

SOUTH WALES CAVING CLUB NEWSLETTER

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1. RECENT DISCOVERIES IN THE DAN-YR-OGOF HINTERLAND

Melvyn Davies

Much has been heard recently about tremendous avens in the Dan-yr-Ogof and Ogof Ffynnon Ddu extensions, some with millstone grit or old red sandstone boulders below them. A fine pair can also be seen in the new Ogof Nedd Fechan, although the 'foreign' rock is absent. These observations have prompted me to take another look at swallets hitherto regarded as practically closed funnels, in the hope that openings into large systems could be found.

The campaign has started with the Dan-yr-Ogof hinterland, and visits were made on 14th and 28th May, and 4th, 15th and 18th June. The area covered has included the headwaters of the Twrch and Gwys, and the Sinc-y-Giedd neighbourhood. Most visits involve 10 hours of hard walking, and the best approach has been found to be from near Tyhwnt farm, NGR 785.129, for the western region, and from Tir-y-Cwm cottage, 798.136, for the eastern region. The latter site is in the heart of the Giedd Forest and entails some rough-driving, starting from Cwmgiedd.

Nothing of any size has been found, except for hopeful prospects at Ogof Dau Gam. Literally scores of swallets have been examined. The conclusion I reach merely reinforces the one I reached perhaps 9 years ago - swallets in South Wales do not normally lead into negotiable cave systems.

The following is a summary of what has been discovered to date in the Sinc-y-Giedd area. Work in the upper Twrch is incomplete and will be reported later.

1. OGOF UN CAM.

About 1 mile to the north of Sinc-y-Giedd there are 3 hillocks of limestone. Two of them are almost in line with the Sinc while the third lies away to the west being the apex of a triangle of which the other two form the base. The triangle is approximately equilateral with a side of $\frac{1}{4}$ mile. The hillocks are referred to as the northern, southern and western. The southern one has an enclosure of limestone blocks built on its northern crest which forms an unmistakable landmark, the northern one has a small cairn on its summit which I erected, and the western one has the Gwys river resurging from its west flank. The new caves are on or about these hillocks and only approximate grid references can be given because there are no 6 inch maps of the area available.

Ogof Un Cam is at NGR 809.196 and is entered from a swallet in the south flank of the northern hillock (resembling the entrance to Ogof Pwll Swnd). It contains 40 ft. of crawling-height passage, clay-floored ending in a clay choke with no draught.

2. OGOF DAU GAM.

A pot from a swallet on the east flank of the northern hillock situated where the hillock levels out, and only 100 yds. northeast of Un Cam. The pot shows deeply-incised solutional markings and reaches a stream passage about 20 ft. down. This streamway emits a slight cold draught, and water flows from north to south. It is basically 4 ft. wide

and about 1 ft. high, but is connected to the pot only by a rift which needs further blasting to secure entry to the stream. It seems likely that the water reappears in the Gwys resurgence one-third mile away to the south-west.

3. OGOF TRI CAM.

This pot is situated on the southern slopes of the western hillock, and a few yards from a small swallet which contains a permanent pool of water. A 15 ft. ladder pitch from a swallet only 8 ft. in diameter leads to a boulder pile. To one side a further descent of 20 ft. leads to a passage which branches immediately into 2 crawls. One of these descends to a pot containing a shower of water which disappears into the floor. The other crawl becomes too low. Some more crawls underlie the entrance pitch and 2 complete animal skeletons, possibly fox, were seen on ledges. One skull was brought out for examination. The total length of passage approaches 100 ft. The pot's mouth is now covered with an alloy grid to prevent sheep from falling into it.

4. GWYS RESURGENCE.

At the foot of the west flank of the western hillock, which falls away quite steeply, lies the resurgence of the Gwys river. This was probed and it was found that the water appears through a mass of Old Red Sandstone cobbles and Limestone blocks. At least 3 days digging would be required to reach bedrock and a possible entrance, and no draught was detected. The geology of the upper Gwys is extremely interesting in that the Gwys river seems to have lost much of its catchment area to the Twrch due to river capture.

The following table gives the magnetic bearings of identifiable sites as seen from the vicinity of Ogof Un Gam and Ogof Dau Gam. The compass used was a calibrated, oil-immersed type reading in single degrees. The figures will be found indispensable when trying to locate the caves described, and it goes without saying that this can only be done in clear weather.

Bearings of sites visible from Ogof Un Gam and Ogof Dau Gam.

<u>Name of site</u>	<u>Height of site</u>	<u>Bearing</u>
Bannau Brycheiniog peak	2632 ft.	41 degrees
Carreg Goch peak	1832	167.5
Mynnydd Allt-y-Grug, Ystalyfera, peak	1113	215
Craig-y-Llyn scarp edge	1800	155

Footnote:

The cave names are a reflection upon their lengths, and they may be translated thus:

- Ogof Un Gam One step cave
- Ogof Dau Gam Two steps cave
- Ogof Tri Cam Three steps cave

Reference:

An invaluable guide to the area in question will be found in a paper by T.M. Thomas entitled "Solution subsidence in south-east Carmarthenshire and south-west Breconshire", available as a reprint from the Transactions and Papers of The Institute of British Geographers, 1963, Publication No. 33.

On May 18th Clare Harvey, Dai Hitchings and I went into OFD II to collect some biological specimens. Our haul consisted mainly of Niphargus and Asellus as well as several dead moths. An attempt to scale the final waterfall for further samples was thwarted when we found that the maypoles were one connector short, so we carted the poles back downstream to one of the inlets that we had looked into on the way in. A climb of about 10 feet out of the Mainstream led to a further climb of about eight feet. Beyond this there was a short section of passageway leading to a further climb of ten feet and one eighteen feet high which defeated us. Two poles were just two short, but I could see around the corner for a few feet and the passage seemed to go on and was of negotiable size. The floor of this short section of cave was of a peculiar soft white material that closely resembled moonmilk, and its treacherous nature made any manoeuvring difficult.

About three weeks later I returned with Pete Ogden and Colin Fairbairn and after fitting the extra pole I was able to squeeze into the passage above, promising to return in five minutes if it went on. It did. The passage was a narrow awkward viciously-meandering canyon with a deeply-pitted "moonmilk" floor. After a short while a small inlet on the right entered through boulders, and a bit beyond that again some calcite covered the walls. As I had been away for more than my allowed five minutes, I returned to the others who were just ascending the poles. We all pressed on and eventually the passage forked - to the left the stream entered as a trickle through a seven-inch wide slit about five feet off the ground. To the right a climb over some boulders led to a dry passage to another boulder choke through which I managed to pass only to find that the way on in this direction blocked by moonmilk and boulders and a pretty little grotto that marked the end.

Colin and Pete had joined me by now muttering about this "Grotte de Grott" and Colin who was about twenty feet above the floor was performing great antics to stick his head into a "black space with gypsum crystals on the roof". We were not particularly enthusiastic, however, until on the way back he disappeared into the roof again and called on us to join him as there was a network of small passages up there. A climb of about 35 feet over the calcite wall (past some beautiful helictites - but the easiest route misses them) led to a rift passage at right angles to our stream. In a small chamber with delicate floor formations we could hear a trickle of water to our right and we followed a descending passage which led to our trickle cutting a trench in the floor before disappearing into a small hole, and probably falling to join our Moonmilk Stream at the inlet previously noted. We turned left and followed the way on towards the noise of the mainstream, until we found ourselves looking out over a window high up in the roof - a platform of shale about 20 feet below prevented us from seeing the bottom. Returning, we entered some beautifully floored side galleries all inter-connecting and adding up to quite a maze. We called a halt when we felt that the place warranted a systematic exploration and we were running short on time.

Back to the entrance climb and we decided to have a look at just one other side passage. Colin and Pete carried straight on and I went around to the left where I could hear the stream down below. A scramble over some big

SUCCESS. !

This weekend saw success in locating the Snail Dig on the surface, and a new entrance has been made to Cof Ffynnon.

Since going to Preece there have been several developments in the story of the Clay Series exploration. The first was the sighting of Fluorescein poured into Engine House Dig. An attempt to find the point at which the dye entered the system was unsuccessful but the radio device was used to locate the Snail Dig on the surface. It was reported to be about fifty feet from the moor and vertically below a scree slope. A look at the topography produced no real digging place, but with a stroke of his usual genius Clive dragged several people up to the fix in the pouring rain, chose what seemed to be an arbitrary point and began digging. There was a sound reason for his choice however- it was probable that there was a small cliff hidden beneath the topsoil and the idea was to excavate it.

Success came this weekend. Colin and Terry took a party in with the radio device again and several more fixes were made. We came to the conclusion that the only place to dig was where Clive had started last weekend. A small charge was placed in the choke by the underground party, and when the smoke began issuing from a scree filled hole on the surface we dug frantically. Before long we could talk to Hywel and Terry, and as each run-in occurred we almost joined them.

With a loud Hurrah! from the diggers at both sides the hole finally went through and within three hours we were shaking hands with each other and tidying up the entrance. Work went on all through the night clearing and landscaping the new entrance, and as the tired workers decided that the entrance was large and secure enough, who should come hurtling past, clean boiler suit, brand new Nife cell and all, but BLOKES !

P.M.O'R.
18 Sept. 1967 .

