

FOREWORD

I feel I must take this opportunity of writing a few words on George Williams. He joined the Club towards the end of 1938 at an age when most people are past active caving and was elected to the committee at the 1939 A.G.M. He took over the Treasurership from Ken Humphries in October 1940 and continued in that office until the last A.G.M. He was elected Chairman at the 1952 A.G.M.

We always turned to him when there were any tricky financial problems, and without his help it is doubtful if we could have obtained the Hillgrove hut. No other member has rendered the Club such financial help with gifts and loans, in fact it would have been difficult to have got along without this help.

The Annual General meetings of the last few years have been rather a strain beginning with an attempt to limit to three years the period any member could hold the position of Secretary or Treasurer. There have been some rather unpleasant incidents at these meetings sponsored in the main by people who only come into the Club's orbit on these occasions, and in the end, George decided he had had enough.

Headquarters The Hut Warden is very concerned about the habit of members of wearing heavy boots in the hut. Would all members please co-operate with him in trying to avoid unnecessary damage to the floor of the hut.

Hen Sec. F. Frost, 22 Wolseley Rd., Bishopston, Bristol 7.

Phone :Bristol 44221.

Hon Treas. Mrs. D.A. Willis, 15 Hooper Ave. Wells.

We welcome the Following new Members

R.N. Barbor-Might, 14, Rivercourt Rd. Hammersmith, London W. 6.
J.H. Barrett, 15, Leicester Walk, St. Annes, Bristol 4.
D.J. Berry, 1, York Place, Bristol 1.
J.P. Church, 35 Rayens Cross Rd. Long Ashton, Somerset.
A.P. Dearling, 46 Grayham Rd., New Malden, Surrey.
C.J.V. James, "Hallen Lodge", Hallen Rd., Henbury, Bristol.
I.G. Lennon, 8 Druid Rd., Stoke Bishop, Bristol 9.
M. Padfield, 4, Ryde Rd., Knowle, Bristol 4.
P.B. Peckham, 40 Hazelbury Rd. Knowle, Bristol 4.
G.H. Pointing, 10 Green Lane, Avonmouth, Bristol.
C.J. Savory, 61 Lower Redland Rd. Bristol 6.
W.D. Stacey, 1 Claremont Lane, Taunton, Somerset.
S.N. Tovey, 54 Cowling Drive, Stockwood, Bristol 4.
Mrs. M. Wall, (joint membership).

Future Events

G.B. Guest Day, April 16th (Easter Saturday)
Easter. Club Trip to Yorkshire. Names to Hon Secretary.

Subscriptions

These were due on October 1st 1959. Would members please send any that are outstanding to the Hon Treas, Mrs. D.A. Willis, 15 Hooper Ave., Wells, Somerset., as soon as possible.

Full members 10/-
Joint membership 12/6
Affiliated. 1/6.

Charterhouse Caving Committee

As members will know the Bristol Water Works Company has taken over the water undertaking of the Axbridge R.D. C., and while they do not want to curtail the activities of Mendip cavers in any way whatsoever, they feel they must take steps to protect their own interests, and have asked the caving clubs which normally do most of their caving in Mendip, to set up a body with which they, the B.W.W., can deal.

The Committee consists of a representative from each of the following clubs -

U.B.S.S., B.E.C., M.N.R.C., W.S.G., Axbridge C.A.S., Cerberus C.C., M.C.G., Candhurst C.C., Shepton Mallett C.C., Boy Scouts, W.C.C.

The first meeting was held in Bristol on Friday December 11th, and it was then decided that the function of the Committee should be - "to operate the agreement between the Bristol Water Works Company and the Charterhouse Caving Committee licensing caving in the Charterhouse area".

The agreement was not available - the solicitors to the B.W.W., had not completed their work, and as there were no maps to hand giving the exact boundary of the area owned by the Company, the meeting had to confine itself to generalities.

The B.W.W. consider that an agreement is necessary to protect them against possible claims for damages as a result of their giving permission to members of the clubs to cave or dig on their property. They insist on a satisfactory insurance indemnifying them in the event of any such claim. The cost of the agreement and such things as the gating of caves must be met by the member clubs, and it was agreed that irrespective of the size of the membership of each club, this will be divided equally between them.

If, as seems very probable, a substantial gate is fixed to the entrance of Longwood Swallet and August Hole, this, together with the legal costs may cost anything up to £100.

The committee of the Wessex Cave Club are as one in thinking that access to Longwood and August should not be by means of a rota system, and we will try to do all that is possible to get the Charterhouse Caving Committee to agree to a scheme that will enable our members to visit the cave at times suitable to themselves. Your committee also feel that this opportunity should be taken to modify the present rota system used for G.B. Cave.

Control of access to the Charterhouse area caves cannot be avoided, but it is clear that, subject to the safeguarding of its interests, the Bristol Water Works do not want to do anything to hamper caving in this area, and generally speaking they will leave the C.C.C. to work out the methods for access to the caves. In my view everything possible must be done to keep any control to a minimum, and the C.C.C.'s main object should be to help not hinder caving.

As to the other caving areas of Mendip, I must repeat what was said in the Secretary's report, - the Bristol Works, have not the slightest intention of putting any control on caving, there being no reason why they should as they do not own the land. Anyone who spreads rumours to the contrary is doing caving a serious disservice.

Until the agreement is received from the B.W.W. members, as they are covered by an insurance policy, can visit Longwood when they wish on our Guest Days.

Frank Frost.

LETTERS TO THE EDITOR

Dear Frank,

With all due respect for Oliver Wells' experience, I would like to point out that many trips have to be done at night; notably a number of sherpa trips to Swildon's IV. Caving at night is perfectly satisfactory provided that one has a good meal first, and then a couple of hours to digest it. Most people have a 'bad time' at about 0200 hrs., but one can easily rest then. Steven Wynn Roberts, David Farr, Roger Horton and myself have frequently caved all night. I do not think that we were so tired that we lost awareness, or the ability to appreciate our faults, and we have always (touch wood!) had very enjoyable Trips.

I think the maxim should be, "never cave at the end of a tiring day". I am thoroughly.in agreement with the principle of taking down plenty of food (and cigarettes) and, moreover, some means of brewing coffee at about 0200 hrs. A hot drink then works wonders!

N.H. Cleave.

13th November ,1959.

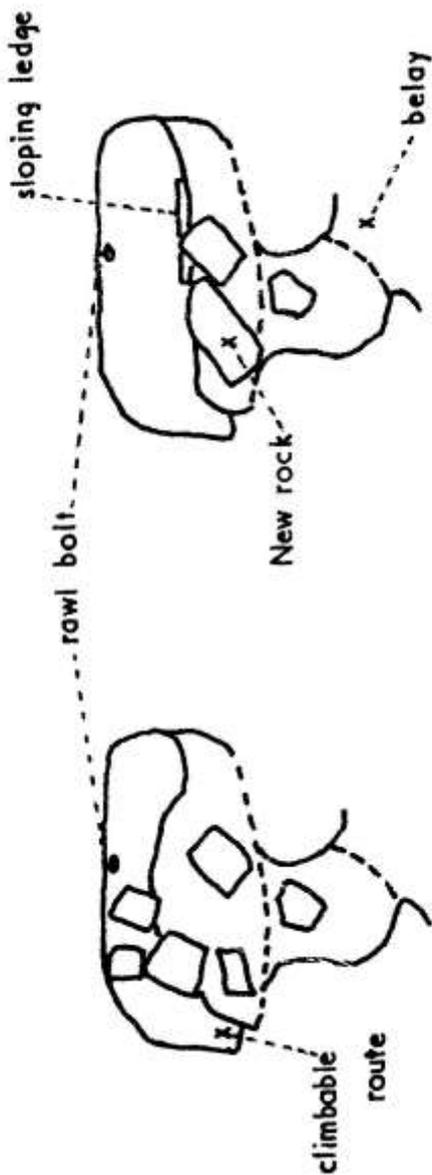
Dear Frank,

Dolphin Route , Eastwater

You may well ask what has happened to the Dolphin ladder pitch! It suffered its disaster about the 28th October. I heard from Mike Baker that his party went down a day or so after and found the head of the pitch a most strange sight. They did not go to the bottom, so on the 7th November I went down with three Spelaeos to have

EASTWATER CAVERN

DOLPHIN LADDER PITCH



Former appearance

The New Look

7. 11. 59.

Sketch plans C. R. G. Grade I.

rcb

a look and see if anything could be done. We found that a rock the size of a sofa had fallen onto the taking-off place and split it in two. An enormous amount of rock had fallen to the bottom. I have made a drawing for you and have marked the sofa-sized boulder 'New rock'. One can just crawl over the top of it. The roof of the passage leading to the pitch is sound. The far wall is now about eight feet away, and the rawl bolt I put in there about two years ago looks quite silly. (Yes, you may laugh!). On looking over the edge one can see a sloping ledge from 15 to 20 ft. below, where the rock has peeled away. This is partly separated from the solid rock of the platform by a mud-filled crack and is highly unstable.

We hung a ladder over the new boulder, belayed well back into the antechamber, after doing a bit of gardening, as some of the mud and rock on the right, though undisturbed, was by now unstable. I then went down the ladder to the bottom taking great care not to disturb the loose sloping ledge. At the bottom I found that at the extreme left the original floor was just visible for about one square yard. The rest of it was covered by loose fall, and we reckoned that the little hole which led to Harris' Passage is now buried by about 15 ft. of rock, boulders, and mud. We regretfully came to the conclusion that the route is now closed for ever. It is far too dangerous to try to shift anything there now, and there is an awful lot to shift.

Funnily enough the climbable route to the left is quite undisturbed, loose rocks and all. One of my companions after looking at it said, as he came up the ladder again, "Well, I said that there were places on Mendip more dangerous

than Fault Chamber, and this proves it!".

Ever Yours,
Oliver.

Letter from Jim Swithenbank (Extract)

This last year has been lots of fun. We fitted the car up for camping and have been off almost every weekend to see Canada and the U.S. For the summer holiday we went to Yellowstone National Park in Wyoming, visiting lots of inter nesting places on the trip (6701 miles). I expect you will be interested to see some of the slides of the geological sights, (erosion, geysers etc.,). The underground trips included an iron mine, a lead mine, a gold mine and 3 caves. All the caves were in the Black Hills area of South Dakota.

Rushmore cave is a show cave about the same standard inside as Goughs.

Wind cave was perhaps the most interesting. It is quite dry and contains about 10 miles of explored passage. There is only one entrance and it is, therefore, quite windy when the ambient pressure changes. The enclosed photo shows the boxwork which is found throughout the cave. As far as I could determine from the Park Rangers, the rock was once shattered by an earthquake and calcite deposited in the cracks. When the cave was formed later, the rock dissolved leaving the 'cracks' as a thin framework projecting out.

Jewel cave is the only cave I have seen covered in spar like Pen Park Hole. It also contains one or two large chambers, and is dry throughout.

The spar is not quite so clear as in Pen Park, and is just about as extensive. This cave we explored with storm lanterns, the other two were electrically lit, and the exit from Wind cave is by a lift!

Parts of Yellowstone are on limestone and the hot springs there form very pretty gours above ground.

P.S. No caves in Canada?

