

MOLDYWARFS SPELEOLOGICAL GROUP

JOURNAL FIVE, JUNE 1972

In those sad words I took farewell
Like echoes in sepulchral halls
As drop by drop the water falls
In vaults and catacombs, they fell

And, falling, idly broke the peace
Of hearts that beat from day to day,
Half-conscious of their dying clay,
And those cold crypts where they shall cease.

- from 'In Memoriam', Alfred Lord Tennyson.

Editor's Comments.

All the usual time-consuming difficulties and delays inherent in the production, by a very small caving club with little in the way of financial resources, of a journal such as this, have meant that the publication date is six months later than it should have been. Appearing in June 1972 (at least this last stencil is being typed in June, with optimism that the remaining tasks can be dealt with within the month), this Journal is a record of MSG activities during the year 1971.

In terms of human resources, the Group currently has about a dozen members, several of whom are only available for caving during university and college vacations. Nevertheless, a considerable amount of useful work has been carried out during the year. Perhaps the most significant work is that in the unique Windegg Mine Caverns (which began in 1970 - see 'Preliminary Report' in Journal 4, May 1971). Also chronicled are a variety of smaller new discoveries and 'extensions' in the Northern Dales area, and in the Allt nan Leac area of the Isle of Skye.

This Journal contains more than twice as many surveys as any of its four predecessors. The cover, which will doubtless have aroused some reaction before you read this, is as usual, the responsibility of the inimitable J.C.Longstaff.

In future, Journals may appear rather less frequently than up to now - journal production finance and time has seemed to take a rather inordinate amount of time and resources on this occasion. However, a considerable amount of material has already accumulated for Journal 6 - Easter 1972 saw over quarter of a mile of new Northern Dales Cave found. The MSG 'saga of wringing new cave out of the Northern Dales' (thanks to 'Descent' for this quote) still continues PFR

Credits

Cover artwork	John 'Chop' Longstaff
Duplicating of surveys	Martin (YURT) Davies
Production of Windegg surveys	Dave Popple
Words, typewriter, survey drawing..	Peter F. Ryder
Words, survey drawing	Graham 'Crowbar' Stevens
Words, survey drawing	Pete Jackson
Australian depth records (as usual)..	Phil Robinson

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ELLER BECK HEAD CAVE

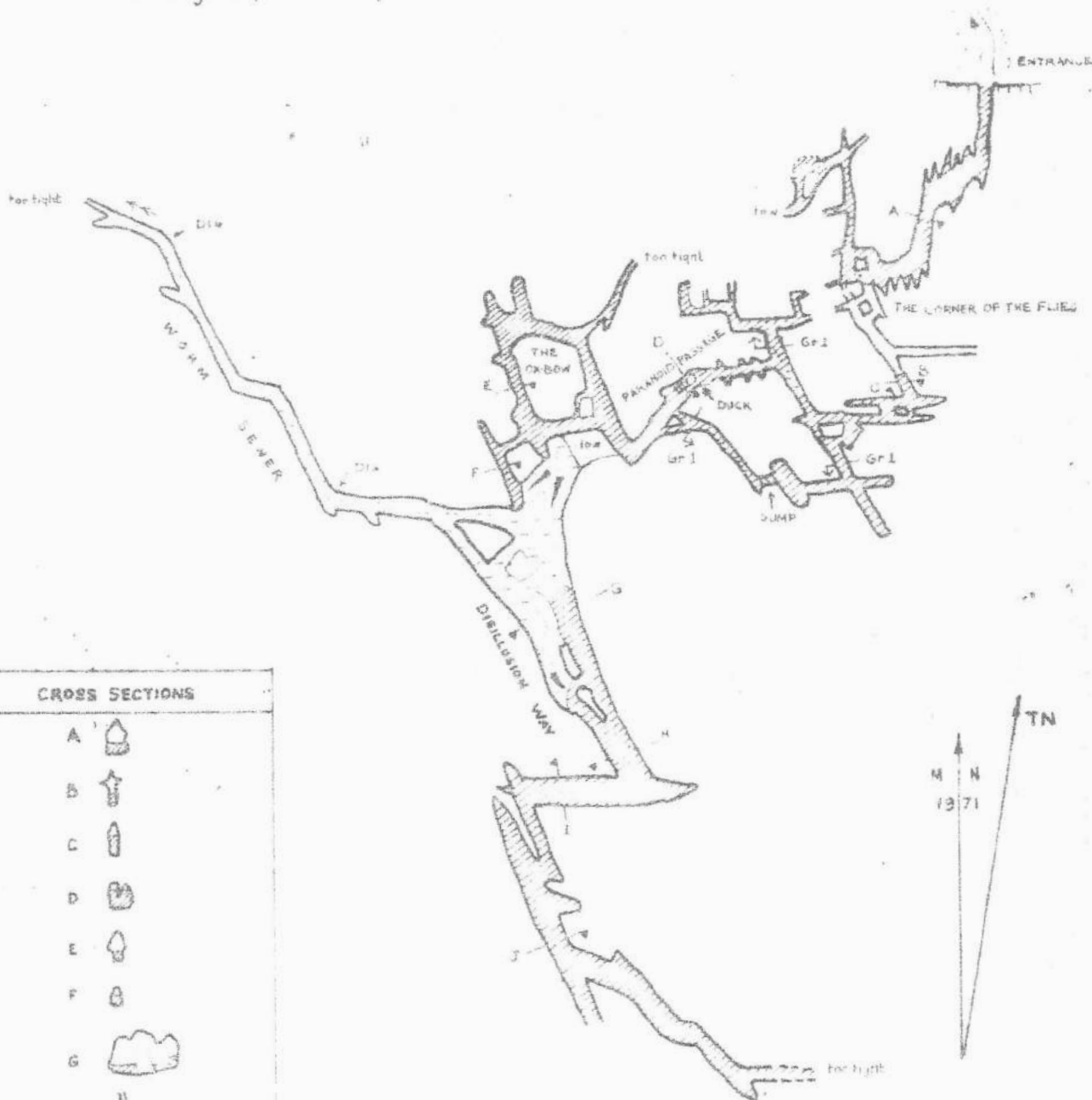
Bowes, Gretaedale. N.G.R. NY 993.103. Alt; c. 1250'

Length, c. 650'

M.S.G. Survey. Gr. 4B. 1970/71.

J.D. Cooper, P. Holloway, C. Langthorne,

J.C. Longstaff, P. Robinson, G. Stevens.



CROSS SECTIONS

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

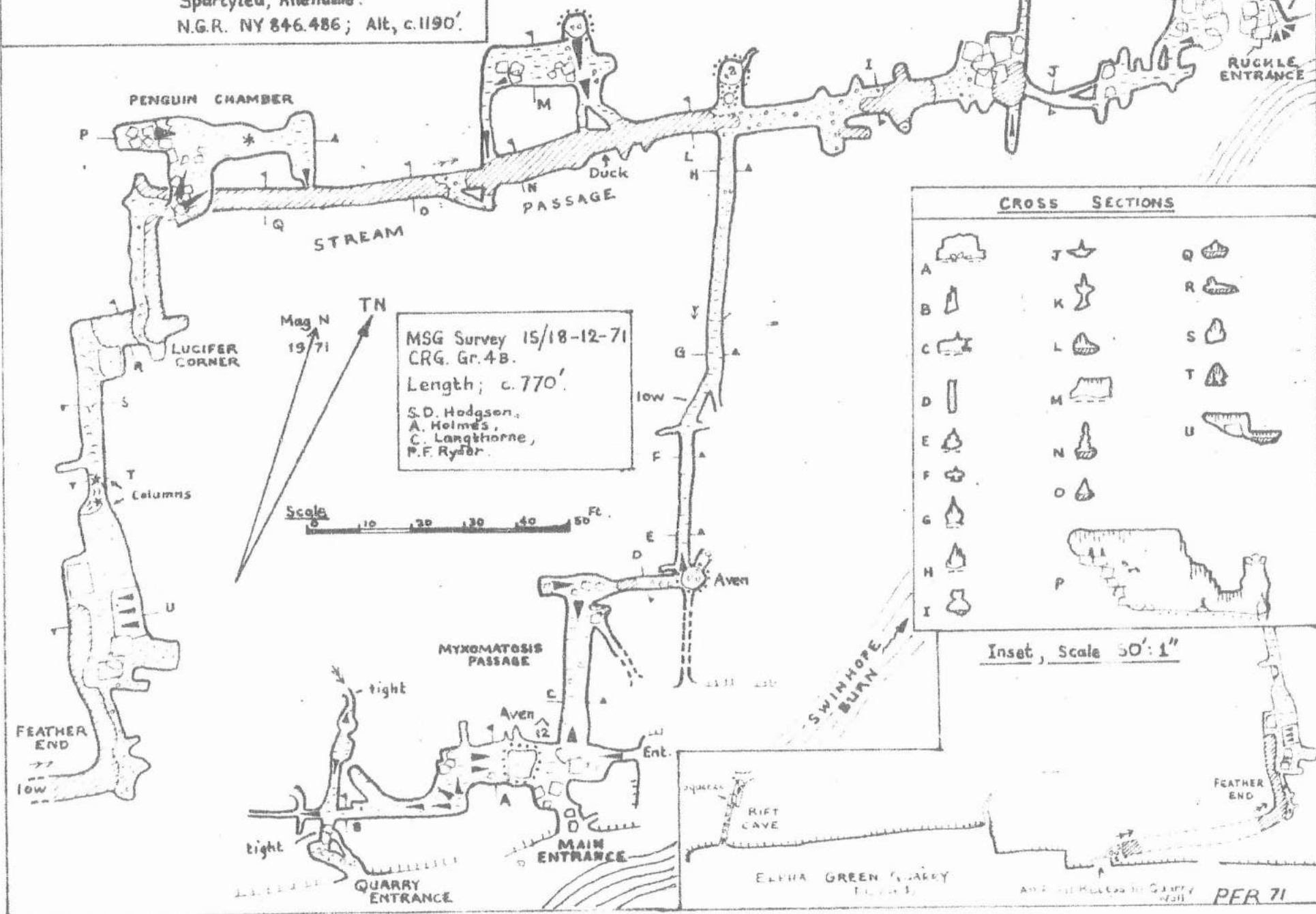
Scale

0 25 50 ft.

ELPHA GREEN CAVES,

Spartylea, Allendale.

N.G.R. NY 846.486; Alt, c.1190'.



NEW EXPLORATIONS AND SURVEY WORK.

Eller Beck Head Cave

An account of the exploration of Eller Beck Head Cave can be found in M.S.G. Journal 4. (p. 5-6), but two tasks remained to be completed at the time of this publication - the completion of the survey, and the "pushing" of Worm Sewer, a strongly in-draughting and utterly filthy crawl. It was not until 30th October 1971 that Graham Stevens and Pete Holloway, in a fit of enthusiasm (?) once more sampled the watery delights of "E.B.H." and finished the work there.

Worm Sewer, beyond the limit of previous exploration, was found to continue for a mere 10', before dividing into a choked rift on the l., and a fissure, taking the strong draught, but only a few inches wide, straight ahead. The survey ("due to the depth and temperature of the liquid environment unusual problems of communication were encountered, caused by involuntary jaw movements" - P.H.) was duly completed, and here appears. The "main line" is Grade 4, but some of the side passages, only entered by one thin waterproof explorer (G.S.) are only sketched in (Grade 1), since they proved either too tight or generally too inhospitable to entice other members into. Total length of the system is about 650' - a little less than estimated, but conditions were hardly ideal for an accurate and considered estimation.

Elpha Green Caves

This system (one of the most northerly in the Pennines), on the west bank of the Swinhope Burn, in the valley of the East Allen, is ascribed a length of 110' by 'Pennine Underground'. M.S.G. survey in December 1971 gave a length of exactly seven times this, with four entrances to the system.

Very briefly, the cave consists of a dry series with three entrances, one (quite tight) in the quarry face, and two in the stream bank just over the wall from the quarry. One passage in this series, a crawl, on the occasion of our visit, over a dead and odious rabbit (hence 'Myxomatosis Passage'), leads to a 'T'-junction with the streamway. Downstream, via a low crawl and a boulder strewn chamber, leads to 'Ruckle Entrance', a tight squeeze between boulders out onto the river bank (this had to be "gardened" a little, and may well be new). Upstream is mostly hands-and-knees crawling along low canals, well decorated in places, with one notable eroding stalagmite pillar. A duck is by-passed on the r. via a high level chamber, and a further high level chamber, 'Penguin Chamber', is quite impressive in its dimensions (25' long and 15' high) in comparison with the remainder of the system. The streamway was followed to a 9" high bedding, made rather odious by farmyard debris (Feather End), proof of connection with a further hole in the quarry face, much frequented by hens. At this hole a wet bedding crawl could have been entered, but this too was considered somewhat unhealthy. The survey shows a distance of c.50' between the two points, but the connection is certain, and may well be passable.

Eweleap West Cave and Foxglove Pot.

On the 11th September 1969 Colin Carson and Peter Ryder took leave of their fellow residents at Winterings to walk up Gunnerside Gill, in the vague hope of finding something new. Amongst a few small holes noted for future reference was one half way up a gully on the west side of the gorge of Gunnerside Gill, in the Main Limestone, at Eweleap Scar.

It was the 8th August 1970 before PFR returned to Eweleap, and entered the small cave, reached by an easy scramble up the gully. Rather than a mere rift caused by the slipping of the rock face - which might have been expected from its position - this was a 'genuine' phreatic passage, nicely scalloped, initially 4' high and 1'6" wide. 15' in was a junction - to the l. a choked tube running back towards the cliff face, to the r. a descending rift

- which might just be passable for a very thin caver - leading to a pitch estimated at 15' - 20' deep, and straight ahead a tube, after a few feet blocked to within a couple of inches of its roof with sand.

The next day, PFR returned with Johns Longstaff and Cooper, and the latter, attired in brand new wet-suit, was induced to enter the cave and attack the sand choke. Shortly succumbing to heat (the cave being completely dry), he retreated, to be inserted into another hole the remainder of the party had meanwhile found, in the same gully as Eweleap West Cave, but 15' higher up. This small slit, behind a large foxglove, proved to drop into a roomy shaft 35' deep, with 12' from the bottom a chamber opening off, leading into an ascending choked rift. This new pothole was named Foxglove Pot.

Another year passed, and again PFR, with John Longstaff as "surface party", returned, with entrenching tool and piton hammer, to attack the choke. Half an hour of digging, and breakthrough was achieved, a squeeze up into a tight crawl floored with laminated sand deposits, somewhat consolidated in the topmost layers with calcite, and in places washed away below this. This crawl continued for 20' or so, before turning sharp r. into a larger rift, with a steeply descending flowstone floor. After 15' this abruptly ended in a vertical wall of fill, with on the r. an arch into an aven chamber, about 8' in diameter, and 25' high to where a steady drizzle of water fell through wedged boulders forming the roof. At the far side of the aven was a small hole at floor level, through which thrown stones fell for 25' or so. A frenzied attack on the soft flowstone and debris of the floor resulted in this hole being enlarged to accessible proportions, but a ladder was obviously required, so a retreat was made. The phreatic passage, beyond the entry to the aven, was visible continuing above the silt fill, but was too tight to follow without digging the floor away. The small passage above the fill, well decorated with straws and small columns, could be sighted along for 15' or 20', and at the limit of vision did seem to enlarge somewhat - but a lot of digging would be required to get that far.

Five days later, on the 7th August, Chris Langthorne and PFR entered the cave, and dragged 50' of ladder, and ropes, through the tight crawl. The pitch was laddered - from a belay more imagined than real, which required the constant presence of a boot as something of a safeguard. CL struggled through the tight take off, and descended a 26' pitch into a totally blind shaft. Thus Eweleap Scar West Cave ended, as the survey made on the way out showed, 115' long and 39' deep. Foxglove Pot was surveyed as well, 55' long and 37' deep.

