

Proc Univ Bristol Spelaeol Soc. 1974, 13 (3), 375-389.

UNIVERSITY OF BRISTOL SPELAEOLOGICAL SOCIETY EXPEDITION TO YUGOSLAVIA, 1973

By
C. A. SELF

Personnel

The six expedition members were:—

Adrian G. Wilkins	Charles A. Self	Martin J. Grinsted
Richard T. F. Marsh	Julian D. Walford	Carol M. Thomas

AGW was a postgraduate and CAS a student at Bristol University in 1973. The other members were former students of the University. AGW and JDW were qualified members of the Cave Diving Group (Somerset Section).

INTRODUCTION

As a follow up to the very successful expedition to Northern Yugoslavia in 1972 four members of that expedition decided to return in 1973. CMT and RTFM joined to make the number up to six. Late summer was chosen as the most suitable time for caving since in Slovenia water is then at its lowest level.

The expedition left England on August 16th; AGW drove his own car, a TR3, with CAS as passenger. He intended to stay abroad for 3½ weeks. MJG drove his own car, a Hillman Super Minx, with JDW and RTFM as co-drivers and CMT as passenger. They intended to stay for 2½ weeks. Credit for the pre-expedition planning and organisation goes to AGW as expedition leader. Other expedition duties were not delegated, in the hope that all work and decisions would result from mutual agreement. Even with only six people this proved difficult at times.

Good contacts had been established in 1972 with local cavers so no problems were expected in arranging useful research and exploration for us. Unfortunately just before we reached Yugoslavia all caves became part of national security. This meant that access to caves by foreigners, (except show caves), was withdrawn, and cave exploration by us illegal. We therefore limited our investigations to caves away from roads and possible official notice.

Despite this restriction, considerable diving and caving effort was possible. The first part of the expedition's time was spent exploring caves

near the low-lying basins of the area between Postjona, Vhrnika and Cerknica, which was misnamed in the report of the 1972 expedition as Menisija. (This in fact lies a short distance to the northeast). We camped in Laze, a village central to this area. Despite four dives and three abortive dives by AGW, no new sumps were passed. The caving was barely more successful, the only noteworthy discoveries being a 70 m. extension to Lunkov Gobec, and an original exploration of Jama na Lokah.

For the second part of the expedition we camped near Planina za Scalo, a solitary shepherds' hut high in the Julian Alps east of the village of Soca. Twelve potholes were explored, one of which was 184 m. deep, and, given more time, it would have been possible to descend many more smaller caves.

At this stage MJG, CMT, JDW and RTFM returned to England, followed within a week by CAS, who hitch-hiked. Left on his own AGW made some minor discoveries in Rakov Skocjan, and finally explored the water passage of Brezno pri Gamsovi Glavici, a very deep cave in the Julian Alps.

Members suffered no serious illnesses or injuries during the expedition. AGW needed hospital treatment for a scorpion bite.

Caving equipment taken consisted of 1000 ft. of eight-strand, plaited terylene rope in lengths of 500, 300 and 200 ft. A further 180 ft. of hawser-laid 1¼ in. circumference ulstron rope was taken. Six pairs of jumars completed this tackle for long pitches. Only once was this equipment needed, when a 610 ft. deep shaft was descended. Two ropes were tied together with a double fisherman's knot, which can be passed by complex prusiking techniques. Some ropes were borrowed from local clubs at the end of the expedition after our own tackle had gone back to England. For use on short pitches 8 lengths of 25 ft. electron ladders and tethers were taken. For protective clothing, nylon boiler suits were worn over old clothes, whilst for wet caves near Laze wetsuits were worn.

For diving 4 x 40 cu.ft. air cylinders and four valves were carried. 1000 ft. of diving line were taken but only half was used. The remainder was donated to the Cave Diving Group. Air cylinders could not be recharged in Yugoslavia, despite every assurance that this would be possible.

Electric lights were generally used. One Oldham lamp and one NiFe cell being taken per person. These lamps were recharged from car batteries by use of a constant voltage device for Oldhams and a constant current device for NiFe cells. Carbide lamps were used for auxilliary lighting.

Three cameras were taken but all suffered mechanical breakdowns. One was repaired so that some surface photographs were taken.

The full details of the expedition's activities are given in the Expedition Log, below. Technical information on geology and hydrology were published in the 1972 Expedition Report (Wilkins and Self 1973) and are not repeated here.

ACKNOWLEDGMENTS

The expedition would not have been possible but for the generosity of the University of Bristol Expedition Society, which gave £200 towards our expenses. Without a cash grant of this magnitude the transport costs would have been prohibitive.

Sponsorship from private companies this year was disappointing, but we are extremely grateful to the following companies for the donation of their products for the second year running:—

Brooke Bond Oxo Ltd.
 Bryant and May Ltd.
 Imperial Chemicals Industries Ltd.
 Proctor and Gamble Ltd.
 Tate and Lyle Refineries Ltd.
 Unilever Export Ltd.

