

# SOUTH WALES CAVING CLUB NEWSLETTER

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NUMBER 56

MAY 1967

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Hon. Sec.

J.V. Osborne, 144 Underdale Rd.  
Monkmoor, Shrewsbury.

Hon. Treas.

T.D.C. Moon, 31 Hirst Cres.  
Fairwater, Cardiff.

Hon. C.R.O.

G. Clissold, "Silhouette",  
Staunton, Nr. Coleford, Glos.

Hon. Records Officer

Mrs. C. Harvey, Upper Hareslade Farm,  
Caswell Bay Road, Bishopston, Swansea.

Hon. Editor

P.M. O'Reilly, 1 Le Mayals,  
Owl's Lodge Lane, Mayals, Swansea.

ANNUAL GENERAL MEETING 1967.

ELECTION OF OFFICERS AND COMMITTEE FOR 1967-68.

**PRESIDENT:** Brig. E.A. Glennie, C.I.E., D.S.O.

**VICE PRESIDENTS:** Mr. A.H. Hill  
Mr. D.W. Jenkins  
Dr. D.A. Bassett, B.Sc., Ph.D., F.G.S.  
Mr. C.L. Railton  
Mr. L. Hawes  
Miss M. Hazelton

**CHAIRMAN:** Mr. R. Smith

**HON. MEMBERS:** T. Ashwell Morgan, Mr. and Mrs. J. Barrows,  
A.J.R. Hudson, G. Platten, C. Powell,  
Mrs. G. Price, Dr. North, C. Freeman,  
Mr. and Mrs. P. Harvey, Dr. A.C. Price,  
Z. Pepionioc, Dr. E.A. Aslett.

**HON. SECRETARY:** John Osborne

**HON. TREASURER:** Terry Moon

**HON. EDITOR:** Paddy O'Reilly

**HON. RECORDS OFFICER:** Clare Harvey

**HON. C.R.O.** Gordon Clissold

**HON. TACKLE OFFICER:** Frank Baguley

**HON. COTTAGE WARDEN:** Bruce Foster

**COMMITTEE:** Alan Coase, Colin Graham, John Hartwell,  
Eric Inson (Co-opted)

SECRETARY'S REPORT 1967.

'What ought we to do,  
Gentle sisters pray,  
Propriety we know  
says we ought to stay,  
Whilst sympathy exclaims  
Freedom from your tether  
play at other games,  
leave them here together.'

Ladies and Gentlemen, may I sympathise with you for the problem you have been faced with before coming here today. The last year has seen the greatest advances in our caves in the Club's history and virgin passages still remain in all of them, yet here you are!

For the first time the Secretary will not have to fill out this report with abuse and appeals aimed at our 'inactive membership'. As you will all know, in the last year we have found two major extensions to our caves, mounted a major expedition and have been honoured with the award of the Gold Star of Yugoslavia.

However, before describing these in detail I should like to consider the efforts of the Committee in the last year. The OFD leader system has once more worked relatively smoothly under the control of the Asst. Sec. and even more visiting Clubs have been able to enjoy the cave. Our service has been extended temporarily to include parties into D.Y.O. following the increase in interested parties. The Guest Leader system is expected to be extended to include this cave to ease access for the bigger Clubs.

The Cambrian Conference was held in North Wales and the member clubs moved together and are now to be represented on the Southern Council. The Cave Registry also progresses slowly, as it inevitably must.

In the summer the Club was able to make a genuine contribution to Speleology following the discovery of the D.Y.O. extensions. When the extent of the find was appreciated we were petitioned by the CRG and several of the well known scientists for the opportunity to be given for the cave to be studied by scientists whilst uncontaminated. Accordingly the Committee agreed to the effective closure of the cave for four months. This period was used for some serious studies to be made, particularly by biologists.

It is unfortunate that this experiment should have been marred by several mis-understandings when the period was ending, but there is little doubt that the information collected will prove useful for some time and will give a basis for comparisons in later studies.

This report must concentrate, however, on the achievements of Members in the last year and we must start with D.Y.O.

Two days after the AGM Alan Coase's infectious determination resulted in the full exploration of the 'Endless Crawl' and an open way into D.Y.O. II was proved! The lucky few were then able to explore a fine new series of large passages over the rest of the week. The news spread so the Balinka official rainmaker set to. The rattle of bones, juju and rain on the roof then lasted a month. Only short visits were possible but the

terminal sump was reached and many fine photographs produced. The preliminary survey was completed by the end of May showing the sump to be over a mile beyond the lakes.

The restrictions to access were then felt as trips became fewer but the studies and photographs resulted in a special article in the Observer in July. This boosted the Club's income and mail significantly. Most Members awaited the ending of the Biological Barrier and instead worked in digs in Tunnel, Cwm Dwr and Pant y Llygoden.

Then on July 2nd divers passed Dip Sump in O.F.D. and climbed Shower Aven with ladder. They then rushed off to explore a small, high level series beyond Boulder Chamber. This exploration was stopped by a 50 ft. pitch into a large passage.

This news, suitably embellished, caused a boom in O.F.D. shares and the Boulder Series digs were re-opened with masses of timber being used. Several near misses thinned out the speculators before the divers proved the new cave was within 20 ft. of the Coronation Dig.

In the weeks that followed the new series was explored and the main stream rediscovered and followed for 2700 yds. to a waterfall. The Cwm Dwr stream was found and a radio location proved the passages were within 160 ft. of Cwm Dwr.

The Coronation Dig then took a turn for the worse. At the end of August the floor of the dig was poked, fell in, and the dry way through was open. Next day it collapsed and has never been reopened. Several near misses in the new cave, including one in which a diver was injured, have shown that an OFD I to OFD II connection would never be suitable. Since then the connection to Cwm Dwr has been pushed, so far without success, but dye tests connect the two within a minute.

At the end of July the Balinka Expedition set off. After a short distance the bus broke down in a land of song where all the natives seemed to be laughing and smiling. Except for this set-back, the objects of the expedition were all achieved. The pit was bottomed at 950 ft. with no open way on. Ironically the last 250 ft. was a series of cascades requiring little tackle and as a result all the members and several Yugoslavs were able to descend if they wanted. The survey was carried out and the remains of the partisans were brought up. The excellence of the equipment was proved by the end of the expedition and it enabled a smooth ride (sometimes) for the cage running on the guide wire.

The expedition was completed sooner than expected and the members were then entertained and honoured by the Yugoslavs. Several formal dinners were given (This begs the question as to how formal our Club can be.) and the attention given has culminated in the Yugoslav Ambassador presenting four Members, and the Club, with the award of the Yugoslav Flag with Star for bravery, services to relations between the two countries. The Queen has since graciously informed the recipients where they can use them, probably only in Yugoslavia!

In September D.Y.O. went again when the rift above the terminal sump near the Battleship was climbed with difficulty and after a short squeeze a further mile of passage was added. A stream provides amusement to a passage which is again well decorated. The present end is a large, loose boulder choke and as this now takes eight hours for the round trip, further advances will be hard won.

Curiously in November it seemed everyone realised their enthusiasm was too great and that the risks were not justified. Almost nothing happened until January when the Ty Ingini dig began to take shape above the Engine House. Then in late January we learnt the UBSS had dived the terminal sump in Bridge Cave and discovered about three-quarters of a mile of large stream passage, and then found there was an almost open dry way in. When the position was explained Members agreed to leave the exploration to the UBSS and in spite of a rescue from the cave we have not really explored the cave ourselves. However, it snapped us out of our lethargy and the divers started to dive some of the many sumps still outstanding and dives of 300 ft. or so in the Hepste and Llwchwr have been done without dry passages resulting as yet. These, and others, will be re-dived later.

Between all this mad activity the Club was called to help with four dog rescues, two of which were successful but two were in dangerous ground at Abertillery. The nature of the fissures must make any attempt here very dangerous.

This, then, is the report on the Club's activities over the last year. We have had more successes than is usual and this is not due entirely to luck. More determination has been in evidence and the results are an indication rather than a result of it. The discovery at Bridge Cave has shown that there may still be further discoveries made relatively easily and the interest in 'our' area has resulted in an increase in activities on a wide front. In fact the pace is difficult to stick at present! See you later .....

Colin Graham,  
Hon. Secretary.

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#### EQUIPMENT OFFICER'S REPORT FOR 1966/67.

For the 1967 A. G. M.

Through circumstances beyond my control this report will not be as full as it should be, but I shall endeavour to give a summary of the situation.

PURCHASES. A  $\frac{1}{4}$ " drill, 300 ft. of  $\frac{3}{4}$  weight nylon rope, 6 lump hammers and materials for 500 ft. or so of ladder have been purchased.

DONATIONS. Some tools, instruments, materials and assistance have been given by R. Stewart, G. Sanders, W. Little, L. Galpin and others.

LOSSES AND DAMAGE. These are now assuming alarming proportions. In just over two years up to last October some £68 worth of equipment, tools etc. was lost, other than by fair wear and tear; and in the last six months since that date a further £18 worth has gone. Some of this is due to equipment not being returned, or being left in caves, or negligence, or misuse. It is very rare that items are reported in the book or to me

personally. On Feb. 7th 1967 120 ft. of ladder was removed, not booked out, and not returned. The ladder situation is now desperate. Notices have been put up in regard to the state and use of the ladders, but these had either been defiled or removed. There is only one answer to this.

There are some members to whom the return of equipment is of minor importance once it has served the purpose of the particular project. It's not fair to other members. Despite the instructions given in relation to the use of the 20 Nife cells for official visiting parties, in my last annual report, within a few days during the exploration of D.Y.O.II, some of these were removed, and one has never been returned. I have had to replace that one myself. The survey cupboard was also broken into in No.10 but no equipment was apparently missing. It is now kept in No. 3.

More ladder has had to be condemned as a result of corrosion as a result of being left in caves; this despite the appeal in my last report. Metalurgical report by G. Thomas and N. Lloyd confirm this action.

A short sectional ladder has been fitted in 'Skeleton Chamber' O.F.D. and another is being fitted at the end of the long crawl in D.Y.O.

Equipment was loaned to the 1966 Balinka expedition. 10 karabiners were not returned, but are being replaced under the terms of the loan.

During my absence in August, Bryn Thomas kindly took over my duties.

I can only repeat what was said in my last report, and various appeals -- it may be necessary to revise the system of loaning equipment drastically. B. Thomas has made practical suggestions supporting this, and serious consideration will have to be given to this in order to cut down on losses, damage, with possible resultant dangers, if members cannot respect the rules pertaining to the issue and care of equipment. It's a pity that the majority may have to suffer because of the few.

My last appeal unfortunately, though written in July 1966, did not get published until this month, and has lost its original impetus. So I am taking this opportunity to ask members now, to return all equipment they may have at once so that a complete inventory may be made.

I have constructed a new lean-to at the end of No. 1 for storage purposes but some more work remains to be done. I have also rendered some assistance on the C.R.O. Depot construction.

And on the admin. side I have been on the sub-committees which met their counter-parts to arrange the new access conditions for D.Y.O./O.F.D.

Dr. Price has kindly given a cylinder of propane gas for lighting for use in the Boulder chamber in D.Y.O. solely for use in emergency when trapped.

The handlines in O.F.D. have been inspected and will need new binding wires at the 'rubbing points'. This is being attended to.

