost Cave in the form of educational boards at the edge of a viewing platform and several Neanderthals sculptures in the so-called South Tunnel. Sculptures of Neanderthals in the Jaskinia Ciemna are visible from quite afar but they are not nearly as "alive" as in the Prepost Cave (Soják, 2008b).

Važec (Liptovský Mikuláš district), Važecká Cave

It is one of the best-known caves in Northern Slovakia (Fig. 9). Though in terms of length it belongs among short show caves, it is known by occurrence of rich dripstone decoration, remarkable findings of cave bear bones, as well as by rare cave fauna. Archaeologists have not found any evidence of settlement so far. However, we have several archaeological artifacts from the Upper Paleolithic which were found in the Liptov region (Valde-Nowak, Soják and Struhár, 2008). Therefore, we can imagine an exhibition of archaeological artifacts in the cave (especially chipped stone tools) in conjunction with the cave bear, which was very desirable game for prehistoric hunters of the Liptovská Basin. Nevertheless, a permanent zoo-palaeontological exposition is a part of the show path for cave visitors. It is aimed at popular-educational presentation of the cave bear (*Ursus spelaeus*) as one of the biggest extinct predators which ever lived on the European continent. The appearance of the bear is depicted by a skeleton reconstruction and a sculpture of the animal, both situated in the cave's interior (Fig. 10). They extended the original collection of bones, teeth, claws and skulls by then exhibited in the small palaeontological showcase in the cave space in Kostnica and other underground spaces. Outside the cave there are two educational boards of the cave bear that provide general information on its body size and weight, origin and distribution, habitat, reproduction, age and food supplemented with concrete data from local findings in the Važecká Cave (Višňovská, 2006). The cave bear sculpture is made of artificial stone (the actual size of an adult) created by the sculptor Daniel Tatarka and undoubtedly has an impact on visitors' imagination and deepens the experience of the underground space. The experience from abroad (e.g. Hermannshöhle in Germany, the entrance hall of the Niedźwiedzia Cave located near Kletno in Poland) points rather to presentation of reconstructed skeletons and findings "in situ" in the interiors of caves (e.g.

Fig. 9. Važec – Važecká Cave. Entrance portal. One of the educational boards in the background. Photo: M. Soják

Fig. 10. Važec – Važecká Cave. Sculpture of a cave bear in the Entrance Hall. Photo: M. Soják

Peştera Urşilor in Romania, Teufelshöhle in Germany, Grotta di Bossea in Italy and others) than whole sculptures of cave bears. Therefore, the Važecká Cave is unique, even though not the only one (Bernadovič, 2001, 38; Višňovská, 2006, 61).

Lipovce (Prešov district), Bad Hole Cave (Zlá diera)

It is the only cave in the Prešov district open to public, namely as of 2006. Cave guiding activities are performed by R. Košč with a group of enthusiasts. The cave is located in the geomorphological unit Bachureň. Visitors experience a unique descent to the cave's mysterious depths. Accompanied with a guide, they are equipped with protective helmets and traditional cavern carbide lamps or their own torches as the cave has no electricity (Gaál, 2006). In the archaeological research in the late 19th century (Roth, 1881) and during works making the cave accessible, tangible evidence of prehistoric settlement was found, such as fireplaces with animal bones and pottery dated to the Prehistoric Age (Bronze Age?), Middle Ages and Modern Times. In the cave anthropological findings and evidence of the cave utilization at the end of the Second World War were also discovered (Bárta, 1984). The paleonthological and archaeological "presentation" in the interior of the cave is inconvenient, as it is limited only to osteological and shards findings freely placed on the clay surface in the Great Hall (Fig. 11). After complex processing of all archaeological findings from the cave, it would by desirable to make a nice exhibition in the cave itself with educational boards where visitors could see samples of the findings together with texts and drawings. The reconstructed pottery could be placed into glass showcases in the chronological order. A part of this kind of presentation could be located in the area above the cave, where there are objects for the staff and guests, and at the rest area for tourists. In the dim places of the cave's underground without electric lighting, only presentation of larger exhibits is appropriate, e.g. bones, reconstructed pottery, or sculptures of prehistoric humans or hunting animals.