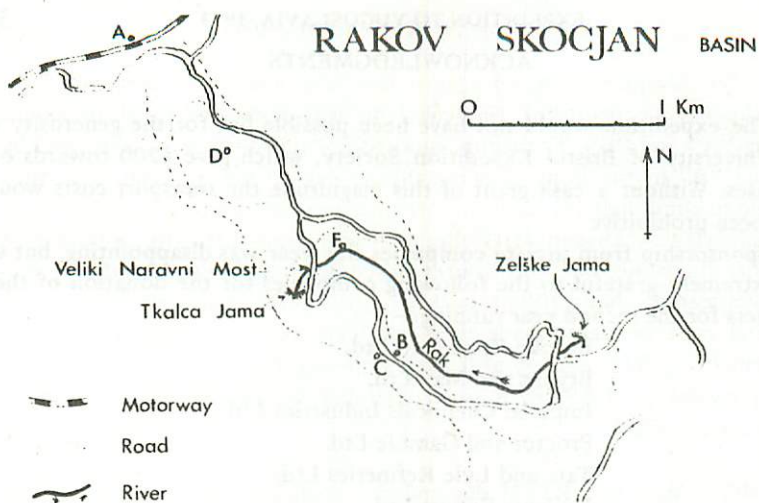
FINANCIAL REPORT

Income	£	p	Expenditure	£	p
Grant from expedition Society	200	00	Transport:		
Pre-expedition subscriptions	36	00	Hovercraft fares	81	00
Main expedition subscriptions	120	00	Insurance	18	20
Post-expedition subscriptions	30	00	Petrol	123	20
	<hr/>		Spares and repairs	51	97
	386	00	Personal fares	14	50
				<hr/>	
Sale of unused food	2	00		288	87
			Food	77	40
			Additional equipment	6	25
			Extra living expenses	10	10
			Postages and sundries	1	68
				<hr/>	
			Balance towards cost		
			of report	3	70
	<hr/>			<hr/>	
	388	00		384	30
				<hr/>	
				388	00

EXPEDITION LOG

The expedition left on August 16th 1973. The route taken was the same as the one used in 1972, which involved crossing the Channel on the Ramsgate-Calais hovercraft service, then travelling through France, Belgium, Holland, Germany and Austria and so to Yugoslavia via the Wurzen Pass. The night of August 17th was spent in a camp site in the woods near Kranjska Gora.

Contact was established the next day with caving friends "A" and "B". A camp site was established, by the courtesy of a local farmer, at Laze where we stayed for the next nine days.



PLANINA ZA SCALO JULIAN ALPS

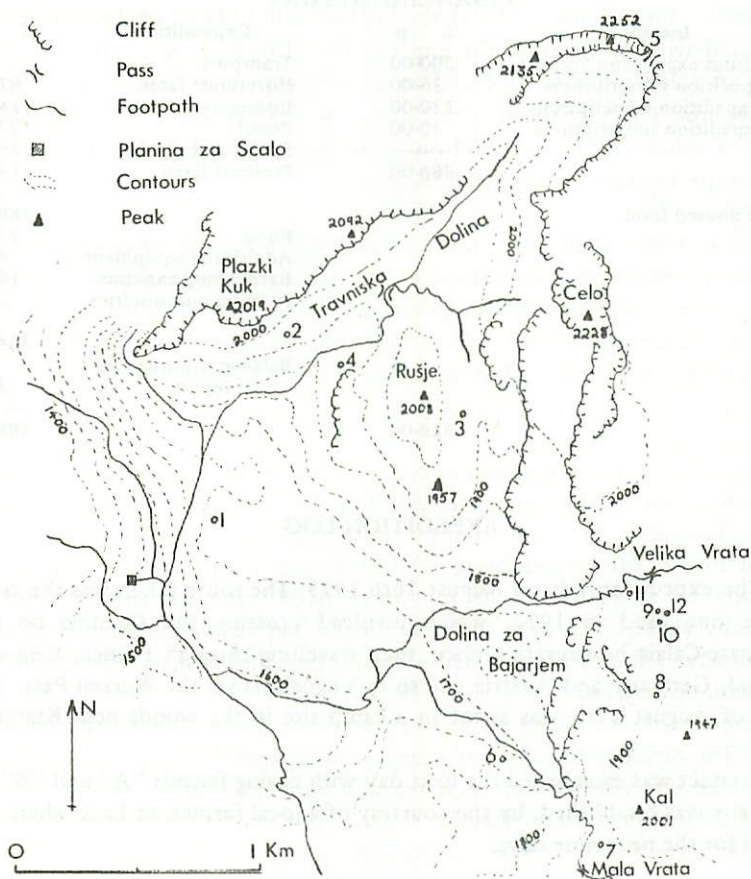


Fig. 115.

