

U.B.S.S. Czechoslovakian Expedition, 1967

By

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The society first became interested in Czechoslovakia in 1964, when our President, Dr. E. K. Tratman and two other members visited some of the caving areas in the country with other British cavers. The following year we were hosts to a party of distinguished Czechoslovak spelæologists and they expressed the wish that a British expedition might return to explore some of the more difficult systems in their country. Plans were later made within the U.B.S.S., to organize a four week expedition in August, 1967. In choosing an area for study we relied almost entirely upon the recommendations of our contacts—in particular Dr. F. Skřivanek (Karst Section, Prague)—and decided eventually to work in the South Slovakian Karst. Most of the expedition members were cave divers and it was therefore natural that our programme should have a strong diving bias.

During the first two weeks of our stay many sumps in the caves of the South Slovakian Karst were investigated but the results were most disappointing. The expedition therefore decided to visit two other caving areas, the Demanova Region and the Moravian Karst. Although the diving was much more rewarding here, no major discoveries were made. The results of the many original cave dives carried out during the expedition will be published in full in the Cave Diving Group Review for 1966–1967 and the object of the present article is to give a brief general account of the three areas, with particular reference to the caves visited.

SLOVENSKÝ KRAS (SOUTH SLOVAKIAN KARST)

This is the largest karst region in Czechoslovakia, covering an area of some 800 sq. km. It is situated in south-eastern Slovakia on the Hungarian frontier. The karst is divided by the rivers Slaná and Štítnik into three major plateaux named Koniar, Plešivec and Silica (*Fig. 73B*). Geologically the area is a dissected limestone plateau which slopes gently from an altitude of some 750 m. in the north to one of 450 m. in the south. The plateau is believed to have been formed as a peneplain under subarid conditions during Miocene times and has been uplifted and slightly tilted during subsequent earth movements. The rock sequence consists of