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boulders led to a traverse over the hole which Colin had been looking into earlier on, and then the passage meandered gently into a very pretty tunnel-shaped passage with many gypsum formations; straws and erratics covered the walls and roof and there were some fine crystals of selenite. In many places the floor was littered with broken off straws, just as if some careless person (Smith?) had been there before me. A series of bone-dry interconnecting rifts criss-crossed and, following the largest I descended to a major joint. The floor of the rift was of dry sand with selenite crystals and the direction was later found to be E-W approx. When the others joined me we pushed on for a further couple of hundred feet or so, and when the way forked we decided to call it a day as we were likely to be overdue at the Club.

The next day all the excuses we could think of failed to convince us that we should not go back, but having left some equipment there we decided that "the sooner the better" and in two hours were at the top of the stal climb. Our systematic exploration began at the end of Gypsum Tunnel and several joint rifts were found to interconnect with each other and to come out over the Moonmilk stream. We entered one small insignificant-looking ascending passage which entered a much larger one. On the floor there was a magnificent cluster of dried-up blood red crystals, the most beautiful that any of us had seen. To the right the passage descended and then veered off to the North as a large dry canyon type stream passage. We followed this for 600 feet through three small well-decorated aven-type chambers and eventually came to a nasty boulder choke. As the canyon passage was very obviously a large deserted streamway we attempted to force the choke and succeeded in climbing over the top to be faced with another choke. Colin managed to climb up to the top and through the boulders and eventually reached the roof. The way on could be seen but it appeared that it was a smaller passage, and as it looked an awkward climb we left it till we had a stronger party.

Coming back to the crystals we dropped over the edge of a sand bank and climbed up a loose boulder slope towards the sound of falling water. At the top of the slope two ways led into a very large chamber with a trickle entering from the roof via an aven. The highest point in the chamber was on top of a huge boulder and there was no way on in the alcove beyond it. Back by the entrance to the chamber a small descending passage was followed till we stopped to admire the beautifully decorated calcite floor. This small low tunnel with its many straws looked so beautiful that we decided not to enter it as we thought that we knew where it came out anyway. We named it the Frozen River and we said that there are many other places to walk into before anyone has cause to crawl down there.

The big Cross Rift was followed back towards the Mainstream and came out somewhere near the Maypoles and a small side passage led out as a window about 80 feet or so up.

Our return on the 10th June with Susan Bradshaw and a doubting John Oz was intended to push the end of the Northern Canyon. The descending rift was easily climbed and we were able to descend back to floor level again. In a short while it was obvious that we were still in the main passage heading approximately North East. At a T-junction we went right and straight on till the way was blocked by a very fine cascade of stalagmite descending in a series of steps over the boulders that completely filled the passage. There

was no route here so we had to climb over a beautiful cluster of stalagmites to find ourselves in a further passage which got progressively smaller till we were faced with a choice of three routes: straight on eventually choked with sand, an inviting 50 foot climb into the roof was pursued by John while Colin and Sue found that a low muddy crawl on the left (containing a live earthworm) connected with a large square stream passage with vast deposits of the white "moonmilk" found earlier on. We all headed upstream and in a little while entered a small chamber where three streams entered (Three Streams Chamber). Following the largest brought us through a rift and into some boulders to a large aven chamber, Arête Chamber. Our stream fell in on the right from the roof, but the way on was straight ahead in a large dry continuation of the rift. In a few hundred feet the passage descended a bit and ended in a very final looking boulder choke. No draughts. Colin's attempt to bypass the choke by climbing up to the roof only yielded a few feet of tubes. It was our impression that we were very near the surface in this area.

Back in the Arête Chamber we parted. John and Colin climbed up the edge of the slippery cascade and climbed for about twenty feet to a weird passage. At the end of the passage there was a drop over a bank of earth and stones at one end of a 'massive passage or chamber'. A hole in the floor led down to a streamway with a pool in it. As a ladder would have been needed they abandoned any attempt for another day. Our passage led almost immediately to a fork. To the right it choked, to the left it forked again, both of these passages reconnecting and entering a fairly large chamber. John and Colin had rejoined us by now and leaving a cairn by our entrance we explored further. There was a choke on the left, and the chamber meandering around to the right there to terminate in a maze of boulders and earth and calcite. There was an interesting series of climbs at this end of the chamber which, however, only led to a network of tubes. We decided to abandon this Labyrinth and followed one last descending rift southwards for a considerable distance, only to find ourselves retracing our steps at the T-junction!

Returning to Three Streams Chamber, we followed the stream (Salubrious Passage) down. The floor was heavily covered with the slippery white stuff that we originally thought was moonmilk; because of its occurrence in such vast quantities we revised our ideas a bit, and various theories about its origin sprung to mind. John's suggestion that it looked like Plaster of Paris seemed to be a good one, but was later proved wrong. The passage descended rapidly and eventually lost the water down a small hole in the floor. Nearby there was a passage on the left which we did not enter. We were sure that we were heading in the right direction to bypass the top waterfall, so imagine our amazement when we found ourselves in a passage with footprints - none other than a passage that Pete and Colin had looked into on our very first trip! So the stream in Salubrious Passage turned out to be the upper reaches of the stream that we had maypoled into and our route had been a big circle.

Somewhat disappointed at having put so much effort in getting back to where we started we split up, Colin and John went back to get the box which had been left at the choke near the middle of the Northern Canyon, and Sue and I went to look at the last passage that we wanted to see, the one on the left where the stream in Salubrious Passage disappeared. It meandered

around to the left and into a chamber where a wonderful sight met us! A huge orange stalactite hanging from the roof of the chamber, bigger than any other in South Wales, fully twelve feet long, shaped like a Trident and right beside it an equally magnificent stalagmite boss -white, and with a knobly top like a Judge's wig. We gazed at these two fine formations for a long while, before passing on to another stream that was to all intents and purposes, a twin to the one we had maypoled into. Time was short. Straight across, a big passage led to a very high rift. The floor was about fifty feet below us and a traverse out over the hole only led to another.

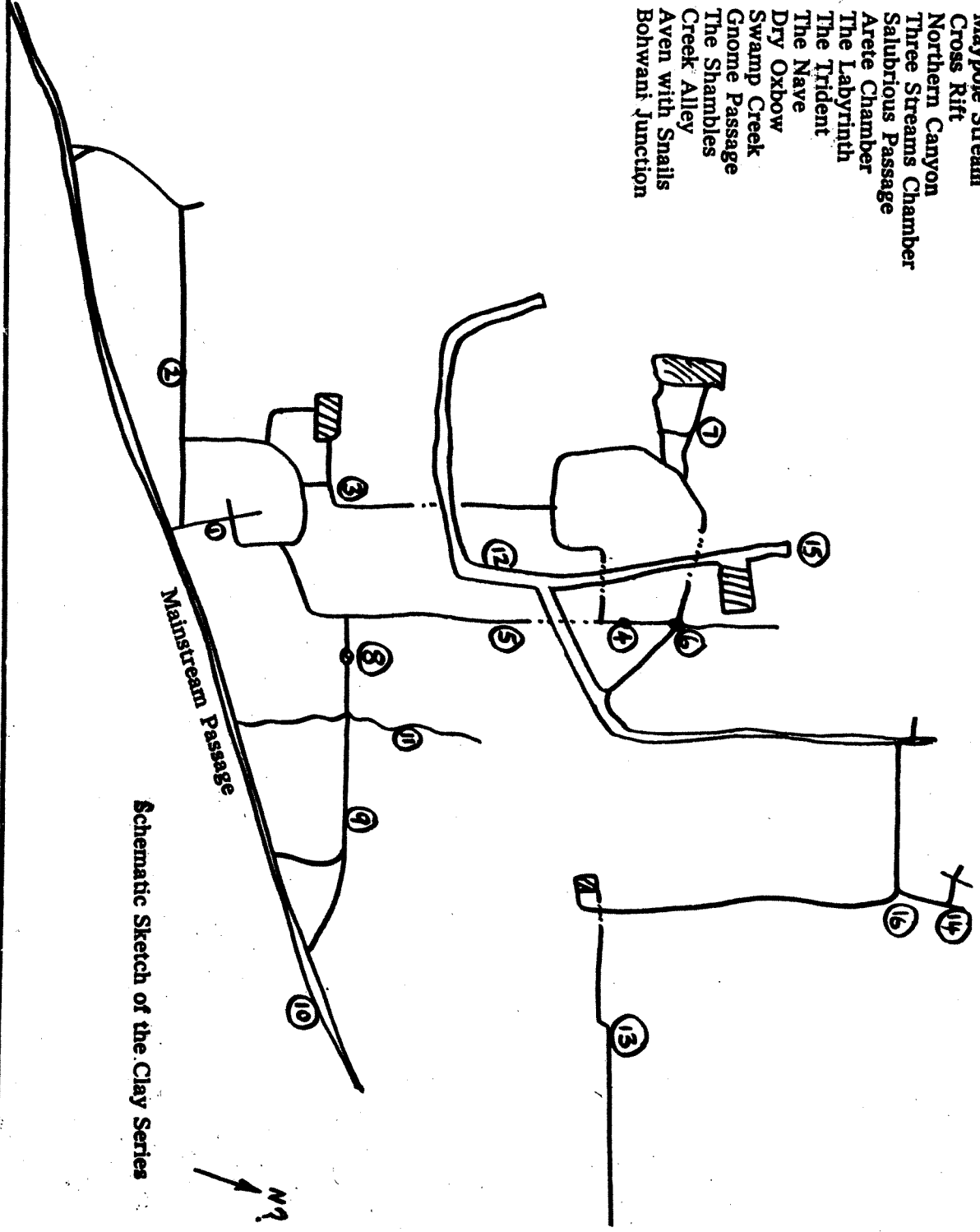
We followed the stream up and down for a short distance in a viciously meandering passage which we assumed reached the Mainstream upstream of our maypoles. Time again forced us to call a halt, so at least we had to return once more to try to force the series beyond the Top waterfall.

