



## WESSEX CAVE CLUB

Journal No. 112, Vol. 9

June 1967

### CLUB NEWS

#### Derbyshire

This region of the Pennines is becoming more popular amongst Club members, and is now but a few hours driving distance away for most of us in the South. Thus we are delighted to announce that Sheffield University Speleological Society have kindly offered any visiting party of Wessex members accommodation and hospitality in the district.

The S.U.S.S. have a small hut at Rowten Farm, barely five minutes walk from Nettle and Oxlow Pots. The hut is a converted railway box-wagon which has all the necessary services and is able to sleep up to eight people. For those unfamiliar with the caves in the area the University have generously offered to arrange and lead any trips, granted sufficient notice is given. We would like to record our sincere thanks to the S.U.S.S. and its members for these facilities. For more details, please contact:-

J. Phillips, Esq.,  
Sheffield University Speleological Society,  
c/o The Students' Union,  
University House,  
SHEFFIELD 10.

#### The Annual General Meeting and Dinner

Members are reminded that this year's A.G.M. and Dinner will take place on Saturday, 21st October. As in recent years the meeting will be held at Priddy Village Hall in the afternoon. Advanced attention is drawn to CLUB RULES Nos 5 and 18:-

- "5 That the affairs of the Club shall be conducted by a Committee which shall consist of a Chairman, Honorary Treasurer, Honorary Secretary, Honorary Assistant Secretary, Gear Curator and nine other members who shall retire annually and be eligible for re-election, and that the Honorary Secretary of any group within the Club be eligible to attend a committee meeting in an ex officio capacity, and may nominate a substitute to any meeting which he cannot attend personally. All members standing for office or for membership of the Committee must be nominated by two members of the Club. The Committee shall fill any casual Vacancies. An Honorary Auditor shall be appointed each year at the Annual General Meeting."
- "18 That notices of motions for discussion at the Annual General Meeting shall be received by the Honorary Secretary not more than two weeks after the posting of the notices of the meeting. Such notices of motions must have the names of the proposers, and be circulated to members at least seven days prior to the meeting."

It is hoped that neither of these important rules escapes the full attention of all members, especially at a time when the club is going through such an interesting and exciting phase in its long history. The formal and final notice will be published in September.

We are pleased to announce that Sir John Wedgewood will be Guest of Honour at the Club Annual Dinner the same evening. Full details will be published in a later issue of the Journal.

#### Notification of Changes of Address

This is a time-of year in particular when the Club needs to keep an accurate up-to-date record of its membership. Any members who move temporarily or who are away for some time are asked to leave a forwarding address, and those who move permanently are urged to notify the Honorary Secretary of their new address as soon as possible. Please put any notice in writing as it requires circulation amongst many officers who deal with the distribution of correspondence and other important club business.

#### New Members

We welcome the following new members, elected on 23rd April 1967:-

B.L. Hansford, 1 Cross Street, Winchester, Hants.

T.J. Rees, 26 Smithamdowns Rd., Purley, Surrey.

#### Club Car Badges

For a number of years car badges have been available through C.J. Hawkes, 147 Evington Lane, Leicester, at little more than cost. Because of their high quality and method of manufacture it has been practice to await requests from several members before placing a block order with the firm in question. Inevitably this may mean delays for some. However, if you would like a car badge, or have any queries, please contact Christopher Hawkes.

#### Hillgrove Hut Regulations

The Committee and the Hut Warden have drawn up the following set of regulations which all members and their guests who stay at Hillgrove are asked to observe: -

1. Nailed footwear is not to be worn in the Hut.
2. Each person staying at the Hut is responsible for ensuring that:-
  - a) All his (or her) washing up is done.
  - b) All his (or her) rubbish is either removed or incinerated.
  - c) His (or her) personal belongings are kept tidy.
3. Each member is expected to assist in keeping both the Hut and the site in a tidy and hygienic condition.
4. Reasonable quiet is expected from members and their guests after 11pm, the lights to be out as soon as possible.
5. Generally, radios are not allowed in the Hut.
6. The Hut is not to be used as a changing room.
7. Dirty caving kit is not to be left in the Hut, and kit left out to dry is to be removed and put away as soon as possible.
8. The last person to leave should see that:-
  - a) The calor gas is turned off at the main tap.
  - b) The electricity supply is turned off at the main switches.
  - c) The stove, if alight, is damped down.
  - d) All windows are shut.
  - e) The doors are all locked.
  - f) The Hut is left in a tidy condition.

## Club Dig at Fairman's Folly

The Club Dig at Fairman's Folly has suffered a temporary setback. Owing to the wet weather of recent months, the mud around the shaft has slumped into the shaft and has collapsed the shoring in the lower part of the shaft which is now unsafe. However, a new technique is being developed to prevent this happening again and it is hoped to restart the dig later on this year. Meanwhile, until everything is ready to restart at Fairman's, the diggers have turned their attention to Nine Barrows Swallet. Anyone interested should contact the Technical Projects Organiser:- A.J. Surrall, 216 Evesham Ed., Headless Cross, Redditch, Worcs.

## Club trip to America 1968

Donald Thomson is organising this proposed trip and it would be a great help to him if anyone interested could drop him a postcard. Although this would commit them in no way whatsoever, it would give him some figures to work on. Neither the dates, nor the length of the trip, have been settled but three weeks is suggested for the length. The caving area has not been fixed either, but it is hoped to get advice about this from the N.S.S.

It is not intended to confine the trip to Wessex members, but to run it as a joint caving club enterprise, and although we intend to do a good deal of caving, some members of the party will want to do some sightseeing, and this should be quite easy to arrange. It is not known yet what the cost will be, but it will obviously depend on the number who travel. The money will have to be handled by a travel agent, as the sum is enormous.

Could anyone interested please write to Donald Thomson at Pinkacre, Leigh-on-Mendip, Bath, Somerset, with the following information:-

1. How much would you be prepared to spend on the trip as a whole? £60, £120 or £150?
2. Have you any preference about the area visited? - and if so
3. Have you any first-hand information about the area?
4. What month, and for how long, would you like to go?
5. Would you be interested in going by ship, understanding that this would mean lengthening your trip by ten days, and being responsible for several crates of equipment belonging to other people?
6. Would you be interested in giving lectures about British or Continental caves to people they seem to call spelunkers?

## CLUB MEETS

Please give the Leader prior notice of your intention to join a trip.

Saturday June 24th 9.0 pm Barbeque Leader: Donald Thomson, Pinkacre, Leigh-on-Mendip, Bath, Somerset. Price 10/6 a head which includes 'beer and bangers'.

Weekend July 1st/2nd. Forest of Dean. Enquiries to: Roy Staynings, 8 Fanshawe Road, Hengrove, Bristol 4.

Saturday July 8th 3.0 pm G.B. Cavern Leader: Roy Staynings - see above.

Saturday July 15th 2.30 p.m. Eastwater

Leader: Will Edwards, 91 Rookery Road, Knowle, Bristol 4

Sunday July 23rd 11.0 am. Lamb Leer Leader: R. Woolley, 64 Devonshire Road, Bristol 6.

Sunday July 30th. "Follow on" Introduction to Rock Climbing, Avon Gorge.

Leader: - Pete Gibbs, 40 Hollywood Road, Brislington, Bristol 4

Saturday August 5th 3.0 pm. Longwood/August

Leader: Dave Westlake, 41 Tristan Drive, Creech St. Michael, Taunton, Somerset.

Weekend August 12th/13th South Wales

Leader: Oliver Lloyd, Withey House, Withey Close West, Bristol 9.

Weekend August 19th/20th Steep Holm Leader: Roy Staynings - see above.

Saturday September 9th 3.0 p.m. G.B. Cavern Leader: P. Gibbs - see above.

Saturday September 16th 2.30 p.m. Loxton and Axbridge Leader: Will Edwards – see above.

Saturday September 23rd 2.30 pm. Lamb Leer

Leader: Hugh Pearson, 111 Hampton Road, Redland, Bristol 6.

Sunday October 1st 11.0 a.m. G.B. Cavern R. Wooley – see above.

Weekend October 7th/8th Derbyshire Leader: Alan Wicks, 193 Redland Road, Bristol 6.

Saturday October 14th 2.30 p.m. Bath Stone Mines Leader: Will Edwards - see above.

Saturday October 21st A.G.M. and Dinner

Weekend October 28th/29th Agen Allwedd. Details from Roy Staynings – see above.

<u>Hon. Secretary:</u>	J.D. Hanwell, "Chaumbey", 50 Wells Road, Wookey Hole, Wells, Somerset.
<u>Hon. Asst. Secretary:</u>	R.M. West, Elm Tree Cottage, Hallatrow, Nr. Bristol.
<u>Hon. Treasurer:</u>	Mrs. B.M. Surrall, 216 Evesham Road, Headless Cross, Redditch, Worcs.
<u>Subscriptions Treasurer:</u>	G. Moore, 4 Hazelwood Road, Sneyd Park, Bristol 9.
<u>Hut Warden:</u>	P.M. Giles, C.P.O's Mess, R.N.A.S., Yeovilton, Yeovil, Somerset.
<u>Caving Secretary:</u>	R.J. Staynings, 8 Fanshawe Road, Hengrove, Bristol 4. Telephone: Whitchurch 3689.
<u>Hon. Editor:</u>	T.E. Reynolds, Yew Court, Pangbourne, Berks.