VANDAL AT STOKE LANE SLOCKER

Whilst on our way through the Upper Series of Stoke Lane Slocker on September 27th, 1959 our party overtook a party of youngmen whom we had seen arrive earlier at Cook's Farm on motor-bikes. Save for waders, they were dressed in their ordinary clothes, so having dismissed them as keen novices we bade them "Good Day" and passed on to Sump II. On the return journey we found the two haversacks our earlier acquaintances had been carrying lying in the middle of the stream passage near the entrance. Upon moving them to one side it was discovered that they were filled with, amongst other things, hammers, cold chisels and a fine collection of stalagmites and stalactites. Not feeling inclined to search for the owners we repaired to the farm to await their return. Two hours later when we were picked up by car, they still hadn't come out, so we had to satisfy ourselves by telling Mrs. Stock. Should anyone come across this seemingly organised party of vandals at work on Mendip again, I hope.....

D.T.S. Mogg.

Hon.Secretary's Report for 1958/59

For several years now there has been a steady increase in our membership, but this year while this increase has continued, it was smaller than last year. Then it was 14, this year 6. However, this brings our total membership to 252. This figure includes 23 joint memberships. The number of affiliated clubs was reduced to eight from then.

There is little to report on member's caving activities. The unfortunate death of a caver in Swildons removed some of the impetus from the efforts to extend the known cave, and of course the departure of Oliver Wells to America: meant the loss of the principal diver. At the moment a most interesting dig is in progress on Priddy Green, the party consisting of members of most of the Mendip caving clubs. Our attempt to renew the Club visits to Yorkshire was a failure, but we hope this does not mean the end of these happy parties.

Throughout 1957/58 we were receiving complaints about the behaviour of some of the younger elements at both the Hillgrove and Eastwater huts. One of the members who was most critical of the youngsters obtained a job in Wells so we took the opportunity of making him Hut Warden. Since then there has been no more complaints from that direction, and we began to wonder if everyone using the huts had begun to grow wings and halos. However, when making a mid-week visit to Hillgrove I was relieved to see that the place was comfortably untidy. Your committee by a majority vote decided that the Hut Warden need not pay hut fees, but both the Hon. Treasurer and myself wish to be disassociated with that resolution. - it could set a

very dangerous precedent -. The hut warden has done some good work at Hillgrove, but the fact that he was not a member of the Committee was awkward at times, and we hope to put that right at this meeting.

The Hut Warden was requested that the Eastwater hut be removed to the Hillgrove site, but this was rejected by the Committee. Instead it was decided to overhaul the hut, but this cost more than we estimated. On the other hand the work of Mrs. Willis and Phil Davies and Co., has given us a much more waterproof hut. Holland the Hut Warden said he could not look after both the huts, so Mrs. Willis and Phil Davies offered to keep an eye on the place.

The problem of producing the Journal has been getting steadily worse, and it was not found possible to produce a July issue. We tried to make up for this by increasing the size of the last one to about double the normal.

The future of the Journal is very uncertain, and with the best will in the world it is just not possible to publish one without articles. While the cost is of course very important, this is something that we can get over, the lack of articles is fatal. The publication of the Journal is the factor that has given us our large membership and those of us concerned with it will be sorry to see it disappear.

Oliver Wells' departure to America and Derek Ford to Canada has robbed us of two valuable contributors. We wish them all the "best in their new surroundings and feel they will be back amongst us before very long. One of them has already written to say that reading the Journal makes him long for the smell of Mendip mud and carbide.

The Bristol Water Works Company last year acquired the property of the Axbridge R.D.C. in the Charterhouse area, and have been insisting on more stringent regulation regarding the access to the caves than heretofore. They require cavers to belong to clubs which have taken out insurance policies indemnifying the company against claims in the event of an accident. The Wessex Cave Club has taken out such a policy and its members are continuing their visits to Longwood Swallet and G.B. cave, as in the past. The future arrangements are likely to remain uncertain until the Company enters into a formal agreement with the caving clubs using this area. It must be made clear that the Company is not the owner of any other property upon which caves are situated, and will therefore not be in a position to enforce similar restrictions on entry to caves.

In the Foreword to the last issue of the Journal I said that the financial position of the Club was quite sound. This needs to be qualified. I have not the figures before me as I write, but I understand that the balance in our favour on this year's working is only a small one; too small for us to put anything into the Hut Sinking Fund, for example. We are by no means in the red, but we shall have to watch expenditure carefully in the coming year, and will have to think twice about launching into any new ventures.

The Secretary's job is one which can only be done with help from members of the club, and the help they can give is all the more welcome when it comes at the right time. I want to thank Harry Stanbury who has been ready at all times to help me with club matters of all sorts.

Also, although I have not called on him for help many times this year, I want to thank Oliver Lloyd who has always responded promptly whenever I have asked him to do anything. Brenda Willis who has acted as our hut fee collector, also gave valuable assistance in many other ways.

For some years now our Chairman, George Williams, has been to an increasing degree wishing to relinquish his offices. The burden of carrying on the work of Chairman and Hon. Treasurer has been very heavy, and the time has now come when he feels obliged to resign. We are all very sorry to see him go, but perhaps no one knows as well as I do what a loss this means for the Club, or how much he has helped in the past. Not only was he as Treasurer a sound moderating influence in the Club's finances, but he was one of those to whom one could always turn in an emergency. His successors will find his standards hard to live up to, and will greatly benefit by the work he has already done. I am sure that I can say that the good wishes of everyone here go to him, and that we can wish him all the best for the future.

If, as I believe, this Club is a strong one, it is because of its active caving members. This is as true now as it has always been. As they get older their caving activities may become less, (although the advice they give us may become more) but the Club's reputation as a going concern rests now, as it always has done, first and foremost with its younger members, Good luck to you!

Frank Frost.

ANNUAL GENERAL MEETING

The A. G.M. was held on Saturday, 17th October 1959. George Williams took the Chair at 3.59 p.m. There were 45 members present.

The Chairman began the meeting by reading a letter from Prof. L. S. Palmer in which he gave notice that he had resigned from the Club as a protest against the publication in the Journal of the Survey of Pen Park Hole, and one from Brig. a. E. Glennie who resigned his Vice Presidency for the same reason. The correspondence that had passed between Glennie and the Chairman and the Hon. Secretary were also read. It was agreed that the matter be discussed after the reading of the minutes of the previous Annual General Meeting.

Minutes and Matters Arising

The Hon. Secretary after presenting the apologies for the absence of three members then read the Minutes of the 21st Annual General Meeting. These were confirmed.

The Club was now having to pay rates for its Headquarters, but the Hon. Auditor, Howard Kenney, suggested that it was not worth while making a fuss to get it reduced or remitted. The sum was only about £5 per year. This point of view was accepted. The question of whether it might not be wise to put prospective members on probation for a period of six months was raised by Mr. Holland. After some discussion it was generally considered that the existing safeguards were adequate, and Holland said he would not press the point.

The Pen Park Hole Affair.

A discussion then took place on the resignation of the two Vice Presidents and the events which had led to this. Harry Stanbury had taken over the job of surveying the Hole from Denis Warburton and Phil Davies, but he had been unable to complete it, partly from illness and partly from pressure of work. The measurements had all been taken but the drawings were incomplete. At Prof. Palmer's behest the Hon. Secretary had frequently asked Harry Stanbury for the results but without getting them. Eventually Frost had sent Palmer what he could get, and hearing no more about it presumed that Palmer had received all he wanted for the completion of his report on the Hole. When he published the plan survey in the Journal it did not cross his mind that there was anything in it that conflicted with Palmer. He admitted that as things had turned out it would have been better if he had contacted Palmer beforehand, but he had apologised both to him and Glennie, and he only wishes that his apologies could have been accepted. He felt that it was unfair of them to resign their Vice Presidencies, as this was a slight to the Club, which was in no way responsible for the situation. If there was a mistake it was his and his alone.

The Hon. Secretary's feelings was fully shared by all the members present, who after saying so gave him an unanimous vote of confidence. It was agreed that as soon as the actual survey was completed it should be sent to Prof. Palmer. Denis Warburton told the meeting that some people seem to think that a survey was more or less finished when all the measurements were taken, but this was not so. If anything, there was more work to do after the survey was completed than

was involved in getting the measurements.

The Chairman closed the discussion by expressing the hope that when Prof. Palmer received the survey he might withdraw his resignation.

Hon. Secretary's Report.

This was read to the meeting and is printed on pages 10/13 of this Journal. Mr. C.A.T. Beauchamp moved a vote of thanks and mentioned how much the Journal was appreciated, particularly by those living at a distance. The Hon. Secretary said that while we wanted to continue the publication of the Journal this would not be easy as we were very short of copy. For that reason there might not be as many as six issued in 1950, but he would do all he could. Howard Kenney suggested that it might be of interest to the newer members, if some of the earlier articles were republished. Hywell Murrell let himself in for a job by suggesting that armchair cavers might write about old explorations, such as Cow Hole.

Finance

The Chairman as Hon. Treasurer then presented his accounts (published in this Journal on pages 26/27), and asked for the Hon. Auditor's comments. Howard Kenney replied that these accounts showed the true position. Income had remained the same but expenditure had increased. We were now paying rates as well as Schedule A., and the cost of the Journal had risen by £14. Hut fees at H.Q. were up to £75 and it appeared to be paying its way, but the same could not be said of the Eastway Hut, which had been closed for part of the year for repairs. The surplus was only £8, so that this year nothing could

be put into the Hut Sinking Fund. If, as seemed likely, the surplus were to remain small in the future, then capital assets would not accumulate, and this would leave no money for improvements or extensions. There were two possible economies: money spent on the Journal and money transferred to the Hut Sinking Fund. Neither economy was in the least desirable. He therefore suggested that a small increase in the subscription would not be out of place.

In discussion the following topics were raised.

1. "Property Tax" is Schedule A. It can be reduced by submitting a maintenance claim.
2. Exemption from rates might be effected if the Club were either a Charity or a Scientific Society, but would probably still be payable on the living quarters.
3. The Hon. Secretary had made no claim for secretarial expenses. This was very good of him, but members' gratitude to him was somewhat tempered by embarrassment that he had not even submitted a token figure.
4. The Hut Sinking Fund was a form of subsidy for future generations of cavers. Some thought that those to come ought to be left to pay for themselves, but most thought that it was sound practice to keep the Fund going. After all, we were benefitting from what past members had done. There was no rule stating how much should be set aside each year for the Fund. Each A.G.M. had the duty of deciding the amount after considering the Club's finances. This year nothing was to be added to the Fund.

Life Membership

The Hon. Secretary asked members to consider whether it might not be a good thing to have a Life Membership subscription, so that older members might not slide away from the Club, when they lost contact or when subscriptions were raised. After some discussion, during which the principles involved were set out and the difficulties discussed, it was decided by 27 votes to 6 not to pursue the matter.

Officers and Committee

President The ballot for the Presidency resulted in 73 votes for Dr. F.S. Wallis and 13 for Mr. E. Hensler. After the voting had been completed, however, the following letter was received from Dr. Wallis.

The City Museum,
Queens Road,
Bristol 8.
15th October, 1959.

Dear Mr. Frost,

Since our conversation I have thought a great deal about the Presidency of your Society. It seems that in view of all the circumstances it would be much wiser for me to withdraw much as I appreciate the honour conferred upon me by the members.

May I suggest that perhaps at the present juncture and in light of the recent difficulties it would be wise to leave the Presidency void for the time being. After all you have been without

one since Mr. Balch's death and so even another year or two years would not make any material difference.

I am so sorry and indeed very much regret to add to your troubles and for personal reasons would much like to help you. On the other hand and from the standpoint of the organisation as a whole I feel that it is wiser to decline.

Yours sincerely,
F. S. Wallis.

P.S. In view of my transfer to Torquay next May, I feel that this is an added reason for my decision.

Dr. Wallis had in fact resigned the Presidency, which was therefore left vacant. The Meeting decided without dissentient to accept his advice and leave it so.