F. Baguley,  
Equipment Officer. 21.3.67.

## CAVE RESCUE ORGANISERS REPORT 1966-67.

During the past year a steady improvement of the Organisation has been made. The objects put into operation are as follows:-

1. To achieve a more mobile state of preparedness.
  2. A more compact list of rescuers.
  3. A programme of rescue practices.
  4. To acquire special equipment with which to deal with the new situations which have arisen through the breakthrough into large cave systems.
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1. A Landrover has been donated to the Organisation by Frank Baguley and is to be converted into an ambulance. The bodywork of the trailer has been built by Charles Freeman and the finishing touches in hand. No. 2 cottage is well on the way to being converted to house the new mobile unit under the direction of the Equipment Officer, Bill Little.
  2. The rescue lists are being overhauled and a card index system prepared by the Information Officer Roger Smith and Bill Harris.
  3. Clive Jones has undertaken the task of Training Officer and has put into operation a plan to train 5 teams of rescuers who will practice and investigate the problems of Cave Rescue in the various systems in South Wales.
  4. Diving equipment has been purchased under the guidance of Charles George for sump rescues and a neoprene exposure bag constructed by Stuart Kirby.

### Incidents and Rescues.

7th Aug. 1966. Partial standby for a RAF party overdue in Aggen Allwedd. Party had vacated cave at 6 p.m. but had forgotten to inform anyone until 11.30 p.m.

22nd-23rd Sept. Dog rescues near Abertillery, one saved, one put to sleep after a fissure became impossible at 48 ft.

25th Sept. Partial standby for party overdue by 4 hrs. in Dan yr Ogof. Mistake occurred in message handed over.

11th Dec. Partial standby for a couple overdue 2 hrs. in Tunnel Cave; no explanation.

14th Feb. 1967. 4 members of the Gwent Caving Club overdue from a trip in Llethrid Swallet. Police rescue call out for Swansea Warden, 6 Swansea University Caving Club and 4 SWCC members including a doctor at 3.15 a.m. Party found lost, two with dim lights and two whose lights had failed. The rescue was concluded without mishap by 6 a.m. The incident was caused through gross inexperience and poor lighting.

18th Feb. 3 members of UBSS trapped by flood water in Bridge Cave extension. Police call out at 9.50 p.m., approx. 20 members staying at H.Q. turned out and with the local fire brigade succeeded in diverting sufficient

water for the party to be assisted out by midnight. A further 3 hrs. was spent by half the party in unbogging the fire tender. The party was negligent in caving in positively inclement weather.

5th March. A minor mountain rescue took place at Pwll Byfre, a member unable to walk with a suspected knee dislocation. 4 members and 2 guests took part.

12th March. A party of Royal Forest of Dean and South Wales members were attempting to find their way into the Eastern mine workings, Forest of Dean via a 300' shaft. The 2nd member down, Rex Keane, fell to his death whilst abseiling, the rope breaking after 60 ft. A rescue call out to the local team was made at 4 p.m. and with the help of the local fire brigade and police the body recovered at 10 p.m. and the rescue operation concluded by 12.30 p.m. Approx. 12-15 cave rescue members assisted. No positive proof why the rope broke has yet been established, but it is suspected that the method of abseiling may have been the cause. It is hoped to produce an article on this subject in a later newsletter.

#### Rescue Practices.

4th Sept. 1966. Speech House Quarry, Forest of Dean, stretcher handling technique directed by Derek Appling.

Sept. Tunnel cave, Marble Arch, Top Cascade Aven, technique of moving a stretcher in that series directed by W. Clarke, 30 Swansea University C.C. and 5 College of Education members taking part.

23rd Oct. Wigpool mine, Forest of Dean, technique of moving a stretcher up the entrance pitches directed by Derek Appling, 12 Glos'ter C R G members taking part.

25th Nov. Tunnel Cave, Marble Arch in East West Series Junction, technique of moving a stretcher through rifts, directed by W. Clarke, 7 University C.C. members taking part.

4th Dec. Ogof Fynnon Ddu, stream passage, possibility of floating a stretcher down directed by Clive Jones, 8 members taking part.

14th Jan. Dan yr Ogof, Lakes, possibility of floating a stretcher over the lakes directed by Clive Jones - awaiting report.

18th Feb. Demonstrations by Dr. O.C. Lloyd on Mendip Sump Rescue Equipment and Dr. R. Williams on mouth to mouth resuscitation with demonstration models to practice on.

#### Meetings attended.

Misc. Glos'ter Cave Rescue Group committee meetings at Huntley. 2 meetings of Mountain Rescue Steering committee at the Mountain Centre, Brecon.

#### Outside C.R.O.'s.

Co-operation has been maintained with outside C.R.O.'s and interchange of reports received from Yorkshire, Upper Wharfedale Derby and Mendip Organisations.

It has been proposed to set up a Cave Rescue Advisory Committee, a sub committee to the Chief Constables Committee for the following reasons:-



- a) Obtaining National recognition and support for Cave rescues.
- b) Allocating coverage for areas as yet without effective means of performing cave rescues.
- c) Helping establish rescue facilities in those areas requiring help.
- d) Providing liason desirable to supply additional strength to areas or even countries in the event of a major incident and where the area or country concerned requests it.

On the other hand it is not intended to:-

- a) Become a Rescue Organisation itself.
- b) Have no power to interfere with the internal structure and affairs of its constituent members.
- c) Only act unanimously.
- d) The members of the committee shall only be appointed by the Organisations they represent, no co-option being possible.

In conclusion:-

This year has seen the initial steps taken, as I have reported, on modernising the Organisation to meet with the added problems now apparent. These must be concluded in as short a period as possible this coming year, for there are already projects which must be initiated to deal with new problems which have arisen. These are namely mine rescues, more and more of our members are undertaking climbs of 300 ft. and over in mine shafts and to be quite frank we really haven't the equipment to deal with this type of rescue efficiently. This equipment and that for sump rescues will need trained handlers, not just brute strength and stamina which is so often called for on rescues. So I appeal to you to give your full support to the training officer when called to assist in a practice.

My sincere congratulations to the CRO Officers and assistants for their work and support over the past year.

Before I close may I draw your attention to a collecting box in the entrance hall. This collection is for the wife and three children of Rex Keane who so tragically lost his life in the pursuits of Speleology in the Royal Forest of Dean. Thank you.

SOUTH WALES CAVING CLUB

Statement of Income and Expenditure For The  
Year Ended 28th February 1967

EXPENDITURE	£	s	d	INCOME	£	s	d
<u>HQ. Expenses:</u>							
Electricity	43.	4.	6	HQ Fees.	328.	16.	0.
Coal	34.	10.	0.	Rent: 5 Powell Street	8.	8.	0
Calor Gas	38.	16.	6.				
Cleaning & Materials	47.	17.	7.				
Rates & Water Rates	32.	15.	4.				
Fire & Burglary Insce.	<u>11.</u>	<u>7.</u>	<u>8.</u>				
			207.				11.
			7.				7.
<u>General Expenses:</u>							
Club Tackle & Tools	90.	1.	3.	Annual Subscriptions	186.	8.	0
Cave Rescue Equip.	87.	9.	5.	General Donations	234.	10.	2
Records, Publications	1.	11.	6.	Wife Sales	1.	10.	0
Telephone Rental & Charges	36.	7.	5.	Dalesman Publishing Co. Royalties - Caves of Wales &c.	7.	13.	6
Newsletters & Cir- culars	51.	5.	0.	Sale of Ladder Materials	1.	0.	0
Newsletter & General Postages	47.	6.	2.	Telephone Calls	14.	16.	7
Public Liability Insce.	8.	12.	6.	Use of No.4 Parlia- mentary Elections	4.	0.	0
Subscriptions	7.	1.	0.	Forfeited Deposits	3.	0.	0
Donation to Cave Registry	10.	0.	0.	Interest on Deposit A/C	8.	19.	5
Sundry Expenses	<u>1.15.</u>	<u>6.</u>	<u>341.</u>	Plumbing No. 4	10.	0.	0
			549.	Sundry Income	1.	0.	0
			1.				8
			4.				8
Gross Surplus for Year	<u>261.</u>	<u>0.</u>	<u>4.</u>				8
			810.				1.
			8.				8

NETT REVENUE AND APPROPRIATION ACCOUNT

	£	s	d		£	s	d
Annual HQ Repairs Fund provision	100.	0.	0.	Gross Surplus bt. down	261.	0.	4
	100.	0.	0.		261.	0.	4
				Nett Surplus bt.	161.	0.	4
				Balance at 1st March 1966	293.	1.	11
Balance carried forward.	454.	2.	3		454.	2.	3

BALANCE SHEET AS AT 28th FEBRUARY 1967

<u>Liabilities &amp; Credit Balances</u>	£	s	d	<u>Assets &amp; Debit Balances</u>	£	s	d
Capital Balances	518.	12.	9	1-10, Powell Street (at cost)	200.	0.	0
HQ Repairs Fund.	600.	0.	0.	Roneo Duplicator w/d value	6.	18.	5
Revenue Balances.	454.	2.	3.	Club Tackle, Rescue & Survey Equip. w/d value	308.	4.	10
				Plant, Loose Tools &c. w/d value	3.	9.	6
				HQ Fees Outstanding	123.	3.	3
				<u>Cash at Bank:</u>			
				Current a/c Lloyds Bank	475.	11.	4
				Deposit a/c S.Wales Trustee Savings Bank	368.	19.	5
				Cash in hands of Hon. Treasurer	86.	8.	3
	1,572.	15.	0.		1,572.	15.	0

J.L. Bevan - Hon. Treasurer.

23rd March 1967.

"THE END OF THE BEGINNING." -- The Divers.

It was snowing after all, and there was no REAL point in the trip, but on Saturday April 8th, a party of four divers set out to dive Dip Sump again. This time the party consisted of Rod Stuart, Colin Graham, John Oz, and Mike Cobourne. A party from G.S.S. acted as porters. Soon a rather reluctant team stood at the edge of the sump, and quietly kitted up for the dive.

Once in the water the die was cast, and all four swam through crystal-clear water in convoy. There was one point of interest; a white fish, 2½ inches long, with black eyes; it did not attack so we left it alone. The pitch was climbed, and by mid-afternoon we gathered in the Smithy for a bite. We had just agreed to meet back there at seven o'clock when there was a loud bang. We immediately realised that it must have been Clive in Cwm Dwr, so we set off up the stream to trace the draught. The radio refused to work in the stream and by then the fumes were thick. The passage smoking the most was blocked with boulders, but Rod could hear hammer blows for a while, then all was quiet; no radio, no hammer blows, no smoke. We almost choked on our own smoke-making exercise, so we agreed to split up and follow the passage of our choice.

We all retreated into the large chambers that point towards Cwm Dwr, and then scattered. My route was up near the roof and I chose it because the stream could be heard down below. After twenty feet a steep tight squeeze was manufactured which led into the boulders proper. Although a bit hairy, there was a window which looked into a chamber with a spongework boulder over most of the roof. A stream could be heard in there, so some effort revealed a route down for ten feet and then back up the other side of a three foot wide wall.

Having proved that a tight boulder squeeze can be done with all fingers crossed, the chamber was entered, and the stream below was inspected. The lower route was impassible, so I climbed up ten feet and noticed that boulders had been moving. No reason for this particular movement could be seen, so I looked around, then noticed that the boulders were smeared with mud! A further thirty feet and a route was made into Cwm Dwr Jama.

Filled with relief at not finding a party crouched over a banger-wire, I searched for human company. It was not until I found that the ladder was not in the entrance that I was sure that there was no one else in the cave. That pitch is tricky, but it was really worth it to sneak into the Club for a snack.