## LIBRARY NOTES

Donald Thomson

Occasionally something new and very useful appears in the Journal of another Club. This time the Westminster Speleo Group describe in their May/June issue a method of charging NiFe cells from car batteries. I am sure they will not mind if I quote them. You connect the two negative terminals together and then, through a 12 volt, 18 watt bulb, the two positives, and you charge the cell for a little longer than you used it last time. This method does cane the car battery, but it might make it easier to use NiFe lamps in the back end of Jamaica or Czechoslovakia.

In the Spring edition of The Speleologist (which is to appear quarterly in future) John Wooley's article on cave photography, mostly in the Gouffre Berger, is good. He uses much more apparatus than most of us, and the colour reproductions are not completely satisfactory, having the green cast and peculiar blue that one used to associate with Ilford material.

The N.S.S. News reports an accident in Howard's Cave, North Georgia. This was the result of ignition of petrol fumes seeping into the cave and three cavers were killed. Oil seepage has occurred in Britain when something nasty oozed out of the tip at Baker's Pit Cave, Buckfastleigh.

Other publications include the Devon Speleo Journal No. 98, and the South Wales Newsletter No. 54. This gives an historical account of the exploration of Ogof Ffynnon Ddu, but is already out-dated by the discovery of the Cwm Dwr link.

The Cave Research Group Transactions Volume 9, No. 2 consists of a detailed description of the Lancaster - EaseGill System with a survey. Spelunca Volume 6, No. 4 contains a survey and diagram of the Trou du Glaz.

## JUGOSLAVIA 1966

G. Pilkington

In retrospect, one must look back and wonder, remembering ones apprehension and misgivings. The place: Toulouse, France, the date: sometime around the end of July 1966. I had just been dropped by the 1966 Wessex Pyrenean Trip to hitch-hike alone from Toulouse to Postojna, Yugoslavia. The apprehension was due more to the fact that this was my first trip abroad than anything else, but about half an hour after the Wessex dormobile had disappeared into the distance I got my first lift, a lorry. The lorry driver being Spanish was quite pleasant and I was feeling really pleased with myself. Here I was, my first lift after only half an hour and going 100 miles in the right direction., All this made up for the fact that the driver insisted on stopping at just about every Routier (transport cafe) on the way to find out for me how England were faring against Portugal in the World Cup. Then my first incident of the journey occurred. I was just-beginning to drop into a slumber, lulled by the monotonous drone and vibration of the engine, when suddenly the lorry screeched to a halt. I awoke with a jolt, amid shouts and waving torches. It was the gendarmes. They flung open the doors of the lorry cab and a gendarme

shoved a blinding flashlight into my face and shouted something at me. I flapped, and sat there staring at him with a vacant expression on my face. Once again he shouted at me and waved his torch. I sat there dumbfounded as the lorry driver was forced from the cab. Then the gendarme, without any more, ado, flung his cape back over his shoulder, placed a hand on his now exposed gun and pointed to the floor. That meant only one thing in any language and I leapt from the cab so fast that I nearly bowled him over. Once again he repeated his question, but I could only speak about four words of French and he did not seem to know any of them. So, with a touch of hysteria in voice, I said "English". Now it was his turn to stare at me with a blank expression on his face. A few minutes passed (they seemed like hours at the time) then, thank God, his face suddenly cracked into a huge grin. He placed a hand on my shoulder, shook his head, then, still smiling, he walked back to his comrades who burst into laughter at something he said to them. My Spanish friend, now seated behind the driving wheel, with a smile on his face signalled me to get back into the cab which I did. Once again we trundled off into the night. In his broken English the lorry driver informed me that it was a road block set up by the gendarmes who were looking for a stolen shipment which was suspected to be on its way to the Spanish border. After this the only other major incident which springs to mind were the knife-brandishing Italians who kept shouting something about Abyssinia and the last war. So, to cut a rather tedious story short, my journey across France and Italy to Yugoslavia took six days to complete. I can't say that I really enjoyed it, probably because I was trying to get from A to B too quickly with too large a pack on my back for comfort. Eventually I arrived in Yugoslavia by train, having travelled in this manner for the last sixty miles or so because I had been ill for the last couple of days, the cause probably being Italian drinking water. Still, here I was at last, walking down the main street of Postojna. I must admit that even in my rather poorly state I felt a certain pride at having arrived at my destination and I even began to feel quite light hearted as I walked past the entrance to Postojna Jama (the huge show cave in the town - Jama means grotto or cave in Slovenian, the local language). I walked on to the camp site, following the signposts which appeared at regular intervals en route, the distance being about a mile. On reaching the camp site, I swiftly pitched my tent, collapsed into my sleeping bag and was soon sound asleep. Feeling vastly improved I was up at the crack of noon the following day and away to Rakek, the nearest town of any size to Postojna, with the object of contacting the other half of the expedition, John Russem of the Bradford Pothole Club. Unfortunately John was not to be found in Rakek, but I was informed that he was down on the Adriatic coast for a few days. So, feeling uplifted at the thought that at least my other half was near, I returned to Postojna to do some shopping before returning to my tent for an early night. But as usual, whenever you make plans for an early night, something always happens and this was no exception. I got back to Postojna all right, bought some eggs, etc., in the shops and just as I was walking back towards the camp site I espied two old acquaintances from the White Rose Pothole Club. Needless to say, Steve, Gabby and I arrived back at the camp site with my eggs and us very much the worse for wear, at a much later hour than I had earlier intended.

I stayed at Postojna for a few days while I sorted myself out. Then I moved to the Rakov Skokjan National Park for the 1966 International Speleological Camp and Conference which was held in the park itself and where, during the first day of the Conference, I finally met up with John. On the first morning of the Conference a lecture and slide show were given by Dr. Rhado Gospadaricho of the Karst Institute, Postojna, on the caving regions of Yugoslavia and on Slovenia in particular. Old Desperado (as we quickly named Dr. Gospadaricho) informed us that

we were to descend the two thousandth cave of Slovenia that afternoon and that this cave had a sixty- metre entrance pitch. The afternoon, when we arrived, at the entrance, the Yugoslavs who were there told us that the pitch was in fact seventy-five metres deep! The ladder that hung down this shaft was a rather curious looking object, the wires were the usual electron type, but the rungs, which were made of wood, were about nine inches wide and the rung spacing was about a foot - The lifeline was a rather dubious looking coullene rope. When it came to my turn to descend, to my surprise I found that the ladder was not too difficult to descend apart from the fact that my feet tended to skid off the now mud-coated wooden rungs. Soon the daylight began to fade away far above me, the now twisting ladder emerged into a huge chamber about the size of Sell Gill Chamber, the ladder landing on mud-coated boulders. After a moment or two I saw that the way on was down a calcite slope at the far end of the chamber. From here a drop through a window-type squeeze brought me into another largish chamber. At the end of this chamber was a small insignificant looking sump. A climb up a mud slope above the sump revealed a smallish bell type chamber, followed by a slithering traverse across a twenty foot high mud slope into another even smaller chamber. After a quick look round for any further possibilities, I returned to the foot of the pitch alone. Realising that someone was descending the ladder I sat down and waited. When the person descending the ladder was within about thirty feet of the bottom he was suddenly held tight by the lifeliner, who obviously thought it was great fun to hold the climber in this awkward position, unable to descend further (the lad who was on the ladder was about fifteen years old, and I later found out that this was his first ladder pitch). After about five minutes the lifeliner allowed him to reach the bottom. Obviously the Yugoslav cavers thought it great fun to do stupid things with novices. Now it was my turn to climb the ladder, which I did at great speed without any breaks, not daring to stop for fear of what my lifeliner might have in store for me, but nothing happened. When it came to the novice's turn to climb the pitch, though, about five of the Yugoslavs thought it something wonderful to yank the poor lad up the pitch in about twenty seconds. So ended my first Yugoslav caving trip.