Vice Presidents. Dr. D. Dobson Hinton, M. Norbet Casteret, Dr. E.K. Tratman, Dr. F. S. Wallis. To these, by the unanimous acclamation of the Meeting was added the name of Mr. G.E. Williams.

<u>Chairman</u>	L.E.W. Devenish.
Hon. Secretary	F. Frost.
Hon. Treasurer	Mrs. D.A. Willis.
<u>Gear Curator</u>	T.S. Stanbury

Committee. P. Davies, E. Hanwell, J. Hanwell, C Hawkes,
Com. P.B. Lawder, M. Holland, D. Warburton, D.A. Willis.

It was agreed that the one vacancy should be allowed to remain, and that the committee should fill it if a suitable member was found.

Hon. Auditor

H. Kenney.

The Chairman handed over his office, but was asked to carry on.

Motions.

1. "That the annual subscription be increased to 15s. for ordinary members and £1 for joint members". That to this proposal be added an agreement (not for insertion into rules) "If accepted by a majority of members present at the A.G.M. 1959 this ruling shall apply with effect from the moment of acceptance. Proposed by D.C. Ford, seconded by G. Candy.

The meeting considered the second half of the motion unworkable and agreed to delete the words following "...for joint members".

Howard Kenney proposed an amendment limiting the raising of subscriptions to 12/6d. for ordinary members and 15s. for joint members. in the discussion no arguments put were stronger than those which had already appeared on the Income and Expenditure Account. Members wanted their Journal. They wanted to put money into the Hut Sinking Fund. They wanted more tackle. The armchair cavers wanted to support the active ones. But they appreciated that all expenditure had to be carefully watched. Kenney's amendment was negative by 21 votes to 11 and Ford's shortened motion was carried by 26 votes to 10. The raising of subscriptions will become operative on 1st October, 1960.

2. The motion "that the Hut Warden shall be ex officio a member of the Committee, standing in the names of D.C. Ford and M. Pym was accepted.

3. Rule 4. Delete final sentence and replace as follows - "The President shall be elected for a period of three years and shall not be eligible for immediate re-election. The Vice- Presidents shall retire annually and be eligible for re-election". Proposed by C.H. Kenney, seconded by H. Murrell. Kenney said that he would have withdrawn this motion, if Dr. Wallis had not resigned. He felt that if one did not have a permanent President, the Club could bestow an honour on a different person every three years.

The Hon. Secretary spoke against the proposal. It may be that it would be in the interest of the Club to change the President after one year, and under the existing rule this was possible. On the other hand if the Club had a President of high standing such as Dr. Wallis it would be very much in our interest to continue to have him as President. The step suggested a little circle of people and was a retrograde one. Because a person had been a member for a long time or was a founder member this did not mean that others had not also been good friends to the Club. He was in favour of a President who was above the politics of the Club.

Murrell said that the Hon. Secretary was not drawing the correct conclusion as to the kind of President they had in mind, and who they might want as President for three years. After some more discussion, the motion was put to the vote and was lost, 17 being against and 16 in favour.

4. Rule 18 After the words "Hon

Secretary" delete "not less than three weeks before the date of the meeting" and substitute "not more than two weeks after the posting of notices of the meeting". Proposed by H. Murrell and seconded by C.H. Kenney. It was felt that members ought to have more time to consider, frame and send in their motions for the A.G.M.

The motion was carried by 28 votes to one.

During the discussion on the motion the Chairmen elect, Luke Devenish pointed out that members were not limited to the time after receiving the notice of the Annual General Meeting before submitting a resolution. In fact they could send in any time during the year, and it would be quite in order if a motion was drawn up now for presentation at the next A.G.M. In reply to this, Hywell Murrell remarked that some people had work to do and could not be expected to remember the Annual Meeting without a reminder.

George Williams then asked Luke Devenish to take over the Chair, he wished him luck, and thanked the members for the support they had given him. He received an ovation from all those present.

Luke Devenish from the Chair paid tribute to the work done by George Williams. The Club did not fully appreciate the colossal service he had given them. His practical help and generosity had frequently kept us out of the red.

Cave Rescue Organizations.

The time was now 7½ minutes to seven, and Luke Devenish called on Dr. Oliver Lloyd, as Hon. Secretary and Treasurer of the Mendip Rescue Organisation, to fill these remaining minutes by speaking about "Cave Rescue

Organisations". Into these 7½ minutes Dr. Lloyd packed about 20 minutes worth of information, partly about the M.R.O. Apparatus Research Fund (already described in the September number of this Journal) and partly about the inter-relationships of the other cave rescue organisations in England and Wales. A meeting had been held at Settle on the 19th September attended by nearly all these organisations, at which each described its own mode of operation, the number of cavers it could call on in an emergency and the availability of specialists. It was news to M.R.O., for example, that a caving doctor was regarded in Yorkshire as a "specialist" seeing that on Mendip they were two a penny. The most important decision of the meeting was that the correct procedure for calling on outside aid was to do it through the police on the recommendation of the Rescue Warden in charge of the operation.

By the Chairman's leave, Dr. Lloyd then took a collection in aid of the M.R.O. Apparatus Research Fund, and this realised the unprecedented sum of £25, a record which other clubs are going to find hard to beat.

The Annual Dinner.

Some time ago I thought it would be a good idea to have a "faked" guest, and as members of the committee said they could get a friend who could play the part of a foreign spelaeological expert, we decided to go ahead with the plan.

Unfortunately this 'expert' had to cry off at the last moment, and the dreadful mistake was made of asking a local (non-member) caver to fill the gap. I knew nothing of this change of plans, and as far as I can see it was Holland who

suggested to the entertainment that this man could act the part.

The result was a speech that gave grave offence to the vast majority of our members and guests, particularly to the ladies who were placed in the embarrassing position of being forced to listen to this man's remarks.

This speech set the tone of the whole proceedings and what with the poem that was of no interest to anyone except the man who recited it and the idiotic song (so called), it was obvious that this was not a Wessex Dinner at all, just a display of childish behaviour, and most people were relieved when it was time to leave.

I have received a large number of complaints about the whole affair, and am printing herewith a letter from Jack Duck, one of our Founder Members.

I can only offer my sincere apologies to all who were offended by the behaviour of those concerned.

Frank Frost.

Letter to Hon. Secretary

My Dear Frank,

I did not have an opportunity of talking to you after the Wessex C.C. Dinner recently, so I have decided to write you.

The condition of the W.C.C. (of which you are aware I am a Founder Member) depresses me greatly. My active caving days are now passed, and I am unable to take a practical interest in the work which is going on; but I am keenly interested in the welfare and the prestige of our Club, and enjoyed turning up

to the Dinner as and when circumstances permitted,

On this recent occasion, however, I was simply horrified to see you and George Williams, both of you having served the Club diligently and faithfully for many years, seated on one of the side tables. The President or acting president was, I believe, not even a member of the W.C.C.

During the few words we did manage to have you informed us that you had turned over the arrangements to the younger members on this occasion. I imagine you felt compelled to do so due to pressure of circumstances, and I don't blame you; but if this is the best effort they can produce, the sooner somebody with experience and some sense of decorum regains control the better for the good name of the Wessex C.C.

Don't think I am prudish - I don't want the thing to become a Lord Mayor's Banquet - and I have done my share in earlier days in chair breaking and a certain amount of ribaldry - I don't object to this; but the Annual Dinner (no matter what happens afterwards) should in my opinion be conducted with decorum, and with the realisation that ladies are present. Some of the "speeches" were hardly of the type one expects in decent mixed company; and not even funny.

Forgive me for blowing off steam, but there have been some splendid men serving the Club in one way or another during the years past These would seem to have been superseded lately with, I fear, eventual detriment to the Club.

Yours sincerely,
Jack W. Duck

Wessex Cave Club

Income & Expenditure Account

For Year Ending 30th September 1959

		<u>1958</u>						<u>1958</u>			
To	Subscriptions	113	112	5	0	By	Headquarters -	13	18	7	10
	Affiliation Fees	7	9	10	0		Equipment	14	1	15	1
	Entrance Fees	6	7	0	0		Repairs & Renewals	5	5	0	0
	Donations	7	10	9	6		Rent	18	22	13	2
	Headquarters Fees	69	75	8	8		Lighting & Heating	3	3	15	9
	Eastwater Hut Fees	8	1	12	0		Insurance	-	8	1	3
	Gear Fees	7	4	0	6		Rates for 1½ years	-	2	15	8
	Lamb Leer fees	-	1	4	0		Property Tax for 1½ years	-	3	2	7
	Sundry Sales	1	-	6	0		Eastwater Hut	2	2	10	0
	Deposit Account Interest	2	2	9	1		Repairs & Renewals	7	13	14	7
	Annual Dinner Surplus	2	-	12	0		Rent	-	-	12	0
							Tackle Expenditure	76	90	5	7
							Lamb Leer Expenses	9	10	2	10
							Cost of Journal	8	6	14	9
							Insurance - Third Party	10	11	0	10
							Postages	-	1	0	0
							Stationery & Notices	-	1	5	0
							Bank Charges & Cheque Book	3	5	5	0
							Cave Research Group	-	1	1	0
							Wreath – H.E. Balch	-	-	-	-
							Testimonial Fund – H.E. Balch	2	1	1	0
							Sundry Expenses	171	216	13	7
							Total Expenses	53	8	3	2
							Balance – being surplus for year	224	224	16	9
	Total Receipts	<u>224</u>	<u>224</u>	<u>16</u>	<u>9</u>				<u>224</u>	<u>16</u>	<u>9</u>

Balance Sheet – As At 30th September 1959

Accumulated Funds –											
as at 1st October 1958		£81	0	1			<u>Economic Building Society Deposits:-</u>				
<u>Add</u> Surplus for the year		8	3	2			Deposit Share	58	1	9	
		89	3	3			Realised Preferential Shares(Hut Fund)	80	0	0	138
<u>Less</u> Transfer to Hut Fund		30	0	0	59	3	3				16
<u>Hut Fund</u>							<u>Midland Bank Ltd:-</u> Current Account				18
As at 1st October 1958		52	6	8			<u>Cash In Hand</u>				-
<u>Add:</u> Transfer from accumulated funds		30	0	0							-
Interest on Deposit		2	9	2	84	15					-
<u>Subscriptions paid in advance</u>					11	2					-
<u>Sundry Creditors</u>						5					-
					<u>155</u>	<u>19</u>					<u>0</u>
											<u>155</u>
											<u>19</u>
											<u>0</u>

NOTE: The value of the Club's Headquarters and Equipment is not included.

I have prepared the above Balance Sheet and Income and Expenditure account from the records and vouchers of the Club, and to the best of my belief the same gives a true and fair view of the Club's affairs.

(Signed) C.H. Kenney
Chartered Accountant – Wells, 14th October, 1959

THE LOST CAVE OF BURRINGTON

References to a supposedly lost cave at Burrington Coombe have been found in many books of the nineteenth century and have set many a caver, who knows Burrington at all well, thinking. The best reference to the cave, as Balch noted in "Mendip - Its Swallet Caves and Rock Shelters", is in Rutter's "County of Somerset". Even this reference, however, is ambiguous and misleading. After describing Aveline's Hole Rutter says: "About half a mile distant another of these curious places of sepulture was discovered, which was calculated to contain not less than one hundred skeletons: and higher up the Combe.....". This passage definitely means that the cave was about "half a mile distant" from Aveline's, but Balch, however, also takes into account the last few words, "and higher up the Combe" as fixing the position of the cave somewhere in the Combe, not far from Goatchurch, since Rutter goes on to talk about that cave. Careful study of this ambiguity reveals that Rutter is taking his bearings once more from Aveline's when he says, "and higher up the Combe". Taking this into account, the locality of the lost cave need not be assumed to be in the Combe but anywhere in the vicinity, thus making it far more difficult to find. I decided, therefore, that the only way to solve the mystery of the lost cave was by careful study of the references to it and not by going out to look for it, as so many have done already.

