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Journal Price for non-members: 20p per issue. Postage 5p extra.

EDITORIAL

We have now reached the end of the extracts from the old Logs. There has been a paucity of entries in this last period covered and one logbook may even have become lost. I should repeat the fact that we decided to print these extracts in the Journal to cut down the cost of the job, a separate booklet being much too expensive. It is the function of future Editors to make certain that the current Log is always abstracted into the Journal. The entries bring to life different characters in the Club - and they show how enthusiasm for particular sites changes over the years.

MEETS

FRIDAY NIGHT CLUB

Friday May 4th	Swildons round trip via Troubles
Friday May 18th *****	Hutton Cavern / Cuthberts
Friday June 1st	Stoke Lane
Saturday June 16th	South Wales. For details write to Editor with SAE.
Friday June 29th *****	Hutton Cavern / Cuthberts
Friday July 13th	GB
Friday July 27th	Swildons II
Friday September 7th	Swildons Shatter Passage

Friday trips normally meet at 7.30 pm.

Trips marked *****. Hutton Cavern has rigid access rules, and so does Cuthberts. On both of these dates only 6 can join the leader, and casual visitors will not be allowed to join the parties. The fairest way is for members to write with SAE to the Editor who will accept names in order of application.

THE LARGER CAVES OF PORTLAND

by Michael R. O'Connor

The average caver may only be vaguely aware that caves are to be found on Portland, so perhaps a brief resume of this triangular shaped Isle (it is joined to the main land only by a strip of shingle beach with a road) is called for. Portland is predominantly Limestone, the Purbeck Beds overlying the Portland Beds, the same rock forming the climbing areas around Swanage and Durlston Head. These rocks rest on a layer of Kimmeridge Clay, which seems to be the predominant cause of the large number of fissures which run North East - South West and North West - South East: The former usually being larger and the latter normally running at no more than a few inches wide. Although the majority of the caves on Portland are rifts or fissures (known locally as gullies) seven waterworn caves have so far been found. They are dying systems for the most part and so far show no active stream passage. Portland is a unique place consisting mostly of grey stone or whitewashed stone cottages set amongst piles of rock, scree and stubby grass. Except for the occasional field, most of the island consists of quarries, some are still in use but most are abandoned. At first glance these quarries would appear to be only small gorge like defiles but a closer look shows them to have been much larger and to have been back filled as work progressed, thus a large amount of caves and rifts must have been quarried away. Luckily there are a fairly large number that have been left open. It is notable that the quarries are usually formed along the line of an open rift. These rifts occur at intervals of one every 67ft approx.

Only the larger or more interesting caves are described in the following article as there are at least 47 known caves and information on these can be obtained from the publications I have listed in the references at the end of the article. There are a number of Sea Caves i.e. Sand Hole, Cave Hole etc., but as work has only just begun on these I have left them out. Map references apply to 6" O.S. Map. SY67 SE and SY77 SW. The caves are taken in a clockwise direction around the island.

LOOKOUT CAVE (7036 7246) Approach via the Grove Road. The rift is found underneath the firing range lookout which is close to the new wing of the Borstal. It is an obvious small rift of some 80ft running back into the cliff face as a fairly large passage leading to a small chamber caused by a cross rift, and a choke bypassed by a low crawl down to a smaller chamber in the choke. This is a dry dusty rift and hardly warrants visiting except for the size of the passage which promises more passage beyond the choke, if anyone ever gets through, and also because of some interesting ledges of rock which are unusual for Portland rifts.

FLAGPOLE RIFT (7036 7223) Approach via the Grove Road from Easton Street as above. Then over a wall close to the new Borstal wing (the rift runs under the Borstal!) to the right of the cliff top allotment, follow the footpath down to the base of the Cliff, then traverse along the base of the cliff Southwards for 100 yards. The entrance is not obvious as it is some way up the cliff face and partly covered in Ivy. This is, at 330ft the longest surveyed rift on the island. Once up to the entrance you can walk into the rift. At the first cross-rift (there are several) the way on is right then left leading to a long easy traverse (can be done at various levels). At one cross-rift one has to climb over concrete stal formations, presumably from the Borstal above. The rift carries on to what at first sight seems a choke, however on the left hand side is a 'letter-box', about six feet long and best tackled feet first as there is a 15ft drop on the other side. After chimneying down, the rift continues to a small chamber with the way on in the roof, then through a second choke. At this point the rift seems to be close to the surface and a patch of concrete can be seen in the roof (thought to be an exit found by the Borstal and capped.) Finally one comes to a section leading to a small chamber and two small digs which mark the end of the cave. This section is very unstable and must be treated with care. Flagpole provides an entertaining evening trip but is notably lacking in formations.

FOSSIL CAVE (6966 7237) (Thrutch Cave, Higher Headlands Cave) Approach from the turn off from the Easton Road into the Grove Road and turn into the area of the quarries at the Scout Hut on the right hand side. The cave is situated in the far corner of the quarry immediately behind the buildings fronting Grove Road. This cave is water formed and is 275ft in length. It is one of the prettiest caves on the island, however one has to crawl over the whole distance and towards the last 100ft it is necessary to lie flat. 80ft or so from the entrance is Pool Chamber, a rather elaborate name for a small chamber caused by a cross rift which has been dug open. The chamber contains a tiny mud pool that forms after wet weather. The passage leading out of the opposite side of this chamber leads to the well decorated section after a squeeze over a stalagmite boss. This section is liberally covered in flowstone and has pools some with water some dry, lined with crystals and calcite flowers. The final section of the cave is known as the 'Coffin Extension' and is pretty but has a very tight entrance. WARNING Well built cavers beware. Fossil is a well decorated water-worn cave well worth visiting, however care should be taken not to spoil those formations which haven't already been spoiled.

CHERTY RIFT (known incorrectly as Australia Rift in CRG Trans. Vol 12 No 4) 7017 7153. Situated in a railway cutting to the left of the Wakeham Road shortly before the Pennsylvania Castle Hotel. The rift is high up on the left, just after the cutting breaks out of the cliff face. The entrance is near the top of the cliff, up a mild rock scramble. The entrance used to be a ladder pitch, but the floor collapsed in 1968 and a ladder is no longer needed. The best trip is to go down to the bottom, through the squeeze and come up the far side, traversing out along the roof. The cave is a fairly narrow high rift, notable for its bats, these appear to be Natterers and there are always at least two present.

AUSTRALIA RIFT (known wrongly as Boudoir Rift in CRG Trans. Vol 12 No 4) 6988 7140. There is some confusion over the names of this and the previous rift, however, after considerable questioning of the local inhabitants over two or three years, these were the names confirmed in the majority of cases. This rift is situated on the North side of the railway cutting (the same one as above). The cutting is presently being quarried and filled in, however this will not endanger the rift for a year or two, and the Dorset Caving Club is attempting to persuade Kingston Minerals to leave it alone. It is in the section of cutting left before it breaks out of the cliff edge. There are two ways of getting to the entrance, either from below by an interesting climb of about V Diff standard or by laddering or abseiling from a stake above. It is not advisable to leave a fixed rope as they have been stolen. There is a loop of chain round a strong stem of ivy at the entrance, usable for abseiling but check if it is still in good condition. This is one of the more sporting and difficult rifts on the island, very pretty in parts with small curtains which ring clearly when flicked (gently) with a finger. (Those that are left). The best route is by a traverse along the top of the rift, then back and downwards by chimneying to the lowest level, walk back along the rift to underneath the entrance and chimney through an upward corkscrew 'rabbit hole', a good test of your chimneying, which brings you out below the entrance. Some parties have been seen to use ladder but this is completely unnecessary providing your chimneying is good.

CROCODILE CANYON 6905 7049 This is situated in Coombfield quarry North of the road from the Eight Kings Inn, Southwell to the Pennsylvania Castle Hotel. It is found on the top ledge of the working face of the quarry opposite the cranes. This cave has already been described in some detail, in WCC Vol 12 No. 140, April 1972. It is short, 80ft long, well decorated rift, requiring chimneying up two pitches, one 12ft one 15ft, to reach the end. In the floor at the end, formed in a choke, is a small chamber with a now dry muddied pool of white cave pearls.

WINDY DIG 6795 7062 This rift is in the West Weares area, in the cliff North of the AUWE (Admiralty Underwater Weapons Establishment), approximately halfway between there and the Council Estate which is obvious. This part is best reached by the track from St. Georges graveyard. The rift is found by walking down a path, which can be described as hardly even a goat track, over the grassed curved edge of the cliff. **MAKE SURE YOU FIND THE CORRECT SPOT!!** Most of

the cliff drops away sheer for 150ft (Check with me or the Dorset Caving Group, or Wessex member mentioned below). The track leads to a large rift in the cliff face bridged by a white chockstone. The entrance is hard to see but is back behind a rock at the top of the cleft. This fissure was dug out by members of the Portland Independent Spelaeological Society one member of which has a familiar name Mike Dewdney-York. The rift has been surveyed at 178ft in length and the first section is entirely in staled false floors and boulder collapses. After dropping into the entrance one has to chimney upwards some 8ft immediately above a small rock bridge, great fun if there is slippery mud on the floor. The end of the first section is through a pretty and heavily decorated crawl, (Please take care and keep your head down!) onto a landing ledge known as 'Better'n Goughs'! This is unfortunately partially vandalised, but by no means completely. The rest of the rift is clean and unremarkable. Beware the odd loose rock, it can all be reached by chimneying, although the timid may care to take a 20ft ladder which can be belayed around a boulder for the second section.

SANDY HOLE (Foghorn) 6798 7214 This is the largest water worn cave so far found on Portland and has been surveyed so far to 1,050ft with more still to be finished. Anyone visiting this cave are requested to contact me or the Dorset Caving Group as there are usually the odd static experiences in progress down there, temperature, gas reading and such. Again situated in West Cliff, West Weares, it is some 600 yards North of the last named and is reached through a small quarry (Sharbutts) and then doubling back underneath the quarry until an ovalish shaped hole is found in the cliff face at cherty level. Whilst climbing down through the quarry two rifts can be noticed, Sharbutts 1 & 2, the inland one of these is about 60-70ft deep and has been connected (with a lump hammer) via a squeeze to Sandy Hole making an interesting through trip! Check with the above beforehand as the squeeze into Sandy can be awkward to find. The normal entrance is a passage some 85ft in length and containing two easy squeezes, at no point does it exceed 1ft 3ins in height though it is 5ft in width. The majority of the passages run mainly parallel to the cliff. They are for the most part stooping height or crawls on mud and flinty chert, although they are much larger than the entrance passage. They can be reached from the Ink well, an obvious feature after the second squeeze, either by going left or right. There is much loose rock in this system, so take care, formations are few and far between and one needs to know where to look. A more detailed article on this odd and painful cave will be published at a later date in the DCG Journal and possibly in the Wessex Journal. For more information contact the DCG as small extensions are being made continuously and the passages are becoming a little bit complex. Bats have been noted in the entrance, again I think Natterers.

ANNIVERSARY RIFT 6792 7209 (This grid ref is only an intelligent guess and should not be taken as exact). The directions for finding this rift are basically similar to the next rift, except in so far as it is only reachable from the top of the cliff and is about 50 metres South of the next named. The vagueness on this rift is because I haven't visited it myself, it having been discovered on the 7th February 1975 and only much more recently was it entered for the first time. A native tracker may be necessary to find this cave as the top of the cliff is all very much the same. Having found the entrance (Good luck) 50ft of ladder is required and a 100ft safety line and unless you trust the back axle of your car, an earth anchor of some sort is needed. (The safety rope is I'm told very necessary because of the drop below). The first fifteen feet are at 45dgrs and loose, this ladder then drops vertically 15ft and you arrive on a wide platform, dropping 150ft vertically on the sea side and 20ft into the cave on the other. The entrance is a vast opening, bus sized. As there is no belay for the second ladder it must be linked to the first. Once inside this wide rift, estimated at 20-25 metres long, a bend is visible at 19 mtrs. Chimney up superbly for 5 mtrs to the top of the boulders and carry on up stal floor to earth blockage. Start digging! This could well be one of the big rifts, but beware this is thought to be a false floor over the real rift. Most rifts are at a lower level and in this one the grass roots can't be far overhead. Although not very long this newly found rift is notable for its width and potential.