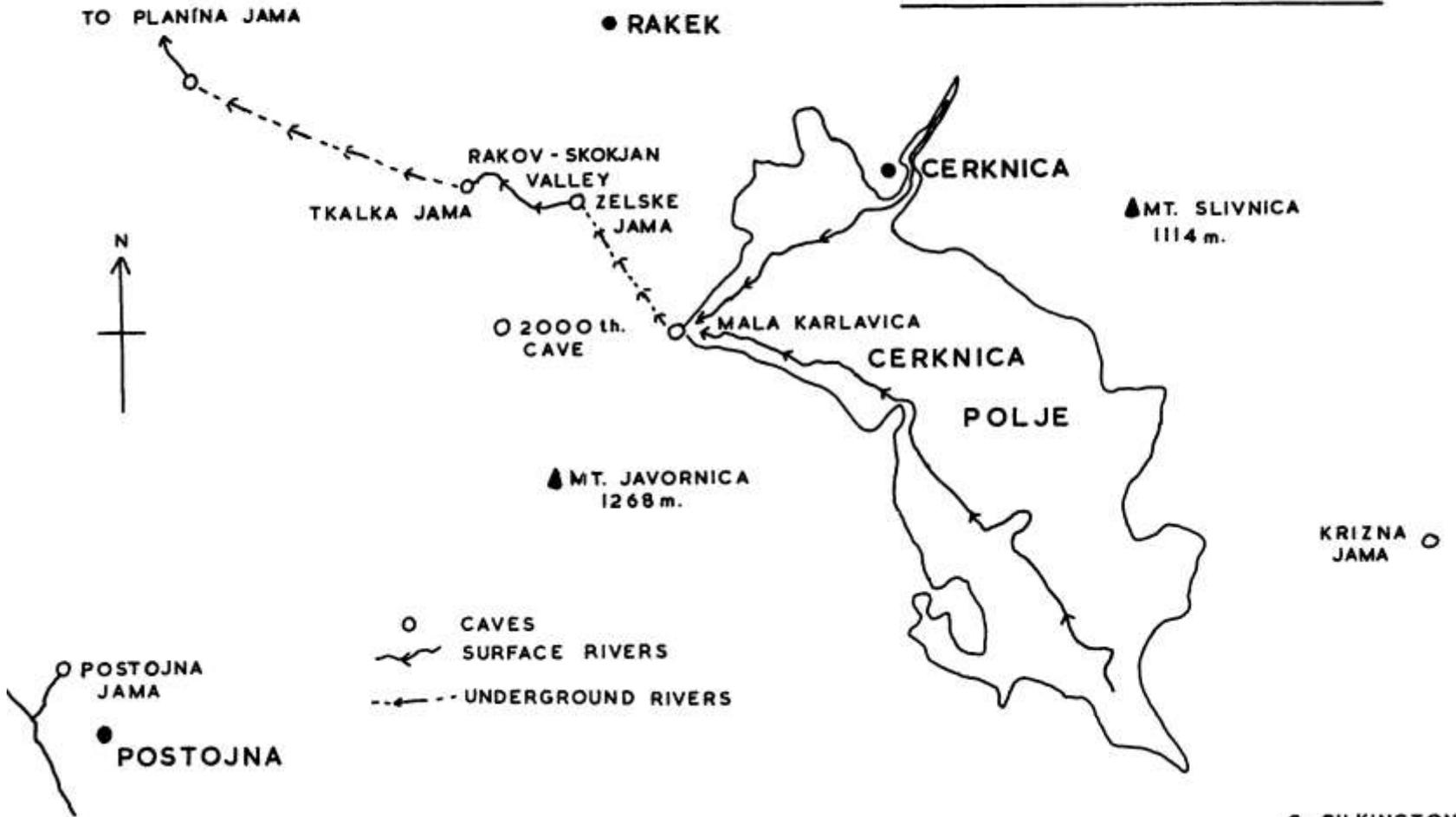
During my stay in Jugoslavia most of my time was spent in Slovenia, in the area around Postojna, and I will attempt to describe the caves in this area.

### Geology and General Description of the Postojna Area

The water from the Cerknica Polje sinks at the Mala Karlovica, from where it flows underground to Rakov Skocjan, where it resurges from Zelska Jama and flows 2 km across the surface in the Rak valley, receiving two major rivers from the Javorniki side. Particularly interesting is the Kotel source, which before falling into the Rak runs through the caves in Kotlici doline and thus directly proves its origin. The Rak percolates into Tkalca Jama and the water then flows underground into Planinska Jama or directly to Planinsko Polje. From here it sinks again and eventually resurges as the Ljubljanska River. The Cerknica Polje lies in the so-called Dinaric direction (NW - SE) and the geological structures around the polje (limestone and dolomite strata and two major faults) run in the same direction. To the NE there are Jurassic strata which also form the 1114m. high Mt. Slivnica. Cretaceous limestones form the largely karstic and wooded 1268 m high Mt. Javornic to the the west. On the SE and NW edges of the polje, besides Cretaceous limestones, early Triassies appear. The bottom of the polje lies in the

# MAIN CAVES & WATER COURSES IN THE RAKOV - SKOKJAN AREA

SCALE : 1 INCH = 2200 METRES



G. PILKINGTON

SW where most of the water sinks. The Cerknica Polje has become famous because yearly for eight to ten months it changes into a lake. Its filling up and draining off was described as early as the Romans. Plans are now being produced on how to keep the water as long as possible in the Polje so as to use it for tourist and power purposes. The Karst region between the Cerknica and Planina poljes, where the Rak valley lies, consists of lower Cretaceous limestones. Among the limestone layers are thin stratas of breccia and sandy dolomites which do not influence the morphology of the landscape. The strata run in the Dinaric direction in easy folds which are broken in faults and shifts (of NW-SE and NE-SW directions). The rising of this structure is also influenced by the dolomite of the upper trias, thrust up on the limestones. The floor of the Rak valley is full of collapsed dolines which are most frequent near the Zelska Jama and Tkalca Jama and in the level stretches where the water course is supposed to flow from the Cerknica Polje to the Rak Valley and on to the Planinska Jama or directly to Planinsko Polje. On the slopes of Mt. Javornik and Rakovski Jric (646 m) there are practically no dolines, but on the lowest ground between the two slopes, where in former times the water used to flow on the surface from the Cerknica Polje westwards (this is borne out by the gravels left on terraces up to 100 m. above the present valley bottom), there are a large number of dolines. At the beginning of the Ice Age the watercourse moved underground, and the water along Cerknisko Polje formed the galleries of Velika Karlovica, Mala Karlovica, of the present Rak Valley and neighbouring caves. Whilst making this course the water had strong dissolving powers and dissolved the brittle limestones; owing to this strong chemical attack, which seems to have been accelerated by the varying chemical strength of the waters from the Cerknica Polje and the Javornika, this resulted in collapses of the rocks of subterranean chambers and passages among which only Tkalca Jama and the widely ramified Zelske Jama have been preserved to this day.

### Skokjansky Jama

"The world famous French Speleologist Norbert Casteret, explorer and discoverer of Karst caves all over the world, saw our caves in the year 1955 and declared, 'In the Postojna Grottoes a speleologist can see whatever he may like to see; and the Skocjan caves are matchless in the world.'" In my opinion Casteret never said a truer word - the Skocjan caves are indescribably savage and magnificent. The cave is about three thousand metres long, but to reach the bitter end you would need to be a crack alpinist, never mind a caver. In order to reach the final syphon one is required to traverse a sheer wall, at a height of about 200 feet above the stream, violently foaming away below. Needless to say, very few people have been to the end of this cave (I am not one of them) and so the cave which I will attempt to describe is the show section. The entrance is through a huge iron gate at the foot of Velika Dolina, which is about two hundred feet deep and seven hundred feet across. The initial passage is a mined one, but suddenly one finds oneself following a meandering path amongst forests of concretions through a long high gallery. Then the roof dips, the walls narrow, but on passing this point one emerges into a vast dome, the roof being ninety feet above our heads. The beams of our Nife lamps search for the walls, but fade away into the gloom; our guide yells something which too fades away into the distance. We pass more galleries, ahead we can hear the low murmuring of the subterranean cataract. The small party becomes quiet. We are now swiftly descending steps cut down a huge boulder slope, the roar of water is deafening with a violent draught about our ears. The path' now traverses along the wall of a huge stream passage and following this we come to Hanks. Bridge, perched across the chasm. Sixty metres below us the river froths and boils its way along.

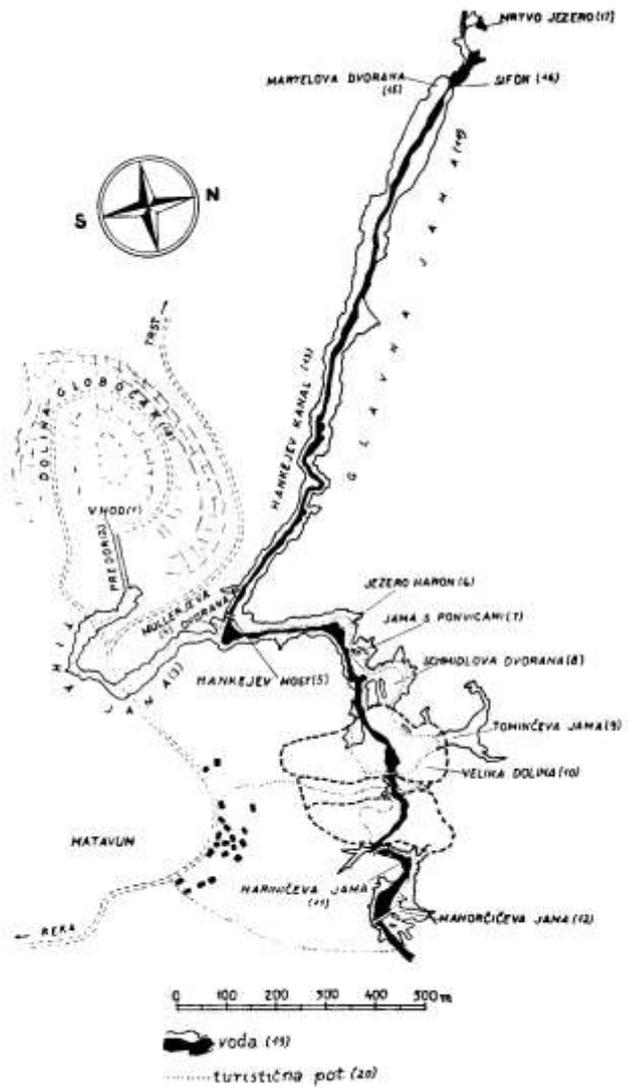
Crossing the bridge we follow the opposite wall back in the direction we had come upstream. After a while the passage widens to about sixty five metres, the height being in the region of a hundred and forty metres. We stop to gaze and wonder. Continuing our way upstream daylight can be seen way ahead, but we turn off to the left into dry galleries. Behind us the roar of the river fades into the distance, but screeching noises now call our attention to an aven, the roof of which is a black sea of bats. Emerging into the daylight we find ourselves in a huge canyon two hundred metres deep, a hundred and fifty metres wide and four hundred metres long. A huge natural bridge spans this gorge. The further underground course of the Notramjska Reka (the river from the Skokjansky Jama) is still unknown except for the fact that it reappears on the surface as the Timav River some twenty kilometres west of Trieste at Devin, and rapidly flows into the Adriatic Sea.