A short time ago during my search, I found a reference to Aveline's Hole and to the lost cave in Seyer's "Memoirs of Bristol". The reference to the lost cave was asterisked and at the bottom of the page it was stated that this reference was quoted by another author, as

having come from "The Gentleman's Magazine" for the year 1739 volume 59 page 303. The author also added he had "searched for the place in vain". It was not clear whether the author meant that he had searched for the cave itself or for the reference. A study of the Gentleman's Magazine from the Bristol Reference Library soon revealed that it must have been the reference for which Seyer had searched in vain, for page 303 contained no report of the lost cave.

A few days later I remembered that Seyer had also given a reference to Aveline's Hole in the Gentleman's Magazine for the year 1805 volume 75 page 409. Out of interest I looked this reference up and found a short paragraph on Aveline's. In this paragraph the lost cave was mentioned and this was asterisked, at the bottom of the page there being a reference to this cave as being in the Gentleman's Magazine for the year 1789 volume 59 page 303. A second time I looked at this page 303 and again I was convinced that there was no report on the lost cave. It was then that I saw my mistake and I quickly obtained a magnifying glass which revealed the truth - the reference was not to page 303 but to page 393- I could clearly see a stroke, partly obliterated, below the nought and comparison with the other numbers in the book showed that I was right. I hurriedly turned to page 393 and my search was ended for on that page was a description of Fairy Toot Barrow, on the estate of Blagdon House, where a number of skeletons had been found. The lost cave of Burrington is a Barrow which does not even exist now.

This is very convincing proof and I myself am certain that it is the answer to the lost cave. If the cave had really existed, one would have

expected to hear a great deal of it, since it was supposed to contain more skeletons than Aveline's. It is very difficult to lose a cave and Lamb Leer cannot be compared to this, since it did not contain valuable archaeological remains at the time of its loss. It is ironical that Rutter describes Fairy Toot five pages after he has mentioned the lost cave and this fact is the only one which doesn't support the theory that Fairy Toot is the lost cave. It is also interesting to note that in none of the old references to the lost cave has it actually been called a cave. Rutter describes it as "another of these curious places of sepulture" and since the full meaning of caves was not then understood, the barrow was immediately put into the same class as Aveline's. This fact alone supports the theory well.

It is very difficult to convince someone that the lost cave does not exist, when he has probably lived his whole life in the hope of finding it. Thus it will be a long time before rumours about the lost cave of Burrington disappear completely from Mendip. It is indeed a shame to disbelieve one of the only remaining legends of Mendip, for Balch himself wrote, "There is a fascination about a lost cave.... "

I.G. Lennon.

Editor's note. The above article was written without the author being aware that a report by G. Boon and Dr. D. Donovan in the 1954 Proceedings of the U.B.S.S. mentioned the printing error. They also concluded that the 'lost cave' was Fairy Toot, pointing out that this barrow was not at Blagdon but at Butcombe.

Report on a C.R.G. Grade 5 Survey of Swildon's IV and Blue Pencil Passage.

1. The Survey

The Survey was completed in three visits to the series, the first in April, 1959, the second and third early in July. On the first occasion F. Davies, K. Dawes, M. Thomson, J. Wright and I carried in the survey instruments required, plus food and cooking equipment for a base in IV. While the others besported themselves in Combination Passage, Dawes and I began the survey from the main stream rising. Unfortunately the clinometer seized up when the first 250 feet had been mapped and work had to be abandoned for the day.

Graham Candy and D. Farr accompanied me on the second visit, when the remainder of IV was mapped, with the exception of the Oxbow. This was omitted partly on the grounds of tiredness and partly for the unheroic reason that one of us nearly fell off trying to climb into the end that we knew. It is hoped to complete it his summer. Two days later Farr and I returned to survey Blue Pencil Passage, finally linking the work with W.I. Stanton's prime survey point 44.6 O.D. at the end of Paradise Regained.

Survey bearings were taken with an R.A.F. Grid Bearing Prismatic Compass. The dial diameter is 4.4", and the prism measures 1.2" Although an exceptionally large instrument it compensates for the bulk by being delightfully easy to read. It was mounted on a 2' to 4' expanding wooden tripod and sighted on target candles mounted on a similar tripod. The height of instrument or target above the floor was measured at each station. Angles of the inclination were read to the nearest 15' with a Watkin Hand Clinometer held at rest on the tripod table. A 6' steel tape, graduated in feet and inches was used for distances. A 100' tape would have been useful in one or two places.

It is not practicable to set up tripods in Blue Pencil Passage, so natural prominences or scorch marks on the walls were used for stations instead. Care was taken to assure that the instruments were correctly held at the stations and, judging from previous experience of this method elsewhere, no great error is likely to have accumulated, particularly in so short a distance.

The results were computed by the method described in 'British Caving' Chapter XVII and plotted on graph paper. Instrumental readings were shared by Candy and me. All field notational work, passage detail and subsequent drawing was done by me, so the responsibility for any errors in the survey is mine.

The survey on page 39 is at a scale of 1" 100' for a direct transfer to Stanton's survey.

2. Results

The plan length of the main stream 'passage in IV is 950'. With the addition of tributary passages, other than Blue Pencil and the Oxbow, the figures rises to 1,220'. Swildon's V (Wells and Ford November, 1958) is 285' long. Blue Pencil is 145' in length, and drops 77.5 in this distance. These figures bring the total length of surveyed passages in Swildon's up to 12,200 - 12,400'.

All spot heights above sea level on the survey are based on Stanton's prime of 444.6' O.D. in Paradise regained. Using this figure, the height of water level in the rising sump at the head of IV (the level observed on the April visit when the stream flow was 'average') is 377.6'. Stanton's figure for Sump 2 is 377.9'. When the possibilities of survey error in the whole traverse Sump 2 - Sump I - Tratman's Temple - Paradise Regained - Swildon's IV are considered, this conjunction

seems suspiciously close. However the plan position of the rising with reference to Sumps 2 and 3 seem to confirm, it. The rising is less than 30' from the final bell chamber in 3. In the rising itself a bank of stream pebbles dips steeply under water to a probed depth of 6'. The descent apparently continues below this. At this point the submerged passage is headed directly at that descending passage which Professor Davies and F.G. Balcombe found to mark the end of Swildon's III in their 1954 dive (1). This drops to approximately 15' below water level, where it closes in a 6" high slit. The survey strongly suggests that it is one limb of a 'U' or 'V' shaped, submerged passage, and the rising in IV is the other. At their known extremities the two will be about 18 feet apart. Thus the survey may be said to bear out what many had supposed, that Sump 2, Swildon's III and the rising in IV are all one and the same sump system, with air spaces. The water level is controlled by the pebble banks in IV. Only a remarkable stroke of geological ill-fortune kept the divers out of Swildon's IV in 1954.

From the rising the mainstream passage drops a total of 28.6 feet to Sump 4, where the mean water level is at 349 feet, O.D. The greater part of the fall occurs within the easterly loop of the passage, via two waterslides and eight or so small pot holes. The stream flows over bed rock throughout most of this section, with occasional aggraded reaches. Above it, to the rising, and below it to Sump 4 and beyond through the whole of Swildon's V, Wells and Davies (P) reported finding clay below a shallow pebble cover (2).

Sump 4 is 349 feet O.D. and Sump 5 two to three feet lower, (3). Thus if, as seems probable, the Strides' figure for August Hole can be ignored, Swildon's just pips G.B. (430 feet) for the title of 'deepest cave on Mendip', with a known depth of 432 -

433 feet from the entrance - and still going down in VI.

Plotted on a surface map of Priddy, Sump 4 lies 40 feet slightly west of north from the north west corner of Mr. Maine's tractor shed-cum-changing barn. Priddy Green Aven lies 120 feet due west of the approximate position of Priddy Green Swallet, and its floor is 435 feet below it. Swildon's V runs under Maine's Barn and the apex of the Green. Sump 5 lies due east of the milking shed, and a few feet from the opposite side of the main road. The showering aven in V is rather nearer the Priddy Green Swallet than Priddy Green aven is, so if water in this area sinks so directly as some think it does, this aven may be taking part of the Cowsh water or that which sinks at the public tap across the road.

3. Some structural and morphological points.

(These notes are tentatively advanced to explain some features of the section under discussion. They are based upon interpretation of the Grade 5 plan, some non-systematic observations in IV, and relevant comparisons with observations made elsewhere in Swildon's. It is hoped to study the erosional features of IV in detail during 1960).

a. The development and orientation of the mainstream passage and Tributary Passage appears to be strongly joint-controlled. Allowing that joint lines curve and wander a little, it has been found in Upper Swildon's that the distribution of passages can be adequately explained by postulating two sets of joints. In each set, two trends intersect properly, ie at 90° and the two sets intersect each other at angles of approximately 30° and 60°. The same is apparently true of Swildon's IV. The 250 feet or near straight passage in the 'Archway' section

has been developed along a north-south joint, (a member of the younger set?) , and the bend which ends this segment has developed on an east-west joint proper to it. Below this, the loop follows segments of joints belonging to both sets, quite irregularly. Many of the angularities which might be expected to show on a plan as a result of this irregularity have been rounded off by heavy stream erosion. In the Tate Gallery area the older set of joints dominates control, and continues to do so in most of the remaining segments above Sump 4. The majority of the sharp breaks in stream gradient occur where the main passage is changing joints frequently, and particularly at joint intersections themselves. This suggests that the stream drop is a structural feature in the first instance at least, developing where the route lies irregularly through relatively tight joints, as opposed to the 'master' joints which control above and below. The stream passage trends aslant true dip and strike of the bedding for most of its course. Experience elsewhere in the cave suggests that the gradient of the water slides may be controlled by the apparent dip, (not true dip) which changes with changes in passage orientation.

b. Blue Pencil Passage is in the way of being another geological, or geomorphological, fluke. In my opinion it has little or no casual association with Paradise Regained. A much later feature, it has, happily for the explorers, chosen to cross Paradise before pursuing an independent route. It originated in the washing out or anastomotic penetration of some very thin shaly beds. This expansion provides the crosspiece of a T- or inverted L- cross section which typifies the passage. Below it, the bulk of the excavation has been carried out by a somewhat larger forerunner of the present stream, under wholly vadose conditions.

c. It is likely that the initial penetration of the joint lines in the main stream passage was accomplished by solution from properly phreatic, slowly circulating waters behaving in a fashion compassed by both Davis's and Swinnerton's theories and their later modifications. (4). But the vastly greater part of the expansion of the weaknesses to their present size has probably occurred under pre-phreatic intermittently phreatic conditions. In the upstream straight segment, the walls show evidence of corrosional widening at or near present stream level superimposed upon more widespread solution by quite rapidly moving waters. The higher walls and ceiling are pocketed by hollows which may be attributed to the work of eddies at points of initial weakness. In the more steeply inclined loop sections below, there are well-preserved segments of a scalloped bore channel twenty feet in height but lacking a roof, which suggests that expansion at this joint occurred under a free air surface, as a result of the corrosional activity of the very rapidly moving waters. Below Tate Gallery to Sump 4 solution again predominates. The modern aven and narrower re-entrants are actively developing by splash solution at present.