About the time I had started my sandwich, the others in the cave began to worry. It took a further half-hour to convince Bruce that there WAS a way through and then we returned to the boulders to find Rod and Mike almost through. Rod then went to the surface to complete the through-trip, and Bruce went in, to the astonishment of Colin who was waiting in the Smithy. Their worry removed, morale soared and the new route was discussed enthusiastically. When Rod returned, Bruce was traded-in, and we came back out of the sump, raising the drawbridge to the first series, which will now be lost.

On the following day a party led by Eric and Clive started to clear the boulder route, and at two points chose to manufacture a new passage rather than to use the temporary route. By Sunday evening the way was still open, much safer, and with a little more work will be safe to use provided one really big 'un behaves. So now the divers have really achieved their objectives and dry cavers have been in. The exploration can now start! However, we must remind members that this cave, together with Dan-yr-Ogof, deserves careful attention to details. Spare lights and food are essential, and the difficulties of rescue must temper enthusiasm. We have already proved Wales' (and Britain's) deepest cave is behind the club, and now the survey will show the extent of this fine new system. So Cwm Dwr has justified the effort put into it after all!

(J.V.O. for The Divers.)

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### THE FIRST TOURIST TRIPS

"It's a bad omen," said Clive. "I went to my tobacconist's this morning to get some tobacco and I couldn't, because they were burying him."

"I'm still waiting to see new cave," said Bill Little.

Terry Moon and Hywel Ball were lying under the big boulder with pendants, trying to move a small block out - it was blocking the "safe" way through to Ffynnon Ddu II and after an hour's effort it was moved and John Oz. was welcoming us into the new cave. It was then that us "outsiders" could size up the cave and see how much exaggeration the divers had indulged in. I think we were mildly surprised that the Smithy DID exist and that the whole place was tremendously complicated. Passages seemed to come in on all sides, there was a distinct lack of the usual calcite formations, but there was a profusion of sand and mud floor formations, most of which will remain only if they are taped off immediately. We all headed for the Smithy before splitting up. Charles shone his floodlight up into the avens. Some of us went down towards the streamway immediately via the Cwm Dwr stream while Clive and the surveyors went around via the flood bypass. Off up the streamway we went then, stopping only whenever someone slipped on the slimy sandstone boulders. The similarity to the O.F.D. I streamway is there but this new one is much more "interesting". No sooner are you on your way than you begin to climb - up rapids, up little waterfalls, up bigger cascades and on up and up and up. The sandstone boulders cease soon after the Marble Bathroom is reached. Terry climbed up under the shower there and called on us to follow him. We left a cairn and split up to explore the many ways on. On the left a climb up a very dodgy slope led first to a huge hole overlooking the stream again, and then along a well decorated tunnel to another fork. On the left a passage led out over a stream which fell down a 10 ft. cascade from a boulder choke and down another series of 20 ft. cascades before pouring out into a big black hole.

We thought that this was probably the big waterfall into the main-stream just before the Marble Bathroom. The other ways on led to a huge gaping hole and a dangerous boulder choke.

As we had agreed to meet back at the cairn after half an hour we headed back - Terry had explored the other route leading to an extensive series connecting and interconnecting over the top of the stream passage and involving some nice jumps and traverses high up. Roger's route involved a crawl over some pretty crystal pools and led back to the streamway again. After leaving some of the smaller side passages for another day we carried on up the streamway.

At the first pot Terry was well in the lead, and without warning, Rog. disappeared: coughing and spluttering he resurfaced and climbed out and while trying to warn us, toppled over backwards into the second pot to do a repeat performance. Earnest entreaties on our part failed to induce him to do an encore, but we found that this method was probably the best way of getting across some of them.

As we progressed the character of the place kept changing; lofty rifts, low wide passageways, a big oxbow to bypass a sump, sandstone floors and razor sharp ledges and countless cascades. Near the end there was even a boulder collapse, and most impressive of all, the 30 ft. waterfall taking the whole river.

On the return journey we bumped into Hywel's party following in our footsteps, returned Bruce's ammo box lid (lost on a previous dive) to him, and headed towards Cwm Dwr via the dry route round Picadilly.

The other tourists had made similar discoveries in the Smithy area, and the survey progressed to the first pot.

The next day John Oz., Clare Harvey and Mary Galpin ventured underground again and found some passages in the Smithy area including a high level route. Another route back to the Cwm Dwr choke has also been found.

P. O'R. 14.4.67.

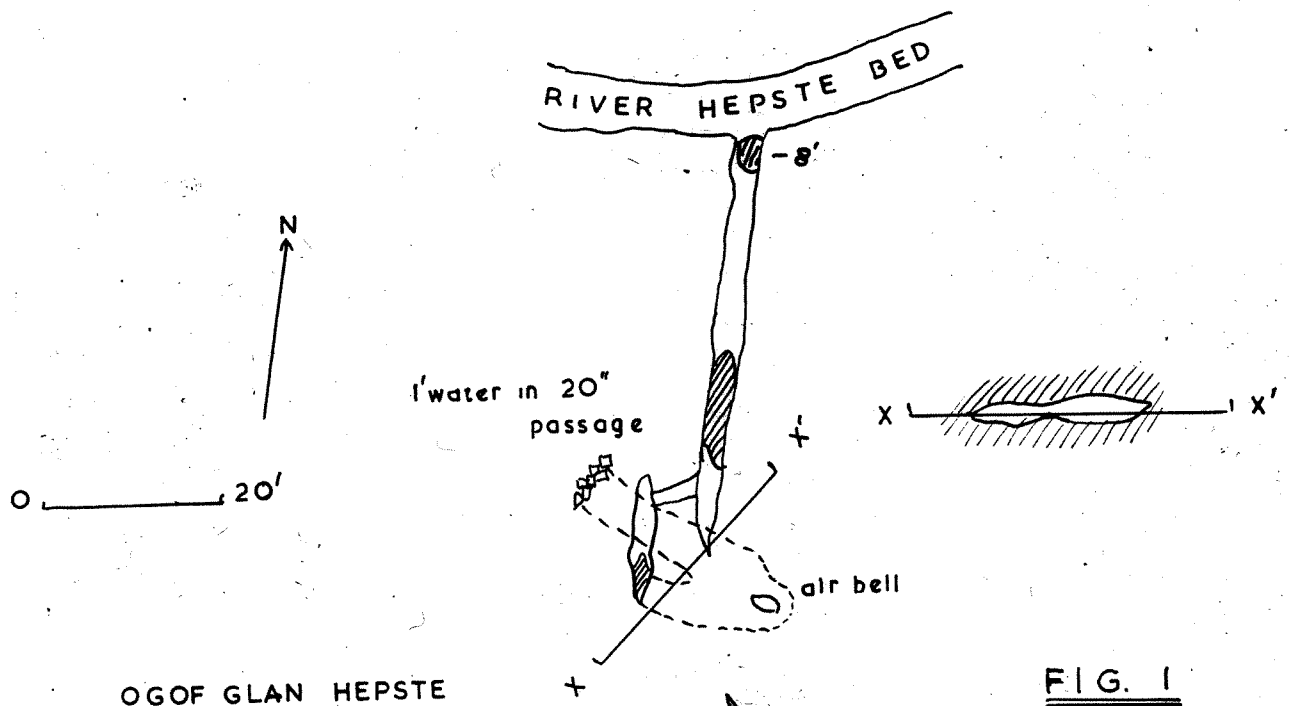
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#### DIVING NEWS.

LLYGAD LLWCHWR. 22/178668.

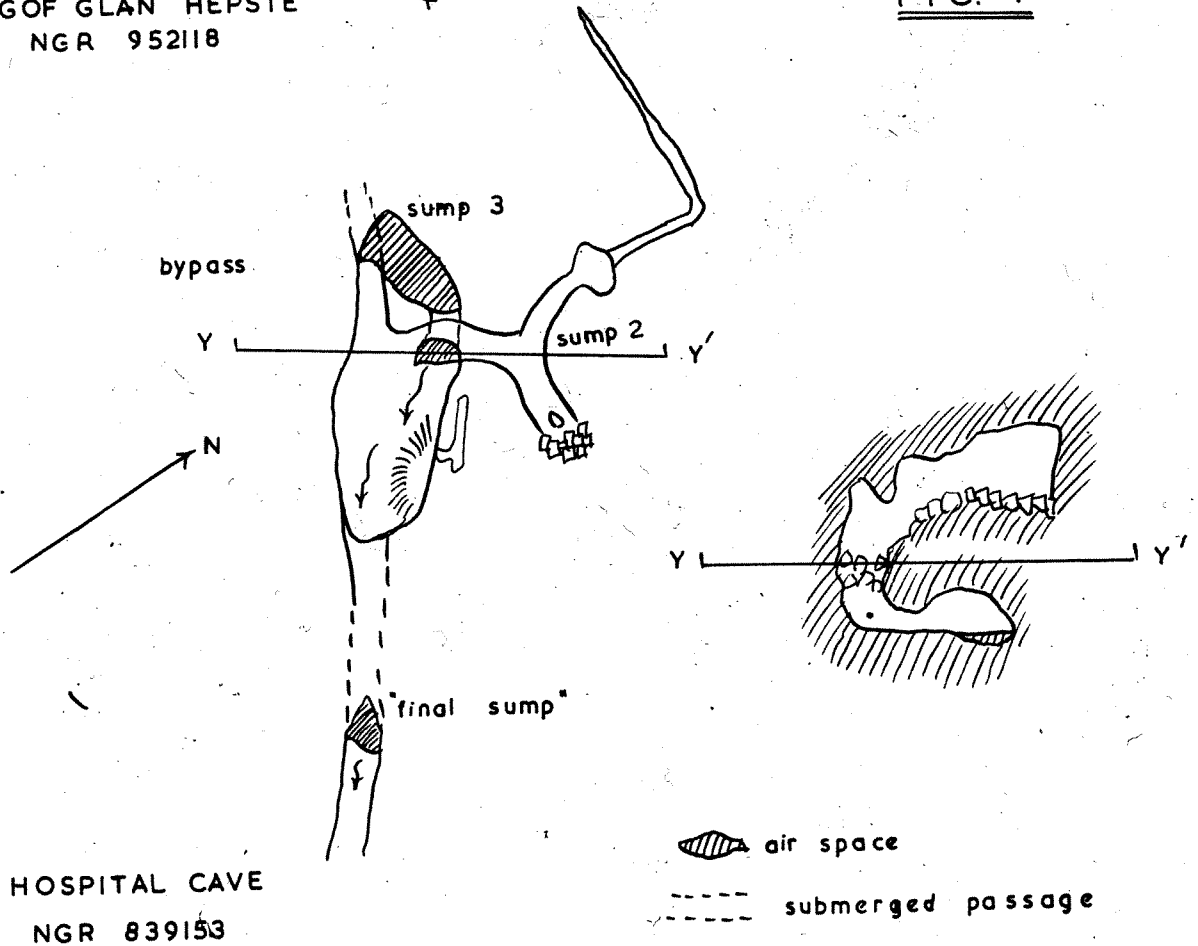
The terminal sump in the fourth river chamber was dived in high water conditions in February, but poor visibility prevented a complete exploration; a large aven was entered at 240 ft.