STEVE'S ENDEAVOUR Entrance at 6787 7144 window in cliff face at 6787 7155. This rift is underneath and to the right of Blacknor Fort and is reached via the turn off from the Weston Road by the Cemetery and follow the rough road, this is as for the other caves on West Weares. It is probably best to reach this cave by traversing along the base of the cliff from Sandy Hole travelling northward. The small entrance is clearly seen from the foot of the cliffs, in an angled corner about 50ft up a rock scramble and 45 degrees earth slope. It may be advisable for the leader to climb up and fix a rope for the rest (Note this slope is very slippery in wet weather and great care is needed). The entrance ladder pitch is 18ft and there is no belay problem. Once inside one can go back under the entrance slope for 30ft to a small chamber. Total length of the rift is about 300ft estimated. Forward the way goes for 40ft to a scramble turning into a vertical climb 30ft high. At the top on the left is an obvious flake handhold, weighing half a ton and ready to drop any moment, DO NOT USE!! At the top is the Cathedral where a crossing rift is met. On the left is 'Martin's Gripper', pushed by one of that name for about 40ft. To the right is 'Panic Crack' which goes for 45ft then turns back towards the cliff face. A further 15ft forward is a platform and a Sandy floor is visible 12ft below. The whole of 'Panic Crack' has to be bridged with occasional footholds; good exercise for muscles and nerves, I'm told. The main rift continues for 60ft to a left hand turn over a dodgy floor. One can go down but it's hard work. Proceed to obvious window, then either ladder down 40ft to World's End or bridge across and continue to opening in cliff face, possibly too high up and loose to use as an exit. NOTE. The whole of Steve's has much loose boulders and rock, caution is vital. Very little formations.

ST. GEORGES 6817 7170 This rift is situated in Bowers Quarry, near to West Cliff some 250yds from Blacknor Fort. Best reached by following the track which runs from the graveyard South of St. Georges Church off Weston Road. Cars should be parked at the last left hand bend before Blacknor Fort. The cave is in the S E corner of the small piece of quarry closest to you on your right hand side. Having climbed over piles of rubbish to the entrance, the rift drops steeply away below. This is a nice chimney but a rope is useful on the return and a 25-30ft ladder is an idea for novices. There are various ways in this rift at different levels, though the normal way is over two boulder jammed and staled pools of water, one of them as much as two to three feet, deep (can be interesting). This is a fairly well decorated rift and is quite enjoyable for an evening trip due to its perched pools of water. The rift has been surveyed to a length of 136ft.

NEW PASSAGE (Scallop cave) 6892 7244 This cave is found in Sawmill quarry; an area immediately behind the Filling Station at the top of Portland Hill. The entrances are in the working face in the level below the now blocked Sawmill Cave. This cave like Sawmill is water formed as is very noticeable from the parallel current markings on the walls and the solution widened joint in the West Section. The section is around 18 ins wide getting narrower as one goes East. The walls are smooth with no formations and most changes of direction are very sharp. 37ft after the other entrance into the quarry the cave becomes narrow and rift like and is blocked by a choke. The cave is in danger of being quarried away though this seems to have temporarily stopped.

REFS: Trans. Cave Research Group. Vol 7 No 1 Dec 1964. Caves of the Isle of Portland.
Trans. Cave Research Group. Vol 12 No 4 pp 291-298 Dec 1970. A further Report on the Caves of the Isle of Portland.
Devon SS Journal April 1972 Brian S. Butler.
Dorset Caving Group Journals Vol 1 Nos 1-6 and Vol 2 No 1 Nov 1971 to date. All surveys of rifts contained in these Journals are taken as a section along the length of the cave except in the case of 'Flagpole'.

I should like to thank Andrew MacTavish for descriptions of Anniversary Rift and Steve's Endeavour and for help from John Patterson on Flagpole also to my other club the DCG for odd items of information.

OBITUARY

FRANK A. REYNOLDS

It is with great regret that we have to announce the recent death of Frank Reynolds. A native of Pembroke, he came to Cheddar within the last few years. His work lay in the design of towers and other metal structures at the C.E.G.B. National Tower Testing Station at Chelm's Combe Quarry.

He was a member of the Wessex Cave Club for the last three years and he attended some of the caving trips held on Friday evenings.

His name will long be remembered by the small band of cavers who spend nearly all their time working hard to open up new sites. His knowledge and experience of rigging tackle greatly contributed towards the work at sites such as Reservoir Hole, Lionel's Hole and Pounding Pot. Recently he spent long periods helping to make a film on Mendip caves, and his always cheerful disposition must have enlivened that task.

We offer our deepest sympathy to his relatives, and to his close friends within the Club.

Richard Kenney.

NOTES ON THE SURVEY: "CAVES OF THE EAST SIDE OF THE WOOKEY HOLE RAVINE"

W.I. Stanton

Introduction

The accompanying survey was made at the suggestion of Dr. E.K. Tratman prior to his archaeological digs at Hyaena Den and Rhinoceros Hole. An accurate survey was required, with several fixed reference points in the larger caves.

Sketch surveys of Hyaena Den had appeared in several early publications, notably in Boyd Dawkins' "Cave Hunting" (1874) and in Balch's "Wookey Hole, its Caves and Cave Dwellers" (1914). Comparison with the present survey shows that distances may have been measured but that compasses were not used, or were used incorrectly. Badger Hole was surveyed by J.W. Duck for M.N.R.C. in about 1950, and dyeline copies were circulated. Although digging had not then ceased there is good agreement with the present survey. Fissure Cave and Rhinoceros Hole were roughly sketched by J.H. Savory in Plate 5 of Balch's book (a map of Wookey Hole Cave in relation to the ground overhead). In this map the four caves appear to have been located by guesswork.

The present survey was made in 9 visits, with help from wife, daughters, and Tim Atkinson. It involved 71 survey stations. Since then, the south part of Hyaena Den and the entrance of Rhinoceros Hole have been much affected by archaeological diggings.

Instrumentation, Calculation and Plotting

The instruments used were:-

Oil-filled prismatic compass graduated in degrees
Metal-reinforced plastic tape 100' long
Abney Level.

They were calibrated, mounted, read, etc., as for the "Caves of Cheddar Gorge" survey (WCC Journal 8 (103) pp 324-5, 1965). The "leapfrogging" technique, with compass and level tripod-mounted, was used everywhere except in the narrowest parts of Fissure Cave where the instruments were hand-held. Detail in the larger caves was plotted by raying and offsets.

Altitudes were established by an unclosed traverse from the bench-mark on Wookey Hole Church to water surface in the canal, leapfrogging with tripod, Abney and tape. A normal water level (applying, incidentally, throughout Wookey Hole Cave) was found to be 200.8' A.O.D.

Calculation and plotting were done as described in the Cheddar Caves survey account referred to above.

Errors

Only one closure was obtained, through Badger Hole and back over the hill. With 14 legs and a traverse length of 438', the horizontal misclosure was 0.3' (0.1% error) and the vertical misclosure was 0.1' (0.0% error). These figures are very much better than Grade 6 closures obtained using the same instruments in Swildon's Hole, the Cheddar Caves and Read's Cavern, and a modicum of fortunate coincidence is suspected. The error was distributed round the traverse in the usual way.

This and previous closures obtained with the same instruments and methods in the above-mentioned caves, suggest that the position error of any one survey station relative to any other is less than 1% horizontally and 0.5% vertically of the traverse distance between them.

Permanent Survey Stations

Several of these were established in both the larger caves for the archaeologists' benefit, but only one for each cave is quoted here. The others are available on demand. All figures are in feet.

EASTINGS	NORTHINGS	ALTITUDE	DESCRIPTIONS
8110.4	3725.2	205.7	Hyaena Den. Chisel cross on wall below passage in calcite vein, 1.4' above floor.
8132.9	3766.9	255.6	Badger Hole. Head of rawlbolt in north wall, 5.8' above floor
8101.9	3674.3	227.9	Rhinoceros Hole. Chisel cross in cliff over entrance, 2' above crown of arch.
8170.1	3487.7	229.2	Fissure Cave. Point of signed scratched and pencilled arrow 6' up on south wall.

The grid used is the same as that for the survey "Caves of Ebbor Gorge" (which ought to have appeared long ago).

Cave Statistics

These are as given in "The Complete Caves of Mendip".

Availability of the Survey

It is available through the Cave Survey Scheme.

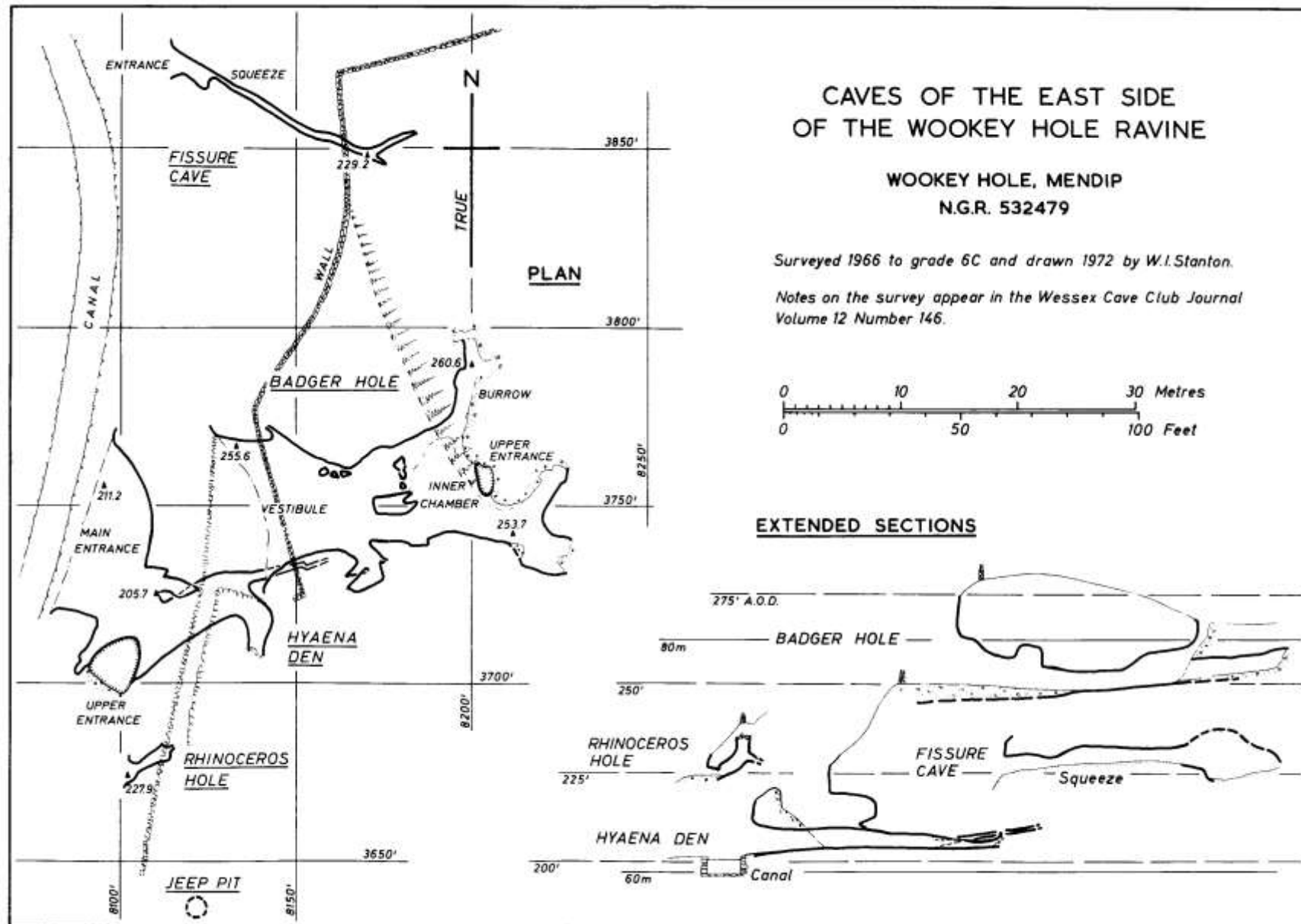
Discussion

These caves are mainly of interest to the archaeologist and cave historian, though Fissure Cave provides a gripping squeeze at the entrance and the chance of a sporting encounter with a badger at any point in the narrow awkward rifts further inside. The badgers live beyond the known cave, and their tunnels could connect with the surface in the low-level part of Hole Field a short way to the east.