### Pred Jama - the cave of the Castle

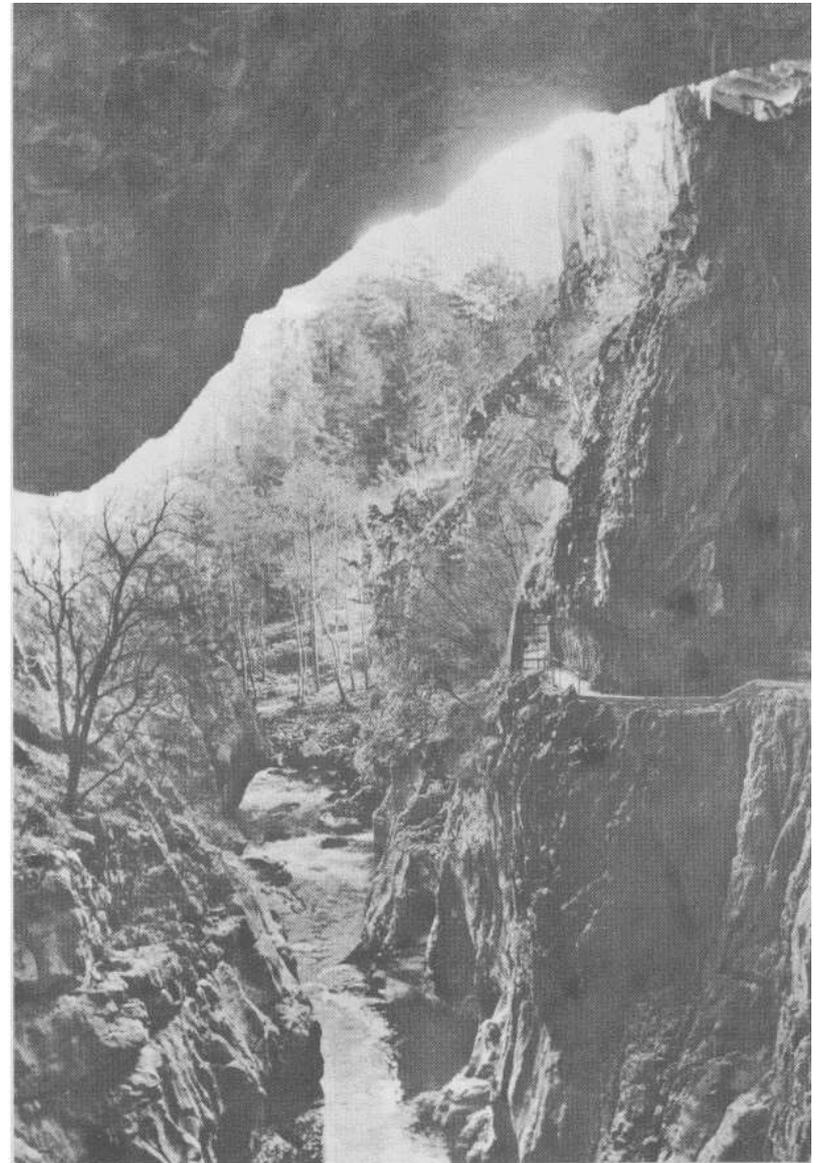
The present castle was built in 1570 by a nobleman named Kobence. This castle is situated on a cliff one hundred and twenty three metres high. Behind the castle there are a maze of caves on five different levels, with potholes connecting them. The Slovene cavers, who have been systematically exploring these caves during the last few years, estimate that the total length of all the passages is almost 7 km. On the uppermost (fifth) level runs the Erasmus Passage. 120 ft. below lies the Fizensa Cave, and still lower, on the third level, the Luknjaza Gradom (the hole behind the castle). The next lower level is the passages of the Spodjna Jama which are several kilometres in length. The lowest cave takes the Lovca Stream, the resurgence of which has not yet been found. The Spodjna level (the longest of the five) was the one which we followed, our guide for the day being Prof. Harbay of the Karst Institute. The near section of the cave is only of any real interest to the archaeologist for here, over an area of five hundred metres, numerous objects have been excavated, ranging from the Neolithic times to the Middle Ages. It is supposed that man used this cave in the Palaeolithic (early Stone Age) period. The cave as far as we followed it - to the first of the three halls - was a dull passage with muddy heaps of rocks being the only obstacle. Several side passages were explored, but none of them 'went'. The only interest in the exploration of these side passages was provided by a member of Chelsea S.S. who fell 30 ft. on to his head, somehow managing to sprain his ankle in the process. I seized the opportunity of getting out of a rather dull cave by assisting the limping Chelsea member back to daylight.

### Nayadena Jama (New Cave)

This cave was discovered in 1963 by Lubljana Caving Club. The total length so far is about 3 km. but the Yugoslavs are still exploring passages and are continuing to find new cave all the time. The entrance was about the most insignificant that I had come across so far in Yugoslavia - a ten foot drop down through boulders. This drop brought us into a small chamber which was followed by a forty foot pitch which descended into a chamber about the size of Lamb Leer Main Chamber. Following the obvious route, along 'dead' Lancaster Hole type passages, through several chambers and surprise, surprise, the odd squeeze or two, we found ourselves in a large, hall with a lake at one side and a monstrous mud slope on the other, The attraction in this chamber were two pyramids of mud about 5 ft. high which were perfect in shape. As yet no one has been able to put forward a practical theory explaining how they were-'formed'.



Plan of the Skocjansky Jama



Entrance to the Skocjansky Jama

The way on out of this chamber was to traverse the huge 100 ft. high mud slope to the top, a real alpinistical feat, which was helped by the occasional steps cut into the mud and some metal rods embedded at strategic points. From here, we crossed a lake with the use of a dinghy and then scrambled up through some boulders. This brought us into the most overwhelmingly vast chamber I could ever have imagined - it was at least twice the size of Gaping Ghyll Main Chamber (which is the seventh largest in the world) so the chamber we were in must rank as third or fourth largest. This chamber was named after Putick, the Martel of Yugoslav caving, and it was quite a thrill to find out that we were only the third party to visit it. The rest of the trip was taken up exploring a previously undescended 50' pitch and crossing the lake which was discovered at the bottom of this pitch. The whole trip was an excellent eight hours caving and we saw formations which were really unique and probably only to be found in Nayadena Jama.

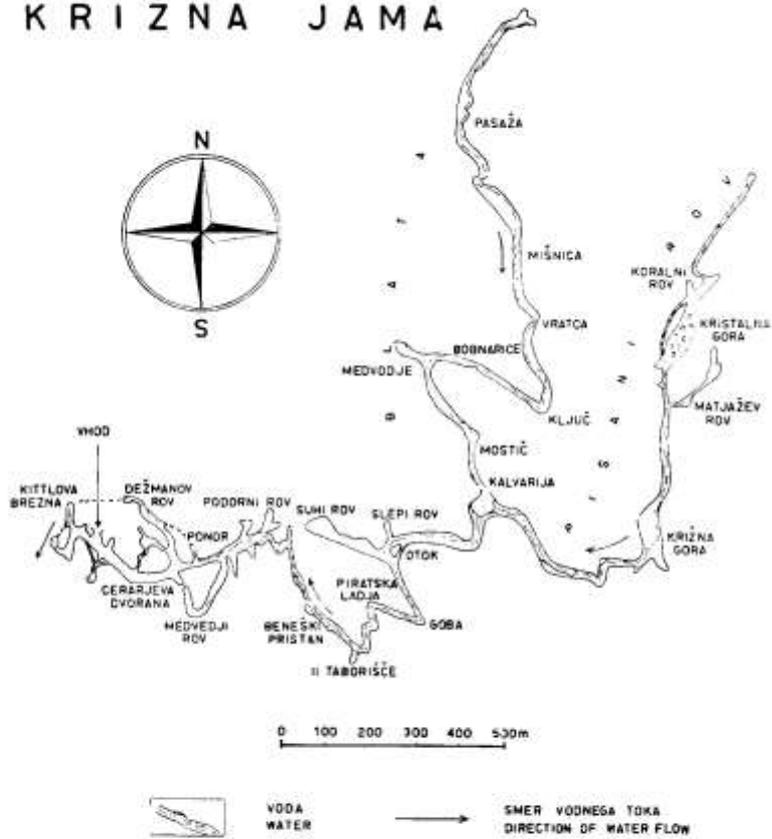
### Krizna Jama - Crystal Gave

Probably the most enjoyable trip I did in Slovenia was in the Krizna Jama. The journey along the twenty-three underground lakes in this cave taking about six hours, at the end of which my hands were blistered and sore from constantly dipping the paddles of our boat into the deep, clear water. This was caving in its ultimate form, sitting in a long, shallow punt, gliding swiftly over the water with the light from our carbide lamps constantly reflected on to the roof by the ever-present water surface. The halfway stage was the Kalvarija, a division of the main streamway. Here we dragged our boats over rimstone pools and through a forest of stalagmites, mysteriously glimmering and casting weird shadows around us. From here our route was to follow the Pisani Rov, the most remarkable feature of which was the Cristalna Gora (Crystal Mountain). To reach this we moored the boats and ascended a huge mountain of soil, mud and rocks one hundred and fifty feet high to reach a chamber two hundred and thirty feet high and about a thousand feet long. In the very centre of this chamber were a long group of formations one of which stood about thirty feet high, like a lone sentinel thrusting upwards into the gloom. So, tired but satisfied, we retraced our steps to our punts and swung the bows in the downstream direction and glided effortlessly back to the Slovenian night.