On March 25th. Terry Moon, John Osborne and Mike Cobourn (Neath Sub-Aqua) returned to find the water 6 inches on the water gauge and visibility at 6-8 ft. The first three air-spaces were found relatively easily, and the water at the sand-bar at the third aven was found to be only waist-deep. The route on then dropped steeply in an 8 ft. by 8 ft. passage with a smooth clean bottom. The old diving line was passed at a depth of 35-40 ft. and then some difficulty with the demand valve forced the diver to return, some 150 ft. from the aven. The next diver recovered the line and continued for a further 80-90 ft., where the sandy floor gave way to shingle. At the end, the gravel slope increased, dipped to the left, and the passage fell away. The gap between the roof and the gravel was 10 inches and the current was "boiling" the gravel up as fast as it slid down. The gap could be increased by kicking at the gravel, but a twin set



OGOF GLAN HEPSTE  
NGR 952118

FIG. 1



HOSPITAL CAVE  
NGR 839153

FIG. 2

would be needed for further exploration. The present end is thus about 420 ft. in, and some 50 ft. down.

OGOF GLAN HEPSTE. NGR 952118.

The terminal sump was dived on Feb. 18th by a diving party consisting of Terry Moon, Bruce Foster and John Osborne. Bedrock was reached at 19 feet and a low passage progressed Eastwards for 20 feet into a wider bedding plane extending WNW - ENE. The right hand side closed down but on the left the way on was 2 feet high and 10 feet wide. After 25 feet it narrowed down and was obstructed by boulders - the roof appeared to rise beyond the boulders. A halt was called at this stage. (See Fig. 1).

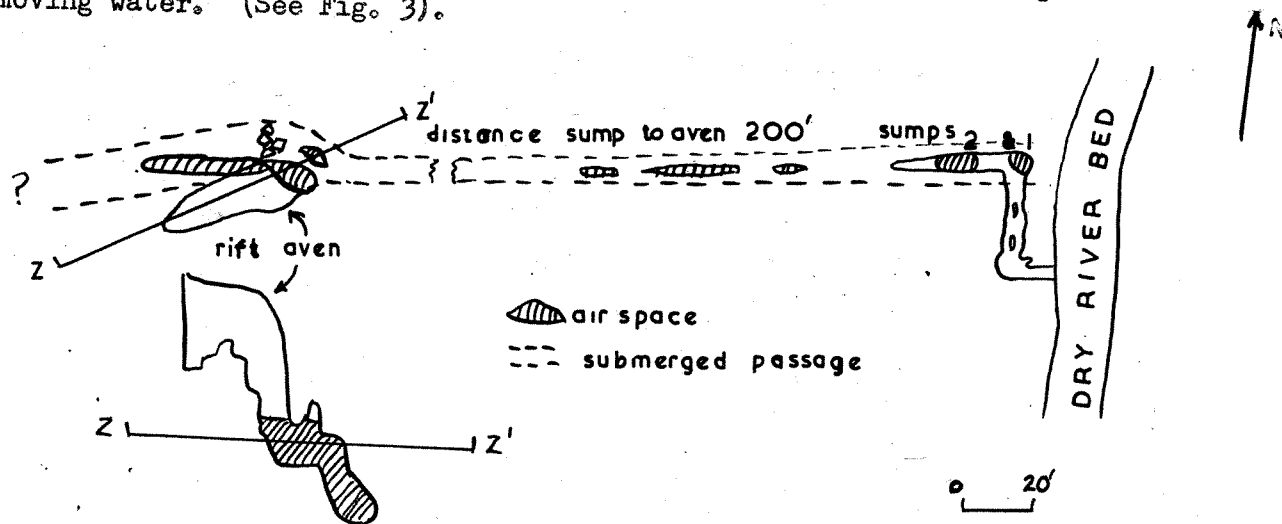
HOSPITAL CAVE. 22/839153.

Permission was obtained from the Hospital for a small party to enter the cave and accordingly Terry Moon, John Osborne and Mike Cobourn carried diving gear to the final sump. The water was a mere trickle and the sump appeared too small. The sandbar extended to within 3 ft. of the wall. However, underwater the sand was seen to fall away rapidly so that it was possible for a diver to enter pushing the cylinder. The sump then opened up and after 40 ft. or 50 ft. the passage surfaced into a dry cave. Unfortunately, the stream sumped again after 60 ft. and in spite of one bypass, the second sump is a complete one. A small higher series was broken into and in all some 300 ft. of phreatic passage was explored. There is no draught and the only prospect is to dive the next sump which, however, looks easier than the first. (See Fig. 2).

In all the above dives the team used 50 cu.ft. cylinders of compressed air with normal free diving techniques where possible. The diving line was used for signals without significant success and so far radios have proved useless.

TUCK'S RIFT. NGR 952118.

This rift cave is situated a little upstream of the previously mentioned Ogof Glan Hepste, and is in the North bank. The entrance leads to sumps some 20 feet below the level of the dry river bed. The second sump was dived by the same team. The submerged passage was found to be 5 feet high by 10 feet wide and extended due north for 130 feet to a small rift chamber which was explored without gaining access to any further cave. At 170 feet the passage again sumped and dropped into a large passage with moving water. (See Fig. 3).



TUCK'S RIFT  
NGR 952118

FIG. 3



THE DISCOVERY OF OGOF NEDD FECHAN (LITTLE NEATH RIVER CAVE).

Since the opening of the Severn Bridge, the South Wales area has become easily accessible to cavers based in Bristol, and this led to the investigation of some of the sumps in that area by U.B.S.S. divers. One of these sumps, at the end of Bridge Cave (NGR: ) was passed by Chris Gilmore on Jan. 29th when he dived for 100 feet to a passage on the other side, which got larger before sumping again after a further 300 feet.

The following weekend, Chris, Peter Kaye and Dave Savage all dived through and proceeded to explore the system. Just before the second sump, a tributary joined the underground river in a very large chamber and by following this tributary upstream, the passage was found to go on for over 1000 feet to a five-foot waterfall.

Up to this point the stream passage had been a fairly comfortable size with few low sections, but after the waterfall the size diminished steadily to 200 feet of low and wet crawling which brought the party within sight of daylight. The river could be heard outside and only the odd boulder and treeroot barred the way out.

Having no wish to leave the cave at this point, the party returned and about 300 feet short of the junction with the river (Sand Cavern), noticed a passage over some gour pools some four feet high and seven feet wide going off on the left. It went on, but lowered to a flat-out crawl before opening up to a fair-sized dry passage (8' x 8'). A stream soon entered as an inlet from the left and sank away on the right, only to appear as a waterfall from the roof farther on.

The stream was now flowing in a streamway up to 15 feet high, but this dropped to 5 feet before the water sank away on the right in a small passage. However, by climbing up past a stal pillar, an upper dry section was entered and after a short distance, the roar of the main river could be heard again.

The sump 2 bypass (as it now obviously was) joined the main river in a large chamber (Junction Chamber) and continued in a streamway up to 50 feet high and wide, underneath a huge section of overhanging mud and on for about 2000 feet before getting lower and reaching a third sump. Again the cave was obliging in providing a fairly obvious and easy bypass and this led to another 1500 feet of wide (but low in places) streamway before the fourth and final sump was reached. Both the second and third sumps turned out to be ducks in dry weather.

Subsequent trips have added considerably to the length of the cave. A streamway running parallel to the dry entrance and going 500 feet upstream of it was found and surveyed just before the heavens opened and the S.W.C.R.O. was called out to "act as Moses" on the Afon Nedd! Two avens and more passage near sump 3 were found, all of them going up to more than 100 feet above the streamway; another series downstream of Junction Chamber yielded 1500 feet.

We have just finished most of the surveying and on adding up the lengths, Ogof Nedd Fechan comes out to be 12,500 feet of passage surveyed, with perhaps an odd 100 feet or so as yet unsurveyed.

The terminal sump has been dived and a chamber was entered after 100 feet. The passage sumped immediately afterwards and was dived for a further 150 feet without success.

(NOTE: A full report with survey and photographs will be published in U.B.S.S. Proceedings in the Autumn.)

Mike Norton. (U.B.S.S.)  
19.4.67.

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### WHEEL BARROW DIG

This Dig was started in the quarry nearest the brickworks by Bill Little and Les Hawes a few years ago. The passage which was dug out is well shaped and was found easy to dig. A wheel barrow could easily be trundled into it as excavation progressed.

Bill and Les moved a tremendous amount of material and there was some discussion about what would happen to this rather nice passage. "Surely it will just come out the other side of the hill," was the popular cry. However, observation didn't seem to support this statement.

It was some time later that John Aldridge, Dennis Clarke and I carried on the digging operations (May '65). Two of us worked on a mud slope at the end of the passage whilst the third trundled the wheelbarrow in and out.

Everything seemed fine. We had checked that there were no loose rocks anywhere, and so were totally unprepared when we heard an ominous rumble behind us on the slope. We both flung ourselves to the sides of the passage as a large boulder weighing about 1 cwt. lumbered down the mud slope end over end. It grazed John slightly but rolled over the toe of my boot which was in its path. We made our exit rapidly and a few more rocks chased us out of the passage. The boulder had crushed two of my toes through the boot, breaking them in the process. This action taught me a lesson I shall not forget in a hurry: Vibrations can easily shift boulders resting on ledges of mud! The rocks which came down appeared perfectly safe initially. Spirits were somewhat dampened and as I recall we went and made a cup of tea before going back. I was now out of commission and John and Dennis entertained themselves by digging two trial trenches in the floor of the passage in an attempt to see where the floor began. They unearthed what appeared to be a pot in the floor near the entrance to the dig and we were all intrigued to know how deep it was.

Another party in the following weeks didn't share our enthusiasm, and they carried on at the end of the passage and showed that the passage did in fact turn a right angled bend, and proceeded down dip.

When I next looked at the dig, I was very wary. The ceiling above the point where the last diggers had been working was composed of

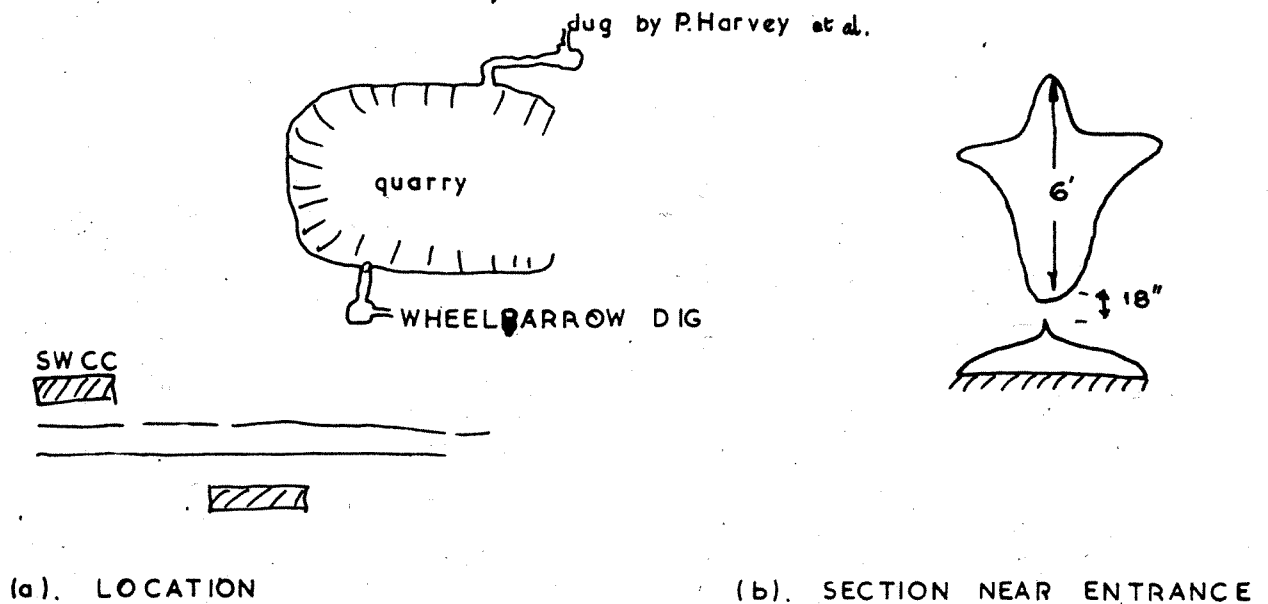


FIG. 4

mud and boulders. There was considerable doubt as to which supported which. In an attempt to make things a bit safer we prevailed on Bill Harris to use some banger. However, I still didn't feel very happy about this bit of the ceiling.