There is no suggestion of a connection with the inner chambers of Wookey Hole Cave, and the provenance of the broken stalagmite pillars that occurred in the Pleistocene deposit of Badger Hole vestibule is still unknown. Balch, who found them, at first believed that they were broken off by Solutrean men who had access into inner chambers behind the vestibule, but his later excavations showed, apparently, that there were no such chambers, only a second large entrance that was open to the sky for much of Solutrean time. The line of this buried arch is marked by a bluff in Hole Field, shown by a curious symbol on the plan.

The probability is that this group of caves formed a lateral offshoot, or even an oxbow, to the downstream extension of Wookey Hole Cave that has now been unroofed to form the ravine. Certainly they are of phreatic origin, formed below the good old water table, and there is possible southward scalloping in the innermost passage of Hyaena Den. Rhinoceros Hole shows fine phreatic pocketing.

In short, an unremarkable cluster of minor caves, from the caver's point of view. But in another sphere they can claim one unique distinction, for over a period lasting more than a century they have attracted to themselves Boyd Dawkins, Balch and Tratman, the three great names of Mendip cave archaeology.



FROM THE LOG

7th January 1973 SWILDONS HOLE

Damascus. Baaza, Stewart McMannus, Pete Moody. A double charge was laid in order to ease access. Very impressive bang.

P.M.

12th January 1973 SWILDONS HOLE

Inspected damage done by bang of 7th Jan, very successful. Only a couple of feet to go to a pot about 4ft deep which will hopefully lead to bigger stuff.

P.M.

31st January 1973 NINE BARROW SWALLET

Dave and Rich Gordon. We have managed to push Nigel Taylors dig for approx. another 20ft. This cannot really be called a flat out crawl, it is more of a 20ft squeeze! It is becoming exceedingly difficult to remove spoil and even harder to remove ourselves. The way on is visible and a sizeable stream can be heard. Aha! The North Hill master system is in sight!

1st February 1973 SWILDONS HOLE Damascus. Banged again. Baaza, Mac, Pete.

P.M.

4th February 1973 SWILDONS HOLE

Damascus. Rich Gordon, Pete Moody. The bang of the 1st had done little damage, the way on at the bottom of the pot could be seen, about 6" high, very disappointing.

P.M.

4th February 1973 SWILDONS HOLE

Pickford and Jepson to Abandon Hope to dig bedding plane to left of the flat out squeeze at the end. Subsequently, about half-way up the original passage Greg removed a few rocks and entered a passage about 3ft wide and 10ft high. Went North? about 30ft .to fairly roomy chamber with an easily dug mud choke at the end. Looks quite interesting.

10th February 1973 SWILDONS HOLE

Greg Pickford and Pete Moody. After a good look around some of the side passages in IV a preliminary dive was done in Birthday Sump (a static sump above Sump 4). It descends steeply for about 8ft to a loose mud choke, worth another dive with a bigger bottle.

11th February 1973 NINE BARROWS SWALLET

Rich and Dave Gordon. After considerable initial probing Nine Barrows terminal choke has finally succumbed to our advances. The final penetration was in the order of 100ft. The main streamway is regained after the very tight dig approx. 35ft. The stream then follows a tight rift which eventually closes down into a rather tight and low choke.

24th February 1973 SWILDONS HOLE

G. Pickford and R. Gordon to Abandon Hope. Had a poke around in the hole in the floor immediately inside the new extension. Nothing much happened except for losing the crowbar in the mud. Looked at avens and met Jepson bringing a shovel, on the way out.

25th February 1973 SWILDONS HOLE

Dave Yeandle, Pete Moody + 3 went to look at the GPIJ extension to Abandon Hope going in via Old Approach, very impressed with prospects of dig in north end of new passage, a little digging done. Bypass to Bold Step in O.A. passage is at least as entertaining as the Bold Step.

P.M.

3rd March 1973 SWILDONS HOLE

Pete Moody, Rich Gordon and Rich Websell. To GPIJ extension in Abandon Hope. Half an hours digging in the north end of new passage we came out into a rift which we did not cross because of excellent mud formations on the floor. The passage goes on for another 10ft but we can't quite see if it chokes up or not. The passage is now extended another 20ft.

FROM THE OLD LOGS

15th July 1967 SWILDONS HOLE

Tony Dingle, Henry Brown, Mike Jeanmaire and Judy Banker set off for Shatter Passage at 3. a.m. Dug in Bat Hole and then returned to the surface. Out of cave by 1 p.m.

29th July 1967 SWILDCNS HOLE

Tim Reynolds to Double Pots with the intention of trying out a 'space blanket' as obtained from Bryants. A quick trip was made to the site and I then lay in the second pot for about ten minutes to cool off. After this I climbed up to the ledge above the pot, lay down, and covered myself with the blanket. This retained an appreciable amount of warmth, and eventually the proximity of closing time made me pack up and set out for the surface. During the ¾ hr I had been sitting still covered by the blanket I had not got cold. As a result, it would appear that a space blanket is a useful piece of equipment for a long trip where it appears it will be necessary to bivouac for any length of time.

T.E.R.

12th August 1967 SLUDGE PIT

Tim Reynolds to Bristol with John Cornwell to collect some bang from Johns flat. After a meal etc we drove up to Sludge Pit where five members of the Bridgwater Tech College had been excavating a depression (Sludge Pit) with assistance (explosive) from John Cornwell. When we arrived, only a squeeze needed to be enlarged to get into a small chamber. John duly placed the charge and after a wait of ten minutes we went into have a look. The squeeze had been considerably enlarged, and led down into a small chamber. From here a rift led off to the head of a 30' pitch. A ladder was called for, belayed to a crowbar, and we all descended into a largish chamber. From here a passage led off a fairly large dimensions, with rather loose boulders in the floor. We then came to a division. The lower passage was a rift, about 15' high and fairly wide sloping down at a steep angle and had a small stream flowing. This went on for about 500' to a mud choke which looked digable. The upper passage led over a mud floor to a chamber with three ways out. One led on in a downwards direction whilst the other (with a draught) led up into another chamber and then into a network of ascending passages which choked at various points. The possibilities of further extensions being very good. HOO – RAH!

T.E.R.

19th August 1967 SWILDONS HOLE

Tony Dingle, Mike Lawrence and Mike Jeanmaire to Bat Hole, Shatter Passage. Dug for 4 hrs and returned to surface at 9 p.m. Made 4' of progress.

28th August 1967 SWILDONS HOLE

Tony Dingle, Henry Brown and Mike Lawrence to Bat Hole. 3' of progress.

29th August 1967 SLUDGE PIT

J. Cornwell, M. York, H. Brown, C. Hannam, G. Bolt and G. Fowler. Dig at sump on left hand side revealed about 4' of passage through hole too tight to enter. Due to foul air + York pipe retired after 2 hrs. Great gripe about CO2.

11th February 1968 NINE BARROWS SWALLET

Dug bypass to stream passage. A low wide passage leads to inclined rift just before crystal squeeze passage. This saves getting wet.

25th February 1968 AUGUST HOLE

Banging terminal dig for something to do. 12 plasters strung out as far as could reasonably be reached to enlarge a further 3' of passage at water level. Some spoil removed from previous effort, bang wire left in situ. P. Cousins, J. Banker, Brian Guillian, Phil Davies.

9th March 1968 NINE BARROWS SWALLET

M.D.-York, D. Mockford, B. Saunders, and Philip. Examined bang sites, all charges did their work, the entrance is comfortable. The charge in Crystal Chamber opened up a small chamber which goes nowhere so back to the old dig.

18th May 1968 SWILDONS HOLE

J. Cobbett, J. Orr, R. Cross, D. Yeldham. Diving at Inlet Sump Swildons II. The sump lies at the foot of the 30d slope from the landing and continues down at the same angle. There is a definite passage and after a squeeze about 20' from base a cross rift is reached in which one can rise about 10' to air. The cross rift is about 3-4' wide, 15' long and has about 4' of air above it. The only way on was found to be a continuation of the passage leading from II from which the rift was entered. This passage was too tight to get more than my legs into and could be felt to continue but not to open up. Considerable underwater digging would be needed to enter this passage - leading to North East Inlet Series???

12th October 1968 SWILDONS HOLE

T. Reynolds and T. Atkinson to Sidcot Dig to size up prospects for further digging in the future. C.U.C.C. have advanced about 2' and roof seems to be levelling off. Lowered the floor by a token 30 buckets. 4½ hrs.

29th December 1969 LAMB LEER

A.J.S., P.C. and J.W. commenced work on the main chamber platform. The new main beams having been treated and transported underground on 5th Dec. Two trips were needed to remove the platform timbers, the main cross beams of which were in an advanced state of decay. The new beams fitted into their allotted places with one exception due to fouling of the scaffold pole lower outer. The old platform has got to come out, and the new decking planks still await rot-proofing but it is hoped that the entire project can be finished by the end of Feb. 70.

23rd January 1970 SLUDGE PIT

Bob Cross, Adrian Finch, Tony Jarratt plus load of helpers owned by Will Edwards. Much boulder moving and shovelling. Sump goes down open on RH side for at least 8ft.

1st February 1970 SWILDONS HOLE

One-inch Ulstron (green) line is now laid through Duck Two, giving a free dive of 12 to 15ft if the bell on the left is not used. On the line in place, the distance from air surface to air surface is 11ft exactly. (6 - 12 pulls).

7th and 8th February 1970 EASTWATER

A. Finch and R. Lewis. 380ft Way digging. Two rather unsatisfactory dams are in place (to hold

spoil, not water) and should not be disturbed. The main stream in the 380ft Way goes, at least in part, to the vein in the north wall of Mortons Pot, where water is seen entering. This becomes turbid if and when digging at the higher sink in the 380ft Way is undertaken.

14th February 1970 READS CAVERN

Collapse has rendered loose the mid-distance part of Browne-Stewart Series. Zed Alley is blocked at the foot of the first pot - by mud.

15th February 1970 EASTWATER

A. Mills, M. Bush, R. Lewis. 380ft Way digging. Three spoil dams now in place.

23rd May 1970 SWILDONS HOLE

Amazing ladder found rigged on the 20ft. Assorted rung spacing's 3" to 27" and solid iron. Rungs with 2" diameter wire cables.

A.R.J.

24th May 1970 SLUDGE PIT

M.D.-York and others. Lowered sump about 1ft dumping spoil around corner, using polly bags for storage.

30th October 1970 SLUDGE PIT

M.D.-York and Alan Green down to the sump to find that someone had been digging the inlet near the sump and had dumped the rubbish in the sump. Rude words echo around the cave.

M.D.Y.

11th October 1970 SWILDONS HOLE

A. MacCormack, I. Jepson and D. Gordon yet again to Vicarage Pot to enter hole in roof. Having learnt our bolt fixing lessons on the previous trips we managed quite smoothly this time. Insertion of one more bolt by Andy enabled me to get off the top of the ladder and proceed upwards for 12 - 15' in the hole. It proved to be a widish tight rift, roughly keyhole shaped in plan. On reaching an apparent passage at the top I found it to be completely choked with mud, and very tight anyway. Small globules on the mud suggested some water flow at times. In the top corner the rift became a very tight stal choked tube following Vicarage Passage towards its end. Far too tight!