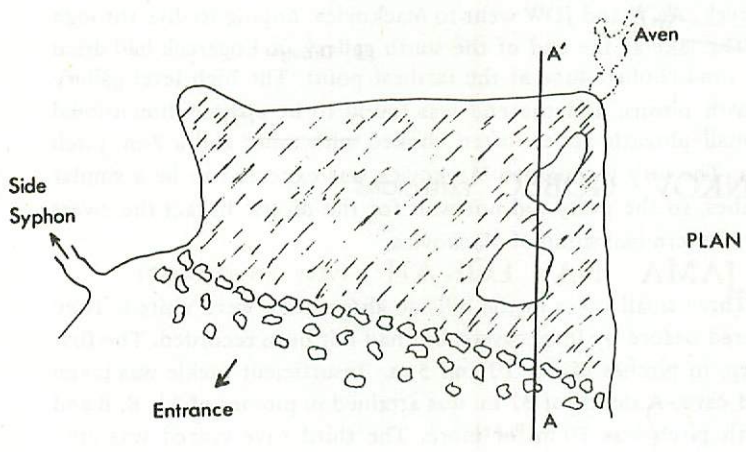
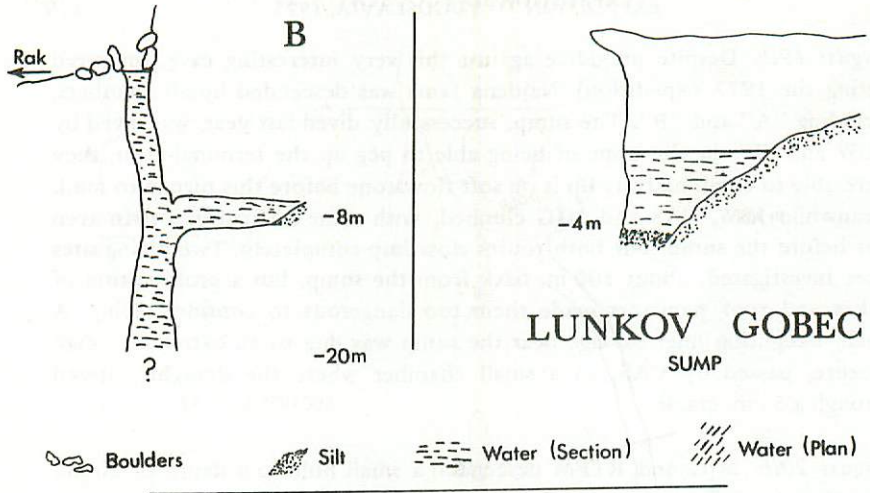
August 19th. Despite prejudice against this very interesting cave, (incurred during the 1972 expedition), Najdena Jama was descended by all members, including "A" and "B". The sump, successfully dived last year, was dived by AGW and "B" in the hope of being able to peg up the terminal aven; they were able to climb halfway up it on soft flowstone before this turned to mud. Meanwhile JDW, CAS and MJG climbed, with some difficulty, a twin aven just before the sump, but both routes closed up completely. Two diving sites were investigated, about 100 m. back from the sump, but a proliferation of flakes and roof pendants made them too dangerous to consider diving. A small, daughting inlet passage near the sump was dug to an extremely small squeeze, passed by CAS, to a small chamber where the draught entered through a 5 cm. crack.

August 20th. MJG and RTFM descended a small hole to a depth of 10 m., near the camp site at Laze. Later CMT, RTFM, CAS, MJG and "B" went to the cave Logarcek. AGW and JDW went to Mackovica, hoping to dive through to Logarcek. The lake at the end of the south gallery of Logarcek had dried up to leave a mud-choked tube at the farthest point. The high level gallery was entered with pitons, and the end was found to be a three dimensional network of small phreatic tubes, often choked with mud, and a 7-m. pitch into a syphon. The way through to Mackovica was expected to be a similar network of tubes, so the party did not wait for the divers. In fact the divers did not locate the terminal sump of Mackovica.

August 21st. Three small caves in the hillside above Laze were visited. They had been entered before by local cavers, but had not been recorded. The first was 35 m. deep, in pitches of 20, 10 and 5 m. Insufficient tackle was taken for the second cave. A depth of 37 m. was attained in pitches of 11, 8, 8 and 10 m. The fifth pitch was 10 m. or more. The third cave visited was only 10 m. deep.

August 22nd. The impressive entrance to Zelska Jama was visited, before moving on to the small resurgence (*fig.* 115, B), a feeder of the river Rak from the Javorniki. This was dived by AGW to a depth of 8 m. to where it branched into a silt-choked horizontal level, the main passage continuing downwards to a depth of 20 m. when AGW gave up and returned. Two nearby shake-holes were then examined: one was completely choked with boulders. The other contained a small pond and a short passage to a syphon with no way on.