Since others haven't been actively digging there, we recently decided to excavate the pot in the floor again. The present position is that there is another passage below the original one and this we hope to excavate. What we thought was a pot seems to be a window in the floor of the first passage. It's interesting to note that the hole hasn't accumulated much water as yet, and digging is comparatively easy. Perhaps we haven't got far to dig. Who knows? The dig is almost vertically above the Smithy in O.F.D.II!

Roger Smith.  
(April 67).

## A MINING WEEKEND

Here is a brief account of a mining weekend spent in the Snowdon area in October '66.

MINE 1. Just before the tunnel on the Welsh Highland Railway at NGR 594467, a copper trial goes in for six feet.

MINE 2. The workings of the copper mines 1 mile North East of Beddgelert cover a large area. We noticed that the main level was open and climbed the spoil past another level and up to the top outcrops. Over a half mile traverse we drew a blank, except for finding one stope. At the entrance, a drop of 130-150 ft. was found, down which we threw some marked stones. As we located nothing further at this height, we dropped down to the second adit and found that it was wet and ended after 40 yds. or so. The bottom level was most interesting with the marked stones found under a stope (or winze) at 44 yds. (see Fig. 5). There were some interesting formations and large quantities of low grade ore.

MINE 3. We then visited the mines above the top lake in the Snowdon Horseshoe. A small level above the cottages forked at 60 yds. and 110 yds. Where the track leaves for the summit another path leads along at lake level. Some derelict mine buildings border the lake; above the lake, behind the buildings, there are two levels, at 60 ft. and 110 ft. respectively (Fig. 6). There is evidence that the Army have been here, but only to the stope with a false floor - there are no marks in the highest level. The total distance into the mine is 460 yds. We found some blue copper formations; by the time we left it was dark, so we did not explore the rest of the levels. We could see daylight in the highest level and we were well below the stopes that the Army had tried to blow in. More work needs to be done here.

MINE 4. We explored a 15 yd. long trial at Torrent Walk near Dolgellau SO 756185.

MINE 5. We visited a reported mine at SO 741255. The surface buildings are gone and the only shaft that we found was flooded to the top and did not look at all hopeful. A level higher up on the hill went in for 40 yards but was blind. A furnace further down the valley suggested that the place was a copper mine, although we later found out that it was a gold mine.

MINE 6. A mine, some  $\frac{1}{4}$  mile above Gwyn Ffynnd Gold Mine by the road at SO 741282 was entered for 160 yards, or so, but nothing of interest was found. The mine is flooded, the water is foul, and about waist deep, and there is a fir tree at the bottom.

MINE 7. This one is situated at the opposite side of the river to Mine 6 - some fine samples of pyrites were found.

J.V.O.  
2.10.1966.

COPPER MINE  
SO 603487

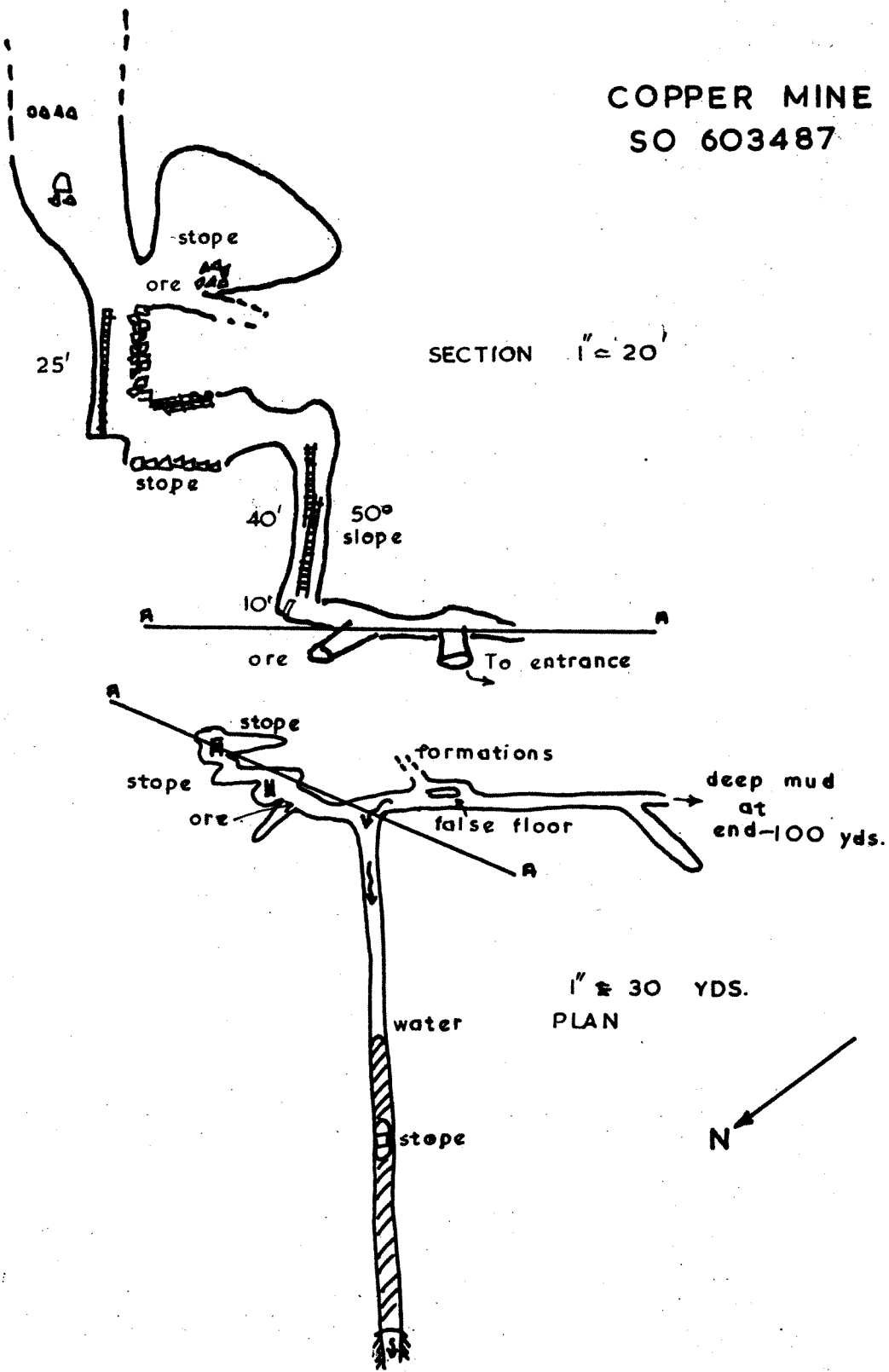


FIG. 5

# COPPER MINE (located above top lake in Snowdon Horseshoe)

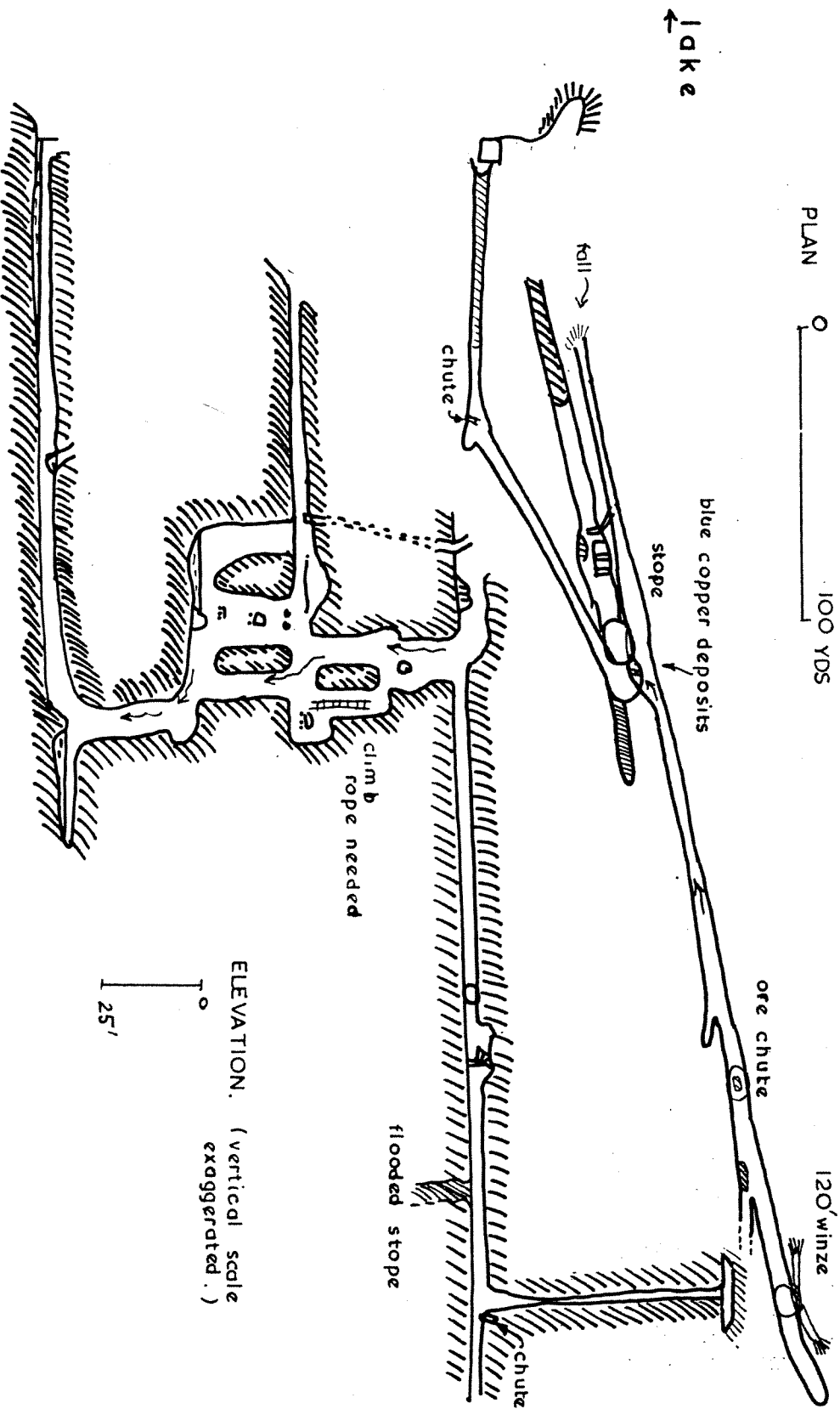


FIG. 6

WENNALLT MINE. Below (Fig. 7) is a sketch of Wennallt Mine as known up to February 1966. The mine is notable for its dangerous state as the walls are rotten and the stopes provide the access routes although they were never intended for such use. The state of the path leading to the mine indicates that others know of its existence, and the sketch is intended for use should there be cause for a rescue.