A week later we were back again. We put a ladder down the fifty foot drop and I descended. A quick look confirmed that the passage went both ways so the others followed. The tall rift passage boasted some of the finest formations that we had so far seen, one on the left-hand wall was reminiscent of a 30 foot tiered wedding cake with a magnificent 10 foot stal at the top. After a short distance we were forced to use a twenty foot ladder to reach the floor again. A vast curtain, all of 50-60 feet high, hung down on the left and the way on was through a stalactite door at its base. Treading cautiously through the gap we followed the draught along the boulder-littered passage till we came to an aven. The floor of the aven sloped away to the left and we could hear the noise of a river in the distance. Excitedly climbing down the slope we managed to chimney down to floor level to find ourselves in a deserted stream passage of mainstream proportions. Our excitement was short-lived when we realised that we had merely descended to the oxbow in the mainstream about five minutes away from the top waterfall. Back we went to search for other higher routes but to little avail. Our only success was in traversing along in a narrow high-level meander for a few minutes to a point high above the stream level where we thought that we could see a further passage on the opposite wall but it would require some sort of a boom to reach.

The next alternative was the small streamway that we had found on our previous trip. Following it upstream (northerly?) was not as easy as it might have been. Progress was severely slowed down by deep quicksand that reached to our thighs in places and got into our boots and socks and inside our wetsuits. It was one of the most uncomfortable places we had been in, and it ended shortly in a boulder collapse. We managed to find a bypass to the choke eventually, but it soon developed into a very tall and narrow rift that made the traverses in Tunnel Cave seem like a Sunday stroll. We beat a retreat when the footholds became more and more scarce, and named the whole passage 'Swamp Creek'. The downstream end of Swamp Creek did not hold any particular attraction for us other than to satisfy our curiosity, so I pushed on for a few hundred feet to see it cascading out over a vast drop presumably into the mainstream way below. It was fairly certain that this was the very big aven that is near the top waterfall just before the oxbow that we had descended to earlier on.

Our last objective on this trip was the "big passage" that Colin and John had spotted previously. It is situated at the end of Salubrious

1. Maypole Stream
2. Cross Rift
3. Northern Canyon
4. Three Streams Chamber
5. Salubrious Passage
6. Arete Chamber
7. The Labyrinth
8. The Trident
9. The Nave
10. Dry Oxbow
11. Swamp Creek
12. Gnome Passage
13. The Shambles
14. Creek Alley
15. Aven with Snails
16. Bohwani Junction



Schematic Sketch of the Clay Series

Passage where a 20 ft. climb leads to a low weird passage which looks out onto a big pile of boulders in this 'massive passage'. Because of the shortage of suitable belays we were obliged to use our 30 foot rope to tether the ladder. A fifteen foot ladder was sufficient and Colin called on us to follow once he had descended. We clambered over the steep slope of boulders to a large passage going in both directions. Going right led to another intersection in what might have been a chamber were it not for the fact that it carried on in both directions without any decrease in size. Colin broke one of his golden rules and named the passage 'Gnome Passage' after the hosts of small, white, glistening stalagmites dotted all over the floor. We hurried along down-dip passing several small side passages, following a somewhat elusive draught till we were greeted by a large boulder choke. One passage on the right might bypass it but we were short on time again. While Susan and I climbed out Colin and Terry checked to see if the passage on the left carried on. It did, so we were assured of yet another exploratory trip.

With such an inviting passage left untouched it was not difficult to persuade ourselves to return again. Despite the fact that it was to be an overnight trip and that my wetsuit had already done its 'last trip' twice before, we set off the following week and went straight back to the ladder pitch. We followed the passage that had been looked at and found that within a short distance it changed its nature and the usual white slippery clay (after analysis) came into evidence. At one point the boulders on the floor were piled in such a way as to make a vertical drop of about twenty feet. We managed to get down using a hand line, but it really needs a ladder. Onwards there was a big shakehole in the floor. Terry reported a hole about forty feet deep. Shortly we were faced with a ticklish problem - how to get over a twelve-foot boulder pile that overhung at quite an angle. Terry saved the day when he shinned up saying that it was not as bad as it looked: "faith and friction." He lowered a line for us tethered onto a moving boulder and we all went on in a high inclined rift passage, floored with boulders and clay. The passage forked and ended on the left in a series of dry chokes that gave little promise of further extensions. To the right, however, there was a large way on which contained a howling draught. We felt the drop in temperature as soon as we entered it, so we wasted no further time. Again the route was in a large boulder-strewn rift-type passage, but we had left the slippery clay behind. At one spot we went up a small side passage to find a lovely low-roofed tunnel with thousands of six-inch straws, almost all with helictites growing from them. The helictites were all pointing in the same direction and this was obviously caused by the draught. The way on was at a lower level, however, and at the next T-junction ("Bohwani Junction") we followed the draught again. This was a very pretty passage well decorated with crystal pools and erratics, and it ended with a deep crevasse in the floor. It was possible to traverse to the other side of the hole and descend almost to floor level, but it would have needed a VERY daring climber. We were forced to call a halt.

On the return we were all of us very tired and our responses must have been a little slow. Colin slipped at the awkward climb and twisted his ankle. For a while we thought that we would have a major rescue on our hands but he hobbled along as good as the best of us and our speed was hardly slowed down at all. Martin, Mike and Terry went on out and when Susan's party was coming in early in the morning they brought us some very welcome

hot coffee. Clay series had claimed its first victim and Smith was still fighting back.

At the beginning of August Susan and I brought two rucksacs full of goodies, dry clothes and various odds and ends to the top of the maypole. To find an easier route in, we searched in the maze of passages at the end of the big Cross Rift and succeeded in putting a ladder down to the top of the maypole thus cutting out the need for the long haul along Maypole Stream. To satisfy our exploratory fever we followed the Cross Rift to the point that we had stopped on our very first trip. The passage went on for several hundred feet, descending rapidly till it entered a small low chamber and then turned away back towards the direction of the mainstream again. We went on for a good way till we came to a rift in the floor. Here we could hear the distant rumble that told us that the mainstream was not far away, but the rucksacs had tired us so much that we stopped there, saying that perhaps its end would give us an easier way into the whole series.

On our next trip we were to find that this was not so. We pushed on to the end of the rift to find that it forked, both ways leading out over the river but just as high up as usual. John Oz and Rod attempted to climb down to the stream level but managed to reach a ledge about thirty feet from the floor. A passing group from the BSA would not (or could not) tell us where we were, so we had to descend to ground level by ladder. We alighted in the middle of the first waist-deep pool upstream of the climb down from the Great Oxbow. At least the series now stretches almost from that Oxbow to the top waterfall.

On this trip we were also heavily laden with kit. Terry and Martin intended staying with us for about fourteen hours, while John and Rod were going to attempt to catch some sleep before either continuing caving or leaving the cave. Susan and I were going to defy the sceptics, and, complete with dry clothes and sleeping bags, we intended to sleep out the night before carrying on caving. Our camping site was admirably chosen, both from the point of view of centrality, convenience and comfort. The Trident chamber was the only place that guaranteed all three with the addition of the best view of them all.

We brewed up some hot beverages before pressing on to the 'crevasse' that defeated us before. When we reached it, we lowered an 80 feet ladder to the bottom, before deciding to follow the alternative way that we had seen on the previous trip. A short pitch of 20 feet led into the chamber that could be seen, and the only way on here was up over a steep slope that led back down again on the other side and seemed to pass under the passage leading to the pitch. The fun was about to begin. The passage very rapidly entered a shattered area. Rod frightened the life out of the rest of us by bringing a huge section of wall down just after we had climbed down it. Ahead John was making the rafters roar by kicking loose blocks down a deep hole before it was safe enough to traverse across it. An awkward slippery climb upwards preceded a large shattered chamber that was really an oxbow one side of which had sagged and split. One by one we went over the top of the treacherous pile expecting at any moment to bring down an avalanche of rocks. At the far side we were stopped by a pitch.

John Oz almost literally threw our last ladder down, but a chock-stone saved the day. It was a lovely free pitch of about 50 feet and we were in a 'decent' passage again. It led on for a short distance till our

way was blocked by a fall of boulders over which we were unable to find a route, although the draught was whistling through the gaps. Without warning a small rock bridge which we had been climbing on collapsed with an ear-splitting roar but we were all out of the way. Our return was punctuated with many similar crashes as some deliberate (and unintentional) gardening was done.

John, Terry and Martin pursued the passage northwards from Bohwani Junction to find themselves in an extensive series. At one stage Terry almost got lost, but managed to find the others again. Progress in that direction was halted when the rather small passage that they followed opened out into the top of a much larger passage with a drop of about fifty feet to the floor.