In the afternoon, diving kit was carried down Tkalca Jama, the sink of the Rak. The raging torrent of last year had completely disappeared and the terminal lake was reached before water was seen. AGW dived the lake to a depth of 20 m. in a large, steeply sloping, boulder-floored passage — an underwater scree slope. The passage continued downwards at 45° and was



TKALCA JAMA LAKE

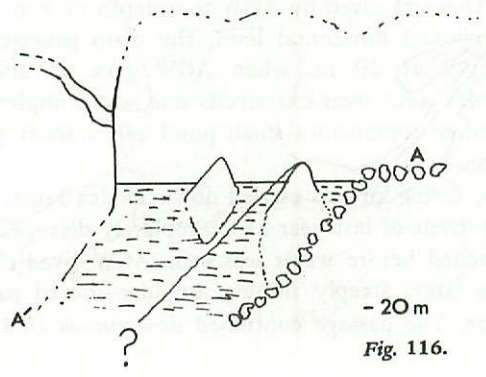
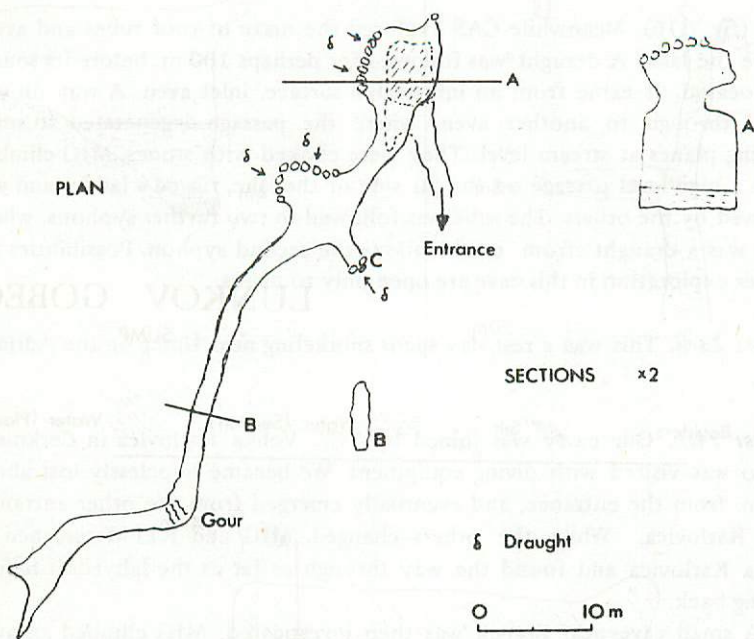


Fig. 116.



LUNKOV GOBEC EXTENSIONS

JAMA NA LOKAH (VERY APPROXIMATE)

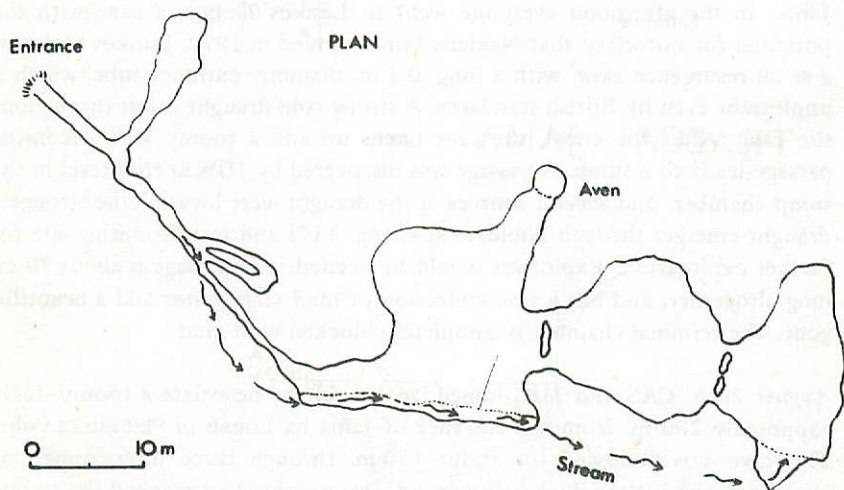


Fig. 117.

huge (fig. 116). Meanwhile CAS explored the maze of roof tubes and avens before the lake. A draught was followed for perhaps 100 m. before its source was located. It came from an impassable surface, inlet aven. A way on was found through to another aven, where the passage degenerated to small bedding planes at stream level. They were choked with stones. MJG climbed up to a high-level passage on the far side of the lake, rigged a ladder and was followed by the others. The tube was followed to two further syphons, where there was a draught from cracks above the second syphon. Possibilities for further exploration in this cave are open only to divers.

August 23rd. This was a rest day spent snorkeling near Umag on the Adriatic coast.