ARCHAEOLOGICAL PRESENTATION OF CAVES ON HIKING TRAILS

Driečany (Rimavská Sobota district), Veľká and Malá Driečanská Caves

The educational trail in the Driečany Karst was built in 1989 to 1992 and restored in 2002. The nature trail begins from the Centre for Environmental Education SAŽP Drienok and has fifteen stops. In front of both caves there are educational boards with texts (in Slovak and English language), pictures and information about settlement of the cave. In the Malá Driečanská Cave, through which a short passage for visitors is made (Gaál, 2000), evidence of the settlement in the Early, Late Bronze Age (the Kyjatice Culture) and in the Late Middle Ages (15th century) was found. Inside the cave there is a replica of a vessel improperly fastened to a rock (risk of stumbling). We believe that it would be preferable to place it under the exhibition panel or to attach a photo directly to the panel. In the Veľká Driečanská Cave the best evidence of Pleistocene bones (*Ursus spelaeus*) was found, as well as Neolithic and Bronze Age findings. On the education board, situated in front of the entrance, there is an illustration of a cave bear and its life-sized tooth and on the layout of the cave an archaeological trench from the research of J. Bárta in

Fig. 11. Lipovce – Bad Hole Cave. Example of the paleonthological presentation in the cave. Photo: M. Soják

1955 is marked (Bárta, 1963). It would be also preferable to close the cave using iron bars in order to protect bat colonies and to prevent amateur excavati

Poráč (Spišská Nová Ves district), Šarkanová diera and Chyža Caves

The caves are situated next to each other. In both caves evidence of rich settlement of the Neolithic Age (Linear Ceramic Culture, Želiezovská Culture, Bükk-Mountain Culture), the Middle Ages and Modern Age was found (Bárta, 1956; Soják, 2001). Based on the municipality's initiative, the idea emerged to make the Šarkanová diera Cave partially accessible within the nature trail the Nature Attractions near Poráč (2000). A part of the cave with decoration remains, which was not destroyed by vandals yet, was closed by iron bars. In front of the entrance an educational board was fixed, initially with information that is outdated from the archaeological point of view (Soják, 2006), but later, in 2008, thanks to the cooperation with the Archaeological Institute SAV Nitra and upon I. Balciar's own initiative, new knowledge based on current speleo-archaeological research in the Šarkanová diera and Chyža Caves were added (e.g. evidence of a coin forgery activity in the 15th century).

OTHER OPTIONS FOR PRESENTATION OF SPELEO-ARCHAEOLOGICAL SITES

Bojnice III. – the Castle Moat vs. Bojnická Castle Cave and other potential presented caves

On the premises of the Bojnice Castle on the site called Bojnice III. – Castle Moat, numerous split stone tools from up to 11 positions were acquired but also evidence of ruined fireplaces and animal bones. We can follow up here an almost uninterrupted sequence of travertine layers from the last interglacial (R/W) to the early last glacial period (W). Since 1965, the Bojnická Castle Cave is also a part of the Bojnice Castle. Its original entrance is represented by the well on the current courtyard No. IV. Ideal conditions for an exhibition of Paleolithic cave dwellers in Bojnice may be found in the underground spaces of the cave. It would make the permanent exhibition at the castle more attractive, promote an important Paleolithic site in the Castle Moat and would also direct tourists to the Museum of Prehistoric Slovakia in the nearby Prepost Cave. The exhibition in the Bojnická Castle Cave would also be appropriate in the view of its attested Paleolithic settlement. It is testified by the black belts of soot ingrown in dripstones on the cave's walls and the cultural layers with charcoal, fossil bones and artifacts of quartz and andesite tuff. All the evidence was discovered in 1965 by drilling of a horizontal tunnel leading to the cave (Lalkovič, 2005, 39, 41).