Back at the campsite we ate. Susan and I had lamb outlets with French fried potatoes and sliced green beans, followed by grapefruit cocktail and coffee with wholemeal bread and St. Paul cheese. John and Co. burned their oxtail soup but nonetheless devoured it (or at least one mouthful each). At this stage Terry and Martin decided to leave the cave, and after John and Rod had hung around for another hour or so, they too decided to make their way out.

Susan and I arranged a tarpaulin in a corner to keep off the draughts and spread out our wetsuits as mattresses, before settling down for the night. The dry clothes and sleeping bags were so comfortable that we did not wake up for nine hours, and after a hearty breakfast we set off to explore the right hand end of Gnome Passage.

There were some quite large passages with massive boulders scattered on the floor. Most of the passages interconnected with one another, and finding a main route was difficult. At one point we entered a passage with several striking 'totem Pole' stalagmites; at the end of it there was a pile of rubble. It had all fallen from a small aven and looked almost as if it were builders' rubble, it was all so small and neatly piled. Some black specks attracted our attention and on closer examination we realised that they were probably bat droppings! There were no bats to be seen, however, but we did find something equally interesting. At several points on the wall there were dead flies covered with black mould, and one moth. In the pile of rubbish we found many land snails, which could only have got into the place through a hole from the surface. The aven contains no noticeable draught, but in view of the finds might be worth a revisit with the intention of locating an alternative entrance.

After finding a very large chamber nearby and also one with a one and a half foot thick shale bed roof we decided that it was time to call a halt. On leaving the campsite we cached a lot of items that are likely to be useful for future exploration and for emergency. The camping expedition had been successful in providing a second day's caving without the need to trek all the way up the mainstream and back out again on the same day.

So after three months' exploration the end of the system has not yet been reached. In total, a length of about two-and-a-half to three miles has been added to Ffynnon Ddu. The new series stretches from the end of the Great Oxbow to almost the top waterfall, but our success in finding the extension beyond that (if it exists) has been small.

It is not beyond the bounds of possibility that the system will actually connect with the great Oxbow and even go further downstream and eventually connect with the Marble Showers series. It is even highly probable that the connection with the Smithy area and the Marble Showers will eventually be made thus creating one of the best overland routes imaginable!

P. O'Reilly
1st Sept. 1967.

(Exploration Teams: Colin Fairbairn, Terry Moon, John Osborne,
Martin Gough, Pete Ogden, Rod Stewart, Mike Cobourn, Susan Bradshaw,
Paddy O'Reilly.)

3. SOME NOTES ON MONTMORILLONITE DEPOSITS.

When we first entered the new upper series in OFD II we found the floor of the entrance passage covered in a deep deposit of whitish-yellow matter that we took to be moonmilk. I was struck by the similarity of the texture of the deposit to that in Gunman's Cave, Pollnagollum Co. Clare. (ref. 1). The only apparent difference was that the moonmilk deposits cover walls and roofs as well as the floor, whereas in our new discovery the deposit was on the floor only and almost completely covered with water. Moonmilk is almost invariably associated with proximity to the surface.

On later trips we found even more passages with the deposit, and were prompted to reconsider our ideas about its nature. A sample was taken to the Geology Department at Swansea University and it was found to be a clay mineral. (Ref. 2). As much may not be known about clays a few notes might be in order.

Carroll (Ref. 3) defines a clay mineral as follows:

"With the possible exception of quartz, clay minerals are the commonest of all minerals. They are formed by alteration of the primary rock minerals by weathering processes or by hydrothermal solutions. The kind of clay mineral that is formed depends on the parent mineral and on the physico-chemical environment in which the alteration takes place. Clay minerals may be scattered throughout rocks of various types or in deposits. In deposits they may be of one single type, but more frequently clays are mixtures of the various clay minerals and may also contain other minerals such as quartz, felspar, volcanic glass, iron oxides, organic matter, etc. The clay minerals are extremely fine-grained and examination by X-ray diffraction has provided the best means of identification."

All clays are Silicate materials falling into two main groups:

- (a) The Kaolin Group
- (b) The Mica Group

Both of these groups are made up of two different kinds of units; a silicon-oxygen tetrahedron and an oxygen-aluminium-hydroxyl octahedron. All clay

minerals have what is termed a layer or sheet structure that is formed by linking the corners of each tetrahedron to its neighbours (forming a hexagonal network), and by combining the octahedral units similarly. The combination of these tetrahedral sheets with the octahedral ones produces the fundamental structural patterns of the clay minerals.

E.g. when a silicon sheet (tetra.) combines with an aluminium sheet (octa.) the clay mineral formed is one of the Kaolin group. When two silicon layers combine with one aluminium layer, the clay mineral formed is one of the Mica group.

Certain clay minerals are more likely to form in certain environments. Montmorillonite, one of the Mica group, is favoured by alkaline environments and is more likely to be found where drainage is not so good and magnesia, lime and alkalis remain in the soil. Kaolinite, one of the Kaolin Group, on the other hand, tends to form under acid conditions and is thus more likely to be found in moist environments where drainage is good and leaching occurs. Apparently the type of alkalis or alkaline earths present in the parent mineral is important since potassium is essential to the formation of illite (Mica Group), Magnesium to montmorillonite, and calcium probably to montmorillonite with the added tendency to the prevention of the formation of kaolinite. (Kaolinite does not form from the weathering of calcareous sediment till all carbonate ions are removed. (Ref. 4).) It has been found that the common clay mineral in many shales of Mesozoic or younger age is montmorillonite.

The sample tested lost about 40% of its original weight by gentle heating. This weight loss probably represents a loss due to water of 'hydration'. The remainder was soluble almost wholly in dilute hydrochloric acid but this is a feature common to many clay minerals. The small remainder was quartz crystals (4%), and iron oxides and hydroxides (2%). There was no organic matter nor carbonate particles.

The final decision on which particular clay mineral it was is difficult, but seems to be between two:

- A. Halloysite (Kaolin Group)
- B. Montmorillonite (Mica Group)

Halloysite occurs in Cambrian, Carboniferous and Upper Cretaceous sediments, while montmorillonite is one of the dominant minerals in water-laid shales. The specific gravity, lustre and colour of the two minerals are almost identical, but halloysite occurs particularly where oxidising sulphides have supplied sulphuric acid - the deposits of gypsum crystals in the Series points to the presence of some sulphate ions in the water, but this does not mean that the sample is necessarily halloysite.

The most easily made test is to heat the sample to about 600 degrees C. and to plot a dehydration curve. A point of deflection at about 300 degrees C would indicate montmorillonite while a large weight loss at 400-530 degrees C would indicate halloysite. Conclusive proof of identification can only be carried out by X-ray diffraction techniques.

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P.M. O'Reilly.
Sept. 1st 1967.

4. THE TRANS FRANCE EXPEDITION (OR THE POOR MAN'S BALINKA).

Blue flashes lit up the Rescue Room as the Club expedition to France welded up the exhaust pipe of the car whilst the others loaded the farm trailer from impressive mounds of caving gear. Two weeks intense planning had borne fruit in the valiant four-man team which set out for Dover at 05.00 a.m. with tackle sufficient for a 1000 ft. pothole.

Some difficulty with right and left hands resulted in our missing the boat but our guardian angel arranged a place on the next and we were soon bowling merrily across France. By late the next day we were in the Massif Centrale and shortly presented ourselves at Padirac. The day was spent relaxing in the area and visiting the show caves after proving speleos could have a discount. The area is grand for unwinding and the holiday starts well with a swim in the Dordogne.

However, our objective was further South so next day we hitched up the trailer and motored towards Toulouse. Soon an insistent scraping from behind caused a stop and surprise, surprise, the trailer bracket was breaking off! Still we had stopped in the shade of a sign advertising a repair shop 4 Km ahead and an animated permutation of our French vocabulary resulted in an economical and speedy repair and soon we were approaching Foix in the centre of the French Pyrenees. Here we planned to visit La Bouiche and duly presented ourselves at the Bureau. "Ici les Speleos Anglais..." and soon we were encamped above the cave.

This is a river cave, with dams to regulate the flow, and along the passages the tough guides tow barges of visitors along $1\frac{1}{2}$ Km of river. At the end is a cascade where beyond lie all the figments of the guide's imagination. There is also the terminal sump dived by the Club in 1947 (Devenish) and soon we found ourselves swimming up the cave with wet suits and flippers. The first sump was reached quickly now that a boat was found to be unnecessary and a search established two routes into the upper series. This is well decorated, with famous names marring the calcite walls and a study of the French eating habits was made as we tidied up. Soon the second cascade was found and laddered and the terminal sump reached. The final syphon looked inviting and we cursed the economy in our equipment.

However, we had a programme of sorts and after amusing the tourists by swimming down the river around the boats we thanked the management and moved on.