August 24th. Our party was joined by "C". Velika Karlovica in Cerknisko Jezero was visited with diving equipment. We became hopelessly lost about 200 m. from the entrance, and eventually emerged from the other entrance, Mala Karlovica. While the others changed, MJG and RTFM returned to Velika Karlovica and found the way through as far as the labyrinth before turning back.

A small cave near Stebek was then investigated. MJG climbed an aven above the terminal syphon, followed by CAS, but this only connected with another part of the syphon. On the retreat MJG dislodged a large boulder into a constriction in the aven, thus making an unpleasantly tight squeeze. MJG and CAS then explored the rest of the cave, which closely resembles a boulder ruckle. RTFM crawled along the entrance passage of nearby Lunkov Gobec, and returned swearing.

August 25th. CMT and RTFM spent the morning tourist caving in Skocjanske Jama. In the afternoon everyone went to Lunkov Gobec, a cave with the potential for notoriety that Najdena Jama enjoyed in 1972. Lunkov Gobec is a small resurgence cave, with a long, 0.3 m. diameter entrance tube, which is unpleasant even by British standards. A strong cold draught is felt throughout the cave. After the crawl, the cave opens up and a roomy well decorated passage leads to a sump. A passage was discovered by JDW at roof level in the sump chamber, and several sources of the draught were located; the strongest draught emerges through boulders at C (fig. 117) and is a promising site for further exploration. Explosives would be needed. The passage is about 70 m. long altogether, and has a fine collection of mud stalagmites and a beautiful gour. The terminal chamber is completely blocked with mud.

August 26th. CAS and MJG hoped to be able to negotiate a roomy duck, supposedly 200 m. from the entrance of Jama na Lokah in Planinska Polje. The cave was followed for about 150 m. through three inter-connecting chambers without the duck being found. Dry weather had reduced the stream to a trickle, but a large fish, in an advanced stage of decomposition, badly

polluted the water. The stream was last seen disappearing under boulders in a flat-out squeeze in the final chamber, but was not followed. MJG also climbed a muddy, blind aven in the first chamber. It later transpired that the cave had not previously been explored beyond 20 m. A rough plan is given in *fig. 117*.

AGW, MJG and RTFM later carried diving equipment down Lunkov Gobec, but the sump was filled with black ooze. If flood water comes up from the sump, it must displace mud which later slumps back (*fig. 116*).

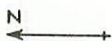
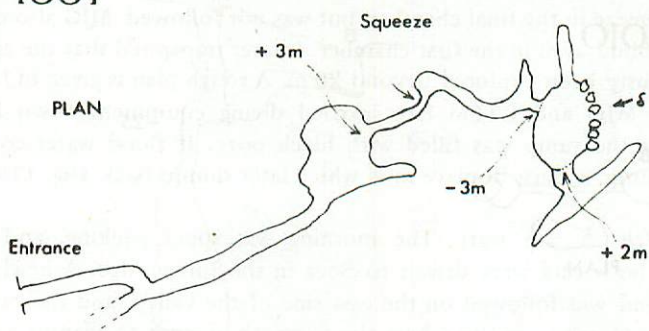
August 27th. A late start. The morning was spent packing, and in the afternoon both cars were driven to Soca in the Julian Alps. A newly made forestry road was followed on the east side of the valley, and the cars were parked in a clearing near to where the footpath ascends to Planina za Scalò. "D" and "E" were collected from Soca, and the night was spent in the clearing.

August 28th. Tents, food, and caving equipment were carried in grossly overladen rucksacks up to Planina za Scalò, a shepherds' hut. The ascent was about 700 m., but was easier terrain than the 1972 expedition's ascent to Kriski Podi, involving very little scree or scrambling. By 0800 hrs. light rain was falling, so the tents were pitched immediately on arrival at the hut. The rest of the day was spent in the convivial company of the shepherds, while the storm raged outside.

August 29th. A disappointing day since Travniska Dolina, the area to which we had been assigned, was almost devoid of caves. A few caves high on the flanks of one of the mountains had already been fully explored according to "D". (We learnt later that this was not true). The caves were therefore ignored. In Travniska Dolina the rock is very heavily fractured, and the small potholes in the valley floor are all choked with boulders. Some small sites were numbered with paint (*fig. 115*).

4001. A pothole near the path between Planina za Scalò and Travniska Dolina. The pothole is 5 m. in diameter and 17 m. deep to a boulder floor with some snow.
4002. A cave 13 m. long in the floor of the Travniska Dolina. The cave roof has collapsed for 10 m.
4003. A collection of small potholes, all 4 m. deep, in the pass between Rusje and Celò. There are other isolated holes of similar dimensions in the pass.
4004. (*Fig. 118*). A horrid horizontal tube was followed for 25 m. to a squeeze from which a strong draught emerged. The cave is on the southeast side of Travniska Dolina.
4005. A pothole, on the saddle between Travnik and Vrsac, 5 m. diameter and 15 m. deep to a snow and boulder floor.