Of course in Slovakia there are more caves with evidence of Paleolithic settlement, however there is none which has been explored systematically. In almost all of them, settlement from the younger period of Prehistoric Ages was also discovered. Making caves available to general public comes into consideration in the case of more accessible caves, situated near main roads or nature trails. Within this frame of reference the following ones come in consideration: Dzeravá skala near Plavecký Mikuláš, Čertova pec near Radošina, the caves No. 1 and 2 near Lučivná and the like (Farkaš, 2007; Kaminská, Kołowski and Svoboda, 2005; Soják, 2007c, 35nn). Many of these and other caves have provided interesting paleontological materials, chipped stone tools and remarkable artifacts of Paleolithic Art (Kaminská, 2009). But, if we take wealth and especially attraction into consideration, we can't compare them to findings from foreign prehistoric caves, where visitors may see accessible anthropological remains, or fascinating galleries of cave paintings (Bella, 1997b; Lehotský, 2000).

Slovak caves are also promising, having provided evidence of settlement from the younger section of Prehistory to the Middle Ages and Modern Age. Some of them are situated along the busy nature trails or not far from restaurants and cottages, whose owners or operators could direct tourists to the open caves. We can also mention the Homološová diera Cave in Slovinky, situated above the restaurant Čierny bocian (Black Stork) in the Galmus Mountains (settled in the Eneolithic, Bronze

Age, Middle Ages, and during the 2nd World War), or the Netopierská Cave (with the findings from the Roman Age) in the Nemce cadastral territory in Starohorské Hills, situated near the nature trail (Bárta, 1995; 1984, 249). The Liskovská Cave deserves to be made accessible and archaeologically presented on a professional level. The Temná Cave near the village of Žehra has great conditions for an exhibition. It is situated in the travertine massif under the famous Spiš Castle. Since the cave is only accessible to experienced cavers, entry for ordinary tourists is not possible. From among archaeological findings, human skeletal remains with two leather moneybags filled with Roman coins (dated from the 1st to 2nd century A.D.) are unique. This remarkable finding could be used as an excellent specimen in the permanent exhibition at the Spiš Castle (Soják, 2005b). The same is true for over more than 40 adjacent caves situated in the Dreveník Hill vicinity between Žehra and Spišské Podhradie. Many of the caves in the aforementioned hill are important archaeological sites, which deserve attention in terms of presentation, at least by educational boards on hiking trails or in the parking lot below the Spiš Castle (here the educational board invites visitors to the Bad Hole Cave in Lipovce). They are partially substituted by information boards placed in the lower courtyard of the Spiš Castle. However, they would deserve more comprehensive attention in the form of an exhibition at the Spiš Castle.

Moldava nad Bodvou (Košice–vicinity district), Moldavská Cave and Mníchová diera

The Moldavská Cave is located in Moldava nad Bodvou's vicinity west of the hospital site, above local garages. It represents more than a 3km-long and spread labyrinth, interlinked with bigger and smaller spaces suitable for settlement. It has been known from time immemorial as a cave with numerous human bones. Only systematic archaeological research in 2004 – 2006 pointed to its special rarity in connection with the Mongol-Tartar Invasion on the territory of Slovakia in 1241 – 1242. We can also find there archaeological findings from Prehistory and Early History. All this prompted P. Dvořák to write his next work cycle, the book *Stopy dávnej minulosti*, which also suggests the importance of the cave for medieval history of Slovakia (Dvořák, 2009, 179-193). The book is based on the results of speleo-archaeological research, which were described in a separate monograph in 2007 (Soják and Terray, 2007). Considering the aforementioned knowledge of the cave and its appropriate position near the town centre, opening the cave for an archaeological exhibition is fitting. Relatively good conditions for presentation are offered by the Entrance Hall. The exhibition itself requires active collaboration with archaeologists, cavers, other experts and of course with the municipality. It would also require such arrangements as for example closing the corridors leading from the Entrance Hall by iron bars, performing landscaping in the accessible part as well as in front of the entrance to the cave, sensitive handling of the local fauna (presence of bats) or a guided tour. Connectivity of the historical-archaeological exhibition in the Local Information Centre and the Moldavská Cave by a natural trail would be obvious. In addition, one of the trail branches located next to the cave could lead to the adjacent Mníchová diera Cave, where evidence of settlement was also found (late Middle Ages and Modern Times) and which also has appropriate conditions for at least a panel presentation (Soják and Terray, 2007, 58, 59).