Before we left Wales we had contacted a hard French Speleo after concluding that at 65 he should have slowed down to our pace and so we duly reported to his house at Orgibet in Ariège. (See SWCC Newsletter No. 45.) He, mistaking the spele for pure enthusiasm, offered us a 'new' cave he discovered in 1963. We set off up the mountain with him carrying full kit for a three-day trip whilst he warned us of the danger of becoming lost. After 1500 ft. and $1\frac{1}{2}$ hours in cloud we took the point, and when we were within $1\frac{1}{2}$ Km of Henne Morte we reached the pothole. We remarked at the curious entrance alongside a stream and learned that the cave was 900 metres deep, 13 Km long and that a through trip was possible. Our eyes lit up as through trips have a special fascination. Yes, they had done it once when the whole route was tackled by a strong party. Then five speleos without kit did the

trip in a bare five days! That was with airforce help in airlifting $1\frac{1}{2}$ tonnes of gear up the mountain.

We looked at our 200 ft. of ladder and returned for another 100 ft. Ah Well, perhaps with a small strong team?

The Grotte (the French term is best this time) proved to be an Eastwater type stream passage, rather tight and very sharp and dropping steeply. Cascade followed cascade with monotonous regularity and the pitches were typically 30 ft. or so. After three hours, 500 ft. and $1\frac{1}{2}$ Km we began to revise all our opinions of French cavers. They have the big stuff but they do not stop at the small either since we were then stopped by a vicious muddy squeeze rising a total of 60 ft, though not all too tight. Muddy because it floods.

Enough, Enough, the guests cried and only half the expedition laddered the next pitch to enter the Grande Salle. What a Salle! Up to 100 metres wide, 40 high and 900 long although boulder climbs and pitches soon stopped exploration. Beyond lay a further drop of 2000 ft. + but behind was the sun and the bears.

The bears won and we returned having only sampled the cave as we knew we must. That night we moved into the local Speleos cabin and dreamed of living and caving in this magical valley. Our day was completed by a beautiful meal including snails with our hosts and a trip to the local fete. It should be recorded that at the fete but it won't be!

Before we left this area we also set out to visit La Cigalere, a cave high above the Sentein Valley above Castillon. It was here that Casteret proved a connection with Gouffre Martel and has described the wonders of the cave in his books. Access to the cave, now gated, was easy, we were told, so we set out to get the key. This is at Moulis, the speleological laboratory and there we were invited in to a cross examination by two officials. Who, When, Why, How long, How strong, How many, What for and by the way, Who, When, Why It was with some surprise that we left with the key to present ourselves to the Gendarmes. OK there so on to the Syndicate D'Initiative for form filling, then to the mine officials for access then to the Hydro Station to check they were using the water.

This had better be good, and so it was as we did three point turns around hair pin after hairpin up a magnificent mine track up 3000 ft. Soon the boiling, panting Austin stopped in the shade of the cave and we tried the key in the lock.

'Hello', says our Emile, 'this lake means the cave is flooded!' So our trip ended just 200 ft. in despite a brave swim in the ice cold water (lit). Per Ardua Ad Poseidon? Still the trip was not wasted as we climbed higher yet and explored the fine mines above the cave, then cavorted in the snow in beach shorts.

You may have gathered that the Trans France Expedition was not entirely dedicated to establishing new caving records but at least much ground work was done by the more talented Members and useful contacts have been made. So feeling fairly content, we decamped and moved into Spain for three days. By a supreme effort we ignored all the lovely mines en route and found ourselves camped near the Oueil de Joueou which is a rising about the size of the Tawe in flood. Next day our party carried kit up 2500 ft. up the Col de Toro and into a cirque below Anetto (11000 ft).

The site we chose was just below the snow line but it was stinking hot. The chief objective was now the mountain and we did in fact make it, but meanwhile a little time was spent in the caves d'Escaletta which lie in this hidden valley. Little was achieved, however, as the surroundings were too good to waste and we enjoyed the sun, the alpine flowers, and the glimpses of Chamoix on the ridges.

No further caving was done and as the holiday ended we climbed down from our 6000 ft. eyrie and set off back.

The exhaust dropped off in Limoges and BMC would have cheerfully shot us for the next 70 miles until it could be repaired with a Salmon tin. The trip back was uneventful apart from the two Gendarmes we nearly had, and who nearly had us, and the evening in Paris. Bastille day must be quite exciting in Paris, we reflected, as we supped beer under the Eiffel tower and watched the revelry in the roaming mobs.

Round about Gloucester our guardian angel decided he had earned a holiday too and left. The wheel of the trailer worked loose and by the time we reached South Wales it was 10 degrees out of line but by then who cared?

Ah Well, back to serious caving

John Osborne.
August '67.

5.

CLUB FORMATION IN WALES

Caving Clubs are to be found in many types of rock but they are chiefly developed in carboniferous limestone. This rock is relatively soluble and when the solution cavities become large enough to admit a caver a Club is usually formed.

In the beginning a Club is small, often an enlarged joint or bedding plane, but if modified by faults the rate of enlargement of the original rift is impressive.

Study inside a Club reveals that there are several definite stages in its development, all quite different, but since there is some overlap it may not be obvious which stage a particular Club is in. First of all the available rat-holes are usually too tight and it is only by clearing out blocks at the entrance that access can be achieved. This period is termed the "Phree-on-Tick" stage where the Club, although it may be quite large, is usually immersed in debt. Access is not often available and when it is there is always the risk of being stifled or cut off from the outside world. The club thus formed is often clean and attractive but is characterised by complicated systems which have rough edges and are full of snags for the unwary.

When the Club becomes larger it is less likely to go under, although there are still regular floods and it may become almost submerged. This improvement may be because the access is easier. Within the Club there may be sections which are still free on tick but now the body of the

Club behind the section prevents complete saturation. The level just above water is termed the 'active Club' and this is its most impressive stage. The enlargement is now by 'They Do' action and the floods of enthusiasm carries all before it. The obstacles are removed by a combination of chemical erosion and the continual grinding away by bodies committed to the water by previous stream action.

The rapid flow often causes curiously formed blocks in the Club whilst the number and size of the hollows in the structure is an indication of the violence and turbulence of the stream.

The active part of a Club is not constant, periodically the system becomes silted up and flow ceases, then one quick flood removes the obstruction and the flow resumes. The active zone also varies over the year, becoming greater in Summer in South Wales, in contrast with other parts of the country. Even a particular section of the Club does not remain active indefinitely and eventually it is left high and dry, only to be affected by floods. In the Club the active zone is small and it lies somewhere between the free on tick and the more elevated but 'fossil' system.

The final stage of a Club, as it grows old, is the fossil series. At first glance there is no sign of activity but deep down there is usually a little movement which keeps a little development going. Visitors to such a Club see empty spaces with large ramifications, now dead. A hushed atmosphere pervades the hallowed chambers which are, however, relatively unstable. The visible part may even be entirely due to collapse and general settlement and the original discoveries are hidden under chaotic obstacles caused by external climatic changes. This stage is depressing since the once active torrent has reduced to a trickle and now the slow movement carries in, and deposits, waste material in all the backwaters. The impressive display of decorations carry an implied threat to access as slowly but surely the steady dripping wears away the hardest rocks and redeposits it, in a changed form, in the entrance to passages. Eventually, unless the Club becomes dead first, the result is a complete loss of access even to the few drips still about.

In most of the larger Clubs this stage is becoming evident but some of them are completely dead as yet.

Perhaps we can devote just a little attention to the formations in a Club. The general public think that Clubs are dark wet places where the forces of nature are demonstrated in all their violence. They know that all the little drips collectively form the pretty mass which hangs about on the walls or floors of chambers. This is often correct but it is not the full picture. In addition there are strange erratic formations which grow in unpredictable directions, usually opposite to any other type. These seem to be restricted to narrow bands which are now receiving more careful study. Lastly there are a few Club pearls which are, however, likely to be stolen if left on display.

Of the animals found in Clubs the only large ones are bats. They usually leave the Club daily on foraging expeditions in the surrounding countryside and often sleep out in other Clubs if ranging far from home.

These animals find that their unusual instincts help them to prey on creatures in the Club who are blind, or nearly so, but it is usually the external insects who are the victims. Although not attractive to some these creatures have a skill and mobility which is widely recognised, and in fact a study of them is very amusing and rewarding.

When outside the bat may often be seen flying around with birds, hunting.

My studies have found that our own Club is almost entirely clear of the first stage of development but that both the active and fossil stages are present. The demarcation is difficult, however, as most of the Club is wetted once or twice a year. Visitors are proudly shown the larger, older series and a quick look at the active zone, and on this may conclude that most of the Club is fossil. This is not necessarily true, of course, but there is one last observation I can make. It seems that a club needs a small fossil section for much research to be attempted and for more detailed theories to be formulated. This advent of the fossil stage, with its attendant lack of orientation in development, makes the climate right for the evolution of this article.

Cynicus.

6. CAVE RESCUE PRACTICE IN DAN-YR-OGOF.

Sat. 14th Jan. '67

The group secretary informed all members interested in Dan-yr-Ogof that this practice was to be held; however, it was disheartening to learn that only a quarter of the members contacted considered it necessary to attend or to reply to the circular.

There were approximately 15 persons at the practice, four of them having before-hand rescued a sheep which had conveniently perched itself on a narrow ledge above the entrance to the cave. The party then progressed to the first lake and a general discussion was held on rescue techniques.

It was decided that Clive Jones would be the first victim. A lilo was inflated and placed on top of the Neil Robinson stretcher. The victim was then put into an exposure suit. It is important to remember that he had not been in the cold cave water, so he was completely dry. He was next put onto the lilo and strapped to the stretcher.