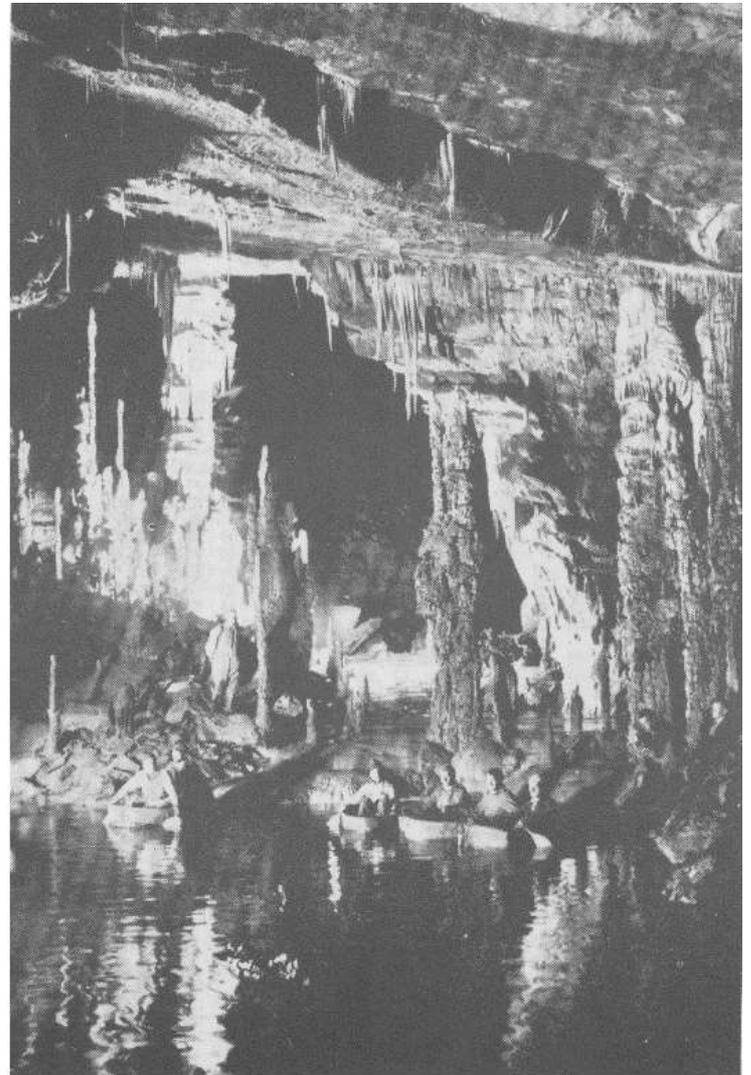
### Some General Comments on Jugoslavia

Jugoslavia itself is split into five states, each one of them openly disliking the other. The northerners (Slovenians) are quite wealthy compared with the southerners, but this is how it should be for the southerners don't work nearly as hard (the same applies in England!). The bullock cart is still the main mode of transport and the roads are really atrocious, consisting mainly of gravel cart tracks. The average income of the Yugoslavs is about £3 a week, though this is quite heavily supplemented by the state. Personally, I found that the Yugoslavs in general were just about the warmest people that anyone could hope to meet - many times their warmth was really embarrassing. The vast majority of the people seem really happy with communism and the dictatorial regime of Marshall Tito, who is hailed as a national hero.

# KRIŽNA JAMA



Plan of Krizna Jama.



Krizna Jama – The Kalvarija

The Country itself is one of exciting contrasts with eternally snow-clad peaks of the Julian Alps in the North West, barren plains in the centre, bare limestone mountain ranges in the South. South East, interminable pine forests in Slovenia and the speleologically beckoning range of limestone peaks running the full length of the Yugoslav coast from N.W. to S.E. My attentions caving wise had been focused on Slovenia, the area which boasts Jugoslavia's largest and most numerous cave systems. But I now feel that a lot of my time was wasted in Slovenia since the lesson which I learnt is that the south has the most to offer, for cavers bent on new exploration, for here the surface is hardly scratched. This region has vast limestone ranges, most of which have not even been climbed, so there is a wilderness of subterranean secrets waiting for the industrious English Speleologists and as far as I can find out no one has yet put any real effort into this region. The north has a lifetime of caving left in it, but in my opinion only the local cavers stand any real chance of finding worthwhile new systems due to the fact that all the most obvious caves have been gone into pretty thoroughly by the locals and various expeditions during the past few years. The local cavers are a pretty cunning lot as far as letting any outsiders on to the track of any worthwhile new possibilities. What is really annoying is the fact that they pretend to let you into their little speleological secrets, but in fact they are leading you surreptitiously up the garden path by throwing a juicy bit every now and then whilst keeping any major possibilities to themselves. It wasn't until far too late in the day that we realised this. However, if anyone wishes to visit Slovenia in the near future, in order to get access to the non-show caves they should contact Dr. Rhado Gospadaricho, Karst Institute, Postojna, Slovenia, Jugoslavia, who controls access to most of the caves in the area.

## MENDIP NOTES.

### Cheramodytes

#### Ogof Ffynnon Ddu II Dry Route

I think we must hand it to our Child, the South Wales Caving Club, for having made the most outstanding of recent discoveries, namely the dry route from Cwm Dwr to O.F.D. II. This was accomplished by the divers on 8.4.67. They had entered O.F.D. II by way of Dip Sump and arrived at the Smithy in time to hear one of Clive Jone's bangs in Cwm Dwr. Following the smoke, his instinct, and his luck, John Osborne found the route through the boulder squeeze and did the first round trip back to the H.Q.

Your scribe has since visited the place, which is a fine one and very extensive. The boulder squeeze which joins the two caves is sinister. One enormous mass of rock poised on a small man-made pile of rocks, which is slowly splintering as it settles, provides the roof of the squeeze. It took our party hours, going fairly steadily all the time, to reach the terminal waterfall and return. Much of the stream passage (dare one admit it?) is boring, but it has two distinctive features. In Marble Bath area the black rock is fissured with white calcite and looks very handsome. Further upstream are a series of about a dozen potholes, many of which one crosses by sitting on the edge, giving a good kick, and breasting the wave to the far side. This is good sport.

The S.W.C.C. celebrated its 21st birthday with a dinner on 29.4.67, which was attended by the Yugoslavian ambassador. Ted Mason and Arthur Hill, two of the founder members, got up afterwards to tell us how they started it. The Wessex Cave Club was, of course, not the only parent and there were important Welsh elements in the club from the beginning.

#### Who are the Cave Diving Group?

Your Scribe has been getting into trouble for having said in his last notes that the Little Neath River Cave was discovered by a party of U.B.S.S. divers. It should, they say, have been, 'a party of C.D.G. divers', because otherwise it might be inferred that the U.B.S.S. had its own diving club, which of course is not so; all its divers are members of the C.D.G. Well, I am sorry, but I am neither a judge nor a politician, only a reporter, and this is the way in which the discoverers of the Little Neath described themselves. If you want confirmation, look at Mike Norton's article in the S.W.C.C. Newsletter No. 56 for May 1967. There the name of the cave has been translated into Welsh for the benefit of those who do not understand English, but it is quite easy to find, all the same.

The C.D.G. label is important because it is a guarantee that certain standards of diving have been achieved and certain rules followed. The Group exists mainly for the protection of its members in what is one of the most dangerous sports. This it does by insurance policies, strict control of admission, providing training, a qualifying test, certain rules for diving, and the furtherance of the science of cave diving by its publications. The different regional sections are largely autonomous within the rules and draw their members from a great many caving clubs. It is thus not a club in the strict, sense of that word, though each section undoubtedly has club value. The caving clubs, on the other hand, do not provide training in cave diving and their

insurance does not protect their members against the possible consequences of cave diving accidents.

To return to the Little Neath; last time the U.B.S.S./C.D.G. divers (Oh dear, what am I to call them?) were there on 21.5.67, Dave Savage dived the terminal sump of 225 ft. to another chamber, followed by another sump. The direction is east along the strike, and the likelihood is that the resurgence is in the River Mellte.

### Cornish Mines

Your Scribe recently spent another pleasant week-end with the Plymouth Caving Group in Cornwall. This Group, under the energetic chairmanship of Hugh Browning, now has the exploration of mines as one of its principal objects of study. Many of the mines around Redruth were for copper, but those nearer Cambourne were for tin. The deeper mines are still productive and profitable, but the shallower ones began to fall into disuse around 1880. By that time a number of very long underground drainage channels had been dug - called "adits". Two years ago we went down an old shaft and explored the Dolcoath Adit, which eventually reaches South Crofty, one of the deep mines. This time we had a look for an open shaft into the County Adit. Unfortunately a direct approach is not usually possible, except under cover of darkness.

The P.C.G. has recently been very fortunate in meeting a local chap, a carpenter by trade, called Tom Sowden. Tom's hobby is the exploration of mine shafts and adits and he knows them very well. We called on him and he showed us the entrance to Tolgus Adit, at Illogan. We explored this for several hours on 21.5.67, reaching shafts with romantic names like Barncoose or Wheale Fortune. Technical terms came in profusion. Crossing a whinze (flooded shaft) by planks we broke new ground in one branch. Breaking old timbers is far too easy, and crossing a stope (a mined lode) by a launder (a wooden water channel) can be hazardous. The adit was driven by right-handed miners, of different heights, as Tom pointed out to us. The passage varies from about 4½ ft. to 5½ ft. in height, which gives one an aching back after a few miles. The colour is mainly a deep reddish-brown from ochre, but where there are heavy drips the walls are often coated with brilliant blue or green copper salts. Most of the shafts are flooded, but except for the whinzes the water level is below that of the adit.