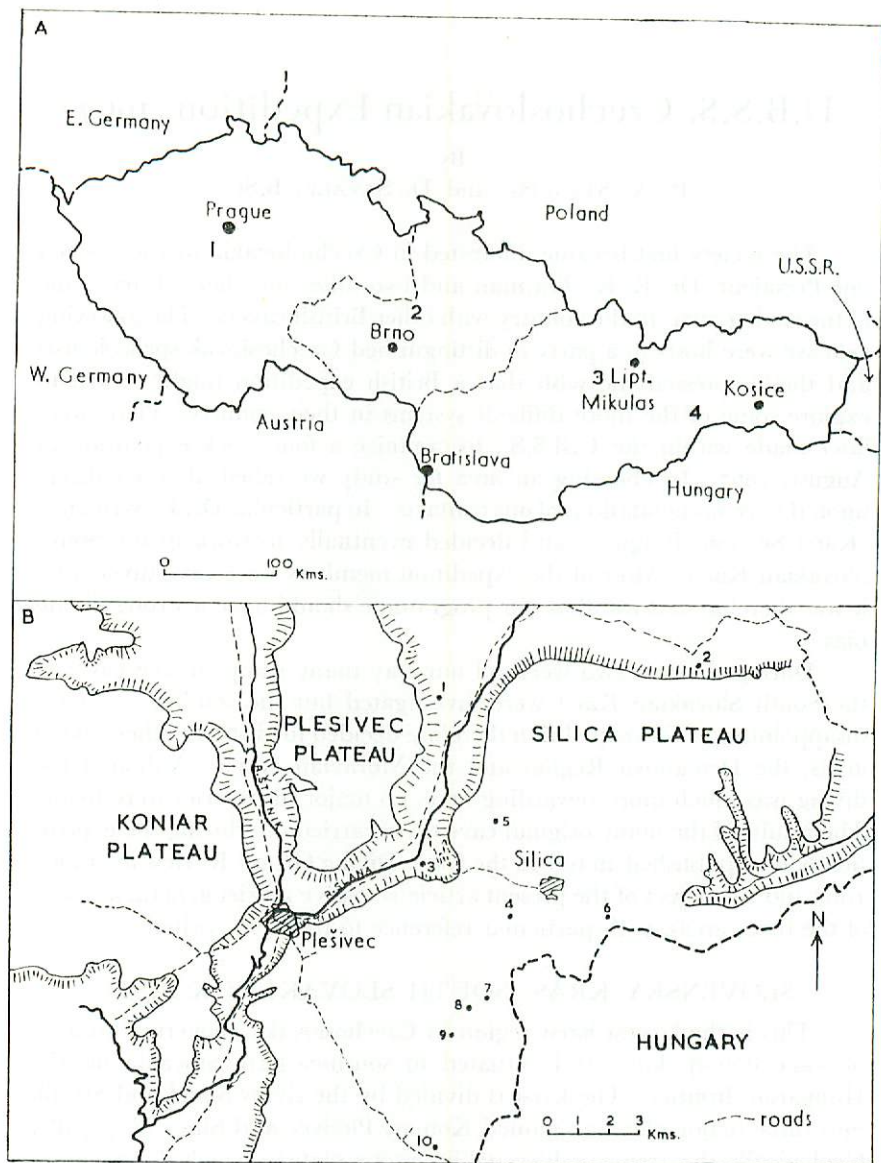


Fig. 73. A. The main caving regions in Czechoslovakia: 1. Končprusy Karst. 2. Moravian Karst. 3. Demanova Region. 4. South Slovakian Karst. B. The caves and potholes of the South Slovakian Karst: 1. Brzotín Cave. 2. Buzgo. 3. Gombasek. 4. Silica Ice Cave. 5. Barazdaláš. 6. Kisfalu. 7. Milada. 8. Bezodná L'adnica. 9. Jeskyne na Kečovských-lukach. 10. Domica.

massively bedded Triassic limestones overlying thinner beds of dolomite and more arenaceous limestones, resting in turn on impervious shales and sandstones. The beds are usually steeply dipping and are traversed by numerous faults, both factors influencing the nature of the caves considerably. The lithology is similar to the familiar Carboniferous Limestone of Britain, but sandy horizons tend to occur rather more frequently.

The Plešivec Plateau is the best example of a karst plateau in the region, rising steeply on all sides to a height of some 400 m. There is no surface drainage but there are numerous dolines and some open shafts which show little or no horizontal development at the bottom. The Czechoslovak spelæologists have explored a large number of these shafts and have studied the karst development of the plateau in detail (Skřivánek, 1966) and (Erdős and Lysenko, 1966). The Brzotín Cave is the only known resurgence for the plateau.

The Silica Plateau has a much wider variety of caves to offer than the Plešivec Plateau. Czechoslovakia's deepest pothole, Barazdaláš (182 m.), and many other shafts are situated on the plateau surface as well as some swallet caves such as Kisfalu (500 m. long), Silická l'adnica (Silica Ice Cave) and Brezovská Jaskyňa (Milada, 500 m. long). There are also two extensive resurgence caves, Gombasek (1500 m.) and Buzgo (600 m.). The former is a show cave and the latter is in the process of conversion to one. The longest system in the region is the Domic Cave which is also open to the public. It connects with the Baradla Cave, near Aggtelek, in Hungary and has a total length of over 22 Km.

Research and exploration in the South Slovakian Karst now comes under the administration of the newly formed spelæological section of the East Slovakian Museum, Košice. The section intends to start publishing its work shortly. Articles on the area appear quite frequently in "Československý Kras" which is published annually by the Czechoslovak Academy of Sciences, in Prague.

DEMANOVA REGION

The Demanova Region (*Fig. 74A*) lies in the northern part of an impressive mountainous area, the Low Tatras, near the town of Liptovský Mikuláš. The main cave system is Demänovské Jaskyne (Demanova Cave), which at 21 Km. is the longest cave in Czechoslovakia (much of the longer Domic-Baradla system is in Hungary). Most cavers also consider it to be the finest cave in the country on account of the magnificent variety of its calcite formations and enormous river galleries along which the River Demänovka flows. The system has nine levels in all and the correlation of these with river terraces on the surface was the subject of a recent article in the British literature (Droppa, 1966). Two sections of the

cave, Jaskyňa Slobody (Freedom Cave) and Demänovská ľadová jaskyňa (Demanova Ice Cave) are open to the public.

