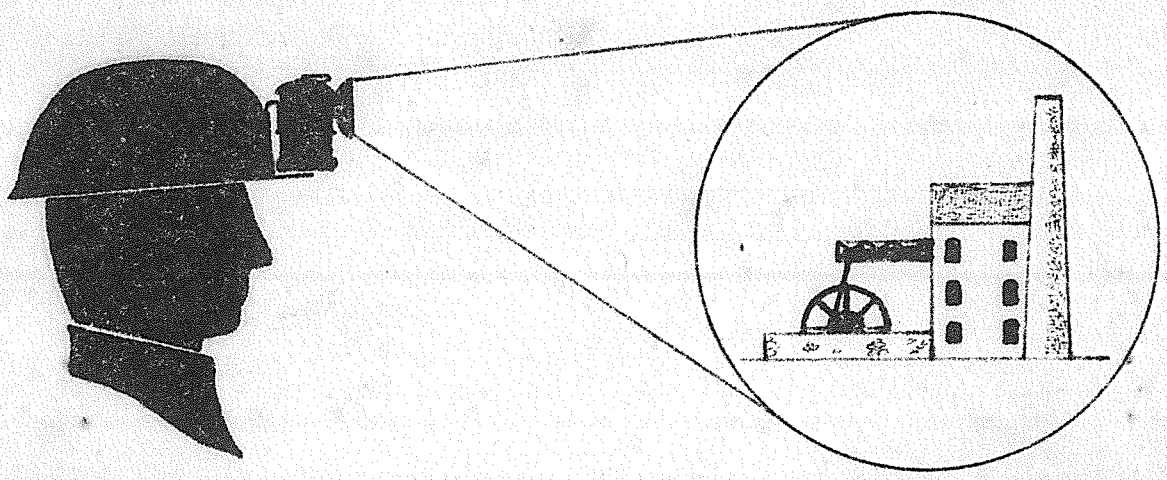
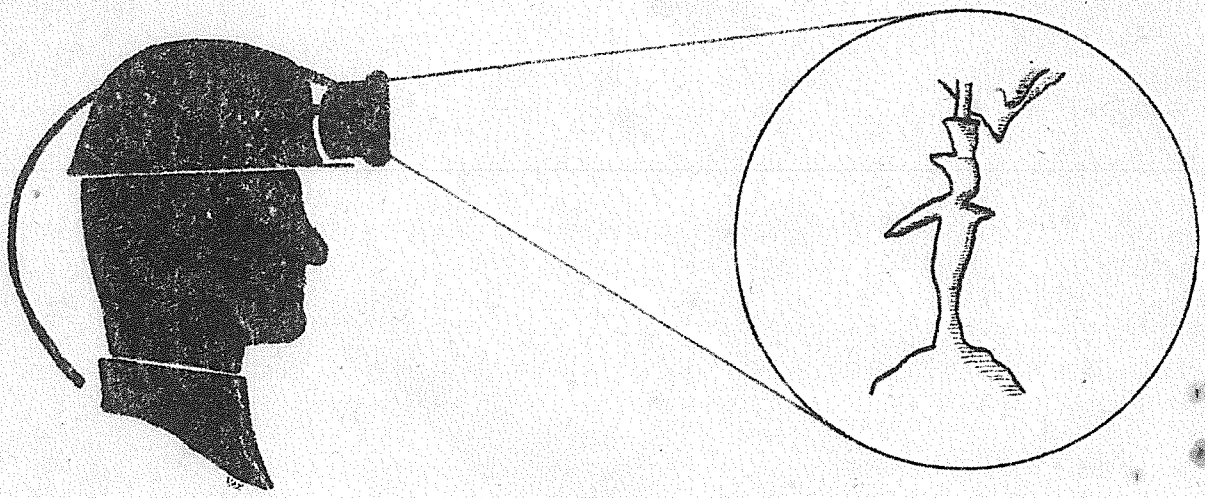
Records
No 22



PLYMOUTH CAVING GROUP.



Robert
No. 22

PLYMOUTH CANNING GROUP

PLYMOUTH CAVING GROUP.

Newsletter & Journal. Number Twenty-two

March 1966.

Not a New Problem!

The Plymouth Caving Group is blest with a situation that, in all probability, is unique among the caving clubs of this country. A very large proportion of our membership is under eighteen, let alone under twenty-one. This situation creates, in itself, several problems and at least one massive advantage.

The advantage is, of course, that we are eligible to receive grants from the Local Authority and a local charity. These grants, which totalled £110 last year, have no hidden strings attached and this surely should silence those critics of a'national organisation' policy who are afraid that by accepting grants they will lay themselves open to a vast, and assorted mixture of disasters. However, nearer home, these grants have allowed us to be exceptionally adventurous as regards expenditure, for a club only three years old this month. For such a young club, we own a considerable amount of tackle and produce a large amount of printed information as newsletters and Special Publications. Should this source of income dry up, or even be cut, we will be in dead trouble and will have to restrict our spending to an unprecedented degree. We must increase our own earned income. Before, we have run dances, which have been, economically, very successful, and several lottery type schemes. If YOU are prepared to take on such schemes, and think up and run others, don't hid your light under a bush but offer your services to the Committee.

One problem of a young membership, is the large number of Committee members who have to resign each September because they are going to College. The best of luck to them, but it leaves us in a bit of a hole. The Committee usually knows who should replace them on the Committee, but as the Group grows bigger, this becomes more and more difficult. If you think that somebody should be represented on the Committee, then nominate them. There is always room for a good club man, (or woman) on the Committee. This is YOUR Club and YOUR Committee.

The Editor.

Secretary's Announcements.

Easter Weekend.

(16-19th April.)

I have arranged a weekend at Buckfastleigh for those who are interested. We will catch the 10.30 am. Exeter bus to Buckfastleigh and work at Pengelly for a while. Sometime in the afternoon we may possibly wander over to Bunker's Hole, near Dean Prior.

On Easter Sunday, help is required to remove the oily mud that is contaminating Easter Chamber in Reeds Cave. They want all the help possible, so those are willing are welcome, and perhaps, if you ask nicely, someone may take you to the Little Man.

On Monday, we will stroll over to Pridhamsleigh and do Little Prid. and Dog Holes in the morning, with big Prid. proper in the afternoon.

Finally, on Tuesday, we will go down Baker's Pit Cave.

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Pengelly.

There are some leaflets concerning the Pengelly in the Club Room. I would fully encourage anyone who is interested in speleology, to join the Association; after they have paid their PCG. subs. of course.

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Group Shop.

Four and six inch reflectors for carbide lamps are now available. All reflectors will now be clear laquered before sale, in the hope that this will lessen oxidation and thus preserve the reflecting surface.

4" reflectors 3/-
6" reflectors ..... 4/6d.

Bumper grips are also available at 1/- each.

Carbide for lamps is now on sale at 1/6d. per lb. plus 6d deposit on container.

Tricounis and nails will soon be available for sale.

There are a number of small price decreases on quite a few things. The biggest decrease is that of Texolex helmets, from 30/- down to 23/-.

Members will help me enormously if they can make, and collect their orders, on Thursday nights at the Club Room.

Bob Cawthorne.

Future Meets.

Sunday 17th April.

Radford Cave.
Leader: Keith Loze.
10.19 am. bus (No.6) from the Viaduct to Radford dip.

Saturday 14th May.

Virtuous Lady Mine.
Leader: Roy Atkin.
Bus leaving Breton Side for Buckland Monachorum (No.45) about 9 am. - check this time.

Sunday 5th June.