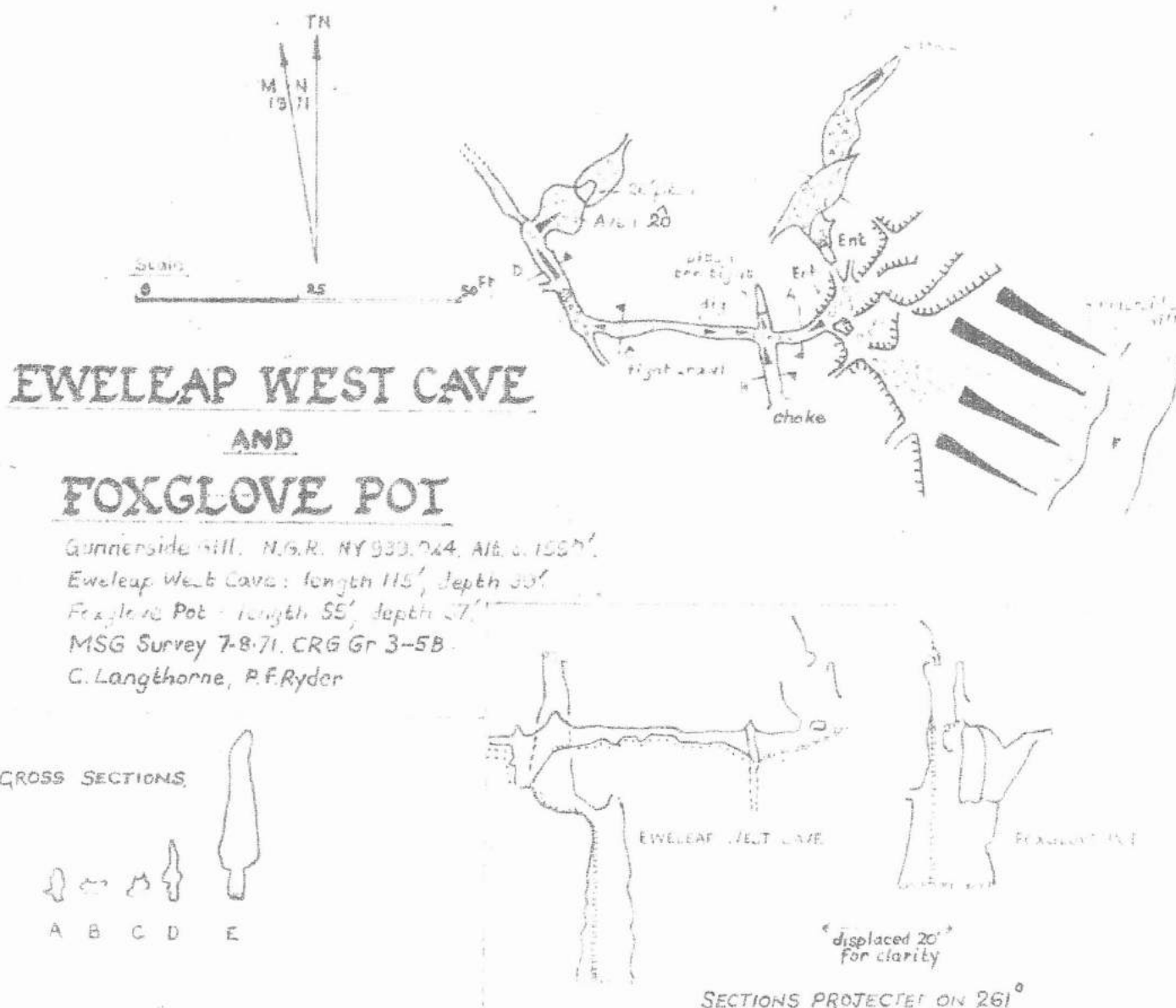
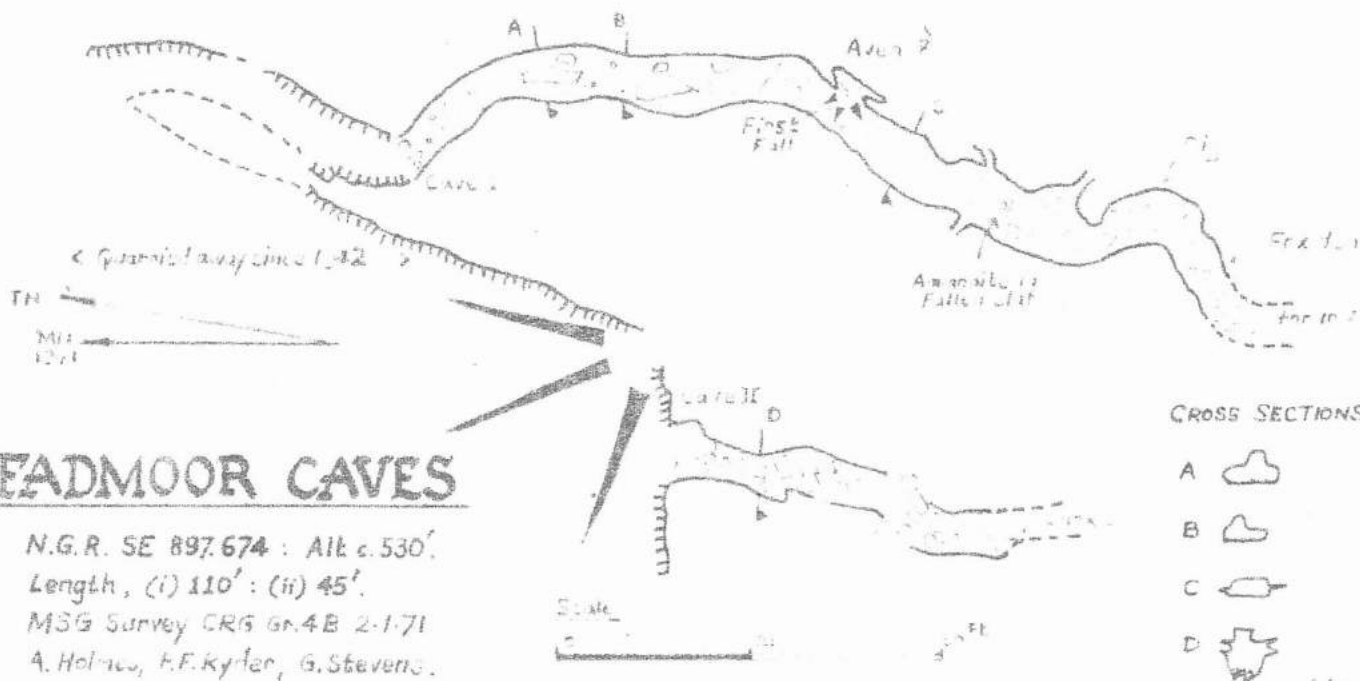
The two circular aven chambers of Eweleap West Cave, and the similar cavity forming the main part of Foxglove Pot, appear to be of the "Pohl-cell" type, having developed independantly of, and presumably later than, the phreatic rifts forming the majority of the Cave, which have at some time been virtually completely choked with fill, at present being removed. There is apparently no connection between the Cave and Foxglove Pot, despite their proximity.

Eweleap Scar Pot, on the opposite (i.e. east) side of the Gill, will be described in a future publication - this is an interesting little system comprising three small pitches and a series of small passages, finally opening into an old mine level with dangerously deep mud.

Fadmoor Caves

The small amount of work done in Fadmoor Caves, here described, marks the beginning of MSG activities in the North York Moors area, the general prospects in which were discussed in an article by Stuart Hodgson ("North of the Vale of Pickering") in MSG Journal 3. A survey of Kirkdale Cave has also been completed, and should appear in a future publication.

Fadmoor Caves are situated in a small limestone quarry on the east side of the Fadmoor to Radland road, just north of the village of Fadmoor, both entrances being in the south-east corner of the quarry. The caves were first described by R.H.Hayes, in the 'British Caver', Vol.9 (1942), in the



article "Ryedale Caves " (pp.36-43), along with a sketch plan. Hayes describes the first cave as ending in a roof fall, and the second as being blocked by boulders 12' in. Evidently at some time since 1942 the quarry has been slightly extended, and sections of each cave removed. Apparently, c.40' of the first cave has been removed (one side of the passage can still be seen in the quarry face), leaving 110' of cave (from our survey), and a section, presumably that blocked by boulders, of the second cave, leaving an open passage 45' long there.

Cave I has a low entrance at quarry floor level, and is an 'active' fox lair. The passage is quite roomy, varying in width from 5' - 7', and in height from 3' - 4', passing a partial roof fall (which Hayes cleared a way through in 1941), with a small 8' high joint aven on the l. Crawling past a fallen slab containing a fossil ammonite 9" in diameter, the passage ended choked by a further two fallen slabs. On the 13th October 1971 Graham Stevens led a successful assault on this choke, to be rewarded with access to the actual fox lair itself, and a total of a further 6' of passage, to a bend to the l., where the roof dropped to within 6" of the clay floor. Digging would allow further progress, but this could hardly be classed as a 'high-priority' site.

Cave II is about 10' higher up the quarry face than Cave I, and has an obvious entrance 6' high and 4' wide. The initially roomy passage leads into a boulder ruckle, through which one can crawl for c.15', to a total choke, seemingly in the midst of an extensive collapse, 45' from the entrance.

The land to the south and east of the quarry appears to be a very smooth, gently tilted, plateau, without shake holes or collapse depressions. The two caves run parallel, and could well join somewhere beyond the present limits of exploration (which are only c.30' apart). The mode of formation of, and the eventual destinations of the caves is a problem which has not yet been studied.

God's Bridge River Cave

The God's Bridge area near Bowes has frequently figured in earlier MSG publications. Journal 1 (and Newsletter, Aug.1967) described the area giving a sketch plan of the surface features. It also described the God's Bridge River Cave first explored by Durham Cave Club and extended downstream by MSG in 1967. Journal II (1968) contained the MSG survey of the cave showing both upstream and downstream ends of the streamway (the underground River Greta) ending in sumps. Since this time it has become apparent that the water level in these sumps varied with the weather. At the beginning of September 1971 a visit revealed high water levels, but later that month a report was received of an airspace on the downstream sump. Accordingly, on the 8th October an MSG party visited the cave, and at the previous downstream limit negotiated a 6' long duck with 3"-4" airspace leading to a roomy continuation of the stream passage. The extension contained deep water which required swimming, and ended in a deep flooded rift with no obvious outlet. A 30' long side passage and an aven contributed to an estimated length of c.180'.

A visit to the upstream end of the streamway revealed a low airspace where previously the water had met the roof. The duck consisted of 9" airspace for a distance of 3', then a rather intrepid 2" airspace for 2'. Beyond about 60' of flooded joint passages with deep water were found ending in a rift with water entering well below the water surface, giving little hope of further extension without diving. These extensions bring the total length of the cave to around 2,150'.

It is hoped to publish a complete God's Bridge area survey, showing all the caves, and surface features, at some future date, and work on this is proceeding.

Jack Scar Cave

This cave is situated in a small limestone gorge on Hudeshope Beck, about a mile north of Middleton-in-Teesdale. A small stream emerges from the east wall of the gorge and above this a cave entrance can be found, being about 15' above the Beck. A very detailed description of the cave by H.G. Proctor appeared in 'Caves and Caving', Vol. I No. 5, Nov. 1938. Here, suggestions were made as to the easiest route, but a precis of these in 'P.U.' overemphasises them, giving the impressive commands that one should not descend to the water or turn right! The former command comments on the narrowness of the stream channel in the first few yards where easy traversing is necessary; the latter command deprives one of a visit to the blind aven where the entrance passage turns left.

The gently winding stream passage eventually leads to a sandy-floored chamber having a small annexe with a narrow inlet into which a waterfall descends. Climbing up in the annexe and moving forward the top of the waterfall is reached soon after, and the passage widens to what was hitherto described as the final chamber. Proctor describes the way on as too tight after a few yards, and suggests a "speleologist built on skeleton lines" might succeed in getting further.

MSG being well endowed with skeletons, has made some progress here. The author, on his second visit to the cave (the first was made by candle-light 13 years ago) passed 40' of crawl to a corner where the passage turned left and widened a little. 10' of decorated passage led to another corner where the passage turned right and resumed its original direction and narrowness. About 25' of crawl, tighter than the first one, led to a constriction which could not be passed. About 3' beyond the passage widened slightly and continued tantalisingly into the distance where a cascade could be heard. A climb in the roof of the final chamber leads into a small passage which runs above the streamway, and is passable for c. 20' before a slab prevents progress.

On the next visit three MSG skeletons passed the first squeeze in the streamway, and proved that the constriction was not amenable to hammering. As they retreated the No. 1 skeleton discovered a roof passage that could almost be entered. On his fourth and last visit No. 1 skeleton, wearing thinner clothes, passed the squeeze and entered the roof passage. This proved passable with difficulty for c. 18' where the difficulties (tightness, projections and absence of a floor) made retreat prudent, at a point short of the constriction at stream level. On this trip MSG had loan of a ferret from a well-known Lancashire club. He confirmed that extremities had been reached at both stream and roof level, but his enthusiasm was greater than his experience, and he entered the hitherto well decorated grotto at the downstream end of the roof passage.

Thus, progress in Jack Scar will most probably require the use of explosives. The origin of the stream has not yet been traced, and the passage has quite a large cross-sectional area. Presently, however, this area is largely made up of height and most of the width is impassably narrow. Presumably, as the passage floor ascends, and the number of limestone beds in which the passage is cut diminishes, the width should increase. This is borne out by the lower and wider passage in the middle reaches of the cave. Thus, there is some prospect of easier going, if the present limit can be passed. The total length of passage is presently about 450'.

JACK SCAR CAVE

Hudeshope, Middleton-in-Teesdale.

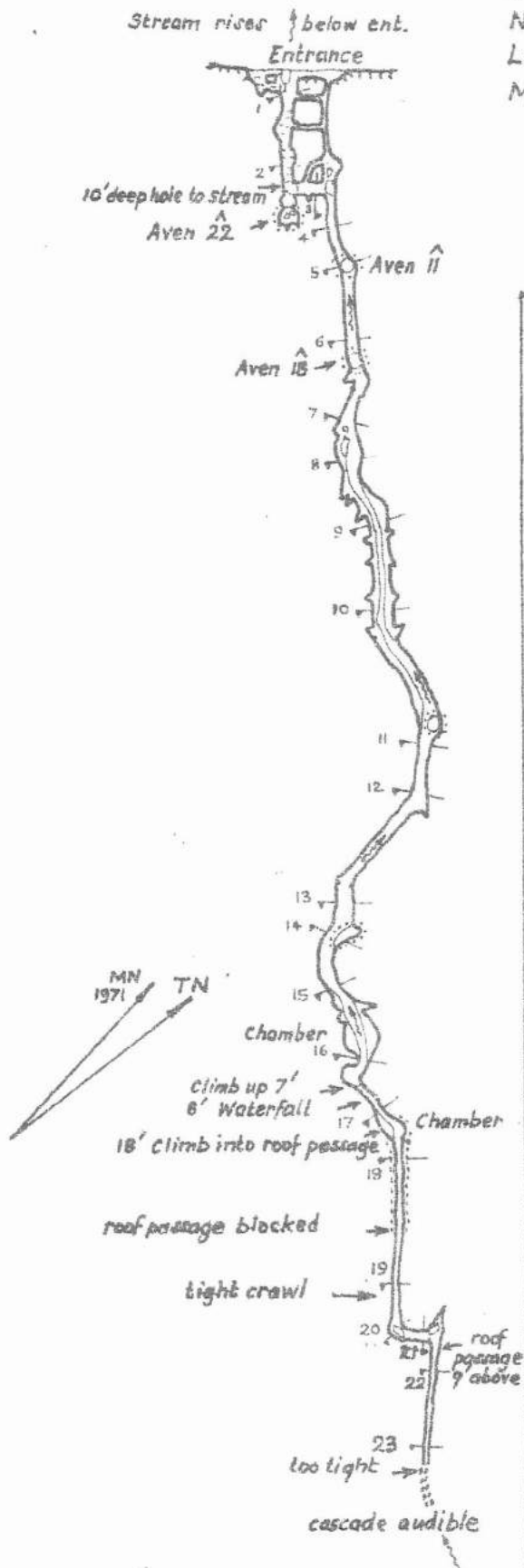
N.G.R. NY 949.273. Alt. 960'.

Length : 450'.

MSG Survey C.R.G. Gr. 4-B, 1971

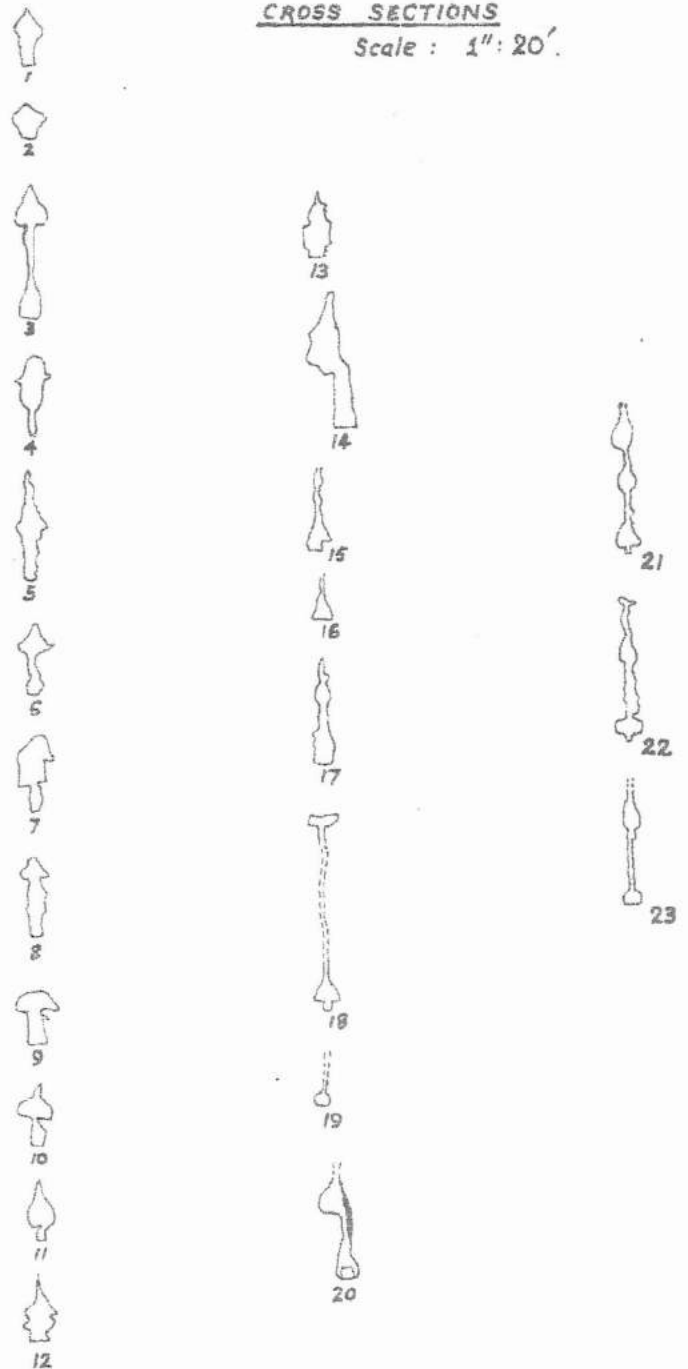
Scale (1" = 40').

0 50 100 Ft.



CROSS SECTIONS

Scale : 1" = 20'.



Lovergill Caves

Lover Gill is a tributary of Cliff Beck, falling steeply into that valley from the south, having its headwaters high on the flanks of Lovely Seat, the fell to the east of Cliff Beck, and the Buttertubs Pass. Three caves are found where the Gill cross the Main Limestone - the situation of many Swaledale caves - and MSG work in the autumn of 1971 included survey work here, leading to the discovery of significant extensions to two of the caves. The easiest approach to the caves is to leave the road at the Buttertubs, drop down and cross Cliff Beck, climb the other side of the valley to above Cliff Force Rising, and contour round to Lovergill - about half an hour of rough walking.

Lovergill Resurgence Cave

This is the first of the caves found by following the Gill upstream (excluding a 15' long bedding cave in a small gorge in the Undersett Limestone), and is on the r. (west) bank. A small stream, falling over sandstone ledges to join the Gill, issues from an inviting door-like opening in a limestone cliff.

Entering the cave, a junction is met after 10' - ahead a boulder strewn bedding chamber, to the l. the stream inlet. Following the stream, past an unstable looking boulder pile on the l., after 25' of hands-and-knees crawl a side passage is passed on the r. This, after a tight squeeze over a fallen block, turns r. along a narrow section, through a pool, and then r. again, to join the bedding chamber near the entrance, thus forming an ox-bow.

The stream passage continues as a flat crawl, for a few feet, then opens into a 5' high collapse chamber. Turning r. through a similar but smaller chamber, another low wet section is met, round a double bend, into a low bedding. From here two ways lead on, straight ahead a crawl over a sand bank into a wide wet bedding, and to the r. a narrower wet crawl, both routes rejoining after 25' in a 3' high 'chamber' with a sand bank, where one can sit up out of the water.

From this 'chamber', the only way on is a wide bedding about 1'3" high, 1' of this being occupied by cold water. On the 15th September, John Cooper intrepidly launched himself into this, on his back, nose scraping the roof. 8' of aquatic wallow further on the bedding gained height, to a squeeze up out of the water onto a sand bank (the lone explorer was unable to entice the other half of the surveying team through - and on his second visit, to complete exploration, he was again alone, his companion on this occasion having found the duck too tight, due to silting). The passage then becomes a more usual vadose streamway, 3' high and 2' wide, angling along the joints - progress here involved some hammering away of chert nodules - to a chamber 6' high, and of similar length and width. The streamway continues beyond, high enough to allow stooping in places, past a small fissure on the l. taking part of the stream. A further 20' of easy crawl leads to a low chamber, and a crawl over and between large fallen slabs into a higher chamber, perhaps 12' high, 12' long and 6' wide. At the end of this the streamway lowers to a hands-and-knees crawl, rather wider than previously, for a few feet, and then turns sharp l. for 6' to a cross-joint, and the final sump - the way on underwater appears to be down to the l. again.

The cave has been surveyed as far as the duck - total passage length to here being 210'. John has estimated the total length of passage beyond the duck as 180', and this will be revisited and surveyed in the near future. Thus the total length of the Resurgence Cave can be taken as c.400'.