4004



0 10m

4009

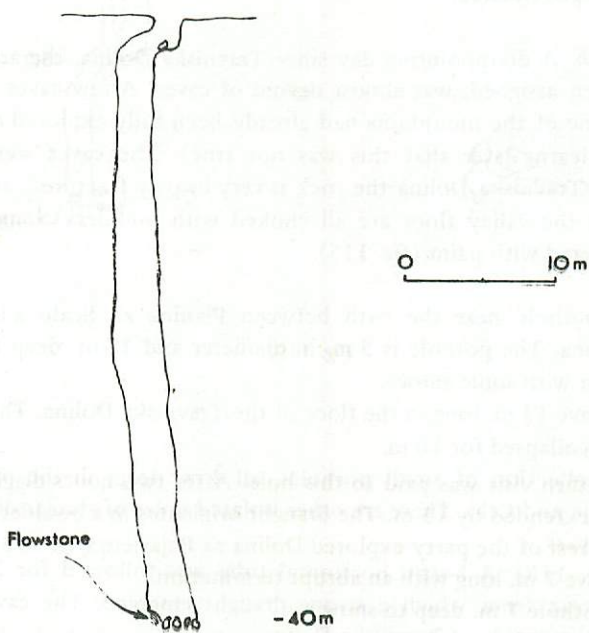


Fig. 118.

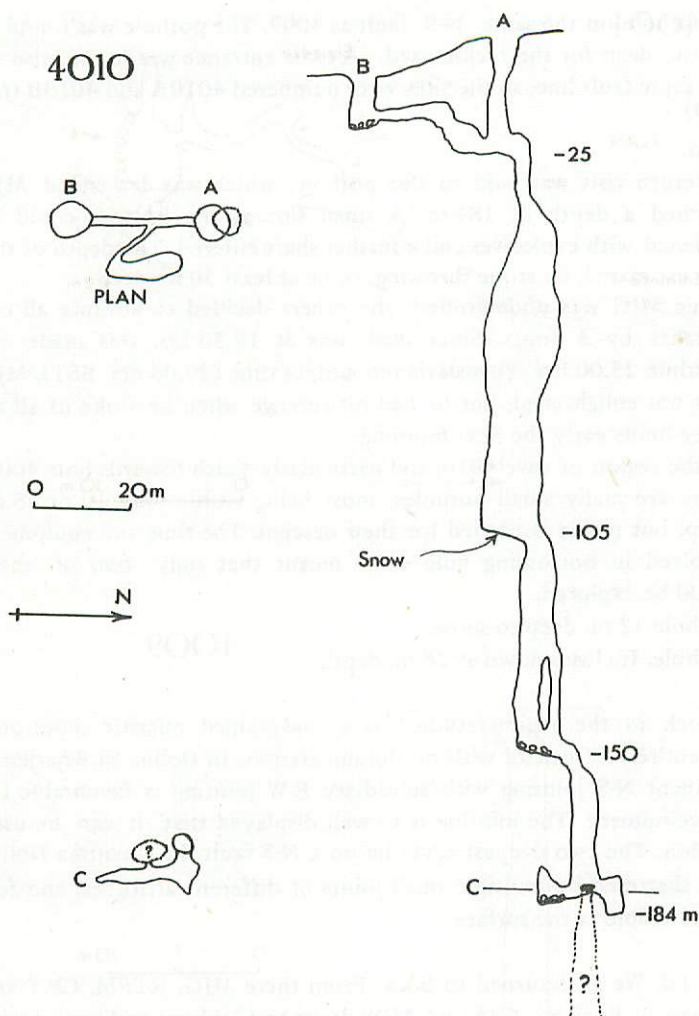


Fig. 119.

August 30th.

4004. A return visit was paid to this hole. After two hours digging the cave was extended by 15 m. The draught originates in a boulder choke.

The rest of the party explored Dolina za Bajarjem (fig. 115).

4006. A cave 7 m. long with an abrupt termination.

4007. A pothole 7 m. deep to snow.

4008. A long rift, mostly open to the surface, but choked with snow at 15 m. depth. The cave is located along a small fault.

4009. A pothole 40 m. deep with a stoney floor (fig. 118).

4010. A pothole on the same N-S fault as 4009. The pothole was found to be too deep for the tackle used. A twin entrance was found, also on the same fault line, so the sites were numbered 4010A and 4010B (fig. 119).

August 31st.

4010. A return visit was paid to this pothole, which was descended. MJG reached a depth of 184 m. A small slot at the bottom could be widened with explosives and a further shaft entered. The depth of this was estimated, by stone throwing, to be at least 30 m. deep.