As a suggestion therefore; most of Swildon's IV can be explained by assuming a large volume of stream flow and a water fill to about 385 feet O.D. in the precursor of modern Swildon's II. This was sufficient to submerge most of the present upstream aggraded section of IV and widen it by solution. In the loop section, the rate of flow accelerated over a steeper gradient below a sustained free air surface and corroded the walls with the detritus picked up when accelerating. The stream, or river, (for it filled a section of the order 20 feet deep and 8 to 10 feet wide), then ponded up downstream above Sump 4 - which would be scoured

more efficiently than today by a head of water of thirty feet or so. It is very unlikely that modern flooding creates streams of such competence, (the high waters of Christmas 1958 caused backing-up to a depth of only 10 feet at sump 4.) The present stream accounts for a prominent trench in the floor of the bored section and elsewhere, and the smaller pot holes. Larger pot holes are probably only activated by streams of modern flood intensity. For most of the year the present streams play a weak aggradational role- and floods scour out its longer period infill in a matter of hours. The occurrence of the clay layer in V, and a single section of well-laminated sand near the rising in IV, (either of which could be of very local significance only), may suggest one or more phases of waterfall moving so slowly as to permit the settling of fines, post-dating the expansion phase(s). Further evidence is needed to evaluate this point.

Evidence of a much larger stream in IV corresponds with more evidence that I have found and measured in I. This leads me to suggest that a good deal of the erosion of chemical and mechanical kinds perhaps the greater part, dates from one or more pluvio-glacial stages of the Quarternary. A combination of melting snowcaps, thawing soil water and the heavier rains of such stages adequately explain the large volume of water.

It does not seem likely that the intermittent water fill which expanded Swildon's IV could be one and the same which developed Paradise Regained. The latter requires a head of at least 100 feet higher than that mentioned above. Under such a head it is difficult to envisage the means whereby the deepest water could move so rapidly downhill as to create an impressive bore, against the pressure which must later lift it to its

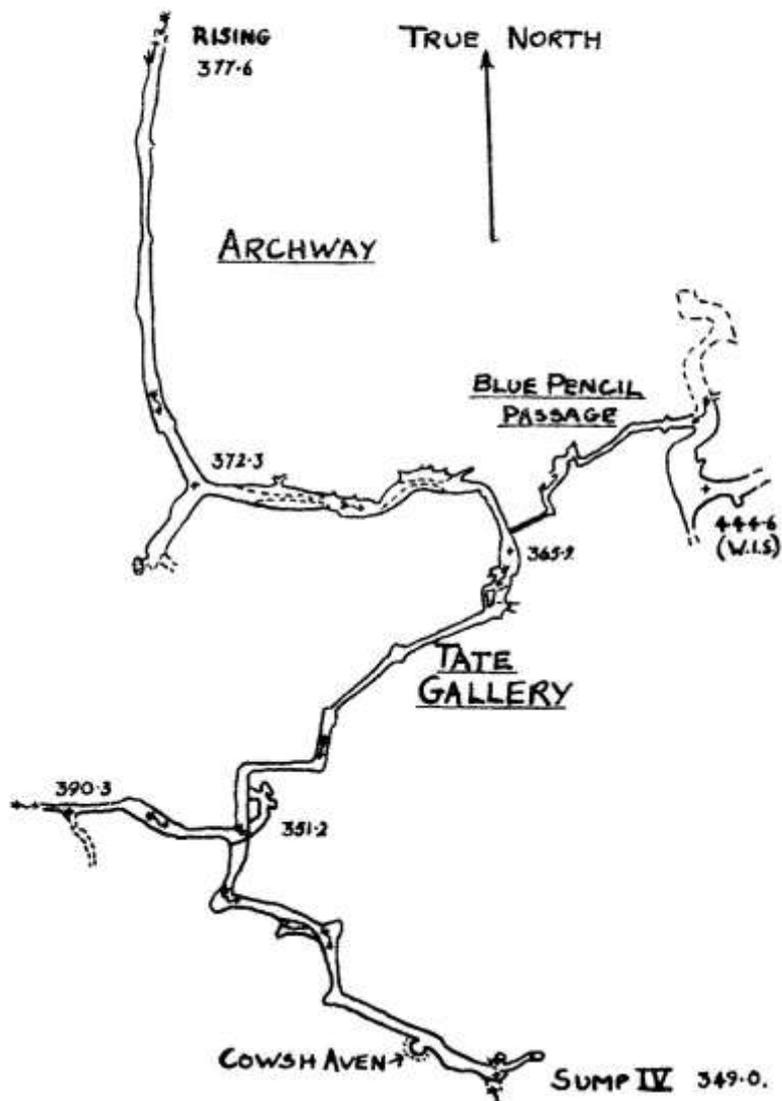
discharge level. Hydrological evidence appears to supplement other data which suggests that Paradise Regained is the older drainage line, and Swildon's IV a part of a system at lower level which has developed to capture it and reduce it to fossil status.

d. Dr. Stanton was the first to suggest in print that Paradise Regained once carried convergent flow south-westwards from I., and south-east from the Black Hole Series to discharge it somewhere in or near the Paradise Regained Fault Chamber. This hypothesis poses some problems with regard to the presumed hydrostatic head but otherwise appears to be most reasonable. Where did the water go from the Fault Chamber? Too little is known of the external controls of any past water table on the south flank of Mendip for a stronger answer to be supplied; but given the altitude of the bedding, the possibility of convergence between the Paradise Regained line of flow and the modern must be considered. Lines subtended south from the Fault Chamber and south-east along VI point to a possible region of convergence. In view of the high and prolonged stand of the old water level, there will almost certainly be free air passages at this point and probably beyond it, as juncture would occur above the present stream level.

It seems that the problems of the sumps will impede exploration, particularly digging or scaling, in VI. indefinitely. Work should be renewed on the south side of Paradise Regained near or in Fault Chamber to look for a dry route to the convergent area and in the north-west of Paradise Regained to try to find a similarly hypothetical link with the Black Hole Series.

D.C. Ford.

SWILDONS IV & BLUE PENCIL PASSAGE, AT A SCALE OF 100 FEET = 1 INCH FOR ADDENDUM TO STANTON'S MAP.



1. Balcombe. Journal of the W.C.C. September 1954.
2. Wells. Journal of the W.C.C. June 1959.
3. Op.cit.
4. See British Caving, Ch III for summary.

THE PRIDDY GREEN SINK

During the early exploration of Swildon's IV, Fred Davies and Alan Fincham came to the conclusion that the tributary stream from the Aven* near Sump IV could only have come from Priddy Green. This was because the water carried large quantities of farmyard waste thought to have come from Manor Farm. Subsequently, the survey, when related to the surface, added support to this theory as the Aven seems to be located some 460 feet almost beneath the sink opposite Fountain Cottage. Confirmation of a through connection here was established later by a chemical test at the sink and in Swildon's IV. This knowledge led Len Daws to organise a maypole operation to ascend the Aven. However, this was not wholly successful due to the extreme height encountered, which has been estimated as well in excess of 50 feet.

The advantages of an entrance through the Priddy Green Sink are many, the most important of which may be summarized as:-

- (i) Possibility of quicker, easier and less dangerous access to Swildons IV, facilitating the further exploration of V and VI.
- (ii) Possibility that high level passages may be found to by-pass the present obstacles to V, VI, or both.

With these advantages in mind I obtained permission to dig from Mr. Maine in August 1959. Since then work has been carried out on every weekend and some weekdays. The following is a brief account of the progress made until the time of writing.

Initially, we held the optimistic idea that we would soon "see where it was going", and so started at 5 a.m., with the prospect of a rewarding day's work. After 14 hours we had excavated a ten foot shaft, which was immediately filled in during the remaining hour to sunset - the only reward being a small, water-worn clay tube leading away from our shaft. The next day and succeeding weekends were devoted to excavating an adjacent shaft over the general position indicated by the tube. This second shaft was about 12 feet deep, with even larger horizontal dimensions, before it proved less promising than the first one.

From this point it was decided to uncover the pipe which leads from Mr. Maine's farmyard and discharges near the dig, in order to follow the waste as it soaked away. The task was not an enviable one, but we were greatly assisted by excellent weather, and some 40 willing helpers (representing most of the Mendip caving clubs), to whom we are very grateful. In this way we had soon opened a third shaft, which was extended to enclose the area, excavated by the previous two. The overall result was an impressive pit, which, although unfortunately attracting a large spectating public, did facilitate the mass removal of material. It became evident after 12 feet where the majority of waste sank, and so we confined our subsequent efforts to that particular portion of the pit. By now we could not rely on the fine

weather continuing, so a shaft 6 feet square and 12 feet deep was shored in record time using a prefabricated wood framework.

Our misgivings about a break in the weather soon materialized, and we received a temporary setback with the collapse of one side of the shoring. However we were now in a position to replace it with a more permanent entrance of 28 inch diameter concrete pipes. Therefore we built a solid base, with cement and stone which had been excavated, on which to place a 7 ft. length of pipe. I managed to buy this length in two sections of 4 ft. and 3 ft. at a reasonable price.

With a satisfactory entrance we were then able to return to the main objective of the dig. Since then we have reached a depth of nearly 30 feet with the assistance of explosives. From here the way is on down a steeply inclined, constricted bedding-plane, and so much more work remains to be done.

J.D.Hanwell.

* Cowsh Aven.

CAVING IN GERMANY

With a party of four I visited seven caves in Germany during the last week of August 1959. The caves are situated near Nürnberg in Bavaria. We hired a W Microbus for transport, and although it was extremely expensive transport was a vital necessity.

The caves were small, the largest being only 1000 yards, but they all provided enjoyable caving, a little better than Burrington standard. All the caves were purely solutional, and formed intricate three dimensional mazes. Not one of them had a running stream, or showed any signs of vadose activity.

One of the more pleasant features of German caves is the local habit of using the cool entrances as beer cellars, and building an inn close by! We used to get very hot poking around underground, and then come out and sunbathe and quench our thirst. The local people are extraordinarily kind and allowed us to wander round show caves and private caves just as we pleased.

We were greatly helped by the co-operation of Herr Suss, the secretary of the local caving club. He wrote numerous letters for us which we gave to cave owners and foresters as introductions. We joined up with six German cavers for one week-end. They were most amusing company. One man of 70 used to chain-smoke cigars underground, and they all carried large, full sized carbide lamps. Very few of them wore helmets.

If anyone is thinking of going to Bavaria I can let them have maps of all the caves and also the address of Herr Suss. The caves are worth visiting in the course of a holiday, but not worth the expense of a special trip. The caves which were joint determined, contained very good formations but, as they were all dry, they lacked the lustre of the formations in Stoke Lane or Swildon's

N.H. Cleave

BELGIUM 1960

Comparatively few people, when planning a caving holiday, would even think of Belgium. Much has been written of the enormous systems to be found in France and Jugoslavia, and of the wondrous ice caves of Austria. But unless a fairly large expedition is mounted, with truckloads of equipment, these are normally beyond the scope of a fortnight's holiday trip. Until recently no one in Belgium seems to have thought of caving, either as a sport, or as a scientific or semi-scientific study. Then suddenly, a few years ago, it caught on, and there is now in Belgium a large National Spelaeological Association run by the Catholic Church, somewhat akin to the Boy Scout movement. They are to be found in their thousands on fine days in the summer, tramping around the woods and the mountains in much the same spirit as the Boy Scouts visit Goatchurch and the like. Besides this rabelaisian throng there are now also some half a dozen more serious cavers, including one Basil Ley, an Englishman now living in Huy.