Bridhansleigh Cavern.
Leader: Steve Poole.
Buckfastleigh (No.129) bus leaving Breton Side at 10.30 am.

Saturday 18th June.

Afton Red Rift Cave.
Leader: Bob Cawthorne. (Tel.53588)
Travel arrangements must be checked with Bob, but probably 8.45 am train to Totnes to catch 9.50 am. Newton Abbot bus to Red Post.

Sunday 3rd. July.

West Wheal Robert.
Leader: Brian Poole.
9.30 am Tavistock bus - No.83a.

Saturday 16th July.

Cattedown.
Leader: Steve Poole.
Meet at Cattedown Roundabout at 10.30 am.

We apologise that these bus times are so indefinite but it was unavoidable. It is wise to check bus times given in any meet list before you rely on them, at the best of times, in case of an error or late change.

Odds and....

The Speleologist.

In apparent revenge for us thinking that this magazine had folded, in their latest edition they have so completely mis-reported our last editorial regarding CRG. subs., that they have made us say, in fact, the reverse of what we actually said. We have had one or two letters from stupid individuals who are prepared to believe what they read in a magazine without actually checking the original text for themselves. The Speleologist has had a letter from us, asking them to be more careful in future with their reporting and to publish a note giving the true picture.

However, in case there is still any doubt, we think that the CRG. were right to have increased subs. as they did, but they should have done it in smaller increments and starting years ago.

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BSA. Annual Conference.

The British Speleological Association Annual Conference will be at Bristol from 9th Sept. until 12th Sept.1966. The PCG. has been invited to participate in the Conference by , producing an exhibit for showing in the exhibition, to present a paper on any topic of speleological interest, whether specialised or general, and to attend the Conference itself.

The Committee has resolved to produce an exhibit and anyone who wants to help, or to otherwise participate in the conference, should contact the Hon. Secretary of the PCG..

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New Members.

We welcome the following new members to the PCG. and hope that they will have a full and enjoyable membership.

Ian Stewart,
17, Maple Grove,
Plympton,
Plymouth.

Colin Smith,
Vulcan House,
Chagford,
Devon.

Norman Gay,
441, Blandford Road,
Efford,
Plymouth.

Peter Land,
402, Blandford Road,
Efford,
Plymouth.

Roger Steer,
11, Victoria Pl.,
Stoke,
Plymouth.

M.Waterhouse,
143, Melrose Ave.,
Pennycross,
Plymouth.

Dave Gill,
88, Alvington St.,
Cattedown,
Plymouth.

Plymouth Caving Group.

Tackle Rules (as revised March 1966).

1. Any two club members may, on giving at least seven (7) days clear notice in writing to the Hon. Tackle Secretary, borrow such tackle as he deems necessary.

   In the case of an offical club meet, the leader alone may request tackle, without the second club member.

2. Any such request must include details of :-

   a) Status of party; ie. number of members, number of guests, &c.

   b) Object and site of expedition.

   c) Total tackle required.

   d) Date of use of tackle.

3. Under normal circumstances, the period of the loan shall be one (1) week, commencing and ending on a Thursday.

4. The borrower shall receive, on application to the Tackle Secretary, a booking ticket, on which shall be recorded :-

   a) The names of the borrowers.

   b) Brief details of the proposed expedition.

   c) 'Booking out' date.

   d) 'Booking in' date.

   e) Tackle to be booked out.

5. a) In order to book out the tackle, the borrower must surrender his booking ticket to the Tackle Secretary, or a supervising committee member.

   b) The surrendered booking ticket shall be kept in the Tackle Store until the tackle is returned, where-upon the ticket shall be forwarded to the Tackle Secretary.

   c) In the absence of the Tackle Secretary, the supervising committee member who signs in the tackle, shall sign the booking ticket, which shall then be posted to the Tackle Secretary by the borrower.

   d) To safeguard against possible loss of the booking ticket, the supervising committee member shall record the ticket number in the book provided, and sign the entry.

6. Borrowed tackle must be returned in a clean and proper state. Details of any undue strains to which the tackle may have been subjected, or any damage, must be given to the Tackle Secretary.

7. The borrowers shall be financially responsible for any tackle in their possession. They may be called upon to replace, or repair, any tackle lost or damaged during the period of the loan.

8. In the absence of the Tackle Secretary, the supervising Committee Member shall be responsible to see that only the tackle approved by the Tackle Secretary shall be taken. When tackle is returned, he (or she) shall check that all the tackle borrowed is returned and that it is clean.

9. All decisions as to the use of tackle and interpretation of these rules rests with the Committee through the Hon. Tackle Secretary.

Hugh Browning,
Hon. Tackle & Meet Sec.,
37, York Road,
Paignton.

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New Additions to the Tackle.

As those members who come to the Club Room on Thursdays will know, we are in the process of making another 150 feet of electron ladder. This will bring our total ladder stocks up to 240 feet as was promised at the AGM. in January. This ought to lighten the pressure on the tackle, especially over the holiday periods.

We have bought, on very advantageous rates, 600 feet of Ulstron life-line. This has been in use for a few weeks at Clitters already. Although it has been useful in this one long length, it is expected that eventually it will be cut into several lengths.

The club maypole has been available for sometime, but there has not been the variety of scaffold fittings so as to make the best use of it. We have recently purchased swivel clamps and reveal screws. The clamps will allow the pole to be extended to about 28 feet in one lift, and the reveal screws, which are rather like small screw-jacks, will enable us to fix bars between walls, after the fashion of the adjustable stemple.

Well, ...we now have the facilities to go higher and deeper than before, what we need now are for some members to put them to good use, and that shouldn't be too difficult. Lets have even more new discoveries!

HJB.

Frementor Mine,

near Gunnislake.

by Brian Poole.

Frementor mine is adjacent to Gunnislake Clitters mine, quarter mile east of Chilsworthy village, NGR.42237227.

We met Hugh and his mates, who had come down by car, near New Bridge and made our way through the woods to Frementor. We arrived on the mine about 11.30 am. and went through the usual rituals of feeding and changing. Hugh decided that we should ladder the far eastern end of a gunnis, since there were plenty of trees to which we could belay. This was also the safest part of the gunnis to ladder, as the walls further along were soft and crumbling.

We rigged the pitch, and Hugh descended, belayed by Dave Hobson, while some of the others went to inspect an inclined plane, a few yards away. All went well with the ladder climb, and Hugh could see the bottom of the gunnis, but although the ladder reached the bottom, the life-line was not quite long enough, so Hugh had to come up again. He said that it was about 80 feet to the bottom, and as we were wondering how to turn a 100 foot life-line into a'120', we were amazed to hear a shout from the bottom of the pitch. It was the other two chaps who had gone down the inclined plane and found that it connected with the bottom of the gunnis.

We made our way to the inclined plane and found that we could descend to the twelve fathom level of Frementor. We met up with the others at the bottom of the ladder pitch, and then we all pushed on along the level for about 30 feet, over boards, until we came to another pitch. This pitch was from the 12-fm. level to the 20-fm. level, down the side of the large 'Main Chamber'. Hugh and Dave went back up to the surface via the Incline Plane, to fetch the tackle. The ladder was belayed to a fixed railway line, and the life-line was attached to a large boulder. Hugh descended first, followed by me and then Roy Atkin, while Dave stayed at the top of the pitch to belay.