"THE CAVE AS THE COIN FORGERY WORKSHOP" AND BREEDING GROUND FOR PRESENTATION

Thanks to intensive speleo-archaeological research in recent years, several caves with evidence of coin forgery activities from the end of the Middle Ages were discovered. The research was carried out especially in the Spiš region and in the south and east of Slovakia. Advisable conditions for the presentation of the aforementioned illegal activities may be found especially in the Spiš region in the caves of the Kozie chrbty Hills, the Spiš-Gemer Karst (Slovak Paradise) and the Volovské Hills (Galmus). Even though many of these caves are located in the hard-to-access terrain of

mountains and rocky gorges (for the reason of confidentiality), almost all of them are near marked hiking trails (see the most recent: Soják, 2010). Particularly the Chvalovská Cave and several caves of the National Park Slovak Paradise deserve the presentation of polycultural settlement, including coins forgery activities. Another ideal cave is the Kláštorná Cave located below the medieval Carthusian monastery built on the Rock of Refuge (*Lapis refugii*) near the village of Letanovce (Soják – Hunka, 2001). The premises of monastery, frequently visited in the summer tourist season, could be used as a place for presentation of coin forgery activities. Similar conditions of accessibility are also offered by the Ružová Cave (located near the Kláštorná Cave), where evidence of settlement was also found (Soják, 2007c). From the archaeological point of view, the Suchá diera Cave (also called the Nízka Cave) located in Spišská Teplica, in the Kozie chrbty Hills, is also very attractive. After science-popularization processing of findings from the cave in the book about history of the village (Soják at al., 2002), efforts by local people emerged to realize education excursions (especially for schools), leading from the village across the Vápenica Valley to this cave. It is necessary to mention that, due to continuous damaging of the cave's sediments, rescue archaeological research was implemented, which demonstrated settlement of the Upper Paleolithic and presence of a coin forgery workshop from the Late Middle Ages (Soják and Hunka, 2003).

On the territory of the Czech Karst, the Koněpruské Caves (also called the Caves of the Zlatý kůň Hill) are the most important ones. On the upper floor remains of a coin forgery workshop from the second half of the 15th century were examined; the workshop is open to public (Fig. 12). Visitors walk along a footpath where coin forgers also used to walk, they have the opportunity to see their workshop and buy a copy of fake coins at a local souvenir shop. In the same period, coin forgers used to work in the Babí pec Cave in Kozákov (national park the Czech Paradise) and in the Čertova díra Cave on the Kotouč Hill near Štramberk. Originating from Moravia's territory are modern fake coins from the Výpustek Cave located near the villages Křtiny and Dagmar near the village Lipovec. In Poland a coin forgery workshop was found in the Zbojnícka Cave located near Żywca and in Austria in the Kleines Zwerglloch Cave near Bad Fischau (Matoušek and Dufková, 1998, 141; Matoušek, Jenč and Peša, 2005, 72, 116, 162). But appropriate archaeological presentation of the aforementioned caves is also absent.

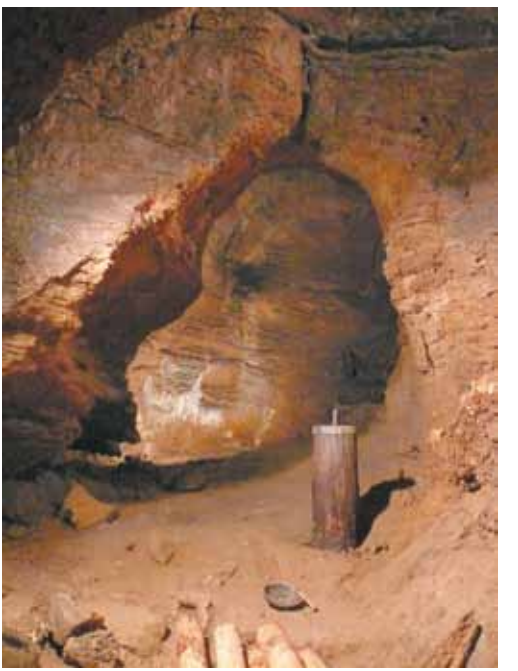

Fig. 12. Koněprusy – Koněpruské Caves. Monetagium with the presentation of the coin forgery workshop. Archive of the Archaeological Institute SAV Nitra