He was floated across the lakes and carried up the rapids and on arrival at lake 4 the patient tried to overturn the floating stretcher. This was an interesting sight as it resembled a person desperately trying to escape out of a straight-jacket. It was only after a tremendous effort that he managed to overturn his floating 'bed'.

He was carried out of lake 4 and up a dry passage to be unstrapped. His comments were informative, to the effect that he was perfectly comfortable and warm until he overturned the stretcher and allowed water to enter

the exposure suit through the neck. He had not felt any bumping around during his journey up the rapids. He did comment that his back was slightly cooler than the rest of his body, this being due to the water collecting in the middle of the lilo.

It was then decided to strap Stewart Kirby onto the stretcher. He was wet, as he had helped to carry the stretcher. This time only two persons, with flippers, guided the stretcher across the lake, and it was found on the way back to lake 1 that this was sufficient.

At the sand bank between lakes 3 and 2, Stewart changed places with Noel Christopher, who had spent half an hour swimming around in the lakes trying to get himself as cold as possible. He eventually unzipped his wet-suit and went a ghastly colour blue as he sank into the lake.

The team immediately placed him inside the exposure suit and poured warm water into his wet-suit. The mistake of not zipping his wet-suit back up caused his chest to get very cold. This was rectified, but the warm water collected in the bottom of the exposure suit, and as he was carried along the show cave, the water, which had been quickly cooled in lakes 1 and 2 swilled up and down his back making him very cold by the time he reached the junction in the show cave.

The team returned to the headquarters and discussed the method of rescue and the equipment used.

Clive opened the discussion by explaining the purpose of cave rescue, the callout procedure, types of rescues encountered etc. The design of the stretcher was then discussed, and some of the points were as follows:-

- 1) The Neil Robinson stretcher was adequate for the practice rescue but a newly designed stretcher would be advantageous. After a long discussion, it was suggested that a carrying sheet fitted with a base board, straps and side flaps that would go over a lilo and patient would be more useful. Around the edges of the sheet should be carrying rings so that slings with crabs could be clipped in. Head rings would also be useful and so would some kind of fixed headgear and visor. It was found that the hand straps on the Neil Robinson were too far underneath and therefore the ones attached to the carrying sheet would have to be nearer the edge of the sheet.
- 2) The buoyancy of the stretcher is adequately taken care of by the lilo. Other methods such as a rubber tube around the outside of the sheet were suggested, but the lilo had the advantage of acting as insulation for the patient from the cold water. One suggestion is to make a boat-type coffin arrangement out of synthetic resins etc. However, this is for the future and is being investigated.
- 3) It was suggested that carrying straps be fitted permanently to the stretcher, but these tend to hinder the rescue team when not in use. Even after persistent reminders, from the leader to place the straps on top of the stretcher, they still fall off and drag underneath everyone's feet. Therefore it was considered desirable to have a set of straps with the stretcher, but detachable.

It was agreed that a rescue practice should be held regularly in Dan-yr-Ogof to familiarise members with the cave as far as rescues are concerned.

John Dryden was elected secretary of the group and Noel Christopher as tackle officer.

To conclude, I would like to express my opinions on this practice, and they are as follows:-

- 1) From past experience I have learned that it is impracticable to choose a leader on the spur of the moment. They are faced with a problem that they have not yet sorted out in their own minds. Being forced to act quickly usually ends with a wrong decision being made underground because the leader has not yet had time to think about the problems that may be encountered.
- 2) There may be too many leaders talking at the same time. There was one elected and half a dozen unelected leaders at the practice! It is a golden rule which must be remembered by all:-

"DO WHAT I SAY, NOT WHAT YOU THINK"

The reason being that other people do not know what the leader is thinking but can hear what he is saying. It is a very difficult thing to obey orders, especially when you think you have a better way of doing it, but remember, if you were on a stretcher with a broken back and had two obstinate cavers arguing about what they were going to do with your life, how would you feel??? So please, folks, only one leader; your chance will come.

3. It was intriguing to listen to the different methods used to order the team to lift the stretcher. In fact, by the time we got to the fourth lake, I had lost count. There is a standard call made by the leader when lifting the stretcher. I believe that if the standard call was learned by everyone, they could understand what the leader was saying, even if they could not hear him properly. The standard call is:-

READY - PREPARE TO LIFT - LIFT

or when lowering the stretcher:-

READY - PREPARE TO LOWER - LOWER

To conclude, I would like to say that this practice was very successful and it has given members the general idea of how a team can negotiate the lakes with a stretcher. I would also like to thank the organisers of the practice for helping the inexperienced such as myself to gain valuable knowledge of cave rescue techniques.

A. Day.

SWCC 21 DINNER

THE CLUBS' twenty first anniversary dinner was held on Saturday the 29th. of April at Bishops' Meadow Restaurant, Brecon.

MORE than a hundred members attended, and the Yugoslav Ambassador, His Excellency Ivo Sarajcic was the guest of honour.



ABOVE: Chairman Smith addressing the dinner
BELOW: The Yugoslav Ambassador at DY0.



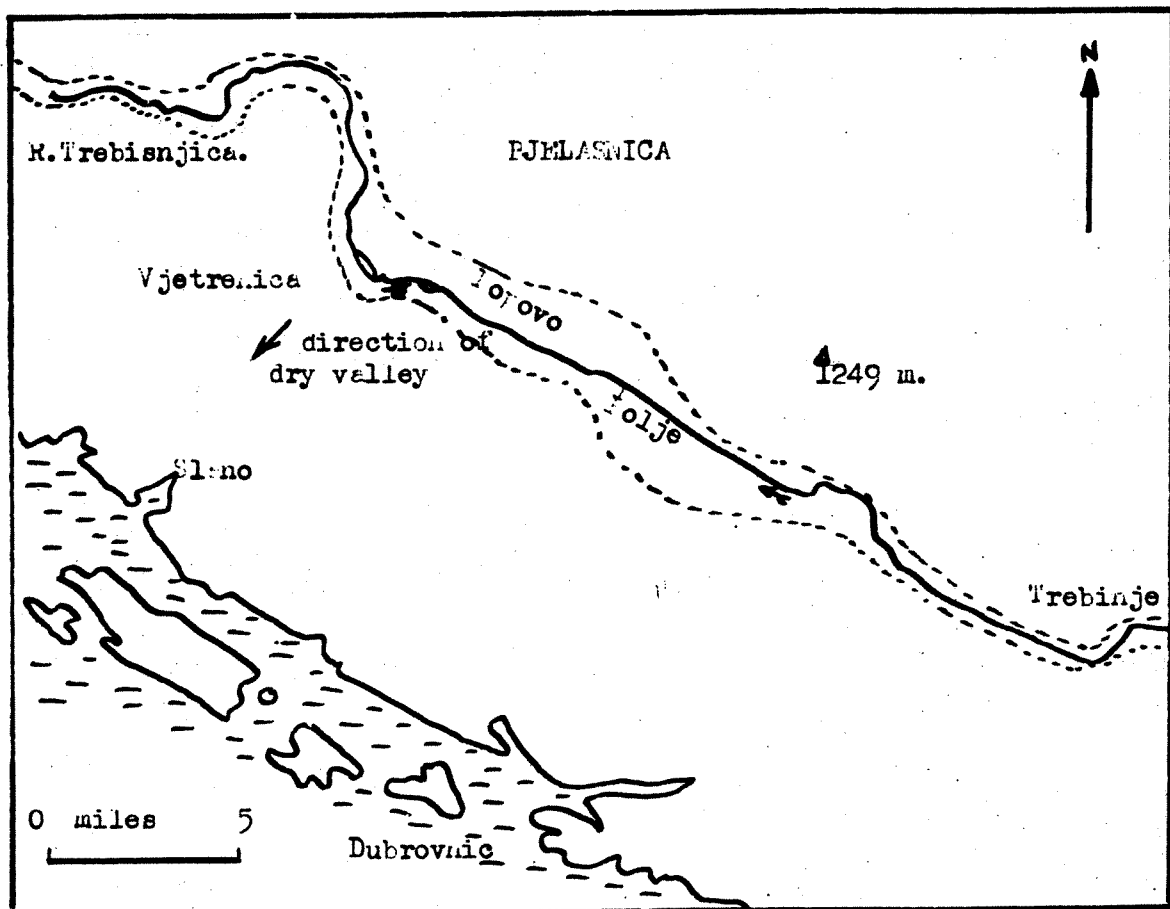
CLARE Harvey presenting the Yugoslav Ambassador with a print of Brecon. A memento of his visit to South Wales.





VJETRENICA - THE WINDY CAVE.

(A cave in Southern Yugoslavia visited in August 1967
by Clare and John Harvey, Clive Jones and Glyn Genin.)



The Location of Vjetrenica and Popovo Polje.

A polje is a large flat-bottomed depression characteristic of Karst land. Its sink, situated at one end, is often too small to take all the water supplied in the rainy season with the result that extensive flooding often occurs. The periodic lake known locally as the "blato" lasts several months before disappearing.