We had a general look around the Main Chamber, and then we decided to head east along the 20-fm. level. This is in fact, two parallel drives, one dry, and the other with a flooded winze in it. As none of us were anxious to get wet, we took the dry level, which went for about 40 ft. before we encountered a blockage. Along this level tram-rails were laid, with overhead pulleys and ropes to haul the ore wagons. Hugh noticed that we could pass the blockage by crawling through a one foot high squeeze. Having done this, we found ourselves in a small chamber in which were the remains of a compressed air engine. This was evidently used for working the overhead pulleys and cables, as

three levels focused on it. One of these went east but ended after 30 ft.; the other however, looked quite promising, as it had water in it and headed towards the river bank. This proved to be an adit, but we decided to leave it for Dave to explore while we went back to the Main Chamber to take a look at the westward continuation of the 12-fm. Getting to this was an easy matter - we just had to climb up a heap of rock.

Upon entering the level, we noticed that the tram-lines and air pipes had been lifted and stocked at the end of the level. We explored the level, taking care not to damage some attractive white stalagmites with red centres, up to a blockage. This occurred about 120 ft. from the Main Chamber and appeared to be a fill from the surface, as we noticed roots in the roof.

We made our way back to the Main Chamber where Hugh went up the pitch so that Dave could have a go at the adit, accompanied by Roy, one of Hugh's mates, and myself. We made our way to the Engine Chamber and entered the water in the adit, which was about three feet deep, and neither too cold nor exactly warm. With Dave in the lead, we followed it for 100 ft. where we entered a small chamber. This was filled with earth and roots in the roof told us that we were near the surface; moreover, we could hear the river flowing by outside.

As the earth was fairly soft, I decided to do a rabbit act and burrow at the roof. To my, and everybody elses' surprise, my act became quite profitable - after burrowing through six inches of soil I came to the surface. I promptly enlarged my burrow, and soon four muddy trogs emerged from a 'rabbit hole' in the river bank.

Having noted our position, we re-entered the adit and made our way back to the pitch where we informed Hugh of our discovery. Two of us climbed the pitch, and belayed Hugh down so that he could have a look. While Hugh and the others went out via the adit, we unrigged the pitch and left by the Incline Shaft.

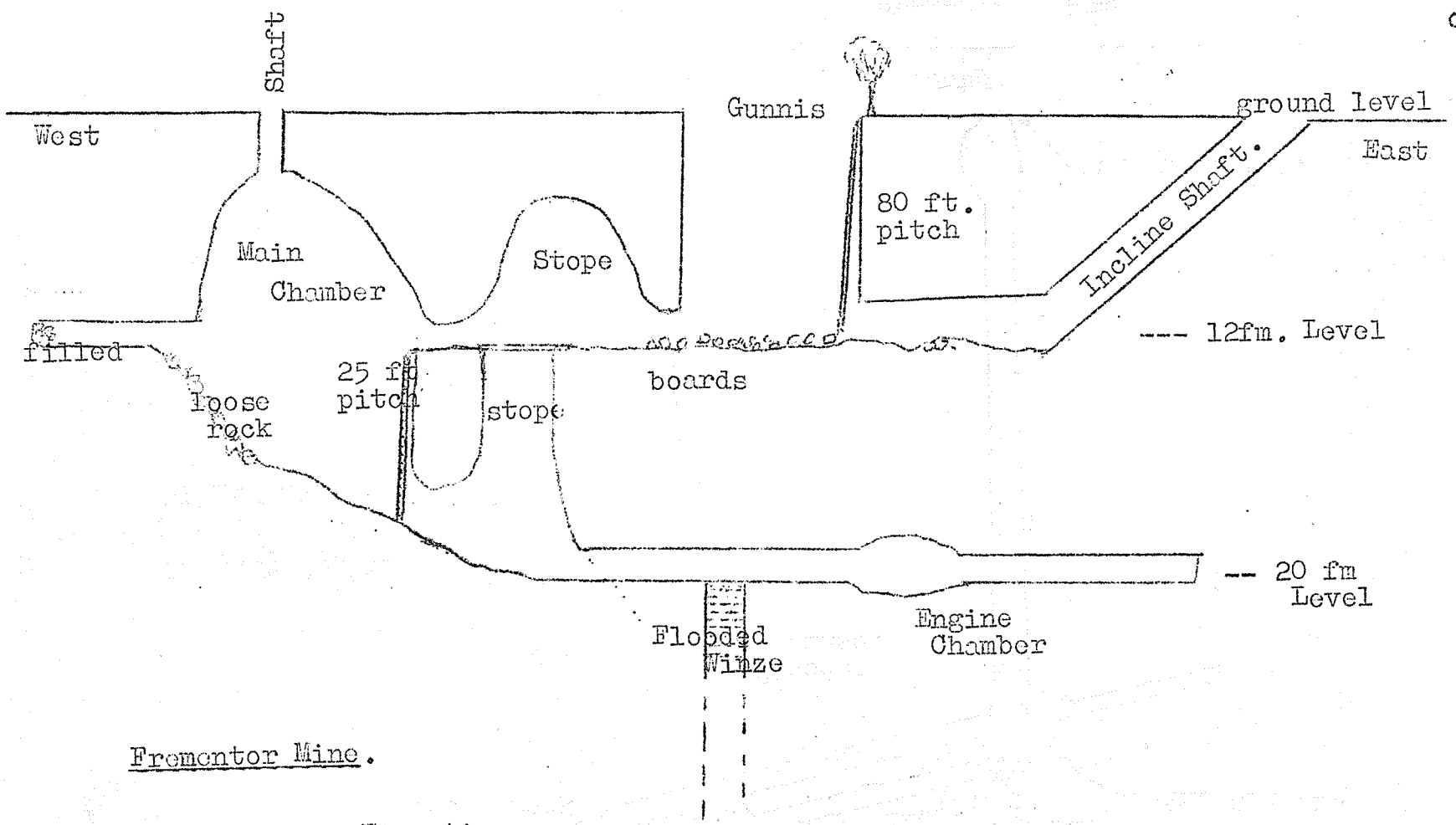
Although Frementor has only about 700 ft. of passage, which is not much for a mine, it gave us some fine sport, and a very worthwhile day.

BRP.

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Editor's Note.