On the occasions of our visits, a reasonable stream has been flowing from the cave, but virtually no water sinking higher up the Gill, although the Sink Cave can obviously take a lot of water, and this must go to the Resurgence Cave. The Resurgence Cave is obviously fed by other sinks - these are found about 200 yards away, on the limestone plateau running round to above Cliff Force. Two streams sink in large shakeholes, one with an open 25' deep rift at the sink which is probably too tight to descend. Reference to the 1967 NHC Journal (article on Cliff Force Cave) reveals that these sinks have been dye-tested, in the hope that they might feed Cliff Force (and provide a 'back door' to that system), but they in fact resurged in Lovergill.

Lovergill Sink Cave

Following the Gill up beyond the Resurgence Cave, after a hundred yards or so, and c.70' higher in altitude, cave entrances are found on either side of the stream in a small limestone gorge. That on the r. is at stream level, and obviously can take the stream in flood conditions. This is the Sink Cave, 570' long and 55' deep ('P.U.' gives the length as 125' - it was difficult to see where this figure was derived from). At least 100' of the total was 'new exploration' in 1971.

The cave is best described by means of a survey, being complex in parts. Basically, it consists of an entrance rift intersecting three major cross rifts at right angles, each at a lower level than the previous one. The first rift, 'Top Passage', is entered immediately, after a 6' drop. To the l. leads to choked inlets from the surface stream bed, to the r. to a boulder ruckle, and an opening into a narrower parallel rift, running back to join the entrance rift, and in the opposite direction to another ruckle.

The entrance rift continues down a rather loose 10' drop - a handline is helpful but not essential here - to the second junction. To the r. leads to a choke after a few yards, to the l., across a chamber at least 40' in height, leads to a r. turn into a passage parallel with the entrance rift, connecting with the lowest rift.

This rift, the lowest level of the cave before the 1971 extension, is reached by an easy 15' climb down at the far end of the entrance rift. To the r. is more boulder choke, to the l. a roomy passage (with l. again the connection, probably too tight to pass, with the passage mentioned above) leading past another high aven-like chamber, and through a pool, to a 'T'-junction. To the l. here opens into the parallel South East Rift, 100' of interesting passage ending too tight and choked after several avens, which may be more flood sinks connecting with the stream above. To the r. at the 'T'-junction a low arch opens under the wall of Straw Rift, with a few formations (hence the name), ending eastwards too tight, and in the opposite direction rejoining the main rift behind fallen boulders in the aven-like chamber.

At the point where the entrance rift drops into the lowest cross rift, a slot in the floor was enlarged by hammering away chert nodules, to allow access to a descending crawl, quite different in character to the rest of the cave. This is obviously a vadose stream passage, which acts as the 'drain' of the system. After 100' of small passage it ends in a 10' drop into a pool, above and around which is chaotic boulder choke, emitting quite a strong draught. The end of the Resurgence Cave, as yet unsurveyed, is probably less than 100' from this point.

This final choke is roughly on the same line - more or less parallel with that of the entrance rift - as the boulder chokes which abruptly terminate all the other passages above running in a NW direction (following the NW-SE jointing which seems to control the direction of all the major passages in the cave with the exception of the entrance rift) - a total of six in all. On the surface, above this line, is a gully, and masses of slipped and fallen limestone. This all suggests that there is a fault here, perhaps throwing 10'-15', which crosses the stream at the mouth of the gorge.

Lovergill East Cave

Lovergill East Cave, or Cave II, has an obvious entrance about 6' above stream level on the opposite side of the Gill to the Sink Cave. Surveyed length is 170' ('P.U.' - 160'). The cave is a phreatic cross rift system, similar in parts to the large rifts of the Sink Cave, without the vadose interference seen in the 'drain' of that system. There is one major rift, ending to the SE in a massive boulder choke, and a considerable number of side passages which all end quickly, either too tight or choked. There is some danger here from loose boulders.

Lovergill Sink Cave and Lovergill East Cave are conveniently shown on one survey. The Resurgence Cave survey will be published in a following publication.

LOVERGILL SINK CAVE AND LOVERGILL EAST CAVE

Lovergill, Thwaite.

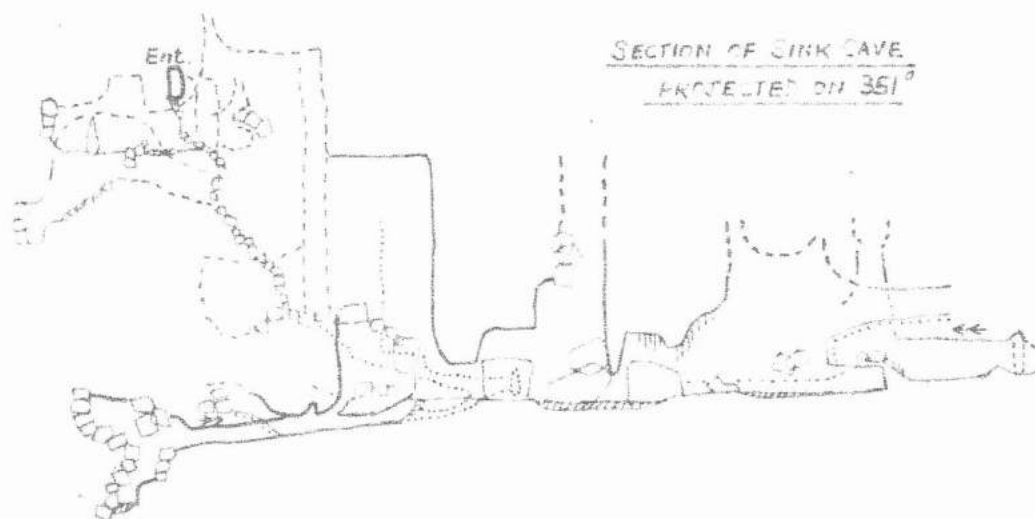
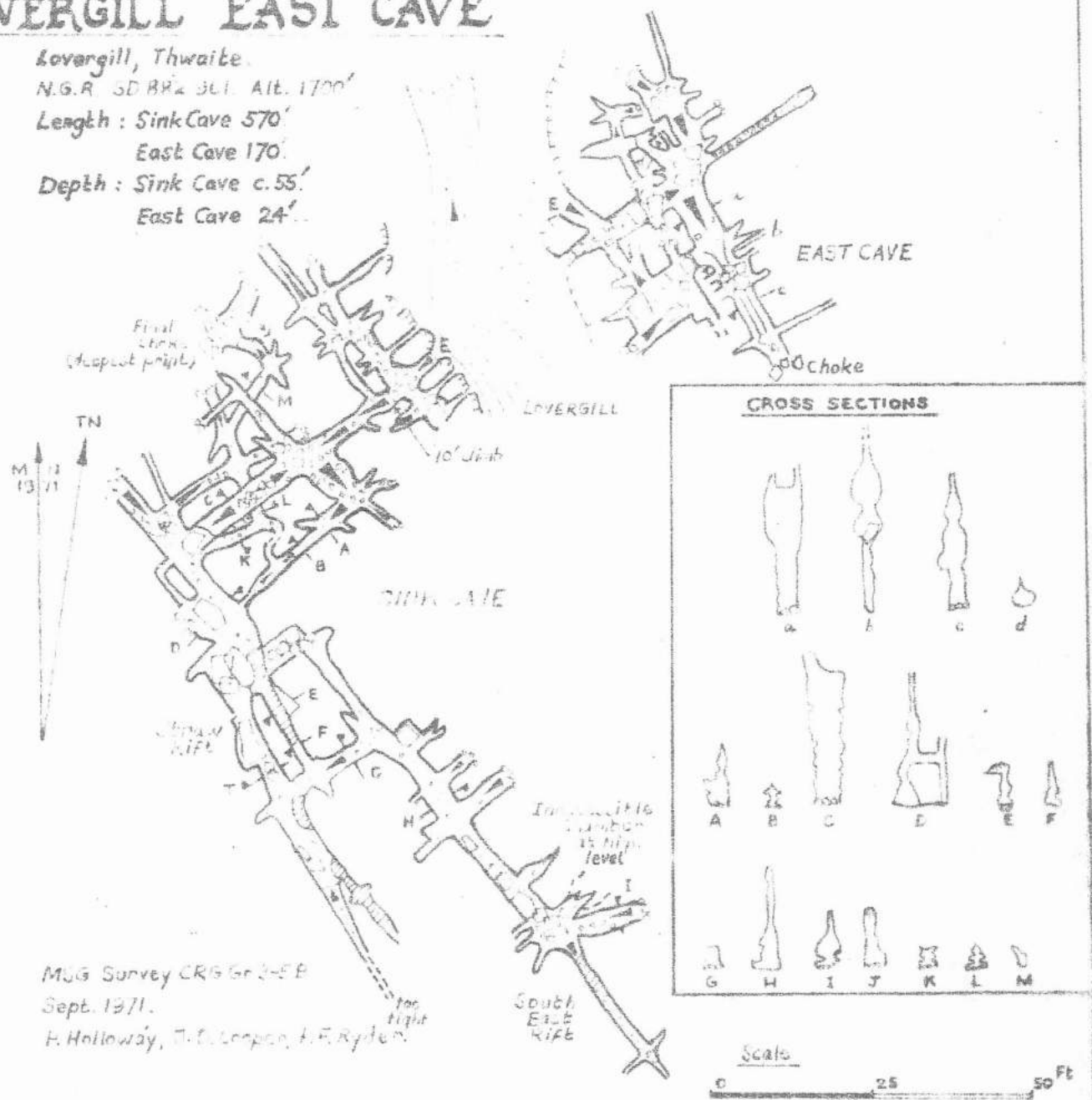
N.G.R. SD 894 361. Alt. 1700'

Length : Sink Cave 570'

East Cave 170'

Depth : Sink Cave c. 55'

East Cave 24'



Priorsdale Cave

This major resurgence near Alston has been the scene of much activity by various clubs over the past few years, originally having been prospected by Jack Myers of NEC, and further probed by DCC. These early efforts yielded 130' of cave, above the resurgence, in which the main stream was not seen.

In June 1971 MSG surveyed this short cave, and took a surface traverse up to Priorsdale Great Shakehole, 400' away, a great crater, evidently formed by collapse, 80' across and 30' deep. It was postulated (see YURT Report 2, article by Martin Davies) that this had been formed by a major collapse on the streamway, thus intensive activity at the rising, and in the short cave nearby, was unlikely to be repaid by access to a "master cave" (using the term loosely), heading to the Little Gill sinks two miles away to the south.

However, assault on the rising, continued, by such parties as the Grampian Speleological Group and the Craven Pothole Club, expending much effort and "chemical persuasion", without success. It was in November 1971 the University of Newcastle Caving Club visited the site, and extended the cave via a tight crawl which had been open and unentered all the time.

A.B. Trewartha, the first to enter the extension, writes - "On the second attempt I managed to get through the squeeze, which leads off a short crawl in the final chamber (not particularly tight but very nasty if you are about 6'3" and have size 11 feet). Beyond the squeeze it was found that a way could be made through the boulders down into the Stalactite Chamber - via a collapsed rift. At this point we came out as only one of us had got through, and the choke is, to say the least, highly unstable."

Subsequent UNCC visits saw the exploration of about 700' of passage, generally trending SE. Beyond the Stalactite Chamber - some attractive formations adorn the flat bedding roof - two routes lead into a very large (25' high, 50' across) chamber, where a bat has twice been encountered. Beyond this a hole in the floor and a short passage lead to a 4' drop, and a 'T'-junction. To the r. is a large passage running for 50' to a massive and chaotic boulder ruckle, fully 50' wide. This has been penetrated in various directions, and at various levels, for 30' to 40', but there is no obvious way on, and no draught. Survey has revealed, as suspected, that this choke is only 50' from the Great Shakehole - the predicted massive collapse.

However, back at the 'T'-junction, to the l. the stream was met for the first time, entering from a low inlet on the r., and sinking after 30' in choked fissures. (From the Stalactite Chamber a high level gallery, through more boulder ruckle than solid rock, leads to a complex choke near the surface ruckle above the rising - the stream is again briefly seen here, just before its emergence to daylight).

The inlet was the obvious way on, the "main stream passage", apparently carrying the full stream seen at the resurgence. However, instead of the expected Fairy Hole-type streamway, this proved to be a very wet crawl, only 2' high, and of similar width. After 80' of dismal going, UNCC exploration terminated at a very acute and tight bend.

At this point Ivan Gibson of UNCC wrote to Colin Carson, and a joint visit to the cave was arranged. On this, CC managed to pass the tight bend, and reported the passage continuing beyond. The following day, the Graham Stevens - Pete Holloway duo appeared on the scene, and GS forced the inlet for a further 150' beyond the bend (on which or around which, PH became stuck, for half an hour or so). The inlet ended where the airspace became unusable, the passage splitting up into narrow fissures, which all appear to sump (there being no draught).

On the 30th December, in wintry weather, CC, GS and Peter Ryder returned to the cave, and the extension was surveyed - a total of 886', making the total length of the cave c.1,020'. The most interesting point to arise from the survey is that the stream inlet is trending virtually due north - whereas the sinks are to the south. The streamway is in fact heading straight towards Ashgill, where the Limestone outcrops are somewhat masked by mine tippings and workings. Various explanations of this trend,

and of the nature of the streamway, can be suggested :-

- (i) The cave stream is in fact part of Ashgill, and the system is much more local than was previously thought.
- (ii) The stream is the Little Gill water, which has been diverted around the massive collapse under Priorsdale Great Shakehole, and has since the collapse cut itself the present rather immature passage.
- (iii) That, on the occasion of our visits, the Little Gill sinks have not been active, and the present stream is an inlet from Ashgill or elsewhere. The Little Gill water normally enters at some other point in the cave, as yet not located (possibly in the ruckles near the entrance). There is evidence of stream flow in the debris in the Final Choke, but this could be explained by the stream that has been observed sinking in the Great Shakehole in wet weather conditions.

The third of these suggestions is perhaps the most likely. I think the Little Gill sinks have in fact been tested to Priorsdale (by NPC or DCC), but on the occasions MSG have visited them, very little of the Gill has in fact been passing underground.

Thus Priorsdale has at last yielded a respectable cave, but certainly not the hoped for major system, running most of the way to Little Gill. The very similar sink - resurgence system at Blaeberry Burn and Fairy Holes, Weardale, gave hopes that a similar cave to the now inaccessible Fairy Hole ($2\frac{1}{2}$ miles long) would exist at Priorsdale. Priorsdale Cave is something of an anticlinax (albeit a predictable one, to those who have seen the Great Shakehole), to the efforts of all the parties who have attacked the rising. A further extension of the cave, at least, one of any great length, now seems rather unlikely.

Our thanks are due to UNCC for allowing us to further explore and survey their extension to the cave.

It should be noted that the squeeze into the extension is awkward and tight, and the boulder ruckles beyond are very unstable in parts, especially around the high level gallery. Rescue of an injured person through the squeeze would be extremely difficult.

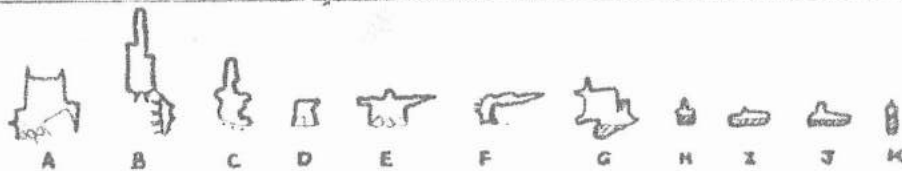
Windmore End Cave

The survey of Windmore End Cave, one of the albatrosses which periodically hang around the Group's neck for a while, was commenced in 1968, and finally completed (this completion required three trips, one largely occupied by extracting Chris Langthorne from the Clarty Gap squeeze) in 1971. The survey is here published, and a brief account to accompany it.

The cave basically consists of two major phreatic rifts, not quite parallel, connected by 'Clarty Gap' (the name bestowed on the original DCC exploration), a narrow 25' long crawl. The main feature about the system is that it lies near the rising for Swindale Pots (or, as termed by the optimists, the "Swindale Master Cave"), and was possibly at one time the rising itself. However, the present rising is an impenetrable pool, beyond a fault terminating the limestone outcrop, and Windmore End has yet to yield a way on, despite a story, originating at the time of the DCC exploration, of two cavers who, in some corner of the system, found a tight route into a stream passage, but had to exit due to failing lights before they could explore any further. This inspired the surveying, and exploration. No stream passage was found. Water does enter the cave, in wet weather, at two points (see survey), but quickly sinks again in impenetrable fissures.

The cave is generally very muddy, well decorated in parts (in the 'New Series'), and tight and awkward in others. The 12' chimney at the far end of the Main Rift is far easier to descend than ascend. The final 60' or so of the New Series Rift was apparently not entered by DCC, but could well have been explored by others before our survey.

CROSS SECTIONS (Scale: x 2 of Plan)



PRIORSDALE CAVE

Ashgill, Alston.