### Goodbye Mr. Young

Fred Young and his brother, Leonard, are giving up the tenancy of Lower Farm this year, and will be greatly missed by all cavers going to Longwood. Fred used to give the Stride brothers a lot of help and encouragement when, as schoolboys, they first started work at the Swallet. Ever since then he has been the friend of all cavers, so that whenever one visited the cave one also looked forward to seeing Fred Young. Fred, who is 68, is retiring on 29.9.67 to Shipham, and hopes we will go and call on him there from time to time. Leonard, who still has another 4 or 5 years to go, will be working for the University at Langford.

Nobody knows who will take the farm. This is a serious matter for us cavers, because we value our relationship with the farming tenants, and hope that it may go to a local man, who understands cavers. But prospective tenants are shy, since farming under Mendip can be profitable, but not farming on top of Mendip.

### Goatchurch

The Wessex have started another round of cave rescue practices by visiting Goatchurch on 23.4.67, ably led by Roy Staynings. Here the Drainpipe presents a rather special problem, as most of the work has to be done by a small strong caver travelling backwards, and lifting the forward end of the carrying sheet each time it is pulled. Moreover, effective pulling can only be done by one caver, because of the bend at the near end. The small strong caver was Alan Trickey, and he did very well.

I hear that Jim Hanwell took his son Bruce (aged about 4) down Goatchurch for a trip in April. Bruce did very well and got to the end of the cave, but alas, Jim did not do so well and could not get through the Drainpipe. The Committee is considering putting the Hon. Sec. on a strict diet to try and get him into caving trim for the summer.

### North Hill Swallet

This shaft continues its downward trend, and if the suggestion of deep shotholes and power drills is carried out, it may soon be one of the deepest in the country. The Hanwell-Thompson axis works here regularly every Tuesday evening and Sunday afternoon. It is a pleasant place to gather for conversation, after the Hunters' closes. Looking into his crystal sphere your Scribe foresees the birth of a new caving club (the "North Hill"?) since around this dig are crystallizing out most of the ex-Shepton elements. Readers will remember that in May last year a serious split took place in the Shepton Mallet Caving Club, after which Ray Mansfield was elected Hon. Secretary. He resigned after a few months and has now left the club and is to be found at North Hill with the others who left a year ago. Here they shall see no enemy but winter and rough weather. Perhaps they might call it the Forest of Arden.

### Fairman's Folly

Last time I wrote about this dig I got into trouble for quoting a member as saying that it was "one of the most interesting of the hopeless digs on Mendip". This, I was told, was a Club Dig, and that is not the way to speak of such things. On 28.5.67 the news reached me that the dig had slumped in. The same member describes it now as "the most hopeless of the interesting digs on Mendip". But the Club is not giving up. Oh no! Concrete is the answer. We will have a lovely shaft of concrete pipes. I do hope that the diggers will take a lesson from Manor Farm and Cuckoo Cleaves and base their concrete pipes firmly all round upon rock.

## CHARGING NIFE CELLS

J. Phillipott

It has become increasingly obvious that the electric light has gained popularity at the expense of the good old faithful carbide lamp among cavers. The latter has the distinct advantage of general all round illumination, whilst the former tends to throw a beam, but does not suffer adversely from the effects of falling water! It is possible to overcome the beam effect by amending the shape of the reflector so increasing the angle of the beam and thereby making the general illumination comparable with the carbide lamp.

The acceptance of these new "inventions" into the caving world is responsible for the inevitable problems of recharging the units. Over the past nine years, in the W.C.C. journal, there have been one or two articles on lighting and charging in the field, but nothing on charging from the mains. The circuit for this is well known, but nevertheless for the non-technical members, it is intended in this article to outline (a) the circuit, (b) the physical construction and (c) give an indication of cost.

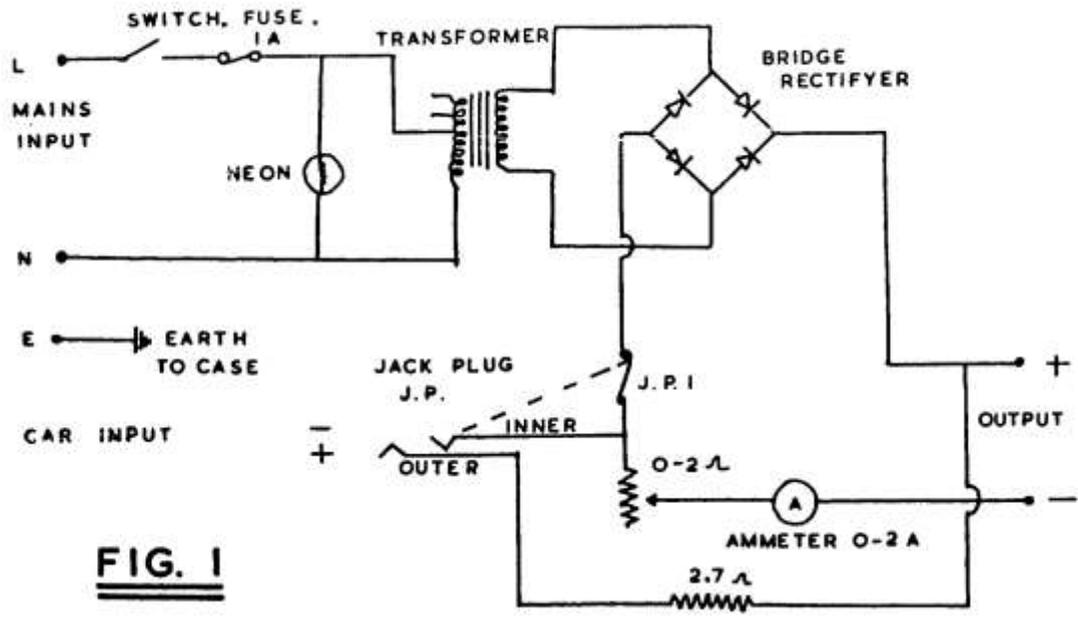
### Requirements

1. A d.c. charging voltage of approximately 6.5v for a three cell Nickel Iron unit.
2. Charging current should be approximately 2 amps (see J. Church) for each unit connected to the charger.

### The Circuit

The fundamental charging circuit consists simply of a transformer and a bridge rectifier. The degree of complexity after this depends solely on personal choice. For instance, it is possible to add a few transistors to the circuit so that constant current is achieved with the correct value set automatically. This is quite a sophisticated idea, not justifying the expense incurred, and is only probably suitable for one unit at a time.

Fig. 1 shows a 'personal' charger circuit with modifications for adaption to a car battery for field work. The circuit has been deliberately kept simple, so as to minimise the cost. The transformer is a valve heater type with an output of 6.3V rms. This may, if necessary, be increased by connecting the 230V mains input to the 200V tapping. Output voltage will then be 7.25V rms. The rating of the transformer should be at least 16 V.A. The rectifier could be a Westinghouse Type 2AC/20 (2amps) or 2 AC/62 (4 amps) connected in the form of a bridge circuit. The variable resistance should be 0-2 ohms 10 watts. The fixed resistance should be 2.7 ohms 10 watts. When using the car input method, the insertion of the jack plug automatically interrupts the output from the rectifiers, so that when this mode is in operation there are no volts across the bridge. Since most cars run with a positive earth system, it is advisable that either the rectifier positive output be tied to the case, or run the rectifier run earth free. It is advisable to connect the negative output to earth (case), because of short circuiting effects when the charger is in the car. The ammeter has been included so that the charging current is known and hence the time for completion of charge deduced, (see J. Church) provided of course the meter is connected correctly!



**FIG. 1**

Physical Construction

It is intended that Fig. 2 should be self-explanatory, and that with Fig. 1 no difficulty should be experienced in building the device. It should also be noted however that holes should be drilled in the box for ventilation.

Cost

This is probably the most difficult aspect of the article, for a lot of items required could be purchased from second-hand radio stores etc. In costing this unit, it will be assumed that only the rectifiers will be bought new, the remaining parts being acquired from other sources.