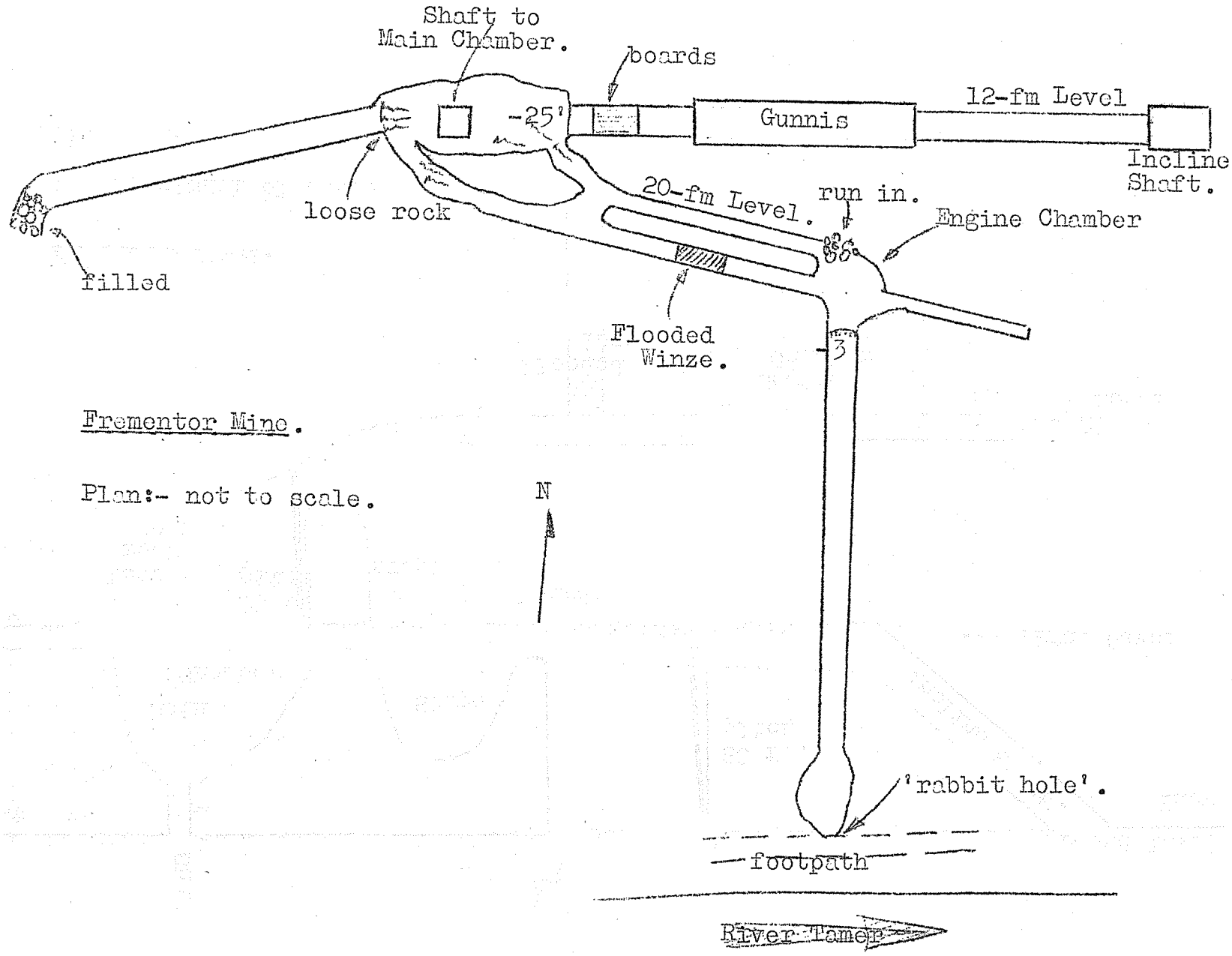
I have heard from the traditional 'reliable source', that our intrepid heroes were not alone when they emerged on the river bank. Apparently two aged, and eminently respectable ladies were taking an afternoon stroll and were more than a little surprised to see a hole suddenly appear and from it, come, crawling, four filthy, muddy individuals. I'm glad to report that they have now fully recovered.



Fremontor Mine.

E-W Sectional Elevation.

Not to scale



Fremontor Mine.

Plan:- not to scale.

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Down among the boulders.

by Bob Cawthorne.

In the last newsletter I reported the finding of an extension to Kitley Show Cave, and since then other changes have been made.....

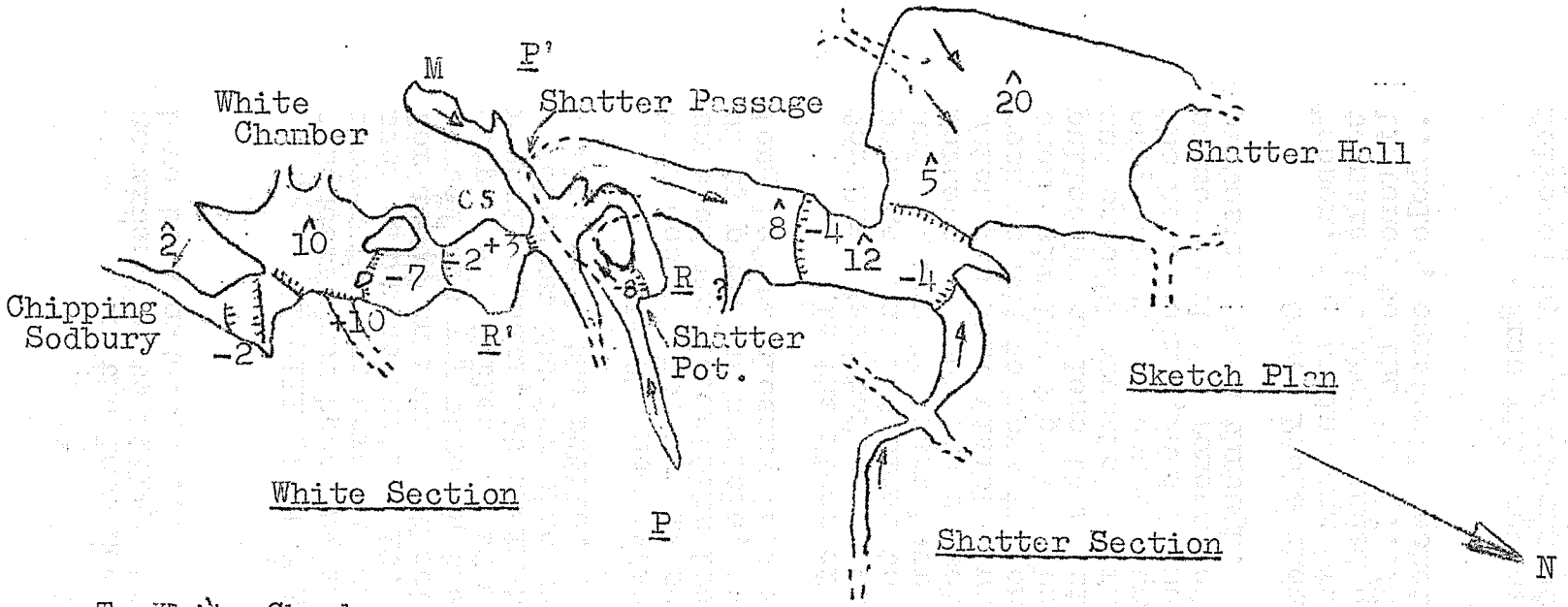
I will start this description from Chipping Sodbury, a squeeze fast becoming immortal for living up to its name. The reason for its name has already been explained and it has done much since to justify it. On Feb. 5th it was chipped at again for about an hour without improvement. Steve Harris had just cursed his way through the squeeze when the roof collapsed and completely filled it. After spending a little while digging and removing rocks, it again became passable, but unfortunately the chamber on the far side was reduced to a passage, having been filled with the rubble.

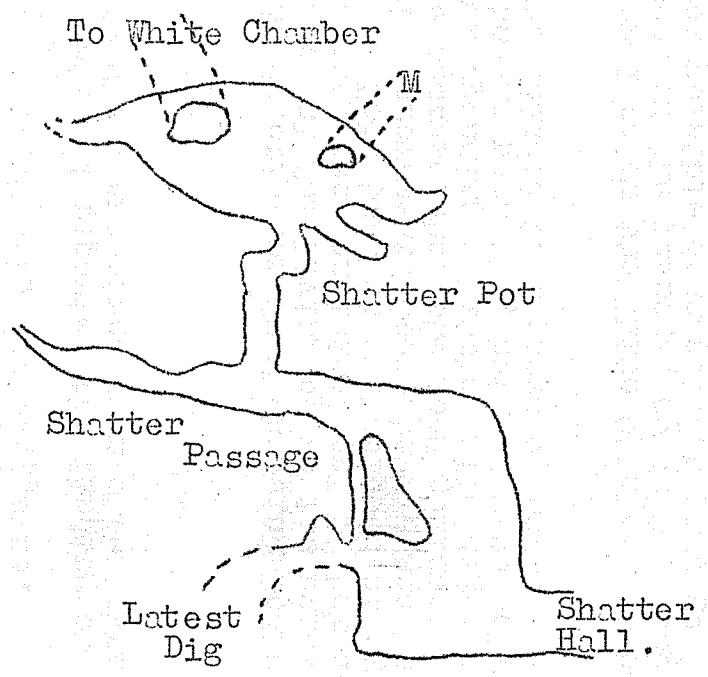
In C4, now referred to as the White Chamber, it had been decided not to dig some of the passages so as to preserve some of the formations from possible damage. The passage 'M' of my previous article, has been found to be only twelve feet long before closing in a small chamber with some formations.