The Demanova Valley limestone is a relatively narrow zone of

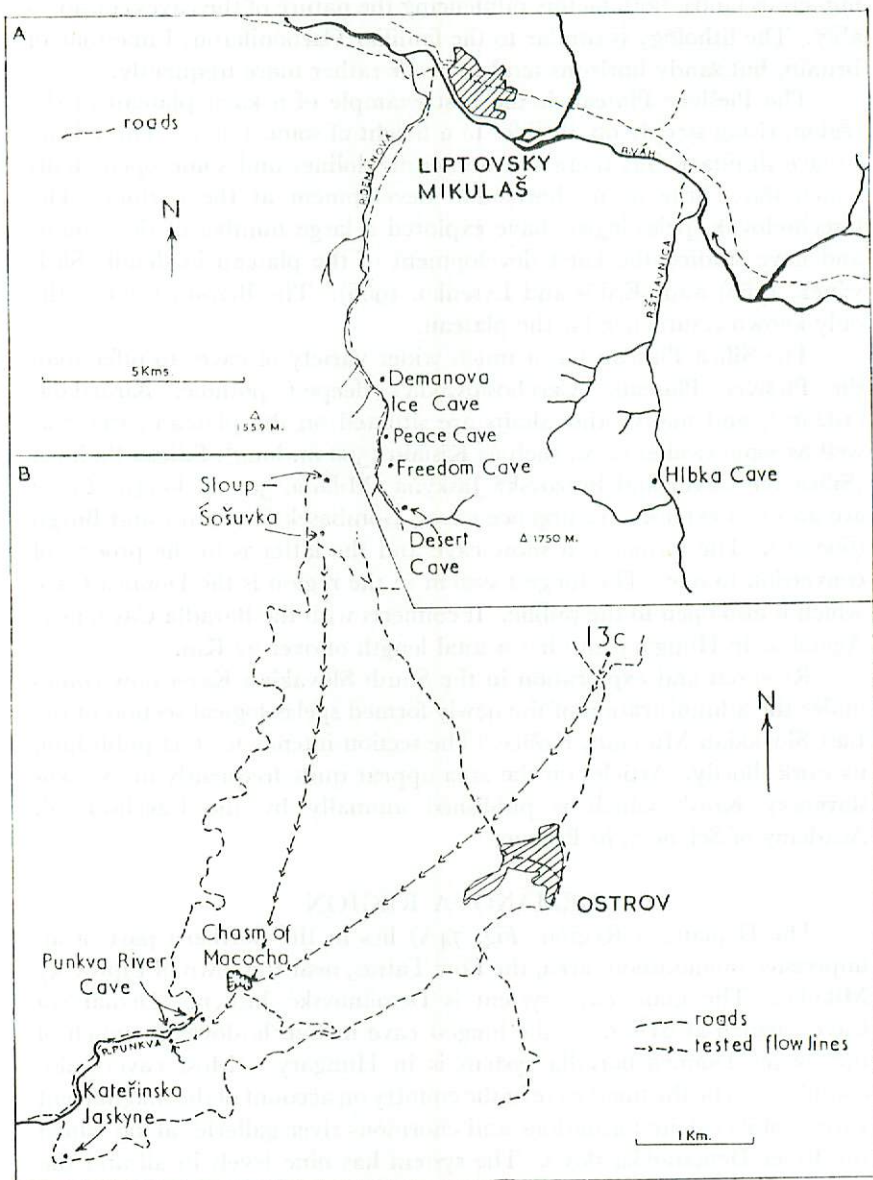


Fig. 74. A. The Demanova and Janská Valleys, Low Tatras. B. The Moravian Karst (northern section).