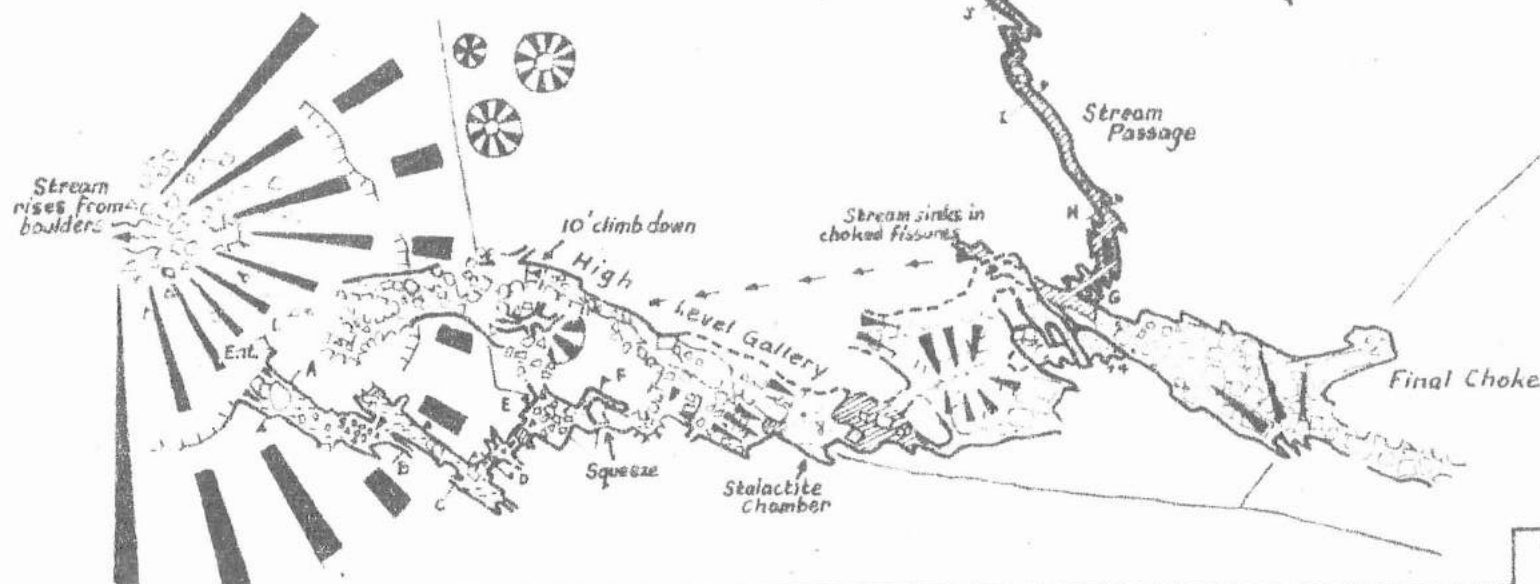
N.G.R. NY 779.411, Alt. 1650'

Length: c. 1020'

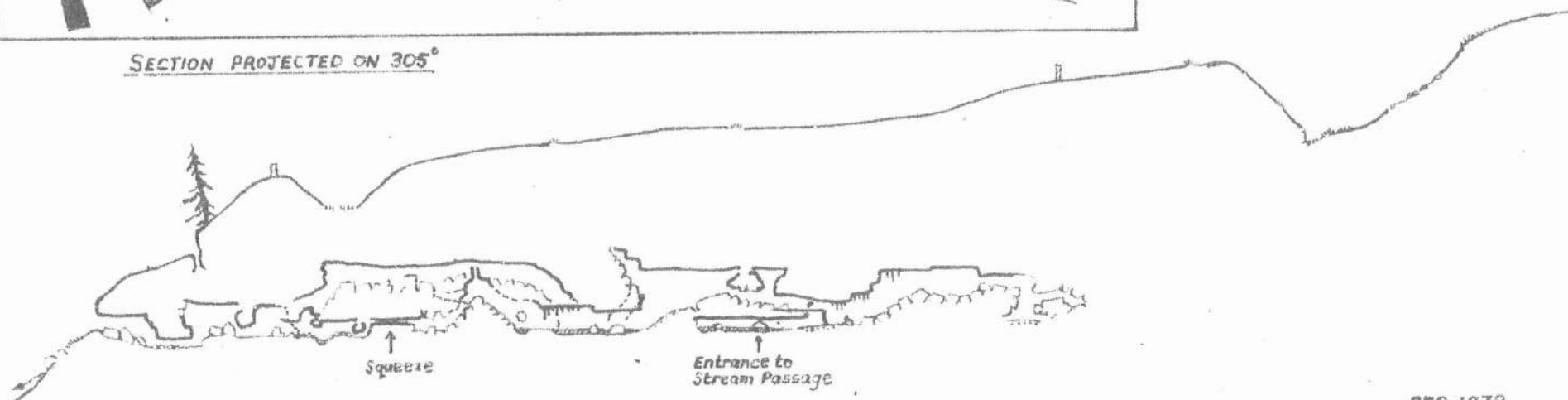
MSG Survey June 1970/Dec. 1971 CRG Gr. 3-5 B

J. Arrowsmith, C. Carson, P. F. Ryder, G. Stevens.

Scale 0 50 100 Ft.



SECTION PROJECTED ON 305°



Windegg Mine Caverns

Location and History of the Mine.

The Windegg Mine Caverns are situated under the N.W. slopes of Booze Moor, north of Langthwaite in Arkengarthdale. They were first entered by lead miners via rises from Windegg Old Level. The level entrance is shown and named on the 1856 O.S. map. On the Stang road, about $1\frac{1}{2}$ miles above Eskeleth Bridge, and just past Shaw House, there is a bridge over a gully. In wet weather a stream flows in the gully, but upstream it is grassy floored, and becomes indistinct at the foot of some prominent grassed over spoil heaps about $\frac{1}{2}$ mile from the road. The original level entrance is found above and behind the tips, and the present access, an excavated shaft, is about 20' further along the line of the level.

The level was commenced about 1845 by Whitwell & Jaques who also worked the Stang mines at the time. It was driven to intersect the extension of the Windegg vein which had already been cut in Washy Green level (or Harker's level), driven N.E. from the head of Sleil Gill. Ore was recovered from veins in the Main Limestone in sufficient quantity to justify the taking over of the lease by the New C.B. Mining Company about 1890, and later by the Stang & Cleasby Mining Company who worked it until about 1910 (Evidence of this late working in the mine is the presence of sticks of "hard" dynamite and detonator boxes. Two mine agents in these later years were William Peacock and Geo. Harker.

Local legend has it that Geo. Harker, then a smelter, was very keen on getting the job of Mine Agent competently held by Peacock. About 1900 Peacock had man in Windegg Old Level opening up a cross vein somewhere on the east branch (see below) which was proving good ore. Meanwhile, by fair means or foul Harker got Peacock's job. Peacock in a fit of pique ordered his men to fill up the drift into the vein and wall it up at the mouth. The miners, not liking Harker, kept the secret from him, and with the closure of the mine a few years later, the details were forgotten.

Modern history of exploration.

In 1959 the Farby Mine Research Group excavated the present entrance, a small shaft about 6' deep, into the roof of the level. It entered beyond the run-in which had occurred between this point and the original entrance some 20' away, and explored the adit level. In 1964 Dave Carlisle, and the E.M.R.G., having heard the legend, cleared out and re-timbered the shaft. They followed the 440' of stone arched level to the First Rise. Here the level forks, and on the l., the east branch, Clay Vein Passage, runs past several rises for 770' to a shale blockage. They did not find the legendary cross vein which (if it exists) must lie beyond this fall. The other passage from the First Rise continues the line of the entrance passage, but is larger and without arching. It contains knee-deep water, and runs for 240' to the Second Rise. Climbing this a sizeable natural cavern was found (since named Carlisle Cavern) and a small amount of natural rift passage. A couple of visits were made in 1967, and following these the entrance shaft was filled in.

It was not until September 1970, during conversation with Dave Carlisle at the B.S.A. Conference, that MSG heard of the natural cavern. Accordingly a visit was made shortly afterwards, when half a day's digging re-opened the shaft. At its foot one slithers down a mud slope through a hole in the roof of the stone arched level. The shaft timbering and stonework of the arching had deteriorated somewhat, but was considered adequately safe for careful progress. Dave Carlisle showed the party the passages known to him. Near the end of Carlisle Cavern Pete Stephenson found an unlikely hole hidden behind a huge fallen block. Down this, a large passage developed, leading to a nine-way junction. The party pressed on, passing several more chambers and junctions before returning. In the next few weeks several different parties, mostly of MSG members, visited the caverns, and each returned with accounts of series of passages everywhere with junctions

every few feet. It was obvious that a systematic approach was required with survey and exploration proceeding together. Thus as each survey session was drawn out it became apparent that many passages simply led back into the central maze area, and others led into new areas, and should be surveyed next. Surveying was carried out by several parties, and to facilitate this temporary survey stations were marked at suitable places. Mud on the tape usually limited surveying stints to a couple of hours, and the exploration and survey occupied about 70 man (or woman) visits to the caverns, with generally three persons in each party.

Two preliminary reports on the system have been published so far (Refs. 1 & 2).

Geographical Description.

The complexity of the caverns makes detailed description rather tedious. The pattern of interconnection is best studied on the survey and this account is intended to supplement the survey, particularly in the more complicated areas, or those with special features.

The natural caverns and mine workings have four places of interconnection. The least useful of these has been the ore-chute down the rise connecting Truck Passage to Clay Vein Passage (the east branch of the level at the First Rise). A descent of this rise has been made giving a round trip but this cannot be recommended as the miners' platforms are unsound and support loose deads.

The other three connections are all found by ascending the Second Rise. Here the main Windegg Level turns right, and at the corner a wooden ore-chute is situated in the rise. The "Parallel Bars", two baulks of timber wedged about $2\frac{1}{2}$ ' apart 5' up the rise, aid the 12' climb up to the large mine passage above the ore chute. Two small drifts run off here and in the wall of the southerly one (on the right) a bolt hole for a $\frac{3}{8}$ inch rawlbolt was drilled to allow a ladder to be fixed, avoiding the use of the old timbers. A few feet into the passage above the ore-chute a further rise can be climbed with difficulty for about 15' and leads directly into the southern end of Carlisle Cavern. Below and beyond this further rise the mine passage splits and the left branch leads to a small chamber whose floor is a mound of clay. To the left a few feet above the floor a mud slope drops into the chamber. This slope may be scaled, and it doubles back up a climbing rise into the floor of Carlisle Cavern. The upper parts of this rise are walled with deads supported on decayed timbers, and in general this route is best used only for descent and even then extreme caution is needed. Below the point of emergence of this route into the small chamber (i.e. on the left on entry from the ore-chute) descent of the mound leads into another mined passage at the end of which an ascent of 15' can be made in easy stages into the end of a rift, the northern continuation of Durham Rift. This route has a few deads in it, but on the whole provides the easiest and safest route into the caverns. The direct climb up the rise near the ore-chute is the safest but is technically difficult, being muddy and slightly overhanging at the start.

On the east side of Carlisle Cavern close to the top of the climbing rise a small hole in boulders leads to the Traverse Rift Series. Here a series of narrow natural rifts open into larger mined passages. A 15' hole in the floor is crossed and a mined chamber is entered. Just beyond this a mine truck is found, and past this is the shaft and ore-chute into Clay Vein Passage.

Leading off from the south end of Carlisle Cavern are a series of narrow rifts which often require traversing at intermediate levels, being too tight at floor and roof levels. These connect with smaller tube-like passages, two of which lead into Durham Rift, the others all eventually pinching out or becoming choked with clay. Traversing is needed in the south end of Durham Rift and in the passages SW of Bridge Chamber. These latter passages both eventually become too tight, but one or two unsafe areas have been left.

WINDMORE END CAVE

Swindale, Brough, Westmorland.

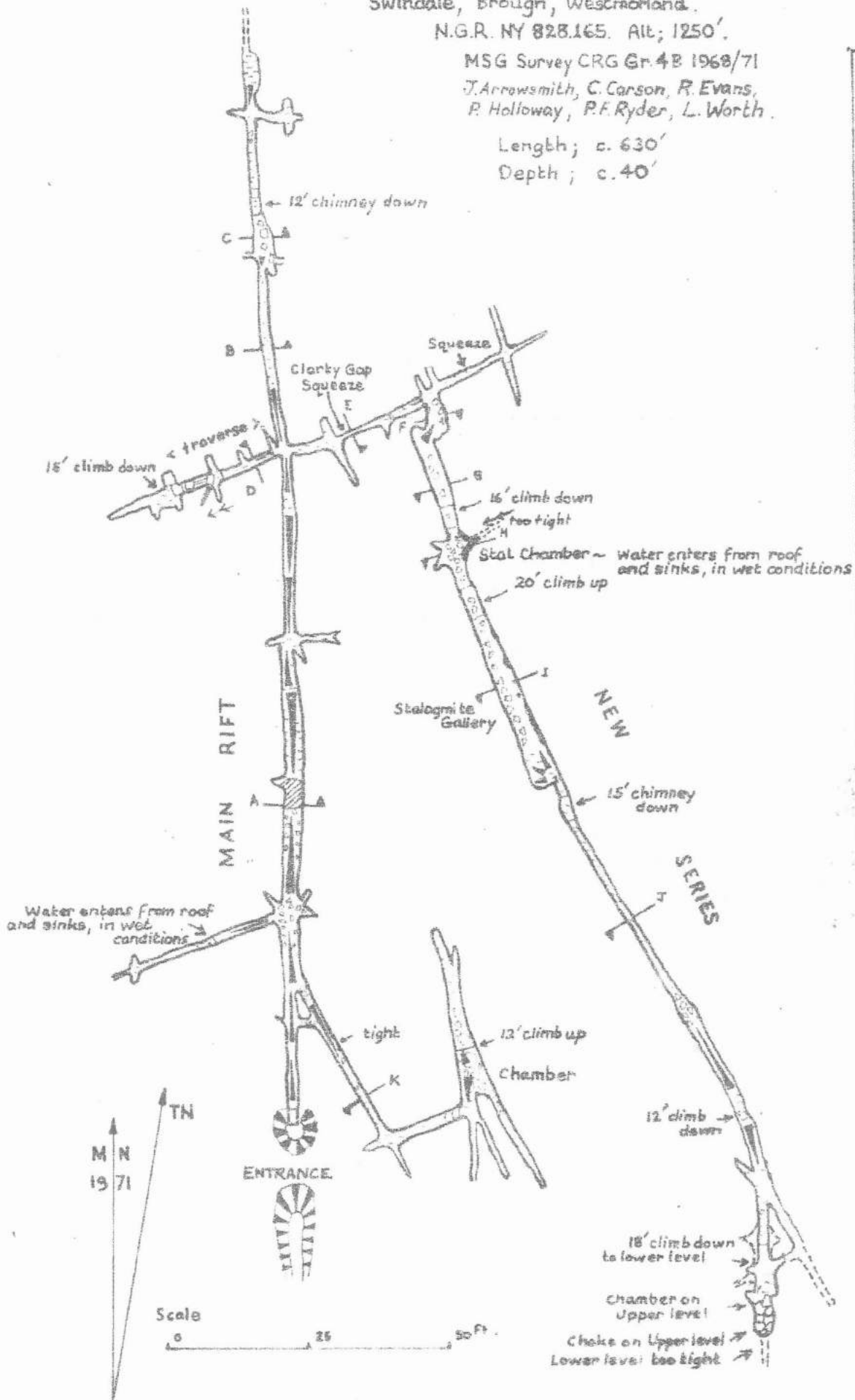
N.G.R. NY 828.165. Alt; 1250'.

MSG Survey CRG Gr. 4B 1968/71

J. Arrowsmith, C. Carson, R. Evans,
P. Holloway, P.F. Ryder, L. Worth.

Length; c. 630'

Depth; c. 40'



CROSS SECTIONS



The passages to the W of Eyehole Crawl have only been visited once, and were surveyed to Grade 2. Steep mud slopes lead down into a 15' climbable pot with a small stream at the bottom flowing in a 6" wide channel. At the top of the far mud slope is a boulder chamber whose W end is highly shattered, and the passages beyond were rapidly pinching out.

Creaking Boulder Cavern is the tectonic focal point of the system. It consists of a large chamber on two levels, the upper level being on top of a massive boulder ruckle that spills out into the lower level and into the adjacent passages. Boulder movements have occurred here while parties were moving about in the vicinity, the direct climb up the ruckle from lower to upper level not being recommended. Instead the small passage to the west of the main slope is safer, but the way into it is a little circuitous. The western passages leading off from the upper level contain some stalagmitic walls, and in one passage some small animal's pawprints were clearly seen, but neither of the explorers were able to identify them.

Clog Chamber is reached by a 6' climb out of the chamber to the east of Creaking Boulder Cavern. In it are to be found well preserved specimens of miners' clog prints in the mud.

The passages in general are mud and boulder floored, and apart from some of the traverses, are not especially hard to negotiate. Route-finding difficulties, and loose boulders and walls however are abundantly present and require extreme caution. A missed turning could lead one unwittingly into an unsafe area. Would-be visitors are strongly advised to make arrangements through MSG, who can also arrange the access permission.

Lastly, it should be pointed out that the entrance shaft timbering is now several years old, and was originally installed on a temporary basis. The level is in a state of imminent collapse and requires shoring if access is to be maintained. This work is beyond the means of the MSG both financially and in terms of manpower. It seems regrettable that Windegg Mine Caverns are destined to become inaccessible just as all the other mine caverns in the Northern Pennines have done within recent years. Whilst the cave itself is rather dangerous in parts, it is also unique in being the only mine cavern in the Northern Pennine Orefield presently accessible for scientific study. The effort required to maintain its accessibility is small compared with that required to re-open major collapses, but time runs short and action is needed now.

References

- 1). Journal of the British Speleological Association Vol.VI No.46. Sept.1971.
- 2). M.S.G. Journal No.4. May 1971.

Acknowledgement.

The MSG wish to express their appreciation to Dave Carlisle for the part he has played in their efforts at Windegg. He is also to be thanked for providing the history notes on the mine, and details on the E.M.R.G. explorations.

Graham Stevens.

Some thoughts on the Geology and Speleogeomorphology of Windegg.

Peter F Ryder.

The mode of formation of Windegg Mine Caverns presents a variety of interesting problems. Virtually all the system appears to be totally phreatic in origin (one small crawl running N from Carlisle Cavern does appear to be a more recent vadose inlet, but this is an exception). In most phreatic networks there are indications of the direction of the former flow of groundwater, i.e. scalloping, but there is little such evidence in Windegg, what scallops there are being sparse and indeterminate.

The most notable feature of the system, obvious on viewing the survey, is the density of the network of passages in a limited area. In all, c.3,750' of cave passage have been surveyed, yet this is all within 300' of the central maze area (between Creaking Boulder Cavern and

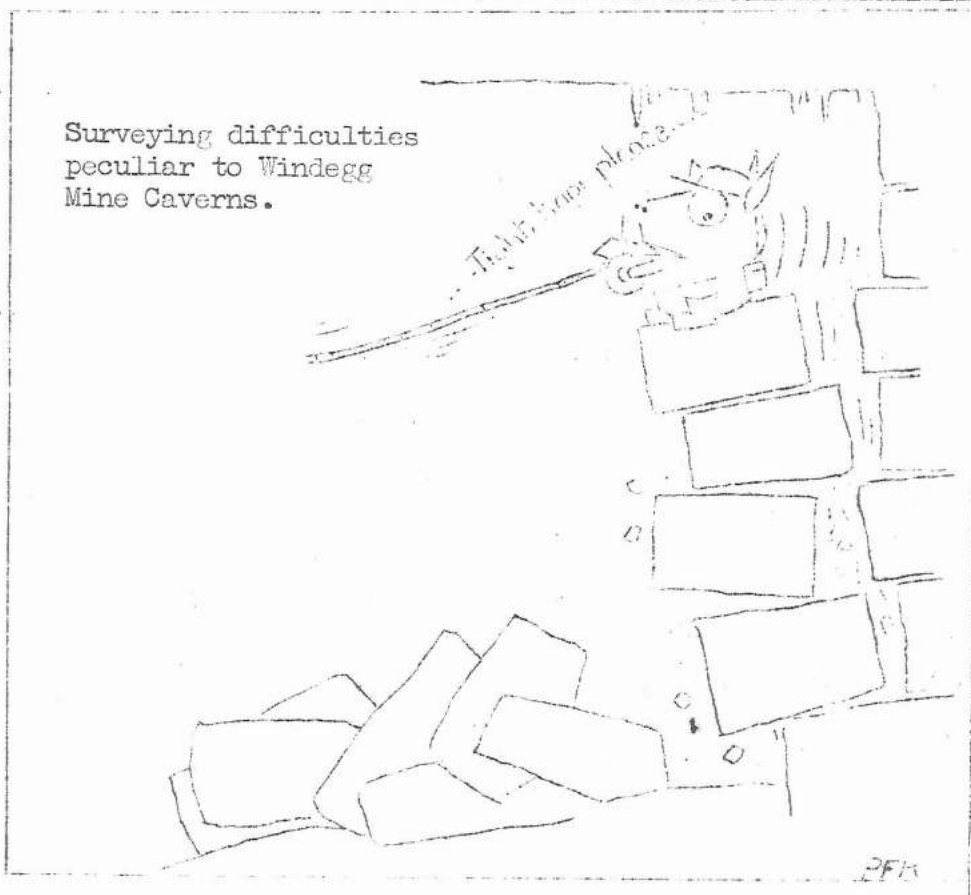
Nineways Junction), and there is little evidence to suggest that cave development extended much beyond this.