In the floor of C5 there was a small hole going down for five feet before it was blocked with rocks. It was this passage that I decided to turn my efforts to, for this week, and so, for the next hour or two, it was a case of 'scalpel, forceps, hammer and chisel Howard,....HOWARD!' The passage, which was just visible, was blocked by a rock, but to move this rock we had to move the one next to it, and so on. These rocks, each weighing over 150 lbs. were eventually moved by a rope pulled by no less than six people, together with much balancing and careful crushing of fingers. When at last we got them all out, Howard, of course, was the only one who could get through the hole behind, and it needed much furious bashing with a hammer, and the removal of a sweater, before I could force my protesting ribs through.

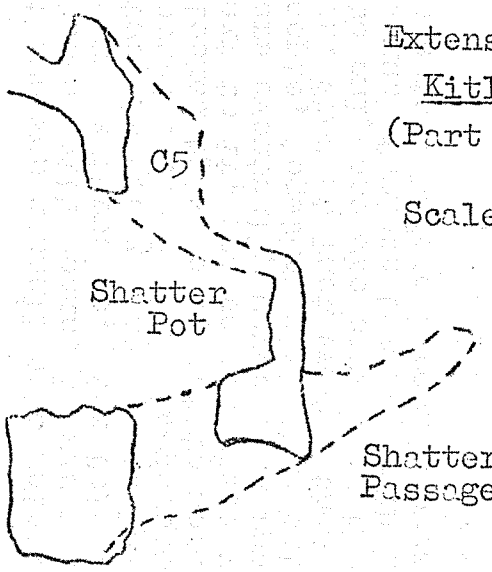
Steve Poole then came through, but the others, Dave Hobson, Roy Atkin, and Steve Harris, were unfortunately unable to make it. They sounded quite happy however, as from below we listened to the 'THUD...THUD, Groan, Silence, this ....hole', constantly echoing from above. Now to business.....

From this squeeze, which is another awkward triangle followed by a right-angled bend, the passage drops almost vertically for about ten feet between large fractured boulders. This has already been dubbed 'Shatter Pot' by Dave, thinking ecstatically, and optimistically, of Swildon's. At the bottom one comes into a passage at right-angles, running downhill. Up to





Sectional Elevation PP'



Sectional Elevation RR'

Extensions to
Kitley Show Cave
(Part 2)

Scale:-
About 1" = 10'

12

the left it closes after some fifteen feet in a mass of boulders; to the right it slopes down for ten feet and turns right again into a larger passage - Shatter Passage. This passage is about twenty feet long , widening to eight feet high, fifteen feet wide,as it enters a large chamber, about thirty-five feet long and twenty feet wide, with a roof height approaching twenty feet in places. The whole of this section is formed among hugh slabs of rock which have been cracked and fractured. I would guess that this is on the same level as the Blasted Passage in the older section of the cave. There are several small passages which run off from this chamber, but they are mostly full of smaller rocks and silt. None of these is more than twenty-five feet long, but all could be easily dug.

Needless to say this chamber is called 'Shatter Hall' and this the third extension - Shatter Section - the earlier ones being the Boulder Section and the White Section.

About ten feet along the side of Shatter Passage, Howard, never satisfied, has already started again and has uncovered a hole which appears to rise up about six feet and enter another chamber. So, perhaps next week, we shall have the Blue Pencil Section.

I'am afraid that the entrance to these extensions is extremely restricted to put it mildly and it is an advantage to be made of rubber. Again I would remind you that this section is among boulders and is <u>dead</u> dangerous, so treat it with respect and be careful.

<u>RC</u>.

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<u>Editor's Note</u>:-

Bob tells me that the extensions now total nigh on 330 feet, and there is the prospect of more to come.

What exactly is the cause of this hugh boulder jumble in which these extensions have been formed is not clear and if anybody can offer an explanation we should be pleased to hear from them. Several of us tend to think of it as the shatter zone of a fault. If this fault was trending north-south and the passages formed along the length of it, we would expect the shatter zone to affect the rest of the cave and to outcrop in the quarry itself, but there is no evidence of this. Thus, it is more likely that the fault trends east-west, which would take it clear of the cave and quarry, and the cave passages are formed across it. If this is so Bob & Co. could expect to reach the other side of the fault zone into solid rock.

Then again this could be completely wrong.

Skinners Engine Shaft - Gunnislake Clitters.

by Hugh Browning.

We had planned to do a trial run in this shaft on Sunday 13th Feb., but due to transport difficulties, the trip was postponed to a later date. However, at the last minute Dave Goodwin stepped in and offered transport. The trip was hastely rearranged in total chaos and some people who thought that they were going to Wheal Robert, found themselves being abducted to Gunnislake.

We rigged the first 45 ft. with ladder and set up the winch, at the same time as assuring an ancient Cornish gentleman that we were doing any damage. He turned out to be quite friendly but we shall have to be particularly careful to do no damage or leave any litter at all.

Our life-lining and belaying was complicated somewhat by the absence of a 60 ft. life-line which someone had taken from the Tackle Store without me knowing. We got over this difficulty soon enough however, and soon had four people in the 45 ft. level. The next job was to put in a piton or rawlbolt a little way below this. This was necessary since the shaft is vertical only for the first fifty feet or so, and then is on a 20 degree south underlie, the piton or bolt being used to guide the rope around this edge. A good place was found about ten feet below the '45' where a small ledge allowed us to drill and place a rawlbolt. There was only one dis-advantage - every drip and trickle landed on the ledge as well.

With the rawlbolt in position, nothing remained but to descend on the winch rope. This began without trouble and even the telephones worked tolerably well. At about 200 feet, or a little less, the way on, at first, appeared to be blocked but closer inspection revealed a small hole in the south-eastern corner. This hole opens out into a level about eight feet down and running in an east-west direction. The level was reached down a 15 ft. ladder hung from a piton, using the winching rope as a life-line. To the east the level appears to split into two.

Underneath the rubbish-pile, which is supported by timbers, and to the southern side of the level, the shaft continues to a considerable depth. In this lower section of the shaft there are fixed ladders and what may be a skipway, or perhaps guides for the pump-rods.