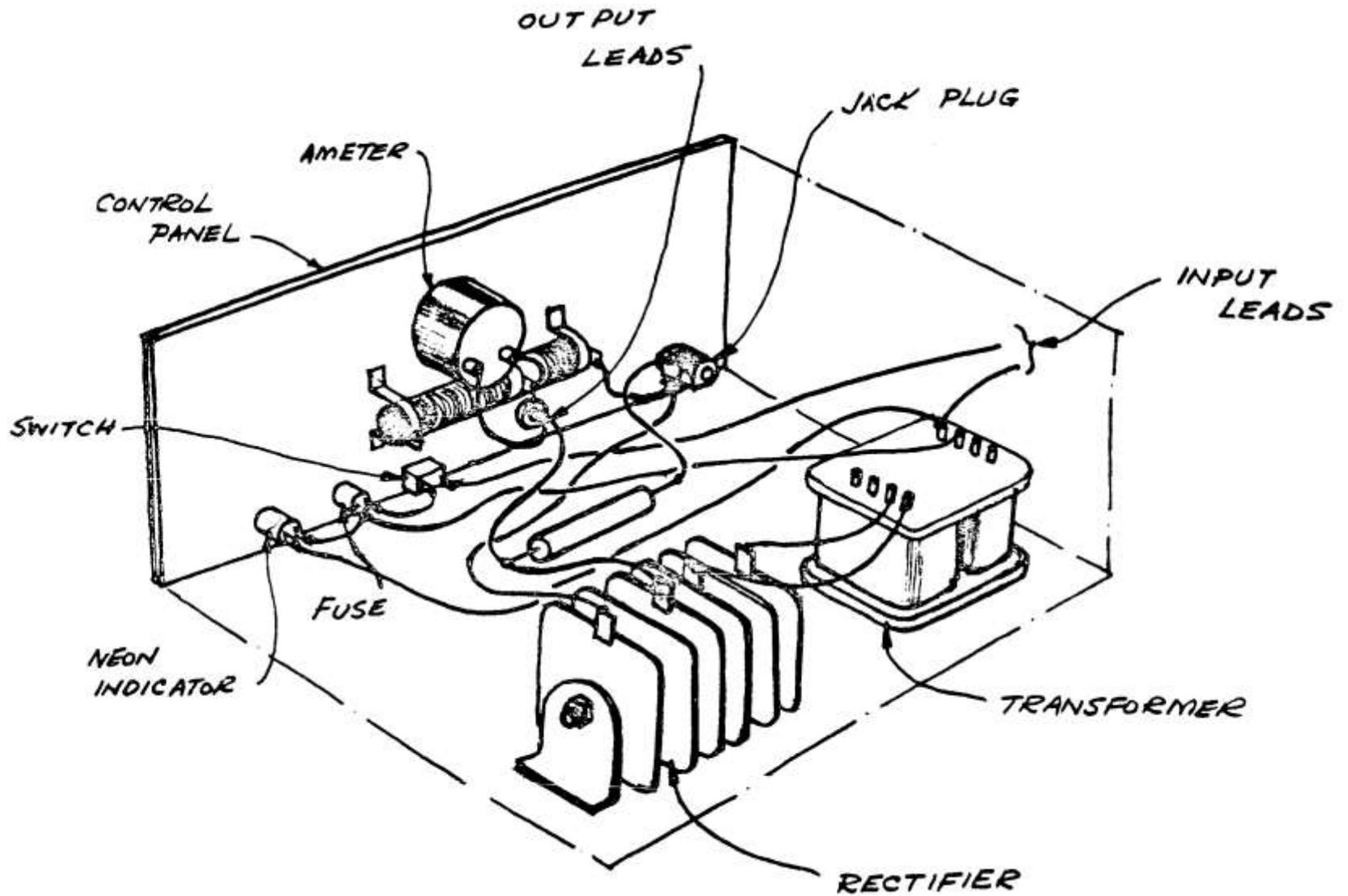
Transformer	10. 0.
Rectifier	£1. 0. 0.
Switch, neon, jack plug and resistance meter	15. 0.
Box	5. 0.
Total cost should be of the order	£2. 10. 0.

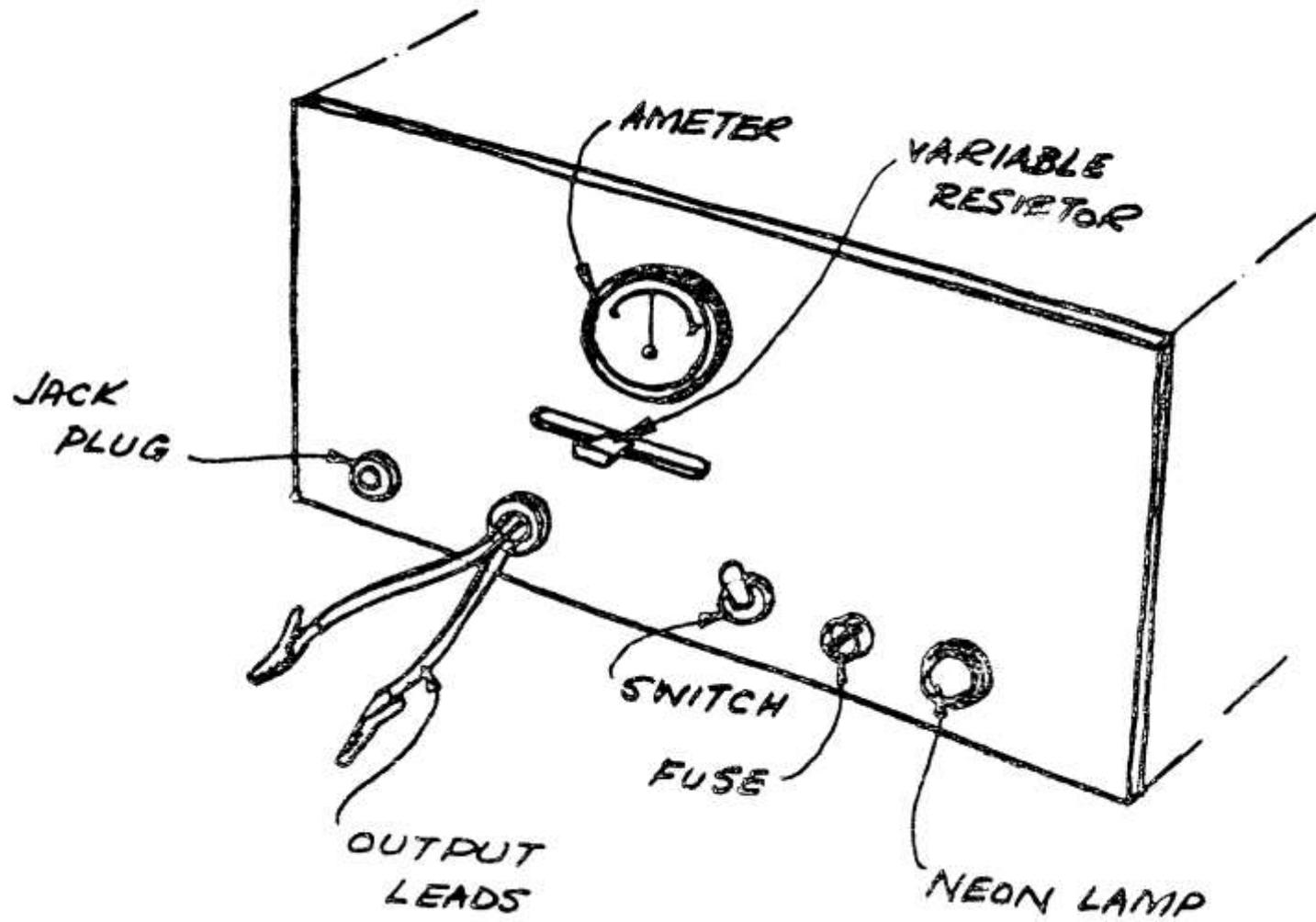
Summary

It is hoped that this article will aid the non-technically minded members to build their own units. There are, of course, a number of variations and modifications that could be introduced, but it is only intended that the ideas in this article should be taken as a guide not mandatory.

References

1. Nife Batteries - Redditch
2. W.C.C. Journal Jan. '64. - On charging caving lamp batteries in the field - A.D. Oldham.
3. W.C.C. Journal Oct. '65- - The Nickel - Iron Alkaline Accumulator - J. Church.
4. W.C.C. Journal May/August '60 - Nickel - Cadmium Cells - J.Skinner.





It is possible to replace the components, (leaving out the car connections) so that the charger would be capable of charging say four units. The transformer rating would have to be at least 6WA and the rectifier could be a Westinghouse Type 2AC/163.

## CAVES OF THE BALEARIC ISLANDS

by

W.T. Edwards

"We are at 33,000 ft. and passing over Barcelona" droned the intercom. The Pyrenees had not long passed by, and something about caves stirred in my mind. Then I remembered that Portugal was away to the west where the demon of all diggers was safely held for a few years, so after hurling suitable abuse in that direction, I fastened my belt and prepared to land at Palma airport. But what was this coming into view on the port side . . . enormous great cliffs, looks like limestone, might even be interesting.

Knowing nothing of the geo-morphology (whatever that might mean) of Majorca, I was later surprised to find that the whole island is a mass of limestone, rising in the west to a respectable mountain range 50 miles long, up to 6 miles wide and with a maximum height of 4,740 ft. The eastern side has scattered outcrops rising to 1,500 ft. in places. The central part of the island is an alluvial plain distinguished by the many windmill pumps used to obtain water from the saturated limestone beneath. There are no artificial reservoirs of any size in Majorca, all the water comes from the sub-strata so there must be some monumental sumps somewhere. Some geologists believe the water to come from the Pyrenees.

Trips in the mountain area soon revealed even to my unpractised eye that the limestone is extremely weathered and therefore very old and so should contain some good caves. Promising looking holes are apparent every few yards. Some of the gorges are stupendous, the one called "Torrent de Pareis" being over 1,000 ft. deep and in many places only a few yards in width, and nearly 3 miles long.

The upper walls of these gorges are very broken up and consist of columns of limestone 100 ft. or more high and almost impossible to travel through. Again, holes of all sizes are apparent and the noise of running water can be heard even from the entrance of many of them. One striking feature is that where there has been a rock fall from a cliff face containing a chamber, half the chamber is left behind complete with formations. This occurs time and time again along the mountain roads and is very impressive.

The most well-known cave in Majorca is the "Cevas del Drach", or cave of the Dragon, where after the usual tour around a ¼ mile or so of very richly decorated passages one reaches a large cavern containing Lake Martel, reputed to be the largest underground lake in the world. Seats are provided here for about 1,000 people and a concert is given in the darkness, from three small rowing boats outlined in lights on the lake. It is very impressive; a row across the lake

afterwards is all part of the trip. The following is a list of named caves, mostly show caves that I was able to find out, although unfortunately not able to visit.