There are also in Belgium several companies running show caves. One such company owns a very fine cave at Hans-sur-Lesse, a somewhat lesser marcel at Rochfort (most of the stal having been grafted from Hans) and a now disused one at Eprave. Basil Ley had formed a theory that a river now flowing through the town of Rochefort towards Eprave had a lower series that needed discovering. The trouble was, he was unable to obtain the necessary permission from the Hans Cave Company. The company did, however, eventually give permission for a "Grand International Expedition" to visit their caves, and last August Roger Tudway, Gordon Peckham, and myself set out to become the international part of one such expedition, together

with Basil Ley, and one Richard, a Belgian friend of his.

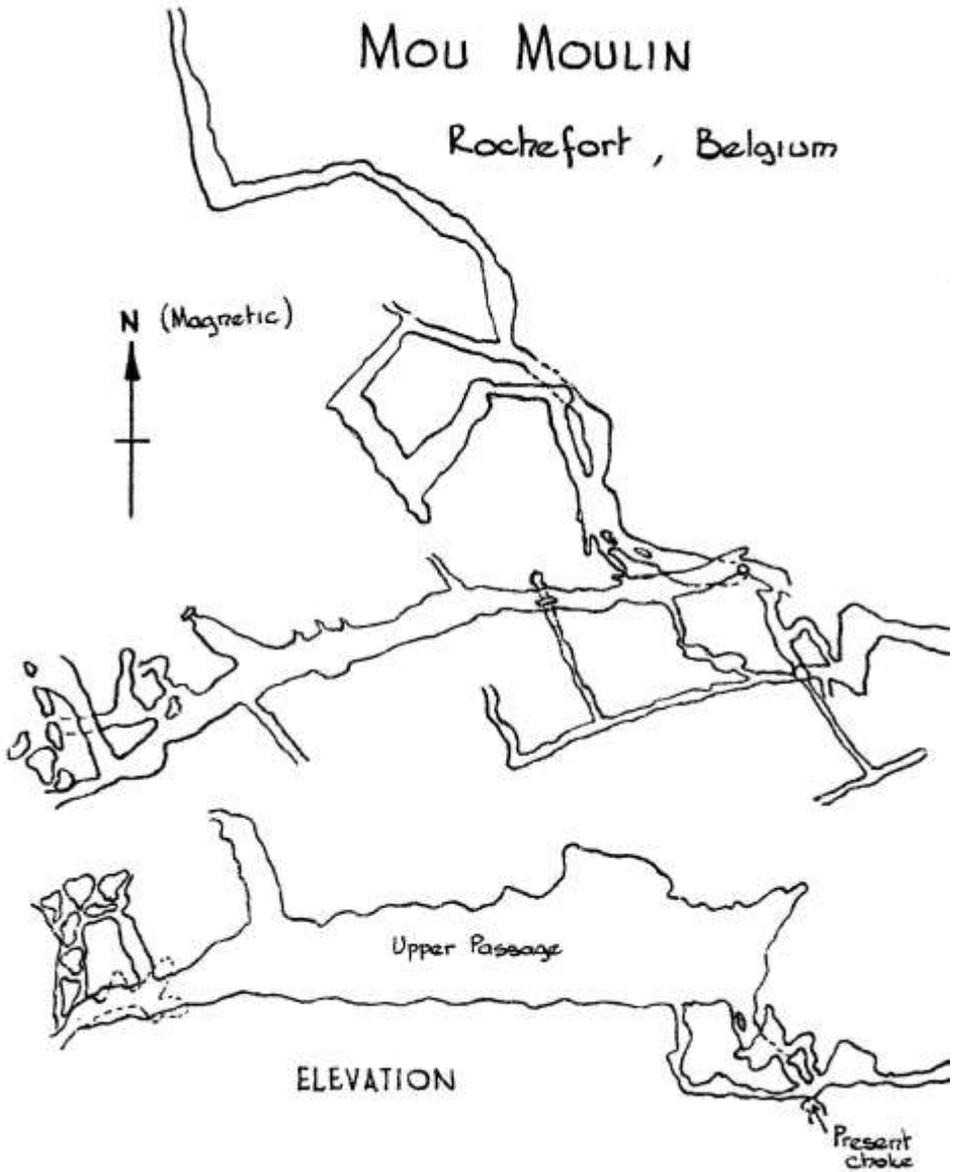
Originally the river Bourne turned sharply to the left at the outskirts of Rochefort and disappeared into the grotto Mou Moulin. Some seventy years ago a cutting was made to take the river straight through the town (presumably some form of modern sewage disposal system). That left enough water still entering Mou Moulin to form the sump, as shown in the section. It was hoped that we might manage to bypass the sump and follow the streamway to Eprave, some 3 miles downstream.

We entered the cave on the second day of our holiday, and found the sump...GONE. Subsequent conversation with the chief guide of the Rochefort show cave suggested that this sump had never before been open. We were able to follow the streamway for some 200 feet to a silt and debris blockage, and were about to attack this with spades when a small chimney was noticed. Following this through a boulder maze we eventually reached an upper passage, some 10 ft. wide by 30 ft. high. This ended rather disappointingly in a very loose ruckle which barred further progress. We made several visits to this upper passage but were unable to find any worthwhile continuation. Three small passages were followed downwards, digging where necessary, until a stream was reached. This water was following the main streamway, but just below the surface of it. At the point where we rejoined it, it had passed the first blockage, but was flowing in a passage much reduced in size by silting and was impossible to follow.

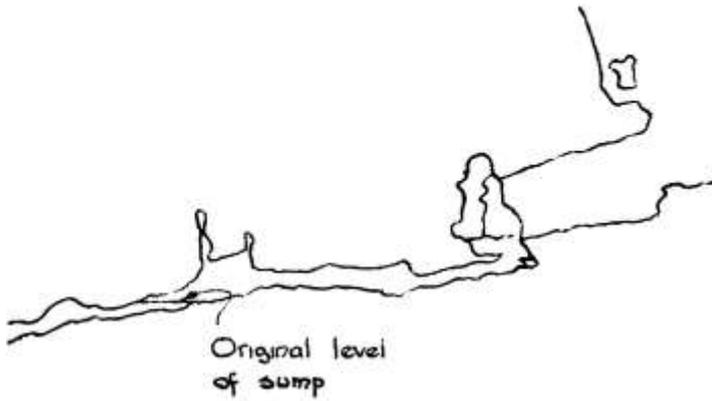
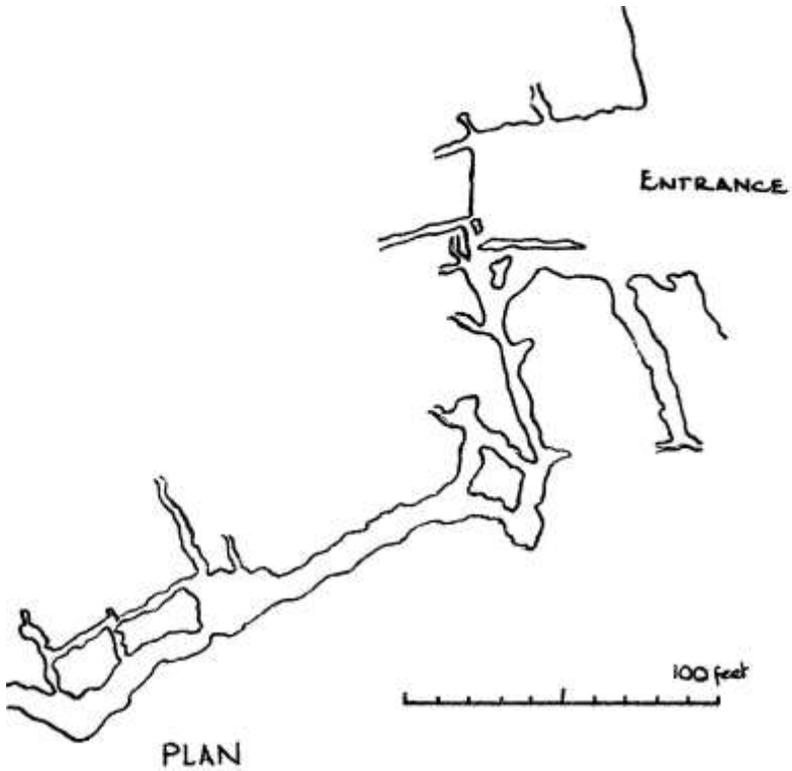
The roof of the upper passage showed some signs of a yet higher series, and it took 3 days to prove this theory wrong. For this part of the

MOU MOULIN

Roche fort , Belgium



SWEE LONNE →



August 1959

exercise we took in a load of ropes, ladders,, pitons, echelettes and such, and rigged the place like a circus tent. On entering the upper passage we had thought we were first in, but we later found bootmarks high up the wall, so we must have been beaten to it by one of the few more serious Belgian parties. One part of the wall we all climbed up and down at least half a dozen times, bracing our feet against the sides of a fair sized hole. Not until six weeks later did Basil discover that this hole led for some considerable distance to a second boulder choke.

Scalloping in the small downward passages indicates that water flows upwards in them. The upper series is presumably an older series now being used as a 'safety valve' in flood time. A head of water of at least 30 ft. must be developed above the level at which we found it. Immediately prior to our visit there had been nearly three months of drought in the region and this seems to have had some rather drastic effect, for at the time of writing, the sump had not reformed.

Having missed the one passage which led anywhere, and exhausted all the other possibilities, we abandoned Mou Moulin for the time being and had a good look round the rest of the district. The diverted stream now flowing through Rochefort follows the old flood route along the top of a breccia-filled fault and is joined at Eprave by water from the underground system, which in wet weather gushes fiercely up under an overhanging rock. Fluorescent tests show that water entering Mou Moulin takes 90 hours to travel the 3 miles to the rising. This, with the very shallow gradient, suggests that the underground route probably follows the same fault as the surface

routes permeating through the breccia.

There appear to be literally hundreds of rising and sinking rivers such as this in Belgium to be studied, and probably thousands of likely places to dig. There are already a number of widely differing known caves, notably the 'Grotte de Hans'. The tourise trip round this latter (about a quarter of the total) takes two hours. Halfway round the visitors pause at an underground restaurant which seats around 300. An impressive exit is made by boat. Quite apart from caving Belgium is a wonderful place for a holiday for particularly in the country districts the people are as friendly and helpful as one might hope to meet. Food on the whole is rather expensive , but we were lucky enough to be able to camp on a farm, most of our meals being provided for 10/- a. day, which they were well worth. I must, however, report in derogation that the beer is all wind and water.

PETE HANCOCK

THE PROBLEM OF FOUL AIR IN CAVES.

There are two main groups of foul air encountered underground. The first group includes such naturally occurring gases as methane or carbon monoxide which are rarely encountered in limestone caves and will not be discussed here. This group, however, includes the poisonous by-products of the detonation of gelignite which may accumulate in dangerous concentrations in small passages with inadequate ventilation, such as the East Passage in G.B. Warning of the presence of these gases is given by their acrid and unpleasant smell as well as the onset of headache during the early stages. Because of these unpleasant characteristics it is unlikely that a caver will remain in such an atmosphere long enough to be seriously affected.