While MJG was underground, the others decided to advance all our watches by 3 hours. Since dusk was at 19.30 hrs. this made our bedtime 23.00 hrs. Yugoslavian mountain time (20.00 hrs. BST). MJG was not enlightened, but he had his revenge when he woke us all up three hours early the next morning.

In the region of cave 4010, and particularly south towards hole 4008, there are many small potholes, most being visibly only 10 or 15 m. deep, but tackle is needed for their descent. The time and equipment involved in bottoming hole 4010 meant that only two of these could be explored.

4011. Pothole 12 m. deep to snow.

4012. Pothole. It closes down at 28 m. depth.

The rock in the region studied is a fine-grained micritic limestone, composed entirely of calcite with no dolomitisation. In Dolina za Bajarjem a very prominent N-S jointing with subsidiary E-W jointing is favourable for pothole development. The jointing is so well displayed that it can be used for navigation. The two deepest caves lie on a N-S fault. In Travniska Dolina the rock is shattered by multiple small joints of different attitudes, and few cave sites are visible at the surface.

September 1st. We all returned to Soca. From there MJG, RTFM, CMT and JDW returned to England. CAS and AGW drove to Ljubljana and stayed with friends.

September 2nd. The day was spent walking in the gorge of the Pekel river near Borovnica. CAS was very ill during the night with non-alcoholic digestionary problems.

September 3rd. Arrangements had been made to meet "F" in Ljubljana before travelling to Ljubljanska Jama in the Kamniske Alpe. As the three of us were about to leave in the TR3, "G" turned up intending to come with us. He was persuaded to go by bus. He was not on the bus when it arrived at Kamniske Bistrice Dom. He turned up later on a motorbike, by which time it was early afternoon, the hottest time of the day. The climb to the cave is

900 m., initially quite pleasant along a footpath in a forest. The second half of the climb was on a 30° grassy, scree slope, very arduous when carrying heavy rucksacks. It was sunset by the time we were ready for caving. 150 m. of rope and a small stove for brewing tea was packed in one enormous tackle bag which "F" insisted on taking; it would have been far easier to carry the ropes individually. Appallingly slow progress was made down the old gallery, due mainly to the fact that "G" had forgotten his descendeur, so one had to be pulled back up every pitch for him. By superb organisation we ran out of rope two pitches from the bottom. It was here that "G" asked us to teach him how to prusik. He also informed us that he had to be in Ljubljana by 0900 hrs., leaving us insufficient time to peg up an unclimbed aven in the New Gallery, the whole purpose of visiting the cave. In a futile attempt to speed up the retreat, AGW and CAS took it in turns to prusik with rucksack. Stops for tea or cigarettes became more frequent and with a cave temperature of 3°C we were all getting very cold. We were out of the cave by dawn, after 9½ hrs., when by Yorkshire standards the trip should not have taken more than 4 hrs. This was not atypical of Yugoslavian style caving.

September 4th. Partly spent resting followed by descent to the car and return to Ljubljana.

September 5th. AGW was still keen to find new cave passages; CAS was sated with Yugoslavian caving. By mutual consent CAS hitch-hiked back to England. The journey took three days.

AGW went to Rakov Skocjan, and visited a very large shakehole/dolina near Unec. A cave halfway up the 100 m. high cliff walls is said to exude fog in winter. AGW noticed the cave from the far side of the dolina, and tried unsuccessfully to reach it. He then retired to Rakek for the night.

September 6th. AGW and "A" visited several small potholes in the vicinity of Rakov Skocjan. These had not been previously entered (*fig. 116*). Cave A is only 4 m. deep, and was opened up during the construction of the motorway. Cave C is 9 m. deep to a sump seen to be going under the road; this cave is very close to the rising B dived on 22/8/73, but on the opposite side of the road. Cave E is located by the roadside, 2 km. south of Zelske Jama; it is 13 m. deep.

Site F is a dig upstream from Veliki Naravni Most, a natural arch over the river Rak. This was dug by AGW but without producing a passable entrance. AGW and "A" spent some time climbing into the roof tubes of Tkalca Jama, but were not rewarded for their efforts.

September 7th. AGW succeeded in entering the cave in the large dolina near Unec. The cave is merely an opening to a 6 m. high aven. A trap door in a nearby ruined building was lifted to reveal an artificial tunnel, which lead to a maze of blasted passages about 1.5 km. long. Some were partially flooded.