The next task will be to dig through the rubbish-pile and to cut a hole in the wooden platform so as to pass the winch rope through. If this should prove impossible, we will have to fix pulley wheels to guide the hauling rope around the corners,

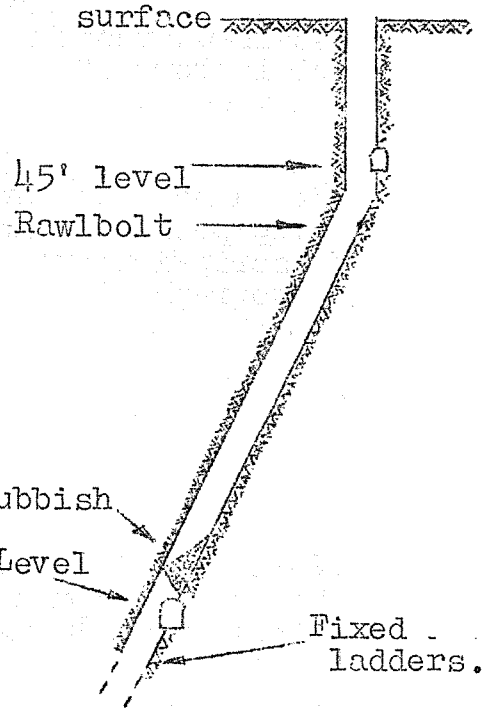
but this would be a poor alternative. Until this is done it is not possible to make a full assault on this shaft.

We were using the winch drum as a capstan, but unfortunately this does not work too well. Now however, I have fitted the steel wire rope for which the winch was designed, and this will be used next time.

Those taking part were:-

Brian Poole, Terry Barbour, Dave Goodwin, Roy Atkin, Dave Hobson, Colin Smith, Hugh Browning and Mike Carter.

HJB.



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Some Recent Publications.

Oxford University Expedition to Northern Spain - 1961.

Cave Research Group. Publication No. 14 - November 1965.
Price: members - 12/6d. non-members - 15/-.

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This publication comprising of 42 pages of print, 9 pages of surveys and 8 plates, will be a useful addition to any club library, albeit that they have no intention of visiting the area.

It is often after reading of the experiences of others concerning the difficulties of running an overseas expedition - particularly one that is trying to carry out scientific work - that one learns of many potential hazards and mistakes.

There are nine sections, each dealing with one particular aspect of the Expedition, together with two short articles describing subsequent visits in more recent years.

I was particularly interested when I read that Rhodomine-B had been used for water tracing. The expedition found it less convenient in remote areas than the more recent Fluorescein-Charcoal method, and this was one factor which the originators of the Rhodomine-B method admit to having not considered.

This publication is printed by a process that is to form a new, and even higher, standard for all Cave Research Group publications. I hope that the greatly increased yearly subscriptions to the CRG. will enable better reproduction of photographs than those included with this paper.

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Studies in Speleology.

(Vol.1, parts 2-3; 1965 for 1964-65.) (pp.77, 26 plates)
The Association of the Pengelly Cave Research Centre.
Price:- Free to members, others 25/-.

At long last the second edition of this journal is out, and to re-dress the balance and to attempt to recover lost time, two years' papers have been produced within one cover.

There is one paper in particular that will interest members of the Plymouth Caving Group and this is - 'The Presentation of a Cave Survey' by Michael Rennie. This is the first part of a series on this subject that will appear in future editions; each part written by different authors. Rennie gives a general introduction to this confused and confusing topic and while not putting forward views of his own, sketches the general scene as it applies to the United Kingdom today. It is a well-written and informed article which can be equally of use to the novice surveyor, as to the expert, who perhaps, like all experts, can no longer see the wood for the trees.

Other papers of more than passing interest, include those on Fungi in caves, Bats, and the story behind the Centre at Buckfastleigh. This latter paper is notable in that by representing the arrangement of the various committees within the Pengelly, in a graphical form, the author has done more than any outsider to show that perhaps there are too many committees. Even so, it makes the whole project seem worthwhile and this is particularly useful to those in Devon who were getting just a little fed-up with the numerous variations in personal opinions that were making the voluntary work at the Centre most unpleasant and frustrating.

The Association of the William Pengelly Cave Research Centre: 1966 Symposium.

"Living in the Dark".

Reported by Terry Barbour.

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The Symposium was held at the Natural History Museum in London and consisted of eight short lectures covering together every aspect of the theme - Living in the Dark. Dr. George Black, President of the Association, took on the difficult task of Chairman, having to keep the lectures to schedule and not let them run over out of Museum hours.

The Earl of Cranbrook, the first speaker, apologised for being a non-caver and promptly began lecturing on the food cycle centred around bat guano in tropical caves, He also dealt with those birds which use an echo-location audible to the human ear, to navigate in these caves. At this point, Brigadier Glennie was quick to point out that these birds were only flying in the immediate vicinity of the cave entrance. The lecture bore a marked resemblance to one of the recent 'Adventure' series on BBC. television.

Plants under conditions of reduced lighting, was the subject of the next topic given by Dr.D.H.Dalby. Plants under reduced light, he explained, were to be found living under the shelter of shady woods, between rock clefts and fissures, as well as in the treshold zone of caves. Most of his experimental work had been concerned with the Bryophyta, i.e. liverworts and mosses. A series of photo micrographs showed the various ways in which the Bryophyta had become adapted to the reduced light; for example, thinning of the leaves and varying amounts of chlorophyll and chloroplasts. His work in a disused mine adit had shown that plants tended to arrange themselves in the reverse order of their evolution in the entrance zone, ie. Angiosperms (flowering plants) nearer to the light, then the Pteridophyta (ferns), Bryophyta, lichens and finally the algae. Dr. Dalby mentioned one interesting formation in this mine, where a stalagtite, tending to grow vertically downwards, had a moss covering which tended to grow towards the light; the formation, as a result, becoming a helictite, inclined at an angle to the vertical.

The next lecture of the Symposium was given by Mr.K. Harris, on Cave Invertibrates. Mr. Harris's talk was mainly a general survey on the various types of troglophile, trogloxene,

and troglobytes, giving statistical evidence to compare the varying numbers of species found above and below ground. This evidence illustrated how very few species of troglobyte, ie. true cave dwellers, there really were. Carefully having glossed over the idea of pre-adaption to the cave environment, the talk turned to the cave environment itself. During the following discussion our old friend Niphargus glenniei, (the blind cave shrimp found at Buckfastleigh by Brig. Glennie), seemed to be the focal point.

The final lecture for the morning was a first class review on Blind Cave Fish. Dr. Greenwood talked of the problems of such fish, principally navigation, which has been overcome by an advance form of the 'Lateral Line' system, present, to a greater or lesser extent, in all fish. The principle of this is somewhat analogous to Echo-location in bats, whereby the wave motion set up by the fish swimming through the water, is reflected off obstacles and received by the nerve receptors situated along the Lateral Line. One problen, as yet unsolved, is how the fish distinguishes between the sexes during mating, since the process is visual in other fish. Dr. Greenwood then put both sides of a rather complicated argument as to why the fish had, in fact, lost their sight. One idea was that the reduced food supply in the caves resulted in a reduced metabolic rate which in its turn was responsible for a slow rate of embryonic development. Certain organs such as the eye, however, required a fast rate of embryonic development and so failed to develop. The other side of the argument was, briefly, that where the food supply was reduced there occurred an 'economy of assimulated tissues', that is to say that due to the lack of food, there was no point in developing useless structures such as the eye.

Dr.Greenwood said that some of the fish, although without eyes, could distinguish light from darkness, but this was only in fish which had lost their colour pigment. The pineal gland, an out-growth of the brain - sometimes called the 'third eye' - was responsible for this phototaxis, since this gland was then close enough to the surface to be light-sensitive. That this phototaxis is due to the 'third eye', has been successfully proved by the research workers placing 'caps' over this gland.

After lunch, the Symposium opened again with what could only be a very general talk by Mr.M.Blackmore on cave bats, since the speaker's time was severely limited. He did, however, manage to bring out some very interesting points regarding static and dynamic caves and their colonisation by the bats. He also spoke of echo-location and long distance colonisation, eg. the Mouse-Eared Bat which had colonised certain British haunts from the Continent.