The more common and dangerous type of foul air encountered in caves is that produced by human respirations, during which oxygen is absorbed from the inhaled air and the carbon dioxide produced in the body is exhaled. Therefore exhaled air contains less oxygen and considerably more carbon dioxide than the inhaled air. In large chambers or in passages where there is a good draught, this is of no significance because the exhaled air is diffused rapidly throughout large volumes of clean air or is replaced by clean air because of draughts. On the other hand, in restricted passages where there is little circulation of the air, the heavy breathing of cavers trying to negotiate squeezes can considerably foul the air by reducing the oxygen content of air and by raising the carbon dioxide content to significant levels. Both oxygen lack and carbon dioxide excess can be fatal, but in these conditions, the carbon dioxide excess has its

effect long before the oxygen content of the air has reached a dangerously low level. These conditions exist, for example, in Swildon's IV and 'Paradise Regained' where the narrow passages and poor circulation of air, together with the visits of large parties of cavers have considerably fouled the air since the series were first opened.

The first symptoms of carbon dioxide excess is that of having to "fight for one's breath". The sensation experienced when holding one's breath whilst swimming under water is due to the accumulation of carbon dioxide in the lungs and blood. The depth and rate of respiration will increase; and any effort is hampered by "shortness of breath" which becomes more intense with any muscular effort. The victim may experience a head-ache at this stage, but invariably becomes confused mentally and finally loses consciousness. The over-breathing diminishes only as unconsciousness deepens and as the parts of the brain which control respiration are poisoned. When death is imminent breathing becomes shallow and irregular with occasional gasps followed by long intervals when no breathing occurs.

If a caver collapses whilst negotiating a tight passage, it is necessary to know whether foul air is contributing to his condition or whether it is entirely caused by some other factor such as exhaustion or internal injury. A rough and ready test is to place a candle on the ground near the casualty and try to light it. If the candle burns with a clean, bright flame the trouble cannot be caused by foul air. The rest of the party can therefore assist the casualty in the normal manner. It is important to remember that air which was clean at the start of the rescue proceedings

can very quickly become fouled, especially in narrow passages with little draught. The danger of carbon dioxide excess being added to pre-existing injury or exhaustion is very real and the air should be frequently tested during prolonged extrication.

If the candle will not light, or burns with a dim, flickering flame, carbon dioxide excess or oxygen lack is present although it is not necessarily the primary cause of the trouble. The immediate aim of the rest of the party is to prevent the air from getting any fouler. All carbide lamps and candles should be extinguished and only electric lighting used. Unless it is comparatively easy to move the affected man out of the fouled section, no attempt should be made to extricate him. Only one man should stay with him and the rest of the party should return to the surface and alert the Mendip Rescue Organisation as soon as possible.

The M.R.O. has special equipment available for clearing foul air; and is in the process of acquiring breathing apparatus so that the injured person can be kept alive until the air has been cleared sufficiently for the rescuers to come to his aid, or for him to be able to free himself by his own efforts. It must be stressed that the only hope for a man stuck in a section containing foul air is the speed with which the special equipment can be brought into action. The primary and all important first-aid measure is to reduce further fouling of the air to a minimum. The presence of large numbers of willing but ineffectual helpers in these circumstances can only make matters worse and lessen the chances of the trapped man's survival. The trapped man and his companion should keep as quiet and as still as

possible so that breathing is kept to a minimum. The companion should keep as far as possible from the trapped man as is compatible with giving him the necessary moral support.

Finally it must be stressed again that masterly inactivity is the only effective first-aid measure for a man stuck in a narrow passage in the presence of foul air. It is essential that only one man should remain with the trapped caver whilst the rest of the party alert the M.R.O. with all possible speed.

STRUAN ROBERTSON

The Hon Secretary of the Mendip Rescue Organization (he is also the Treasurer) is still willing to receive any donations that members may care to send him towards the very high cost of the special equipment. These donations should be sent to Dr. O.C. Lloyd, Withey House, Withey Close West, Bristol, 9.

Frank Frost.

HOLWELL CAVERN, QUANTOCK.

"I cannot see anything alluring about a hole in the ground". per Oliver J. in Perry v. Thomas Wrigley (1955).

This little cave, the only known one on Quantock, is situated at National Grid Reference E.32108 N.13400 in a quarry not far from the Travellers' Inn at Merridge, Somerset. Care must be taken not to confuse the place with Holwell Quarries near Frome which are mentioned by many writers and have been the subject of a number of visits by the Somerset Archaeological & Natural History Society.

Phelps (1) quoting Andrew Crosse (1784 - 1855) tells us that "About the year 1800 the labourers in a limestone quarry enlarged an aperture in the rock, which was originally of no greater size than sufficient to admit a dog or fox. After widening this hole, they found it to be the entrance to a somewhat extensive fissure dividing the rock for the length of about 140 feet..." He continues with a description of the cave and its geology.

Andrew Crosse was a scientist who lived nearby at Fyne Court (destroyed by fire in 1898). He was interested amongst other things, in crystallography and Smith (6 and 7) mentions that the water from the end of the Chamber named after Crosse was used in his experiments and gives a description of the cave with details of the observed rate of the formations.

About this time, the cave was opened as a Show Cave and we presume that this accounts for the steps cut in the floor of the passage leading to Andrew Crosse's Chamber and also

for the stacking of rubble at the sides of that chamber. Warden Page (3) describes such a conducted tour, adding "Here are seen the 'loaf', the 'elephant's ear', and other of the creations so eagerly sought in the grand caverns of the Mendips". We have been unable to identify these formations but they may have been removed since his day.

Baker (4) tells us that the cave was gated when he visited it and Smith (6) says "Sad to relate the cave is now closed to the public, for visitors in past days, destroyed the stalagmite and carried portions away as mementoes of their spirit of vandalism". The gate is still to be seen but no longer in position and permission to visit the cave can be obtained from Mr. Porter of Great Holwell Farm.

Few of the earlier visitors to the cave explored the side passages although Crosse (2) mentions them and Warden Page (3) comments that it is necessary to go on hands and knees "an uncomfortable mode of progression, and by no means to be recommended." But some more hardy cavers have left their pencilled initials and dates from the end of the last century in the remoter parts of the cave.

Baker (4) appears to be the only writer to attempt a description of these side passages and although not always clear, he appears to have explored most of the known cave except the Bunghole Series and the passages to the East of the Main Entrance.

The formations in the cave are unique as Andrew Crosse's Chamber contains the only reported anthrodites in this Country (9). Unfortunately, these have been badly damaged

and "blackened by smoke. The formations in the Pretty Grotto are the only undamaged ones in the whole cave. They are particularly beautiful and we hope they will continue to be spared. Great care should be taken by persons visiting Evered's Rift as the formations at this point are in a very vulnerable position. It is lucky that the approach to this part of the cave is so tight that the number of visitors is very restricted.

There is a tradition that, about 1920, a local caver sealed up parts of the cave to restrict entry. If this is true, his work was very effective! Henry Evered with the aid of the 3rd Mine- head Senior Scout Troop excavated Bishop's Bunghole and opened the Bunghole Series (there is no indication that others had been there before.) The entrance to this Series is extremely tight and a short rope (20 feet) is required. It resembles the rope climb in Sidcot Swallet and almost everyone who has visited the Series has experienced difficulty in coming out. Unfortunately there are no formations in this Series.

The partial clay infill on the North West side of the Bunghole Chamber near Palk's Puddle was excavated by the 100th. Bristol (St.Edmund's) Rover Crew under our direction, giving access to a further 20 feet of passage as far as Tony's Knob.

Only in very wet weather does the stream in the Bunghole Series flow and in very dry weather both the sump and Palk's Puddle have been found dry. The flow of water at the end of Andrew Crosse's Chamber is much less than it was in 1951 and in dry weather there is little to be seen although the sound of running water can be heard distinctly. Arthur Pryor (5) commenting

this in 1933 says that the pool (then) remained at an even depth. Various springs come to light in the valley below but we have not proved the resurgence of the cave stream.

The Stride brothers (8) list the cave in the Mendip Section but it resembles the solutional caves of South Devon far more than the Mendip ones as a glance at the survey will reveal.

The Club paid several pre-war visits to the cave and several individual members have been there from time to time. We warn anyone intending to visit it that parts of the cave are loose and the Main Entrance is extremely dangerous, large masses of rock have been dropped since we commenced our survey and the illustration of the cave entrance in 1851 (3) is quite different from the present appearance. Before visiting the cave permission must be sought from Mr. Porter.

Baker (4) mentions bats in the cave and we have seen a few Lesser Horseshoes. A.S. Burleton and P. Bird (of the U.B.B.S.) have done a little ringing but the droppings appear to indicate that at times more bats inhabit the cave than we have, so far, seen. We also found a Jackdaw's nest in the narrow (impassable) entrance known as Charley's Aunt.

C.F.D. Long prepared, single handed, a survey of the cave in 1923 which was published by the M.N.R.C. (5). This was a remarkable feat and his survey is surprisingly accurate. A comparison shows that, since his day, someone unknown to us has excavated the narrow passages on the Eastern side of the Main Entrance passage and, of course the whole of the Bunghole Series was unknown.

The cave is amazingly compact, the whole 692 feet of passages surveyed by us is contained in a volume

of 100' by 100' by 401'. The Stride brothers give the length of the cave in 1953 as 250 feet (8).

Besides several obvious places for digging in the immediate vicinity of the cave and in the valley below, the survey has suggested places for further excavation. The passage opened by the St. Edmund's Rover Crew continues past the stalagmite boss known as Tony's Knob, increasing in section and without the clay floor or apparent obstruction. To pass this point, it will be necessary to lower the clay floor and dispose of Tony's Knob by the use of explosives. The large accumulation of mud to the right of the sump might be found to lead on but there is little room here for working. However, it is the lowest known part of the cave.

A determined attack on the end of Andrew Crosse's Chamber might produce a way on to the present streamway and open up a new series. This was suggested by Arthur Pryor (5) and he said that some work was done but it appears to have been abandoned possibly because explosives would be required to make further progress possible.

Further efforts at Bat Ringing are desirable as it is possible for a bat ringed at Holwell to reappear on Mendip or vice versa.

We would express our thanks to Mr. Porter for allowing us facilities to make our survey and to camp on his land and also to the many assistants who have helped in our work. Besides our own members we have received help from B.E.C., U.B.B.S., and the two Scout groups already mentioned and we are most grateful for their co-operation. In particular we would mention Bryan Marshall-Scott of the St. Edmund's Rover Crew and B.E.C. on whose ability to take accurate readings in very cramped positions, depends the high grade of the survey of the tighter parts of the cave which were inaccessible to us.

Alice R. Bryant, T.Charles Bryant, Allan R. Griffin.