I.J.

26th December 1970 SWILDONS HOLE

A. Thompson, A. Mills and T. Jarratt to Black Hole Series. An unclimbed 20' aven (Rum Aven) at the T - junction just before the Black Hole was duly climbed after some gardening. At the top was a cross passage, parallel with the main passage below and, in fact, an upper continuation of this joint. To the left an impassable rift was found after about 20' and just before this a hole in the floor dropped down into the Black Hole below. To the right the passage closed down after about 10' but a mud choked down dip passage on the right could be dug. The stream inlet passage directly above the aven became too tight after a few feet. The total passage length is about 50' and was named Rum Aven due to the large amounts of this liquid which were devoured in Swildons II. It is doubtful if it will yield anything else of interest. We then proceeded to the terminal choke where several boulders were removed. Progress continues. Several avens, inlets and side passages were investigated en route.

A.R.J.

2nd January 1971 SWILDONS HOLE

J. Alder, I. Jepson and A. MacCormack. Pushed Andy up an aven just beyond Mud Sump. He reported much mud and loose stones and no footmarks. Rift extended above Paradise Regained

some 50' towards Shatter - tight tube - mud choked headed back towards Mud Sump.

24th July 1971 SWILDONS HOLDS

Tony Jarratt and Phil Collett later joined by Brian Woodward and M. Webster dug at the Sump 6 bypass and after much bailing and digging a connection was established and all four went through and back again. It is now possible for non-divers to get to VII.

1st August 1971 SWILDONS HOLE

R. Pyke and I. Jepson to Black Hole Series to continue the assault on the aven in old Approach Passage. Made considerable progress inserting three anchors. Wasted much time however, trying unsuccessfully to free climb from the second one. Passage definitely visible entering at the Black Hole end of the rift. Big enough to take a man, but for how far?

8th August 1971 SWILDONS HOLE

R. Pyke and I. Jepson returned to Black Hole Series. After some thrutching about we succeeded in getting into a passage leading off the rift above the 40ft climb in old Approach Passage. Passage continues in approx northerly direction for 35ft. Chances of any further progress appear extremely remote.

NOTES ON WATER TRACING

supplied by W.I. Stanton

The Bristol Avon River Authority recently used Pyranine dye at Finger Farm Swallet 71054743 (WCC Vol 12 No 143 page 156). It was traced at all three Finger Springs and Cobby Wood Spring. Time 5-6 hrs.

The same Authority and the Bristol Waterworks traced Blakes Farm septic tank overflow with Pyranine to Ashwick Middle Spring, time 7 hrs. Ashwick Lower and Higher were not affected.

Concurrently the road drain in Oakhill opposite the brewery was traced with Rhodamine WT dye to Ashwick Higher, 7 hrs, and Ashwick Middle Spring, c. 10 hrs.

These findings conflict to some extent with earlier work by Dave Drew and will be repeated in more detail.

* * * * *

A tourist visiting a Show Cave recently was rather surprised when the guide announced that a particular stalactite was 300,006 years old. He enquired of the guide how he knew so exactly the age of the formation.

The guide explained that an eminent Karst Geologist had told him that the stalactite was 300,000 years old, and that was just six years ago!

Tony Philpott

MENDIP RESCUE ORGANISATION REPORT: CAVE RESCUES AND INCIDENTS FOR THE YEAR ENDING 31ST JANUARY, 1973

There have been 21 call-outs during the year; the highest number ever recorded on Mendip. Apart from this, two trends appear important; the higher incidence of midweek calls and the continued increase of alerts to actual rescues. Thirteen midweek call-outs occurred and the percentages of alerts to total calls over the past seven years are 15%, 29%, 50%, 40%, 54%, 57% and, currently, 62%. The following log of call-outs for last year is based upon the reports of the wardens in charge of each one.

Friday 4th February, 1972. Search at Priddy

The Police contacted Howard Kenney and requested assistance to search for Mrs. Hillard of Priddy who had been missing for a day. Jim Hanwell and Brian Prewer organised a search of cave entrances in the area and other cavers helped search fields. The subject was found drowned in a water tank on her husband's farm.

Sunday 27th February, 1972. Swildons Hole

Wells Police contacted Howard Kenney to say that a worried parent from Weston-s-Mare had reported her son overdue from a trip down the cave with a local scout group. The party appear to have misjudged their time underground for they got out rather late but unharmed. No general call-out was necessary.

Wednesday 7th March, 1972. Goatchurch Cavern

A party of naval cadets from H.M.S. Daedalus, Lee-on-Solent, led by a Chief Petty Officer descended the cave during the afternoon. On arrival at the Drainpipe, one of the party, 17-year-old Paul Edwards, complained of headaches. On experiencing difficulty in negotiating the Drainpipe, he became unconscious and remained so after being extricated. Jim Hanwell, Brian Prewer, Phil Romford and B. Milner went to the cave at 5.30 p.m., closely followed by Dr. Donald Thomson.

By improvising a polythene sheet as a stretcher, the C.P.O. had got Edwards to the Boulder Chamber by the time the rescuers had arrived, but he was still unconscious. He was examined but had no apparent injuries or history of such illness. M.R.O. equipment was used for the remainder of the journey to the surface during which the patient became fitfully conscious. On reaching the entrance at about 7 p.m. Edwards regained consciousness and was able to walk with assistance to the waiting ambulance.

After an overnight examination in hospital, Edwards was released the following day. It would appear that he collapsed for no apparent reason, except perhaps fear!

Tuesday 4th April, 1972. Swildons Hole

The Police alerted Howard Kenney at 7.30 p.m. regarding a message from a relative of Michael Cowlshaw, from Bath, that he and his friend William Collis were overdue from a Double Trouble round trip. They had left a message at Upper Pitts anticipating being out by 6.30 p.m. Both were well equipped and active members of university clubs.

Jim Hanwell organised search parties to go down the Streamway and Paradise Regained. Others stood by on the surface and at Bristol in case needed with rescue equipment.

Cowlshaw and Collis were found unharmed at the bottom of the Twenty Foot Pot at about 9 p.m. Their ladders had not been rehung by the previous party to leave the cave, despite being left in a

very conspicuous place at the head of the pitch. All were out of the cave by 9.30 p.m.

Many cavers seem unaware that, on seeing unused tackle at the top of a pitch, it is vital to substitute it when they remove their own ladders. This is an elementary piece of common sense which would save needless call-outs such as this one.

Monday 10th April, 1972. Stoke Lane Slocker

Frome Police were alerted by two young schoolboys phoning from Stoke Lane Quarry that someone was "trapped" in the cave. Howard Kenney received this information from Wells Police at 5 p.m. By then, however, the informants had left the phone and no further details were available. A full call-out was initiated to be on the safe side.

Mike Thompson, Marcus Barton and Fred Davies got to the cave by 5.25 p.m. to find that youngsters Roger Crowden, Andrew Mostyn and Ed Tobin had got out of the cave and raised the alarm because their leader, 52-year old Reverend John Bridger, had been forced back by rising water at the entrance. He had retired to the Muddy Oxbow. Meanwhile, Jim Hanwell, Brian Prewer and Dr. Stanley Cannicott had been stood-by, but they were not required as Bridger was soon rescued with a bit of verbal encouragement.

In a subsequent letter, the Reverend Bridger explained that he knew the cave well and that he was taking three novices from an adventure camp in Dorset on "a quick in-and-out lasting 30 minutes". He had found difficulty in getting out the entrance against the water and so requested the three who had managed to reach safety to call the M.R.O.

The incident from the M.R.O. standpoint emphasises that it is essential that all informants remain at the telephone so that the first warden contacted can get full details of the incident from them direct. Had this been possible on this occasion, it would have been un-necessary to trouble so many rescuers.

Friday 28th April, 1972. Rod's Pot

Howard Kenney received a message from Wells Police that Peter Marshall, aged 26 from Frome, had been reported overdue by his wife. Dave Irwin went to Burrington at 7.15 p.m. to find that another party had contacted Marshall and brought him out. He had been lost and his light had failed.

Wednesday 28th June, 1972. Goatchurch Cavern

An alert was received at 6 p.m. that a party of "special care" children led by Christopher Watson from Cheltenham were in trouble. Howard Kenney contacted William Stanton and Tom Elkin, who was already in the area, went to the cave. By the time he had arrived the party had surfaced. It appears that one of the pupils had got into a "bit of a state" and delayed the party's exit.

Monday 24th July, 1972. General alert

Mrs. Edith Kenney was contacted direct by the aunt of Mark Regan, aged 15 from Bedford. Regan had not kept an appointment with his aunt in Bristol following a weekend's caving with a party of bell-ringers. Frank Jones was contacted at the Belfry about 1 p.m. and agreed to look around Priddy. Regan was found in residence at Upper Pitts having failed to let his aunt know that he had decided to stay another night on Mendip. The Police were told later about the incident.

It is vital that all rescue call-outs go to the Police at Wells first and not to wardens. Also it shows that last-minute changes of plan can cause un-necessary problems.

Tuesday 22nd August, 1972. Brockley Combe

Clevedon Police requested the help of M.R.O. via Wells Police to search local mine shafts for a mentally retarded patient missing from Cleeve. Howard Kenney was alerted in Bristol and Tim Reynolds went to Brockley Combe whilst Jock Orr ferried necessary equipment from the Belfry.

The search was called off when the patient was discovered sitting on the verge outside Howard Kenney's home at Chewton Mendip!

Tuesday 3rd October, 1972. Swildons Hole

William Stanton was contacted by Wells Police at 12.15 a.m. concerning a report from the Priddy Green call box that three were lost in Swildons Hole. After difficulty in obtaining the call box for direct information, a further message was received from Wells at 12.30 a.m. that the missing three had surfaced unharmed.

Alan Foxwell, Catherine Koit and Sue Burrows had left a main party of Dreadnought Caving Club members to return to the surface as they were cold and dispirited. They got lost in the Upper Series and so were overtaken by the others. On reaching the green and not finding the three, the alarm was raised. No sooner had this been done than the delayed three arrived! Clearly, it is best to make a full assessment of the situation before deciding to call M.R.O.

Sunday 8th October, 1972. Swildons Hole

Five cavers in a Surrey Venture Scout group were on a private Double Troubles round trip when one of them, 19-year old Phillip Scott from Mitcham, became exhausted. He was wearing an over-sized wet suit that had been borrowed and plimsoles. It was his seventh caving trip and fourth one to the cave. He was poorly clad for his first trip through a sump!

A B.E.C. party chanced across the scouts in Swildons II and assisted Scott through the sump. Here they met another B.E.C. party and, in view of Scott's weak state, M. Bishop left the cave to raise the alarm with the Police and M.R.O. wardens. A rescue party organised by Ron Bennett went down the cave at 5.15 p.m. and gave "comforts" to Scott who had, by then, reached the Double Pots with much assistance. Other parties were stood-by at local huts, including Dr. Bob Pyke. By 7.50 p.m. everyone had surfaced and Dr. Pyke examined Scott. He was found to be in a very cold and exhausted condition and so was advised to rest overnight at the Belfry.

It was very fortunate that the scouts met up with competent cavers able to give help at the right time. Otherwise, with the inevitable delays in getting help from the surface, Scott would have been in a serious state.

Wednesday 25th October, 1972. Swildons Hole

Howard Kenney received a call from Wells Police at Bristol about 3.35 p.m. On contacting the informant at Priddy, he was told that a caver had fallen somewhere in the streamway and sustained severe leg injuries, possibly fractures. Brian Prewer and Him Hanwell were called out from Wells to organise the rescue and Jock Orr brought kit from the Belfry. Dr. Bob Pyke was called from hospital in Bristol and Wessex rescuers alerted.