Triassic rocks flanking the metamorphic and igneous complexes of the Western Carpathian Mountains. The streams rise on the crystalline rocks and sink almost as soon as they reach the limestone, which is massively bedded and exceptionally pure. It is traversed by several minor faults but these have had no appreciable effect on the formation of the caves.

The neighbouring Janská valley is similar in many ways to the Demanova valley but no large system has yet been discovered. The River Štiavnice, which is comparable in volume to the Demänovka, resurges from Jaskyne Hlboka (Deep Cave). The upstream sump of this short cave provided the expedition with an interesting diving site but although several small air-spaces were found entry was not gained to the system which must exist beyond the sump. The swallets are 3 km. further up the valley and some 120 m. vertically above the rising.

Research in the Demanova Region is organized by the Karst Institute at Liptovský Mikuláš. The Institute has a karst museum and a large spelæological library and publishes a bi-annual printed journal "Slovenský Kras".

MORAVSKÝ KRAS (MORAVIAN KARST)

The Moravian Karst is an area of some 150 sq. km. composed of a highly complex series Devonian limestones. It lies to the north of Brno, near the town of Blansko. The most interesting system is the Punkva River Cave (*Fig. 74B*), a show cave, which connects with the bottom of Czechoslovakia's deepest shaft, Macocha (138 m.). The stream that is seen at the bottom of Macocha flows through part of the Punkva River Cave and resurges to form the River Punkva. There are two main swallets for the system. One is another show cave, Sloup-Šošuvka, some 5 km. to the north, the other a stream called the Bílá Voda, which sinks near the village of Holštejn, 5 km. N.E. of Macocha. The sink itself is impenetrable but in 1965 digging in the nearby pothole number 13 C revealed a 35 m. pitch which leads directly to the underground Bílá Voda (Slezák, 1966). The streamway ends in a sump after only 150 m. and is still some 4 km. away from Macocha. On the strength of the tested hydrological connection and a detailed geomorphological survey of the area the local spelæologists have launched an enormous campaign to extend the cave. The pitches have fixed ladders and the cave is equipped with a power supply and rock drilling apparatus. Progress is made solely by blasting away the roof of the sump.

The excavation of cave 13 C and many other research projects in the region are being undertaken by the spelæological section of the Moravian Museum, Brno. The section has a field centre at Skalni-mlýn, near the

Punkva River Cave, and publishes a printed journal "Kras v Československu" irregularly. Speleological articles also appear in the Museum publication "Časopis Moravského Musea".

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APPENDIX

EXPEDITION ORGANISATION

Personnel. Five members of the society took part in the expedition:—P. A. Standing (Leader), C. J. Gilmore (Treasurer), P. W. Kaye (Travel Officer), D. Savage (Diving Organizer) and M. J. Watson. Two non-members joined us in Czechoslovakia—P. Collett (Imperial College Caving Club) and J. T. Russum (Bradford Pothole Club).

Travel. The expedition's main vehicle was a 15 cwt. Commer Van which accommodated five members and most of the equipment. The outward journey was through Belgium, West Germany and Austria crossing into Czechoslovakia at Bratislava. The travelling time from Ostende to Bratislava, a distance of about 885 miles, was 35 hours including stops. The total distance covered during the expedition was 3,800 miles.

The roads in Slovakia are often poorly surfaced but the standard improves as one travels from east to west. Most of the larger villages have service stations and mechanical assistance is available at very reasonable costs. Service stations sell two grades of petrol—72 and 84 Octane and some also have a super grade (92 Octane) for tourists. British and German motor oils are available.

Currency. The present currency regulations dictate that tourists must spend a minimum of 22s. (50 Czech Crowns at pre-devaluation rates) per day. However members of speleological expeditions can apply for business visas, if they have an official letter of invitation, and in this case there are no financial restrictions. Czechoslovakia has a closed system of currency and the import and export of Czech Crowns is illegal.

Accommodation. There are many well appointed tourist camp sites in Czechoslovakia, but campers are not obliged to use them. In the South Slovakian Karst the expedition camped at Gombasek, whilst in the Demanova Valley and Moravian Karst we stayed in local caving huts.

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