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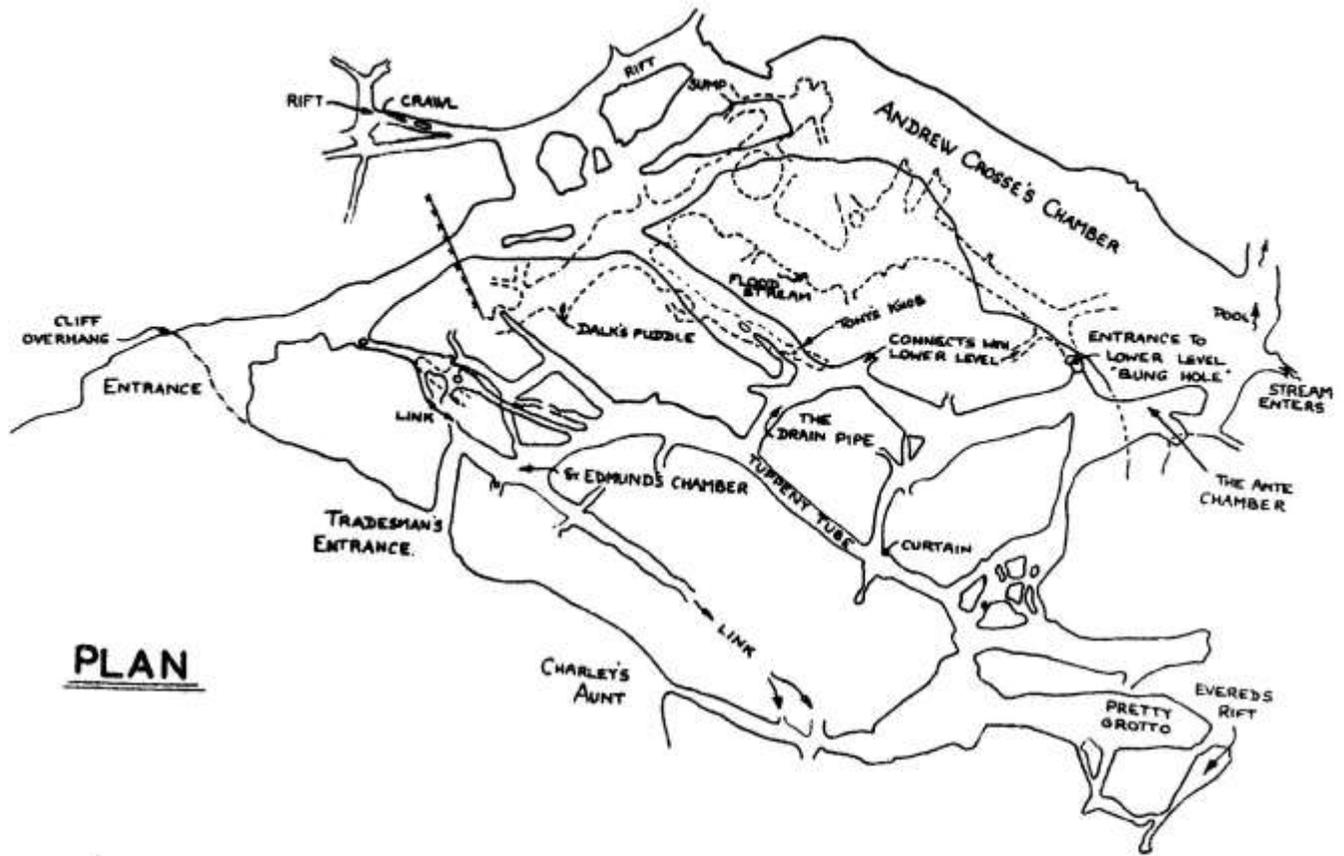
- (1) The History and Antiquities of Somersetshire, (1835/36) by the Rev. W. Phelps, A.B., F.S.A., Vol. 2 Book 3 pp. 27-8.
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- (3) An Exploration of Exmoor and the Hill Country of West Somerset. (1890) by John Lloyd Warden Page pp. 277-8
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- (5) Report of the Mendip Nature Research Committee for the year 1932 (1933) published with the Report of the Wells Natural History and Archaeological Society.
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HOLWELL CAVE

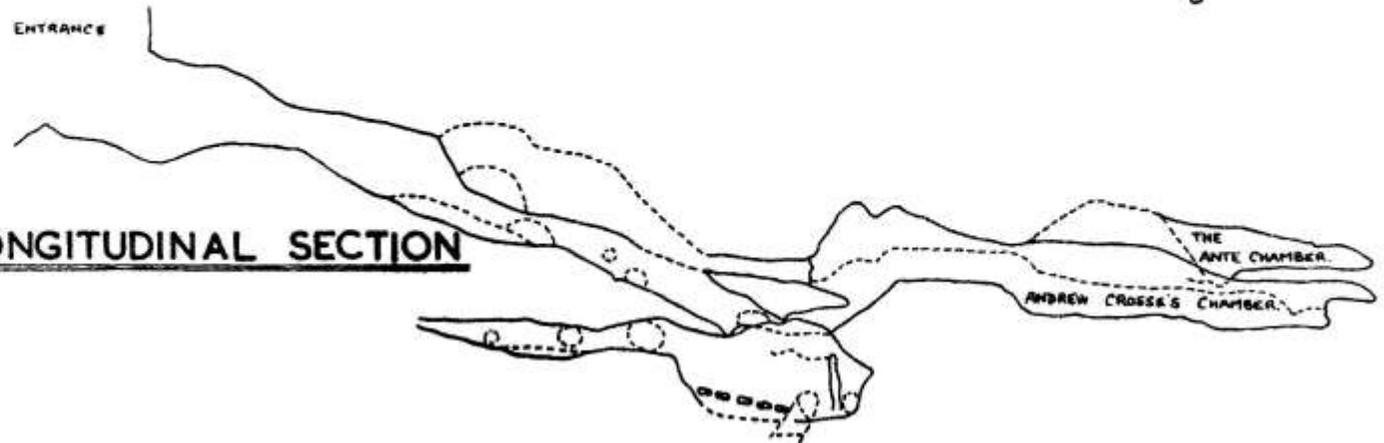
LOWER MERRIDGE
BRIDGWATER
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ORIGINAL SURVEY 1955-58
By A & T C BRYANT,
R GRIFFIN & B M SCOTT
UPPER SERIES CRG 6
LOWER SERIES CRG 4

SIMPLIFIED &
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PLAN



LONGITUDINAL SECTION

SCALE 0 5 10 15 20
In Feet
N.G Ref 31/21083400.

BOOK REVIEW by T.R.S.

RASSEGNA SPELEOLOGICA ITALIANA, Vol. 10, 1958.

184p., map, plan, illus., bibliogs. £1.17.6d.

(Obtainable from S. dell'Oca, 22, via Mentana, Como, Italy.)

Of particular interest is a short paper by the Roumanian, G. Atanasiu, in which he shows that both cave calcite and the air in caves are radioactive due to carbon 14 from outside the cave. Most of the book is occupied by regional studies, well produced and giving map references, notes and bibliography for all the caves in a specific area.

17.6.59.

PYRENEES SOUTERRAIRES by Yves Grioxel

(Flammarion, Paris, 1959) 235p., map, plan. illus. 15s.9d

Describes several major explorations which have taken place in the Pyrenees since 1953 - the Cigalere extension and the system consisting of the Gouffre Raymonde, Gouffre Pierre and the Goueil di Her.

14.9.59

WHITE SCAR CAVE Anonymous

(Clapham, 1959) 8vo. 31p. , map ,plans, illus.

(Obtainable from Dalesman Publishing Co.,Clapham, via Lancaster at ls.8d., p.f.)

An excellent guide book which deals not only with the tourist portion of the cave but also describes the first exploration of the remainder. There is an introduction by E. Simpson

11.10.59.

AROUND INGLETON by Ron & Lucie Hinson

(Clapham 1958) 8 vo., 31 p., map, illus.

(Obtainable from Dalesman Publishing Co., Clapham, via Lancaster at 1s.8d. p.f.)

This guide to the region of Ingleborough Whermside and Penyghent is above average standard. It provides a good account of the limestone area and its caves.

11.10.59.

PENNINE UNDERGROUND (3rd edn.) By Norman Thornber

(Dalesman Publishing Co. , Clapham, Yorks, 1959) 16 mo., 208p. maps.

Pennine Underground deals only with the caves of Yorkshire and the north of England; Derbyshire is excluded but the book is fairly complete for the area it covers. Many more caves are listed than in previous editions and more than a third as many again as when the book first appeared twelve years ago. This increase is caused partly by new discoveries and also quite largely by wider reporting of caves on the fringe of the main caving area, such as those recently explored by the Kendal Caving Club.

There are a few, but very few, cross references from alternative cave names; no doubt they have been omitted to save space but their lack makes the book difficult to use for reference. The maps have not been revised since they were first used in 1947 so they are not complete for the areas they appear to cover.

Altogether this is a very useful book, but not without faults.

(BEWARE: some copies have been issued with 16pp. missing as the result of a binding error).

29. 10. 59.

HOW UNDERGROUND BRITAIN IS EXPLORED by Showell Styles

(London, Routledge & Kegan Paul, 1959) 159p., illus. 10s.0d.

Written as a book for children in their teens, it would be unfair to judge it from an adult viewpoint. Whether it succeeds in interesting its intended readers and explaining the subject to them the reviewer cannot say - his daughter is not yet old enough to help.

Two main criticisms come to mind. Firstly the cost, for the price of 10s 6d makes the book not worthwhile for the general caver who will learn nothing from it. Secondly it is noticeably out of date on a number of points. Much of it would have been correct in 1956 and publishing delays may well account for the lag, but the statement that the deepest cave in the world has a depth of nearly 2000 feet has been incorrect since 1953. Nor is the book altogether

free from other errors. Pridhamsleigh Cave, already well known in 1871, is hardly 'recently discovered'.

1.11.59.

THE CAVE by Robert Penn Warren

(London: Eyre & Spottiswoode, 1959) 376p. 18s.0d.

A slow-moving and poor novel which describes the people's reactions in a small Tennessee town when a youth becomes trapped in one of the local caves. The atmosphere is generally unsavoury and almost everyone in the book seems to be entirely selfish. The attempts at rescue are quite unconvincing; although the lad is thought to be not very far from the entrance, only two men enter the cave at all in the first few days, both of them too frightened to go as far as the victim.

6.12.59.

CAVERNS OF WEST VIRGINIA BY W.E. Davies.

(Virginia Geol. Survey, vol 19A 1958)

338p., maps, plans, illus. index. bibliog. 16s.0d.

This is a revised and somewhat enlarged version of the 1949 edition. The body of the book comprises descriptions of some 500 caves in the state of West Virginia, many of them with plans and photographs, and the results of recent work by the National Speleological Society are incorporated. The introduction deals comprehensively with the geological aspects of caves in some 40 pages, and its account of cave formation, while not over-simplified, is much clearer

than most on this subject.

The price is strikingly low for a book of this quality, especially for one from America.

20.1.60.

CAVES IN VERMONT by John Scott

(Killooleet. U.S.A. 1939)

5lp. , maps, plans, illus. , index, bibliog. 9s.0d.

This catalogue and guide to the caves in the state of Vermont is on quite a different scale to the government-produced surveys of Maryland, Missouri and W. Virginia. While attempting to list all the reported caves in the area, it consists mainly of factual but informal accounts of exploration by a children's caving club. The ages of the children are given as between 9 and 13, but with careful leadership they seem to have visited some remarkable places. Whether they were a help or a hindrance to the author is not stated. The book forms a worthwhile report but has nothing to interest an English caver.

20.1.60.

SPELEO DIGEST 1958.

(National Speleological Society, U.S.A. 1959)

4to., 512p. , maps, plans, illus., index. £1.15s.0d.

This very bulky volume reprints various articles previously published in the Newsletters etc. of some 30 caving groups in the United States. Over 300 pages are given to descriptions of individual caves and groups of caves (one of them

Canadian) and many of these are illustrated with large folding plans. The more general papers include some on cave geology and several on the mode or origin of gypsum and calcite formations; also others on bats, fishes and other animals. A further section deals with techniques and equipment.

From so much it is difficult to single out anything for special attention, but three papers seem to be of particular interest. White and Ellisher suggest that formation of aragonite rather than calcite occurs when the calcium carbonate contains traces of strontium, barium or lead - it would be interesting to follow this up in our lead mining areas. They also propose a theory to account for the formation of globulites ("splash formations" or "cave coral" in this country), based on certain flow conditions for trickling water. G.W. Moore describes experiments on the seasonal fluctuation of alkalinity in cave seepage water and discusses its effect on the deposition of calcite.

The book is duplicated throughout but the production is of a very high standard indeed. Although a large part is of purely local interest, the rest is of sufficient importance for it to be essential in any good club library or serious private collection.

20.1.60.

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