At this point there was abreak for tea and general conversation, with a chance to view the various exhibition stands, which dealt, mainly, with Dr. Sutcliffe's bones. Also there were some carefully prepared slides from Mr. Harris, on

cave invertebrates, as well ink drawings and photomicrographs.

After tea, Dr. Andree Rosenfeld gave an extremely interesting talk on the topic 'Man in Caves', from the archeological view point. Dr. Rosenfeld started by humourously denying any evidence of the existance of echo-location in Homo sapiens. Her findings - mainly in Continental caves - show that pre-historic man had used only the entrance zone of caves for shelter; in much the same way as they would have used rocky overhangs for protection. Occasionally, when the weather was particularly adverse, man would enter in, perhaps as far as the twilight zone. It was only with the coming of man in his modern form that the cave was penetrated to any distance, or used for any reason other than shelter, eg. as burial caves. The slides taken during her trips to the various caves containing archeological remains, although of poor quality due to difficult conditions, showed some startling finds. Scrabble marks and footprints made by ancient man floundering around in the darkness were still clearly visible, as were various 'symbolic' marks. Other slides were of cave paintings and statuettes moulded from clay.

Dr.A.J.Sutcliffe, described by Dr. Black as the reincarnation of William Pengelly, then spoke on Cave Palaeontology. He explained that the main deposits of bones discovered, could be divided into two catagories. Firstly, there were deposits, such as the one at Joint Mitnor, caused by animals falling down holes in the ground. These deposits comprised mainly of herbivours who were grazing on the grass around. The second type of deposit was where animals had used the cave as a den. These deposits would not only comprise of predators which came to grief in the cave, but also of the remains of the pray, eg. Eastern Torrs Quarry Cave at Yealmpton. Slides were shown of the excavations at this cave and at Joint Mitnor, together with slides of bones.

During the excavations at Torbryan, Dr.Sutcliffe, following in the footsteps of Widger, uncovered a bottle containing a message written by Widger. A slide of Mr. Widger, showed a gentleman who bore a marked resemblance to a certain HJB. who is well-known to all of us.

The Symposium came to a hasty conclusion, since the lectures were running behind time, with a plea for cave conservation by Mr John Willmut, who showed slides of the various damage that has already been done.

Although London is a long way to go just for one day's lectures, those who attended the Symposium were well pleased with it. The topics were varied and, in general, most interesting, and the speakers themselves were a distinguished cross-section of the interested scientific community. As has often been said before, it is to be hoped that the proceedings of the Symposium will be published to bring them to the attention of a wider section of the speleological world.

TFB.

Meet Reports.

Kit Hill 19th/20th Feb.1966.

Leader: Bob Jeffery.

Party: Roy Atkin, Hugh Browning, Rod Bray and Terry Barbour.

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The Gods had it in for us that weekend alright, but despite this, an admixture of hardness and insanity turned up, making five of us in all. We put the tent up in a moderate breeze and came to the conclusion that there was nothing awe inspiring about gently billowing canvas. By one in the afternoon, we were ready and staggered off uneasily towards the nearest shaft, festooned with ladders and rope, and bristling with a selection of status symbols and D.of E. awards.

We rigged the first,and what a failure it was, and moved on to the second, a solid 30 footer in granite. We were soon all at the botton, with varying degrees of skill, and followed an east-west level which soon came to an end. There was a left-hand turning leading to a steeply descending slope which soon closed as well. Back at the shaft again we took a steeply descending passage which branched to the left and right. The left turning led us through a stope and into a gallery, whose floor was occupied by a flooded winze where Hugh provided the laughs by falling in. We moved to the other part of the level which was filled with water to that critical body level where you start to wonder why the hell you do it for sport. There was nothing of particular interest here and we left these workings and moved on in badly deteriorating weather.

The next working was a steeply inclined hole about eighty feet long and fairly roomy. It was devoid of interest.

The next shaft was a little over 45 ft. deep and we were all soon at the botton, with the exception of Roy who returned to the tent. A level carrying water was run in and we followed a level northwards, which ended after a couple of hundred feet. The only way on was down a twenty foot winze and here we discovered that we had left all the spare ladder up top. With a "heads-you-win, tails-I-lose" agreement, Hugh was nominated to go and get them. HHe was soon down again and we rigged the pitch. 'Leaders first' was the order of the day and I was about halfway down when there was an outburst of fiendish laughter. A wall of liquid poured over the lip of the climb, splattering off my helmet and down my back. Afterwards, it took a lot convincing me that it was actually pure mine water.

This lead into a north-south crosscut which we

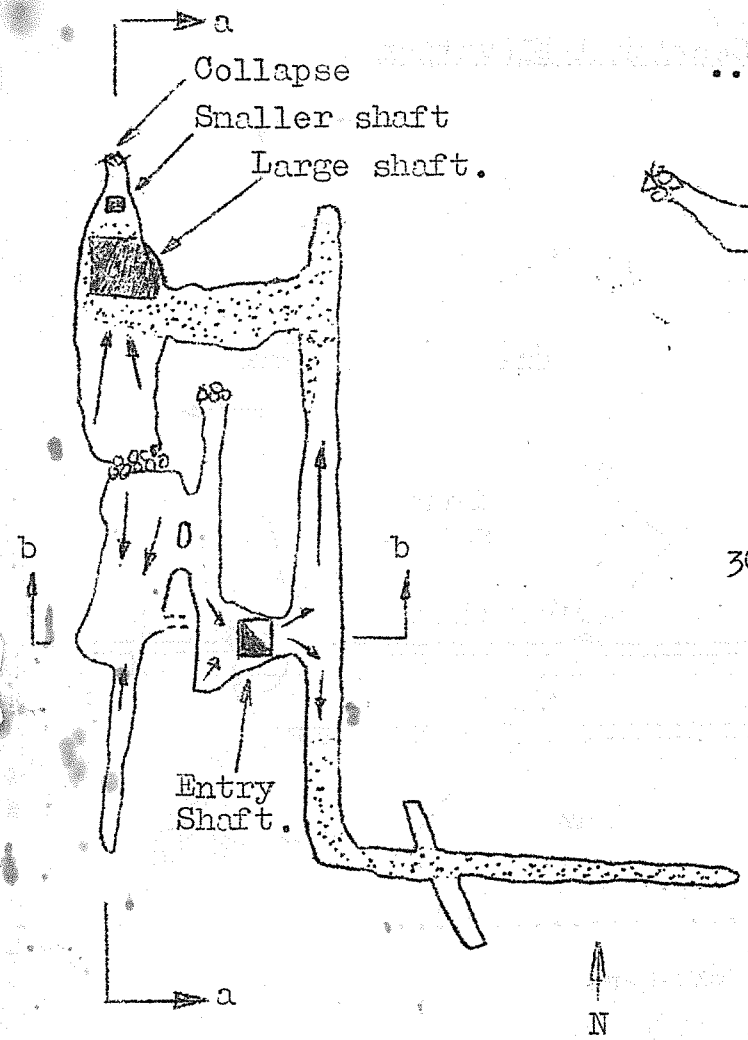
followed first upstream and then down. Downstream was the most interesting, and this led past a shaky ore-shoot into a fair-sized stope. The level appeared to continue under a pile of deads, and,as the saying goes, we rushed in where angels would fear to tread, and threaded our way through this wall of death into an area of rock falls and doubtful timbers. After spending some time here, we went back to the stope to follow its westward continuation, where one of the more sadistic members, found ancient sticks of gelignite while the rest stood quaking.