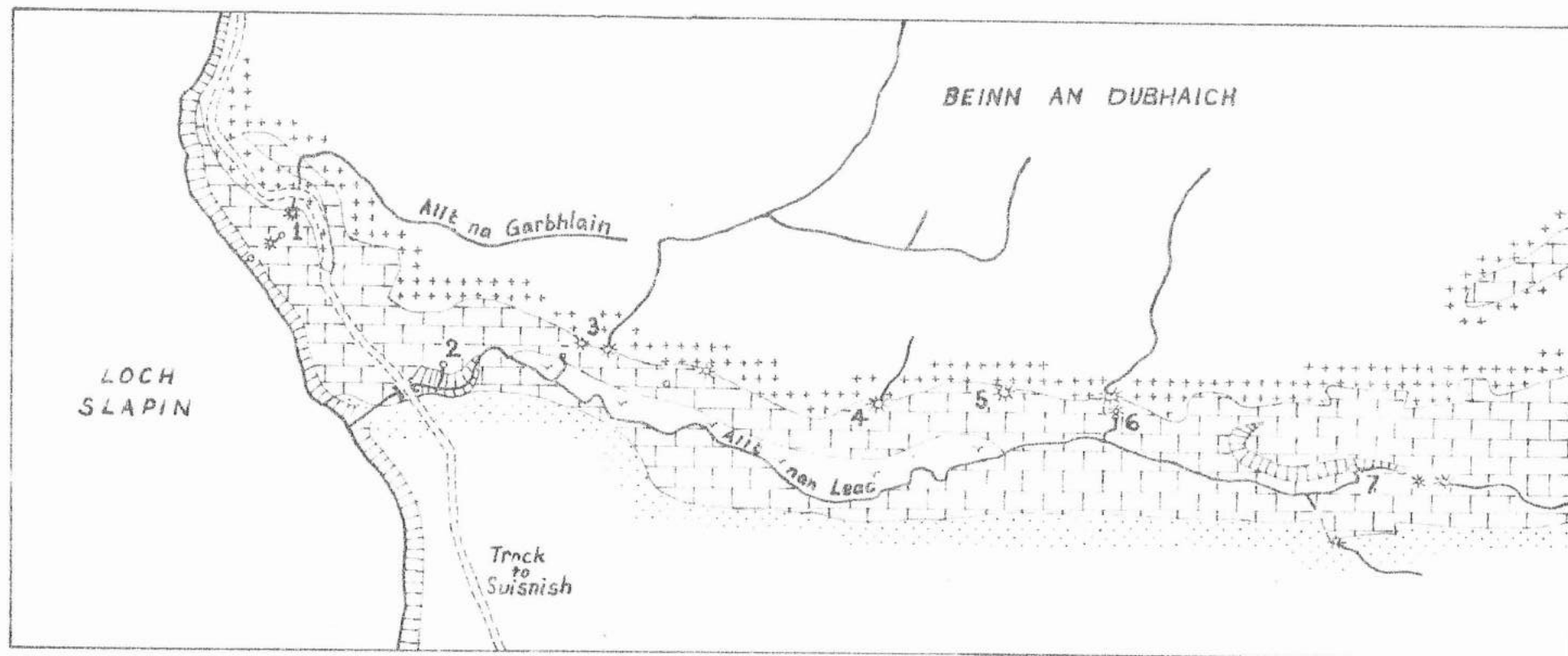
An area of limestone on the fringe of the area of cave development can be seen by following the level beyond the Second Rise for a few hundred feet, to the Third Rise - a 20' climb into a high level mined passage. A variety of natural rifts and fissures can be seen from this, but with the exception of two small chambers, both reached by short climbs above this sub level, none are large enough to enter.

Reference to the recently republished O.S. 1":1 mile geological map suggests that the Caverns are situated in a relatively small block of the Main Limestone cut off to the north and west by faults - this would account to some extent for the localised development. There is one piece of evidence, however, to suggest that Windegg Mine Caverns are in fact just a small part of a much larger network. About half a mile south of the level entrance, on the limestone plateau above Little Windegg Scar, is Damocles Hole (described, with survey, in MSG J1.3). Here a collapse in a small shakehole, well away from any sinks, allows access to a very short section of a fine phreatic tunnel, very similar to those seen in Windegg. Only a few feet of this passage are seen, before a second collapse terminates the cave, which is all very unsafe. Total length is 120', and depth 36'. It was thought on finding this that a very extensive fossil system must underlie the area. If Damocles Hole and Windegg Mine Caverns are part of the same area of development - even though they are separated by faulting - then many thousand feet of passage must await discovery.

A search of the surface all around Windegg has revealed little. At one time we hoped to be able to find a natural entrance into the Caverns, but this now seems most unlikely, since cave development seems to cease well short of the surface limestone outcrop. Further afield, one or two small holes were found in Windegg Scar (there is Horrock's Cross Cave here - again see MSG J1.3), but nothing more than a few yards in length, and none showing the impressive phreatic development of Windegg and Damocles Hole. However, there are said to be natural caverns in Washy Green Level, Slei Gill (see above), which cut the Windegg Vein, and also in the now blocked Stang Level, in the valley bottom above the gully running down from Windegg Level entrance.

Surveying difficulties
peculiar to Windegg
Mine Caverns.





THE ALLT NAN LEAC VALLEY

SKETCH MAP, SHOWING CAVES AND GEOLOGY (SIMPLIFIED)

SCALE ; 6-375" ; 1 mile

KEY :



Durness Limestone.



Beinn an Dubhaich Granite.



Jurassic Limestones and Sandstones.

The Caves

1. Camas Malag Cave.
2. Uamh Sgeinne.
3. Beinn an Dubhaich Cave.
4. Uamh Craobh Sheileach.
5. Uamh Sluic.
6. Claon Uamh.
7. Uamh Cinn Ghlinn.



Introduction

In the last year two MSG visits have been made to the Isle of Skye, following up a preliminary reconnaissance in 1968 (see MSG Journal 2, 1968). The following report is not a final definitive account, but a record of work so far carried out, and various new explorations.

Previous Work in the Area

Camas Malag, in part at any rate, and Beinn an Dubhaich caves had been explored previously, and the latter cave roughly surveyed (Irish Speleology Vol.1 No.1.) Northern Pennine Club members had also briefly visited the area (see NFC newsletter No.27. July 1968), and explored one short new cave. We have so far been unable to trace any other references to the area and the caves. Some "cavers'" litter found near the Top Entrance to Uamh Sgeinne suggests that a previous party, or perhaps one person, had been in that part of the cave, but there is no evidence of a complete previous exploration.

A Description of the Area

The Allt nan Leac valley runs east-west, the stream flowing westwards to fall into Loch Slapin, one of the major Skye sea lochs, about six miles south of Broadford.

To the north of the valley is the rough upland area of Beinn an Dubhaich, reaching a little over 775', developed on a granitic intrusion. The Cambrian Durness Limestone, in which all the caves described are developed, outcrops along the south flank of the granite, forming a more or less continuous belt. This outcrop forms the lower part of the north side of the Allt nan Leac valley, and in places the valley floor. The limestone generally dips steeply southward, and to the south disappears under Jurassic strata. Various igneous intrusions occur in the limestone itself, and have interesting effects on cave development.

To the east of, and beyond the area covered by the main part of this report, the line of limestone outcrop joins a similar band which runs on the north side of the Beinn an Dubhaich granite, and the belt of limestone then swings northward, and runs to within a mile or so of Broadford, and the coast. This section forms the ridge of Ben Suardal, reaching over 900' O.D.

Most of our work has been concentrated in the Allt nan Leac Valley itself, but various walks have been made over the other parts of the Durness Limestone outcrop, and little or no cave development found in them. This is probably ascribable to the fact that the Allt nan Leac valley is the only area where impervious rocks (i.e. the granite) are adjacent to the limestone, and at a higher level, so that streams can collect and flow onto the limestone, where they sink and form the various cave systems described. Further north and east the limestone forms a ridge between two valleys, with little or no surface drainage.

The various caves described in this article are ranged along the limestone outcrop, from Camas Malag cave in the west, where the outcrop reaches the sea, and at various points along the north side of the valley for a mile and a half eastwards, to Uamh Cinn Ghlinn - Valley Head Cave - where the Allt nan Leac itself sinks and rises.

Cave Names

For the caves, apart from Camas Malag Cave and Beinn an Dubhaich Cave, which had been named previously, we have coined names, and had these suitably translated into Gaelic. These names, with Gaelic equivalents, are:

- The Cave of Knives / Uamh Sgeinne
- Willowtree Cave / Uamh Craobh Sheileach
- Pit Cave / Uamh Sluic
- Slant Cave / Claon Uahn
- Valley Head Cave / Uamh Cinn Ghlinn

MSG Visits to the area

The original visit to Skye, by Dave Atkings and Peter Ryder, was made in September 1968. PFR explored Camas Malag Cave through from "daylight to daylight" with a fast-fading Nife cell, and also made the first "through trip" in Beinn an Dubhaich Cave, enlarging the Sink Entrance with a little hammering. JDA was briefly tempted underground, but with inadequate lighting etc. no serious work or surveying could be undertaken. The choked entrance to what later proved to be Slant Cave was noted, along with other features of interest in the upper Allt nan Leac valley. This visit was briefly reported in the 1968 MSG Journal (No.2.)

Easter 1971

PFR, Colin Carson, and Chris Langthorne arrived on Skye in a hired mini. Camas Malag and Beinn an Dubhaich Caves were surveyed on the first full day in Skye (Monday 12th April). On Tuesday speleological pursuits were forsaken, and the extremely impressive Sgurr nan Gillean, the highest peak of the Northern Cuillin, climbed. Wednesday morning saw the NFC find, Willowtree Cave, "rediscovered", the nearby pothole (Pit Cave) descended, and Slant Cave entered after a few minutes digging. In the afternoon CC and CL again succumbed to the lure of the Cuillin, whilst PFR began digging, with geological hammer, at a boulder choked rising at the head of the Allt nan Leac, and rather to his surprise opened up an accessible-sized entrance, and made the first exploration of the rather aqueous Valley Head Cave solo. The following (Thursday) morning, on which it had been intended to leave Skye, CC and CL were dragged back to this cave, by tales of caverns vast, and completed the exploration, as well as surveying the 270' of cave found.

September 1971.

A more ambitious visit had been planned, but due to vehicle failures etc., various people dropped out, and in the end, on Friday September 3rd, it was only John Cooper and PFR who arrived at the campsite on the beach at Camas Malag, in PFR's van. JDA appeared two days later, to sit in the sun, and this time could not be lured underground at all. Nevertheless, a useful amount of work was carried out.

On Saturday September 4th Beinn an Dubhaich Cave was extended, in rather wet conditions, by digging out a choke, into the streamway, and following a further 50' of passage with an impressive chamber, to a final impassable bedding. Slant Cave was more closely examined, and properly surveyed. Sunday was spent looking at the Cuillins, this time from the bottom, and on Monday much limestone was walked over in the Ben Suardal area, without finding anything. On Tuesday morning various photographs were taken in Camas Malag, Beinn an Dubhaich and Slant Caves, and later PFR again walked several miles over remote limestone outcrops, finding nothing of importance. Meanwhile, JDC had a look at the lower Allt nan Leac valley, which really should have been visited earlier, and came back reporting a limestone gorge and an open resurgence cave. A further brief inspection (by PFR with a box of matches) in the evening twilight confirmed that this was "promising", and so again the return was delayed, and on the following morning The Cave of Knives was explored and surveyed, before leaving the Isle, and a virtually non-stop 438 mile drive back to Darlington.

Further Work.

We hope to return to Skye again in the fairly near future. The open and almost open holes in the Allt nan Leac valley have been explored and surveyed, but little more than this. There seems little possibility of caves of any great extent, but several hundred feet of passage may await discovery at a few sites. Further MSG Journals should contain reports on this.

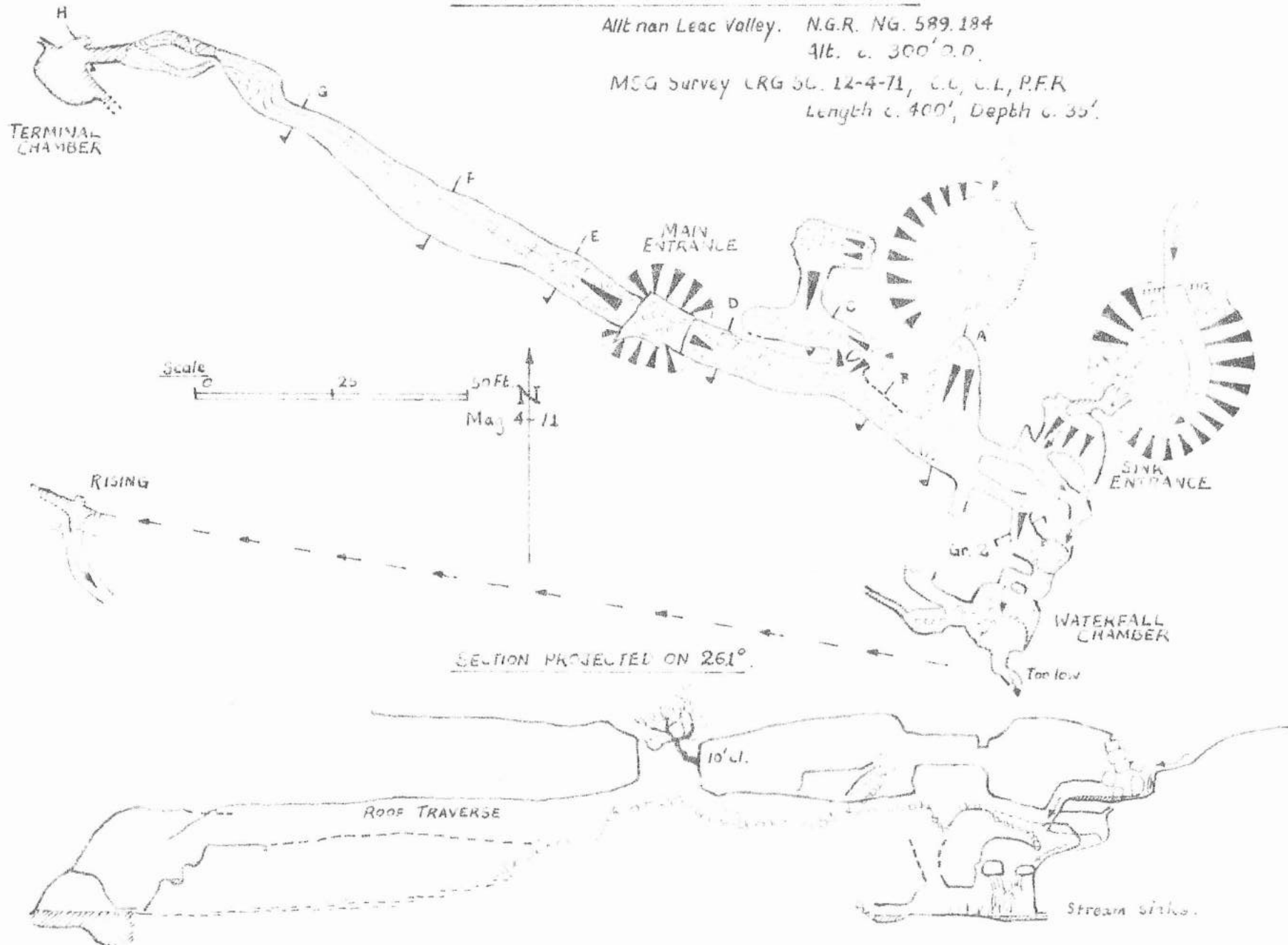
BEINN AN DUBHAICH CAVE

Allt nan Leac Valley. N.G.R. NG. 589.184

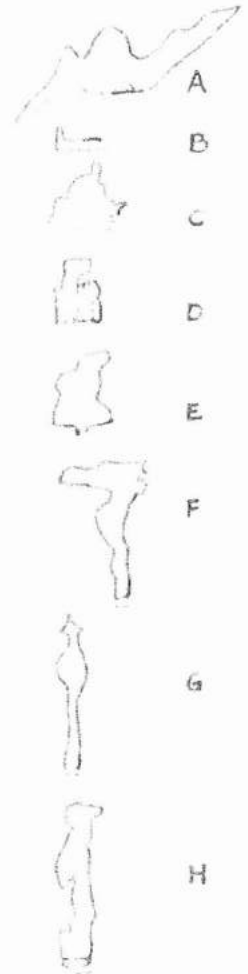
Alt. c. 300' D.D.

MSG Survey CRG 56.12-4-71, C.C., C.L., P.F.R.

Length c. 400', Depth c. 35'.



CROSS SECTIONS:



Description of the Caves

In describing the caves of the Allt nan Leac valley, the systems nearest the coast are described first, working eastwards up the valley.

If one follows the coastal track, running south from Torrin to Suisnish, limestone is first encountered passing above the sea cliffs at the south side of the sheltered bay of Camas Malag. The track winds inland round a small valley, containing a stream, the Allt na Garbhlain, flowing down off Beinn an Dubhaich to the east. Immediately below the track this stream drops into an obvious open sinkhole - the upper entrance to Camas Malag Cave.

Camas Malag Cave

In reality there are two separate caves here, but they are so close together that they can be treated as one. The stream sinking in the obvious sinkhole below the track flows through the Upper Cave, and resurges over an igneous dyke, which has obviously controlled the base level to which this part of the cave could develop. The stream flows over the dyke on the surface, and immediately drops underground again into the Middle Cave, which has several entrances dropping into the streamway, before the resurgence, which is in the actual sea cliff. One of these entrances has unfortunately been the repository of masses of domestic rubbish, and this obnoxious tip effectively chokes the cave at this point, providing a division between Middle and Lower Caves.

The Upper Cave is the most interesting part of the system, having a total (surveyed) length of c.400'. The stream can be followed through from the sink to the rising, the passage at first being a hands-and-knees crawl, developing, after a flat-out section through a pool, into an attractive 8' high streamway. This lowers again just before the rising is reached, and the caver has a choice of two exits, a dry squeeze up over a boulder, or to crawl out with the stream. There are two side passages of note in this part of the cave, besides a few small ox-bows (see survey). The longer of these is situated immediately inside the upper (sink) entrance, and runs straight ahead where the streamway bends l. This is a low bedding, and forks into two, the r. fork becoming too low, and the l. branch continuing for perhaps 40', before becoming too low and choked. The second side passage enters the streamway at a very acute bend about 90' from the lower entrance, and is a tight ascending rift - a thin man could probably proceed further than the 15' of so shown on the survey. This could well be an inlet from the area of low and choked heddings seen in the first side passage.

The stream, after flowing on the surface for about 30' from the lower entrance to the upper cave, suddenly falls 20' into an open pothole. Nearby a small hole drops into a passage entering this pothole about 10' down, and a second hole drops straight into the streamway. The most practicable entrance to this section of the system is a few yards nearer the sea, in a large shakehole. The Middle Cave is basically one large passage, divided in places into upper and lower levels, connecting with all these entrances and the base of the open pot. The lower level of the passage, containing the stream, terminates downstream in the above-mentioned rubbish tip, which chokes an open pothole in the same shakehole as the main entrance to this section.