J.V.O.

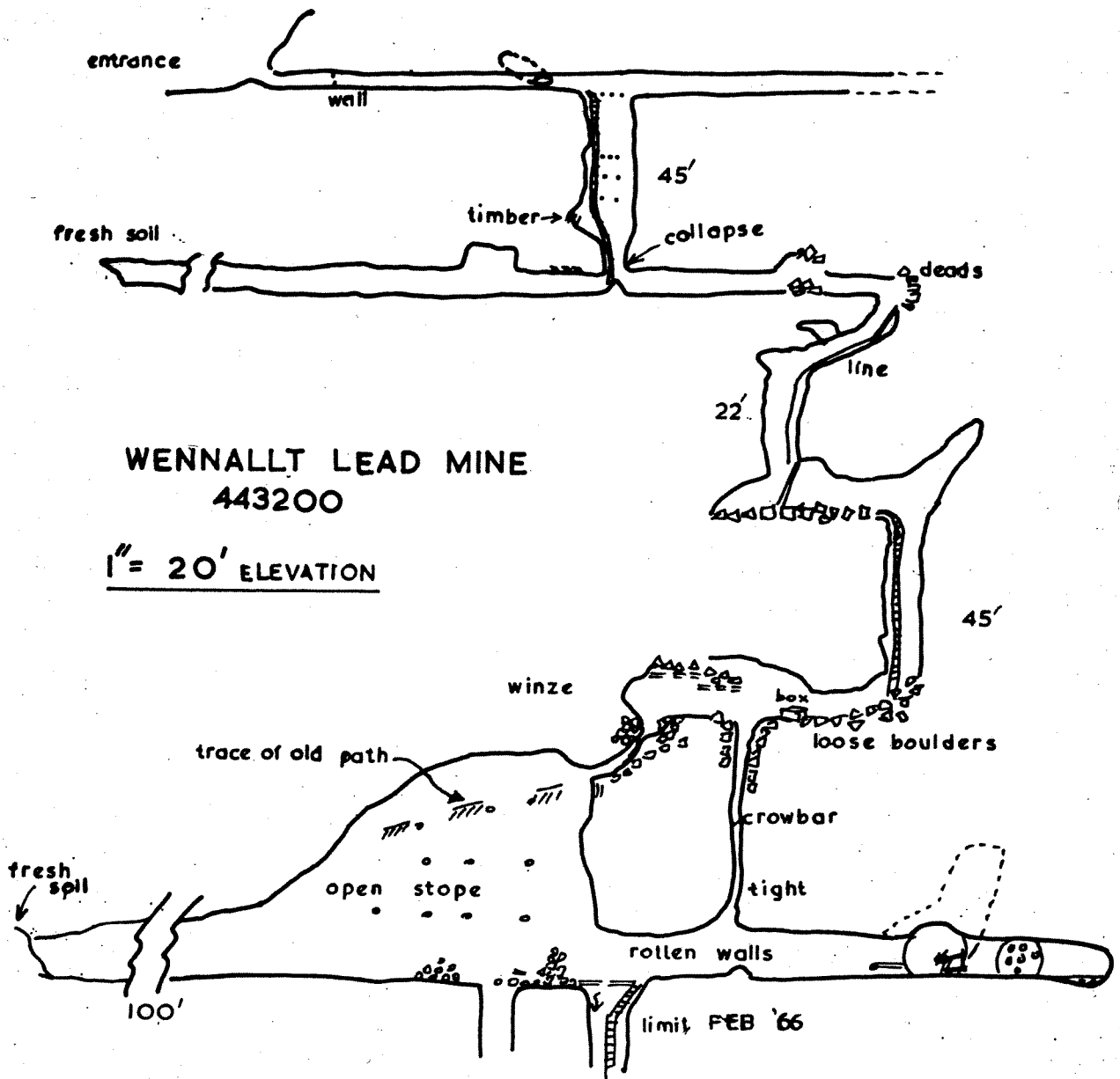


FIG. 7 (22)

## HYPOTHERMIA SYMPOSIUM.

The symposium at Loughborough on 9th April organised by the C.C.P.R. resulted in many lucid papers on the causes and treatment of Hypothermia, and also on the question of emergency bivouacs on mountains.

Cavers were prominent amongst the speakers, including Dr. O.C. Lloyd, Mr. T. Gilbert (psychology), Don Robinson and Geoff Workman (D.C.A.) There were also specialists in survival from wrecks and other similar hazards, particularly extreme cold.

It was emphasised what most of us already knew - the real killer is WET, and not low freezing temperatures. We are more likely to encounter deaths amongst people wearing wet jeans (a very inadequate garment) than amongst frozen or truly exhausted mountaineers.

Hypothermia (low body core temperature) is caused by being unable to produce heat at the same rate as it is lost. When we get really cold and wet, our muscles will not work properly, and we cannot produce heat at the high rate needed. Warmth is the only cure as further exercise may chill more than warm, and in the early stages a period in a warm dry sleeping bag is the best thing.

The main danger associated with hypothermia is that the leader of a party may be so stupified that his intelligence becomes reduced to a level such that he is unable to make simple and rational decisions, and so, either "presses on regardless" or fails to control his party at all. It is also likely that the weaker or more stressed members will be then further weakened to the point of collapse. The stage of prevention has then been passed, and a life (or lives) is depending upon a party which may have become incapable of the initiative and the physical effort needed to reach warmth and safety. By the time a rescue team is called, and the casualties reached, death may have simplified their problem. The rest of the party may also be at the point of collapse and in need of warmth and cheerful confident encouragement to reduce their stress.

The cure is really to avoid it - if it is necessary to deal with a case, then warmth (by any method - either a sleeping bag or hot bath) is essential. Hypothermia is still a major rescue problem.

W.H.L.

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### DAN-YR-OGOF AGAIN

The recent dry spell has meant that some more interesting work has been done in the cave.

Colin Fairbairn and Eileen Davies went in one Sunday (19th March) to retrieve a ladder which had been dropped down the small hole at the top of the pitch into Gerard Platten Hall and decided to have a poke around in the boulders in Hangar Passage. A hole on the left about 2/3 way up the slope led down to a small passage, from which they could see through a small space in the boulders to a large cavern beyond. An hour's chipping at a loose boulder failed to shift it so they returned, missed their way in the



boulders and passed right under the whole pile and out into a large chamber which was apparently an extension of the Hangar. The place was very spacious and the clay-covered boulders stretched off on the left for about 70-80 ft. Straight ahead the passage lowered after about 250 ft. and ended in a sand choke. Time halted their progress.

The following weekend Colin, Rog. Thomas, Susan Bradshaw and I returned. After a great deal of effort, Colin managed to squeeze into the "large cavern" mentioned above. The instant he got through, a large boulder fell, effectively blocking his escape. After considering his predicament for a few moments, Colin decided to explore his new surroundings - and found he was back in the Hangar Passage! (The hole led back to the base of the choke and, now that we have done some gardening, it is the safest route through.) We then went up the two obvious side passages on the right of the new chamber. The first led, after a crawl of some 20-30 ft. over very soft mud, to another large meandering passage with some fine mud and calcite formations - this ended after 250-300 ft. in a big boulder collapse containing some stalactites. Somewhat disappointed, we looked up a very narrow and awkward passage to the left of the choke, but although it went for about 70 ft. it got too narrow. There was no apparent route over the boulders so we examined the only side passage nearby which went off on the left before the choke and ended in a small clay and boulder pile.

The second obvious route from the first chamber led, after 20 ft. to a very low roofed pool. A small space could be seen beyond so we chipped away at the calcite floor and managed to pass through the pool of liquid mud to a small calcite-floored passage which soon got near vertical and too tight.

On the same day Alan Coase, Terry Moon, Graham Nicholson and John Dryden discovered a considerable extension to the lower series; the level of a pool which is normally flooded had dropped and a climb of 10 feet led to the water surface. On wading across, an extensive network of dry streamways was found, all similar to the Bakerloo Straight and interconnecting again and again. Invariably a down-dip slope led to a static sump, and an up-dip one to a boulder choke. (The scalloping indicated uphill water flow). Near the farthest sump a narrow passage led off, which Terry pushed for several hundred feet.

Later on that weekend there was a minor rescue when a member of a party from Crawley C.C. twisted his ankle near the Rising and managed to hobble to Gerard Platten Hall. Two rescue teams were organised, one took hot drinks to the injured person and gave encouragement through the Long Crawl, the other took over at the beginning of the Crawl and helped him out through the old cave and across the Lakes. It was found that despite the passage of many careless cavers over it, the telephone cable still works!

On Easter Tuesday, the Chamber Pot in Dali's Delight was entered. A beautiful wet 75 foot pitch in a circular pot with excellent vertical fluting led to bedrock. A small hole at one end led to a tiny drain with two small trickles of water entering it. Stewart Kirby pushed on for some distance past some tight corners but the place is very small. The circular aven at the end of the longest passage in Dali's Delight took all the fumes from the bang and would probably be worth climbing (pitons needed!)

At the beginning of April, the widening of the Long Crawl to facilitate removal of an inflexible stretcher was begun, and the section up to Spectacle Chamber dealt with. On the same day a party from N.W.C.P.C. led by Dave Judson visited the Great North Road and extended it for some distance.

"After pushing a very restricted crawl in the stream about 200 feet into the boulder fall, until it became choked with small boulders, a blast was made at the farthest point about 15 feet above the stream. The smoke cleared rapidly upwards. Considerable redesign of the scenery had been achieved, but it was decided to leave things to settle before further work could be carried out. On our return from the final choke we noticed a large aven which was subsequently climbed to a height of 40-50 feet to a passage leading back towards the choke. This climbed another 20-30 feet fall over a boulder pile, before opening out about 150 yards from the aven. After a descent of about 30 feet above boulders a large sandy cavern was reached (35 feet wide, and 20-30 feet high). From the lower left hand corner of this cavern an eye-hole between boulders gave access to the stream again — we were clear of the boulder choke. About 50 yards of narrow stream passage brought us to a 'T' junction; the major stream entered from the left.

"From this point a race ensued. Down the left hand series: through a wide oxbow with a flat roof, and back to the river and on up through a perfectly square passage with a flat gravel floor. After 100-200 yards this passage opened out till it had very considerable proportions (100' wide, 30'-50' high). We climbed 30-40' to near roof level of this fabulous cavern, to where a drop in the roof, marked by a long line of multi-coloured quivering straws formed a sort of curtain to yet another large cavern on the other side of the boulder heap. This was the start of Quivering Straw Passage. After several hundred yards a very solid and final boulder fall was met with — it consisted mainly of a large unsupported mass of clay and gritstone boulders.

".....The right hand series was followed for about 150 yards through several low sandy chambers until it became rather small."

(Extracted from the Log Book - Ed.)

A week later Colin Fairbairn and three others went to the Great North Road to follow up this extension but although we spent some considerable time searching in the boulders at the end, we failed to locate 'the aven'. It turns out that it is located in the Mostest and not at the choke. A grade two survey of the Great North Road was carried out, and it appears that the general trend of the passages is NNE, and it then turns around to due North of the entrance pitch.

On April 22nd another party led by Judson revisited the left hand series; an attempt was made to climb several avens that had been noticed on the previous occasion but no further discoveries made. The right hand series was also visited.