CONCLUSION

A relatively small area of Slovakia is abundant in occurrence of karst forms, of which a considerable part is also notable for archaeological sites. Among the modest number of the open caves only the Domica Cave is a representative site in terms of archaeology and its presentation. Even though we cannot compare the Domica Cave with Franco-Cantabrian caves and their beautiful underground galleries of Palaeolithic Art, Domica keeps up with foreign speleo-archaeological sites. In Slovakia there are numerous polycultural cave settlements where failure to make them visible in favour of tourism develop-

ment and national awareness is noticeable. After all, which country can boast of such treasures as the Moldavská Cave, the Temná Cave below the Spiš Castle or the number of caves mentioned above with evidence of coin forgery activity at the end of the Middle Ages? Therefore, we should seek, in collaboration with interested institutions and experts from various related disciplines, to promote these phenomena and open more caves to general public in the form of exhibitions, fixed educational boards near hiking trials and, last but not least, in the form of popular educational films and publications. In doing so, substantial funds are not always needed. In Slovakia several prospective speleo-archaeological sites have come into view in recent years, deserving presentation understood in this manner. All considered, to implement the above mentioned presentations of the caves, cooperation with local municipalities, cultural institutions (as for example museums) or with the private sector (entrepreneurs) is needed, and in particular full cooperation with the State Nature Conservancy of the Slovak Republic – Slovak Caves Administration in Liptovský Mikuláš and the Slovak Museum of Nature Protection and Speleology in Liptovský Mikuláš.

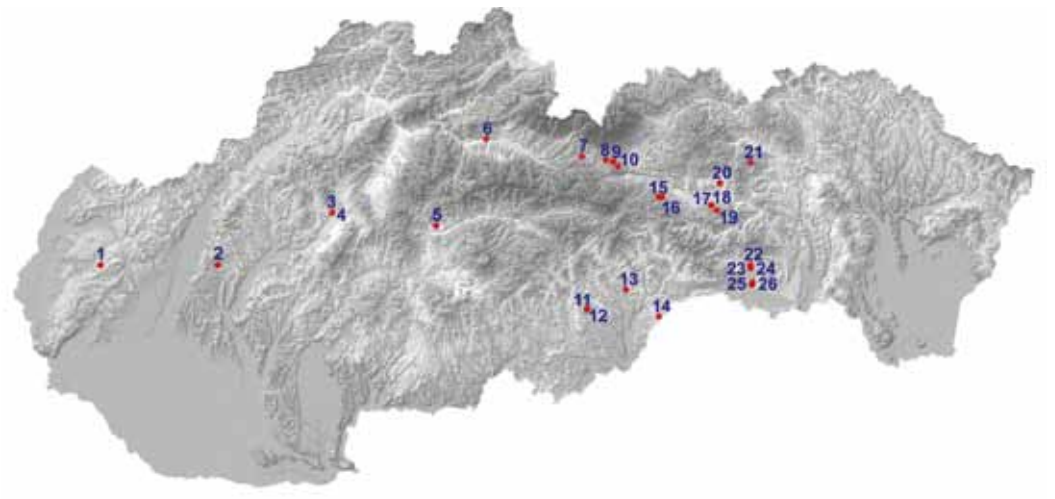

Fig. 13. The map of the most important speleoarcheological sites in Slovakia: 1 – Dzeravá skala Cave, 2 – Čertova pec Cave, 3 – Prepost Cave, 4 – Bojnická Castle Cave, 5 – Netopierská Cave, 6 – Liskovská Cave, 7 – Važecká Cave, 8 – Lučivianska Cave no. 2, 9 – Lučivianska Cave no. 1, 10 – Suchá diera Cave, 11 – Malá Driencanská Cave, 12 – Veľká Driencanská Cave, 13 – Chvalovská Cave, 14 – Domica Cave, 15 – Ružová Cave, 16 – Kláštorná Cave, 17 – Chyža Cave, 18 – Šarkanova diera Cave, 19 – Homološová diera Cave, 20 – Temná Cave, 21 – Bad Hole Cave, 22 – Oblúková Cave, 23 – Fajka Cave, 24 – Jasovská Cave, 25 – Moldavská Cave, 26 – Mníchová diera Cave

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