Assorted rubbish from this tip is scattered throughout the Lower Cave, which would otherwise be a very pleasant walking-sized stream passage, entered from the rising about one third of the way down the sea cliff - and reached by an easy scramble. The roomy passage ends upstream in the rubbish choked open pothole - an exit could be made here, but it would be rather hazardous and unpleasant. Half way along the length of this section a small passage enters from the north, in the roof - this was not explored. Total length of the Middle and Lower Caves is c.220', making the length of the system as a whole c.620'.

On the last visit to Camas Malag Cave it was found that more domestic debris had been dumped in the upper entrance to the upper cave, the sinkhole below the track, too much to be attributed to passing campers. Presumably the cave entrances, being beside the track, are being used as a tip by a local community - this is most unfortunate.

Following the coastal track on southwards from Camas Malag Cave, after about a quarter of a mile one comes to a bridge over a much larger stream, the Allt nan Leac itself, here flowing along the southern edge of the limestone outcrop. Above the track are a series of impressive cascades and waterfalls in a gorge, the north side of which, and parts of the south, are formed by the Durness Limestone (most of the south wall of the ravine is of the overlying Jurassic strata). Below the track a further series of cascades falls steeply into the sea.

Scrambling up the gorge from the track, one passes several small holes, mostly where parts of the stream pass underground for a few yards, and rise again. However, perhaps 100 yards up from the road, there is a tributary on the north, which rises about 50' up the hillside from the stream. The rising itself is a small pool, but just above this there is the small but obvious entrance to -

Uamh Sgeinne (The Cave of Knives).

The entrance to this cave, directly above the pool of the rising, is a tube perhaps 2' in diameter, sloping quite steeply upwards (with the dip of the limestone, which is here steeply southwdrs), turning r. and then l. into a chamber developed on a bedding, about 4' high, and sloping up to a 'letter-box' at its top end. In the floor of the chamber is a narrow rift dropping into a lower passage, emitting a strong draught and the sound of a stream.

The 'letter-box', about 3' wide and 1' high drops into a low passage, running back down-dip under the floor of the chamber above - with which it communicates by the narrow rift seen in the chamber floor. This passage drops to a 'T'-junction, with a low bedding on the l., and on the r. a small opening into a large sloping bedding, with the stream flowing along the lower (i.e.) edge.

Entering the bedding, the stream is seen to drop into a sump pool on the l. This can only be a few feet from the small pool where the stream rises, just in front of the cave entrance.

Upstream, the streamway continues, over a very jagged floor (the l., i.e. the bottom, wall, is apparently igneous rock). After 30' or so, the streamway turns r., and for a few feet is c.6' high. Straight ahead at this point is a lower bedding, opening into a small chamber, with ways on too tight or choked.

The stream itself rises from a tiny hole under one wall, but the main 'streamway' continues, doubling back on itself, apparently following a higher level of the same slanting bedding. On the l. are some good formations, several columns of c.2' joining floor and roof. After crawling through this passage for some distance, with one or two quite low sections, the stream is again met, flowing down a jagged trench from the top (i.e. l.) edge of the bedding, and into small fissures at the bottom. The top of the bedding here again seems to be a thin band of igneous rock, forming the lip of the 3' waterfall down which the stream enters. The stream inlet itself is too low, but immediately beyond the passage can be seen continuing, through deeper water ponded back by the igneous band (in areas such as this where the limestone is contorted and steeply dipping it is difficult to distinguish between sills and dykes), about 3' high.

Just beyond the stream inlet, the floor of the main passage steps up 3', and this then narrows and ascends more steeply, as a narrow chute. This rises into a chamber, developed in igneous rock, and rather loose and shattered, about 4' high. Beyond is a short choked passage, with daylight entering on the r., through a boulder ruckle.

This boulder choked entrance was located on the surface, about 120' due east of, and 35' - 40' above, the lower entrance. This could well have been open until recently, and a few minutes digging would probably clear it again.

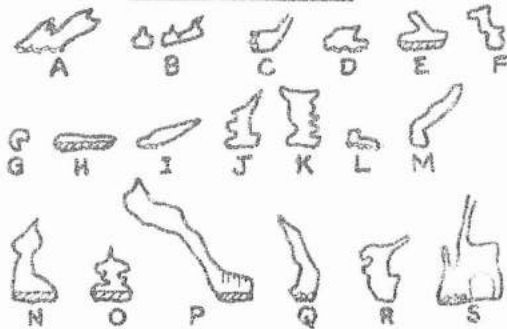
Throughout the cave, the limestone is studded with very sharp siliceous projections, which have a very destructive effect on caving gear, and on cavers themselves, hence the name - The Cave of Knives.

The cave was surveyed to Gr.50, the length of the passage explored being

CAMAS MALAG CAVE

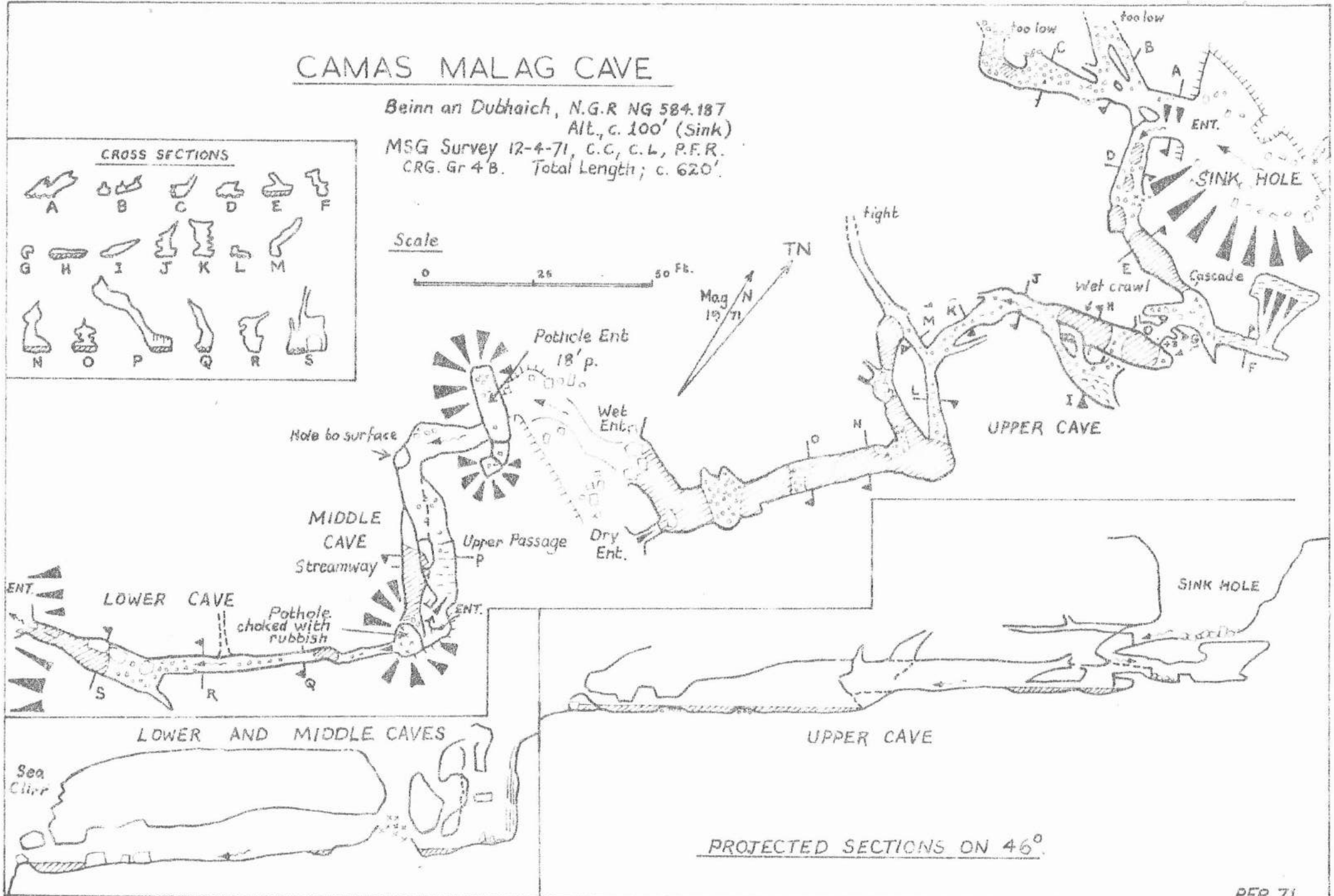
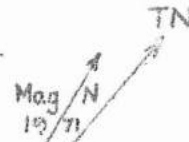
Beinn an Dubhaich, N.G.R NG 584.187
Alt., c. 100' (Sink)
MSG Survey 12-4-71, C.C., C.L., P.F.R.
CRG. Gr 4 B. Total Length; c. 620'.

CROSS SECTIONS



Scale

0 25 50 Ft.



PROJECTED SECTIONS ON 46°

270'. Unexplored oddments must add at least another 30', so a length of c.300' can justifiably be claimed. Time factors did not allow quite as thorough an exploration of this cave and area as we would have liked.

Following the Allt nan Leac upstream, above the gorge, the valley widens, and develops a much more level floor, for the better part of a mile. Near the commencement of this section, a small tributary enters from the north, and can be followed across the marshy valley floor to its source, a rising from a pool at the foot of a wall of igneous rock. This is the resurgence of the stream seen in Beinn an Dubhaich Cave, the main entrance of which lies about 100' away, further eastwards, and about 35' higher up the valley side.

Beinn an Dubhaich Cave.

This system has two entrances, c.100' apart, the 'Main Entrance', an open pothole with a tree growing in it, and the more obvious sink entrance further east, where a reasonable sized stream flowing off Beinn an Dubhaich passes underground, on flowing off the granite onto the limestone.

At this sink, the cave is entered by a squeeze through a boulder ruckle, opening into the top of another inclined bedding, down which the stream cascades. Descending this, the way on is to the r., into a small chamber, where the stream sinks in a choked bedding under one wall. On the r., a 1' high crawl emerges after a few feet under the wall of a roomy chamber, about 15' square and 6' high, with on the r. another inclined bedding running up to a choke under a surface shakehole, and similar to that seen below the sink entrance. Both these inclined beddings have granite floors - the weathering of which gives rise to the red mud found in the cave - and limestone roofs.

Entering this chamber, on the l. are two small passages, and on the far (west) side of the chamber a third low passage. The r. hand of the two passages on the l. ends immediately in a choke, the l. descends and turns r., and until September 1971 ended in another boulder choke, through which the stream could be heard.

This choke was easily cleared, and a way opened into a small chamber across which the stream flowed, from a choked bedding under the l. wall, and into a low descending bedding under the r. wall. This was followed - in the wet conditions at the time of the first exploration, quite a sporting procedure - through a low section for a few feet, until the passage emerged in the roof of quite an impressive chamber, with walls of steeply dipping limestone metamorphosed to marble along its contact with the granite. At the foot of the easily descended 10' waterfall dropping to the chamber floor, the stream disappears into an impenetrably low bedding under the south wall. On the r. is a passage, immediately splitting into two. The r. fork is a choked bedding running up very steeply, and probably choked under the floor of the chamber above, and the l. fork closes down to a very narrow wet crawl, which was not 'pushed' - it may well be choked after 10' or so. The rising of the cave stream is still about 150' from this point, and it had been hoped that passable cave might extend for much of this distance. However, the total length of this 'extension' approaches 50'.

Returning to the chamber above, the low crawl on its west side continues, rapidly gaining height, and daylight can be seen ahead from the Main Entrance. On the r. a low opening drops down into a muddy chamber, and yet another of the bedding planes slanting steeply up northwards, on a granite floor.

The main passage, now 7' high, leads on up to the Main Entrance, formed possibly by the collapse of a section of the cave roof (although it might have been a sinkhole at some remote time), a square shaft c.10' deep, and easily descended by scrambling down the branches of the tree which grows in it. The south wall of the shaft is formed by igneous rock, running in a band parallel with the valley side.

On the west side of the open shaft the cave continues, down a boulder slope, into an 8' high passage again. After 30' a deep trench in the floor suddenly develops, giving the passage a 'T'-shaped cross-section. The most convenient route to follow is along the wider section at roof level, since the trench,

12' below, is very narrow.

The traverse is easy for 50', to a small chamber developed at roof level. The upper and lower routes diverge briefly here. The trench becomes extremely tight, and the wider upper section narrows to a rift, and descends two 6' drops, the lower over a stalagmite flow, to rejoin the lower route, which widens again. The passage, with deep mud on the floor, then swings l. and enters the Terminal Chamber, with 2' of static water, the roof height dropping from 20', where the two routes converge, to 8'. On the l. of the chamber a small triangle of airspace continues above water level, the water deepening to 4' on that side of the chamber. The airspace does not seem of usable size, and no further exploration was attempted. The rising pool is about 75' away to the south of this point.

The cave, and in particular the relationship of its passages to the granite/limestone boundary, is described in 'Irish Speleology', Vol.1. No.1. A grade 2-3 survey is given, which does not tally in some respects with our own grade 5c survey, and the description makes no mention of the apparent dyke which forms the south wall of the Main Entrance shaft, or of the similar parallel igneous band from under which the cave stream rises. Beinn an Dubhaich Cave obviously offers more prospects for geomorphological study.

The total length of passage is c.400', 350' surveyed, and 50' estimated in the 1971 'extension'.

Continuing along the north side of the Ailt nan Leac valley, eastwards from Beinn an Dubhaich cave, after c.150 yards, a small cave entrance behind a bush was found. A descending 3' high passage leads for c.25' to a squeeze over a mudbank into a choked 10' aven, with no real prospect of further extension. This oddment of cave does not appear to be connected with any active or fossil sink, being some distance south of the granite/limestone boundary.

100 yards or so further eastward, and a little further up the hillside, is a quite impressive open rift c.15' deep, choked at the bottom (a possible dig), again unconnected with any stream sink. Continuing up the valley, at the same level, the next feature of interest is a row of four shakeholes running diagonally down the valley side from north-east to south-west. The highest of these is a wet weather sink, and the removal of a few small boulders in the bottom of the shake exposed an open hole, the entrance to what is apparently the cave explored by the NFC members and described in their newsletter:

Uamh Craobh Sheileach (Willowtree Cave)

A descent of 6' through the boulders in the shakehole opens into a triangular chamber about 10' long, with at its end a tight squeeze onto a further drop, of about 12' (easily climbed). At the foot of this is a narrow passage of walking height, which swings r. and gently descends, to suddenly end in a blank wall with a tiny gravel choked bedding at its foot. Total length was c.70', and depth c.30'.

In the lowest of the line of shakes running down from Uamh Craobh Sheileach is a small entrance, leading to a 20' drop amidst boulder ruckle. A way on into a more solid chamber could be seen, but was not forced, since the whole ruckle seemed on the verge of collapse.

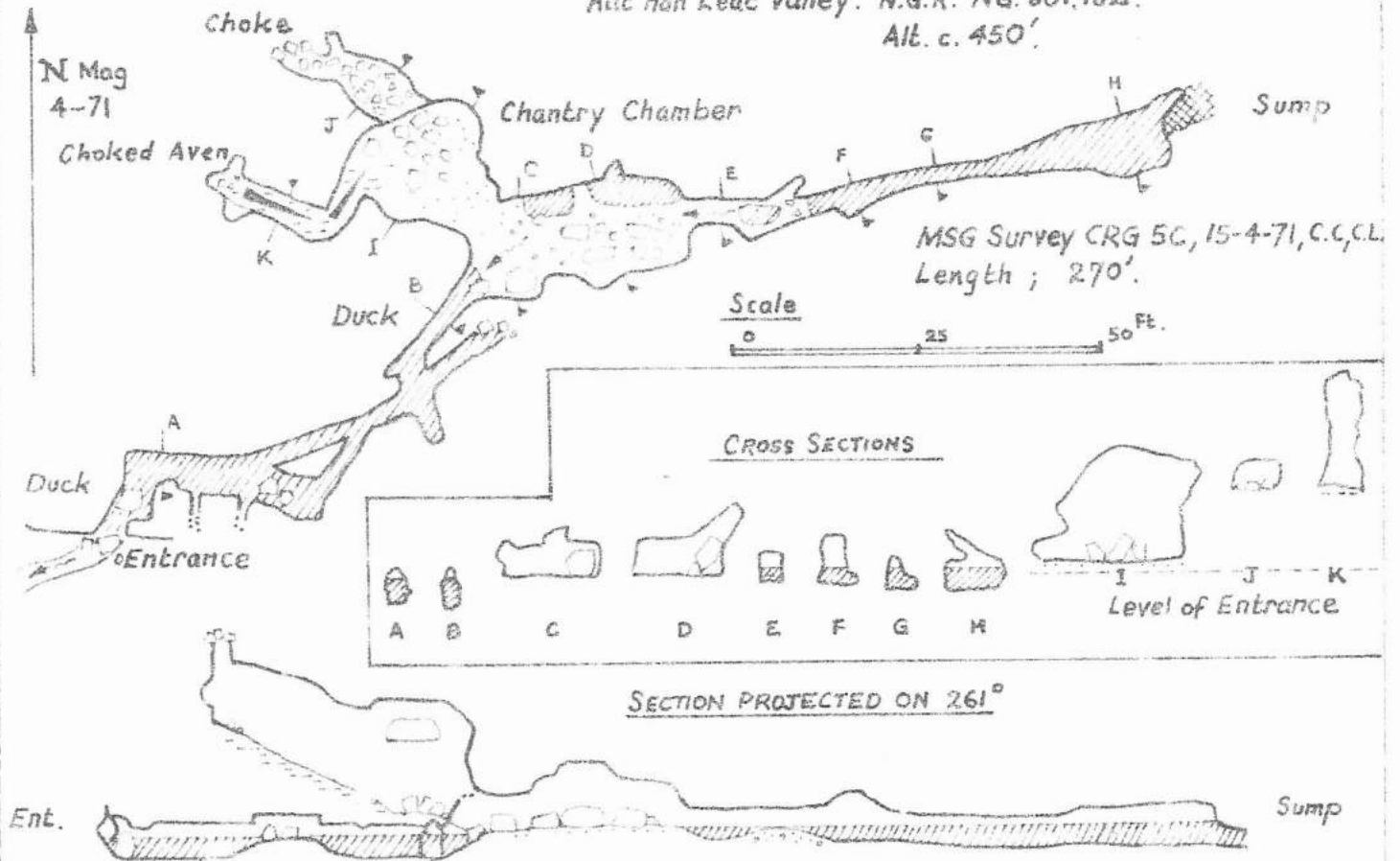
A further quarter of a mile up the valley, and at about the same level as this cave, a small stream sinks into an impressive open pot :

Uamh Sluic (Pit Cave)

At the surface this takes the form of a rift perhaps 70' long and 15' wide running north-west to south-east. The overhanging north-east wall of the hole is formed by the granite, the opposite wall by limestone metamorphosed to marble. The west end of the rift is easily climbed down to a depth of c.20', below which the pot takes the form of a vertical shaft c.10' in diameter and 20' deep (a ladder is required). The walls are of vertically dipping marble, and drop straight to a boulder floor, where the stream sinks, without any indication of horizontal development, at a total depth of c.40'. The rising is nearby.