The need for a more rigid fixed ladder at the end of the Long Crawl was well demonstrated on the same day when the old one jack-knifed and deposited the heavyweight Coase face downwards in the stream. An electron ladder is now needed to get down to Gerard Platten Hall.

P.M.O'R.  
29.4.1967.

## CAVE RESCUE PRACTICES.

Cave rescue practices can be organised in a number of ways. Usually a group get together and move a volunteer victim with imaginary injuries from A to B in a cave. This teaches people how difficult stretcher handling can be and helps to improve their technique. The main snag with this type of training is that the team being trained is given no executive responsibility; new ideas and methods of overcoming problems are left to a few to sort out.

In a new series of rescue practices we are trying to get the people on the practices involved in trying new rescue ideas. If, out of 50 things tried, we get one which can later be used, then it will have all been worthwhile. To do this a number of problem areas have been chosen and allocated to practice teams. These teams have each chosen a secretary, tackle manager and a recorder. The secretary's function is to get the team together two or three times a year, the tackle manager ensures the equipment is prepared for the practice and the recorder makes sure that the lessons learnt in practice are passed on to the C.R.O. and when necessary, published in the newsletter. To date, three teams have got underway.

### Team A

Terms of reference: To develop a water-bourne stretcher for use in places such as Ffynnon Ddu stream and the Dan-yr-Ogof lakes.

Secretary - Hywel Ball  
Tackle - Idris Williams  
Recorder - Roger Smith

### Team B

Terms of reference: To develop techniques to overcome the main rescue obstacles in Dan-yr-Ogof.

Secretary - John Dryden  
Tackle - Noel Christopher  
Recorder -

### Team C

Terms of reference: To develop our sump rescue equipment and to ensure we have a number of people trained to use the equipment.

Secretary - Terry Moon  
Tackle - John Osbourne  
Recorder - Charles George

By the end of the year we hope to have at least another two teams going. These will probably be concerned with dam construction and communications.

The final number of teams will depend on the success of these first ones but something in the region of ten seems likely. It is important to stress that these are not rescue teams - but rescue practice teams solving problems to develop methods we can all use.

A lot depends on the three people organising each team. When a date has been arranged for a practice the secretary must inform the C.R.O. so that insurance can be arranged and inform me (as rescue training officer)

so that I can ensure that they are getting on with the job. The tackle manager arranges with Bill Little (as rescue equipment officer) for the equipment for that practice.

It is essential that after each practice the team holds a post-mortem and the views of all are discussed, also that people are made responsible for action (e.g. construction of any piece of special gear) which has to be taken before the team meets again.

One final point concerning leadership. No one person has been appointed leader in any team. This has been done on purpose as we all need training in leadership. So at the start of each practice the team picks its leader for that day, the leader's job being to ensure that the practice runs smoothly and that the best use is made of the time.

J.C. Jones.  
April 67.

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SUMP RESCUE TECHNIQUES. S.W.C.C.

The following notes were made following the sump rescue practice in Swansea University baths on Friday April 7th 1967.

It was considered beforehand that an informal exercise in open water was the best approach for a practice which must lead later to a serious and sophisticated practice in a simulated sump.

However the exercise enabled us to prove several points and to gain confidence in the equipment. This has been incorporated in the ideas outlined below and I would appreciate your further comments, even if they are just Yes or No!, and from them, a rescue technique will be detailed and tried at the next practice.

The topics are considered under three headings:-

PREPARATION  
RESCUE  
RECOVERY

PREPARATION.

The Diving Team actually carrying out the sump rescue should consist of FOUR people, all competent divers and well equipped. They would be supported by a full rescue team at either end of the sump of which the remote party may, or may not, be divers themselves.

The support party for the divers should be SIX people.

When the rescue team are reported to be approaching the sump the sump rescue team and supporters will enter the cave carrying:

- 1 Full Weight rope to traverse the sump.
- 2 Full Weight 120 ft. ropes (or part thereof)
- 4lb. Lead weights in addition to a normal weight belt.
- 2 Waist lengths and karabiners.
- 1 Hood for the patient.

- 1 Neil Robertson )
- 1 Exposure bag ) if not already in use.
- 1 Sump Rescue apparatus which would consist of
  - 50 cu.ft. Cylinder charged to 1800 lb.
  - 1 Normalair full face mask.
  - 1 Normalair single stage demand valve.
  - 1 Blanking plug.
  - 1 Long high pressure hose with pressure gauge and clamps.
  - 1 Noseclip.
  - 1 Spanner.
  - 1 Bottle smelling salts.

Complete personal diving kit for each of the divers.

The support party will try to carry most of the load to ease the strain on the divers.

Once at the sump the diving team of FOUR should take command and be controlled by a No. 1 man who is in overall charge of the operation.

No. 1 has previously checked each item has entered the cave and now he checks again. No. 4 dives in, when No. 3 is kitted up, and lays a full weight rope through the sump which is then anchored at both ends. He then climbs out and lays a short ladder for the others and seeks authority from the doctor to proceed.

No. 1 has by then briefed the support team to be ready to receive the stretcher by taking the header ropes when they are passed up and to lift the stretcher until head and shoulders are ashore and no further until No. 1 is back ashore.

No. 2 and 3 have followed No. 4 through the sump carrying the stretcher and exposure bag (if necessary) and all the sump rescue gear which they lift to an accessible and safe place near to the water.

On the arrival of the patient No. 1 takes overall charge and attaches two short ropes to the head of the stretcher. No. 2 and 3 are in charge of the air and should secure the cylinder, set the gauge near the base of the stretcher and assemble the demand valve and face mask. The operation should be described to the patient, mentioning clearing and the fact he can speak under the water. No. 4 then organises the method used to lower the stretcher with one rope which would then be abandoned, and he then prepares the safety helmet.

When No. 1 has checked everything and is satisfied, a whiff of smelling salts is given, a nose clip fitted and described and finally the face mask is fitted carefully with the blanking off plug removed and the air off AND THE HELMET fitted.

No. 2 will then test for leaks by cutting off the air with the hand and checking for fit, he will then personally turn on THE AIR. He checks all is ready and that the sump is clear and, when he is ready, he inserts the blanking plug and checks the patient is breathing from the cylinder, and is comfortable. He checks the pressure again and reports to No. 1 who then enters the water and the stretcher is lowered, followed by No. 2 and 3 if space permits.

## RESCUE.

Once in the water No. 1 checks the patient is breathing and the mask is watertight, air is on and at pressure. Both 1 and 2 check buoyancy is just negative and adjust accordingly. Since the stretcher will tend to be buoyant at the head the weight will be added there. When No. 1 is satisfied all is well he casts off the rope and can then do one of two things,

- (1) If the sump is tight he will tow the stretcher followed by No. 2.
- (2) If large enough No. 2 and 3 are left with the stretcher and No. 1 swims ahead to prepare the recovery.

The passage through the sump should be done slowly with the stretcher level and slightly on the LEFT side to assist with purging any water leakage. If the roof is particularly rough then the patient should be towed face down, but either way the roof should be followed to keep depth to a minimum.

If the patient is in pain with pressure in the ears then an attempt at massage with upward movements behind the ears may help. If he cannot clear himself then progress must be increased if the depth can be reduced quickly. It is for this reason, amongst others, that the patient must be immobilised before starting out on the rescue.

No. 2 would be in charge of air and must watch the reserve. No. 3 (or No. 1) who is towing will watch for bubbles and for signs of distress. The line through the sump will stand heavy pulling and may be used to haul the patient around obstructions.

## RECOVERY.

No. 1 will be on the surface at the end of the sump and will be kitted up. When the stretcher arrives the header ropes are handed out and the stretcher leveled, face uppermost. It can then be lifted until head and shoulders are ashore if the landing is suitable. When No. 1 is satisfied it is then lifted completely clear but is not touched, unless a competent diver is available, until No. 1 is out. Only when the stretcher is secured is the blanking plug removed and the helmet and mask removed. The condition of the patient is checked and the cylinder removed.

A Doctor should be on hand with a pain killing injection if the sump is deeper than ten feet, and to advise on his condition. Warm water and soup would be appropriate for the patient and divers at this point.

The rescue team would then take over and No. 4 returns with the ropes and tackle and a separate recovery team should assist the divers who should be free to leave the cave at this point.

Shrewsbury.  
April 1967.

CAVE RESCUE PRACTICE No. 1 (Dec. 4th, 1966)

PROBLEM.

To get an injured person down the stream passage in Ogof Ffynnon Ddu - quickly!

TEAM.

W.C. Freeman, M. Gough, C. Jones, I. Williams, H. Ball, B. Foster, R. Smith, J. Osborne.

INTRODUCTION.

The above rescue practice was the first of a series to be organised by Clive Jones with a view to obtaining solutions to known rescue problems. The first problem was: "Can use be made of the water in the streamway when bringing an injured person downstream?" It had been suggested that a Li-Lo somehow incorporated into a stretcher might be of advantage. The following report describes the series of experiments that took place between the 3 ft. waterfall and Pluto's Passage. All those participating wore wet suits. The stream was 6 inches high at the 'step' and the overall exercise took 2 $\frac{1}{4}$  hours.

EQUIPMENT USED.

1 crash hat, 1 stretcher (W. Clarke type), 120 ft. rope, Lilo, long leather straps (for holding stretcher together).

EXPERIMENT 1.

The equipment was taken to the first oxbow upstream of the step. Clive Jones was strapped into the stretcher wearing the crash hat. The stretcher was then raised by six, three on each side, and carried to the Step.

Observations on Experiment 1.

- 1.) Progress was slow and difficult because there were too many stretcher bearers and too little space.
- 2.) The nylon webbing on the stretcher was not long enough - another 18" is required.
- 3.) There was a tendency for the straps to slip through the buckles. This problem was partially solved by turning the spare length back on itself through the buckle.
- 4.) The rope carrying-handles at the side of the stretcher were too short and tended to chafe.

EXPERIMENT 2.

We returned to the oxbow above the step with the equipment. The Lilo was blown up to about three-quarters full pressure and laid inside the stretcher. Martin Gough lay on the Lilo wearing the crash hat, and we strapped him securely in place. (Note: by this stage the stretcher

straps were entirely inadequate and we were using the leather straps brought into the cave for such an emergency.)

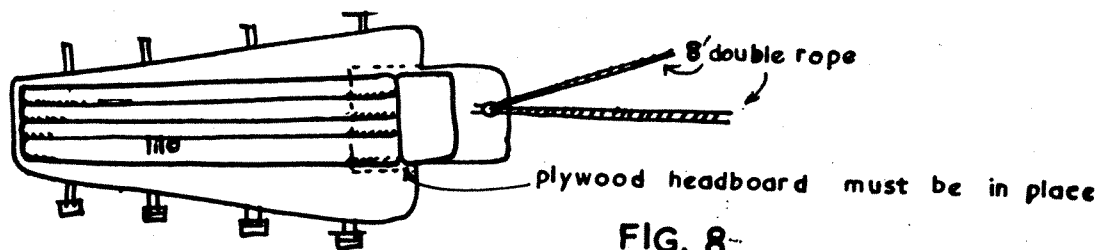


FIG. 8-

This experiment differed from the first in that two double 8 ft. ropes were connected to the ring at the head of the stretcher (Fig. 8). Two bearers stood on each side with a karabiner and sling connecting their waists to the stretcher carrying-handles, and two headmen took the 8' ropes. Progress this time was VERY much quicker than before and Martin was conveyed to Pluto's Passage at high speed.