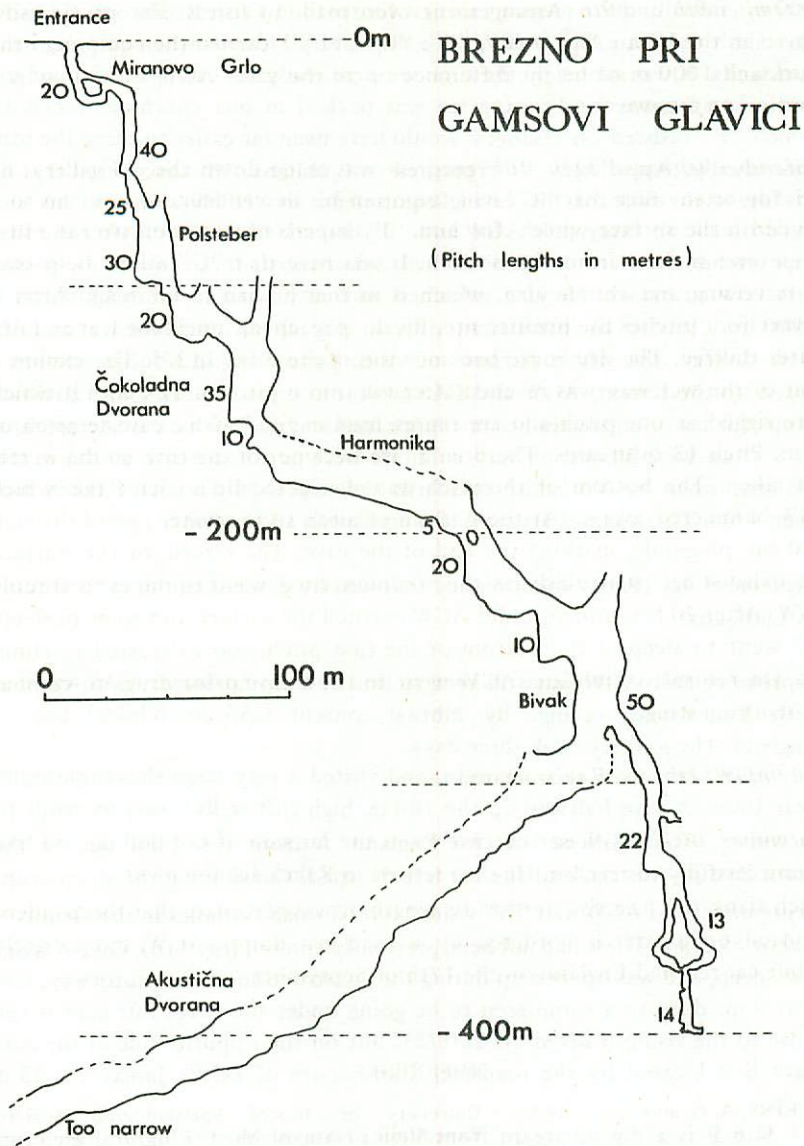


Fig. 120

There were about 20 shafts from the surface, and this complex must be the source of the fog in winter, disgorging from a shaft very close to the natural cave.

At Rakov Skocjan, cave D was found to be 12 m. long. AGW and "A" revisited Rtkalca Jama with a pine log ladder to enter an aven which closed up quickly.

September 8th and 9th. Arrangements were made to visit Brezno pri Gamsovi Glavici in the Julian Alps. AGW, "B", "H" and "I" carried the equipment the 7 km. and 1000 m of height difference up to the cave. AGW was stung by a scorpion on the way.

September 10th and 11th. "I" returned to Ljubljana. "B" discovered that he had forgotten most of his caving equipment, so "H" volunteered his and stayed on the surface while AGW and "B" descended the cave. After the first seven pitches the Harmonika is reached, a narrow rift that can only be passed by traversing and chimneying, which is not easy with tackle bags. After a further four pitches the bivouac site, Bivak, is reached, where the wet and dry routes diverge. The dry route becomes too narrow (*fig. 120*). The explored limit of the wet way was reached after two more pitches, 12 and 13, which were rigged as one pitch and are represented in *fig. 120* as a single pitch of 22 m. Pitch 13 bifurcates. The drier route became too narrow, so the wetter was taken. The bottom of the pitch was obstructed by a rock flake, which AGW hammered away. At the bottom of pitch 14 the water passed through a 10 cm. plug-hole, marking the end of the cave. The return to the surface was exhausting, particularly as the scorpion sting was beginning to trouble AGW. After 20 hrs. underground AGW reached the surface and went to sleep; "B" went to sleep at the bottom of the first pitch, too exhausted to climb out. On return to Ljubljana AGW went to the hospital for drugs to combat the scorpion sting.

September 12th. AGW recuperated.

September 13th. AGW set off for England. A front tyre blew out on the Tauern Pass in Austria, and the car left the road. Considering the steep drops which flank the pass for most of its length, it was fortunate that the accident occurred on a stretch bordered by a road grit dump. AGW and a barely mobile car reached England on the 17th of September.

REFERENCE

- WILKINS, A. G. and 1973 University of Bristol Speleological Society
SELF, C. A. Expedition to Yugoslavia, 1972. *Proc. Univ. Brist. Spaeleol Soc.* 13 (2), 245-284.