UAMH CINN GHLINN

Allt nan Leac Valley. N.G.R. NG. 601.182.
Alt. c. 450'

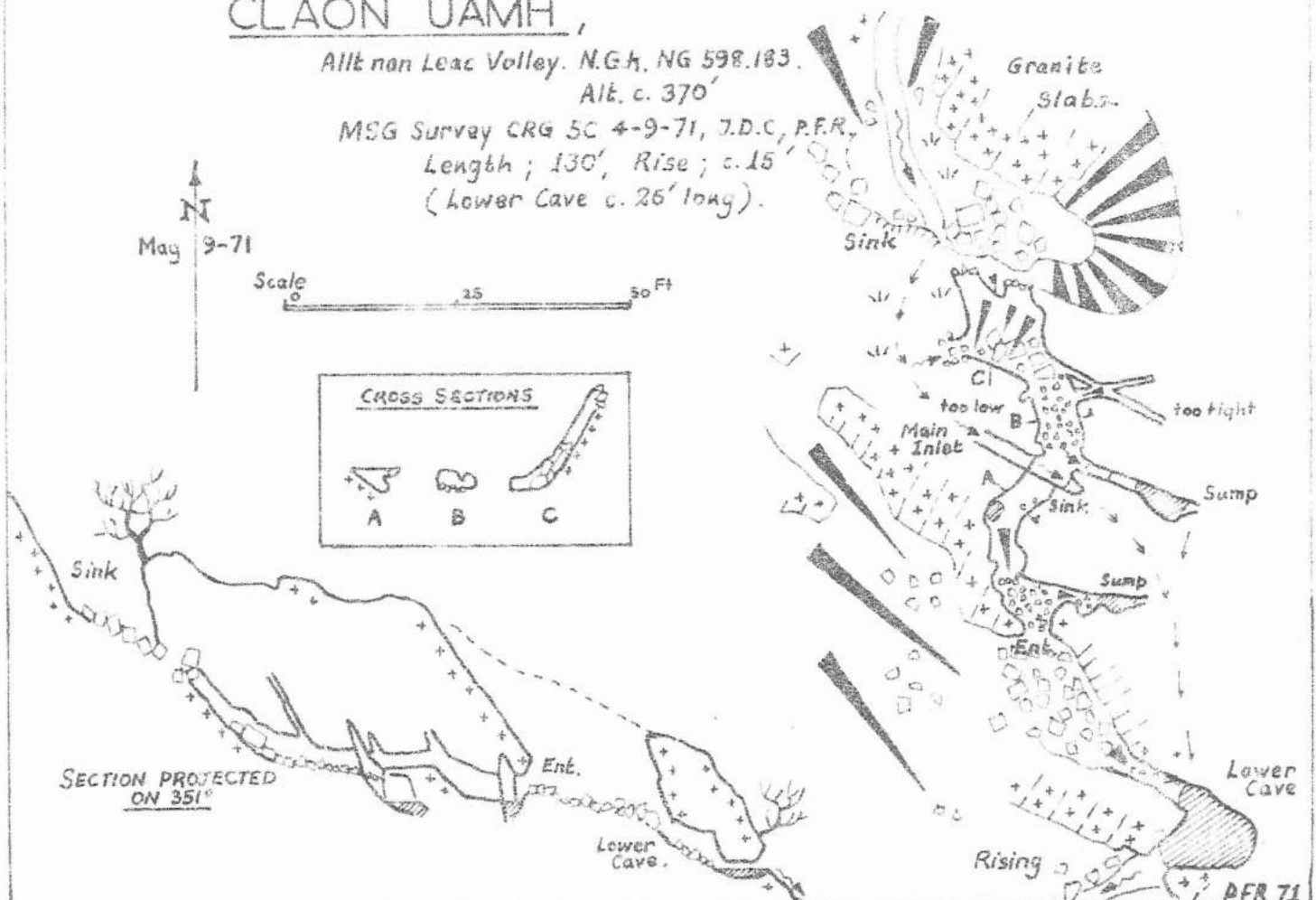


PER 71

CLAON UAMH

Allt nan Leac Valley. N.G.H. NG 598.183.
Alt. c. 370'

MSG Survey CRG 5C 4-9-71, J.D.C. P.F.R.
Length ; 130', Rise ; c. 15'
(Lower Cave c. 25' long).



The last of the sinks on the north side of the valley is about 200 yards beyond Uamh Sluic, and is shown on the O.S. 2¹/₂" map. A small stream drops into quite a large sinkhole, and sinks in a choked inclined rift. The rising is about 60' lower down, at the foot of the valley wall. Between sink and rising is a large depression, where part of the underground stream course has apparently collapsed. At the "upstream end" of this is the entrance to ;:-
Claon Uamh (Slant Cave).

The entrance to this was choked when found, but cleared with a few minutes digging. The low entrance itself appears to be formed in an igneous dyke, and immediately inside, the passage enters limestone, and enlarges. To the r. is a descending fissure to a sump pool, to the l. an inclined rift rising northward to a horizontal crawl, for a few feet, dropping into a larger passage. On the l. here the main cave stream enters via a 3' waterfall from a 6" high bedding, and promptly sinks in the floor. In wet conditions a second, smaller, stream flows from the main passage beyond this, and drops into a narrow rift on the r. a few feet beyond the choked main stream sink. This rift can be forced by sideways squeezing, down two 3' drops, to a wider section, where the water disappears into a sump pool.

The main passage continues for 15' or so, about 4' wide and 3' high, passing a high rift on the r. which forks, both branches becoming too narrow within a few feet, and then opens into the base of the final inclined rift, choked 20' up with unstable boulders and soil. The survey proves this to be the same rift as seen in the sink, and only a few feet of boulders and soil can separate the cave from the surface - a 'top entrance' could probably be easily opened, if there was any need of one. The total length of this interesting little cave is c. 130' - the igneous intrusions in the limestone appear to have played an important role in its development.

Between the 'downstream' end of the collapse depression in which the entrance to the cave is situated, and the actual resurgence at valley floor level, is a short section of cave, Lower Slant Cave, involving a squeeze down between boulders at its 'top entrance', and a short wet crawl. This section is c. 25' long.

Above Claon Uamh the valley narrows, and a high limestone cliff develops along the north side. The limestone here extends to the south side of the valley as well, and there is a small rising south of the main stream - this is fed by a sink perhaps 100' higher up, on the south flank of the valley, but both rising and sink are thoroughly choked, and there appears little hope of an accessible cave here. A few hundred yards further east the Allt nan Leac itself rises, from the foot of the northern cliffs. This is Uamh Cinn Ghlinn, dug out at Easter 1971.

Uamh Cinn Ghlinn. (Valley Head Cave).

The small entrance, at the foot of the cliff, beside the actual rising, drops into a small "chamber" mostly occupied by 3' of water and a large boulder. A duck alongside the boulder leads into a low arched passage running parallel with the cliff 'up-valley', with about 1' airspace above deep clear green water. This forks - the l. branch has very little airspace, and the r. branch is a crawl over some boulders, with chinks of daylight entering from the cliff face. The two branches rejoin, and a junction is reached. To the r. ends immediately, and straight ahead is a boulder choke after 15'. The l. passage lowers to a narrow duck, but running water is audible ahead here, and beyond the duck the passage suddenly opens into a chamber.

The main way on here is to the r., through a 15' wide chamber with scattered boulders, and the stream flowing across the gravel floor only a few inches deep. The chamber closes after 30' to a canal. The height of this varies between 2' and 6', with deepening water, and ending after some near-ducks in a final constricted sump, 60' from the chamber.

Returning to the point at which the initial wet crawl opens up into the larger chamber, on the l. a low passage up a sandy slope suddenly opens into an impressive chamber - Chantry Chamber - roughly circular in plan, 15' high and 20' in diameter, with some flowstone decorations on the walls. 9' up the wall a 4' high passage enters - this ends after 20' in a boulder choke. The main way out of the chamber is on the l., and is an impressive section of passage 20' high and 6' wide, swinging r. and rising quite steeply to come to a sudden and disappointing end in a blank wall and a small choked aven.

The total length of Uamh Cinn Ghlinn proved to be 270'. The sink is about quarter of a mile away, further eastwards up the valley (the stream flowing from the upper section of the valley sinks in a shallow choked sink hole - a little digging was attempted here, without result), and thus the system can be said to have the greatest 'potential' of any in the Allt nan Leac area, as the sink to rising distance considerably exceeds that of the smaller systems along the north flank of the valley.

Other Caves in Skye

It is intended to organise another MSG visit to the Isle of Skye in the summer of 1972, to continue work on a number of sites, both in the Allt nan Leac valley, and in other areas. Reports on this work will appear in a later Journal.

On the north side of the granite mass of Beinn an Dubhaich, a small resurgent cave was found, and followed as a tight wet crawl, for 25' or so, to an awkward duck. The potential is not great - there is an obvious sink 2-300 yards away - but a continuing passage could be seen.

Away from the Durness Limestone, a cave was found in the Jurassic limestones (which cover a much greater area than the Durness Limestone) about three miles east of Broadford. This cave is obviously fairly well known locally, and it, and the area around its entrance, is used as a repository for farm and domestic debris. PFR, in normal gear, crawled 30' or so into the cave, over a floor composed largely of rusty tins and broken glass, and retired where an old tea chest was wedged across the passage. Near the entrance (from which a small stream flows) was a rising cave, of enterable size, but having dead livestock in the pool at its entrance, in sufficient quantity to deter any thought of exploration. This rising cave is fed by an obvious sink only a few yards away.

There are a variety of sea caves around the Isle of Skye, and these have been visited and described more frequently than the inland limestone systems.

Any further information on limestone caves in Skye would be gratefully received (at the address below). In such an "outlying area" as this, it is very difficult to ascertain whether a cave has been previously entered or not. Thus claiming of "new explorations", except where (as at Uamh Cinn Ghlinn) the entrance had to be dug open, and had obviously not been open recently, is thus made tentatively.

P.F.Ryder c/o. 73 Abbey Road, Darlington, Co. Durham.

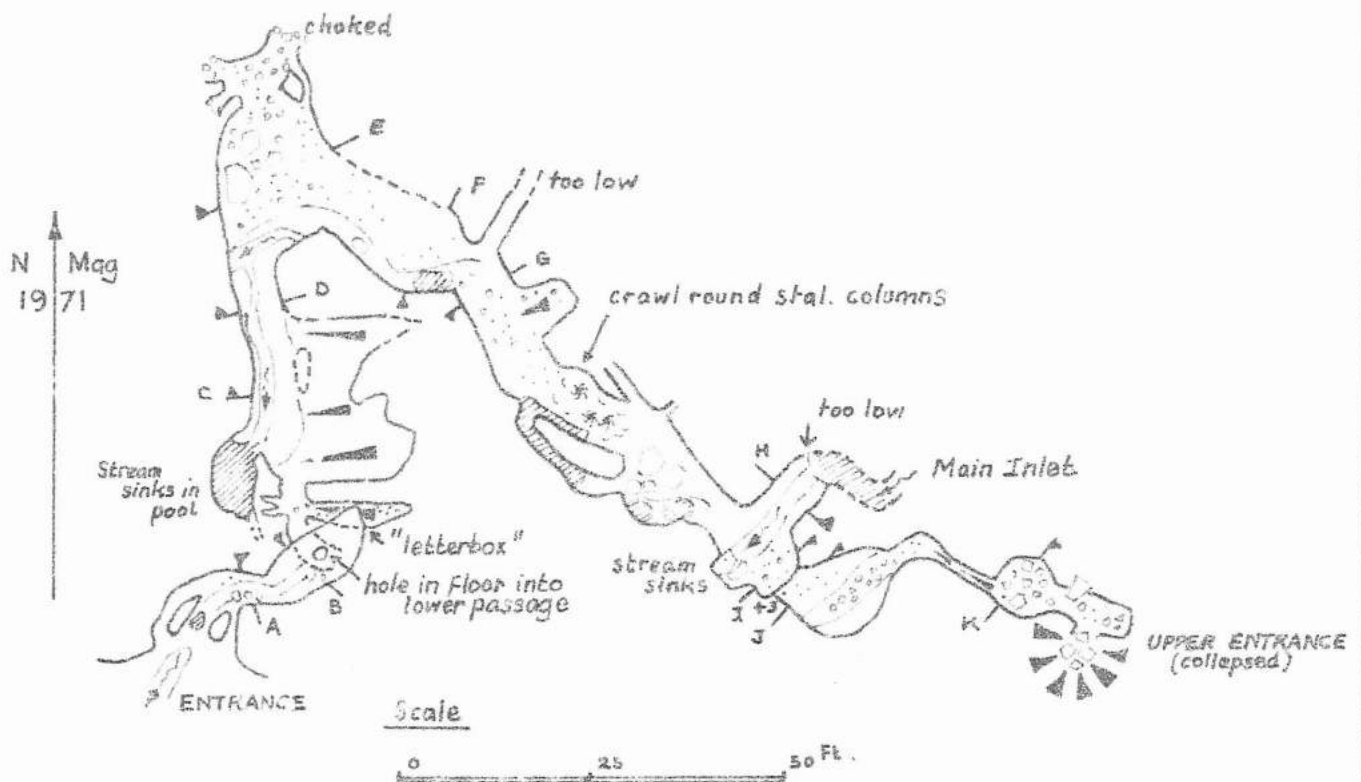
UAMH SGEINNE

Allt nan Leac Valley N.G.R. NG 587.184

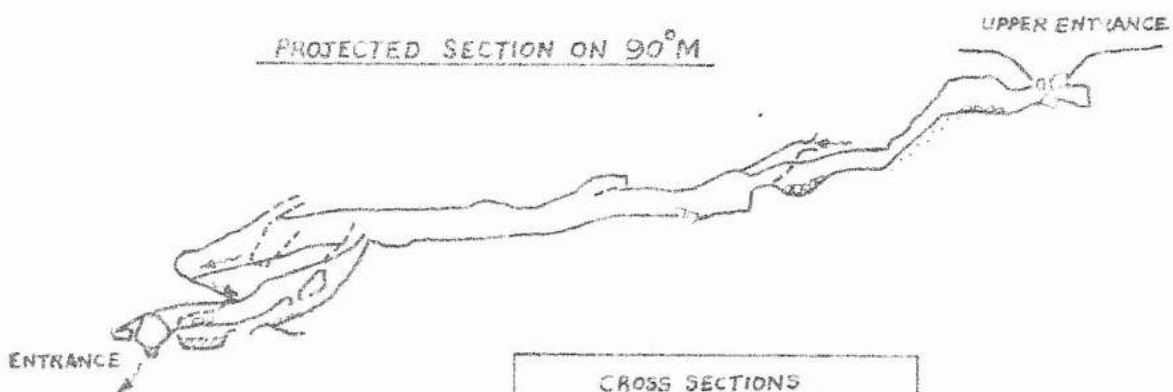
Alt. c. 200'

MSG Survey CRG Gr. 5B 8-9-71. J.D.C., P.F.R.

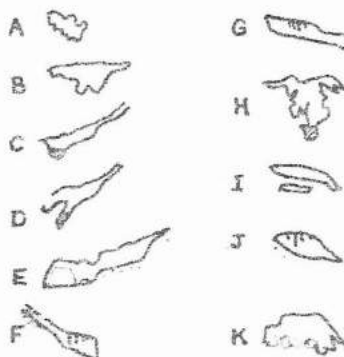
Length. 270'+ ; Rise. 35'.



PROJECTED SECTION ON 90°M



CROSS SECTIONS



MEETS REPORTS 1971

(All meets included in the Meets Record File, for the year 1971).

- 2-1-71. Fadmoor Caves A.Holmes, P.F.Ryder, G.Stevens.
Fadmoor Caves prospected and surveyed - see elsewhere.
- 7-1-71. Fadmoor Caves C.Carson, J.D.Cooper.
Unsuccessful digging attempt on the choke in Cave I.
- 9/14/16/22/23-1-71. Windegg Mine Caverns C.C., R.Evans, S.D.Hodgson,
J.C.Longstaff, M.G.Norton, P.F.R., P.Stephenson, G.S.
Mostly surveying trips.
- 6-2-71. Windegg area R.E., P.F.R.
A surface walk along Windegg Scars, nothing of import found.
- 13-2-71. Windegg Mine Caverns C.C., R.E., S.H., P.F.R.
More surveying, and incidents with loose boulders.
- 20-2-71. Caygill Scar and Bob Scar, Wensleydale J.Arrowsmith, S.H., P.F.R.
Mostly surface prospecting, Bob Scar caves explored.
- 26/27-2-71. Windegg Mine Caverns J.A., S.H., A.H., M.G.N., P.F.R., G.S.
More surveying, certain compass inaccuracies experienced being later traced
to A.H.'s patent magnetic steel helmet.
- 13-3-71. Bob Scar Caves C.C., A.H., P.F.R., G.M.&S.Davies (YURT)
Both caves are phreatic systems, with no evidence of vadose action, and
little prospect of extension. No.1 is 250' long (surv. to Gr.4) and No.2., 80'.
- 20-3-71. God's Bridge Area P.F.R., G.M.&S.D.
Surface surveying, a traverse of 1,700' being carried out.
- 26-3-71. Windegg Mine Caverns S.H., G.S.
- 27-3-71. Eweleap Scar Pot C.C., C.Langthorne, P.F.R., G.M.&S.D., D.Young.
This interesting pothole (NY 939.024) consists of a wide 20' pitch, and a
narrower blind 18' shaft directly below. At the head of the 20' drop a
scramble up into a rift leads to the head of an 'underground' 25' pitch into
a chamber, from which a small streamway, with a parallel ox-bow, runs for
30' or so to a squeeze down into a mine level - containing very deep mud.
This was not explored - the original, blocked, entrance was at the cliff foot.
- 3-4-71. Keldheads Cave C.C., C.L., P.F.R.
The survey was continued.
- 4-4-71. Windegg Mine Caverns D.Carlisle, C.C., B.Cleobury, G.M.D., S.H., C.L.
A "final" photographic and surveying trip.
- 7-4-71. Eller Beck Head Cave J.D.C., J.C.L.
The survey was continued, the trip being terminated by light failure.
- 9-4-71. Keldheads Cave J.D.C., G.M.D., G.S.
The survey was "completed" (see Journal 4).
- 11/12/13/14/15-4-71. Allt nan Leac Valley, Isle of Skye C.C., C.L., P.F.R.
See article under 'New Explorations'.
- 26-4-71. Aislaby Jet Mine, nr. Whitby P.F.R., D.Y.
An evening trip, inspection and survey of old jet workings, NZ 850.087,
near Whitby. A total of 460' of passage, mostly dry and roomy.
- 8-5-71. Weardale C.C., P.F.R., G.S.
Harehope Quarry, now avidly devouring Jacob's Well Cave, was visited, and
also Stanhope Dene, where an old mine in Reahope Burn, in which a genuine
subterranean white rabbit was encountered, and fragments of a cave at
NY 988.410 (remnants of Heatheryburn Cave?), the longest c.30', were explored.
- 15-5-71. Great Dun Fell C.C., P.F.R.
At NY 704.322, a little digging opened the top of a 5' diameter heavily fluted
shaft 35' deep, with no way on at the bottom. On Little Dun Fell, following the
Main Limestone outcrop round, a sink at NY 703.325 was found, where a
hazardous descent of 35' through boulders reached a rift choked with dead sheep.
- 3-6-71. Faggersgill C.C., P.F.R., D.Stephenson.
The Horse Level, and about 100' of the small natural cave cut near the entrance,
were surveyed.
- 17-7-71. Smeltmill Beck Cave C.C., C.L.
Primarily a photographic trip. The r. branch of Halloween Passage, at the
end of Handwrecker Series, the 'far end' of the cave, was pushed for a further
20' to where the rift closed in completely.