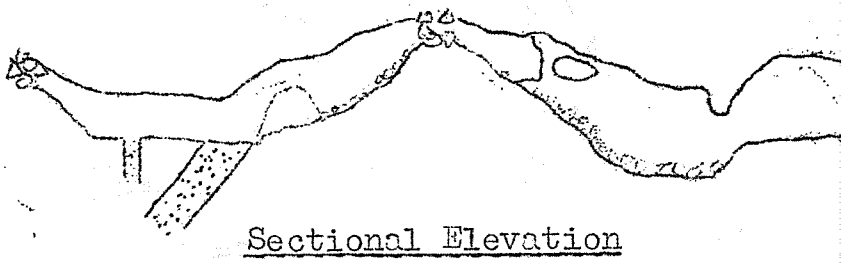
This was the lot and we got back to the surface where conditions were foul - thick mist and driving rain. We found the track, and followed it downstream, literally, only to reach the tent and dice with death a second time with Terry's cooking.

After sixteen hours of teeming rain during the night, we felt inclined to stay above ground the next day and spent several pleasant hours just pottering around.

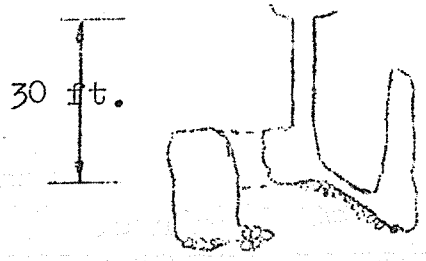
RJ.

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Sectional Elevation a-a



Sectional Elevation b-b

Kit Hill.

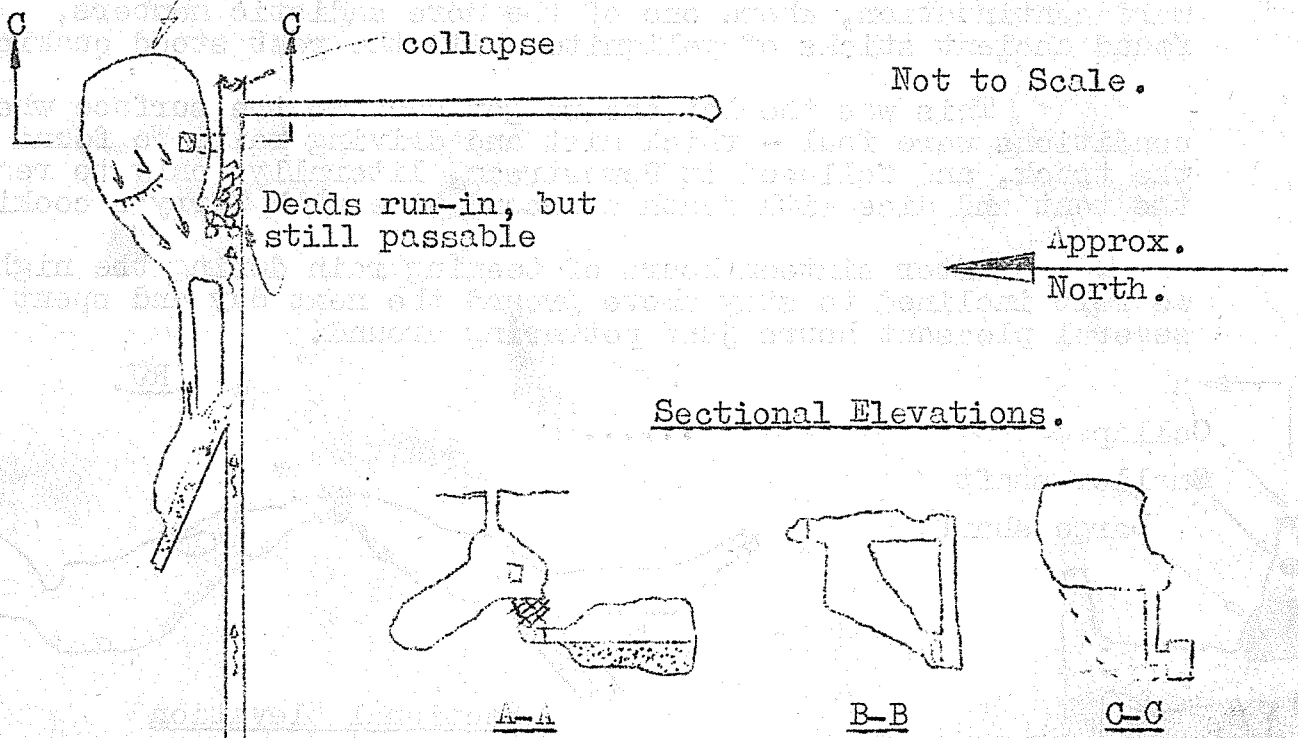
see Meet Report - Mine No.1.

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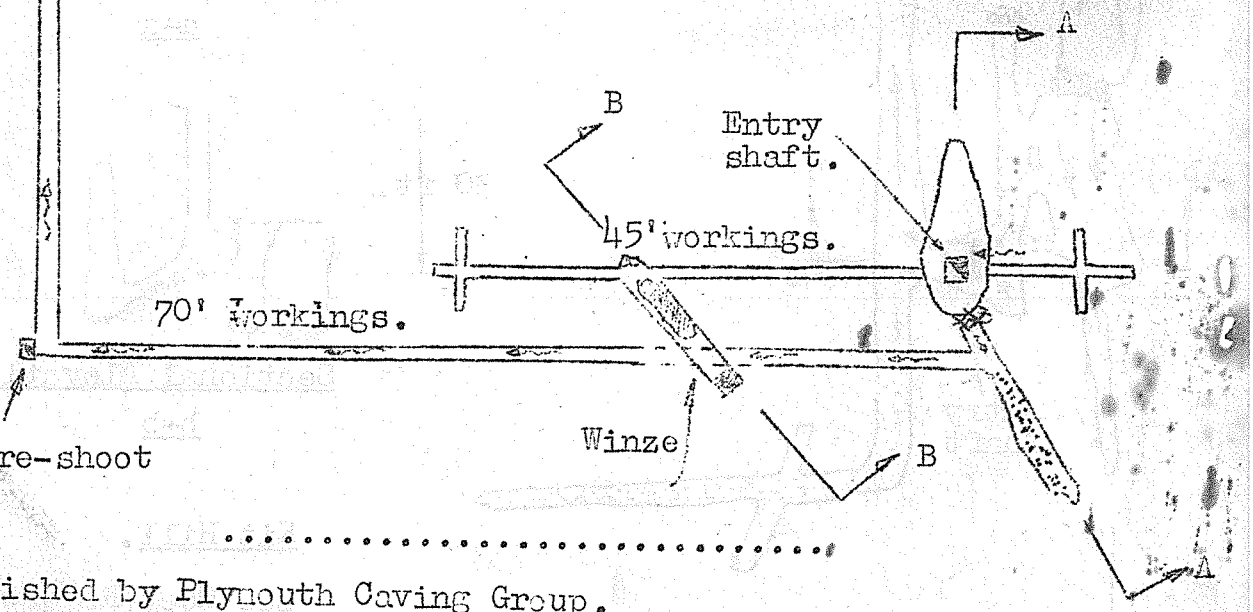
Kit Hill

see Meet Report - Mine No.2

Not to Scale.



Sectional Elevations.



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Published by Plymouth Caving Group.

Hon. Editor, R.C.Bray,
51, Dale Gdns.,
Mutley,
Plymouth. Tel. 62201.