On preparing to go underground at 4.30 p.m. the rescuers were amazed to see the subject walking back from the cave unaided! It was too late to stop others en route to Priddy. They arrived from far and wide by 5 p.m.

A party of Ilfracombe Youth Club members directed by John Stops, aged 25, had gone down the

cave at 11.30 a.m. for a routine Sump I trip. They had caved the previous day in the Burrington area for the first time and were staying at the Mendip Caving Group hut. Having chanced across Frederick Leonard Burnham, aged 37 from Portslade, Sussex, it had been agreed that Burnham should lead the party since he had caved with the Unit 2 Cave Research, Exploration and Survey Group for 18 months. Burnham's 12 year old son joined the trip.

In attempting to climb the 8 foot drop (old 40 Foot) alongside another caver, Burnham fell off awkwardly and damaged his right knee. A subsequent examination in hospital revealed a torn cartilage and ligaments. However, at the time the injuries were thought to be more serious and youth club members had found their own way out to raise the alarm. Had the situation been assessed more carefully, a full call-out could have been prevented. As it was, Burnham managed to get out virtually unaided, though a little shocked and shamed.

Thursday 26th October, 1972. Stoke Lane Slocker

A four-man party of Venture Unit Scouts from Winscombe made their first trip to the cave and misjudged the time of their trip by about 2 hours. The alarm was raised by a contact in Oakhill at 7.25 p.m. and William Stanton and wardens attending the M.R.O. First Aid course at Wells stood by in case needed. The party surfaced at 8 p.m.

Saturday 25th November, 1972. Sidcot Swallet

Howard Kenney received a call from the Police that a caver was stuck at the bottom of the cave. He contacted Dave Irwin at the Belfry at 2.30 p.m. who went to Burrington with Jim Dorston and Pete Marshall. Brian Prewer followed with others on the completion of a rescue practice in St. Cuthbert's Swallet.

Stewart Pancer, aged 27 and a student at Portsmouth Polytechnic, was on a private trip with a companion. Although heavily built, he had forced himself down the Lobster Pot with difficulty. On being unable to return after a 45 minute struggle, a party of Sea Scouts in the cave raised the alarm.

Dave Irwin's party reached Pancer and, by dint of stripping him and using a ladder on the shaft, showed him how it was done. Since this was accomplished in about 10 minutes, the second B.E.C. party was not required.

Sunday 17th December, 1972. Read's Cavern

Jim Hanwell was contacted by Wells Police at 5.10 p.m. regarding a report from the Mendip Gate Cafe that three were missing from a party of nine "somewhere off the Main Chamber". Alan Thomas went to Burrington soon afterwards with a party of ten from the Belfry and Brian Prewer was stood-by at home.

A party of BS 14 Youth Club members from Bristol Youth Service had been led into the cave at about 3 p.m. by D. James. Subsequently, P. Francomb and M. Willcox, both novices, went missing. James set out to search for them and, when none had returned after about an hour, 17-year old Paul Connell, also a novice, raised the alarm. However, by the time the rescuers had arrived at 5.45 p.m. the whole party had surfaced. It transpired that Francomb and Willcox had lost their way somewhere in Zed Alley.

Thursday 21st December, 1972. Eastwater Cavern

Five well-equipped cavers from Beechen Cliff Speleological Society, Bath, descended the cave at 3 p.m. They intended to explore the Beechen Series and Mud Escalator via the Walkinshaw Link. The first two, G. Veale and M. McCombe, descended the Escalator hoping to return to Jack Brownsey's

Passage up the steep mud slide. After unsuccessful attempts to climb this without tackle (as recommended) two members of the party went for assistance leaving D. Reese at the top of the slide to keep Veal and McCombe company.

Whilst Howard Kenney called out Dave Irwin and Brian Prewer, Pete Moody and Greg Pickford went down the cave at 9 p.m. followed by R. Laws. They met the Beechen party at the bottom of the Dolphin Pitch, a little the worse for wear but unharmed. By using a waist sling they had got themselves up the bedding plane. All were out of the cave by 11 p.m.

Friday 29th December, 1972. Porth-yr-Ogof alert

At about 6.45 p.m. Dave Irwin was informed by Wells Police of a request for assistance from the South Wales Caving Club H.Q. regarding three overdue divers. He telephoned through to Penwyllt and spoke to Sue O'Reilly who told him that they were short of both air and divers for any rescue. She requested a standby with M.R.O. apparatus.

Whilst getting Alan Thomas to alert local divers via Roy Bennett, Dave Irwin contacted Tim Reynolds at Wells. In the meantime, the Wells Police had been informed that the three divers had surfaced.

The M.R.O. Sump Rescue Apparatus is held by Dr. Oliver C. Lloyd and stored at the University of Bristol Medical School in Room G. 52. Dr. Lloyd also has an up-to-date list of cave divers.

Sunday 31st December, 1972. East Twin Valley alert

A team of B.E.C. diggers were making a reconnaissance of the active sink upstream of the main swallet. A tight 8 feet deep rift was opened up and descended by John Reece. On returning, a large boulder became dislodged firmly pinning his legs and preventing him from helping himself. Nevertheless, he remained calm and comfortable.

Whilst Dave Turner and the rest of the party excavated around Reece, Dave Irwin alerted Howard Kenney who put a doctor and other rescuers on standby. Eventually, the diggers opened up the hole and, by using an ex-W.D. tripod, prised the boulder sufficiently for Reece to escape. The rift is now blocked!

Sunday 21st January, 1973. Swildons Hole

A small Border Caving Group party were on a Sump II trip when their leader, Harry Whitehouse, twisted an ankle on a submerged rock downstream of the Double Pots. By the time he reached the far side of Sump I, it had become very painful so he rested up. On the return journey, the situation worsened, so two of the party went ahead to seek help whilst George Milne stayed to assist.

M.R.O. were advised early in the afternoon and William Stanton stood by. However, as Fred Davies chanced upon the callers at Priddy Green call box, a major call-out was forestalled. Whilst Tim Reynolds held a surface party at the ready, Fred encountered Harry Whitehouse making good progress on his own account at the bottom of the Twenty Foot Pot. He was assisted up the ladder with a tight line and then made his way out by hopping, swinging and a few bunks.

An X-ray at Wells Hospital revealed damaged tendons. In all, this incident illustrates that competent cavers can help themselves a great deal despite painful injuries. It is interesting to note that the patient was able to move well on one leg in the cave, because of the proximity of handholds, but had to be carried across the fields!

Sunday 28th January, 1973. Rod's Pot

About noon, Linda Cooke, of Keighley, Yorks, aged about 20 and a novice caver with a party from Portsmouth College of Education Outdoor Pursuits Society, fell some 10 feet down a rift just inside the entrance. Her ankle was twisted, and she suffered a slight concussion which soon appeared to wear off. Wells Police informed William Stanton of the situation and a party left the Belfry with M.R.O. equipment.

The rescuers arrived at 1.35 p.m. to find the Police and ambulance men already by Bath Swallet. The latter provided an inflatable splint which was put over the damaged ankle by the B.E.C. party. A qualified nurse happened to be a member of the college party and was able to give expert help with bandaging Linda's wounds. She was brought to the surface at 2.40 p.m.

The college party comprised of 2 experienced cavers and five novices doing their second day's caving.

Sunday 28th January, 1973. Box Mines alert

Jim Hanwell was contacted by Wells Police at 11 p.m. concerning information from Corsham Police in Wiltshire that some local children were lost in the mines. He contacted Wiltshire Police from the Wells Station and found that 8 local lads, not cavers, had gone down the mines about 3 p.m. Two had returned after a dispute with their friends but the others failed to appear and so the Police were notified. A search was made by two cavers from nearby, and at 12.30 a.m. Hanwell was informed that the missing six had been found unharmed. No official call-out was required.

J.D. Hanwell Hon. Secretary Mendip Rescue Organisation March, 1973

CAVE CONSERVATION

by Tony Philpott

Carbide, Carbide, burning bright,
In the underworld's eternal night,
Obelisk formations scanned by eye,
Now frame the cavern's symmetry.

In the distant deeps it spies,
Sparkling crystals, dazzling eyes,
To these things could we aspire,
But no hand must touch this fire.

This is nature's feast of art,
Now it's beauty sears the heart,
until the time some careless feet,
Bring devastation to this treat.

And so good cavers, come again,
For these delights and more remain,
For many a year for all to see,
Providing we cave carefully.

With acknowledgement to William Blake, without whose assistance this poem would not have been possible!

REVIEW

THE CAVES OF DEVON, by A.D. Oldham, J.E.A. Oldham and J. Smart Quarto, 15 pages of introduction, 82 pages, 7 maps.

Are catalogues of caves a good thing, or are they 'Vandals' Handbooks? This question was raised in Devon in 1965 when two publishing firms made efforts to have such a book written. There was then strong agreement among Devon cavers that as far as Devon was concerned, any book of this type would do more harm than good. There were two reasons for this; firstly a desire not to hasten the already noticeable rate of destruction of formations by giving over-publicity to the caves, and secondly the wish not to weaken the relationships, some good, some very delicate, that had been built up between Devon cavers and landowners. Many of the Devon caves are in private gardens, close to habitation, rather than on moor or fell, and owners were only prepared to tolerate an occasional visitor to caves on their land. Any increase in numbers, following publicising a cave's location in a book, could all too readily lead to annoyance and the closure of the cave to all. These points were set out in detail in an article in DSS Journal No. 92, of June 1965, and that article closed with the following words "(these) views receive full support, at Committee Level, from the Devon Spelaeological Society, the Plymouth Caving Group and the Exeter University Speleological Society. So the position seems to be fairly clear. If the clubs and individuals most intimately concerned with the future of the Devon caves feel that a published 'Guide' is undesirable, then it is their wishes that should be respected. Publishers and would-be authors, please note!"

In view of the above it is surprising and unfortunate that a group of non-Devon cavers, who have done no original work in Devon, should now have taken it on themselves to ignore the wishes of Devon cavers and bring out a 'book' entitled *The Caves of Devon*. This gives summary descriptions, grid references, a partial bibliography, and a set of 'difficulty' gradings (many of which are ludicrous). Some information concerning access is given, much of it inadequate and often inaccurate or out-of-date. It is particularly regrettable that the authors did not have the courtesy to consult the land-owners concerned beforehand, and this will certainly not help Devon caver-landowner relationships. One Devon farmer, (with a cave on his land) on being informed of this book, is reported to be 'hopping mad'.

Lack of consultation, in fact, seems to be the key note behind the preparation of this book. It was produced 'behind the backs' of Devon cavers, ie without their knowledge, and many had their hospitality and good will battered on by Mr. Oldham, in that they gave him, in all good faith, information concerning their caves and digs, quite unaware that he was merely picking their brains for information to publish. The Plymouth Caving Group were particularly badly treated in this way in that the Introduction to the book records thanks to them and gives the reader the impression that they were willing co-authors. The following extract from a P.C.G. Committee member puts the record straight. "He (Oldham) came down to Devon as usual he dropped in for a visit, and the conversation was on Devon caves he wanted to hear about. We had no idea that he was picking our brains for material for the book, so his thanks for our assistance were unwarranted, and unwanted".

This type of activity enabled Mr. Oldham to obtain information not given in the past publications of the Devon caving clubs, and in particular those of the Devon Spelaeological Society and the Plymouth Caving Group (including certain special 'area' publications of the latter). These journals probably provided about 70 per cent of Oldham's raw material, and although by summary and rewording he has avoided the charge of direct plagiarism, for some of the entries it is a pretty near thing! As if such 'poaching' was not enough, the authors then add insult to injury, by claiming copyright on the material they have so blatantly lifted! One of the maps in the book, incidentally, (Map 3) showing the Buckfastleigh caves in relation to the surface features, is an added-to version of a copyright survey originally prepared and drawn by the undersigned, and reproduced in the book without my knowledge or permission. So much for Mr. Oldham's 'copyright'!