The Popovo Polje in Herzegovina, Southern Yugoslavia runs parallel to the coast about ten miles inland from Dubrovnik. From the unsurfaced road along the edge of the polje, the river Trebisnjica can be seen meandering across its floor through richly cultivated land. Before being controlled by a dam the lake completely filled the polje occupying an area as large as Lake Geneva. After crossing the polje along an artificial embankment across its narrow northern end and continuing along its southern edge for five miles or so the village of Zavala is reached where the small local hotel is named after the nearby cave.

VJETRENICA means 'the windy place' and the reason for this name becomes obvious as the entrance is approached. The strong cold draught coming out has to be heard and felt to be believed -- in fact it is used by the hotel as a fridge! This entrance is gated as plans are in hand to commercialise part of the system and already the first mile of the upper series has been pathed and electrically lit.

The cave has been known for hundreds of years but only recently has there been any serious attempt at exploration. This has been carried out under the direction of Mr. Sonc (pronounced Jones), a native of Postogna, who is manager of the hotel and cave and has covered seven and a half kilometers of the system.

The waters from the polje once reached the Adriatic by means of a valley, which can now be seen as a dry valley near the cave. However, as is normal in this kind of country this state of affairs was by no means permanent and a route was made through the mountains by the river. The tributaries coming into the valley also found routes underground but they, instead of flowing in the same direction as the main river decided to flow back to the polje. In so doing they created a main drainage channel which captured most of the water from the mountains lying between the polje and the sea.

We now have the interesting situation of two rivers, one almost vertically above the other flowing in different directions near the present dry entrance to the cave. This gives rise to the two levels in Vjetrenica but unlike most caves the lower level here is the older system.

We had all too little time in this part of the world and were only able to take a quick look around. The upper series rises gently and is on average 50 feet high and 30 feet wide. It has a fair selection of formations but not the profusion of stalagmites normally found in Yugoslav caves. Most of the route lies along mud-banks similar to those in Pant Mawr, and a series of small lakes makes a ducking inevitable for the unwary crossing the mudbanks. We were lucky; there was no flow of water during our visit as this upper series is liable to sump in one place during very wet weather. As it was, the sump was broken and we were able to walk through without even getting our feet wet. The series ends in a boulder choke with a draught roaring out at all quarters.

The lower system is reached via some small passages and is a series of well decorated chambers (lit with coloured lights) ending in a mud choke. One side passage leads to a 120 meter pitch which gives access to a series of small passages all ending in sumps. Most of the cave was flat roofed and seemed to have been formed mainly by roof falls and bed separation.

Vjetrenica's proximity to Dubrovnic makes it a realistic commercial proposition, and a few years will see metalled roads leading to the village which will by then be a little Postogna Jama.

Clare Harvey
Aug. 1967.

BIOLOGICAL NOTE.

Vjetrenica contains a few PROTEUS and is famous for the largest species of NIPHARGUS known -- N. BALKANICUS, reaching 5 cms. in length. Another of the more interesting animals to be found here is MARIFUGIA CAVA-

TICA which as the name suggests originated in the sea. During the course of evolution it has penetrated caves, possibly from submarine risings and become adapted to the fresh water. The tubes in which the worm-like animal lives sometimes form masses reminiscent of stalactites.

C.H.

8.

AN UNEXPLORED SYSTEM OFF SICILY

During the Easter holidays the Bishop Wordsworth School, Salisbury, mounted a small expedition to Sicily, but beforehand, they took part in the U.K. training programme which involved camping on Mendip to practice surveying and camping at Penwyllt for practice in living rough. There they met Clive Jones and John Oz for a glowing account of their assault on Etna the previous Easter.

When we arrived in Sicily Mount Etna was in a splendid new eruption. We then moved on to the Lipari islands, NW of Messina, where we visited Vulcano, Sulphurous and steaming, thought by the ancient Romans to be the forge of Vulcan, the god of fire, and where he made armour for the gods. Thunderbolts, too. This activity has now been discontinued.

The other active island volcano is Stromboli and is still the 'lighthouse of the Mediterranean'. It is about the height of Snowden and just as easy to climb, but with a rather more spectacular view from the top. While on Stromboli we looked for features of interest to climbers and cavers. The island is composed of lava, ash and mud flows, along the shores there is embryonic zawn formation and some sea caves were found, but were not extensive. A traverse of the island is a good climber's day, a helmet is needed under the 'Sciara del Fuoco' a 3000 ft. scree slope down which cascades the ejected pyroclastic material from the volcanic vents near the summit. A rope and waterproof camera are needed to get round some of the steep cliffs of the zawns. The traverse was suggested to us by Eric Shipton, and is evidently seldom attempted, judging by the incredulous reception accorded to us in the village of Ginostra half-way round.

A system of fissures in the ground, perhaps originating in an earthquake, were found by the 'Observatory' near the village of Stromboli. They extended for some 20 metres, were some 30 cms wide at the surface but widened lower down, and were some 4 metres deep. The system was not entered.

Other more extensive subterranean passages were studied, but again no attempt was made to enter. Eight entrances were seen, all resurgences, some 200 metres below the summit of the mountain. It was evident that these formed some part of a large and complex underground system, the full exploration of which would have to be left to cave divers. Construction of equipment to withstand the pressures and temperatures (1000 deg. C) involved in these dives could take up many a pleasant weekend for the engineers of the Mechanical Caving Club!

Dennis Kemp.
1967.

9. OGOF RHYD SYCH, MERTHYR TYDFIL - NEW EXTENSIONS.

On Sunday 20th August the resurgence cave in the Glais valley known as Ogot Rhyd Sych was visited by members of the newly-formed Cwmbran Caving Club, which includes members of ICI Fibres Speleology Section. The bedding-plane constriction that stopped progress by ICI (then BNS) members when the inner chamber was first entered by them in June 1957 was blasted out. A low crawl followed which led to a fork. The left passage led to a boulder choke issuing water. The sink of the Glais stream up above was immediately dyed, and the dye came through this inlet. This confirms the SWCC dye test in 1950 (see Ref. 1).

The right passage led on to a constriction which was blasted out only to be followed by another blockage. This appears easily removable and more work will take place over August 27/28th, in pursuit of the strong draught.

About 200 ft. of new passage is known, and it confirms findings by Dave Savage and Dr. O.C. Lloyd of CDG made in December 1966, in which they said that the resurgng water had not travelled far underground. (Ref. 2).

Ref. 1 - Cave Sump Index: South Wales, by Melvyn Davies, Dec. 1966.

Ref. 2 - Private Communication from Dave Savage, 30-12-66, being one of a series of regular reports of the activities of Somerset Section, Cave Diving Group, in South Wales.

Melvyn Davies,
Cwmbran.

10. FROM THE LOGBOOK

1. Dan-yr-Ogof.

D. Judson and R. Arculus started the survey from the entrance at the beginning of June. (Grade 6). By the end of the month a point just at the end of the Long Crawl had been reached, and all the materials for the chain ladder into Gerard Platten Hall taken in. Alan Coase spent some time photographing the helictites in Birthday passage, and drilling a rawl-bolt hole for the pitch into the Great North Road.

At the beginning of July radio location tests were made in and above the cave. The river cave passes under the Show Cave just beyond Coracle Pool, just by the drain in the floor. Hammering and vague speech were reported detectable.

At the end of August the transmitter was set up at the entrance to the Long Crawl -- the signal was received in a shakehole near the wall but below the large shakehole with the coal seam about 350 yds. SW of the entrance to the cave. The location was marked with a cairn, 25 ft. east of the lowest point. The depth was calculated from angles and was: 141.5 and 147.0 ft.

While the transmitter was working Alan Coase retaped many of the

formations on the main route in II and pushed at some of the more obscure places. (1) Up through the boulders at the back of Cloud Chamber - one good passage disappears into a boulder choke that cannot be entered. (2) In the same area a passage off to the left of the choke was pushed for several hundred feet past the initial obstacle of a mud bank, but ended in a 30' aven. (3) The choke at the top of the 100 foot cascade was examined and found to be absolutely 'uge.

2. Ogof Ffynnon Ddu II.

As well as the few miles that have been added, there has been considerable activity in the cave. One result of this has been the loss of the vulnerable Carrot formation on the route to the Smithy and an increase in the litter scattered around. Cavers should be a bit more conscientious and take all their rubbish out, as well as any they find - and this applies particularly to carbide. The water in OFD II supplies a farm and should not be polluted.

Floods. The last week in July was a very wet one and the Stream was flowing down the Flood Bypass for most of the week-end. At the height of the floods it had been 25 feet deep there! The confluence had been flooded to a depth of 6 feet.

The disturbing fact about the flooding is the rapidity with which it can occur. Denis Kemp's photographic trip reported that it rose visibly in a period of a few minutes. Another party left the confluence on another occasion and noticed no alteration in the level of the stream, but three hours later the resurgence at Y Grythig was a raging torrent.

M.C. Day climbed an aven in the mainstream below the Marble Showers area and got into a 2000 feet plus of passageways. (Hope yet for a route from the Smithy to the Marble Showers series via dry passages.)

Frank Baguley and his team of eager beavers are to be congratulated on their prompt and expert work on the shaft of Cwm Dwr which began to run in one weekend. Our condolences to the budding Hans who stemmed the tide of boulders while the others built the shuttering up around him.

3. LITTLE NEATH RIVER CAVE.

The UBSS have been active in diving and have pushed the cave to Sump 6. The system is getting so long now that future dives are going to be more difficult because of the need for large air supplies.