### Majorca

Cuevas del Drach	East coast near Porto Christo.
Cuevas de Hams	East coast near Porto Christo.
Cuevas del Pirata	East coast 3 miles South of Porto Cristo.
Cuevas de Arta	North east coast.
Cuevas de Campanet	North centre, near Inca.
Avench de son Pou	West centre near Santa Maria

### Minorca

Cueva De'n Xerol	South coast, near Mahon.
Cueva Trogloditis	South coast, near Mahon.
Cueva de Parella	West coast near Ciudadela.

### Ibiza

Cueva Santa	South, 3 miles west of Ibiza.
Cueva Xarraca	North east coast.

### Cabrera

Cueva Azul	The famous Blue Crotto, of great size and only approachable from the sea, when it is calm, in small boats. It's white sandy bottom and the transparency of it's waters bring out the blue tones for which this cave is so famous.
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## BOOK REVIEWS

LIGHT ON LASCAUX by R. M. Twist, 16 pp, numerous illustrations, at 4/-, published by the author at: Elwynick, St. Anthony-in-Roseland, Cornwall.

This small booklet could cause a revolution in the field of pre-history. Mr. Twist takes the bull by the horns and literally shakes the foundations of present day thinking in these spheres. As one who views the whole subject with a completely open mind, I sincerely hope that Mr. Twist is proved right, if only to stir the so called 'self-opinionated' authorities out of their complacency. He has obviously gone into the whole subject most thoroughly, and as a Roman antiquarian, his knowledge would seem second to none.

Basically he puts forward the theory that what have up to now been considered as prehistoric works of art, do, in fact, only date back to the Roman era. Mr. Twist suggests that when the Romans travelled through the "Painted Cave Districts" of France, the African attendants whom they had with them were responsible for drawing the many cave paintings. This would account for the many different animals, associated with varying climatic conditions, being pictured together, and the appearance of negroid figurines, in an area of European stock.

It is only to be regretted that more people do not emulate Mr. Twist and take the time, trouble, and expense to investigate theories which appear to be automatically taken for granted. Such people should be given every encouragement, as it is only by persistence and hard work that we can hope to unravel the mysteries of the past.

A.C.

A NEW MECHANISM: FOR THE FORMATION OF VERTICAL SHAFTS IN CARBONIFEROUS LIMESTONE by A.R. Burke (The Warren Spring Laboratory, Stevenage, Herts) and by P. F. Bird (City Museum, Bristol) in NATURE, Vol 210, pp 831/2, 21st May 1966.

For over three years the authors have been working in a series of caves near Porth-yr-Ogof, Ystradfellte, South Wales (ref: Bel Bul. (190), Christmas 1963, p. 29, for cave descriptions). The caves contain unusual iron coloured formations and some very picturesque fluting. It is on the latter formations that this note is based.

The authors put forward a theory that these shafts were formed by acidic waters dripping and dissolving the limestone, in the shape of long vertical grooves or flutes. They suggest that a series of flutes eventually coalesced to form a shaft.

Their researches, although nicely presented, are not entirely new, as this method of shaft formation by solution has been recorded by Max W. Reams, Laboratory and Field Evidence for a Vadose Origin of Fiobe (Domepits). International Journal of Speleology, Vol 1, (1960, pt. 3, pp. 379/89).

A. D. O.

SOME SANDSTONE CLIMBS IN THE FROME VALLEY AT BRISTOL by R. S. King. Bristol Exploration Club Climbing Report, 18 pp, 2 plates, 4 line drawings. 3/- PP from the author at 22 Parkfield, Pucklechurch, Bristol.

As the introduction so aptly describes it, this booklet is a microguide, a record of a series of climbing problems on sandstone outcrops along the course of the River Frome from the upper end of Eastville Park to Frenchay. The climbs are all of grades from V.S. downwards to Diff. Sandstone climbing under wet or dry conditions presents very little difference and in view of the short nature of the pitches, I can recommend the area as being an excellent situation for night climbing, plus of course, caving lights. The booklet is excellently produced by the offset-lytho process, giving good clear line diagrams and type face. My only criticism is the lack of captions on the plates.

A. D. O.

DENEHOLES AND KINDRED PHENOMENA by Harry Pearman. Chelsea Speleological Society Records, Vol. 4, 1966. 72 pp, including 26 pp of maps, plans, and sketches. Price 7/- pf from: H. Pearman, 48 Kenyon Street, Fulham, London S.W.6.

This very well produced publication is an attempt to collate all available information on deneholes. It commences with a discussion of possible explanations of denehole origins, and goes on to list more than seventy sites where numbers of deneholes have been found in Kent, together with detailed descriptions of those which have been explored, finishing with a two page bibliography. A must for anyone purchasing property in Kent.

G. A. R.

HELECTITE The Journal of Australasian Cave Research, Vol. 4, No. 2, 1966. 28 pp including one survey and 2 colour photographs. Subscription £1A per annum, single copies to non-subscribers - 10/- each, from: Box 183 P.O., Broadway, New South Wales.

This issue contains two main articles, a description of Old Napier Down Cave, in Western Australia, and an article on hand stencil paintings in caves, comparing European Paleolithic examples with aboriginal ones, from caves in the Nullabor Plain in Southern Australia.

G. A. R.

ROPES MADE FROM MAN MADE FIBRES, published by British Ropes Ltd. (1966).

This publication comes near to filling the gap in the literature which has for the past decade crippled attempts by cavers, climbers, and many other specialized users of cordage to evaluate the newer synthetic fibres. The book is printed on stiff foolscap, with a loose wire spine binding, incorporating coloured pages to head each section for easy reference. A lot can be learned from the first few pages; the definitions of polymers concerned, of physical units, and of the grades of yarn available to the rope maker. These details are invaluable as is the neat summary table of properties. It is a pity however, that an unfortunate misprint causes confusion, and - worse - no mention is made of KR 3 until p 31, and no explanation until p 42.

The second section will be of the most interest to cavers, since it contains: tables of weights, breaking loads, and most important curves showing the effect of repeated loadings with the conditions under which they were obtained fully described. An example being; a polythene rope broke after 40 loadings to 75% breaking load! Abrasive tests are included, but almost half of this table is filled with the words, 'Not tested'. In view of this, the tests to destruction are more illuminating. Polypropylene rope wears out 20 times as fast as wet Nylon in the system of pulleys described. The effects of temperature are covered, but to be of real use to anyone caving or climbing in the tropics, much more than graphs of breaking load versus temperature should have been included. Also, many of the endurance tests should have been repeated under tropical conditions.

This is a valuable reference book on synthetic fibre ropes but it unfortunately needs almost twice as much data again to make it complete. Cost comparisons cannot be made since (presumably) due to price fluctuations no mention has been made in the text - even the book itself is unpriced! However, if these faults can be overcome, this book would make excellent reading for any caver interested in tackle.

P. R. C.

CAVES AND THE MARVELLOUS WORLD BENEATH US by Robert Stenuit in collaboration with Marc Jasinski. 99 pp, colour illustrations, 36 monochrome illustrations. Published 25th September 1966 by Nicholas Vane, London at 42/-.

This book is surely the most interesting introduction to caves ever published. The excitement of caving is clearly portrayed on the first chapter, with an account of Stenuit's plight when his life line broke while diving in a complex series of underwater passages in the Grotte de Petigny. He was only just rescued in time by the stand-by diver before his air ran out.

The many facets of Speleology: - cave exploring, archaeology, and biology, are all described and illustrated by the most wondrous selections of colour photographs, which has to be seen to be appreciated. The story of cave exploration from the treasure hunters of the Middle Ages, to Martel's work in the late 19th Century, and the modern exploits of cave diving all make fascinating reading.

The author, who has considerable first-hand experience of the great Belgium cave of Han, describes his underwater archaeological explorations. Still in the sphere of archaeology are the accounts of the work carried out in the caves of France by Laret and others. The biological aspect covers not only bats, but the proteus from Jugoslavia, and the crayfish and blind fishes of America, again illustrated by the most excellent photographs.

This book has been translated from the French by Harry Pearman of the Chelsea Speleological Society (London). It is beautifully produced and will give the public an idea of just why men and women risk their lives far beneath the earth,

A. D. O.

WESSEX CAVE CLUB  
MEMBERS AS AT MAY 1967.

Alder, J.C.H.	42 Rowlands Crescent, Solihull, Warwickshire.
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Barber, K.E.	London Central Y.M.C.A., 112 Great Russell Street, London W.C.10
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Booth, P.M.	35 Cairns Road, Crosspool, Sheffield.
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Bridle, R.	67 Cleevemount Road, Cheltenham, Glos.
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Brown, H.B.	7 Kinsale Road, Bristol 4.
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Bryant, Mr & Mrs T.C.	Glyncoed, Victoria Rd., Maesyewmmer, Hengoed, Glam.
Burleton, A.S.	27 Doncaster Road, Southmead, Bristol.
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Church, J.R.	35 Rayens Cross Road, Long Ashton, Bristol.
Clark, Miss B.J.	7 Shavington Avenue, Hoole, Chester.
Clarke, A.G.	95 Swiss Drive, Ashton Vale, Bristol 3.
Cleave, F/O & Mrs N.H.	The Cabin, Hope Cove, Kingsbridge, South Devon.
Cook, D.J.	Fairway, School Lane, Woolavington, Nr. Bridgewater, Somerset.

Cooper, Dr. N. C.	Strathmore, Winscombe, Somerset.
Coppins, R.H.	125 Richmond Road, Montpelier, Bristol 6.
Cornwell, J.	419 Whitehall Road, Bristol 5.
Cousins, P.R.	3 Kinver Road, Sydenham, London S.E. 26.
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