Where the Smart/Oldham outfit have rewritten other people's original accounts, the book is, of course factually accurate, (or should be - in some cases copying errors appear to have occurred, eg 'yards' have become 'feet'). Where they were unable to copy, and had to rely on hearsay, their lack of local knowledge has often let them down. Caves have been omitted, others have been given obsolete names, even invented names (by Oldham?). Place and owner's names have been incorrectly spelt, references to available surveys have sometimes been omitted, some access information is wrong and likely to cause annoyance to householders who are not the owners of the caves concerned, and grid references often do not coincide with, for example, those in DSS records, (and the undersigned's 'master set' of six inch O.S. sheets of Devon). Aspiring visitors to one cave listed in Oldham's book will, if they believe his grid reference, have a long search as it directs them to a spot 500 yards away, and on the opposite side of the hill concerned!

It is tempting to spend several pages spelling out such errors in detail, but this would merely provide material for a corrected version of this unfortunate book, whereas the best thing is to let it die as quickly as possible. In any case, the authors have received enough gratis information already. Moreover, the main criticism of the book is not so much one of accuracy (or rather, inaccuracy) as of blatant disregard of the wishes of Devon cavers, in other words, the placing by the authors of their own profits/publicity above cave conservation, and of achieving their aim in a manner of which the ethics are, to put it mildly, debatable.

Mr. Oldham even appears to have had some doubts on this latter point, himself. In his introduction he perpetrates the joke of the year by claiming that the book is not a fast rewrite of other people's work, and that in any case it is in a limited edition of 100 copies which will only be sold to 'bona fide cavers in good standing'. Let us hope that the statement about 100 copies is really true and that when these have been sold, convincing reasons will not be found for printing a further 100 copies, and so on ad lib. As to the bit about bona fide cavers in good standing, Mr. Oldham presumably regards himself as a 'bona fide' caver, but he is certainly not 'in good standing' as far as Devon caving is concerned, and from the votes of censure that have been passed both by individual Cavers and at Committee or Club meetings, eg DSS, PCG, Seale-Hayne, Pengelly, he will find, from now on, that as for information on or assistance in access to Devon caves, he is very definitely 'persona non grata'.

J.H.D. Hooper

NATURE CONSERVANCY NOTES

Abstracted from "Geology and Physiography Section of the Nature Conservancy. Information Circular No. 8 March 73".

The following is quoted in full to give an example of the help that cavers can expect from the Nature Conservancy.

Public Enquiry, Ogof Dydd Byraf, Denbighshire.

The limestone surrounding this cave system, the largest in North Wales, was the subject of a major enquiry into a mineral extraction application. The Geology and Physiography Section and the North Wales Region contested the enquiry jointly with the Cave Research Group and were the leading objector.

Six witnesses were called and gave evidence on national cave conservation policy and on the unique nature and chemistry of the formations and the bio-geographical importance of the cave fauna. Particular emphasis was placed on the practical application of speleological research and the case was presented as a national interest.

The quarry company claimed that an extension of their quarry into the hillside containing the cave was necessary in order to keep their operations viable, the supply of limestone being a national resource and creating employment in an area where unemployment was relatively high.

In opposing this viewpoint it was shown that the rock around the cave would provide limestone equivalent to 9 days national consumption. For this a unique cave of compact, multi-level structure would be destroyed; the only possible alternatives were of a much lower standard and their interests were much more diffuse. Granting the appeal would thus result in the need to conserve very extensive volumes of limestone and thus be of disservice to both speleological conservation and the extractive industry.

The case was complex and it is difficult to anticipate the decision of the Secretary of State for Wales which is still awaited.

Isle of Portland

The Section took part in discussions with the Bath and Portland Stone Group and the Portland Urban District Council over a proposal to establish an animal feeding stuffs plant on the Isle of Portland - a proposal which involved the disposal of effluent through seepage from an old quarry. As a result of discussions certain modifications were made to the proposed plant incorporating greater safeguards and more satisfactory treatment of the effluent. To try and establish routes of movement of the effluent a fluorescein dye test was carried out but failed to provide a definite result. Discussions over the proposal continue.

Site Revisions

Systematic revision of geological S.S.S.I.'s
Phase V - The Carboniferous System.

Following completion of Phase IV (Permo-Trias), a start has been made on revising site coverage of the Carboniferous System. Five meetings in London, Bristol, Birmingham, Leeds and Edinburgh have been arranged and approximately sixty-five experts are to be invited to attend.

CLUB NEWS

Hut bookings

There have been several occasions in recent months when the H.Q. at Upper Pitts has been very crowded and people have ended up having to sleep on the floor. In most instances the overcrowding has occurred because more than one party of guests has turned up at a weekend. In order to try and minimise the risk of this happening members are asked to let the Hut Bookings Officer know in advance when they intend bringing a party of more than two or three guests to the H.Q. for a weekend. The Committee would like to emphasise that the intention is not to try to discourage members bringing guests to Upper Pitts, but to try and prevent double and triple bookings of parties at weekends so that the H.Q. Warden is not faced with the unenviable job of trying to find sleeping accommodation for 50 or so people on Saturday night!

The H.Q. Booking Officer is: John Ham, East Brent, Highbridge, Somerset.

New Member

We welcome the following new member to the Club:-

Michael Jenkins, Pengelly Mill, Drym, N. Leedstown, Hayle, Cornwall.

Editorial correction

In Journal No. 145 of February last there appeared under REVIEWS some notes concerning The Caves of Burrington. I wish to make it quite clear that this was not a Review as such, for a Review implies critical comment. The details were sent to me at my request and I compiled them in a descriptive form. I apologise to the B.E.C. and to Dave Irwin in particular for the embarrassment that I have caused, and I hope that they will accept my plea that it was due to lack of forethought, and was not done intentionally.

Richard Kenney.

THE WORLD ABOUT US

We can look back over the past decade, and the last year in particular, and see caving increasingly influenced by external pressures as well as those from within. The former concerns us much more than we care to admit and must not be ignored. Whilst we might prefer not to take up valuable Journal space with a lot of non-caving matters, it now seems inevitable that some thought and action are necessary in this direction. We confine ourselves here to the most significant outside trend currently influencing caving; namely, that of the growth of organised caving from education establishments.

In order to understand something about this growth, a brief survey of reorganisation in the country's education system is required. Many readers will want to skip this information as irrelevant, and we sympathise with their view. However, we hope that you will bear with us for so many are introduced to caving whilst at school.

Some approved or "recognised" form of schooling is legally compulsory from the age of 5 to 16 in the United Kingdom. Through various county-based Local Authorities, the State provides different establishments to fulfil this requirement; they are usually divided into Primary and Secondary Schools for the under and over tens respectively, although some authorities interpose so-called Middle Schools. Neither Primary nor Middle Schools directly influence caving (yet!), but the Secondary schools certainly have an increasing impact. There are probably two linked reasons for this which are worth highlighting; first, changing objectives in the teaching of young teenagers and, second, the combined effect of recent legislation raising the school leaving age from 15 to 16 and lowering the age of Majority to 18. A strong hen and egg situation may be seen with these developments.

For better, or worse, the traditional subject orientated training given to the age group is expanding to embrace more social objectives. One simple description cannot do justice to this change of emphasis but, suffice it to say that the general outcome is more overt "social engineering" in schools.

For example, so-called "education for leisure" is seen as an essential component by the increasing number of protagonists for such changes. Unlike most of our European neighbours, British schools have always stressed the importance of team games in their curricula. Thus, the progression to outdoor and "adventure" pursuits is considered logical. Such activities, including caving, are now commonplace on school timetables and the result is a rash of Field Centres of epidemic proportions in areas like the National Parks. The raising of the school leaving age this year, instantly swelling the less able 15-year old school population, adds practical necessity to the theorist's viewpoint.

After sixteen there are far less rationalised and regionally balanced educational opportunities. Most are fettered to the larger urban areas which, by dint of geological and historical factors, lie close to our Carboniferous Limestone uplands. Three broad groups may be distinguished under the aegis of the central governments Department of Education and Science (D.E.S.): the Sixth forms of Secondary Schools and Colleges of Further Education provide for 16 to 19 year olds; the so-called Higher Education establishments, which include universities, polytechnics, colleges of (teacher) education and so on, offer courses for 18 plus students whilst the Youth Services run by local authorities cater for those in (or out of) employment after 16 with non-vocational recreative activities. All are prolific breeders of generously subsidised caving clubs which, like schools, are characterised by both a rapidly changing and largely teenage membership. This contrasts with the greater continuity and wider age range of clubs like the Wessex. Finally, we must add an increasing number of sports and recreational clubs closely attached to large industrial or commercial organisations.

The one feature common to almost all the clubs associated with education establishments is that

their caving activities are, to some degree, the ultimate responsibility of higher authorities whose priorities are (understandably) different from those of the caving world as such. By sponsoring adventure pursuits school authorities create for themselves a dilemma regarding safety which is of minor proportions to established caving clubs. Inevitably, they seek uneasy refuge in insurance policies; the safest method of delegating responsibility whilst retaining power. With little or no valid actuarial data, the insurers wisely demand alternative measures of security. So, the almost inescapable outcome is some tangible proof of "competence" like a certificate or licence. In reality, of course, these "qualifications" are no guarantee against misuse or mishap and, should either occur, the standard reaction is to ensure stricter certification and higher premiums.

The final steps in this progression are, arguably perhaps, limited access to permit holders and even prohibition; the latter being the safest method of all! Up to a point the caver in a traditional club remains unaffected by these developments for the essence of membership lies in individual and collective responsibility among fellow cavers rather than outside agencies. Beyond this tenuous situation, however, it is difficult to project further unless parallels are drawn with allied pursuits like mountaineering where external control is rife and certification a reality. Most education authorities now insist that school parties visiting hill country must be in the charge of teachers holding Mountain Leader Certificates. The alternative is simple now that the British Mountaineering Council has ceased to support the "exemption" principle: no M.L.C., no insurance and so no trip! The inevitable result is a closer relationship between the activities of the B.M.C. and the aspirations of education authorities. One manifestation of this is that the teacher or youth leader seeking candidature to a M.L.C. course may have his fee heavily subsidised from local authority funds. Thus, it is easy to see how the objectives of future courses might drift away from those founded on mountaineering as such towards the wider aims of educationalists.

If we apply this general model to caving, of course, there are important points where the oft-used analogy with mountaineering come to grief. Unlike hill country, with its varied points of access, cave entrances are naturally restricted. Thus, entry may be more easily managed by those in a position to do so. However distant the threat, cavers must ensure that it is their own wishes that are being respected and not those wished upon them by educationalists.

The Department of Education and Science is responsible for overall national policy and planning in all educational matters. This includes standards of accommodation, tuition and so on for which minimum requirements and codes are established and maintained by an inspectorate system. These general powers extend beyond state schools into much of the so-called private sector of education as well. In new fields, where their own expertise is lacking, they consult with the appropriate national organisations for advice and recommendations. Since we now have the National Caving Association, it is to be expected that the D.E.S. should accept its findings rather than deal with any less representative body of cavers. Reasonably, it is not the business of such a governmental department to resolve the conflicting claims or domestic differences of pragmatic groups. This has already happened in most allied outdoor activities to the extent that rival organisations boasting national status have felt obliged to rationalise their representation to a single authority. The recent amalgamation of the Royal Yachting and National School Sailing associations is a clear example of an uneasy marriage between essentially amateur clubs and educational bodies.

Accepting that schools are undertaking outdoor pursuits such as caving, therefore, and that the N.C.A. does exist, it follows that neither the D.E.S. nor the local authorities will question recommendations on the conduct of caving in schools which appear to have the N.C.A.'s approval. In fact, of course, the certification for caving recently circularised to education authorities by the D.E.S. is that issued from the National Scout Caving Activity Centre in Yorkshire. Its Assessment Board was appointed by the British Association of Caving Instructors and their first course was held in the summer of 1971 (CRG. Newsletter 128, Jan. 1972, pp. 10-14). Most local authorities will have accepted it by now, although we record that Somerset has not at this juncture. In authorities less aware of the situation than Somerset the continuance of school caving depends upon the

presence of a leader holding a B.A.C.I. Certificate. The final steps of model appear to have become a reality.