4. THE BYFRE DAM.

This is now almost fully completed but needs some more work before being classified as 'done'. Clive Jones would appreciate some help on the project.

5. Engine House Dig is reported to be going 'like the Clappers of Hell!'. (quote from Martin Gough.) The all time depth record is likely to be broken any day now so diggers are urgently required. On the weekend of 2nd of September Clive poured twenty gallons of fluorescein down the dig and it was seen eight hours later issuing from an aven in the mainstream in OFD II near the maypoles to Clay Series. At the time of going to press a big push had been planned for the following week with the radio transmitter and walkie-talkies... By the time you read this the new route to the stream will be a realistic possibility.

COTTAGE IMPROVEMENTS

At the last but one committee meeting a lengthy discussion took place on the proposed improvements to the cottages. The broad background to the discussions was that the men's living and washing quarters were grossly inadequate for the present numbers that use them, and that equipment storage and losses needed dealing with. There were several other factors which were borne in mind: the frequent overcrowding of the married quarters, the acquisition of No. 5 cottage and the requirements for a lab and for charging facilities.

Below is a sketch plan of the cottages as they are hoped to look after the alterations.

Stores	Stores	Lab	Men Clean	M/R	WOMEN	WOMEN	MEN	MEN	MEN
Stores	Stores	Drawing Office	Changing Area	M/R	WOMEN	WOMEN	MEN'S TOILET	MEN	MEN

UP

WORKSHOPS	CRO ROOM	STORES	MENS SHOWERS	M/R	KITCHEN	COMBINATION R.M.	MEN		
WORKSHOPS	CRO ROOM	WORKSHOPS	DIRTY CLOTHES	M/R	KITCHEN	DINING ROOM	FOYER	COMBINATION R.M.	MEN

DOWN.

In order to pay the cost of all these alterations it was decided that the income from cottage fees would have to be increased. The suggested new scale of charges are:

- Visitors 4/- per Day. (From Nov. 1st)
- Members 1/6 per Day.
- Children with members... half price.

Appropriate charges will be made for visitors using only part of the facilities.

CAMBRIAN CAVING CONFERENCE.

This year's conference was held on July 21st at the University College of Swansea. The agenda had been circulated to all the clubs interested and Mr. John Osborne represented the Club.

There were several matters of interest to the Club on the agenda, among them the incidents involving visiting clubs illegally using explosives in the Neath and Hepste valleys. Several members advocated firmer action with those suspected of being the culprits, but it was generally agreed that little could be done to undo the damage that had been done. Access to the Little Neath River Cave also came up for discussion and the UBSS delegate informed the conference that they had started the Mendip custom of paying a shilling to the farmer before entering the cave. It was felt that this was a dangerous precedent and that insurance difficulties might arise. The access to Dan-yr-Ogof was explained and also the guest leader system. The proposed gating of OFD II was explained and discussed, and it was agreed that in an effort to keep ill-equipped cavers out of the system a gate was the best idea, with unrestricted access for bone-fide cavers.

Conservation of caves was discussed at length and the importance of having a cave classified as an SSSI was stressed. Youth training courses came in for a lot of heavy criticism, and it was felt by most clubs that the amount of experience that could be given to anyone in a week-end course was of a very limited nature. As regards new techniques there were no communications but the clubs present were warned of the dangers of abseiling using a large diameter rope doubled twice around a karabiner after the tragic death of Rex Keane.

As regards cave rescue, the dangers of a similar incident to Mossdale occurring here were stressed and cavers were urged to use the met. office to obtain weather forecasts. The sump rescue team was reported to be holding regular meetings and some comments were passed on the use of pneumatic splints and the new radiative blankets.

The AGM of the Cave Registry took place, with the re-election of David Jenkins to the position of Secretary, provided that the area registrars took more interest in their work and produced some results by December.

The meeting ended at about 3.30 p.m. and several of the guests took the opportunity of visiting Gower. Next year's Conference will be held in North Wales and will be organised by the Shropshire Mining Club.

S.E.B.

REVIEWS

Cave Sump Index - South Wales :- Mel Davies. 1966.

Lists the sumps, both sinks and resurgences, associated with caves and mineral mines in the South Wales area. This list was prepared for the cave diving group and has already produced results. The sumps are classified into six areas and both surface sumps and those inside known systems

are included. The map reference, location and a brief description are given with notes on dives or dye tests. Reference are given.

J.H.

Radiant Darkness :- Alfred Bogli and Herbert Franke. Published by Harrap, 1967. Price 63/-.

This book is the answer to the layman's question, "Why do people go caving". It contains 40 colour and 32 half-tone illustrations of exceptionally high standard, plus scientific details and interesting anecdotes about European caves which would appeal to the experienced caver as well as the average reader.

S.E.B.

14. RECENT ADDITIONS TO THE LIBRARY.

1. Axbridge Caving Club and Archaeological Society N/L
June & July 1967
2. Belfry Bulletins.- Bristol Exploration Club Monthly Journal
Vol. 21 Nos. 1-7 Jan.-July 1967
3. Birmingham University Speleological Society.
Report on an Expedition to Crete 1966.
Small group of students covering four speleological miles in the Omalos plateau, W.Crete. One large cave explored - the Tzani, previously sketched by the French in 1964. However, a review of the hydrology and geology of Crete suggest other areas may have good possibilities.
4. The British Caver. Vol 47 1967.
5. Cava and Crag N/L No. 2 1967.
6. Cave Diving Group - Somerset Section N/L June 1967.
List of sumps dived and short descriptions since April 1966, in - Mendips, Yorkshire, Derbyshire, Devon, Wales and Turkey.
7. Cave Diving Hazards. O.C. Lloyd.
Reprint from the Bristol Medico-Chirurgical Journal April 1967.
8. Cave Research Group N/L No. 106 June 1967
Contents:
A testing rig for lightweight metal ladders. F.S. Baguley.
A jig for high speed rung drilling. D. Brandon & G.K. Lyon.
The rook or ladder hook. F.S. Baguley.
Crimped simple splices. D. Brandon.
Reclamation of resin-fixed rungs. D. Brandon & G.K. Lyon.
9. Chelsea Speleological Society N/L Vol.9 No. 9 & No. 10
June & July 1967.
10. Die Hole 1967 1 & 2.

11. Hereford Caving Club N/L No. 22 June 1967.
Includes:
A new danger to British Caving. J. Mortimer, D.E. Leitch.
Rabies likely to spread from continent transmitted by bite
or inhalation of virus from bats. Incubation from 10 days
to 12 months.
Collecting invertebrate fauna in Caves. M. Hazelton.
- reprint from C.R.G. N/L No. 105.
12. London Universities Caving Clubs Journal June 1967.
Includes:
Geology of Mongo Gill - Stump Cross Caverns.
Revised list of tackle for major Yorkshire potholes.
13. National Speleological Society June 1967 Vol 25.
Includes:
Cave Research Work in Slovakia. Dr. A. Droppa.
14. Spelunca Tome 7 1967. Federation Francaise de Speleologie.
Descriptions and maps of new caves and includes recent explora-
tions in Pierre Saint-Martin.
15. Welsh Geological Quarterly Vol. 2 No. 2 Winter 1966.
16. Wessex Cave Club Journal No. 112 Vol. 9 June 1967.
Includes:
Jugoslavia 1966. G. Pilkington. - Postogna area.
Charging nife cells. J. Phillpott.
Caves of the Balearic Islands. W.T. Edwards.

Borrowing procedure:

Contact Hon. Records Officer to arrange handover or posting.
All postage must be paid by borrower.

Clare Harvey.

OBITUARY. It is with deep regret that we have to report the death last July of Richard Baynton after a long illness. Richard was a very keen and active caver who spent many hours exploring underground South Wales and particularly Gower, and did much to further the cause of caving. He will be dearly missed by us all, and the Committee, on which he served as Assistant Secretary for a year, send to his parents the sincere condolences of the Club.

The British Caver Vol. 47 is now available. No caver should be without this most valuable addition to his library. The cost is 10/6d. and it is available from:

Gerard Platten, Rotherfield, Fernhill Lane, New Milton, Hants.

Note

MONOFILAMENT POLYETHYLENE ROPES ARE NOT RECOMMENDED FOR APPLICATIONS WHERE SHOCK LOADS ARE ANTICIPATED i.e. LIFELINING.

The reason is that the polyethelene rope transmits stress at a slow rate, so that the shock is not absorbed uniformly throughout the length of the rope but is concentrated at a local spot generating heat and melting the rope.

See:- Smith, A.W. Ropes Made from Man-Made Fibres. British Ropes Publication 555, 1966.

J.H.

Little Neath River Cave

by M.G. Norton, B.Sc., D. Savage, B.Sc. and P.A. Standing.

The above paper is being published in the Proceedings of the University of Bristol Spelaeological Society, Vol. 11, No. 2. It is about 10 pages in length and includes a Grade 5 survey of the system, a surface map and four photographs.

The Proceedings is due out in October 1967 and will cost 15/-. The Little Neath River Cave article will, however, be available separately as an off-print, price 5/-, including postage. It may be obtained from the Librarian, University of Bristol Spelaeological Society, The University, Bristol 8.

The paper will be read at the B.S.A. Conference, Birmingham, (Sept. 8-10th) and the off-prints will be published in time for this.