#### Observations on Experiment 2.

- 1.) The stretcher floated perfectly and progress was swift.
- 2.) The number of bodies in the streamway was again too great and stumbling of bearers could be a nuisance if connected to the stretcher.
- 3.) There was a tendency for the stretcher to be somewhat unstable and it was suspected that the way that the headropes were connected contributed to this.
- 4.) The headmen needed to do their stuff properly in order to prevent spray breaking over the head of the stretcher. This problem would not exist if the stretcher were travelling at the same speed as the water - as it happened Martin did not get his face very wet.
- 5.) A pair of tinted goggles were suggested as a means for preventing water from splashing into the patient's eyes, and also to cut down on glare from rescuers' lights.

#### EXPERIMENT 3.

This time the equipment was taken to a point approximately 50 feet further upstream of the 3 ft. waterfall. John Osborne volunteered his services as victim. The water level, although not high enough to cause trouble to a single caver, was undoubtedly going to be a problem with the stretcher party. With a view to easing progress downstream, several men were deployed as shown in Fig. 9. The way in which the ropes were secured to the stretcher are shown in Figs. 10 and 11. (Note: the rope 'C' passes around the waists of the headmen and has sufficient slack to allow the stretcher to "go!" unretained for short distances. This facility was essential on fast-flowing stretches of water since considerable effort was needed to keep it stationary on such stretches.) The headmen and steersman must move quickly. The presence of rope 'A' enabled the head of the stretcher to be slightly raised when the strain was taken on 'C'. This reduces the tendency for spray to pass over the head of the patient.



Rope 'D' was provided for an anchorman who followed five yards behind the stretcher. The steersman took hold of rope 'E' while two further members of the rescue team raced on in front of the stretcher to

- (a.) reconnoitre obstructions, and
- (b.) act as stops should anything go wrong.

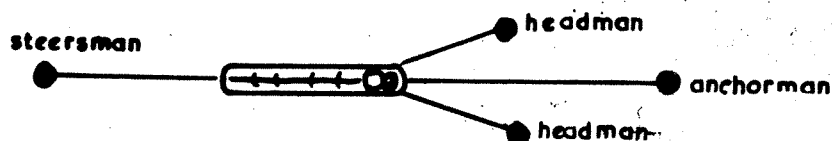


FIG. 9

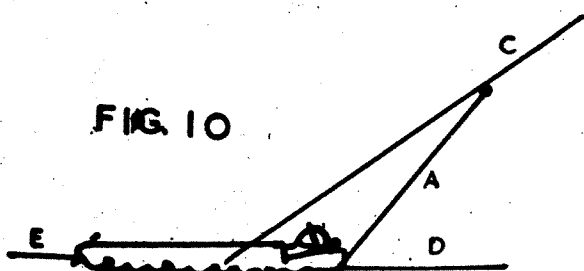


FIG. 10

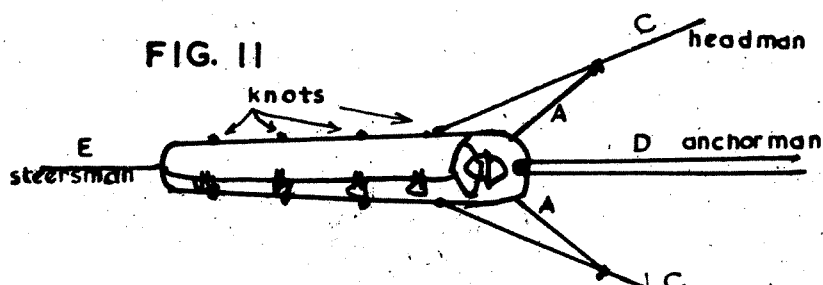


FIG. 11

Once the stretcher was on its journey it was go! go! go! The headmen found that once the technique of releasing the headropes at the critical places was mastered, their work was comparatively simple, and only involved keeping up with the stretcher. It took less than 7 minutes (untimed) to arrive at Pluto's Passage from the three-foot waterfall.

#### Observations on Experiment 3.

- 1.) Headmen should be of similar build.
- 2.) Adjustment of the header ropes was important.
- 3.) Transport was comfortable for the patient.
- 4.) The anchorman was unnecessary and was also an impracticable position since he tended to get in a tangle of rope and fall over.
- 5.) The position of steersman was important since, although he does not do any actual pulling, he must guide the front of the stretcher past any obstacles.
- 6.) This form of rescue is breathtaking and the rescue team must be prepared to travel at speed in the stream passage.

#### FURTHER WORK.

The above team is to conduct further experiments to ascertain

- (a.) the difficulties in repeating the performance over the whole length of the stream passage.

(b.) the maximum and minimum amount of water in the stream at which the above system can be used.

Idris Williams was given the task of gathering the equipment together for the next practice, H. Ball to convene the next meeting, and Roger Smith to report on the progress.

#### CONCLUSIONS.

The above form of transporting an injured patient is practicable. The best arrangement for the header ropes appears to be that in Figs. 10 and 11. Two well-built persons should be headmen, and they should both have a standby at hand. A steersman is required at the foot of the stretcher and two 'snag-seekers' to reconnoitre the route ahead and help where necessary. Stretcher carrying-straps and carrying-handles must be modified to make them satisfactory. Communication during this sort of exercise is difficult, because of the roar of the water, and the speed of progress made whistle signals difficult to comprehend because conditions change so quickly.

Each member of a team using the above system needs to know at the outset what is expected of him, to ensure smooth operation. A knowledge of knots is highly desirable and karabiners and slings are a must!

The problem of keeping the patient warm still exists at present but it is hoped that this is a temporary one only. A relief stretcher party should be ready at Pluto's Passage / Stream Passage junction to receive the patient and to continue the rescue.

Roger Smith.  
April 1967.

## CLUB NEWS.

### TWO NOTES FROM THE HON. SEC.

At the AGM, Members were asked to accept that several of its more experienced Officers were not seeking re-election.

The amount of time and effort devoted to the Club by its Officers deserves our 'thank you' but, in particular, we must record our especial appreciation of the work put in by Dr. E. Aslett, Derrick Webley and Bill Little.

Blokes has maintained a rational outlook in the Committee since Ffynnon Ddu was a solution tube and has helped us over several difficult periods. Now, after several years' effort, the Members have allowed him to retire but we hope that we shall see more of our new Hon. Member.

Derrick has fought over four years to enlarge, consolidate and index our library and we now have a representative selection of the current caving literature and complete records of several of the major Club's publications. He has expressed his wish that he retires before he becomes stale and that his successor can come in with new ideas.

Bill Little has worked for the Club over many years and has earned a reputation which extends over all the Caving Regions. He has an active interest in CRG and CRO and as equipment officer on the latter post he is largely responsible for the orderly and organised rescue kits and the rescue trailer. His interests in this field benefit all of us and his experience is an asset to the Club.

The above officers retired at the AGM after nearly ten years' service each and we must record our sincere appreciation of their continued support.

### Ogof Ffynnon Ddu Two.

Many of our Members will have tried the dry way into OFD 2 and will now appreciate the size of the cave. This cave, together with Dan-yr-Ogof, requires a standard of caving which (let's be honest) is not yet generally applied.

In both the caves the far series require a six hour trip just to reach them, and yet the Committee still hear of parties with no spare lights or food, never mind the correct caving attire. It is in your own interests to see that you and your party are all well equipped, have spare lights, food and candles and to ensure someone knows where you are. Both the caves require wet suits for their full exploration and BOTH caves can sump after wet weather.

This is not intended as an outline of the hazards but as a reminder to Members of what is required in responsible caving.

At the last committee meeting a lengthy discussion on access to the new cave took place and it was unanimously decided that there should be no restrictions at all on access. However, in order to forestall incidents of the type where schoolboys and ill-equipped cavers might enter

the cave and cause a rescue call-out, it has been decided to fix a gate over the Cwmdwr entrance, with the only proviso being that keys are freely and readily available to all bone-fide cavers who will then make use of the "where-and-when" board. At least we will know when there are parties in the cave.

One last point. The boulders in CWM DWR are not yet stable and nothing should be removed which may offer support or protection in the event of movement. The passage will have to stay small until an alternative is found.

Hon. Sec.

#### Editor's Note.

It is hoped to produce in the near future a new type of Newsletter. It should consist of the usual quarterly publication plus a more up-to-the-moment monthly (or so) news-sheet, mainly consisting of extracts from the Log Book and Club News. This means that the usual cries of "The members are never informed of what the committee are doing," and "The newsletter is always so hopelessly out of date with its news", will be stopped and that the members will have an up-to-date record of caving, digs and dives. This can also mean that a higher quality Newsletter - cum - News-sheet will be produced. And THAT can only happen if YOU write up your trips properly in the Log Book and send articles to the Editor for publication. People don't really want to know about a tourist trip up the stream in O.F.D., however. They DO want to know about a new discovery or an extension to a cave and where it is. Lately, the Club has witnessed some selfish attitudes from discoverers, either not telling others of their discoveries or concealing their whereabouts. So let's have good accounts in the Log Book, and plenty of literary contributions to the Newsletter.

Hon. Editor.

#### Anniversary Dinner.

The Club's 21st. anniversary dinner was held at Bishop's Meadow, Brecon, on the 29th. April. The Principal Guests were M. Saracic, the Yugoslav Ambassador, and his wife, Mde. Saracic. Roger Smith was in the chair. Kindred clubs represented were: The Bristol Exploration Club, Cave Research Group, ICI Fibres S.S., Chelsea S.S., University of Bristol S.S., Cave and Crag, University College of Swansea Caving Club, University College Cardiff Caving Club, Royal Forest of Dean Caving Club. The number of members and guests was 115.

His Excellency was presented with an inscribed Saxton print to commemorate his visit to Breconshire, and the retiring Chairman, Dr. E. Aslett was presented with a NIFE cell.

The dinner was followed by a showing of the film "Volcano", describing some of Tazieff's hair-raising exploits in the world's active craters. A good time was had by all.

The Club welcomes the following new members:-

1. Roger Stuart Thomas, 21 Gate Street, Gwaun cae Gurwen, Ammanford, Carmms.
2. Jonathan Sydney Gale, 97 Hollycroft, Hinkley, Leicester.
3. Graham John Nicholson, 174 Ashby Road, Hinkley, Leicester.
4. Rev. D. Slater, 16 First Ave., Havant, Hants.
5. Rodney H. Elliott, 20 Pook Lane, Havant, Hants.
6. Glyn Genin, 6 Bankton Rd., Brixton, S.W. 2.
7. Denis Pountain, "Harewood", Moss Pit, Stafford.
8. Ken Maddocks, 10, Lon Cae Banc, Sketty, Swansea.

Changes of address:-

1. Dick Beynton, 32, Hendrefoilan Rd., Ty Coch, Swansea.
2. Tony and Carole Iles, Apt. 4A, 1900 S.Cobb Drive, Marietta, Georgia, U.S.A.
3. John Osborne, 144 Underdale Rd., Monkmoor, Shrewsbury.
4. Paddy O'Reilly, 1 Le Mayals, Owls Lodge Lane, Mayals, Swansea.
5. Colin Graham, Nuppend Farm, Alvington, Lydney, Glos.
6. D. Judson, 8 Dingleside, Redditch, Worcs.

Congratulations:-

To John Dryden on the birth of a son at the beginning of April.

To Frank Salt and Penny Tutt on their marriage on March 25th.

Rex Keane Fund.

Our thanks to all who donated to the Rex Keane fund. The sum raised was £31.