In the Wessex Cave Club we feel very strongly that the gradual drift away from objectives long held by most caving clubs towards those of the educational world must be stopped. As a club which has always endeavoured to foster school caving through the affiliation scheme, we deprecate the manner in which the NCA has thoughtlessly championed a certification approach from one of its constituent members without consultation. We cannot support the overall concepts or detailed content of the B.A.C.I. Certificate regarding school caving.

Since the impact of these developments upon the future of British caving as a whole are undoubtedly very significant, we urge that other clubs give serious thought to the situation. In the following article we show what we have accepted as the best solution.

CAVING IN SCHOOLS

The Caving World at large has probably not yet woken to the fact that many schools now have available within the normal time table periods, of a full half day, for "Outdoor Pursuits". Some of these are looking to caving as such a "pursuit" and with the raising of the school leaving age from 15 to 16 we may well expect an increase in such use of caving as a school activity.

It is we consider essential that caving clubs should do all in their power to ensure that, where youth organisations of any sort are using caving in any way that this should be in a manner that is in no way detrimental to the greater objectives of caving.

As a means of trying to attain this objective we have set out as an appendix to this Motion a proposed scheme of caving for youth organisations of all types. In drawing up this scheme we have had two objectives in mind:-

- 1) To ensure that all young people introduced to caving are shown the true ethos and philosophy of the pastime and science of caving.
- 2) To show how an interest in caving can motivate a pupil to a study of more formal school subjects.

Perhaps we may be allowed a little space to comment upon these objectives.

What is caving? It is our firm conviction that whatever else it may be, Caving is not a sport. It has no rules - no records to be broken - no fastest times to beat. It is not a question of testing yourself, or any body else in any way. If a single qualifying word is needed for caving then that is EXPLORATION. A caver is interested and concerned with the exploration of the underground world in all its concepts. Remove the aspect of exploration and you no longer have caving - simply underground gymnastics.

It is with this concept of caving in mind that we have made no separate mention of safety, for an explorer who fails to return and spread his knowledge is a useless explorer. Whatever else he may have been, Scott, on this text, was a very bad explorer. An emphasis upon the exploration attitude automatically emphasises safety. Our scheme introduces the novice, right from the word 'go' into caving as an exploration.

Next the educational values of caving. Many people have spoken of the character training of such pursuits. Whether such a project as building a character is possible we remain unconvinced but we have designed the proposed course to place great stress upon development of confidence in the underground environment and the encouragement of a self-reliant, self-governing, group of cavers rather than sharing the mere development of technical skills.

None the less we do not believe that caving should ever be, in itself, a school subject. It can be used to motivate but complete freedom of choice with regard to joining the caving activity must rest with the pupil and his/ her parents.

Clearly education authorities, as seen in the previous article will ask for some assurance that such a scheme can be organised by their staff.

It is our contention that the first and primary qualification is that the man concerned should be a caver - by this we do not mean someone who can go down caves - and does so just once a month with a gang of schoolboys in tow. He must be a full member of a caving club, caving with members of that club whenever possible, working on digs, and clearly showing a responsible attitude in all his caving.

CLUBS, IF THEY WISH TO REMAIN RESPONSIBLE FOR THE CONTINUATION OF CAVING AS WE NOW KNOW IT MUST BE WILLING TO CONFIRM BY A LETTER THAT SUCH IS THE CASE, AND ALSO HAVE THE COURAGE TO SAY THAT SUCH IS NOT THE CASE IF NECESSARY. IF CAVING CLUBS ARE NOT WILLING TO ACCEPT THIS RESPONSIBILITY THERE ARE OTHERS READY TO REMOVE THIS FROM THEM - BUT IT WILL MEAN THAT CAVING IS NO LONGER THE ART OF EXPLORATION THAT WE ALL ENJOY.

Also cavers from caving clubs may be asked to assist in coaching on the scheme outlined - it is our duty to ensure that the next generation of cavers get as much fun as we have and should not object to the one or two days a year that this will entail.

Therefore, the Wessex Cave Club puts before the Council of Southern Caving Clubs the following motion:-

"That the member clubs of this Council of Southern Caving Clubs will do all possible to assist education authorities and youth clubs with the use of Caving as an optional activity provided such caving follows the plan and philosophy outlined in the appendix to this Motion, and further that any L.E.A. or other service employee should only supervise such caving if he/or she is a regular practising member of a caving club and the member clubs of this Council will gladly answer any query concerning a member of their club in this respect".

GENERAL PHILOSOPHY

This section seeks to point out the potential values and possible pitfalls when introducing school children to caving activities. The view is taken that schools do not have the time, facilities or aims to do other than present the opportunity for interested pupils to experience the basic aspects of cave exploration. Those who wish to become more expert on leaving school, or as 16-18 students in sixth forms and colleges, should seek the help of reputable clubs and societies. Since the 16-18 group have been successfully catered for in this way for the past thirty years, this report concerns itself with the younger would-be cavers at schools. However, no attempt is made to justify caving as a worthwhile pursuit in schools; this must be a matter for individuals to assess. In doing so, it is held that careful thought should be given to the aims and methods outlined. Teachers and school authorities with any doubts about these had better leave the activity alone!

1. Basic objectives of caving

Establishing clear objectives is fundamental to any aspect of education. This is particularly so with a hazardous activity like caving as there is little or no room for error in the learning situation. A strict method of approach is essential and stress must be placed upon ensuring safety among all involved without devaluing the sense of adventure. Accepted classroom approaches are inappropriate for the slightest instance of an imperfectly understood lesson by a single pupil is potentially lethal in a cave. Thus, schools must feel able to accept the basic objectives of caving as the sole criteria: they should avoid modifying these or introducing alternative aims however successful they are in other fields.

No a priori evidence can be advanced to distinguish caving as a purely recreative pursuit from other more manageable outdoor surface activities like rock climbing, sailing, orienteering and so on. Senses of adventure and achievement, both aesthetically and physically are basically identical in all of these. Therefore, as any differences must be of kind rather than degree, other objectives must be sought to justify caving as worthwhile educationally, or even remedially. Such objectives can only be related to the completely different environments of caves and the resultant experiences to be gained from exploring them.

It is certainly very dangerous, and probably incorrect, to present caving as a sport or game; times taken, points reached, numbers of obstacles overcome and, above all, any aspects of competition either imagined or contrived are wholly irrelevant. The level of personal satisfaction obtained by the successful exploration of part of a cave system must be the only criterion. There are no summits to be conquered or records to beat in a cave! Thus, as the sole raison d'être of caving is the exploration of an alien and unknown environment, it may be better described as a hobby. By the same token, of course, it is also a method of research for those studying academic subjects like geology and geography. However, the academic objective does not necessitate caving by school groups and so may be dismissed as a viable educational objective at this level.

2. Basic requirements of Introductions to caving

Unlike most other outdoor pursuits, no specific skills have to be acquired or practised by the would-be cave explorer. The means of progress in the sort of caves that beginners will explore are simply walking and crawling; neither of which require instruction! This allows emphasis to be placed upon finding the way and appreciating the conditions as the most fundamental requirements of all exploration. Again, such essentials cannot be taught by instructors as they can only be learnt experientially. The teacher's involvement must be advisory at this stage as shown later.

Since the experiential approach underpins all the proposals given in this report, and many fail to grasp its significance to caving in particular, it merits further consideration. An examination of the development of caving itself in Britain highlights two vital facts: the cavers who pioneered and developed caving were never instructed and, significantly, the sinister increase in serious and lethal accidents is proportionately higher among led groups and those having individuals with diverse levels of experience, including instructors. It must not be assumed that the presence of instructors makes a caving party safe, or even safer, however expert and skilful they are judged to be. Experience draws attention to the following failings of led or instructed parties, and this list is by no means exhaustive:

- a) Personal safety is abdicated to leaders, especially adults and teachers.
- b) The individual's sense of danger is reduced by the mere presence of an expert.
- c) Unobserved stresses may exist between pupil and leader; some may be over-anxious to please and others unable to reveal genuine misgivings.
- d) Close contact and supervision of the above are impractical underground and comprehensive instructions impossible.

Whilst the experiential approach given here cannot eliminate mishaps, it has been found in practise to be intrinsically safer by virtue of the more cautious and slower pace each individual follows. From the outset, it ensures that a sounder and safer caver is produced with a more responsible and reliable attitude to caves. Greater skills at finding the way and moving will come naturally with repeated practise. Thus, a very important distinction is made between early experience to gain personal confidence and later expertise in perfecting particular skills. Sound experience must be a prerequisite to becoming expert and ultimately capable of original contributions to cave exploration. It is dangerous to confuse or ignore these two phases, and those who start with instruction whilst being led through caves are being denied the vital experiential approach. By adopting a largely advisory role from the start, teachers are indirectly heightening the sense of danger and level of adventure. Both aspects are basic to any exploration and essential in fostering self-reliance through respect for the cave environment. In reality, actual dangers are avoided by ensuring that suitable caves are chosen for introductory activities.

3. The age range for school cavers

It is accepted that the teaching of any discipline must be carefully structured around its basic objectives. Unlike the possible approach to most classroom subjects, however, a physical activity like caving cannot be taught to children irrespective of their stage of development. Consequently, the age range and group structure of would-be cavers at school are very important. Two main considerations must be taken into account; first, the ideal stage for a child to cope with the physical challenges and mental responsibilities involved and, second, the demands to be met by those who wish to continue caving activities after the introduction offered by the school. The latter is particularly important since there seems little point in introducing any hobby unless scope exists to develop it beyond the school situation. With caving, experience strongly supports a minimum age range from 14 to 16. Younger parties do not have the capabilities for valuable "follow-ups". If it is considered that children under 14 can gain from some first-hand experience of underground environments for study purposes other than caving as such, then they should visit commercial caves. Ample and varied opportunities exist in all the major limestone districts of Britain. Schools should not fall into the trap of over-early introductions and the prospect of having to frustrate the enthusiastic or precocious individual who wishes to extend his newly found interests.

The group is best when it is comprised of contemporaries with comparable levels of experience. Friendship groups are probably the best. The presence of younger or older people and experts may introduce the sort of physical and mental stresses already mentioned. Their initial selection must not be compulsory; for instance, it is wrong to present caving as "being good for you" or to offer rewards. Similarly, it is foolish to enumerate or suggest threats about likely hazards. Any such

approaches are prone to attracting those with unsound motives or inculcating unjustified fears. The best approach is to present caving with numerous alternative activities so that it is undertaken willingly by all concerned, viz. school teacher, pupil and parent. Again, we return to the principle that the best and safest caving party is self-selecting. In this way the interests of the group will prove to be self-exciting and their caving programme self-generating.

So long as teachers contain themselves to the role advised here, greater enthusiasm will be maintained for revisiting easy cave systems. Experience shows that led parties can be stultified by what they believe to be the thorough exploration presented by their expert guide. Their initiative has been undermined and a false sense of security unwittingly fostered. When faced later with an unforeseen hazard or mishap, such groups do not have the necessary experience to help themselves. Thus, it is strongly held that the heuristic approach provides a much sounder and more stimulating introduction to caving which enthusiastic pupils will find challenging until they leave school.

4. Common-sense precautions and courtesies

Just as no one expects to allow children onto roads until they have grasped the lessons of the Highway Code, so the teacher must ensure that the cavers in his care understand their responsibilities to the countryside, general public and other cavers. Here he must set an example, and ensure that parents approve of their offspring caving.

It is essential to explain that all caves are owned and that the paths to them are rarely legal Rights of Way. Permissions must always be sought, therefore, and never taken for granted. If owners refuse permission it should be accepted graciously: they will probably have good reasons, e.g. ominous weather, clashes with other parties and so on. Full details should be given as to the trip intended and, as far as possible, these must be strictly adhered to. Cavers must realise their social responsibilities and not take them lightly.

How many parties report the successful conclusion to a trip and thank those who gave it their blessing?

Once underground everyone must look after the cave as much as themselves. Conservation and carefulness are axiomatic. The reasons for conservation both scientifically and socially must be freely discussed and explained.

No exploration is complete without a report of its findings, however modest or detailed it may be. This serves a dual purpose in caving; first, that it must become routine to record ones discoveries appropriately and, second, that full discussions provide useful "feedback" to the teacher promoting the trip in the school situation. Many problems can be overcome in this way.

Much more could be said on these topics; but, since these are copiously written-up in the literature, both teacher and pupil must be expected to spend as much time reading as they do caving. There is no better way of encouraging interest than to read about the exploits and discoveries of others, especially those relating to original exploration.

THE DEVELOPMENT OF A CAVER, a gradual scheme for use in schools.

THE FIRST EXPERIENCE

a) THE PARTY

Bearing the points mentioned in the introduction in mind the possibility of a cave exploration is simply offered to pupils, no follow up in the way of further training, OR badge proficiency schemes should be mentioned. It is vital that parental permission be obtained before caving and evidence of this, in writing, should be held by the school.

b) THE CAVE

For this first experience of a cave it is necessary to choose a cave with very little vertical drops (a limit of perhaps five feet should be placed on any single vertical step), dry (i.e. no danger of floods), sound roof and walls (no danger of falling rocks), and comparatively short. Thus the only skills required will be that of route finding, and this first trip is designed to begin the acquisition of this skill which can only be gained by actual underground experience.

(In Somerset possible caves are:- Avelines Hole, Denny's Hole, Loxton Cave.
See the "Complete Caves of Mendip" by Barrington and Stanton, 1972)

c) PRIOR INSTRUCTIONS

Discussion with pupils will probably lead to the natural concepts of caves as absolutely dark and muddy; hence a need for lights and old clothes. The need to remain as a group should be stressed and the advantage of "making haste slowly".

d) THE CAVE VISIT

Our volunteer cavers are split, by their own choices, into groups of four and allowed to visit the chosen cave. If there is more than one group they should be separated by ten minute gaps and any party not returning to the entrance within a reasonable time regarding the cave in question can be quickly and easily found by the advisor who should have a good knowledge of the cave, and be prepared to go underground but should only go if it becomes necessary.

e) THE FOLLOW UP

For many of the group this may be as much caving as they wish to experience: and no pressure should be placed upon them to change such a verdict. Nevertheless they will now appreciate the nature of cave passages and lessons on the nature of limestone (karst) topography will be greatly enriched by the experience.

Others will be fired with enthusiasm for this activity and vociferously demand more. The next sections show how this enthusiasm can be guided into a learning situation covering a broad spectrum of disciplines.

STAGE ONE

a) THE PARTY

This needs no further explanation - it will be self-forming from those who have "suffered" the First Experience.

b) THE CAVES

Now we must really develop, strongly, our pupils skill of route-finding in cave passages. Repeated visits should be made to caves with complex passage patterns, Goatchurch Cavern is a fine example of this type, Holwell Cave and Quaking House Cave are also suitable.

c) EQUIPMENT

It is considered important not to succumb to the temptation of issuing helmets and lamps. All cavers must learn that personal equipment is a personal responsibility. This standard of caving is safe without such sophisticated equipment but pupils should be encouraged to obtain suitable helmets and lamps and, indeed, **MUST** do so before entering Stage Two. Boots and warm strong clothing must also be obtained by the pupil.

d) THE CAVE VISITS

These should be at least six in number to the caves mentioned above - it is unlikely for instance that a party will succeed in reaching the furthest point of present exploration in Goatchurch on their first visit. They should slowly increase their knowledge of the system on successive visits. The presence of an experienced caver ready to search the system for an overdue party is a necessary precaution.

It should be remembered that the original exploration team made several visits, each lasting many hours, during the original exploration and any pupil complaining of boredom at these repeated visits has not the right attitude to make a safe, competent, caver. There is always something new to see in any cave for those that wish to look.

e) THE FOLLOW UP

Discussions with the cavers will now begin to centre around equipment and the school workshops may well become an active centre for the making of headlamps or fixing of brackets to helmets.

The science staff will be able to interest boys in electric circuits, whilst the carbide lamp, if any boy acquires one, will lead to talks on gas pressures and the chemistry of acetylene.

Safety should not be forgotten in these discussions. It will probably arise when they talk of organising their own cave visits over the week-end. With a little guidance, the pupils themselves will probably formulate their own rules; e.g: -

- 1) Make certain someone, parent, teacher, etc., knows which cave you intend to visit, and do not change your mind.
- 2) Do not jump in a cave.
- 3) Carry spare lighting.

Our caving pupils will also now find the study of cave surveys interesting, this will lead to an appreciation of the difficulties inherent in the two-dimensional representation of a three-dimensional object and the general properties of maps.

The location of cave entrances are usually referred to by an Ordnance Survey National Grid Reference (N.G.R.), and so basic map reading should acquire a new meaning.

STAGE TWO

a) THE CAVES

Our pupils are now ready to tackle caves with rather more technical difficulty and so involving a new skill, climbing.

Caves in which simple climbs of about ten feet can be made without the aid of equipment, and caves with active streamways so that stamina can be developed under wet conditions, should be chosen.

(In Somerset suitable sites are: East Twin Swallet, Sidcot Hole, Swildons Hole (Upper Series), Nine Barrows Swallet, Eastwater Swallet (Upper Series), and Stoke Lane Slocker (I). See Barrington and Stanton).

b) EQUIPMENT

Efficient head lamps, helmets, boiler suits, and boots should be possessed by all entering this stage.

c) CAVE VISITS

One visit to the more difficult of these systems (Swildons or Eastwater) in the company of an experienced caver (NOT 'led by' but "in the company of") will show them how these obstacles can be surmounted. They should then make many visits until they are confident of their ability to keep lamps alight in wet conditions, climb up against falling water, and remain physically active for several hours under wet conditions.

d) THE FOLLOW UP

Class discussion topics will now be almost too numerous to tabulate, among the more obvious are:-

- 1) Clothing - its effect as a conserver of heat
- 2) Food - its energy value, suitable foodstuff for carrying underground.
- 3) Cave Formation - the pupil will now have a wide experience of different passage types, why is this passage high and narrow whilst that is low and wide? will be asked by the pupil. District geology and hydrology may even lead to some interesting surface expeditions to study the distributions of different types of cave and associated features.
- 4) The use of reference books and libraries in an effort to obtain more information about caves.

STAGE THREE

a) NEW SKILLS

For the first time now our pupils must acquire a real skill by above ground practice before any advance is to be made in their level of caving. They have to learn to safely descend, and re-ascend, vertical drops (or pitches) which cannot be climbed or are too great to safely descend without the aid of equipment.

First they must learn to tie a bowline knot, around themselves, around another person, around the leg of a table, in the dark with eyes shut, or one-handed. When this standard of ability has been demonstrated by the pupil they can be invited to join in a cave visit during which they will be

trained in the use of caving ladders and ropes.

b) THE CAVE

Unfortunately, the Mendip region possesses only one cave really suited for this, Lamb Leer Cavern, (though the first pitch of Rhino Rift may prove suitable for small parties, access problems are the major objection to its use). The requirement is a pitch with, at its head, space for about six people to stand and easily watch the demonstration. Whilst it is clearly possible for this to take place in the open air, from a tree, fire-escape, or cliff face, in our experience it never has the impact that is made under real cave conditions. The cave visit can well be followed by open air practice.

c) THE CAVE VISIT

During the course of this cave visit each pupil will be expected to descend, and re-ascend, the pitch twice. On at least one of the descents they will be expected to deliberately fall from the ladder and hang from the life-line.

Also, under the close scrutiny of the instructor, they will each handle the life-line for a companion's descent, and re-ascent.

Thus each will know how to hold the life-line, the feel of a companion's weight on the line, and the feel of hanging on the life-line alone. Invariably this develops a strong atmosphere of self and mutual confidence.

Many, many, caves are now open for these cavers to visit. Exploration of Pinetree Pot, Rods Pot, North Hill Swallet, Sludge Pit, Hunters Hole, Swildons Hole, and Eastwater Swallet, will keep them occupied for many months, if not years, and without facing any complicated access problems.

d) THE FOLLOW UP

With such technical equipment now in use our pupils interests will turn to the strengths of materials - shock loads as opposed to static loads - the elasticity of materials and their ability to absorb shock loads - the effects of water on the strengths of ropes - the effects of knots - the melting (or softening) points of the artificial fibres in use - and even component forces effects - could all be studied experimentally in the laboratory, whilst the workshop may begin the construction of caving ladders.

THE END RESULT

With the suggested starting age in the 14 to 16 range it is unlikely that many pupils will progress right through this course before leaving school. Indeed only Sixth formers are likely to progress beyond Stage Two. Any boy fired by a real enthusiasm for caving could be put into touch with any of the numerous clubs throughout the country where he will meet kindred spirits and be able to develop greater and more sophisticated skills, e.g. abseiling and prussiking techniques for passing vertical pitches, free diving of short sumps (sections of cave passage flooded to the roof), and cave diving (with breathing apparatus) may be learnt. **THESE TECHNIQUES HAVE NO PLACE IN SCHOOL CAVING.**

A group of older pupils reaching Stage Three could well form a school caving club and affiliate as such to one of the caving clubs.

SAFETY

As was stressed in the introduction, one essential feature which enhances the safety of a caving party is the powerful realisation by ALL members of the party that they are each individually responsible. This course has never allowed the caver to abdicate his responsibility to another, adult or more experienced, person.

It is worthwhile also stressing one other vital fact. Conditions in a cave are such, total darkness and restricted space, that an experienced leader, though only three feet away, may be unable to prevent a boy from making a mistake. (A classic example of this is the Carleswark incident when the "leader" failed to prevent a young boy from diving into a sump. The operation to recover this boy, who miraculously found an air-space, lasted many hours at an expense running into three figures). The foolish boy will be less foolhardy if given responsibility for his own safety. At the same time, the choice of caves visited has ensured that the danger of real trouble, death or serious injury, is negligible in the case of the normally healthy pupil. We cannot, of course, speak for those with undiagnosed physical handicaps or psychological complaints, but such pupils are also at risk in the 'led' party. The gradual development called for on this course should allow such defects to appear before the caves tackled are of a difficulty that the defect would cause a serious incident.

Throughout we have accepted the risk of small injuries, bruises, and grazes, as a means of maintaining a high level of apparent danger and, hence, a high adventure level. In practice these injuries are considerably less than those accepted as normal in vigorous field games. The circumstances under which these minor cave injuries occur exaggerates their seriousness only when those involved are not self-reliant.

NOTES ON THE TECHNIQUES TO BE USED FOR VERTICAL PITCHES

The only techniques we suggest teaching, and using, with school parties is the climbing of wire and metal flexible ladders with the climber safeguarded by a lifeline knotted about the waist with a bowline.

Whilst recognising that more sophisticated techniques exist it must be remembered that a simple system correctly applied will produce a higher safety level than a complicated system used faultily. In the suggested system we only ask for the use of one knot, the bowline, all can be done by this alone. The able and enthusiastic pupil who takes the trouble to learn other knots should be encouraged. The use of pulleys for double life-lining should be stressed.

Although recent studies on falling climbers point to the possibility of injury caused by the knotted waist loop this is a negligible risk when climbing caving ladders as only if the life-line is mishandled should the climber fall more than a foot before his weight is taken by the rope. It is better to insist upon careful use of the rope as a means of removing this risk than introduce more complicated equipment.