- 29-7-71. Kirkdale Cave. D.Rackstraw, G.S.
Surveying trip.
- 1-8-71. Devis Hole Mine, Grinton. C.C., C.L.
Continuation of digging activities.
- 2-8-71. Eweleap West Cave. J.C.L., P.F.R.
See elsewhere - 'breakthrough' at the dig.
- 6-8-71. Kirkdale Cave. R.E., G.S.
Surveying trip.
- 7-8-71. Eweleap Scar area. C.L., P.F.R.
Exploration and survey of Eweleap West Cave, and Foxglove Pot, completed.
- 8-8-71. Ayleburn Mine Cave. C.C., J.D.C., S.H., C.L.
A photographic trip.
- 20-8-71. Jack Scar Cave. R.E., G.S.
Survey and exploration - see elsewhere.
- 21-8-71. Lovergill Caves. J.D.C., P.F.R.
Surveying commenced - see elsewhere.
- 29-8-71. Windegg Mine Caverns. C.C., J.D.C., C.L.
Photographic trip.
- 1-9-71. West Scrafton Pot. B.Dobson, R.E., G.S.
- 3/4/5/6/7/8 -9-71. Allt nan Leac Valley, Isle of Skye. J.D.Atkings, J.D.C., P.F.R.
See article in 'New Explorations' section.
- 4-9-71. Cold Brow Area. C.C., C.L.
Draughting Hole, NZ 008.092, on the plateau NW of Jinglepot Hole, was returned to, and proved to close down 15' beyond the previous limit. This hole, tight, 35' deep and c.60' long, at times emits a very considerable draught, but there seems little chance of following it.
- 4-9-71. Swindale Pots. J.A., S.H., P.Holloway.
- 5-9-71. Broken Rift Pot. J.A., C.C., S.H., P.H., C.L.
To locate this elusive hole, continue west from Summer Lodge (Crackpot) for 1 mile up Bloody Vale, where stream veers off to r. keep l. for quarter of a mile to stream sink. 25' from stream sink is pothole entrance, 30' ladder pitch into rift and chamber, 40' long, unsafe boulders, good stal.
- 6-9-71. God's Bridge River Cave. D.R., G.S.
Water levels were too high to push wither upstream or downstream end.
- 15-9-71. Lovergill Caves. J.D.C., P.F.R.
See elsewhere - the duck in the Resurgence Cave was passed.
- 18-9-71. Lovergill Caves. P.H., A.H., P.F.R.
A surveying trip preceeding the MSG annual dinner at Castle Bolton.
- 21-9-71. Green Rigg Pot, Wild Boar Fell. J.D.C., P.F.R.
Previous descriptions of this pot are somewhat incorrect - the entrance pitch is 33' in all (the first 10' climbable), not 55'. The end of the system is a very tight wet crawl, without any draught at all. 25' of low bedding were gained in the opposite direction to the main passage, at the foot of the entrance pitch, ending low and choked.
- 25-9-71. Grange Gill Cave, Wensleydale. J.A., J.D.C., P.F.R.
Grange Gill Cave, SD 924.913, was found, a small rising cave, quite roomy initially, and 70' long in all.
- 30-9-71. Jack Scar Cave. P.H., M.G.N., G.S.
See elsewhere.
- 8-10-71. God's Bridge River Cave. C.C., P.H., G.S.
Both upstream and downstream limits were extended - see elsewhere.
- 13-10-71. Fadmoor Caves. P.H., M.G.N., G.S.
See elsewhere.
- 22-10-71. Windegg Mine Caverns. P.H., G.S.
Yet again.
- 30-10-71. Eller Beck Head Cave. P.H., G.S.
The survey was completed, and Worm Sewer forced 10' further to where it closed completely. A total of 3hr.20min. was spent immersed in this task.
- 30-10-71. Trough Scars Caves. J.A., C.Day, P.F.R.
Various features of interest were noted (i.e. nothing worthwhile done).
- 1-11-71. Jack Scar Cave. P.H., D.R., G.S.
See elsewhere.

3-11-71. Hazlebadge area, Derbyshire. D.Gibbons, K.Orford, P.F.R., M.Stockwell. Inaugural trip of the small 'Southern Pennine Branch' - reports on these activities should appear at some future date.

10-11-71. Hazlebadge area. D.G., K.O., P.F.R., M.S.

12-11-71. Priorsdale Cave. C.C., P.F.R., I.Gibson, R.Lee, A.Trewartha. University of Newcastle Caving Club had a fortnight previously extended the cave by several hundred feet. See elsewhere for full report.

13-11-71. Priorsdale Cave. P.H., P.F.R., G.S.

17-11-71. Pictor End Cave, Hazlebadge. M.S., P.F.R.

This interesting cave-cum-mine was surveyed, 290' long, 45' deep.

27-11-71. Windmore End Cave. P.H., P.F.R.

Yet another survey completed.

1-12-71. Stoney Middleton, Derbyshire. D.G., J.Habersham, K.O., P.F.R., M.S. Bamforth Hole visited, and the lower (flooded) entrance to Carlsark Cavern entered, in mistake.

4-12-71. Flushiemere. C.C., P.H.

Digging commenced at the base of the double mine shaft on the stream bank above Flushiemere House, which in 1967 had been open, and led into natural passages, and has since partially run in.

8-12-71. Carlsark Cavern. D.G., K.O., P.F.R.

11-12-71. Flushiemere. C.C., P.H.

Digging continued, and then abandoned, due to a superabundance of liquid mud. The shaft is very unsafe.

11-12-71. Swinhope Burn. J.A., P.F.R.

Swinhopeburn Cave, NY 889.342, surveyed, 70' long, no prospects. Elph Cleugh Pot, so far 50' long and 25' deep, very unstable, found, NY 891.341.

15-12-71. Elpha Green Caves, Allendale. A.H., P.F.R.

Survey commenced.

18-12-71. Elpha Green Caves. J.A., C.C., S.H., C.L., P.F.R.

Survey completed

26-12-71. Lovergill Resurgence Cave. J.D.C., A.H.

J.D.C. reached the end of the extension of the cave.

30-12-71. Priorsdale Cave. C.C., P.F.R., G.S.

A seven hour survey trip, made even more arduous by the fact that the road up to Priorsdale was blocked by snow, and the party had to flounder through snowy forests to reach the cave.

Khazad-dum. Australian Depth Record 1971.

In MSG Journal 4 was published an article describing the exploration of Tassie Pot ('The Deepest Pothole in Australia'), which then claimed the Australian depth record at -850'. This exploration was led by Philip Robinson, one of the 'founder members' of MSG, and active with us from 1966 to August 1970, when he left England to work as a research chemist in Hobart, Tasmania. There he joined the Tasmanian Caverneering Club, and has sent back many reports of their activities. Tassie Pot, a dry, predominantly vertical system, only held the depth record for a few months.

The successor to Tassie Pot was an active sink system, at first labelled JF 4/5 (according to the system of recording caves in this, the Juneeflorentine, area), but, as exploration proceeded, named Khazad-dum. Exploration took a considerable time, since many attempts had to be abandoned due to the force of water on the waterfall pitches in the streamway, but the system was eventually bottomed on Saturday 18th December, 1971, and Philip has sent the original advance party report on this trip, written immediately afterwards, which is transcribed below. However, a little more information on the system and area (extracted from various previous letters and copies of the T.C.C. newsletter) will set the scene for this account of the final assault.

Khazad-dum is a major stream sink, resurging at the Juneeflorentine resurgence (a very large rising fed by many sinks - the cave here is sumped 300' in, and has been dived for a further 550', and depth 55'), which is 11,250' in linear distance from Khazad-dum, and 1,257' lower. The Southern Hemisphere depth record is at present held by Harwood Hole, New Zealand, which is 1,240' deep, and it had been hoped that Khazad-dum might just beat this figure. In the exploration, initial difficulties were encountered with the heavy waterfalls near the entrance, and bolts were fixed to enable a climb out of the water. However, a route avoiding this was found, via a 15' scaling pole climb to an upper passage, of walking size to a 10' ladder pitch, followed by a 100' rope pitch, a climb over loose rocks, and then a 92' free-hanging ladder pitch. A further 70' pitch entered the stream passage, which was followed down to a 95' pitch, rigged 20' away from the waterfall. The streamway, or riverway, continued for c.1,000', 10' wide and in places 80' high. The next six pitches are all wet, but of no great length, 20', 30', 15', 25', 25' and 30'. A fortnight before the final assault, bolts for belays were placed at the heads of most of these pitches. At the foot of the last 30' pitch was a seventh waterfall pitch, of some depth. This point had been reached in March 1971, and one member of the party had managed to descend 30', before being forced back by the volume of water falling. At the head of this pitch, on the same trip, a route had been found leading to a deep dry shaft. After this visit, the Tasmanian winter had forced a halt in the exploration, until December. Plans were to descend the deep dry pitch, in the hope that it would rejoin the streamway below the final waterfall....

Advance Party Report

(Phil Robinson)

P.Robinson (leader), P.Shaw, K.Kiernan, Chris Harris, Graeme Watt.

On Sat. 18th December, at 7-00 p.m. the K.D. sump pool was finally reached at a depth estimated near 1,020' - another Australian record. It was a great triumph of teamwork and organisation. Much credit must go to the support party numbering 15 - 16 during the weekend. Without their help the attempt would have proved utterly fruitless.

The two previous weekends (both wet) saw the cave laddered to the -720' level. An extra 200' of ladder and 360' of rope were stacked in the streamway at -530'. Saturday morning saw nine cavers heading for Khazad-dum praying heavily that the weather would at last give us a break. As Brian Collin and Andrew Skinner lined the forward team down the 92' free hanger, Bill and Tom stayed just inside the entrance to test the telephone. During the day this was fixed from the rain forest camp site to the streamway 450' down.

Without tackle the streamway was soon reached. The water was lower, yet still higher than last summer. The assault was on. The five waterfall pitches were descended smoothly, to the last 30'. Here a bolt was driven in, taking the ladder just behind the fall. This was an unpleasant long cold wait. This wet pitch is the most unpleasant and exciting of all. Abseils were fairly swift. Gear was lowered, and 'Brew Chamber', at -840' was reached. Immediately the glutton and gourmet society started work, this sheltered section being a relief from the cold windy streamway (water temperature was 7°C (45°F)).

The big dry shaft was reconnoitred. The bottom and walls of the chasm could not be seen, and stones thrown down were only vaguely heard. Yet another bolt was installed for an easy belay. There are few solid rock flakes or boulders in Khazad-dum. 180' of ladder was lowered, and Philip prepared to descend. Would we pass -1,000' down this pitch? At 50'-60' from the top a high waterfall came crashing in 20'-30' from the ladder. The pitch is 125'. This waterfall was obviously the one on which Kevin had retreated in March 71, 30' down.

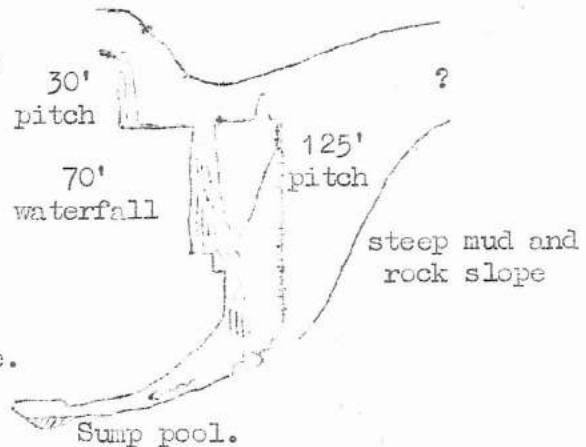
Chris also descended. Very excited we pressed on, clambering over boulders to the streamway again. The passage is 20'-30' high and wide, flat-roofer with sand banks to one side. The passage lowered to crawling in water, very strange, was this Khazad-dum? A bit of froth, then a murky pool 20' across, disappointment, no more pitches, no master cave. The sump is very deep.

Returning about 3 a climb up a steep sand bank led to a crawl, then a dry upper passage. This was leading over the sump, but eventually dropped down to the pool again. This was traversed to a passage beyond. This is blocked after 20' by mud and flood debris. Another small passage was followed just above the sump for 200'-300', leading upward, unpromising. This became tight and jagged and was not pushed fully.

Returning to the foot of the pitch, an estimate of 50'-60' vertical distance was made. A steep slope high up opposite the pitch looked as if it led to a large cavern. This would need steps cutting in the mud to reach the top. A good line was appreciated back up the pitch. The 100' dree hanging section is spectacular, amidst blackness and a feeling of depth. There were mixed feelings - relief at reaching the bottom, and also disenchantment about there being no miles of cave to explore.

The pitches were derigged, and the tackle hauled back to the base of the 70' pitch (450' down). Nine bags were left for the big support party to remove on Sunday. The forest camp site was contacted via telephone, and a belay arranged on the 92' free hanger. This was very much appreciated.

The surface was reached at about 2.00 a.m., after a pleasantly tiring 14 hour trip. We returned once more to the Junee homestead, thankful that the support team and not us would pull 820' ladder, 960' rope, 2 telephones, krabs, slings and bolting gear, out of Khazad-dum later in the day.



(Sketch by P. Robinson).

Sketch Section of the Final Pitches of Khazad-dum

Lead Levels in Gunnerside Gill

The various old lead workings in the Gunnerside Gill area have long been of interest to some members of M.S.G., especially so through their proximity to the Group's cottage at Winterings. Accounts of two of these levels follow, written for this Journal by Peter Jackson (Editor, Northern Cavern and Mine Research Society).

Notes on Blind Gill Level

Peter Jackson.

Blind Gill Level lies $2\frac{1}{2}$ miles NNW of Gunnerside in Swaledale on the south side of Blind Gill, a western tributary of Gunnerside Gill, the entrance lying at NGR NY 9345.0180 at an altitude of approximately 1500 ft above OD.

Surface Notes

Adjacent to the stone-arched entrance is the remains of a small single storey shop whose walls are now only standing to a height of about 0.5 m. The gill close to the level entrance has been culverted, the dump filling the whole of the gill and there is also another dump to the east and south of the entrance, in Gunnerside Gill, probably once reached by a railway on a small hillside ledge. There are no visible remains of bunkers or ore dressing facilities. A steep, narrow track connects the level entrance with the track from Gunnerside to Blakethwaite Smelt-mill.

(Ed. note - the keystone in the entrance arch to the level bore initials and a date, somewhere around 1750 (?). This carved stone was removed, probably in the early 1960's.)

Underground Details.

The entrance crosscut to Blind Gill vein initially runs approximately WSW for 400m. in a straight line. The first 34 m. of the crosscut are stone-arched and the section up to 6m. from the entrance has collapsed, holding back water for a considerable distance along the crosscut, which is made to generous horse-level proportions of at least 2.25 m. high and 1.25 m. wide.

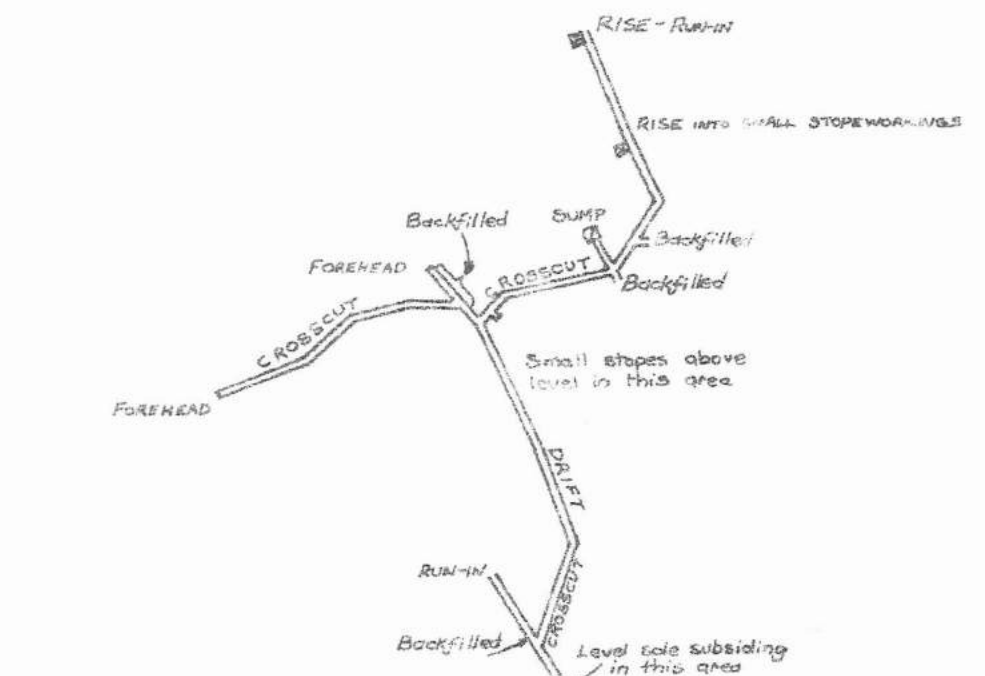
400 m. from the tail the crosscut turns towards the SW, passes a rise on the south side, cuts Blind Gill vein and passes the west side of the vein at 5 m. from the rise. At the point where the crosscut cuts the vein a collapse has occurred and immediately above this point a blind rise goes up for about 8 m. To the SE of this point a drift runs along the vein 4.9 m. above the horse-level for 13 m. to a run-in.

Northwest from the base of the blind rise a drift runs for 115 m. to a run-in. There are numerous small stope workings and higher drifts in the vein, none of which run for any distance, and 30 m. from the rise there is a crosscut to the NE which ends at a forehead in 11 m. The level sole shows signs of subsidence in many sections. Approximately 10 m. from the run-in a crosscut runs north for about 14 m. and cuts a string parallel to the main vein which is followed by a drift for 42 m. to a forehead, with small stopes above the level en route. Close to the forehead crosscuts run NE and SW; the SW one ending in a forehead and the NE one cutting another string parallel to the main vein which is followed NW for 25 m. to a run-in rise passing another rise at 9 m., on the west side, which gives access to small workings. A drift off the NE crosscut ends in a sump about 8 m. deep whose extent is not known by the author.

From the base of the blind rise where the entrance crosscut cuts the vein, a crosscut continues in an irregular SW direction for about 115 m. to a forehead, passing at 4 m. a sump on the south side which is choked at a depth of 2 m., and a drift from the head of the sump runs for 10 m. in a SE direction to a run-in.

Geological Notes.

The entrance crosscut is driven in a plate bed which is probably the plate below the Undersett (note - the Undersett being a separate bed to the Undersett Limestone, which is lower in the sequence), and cuts the Blind Gill vein which is striking approximately NW. The west side of the vein is

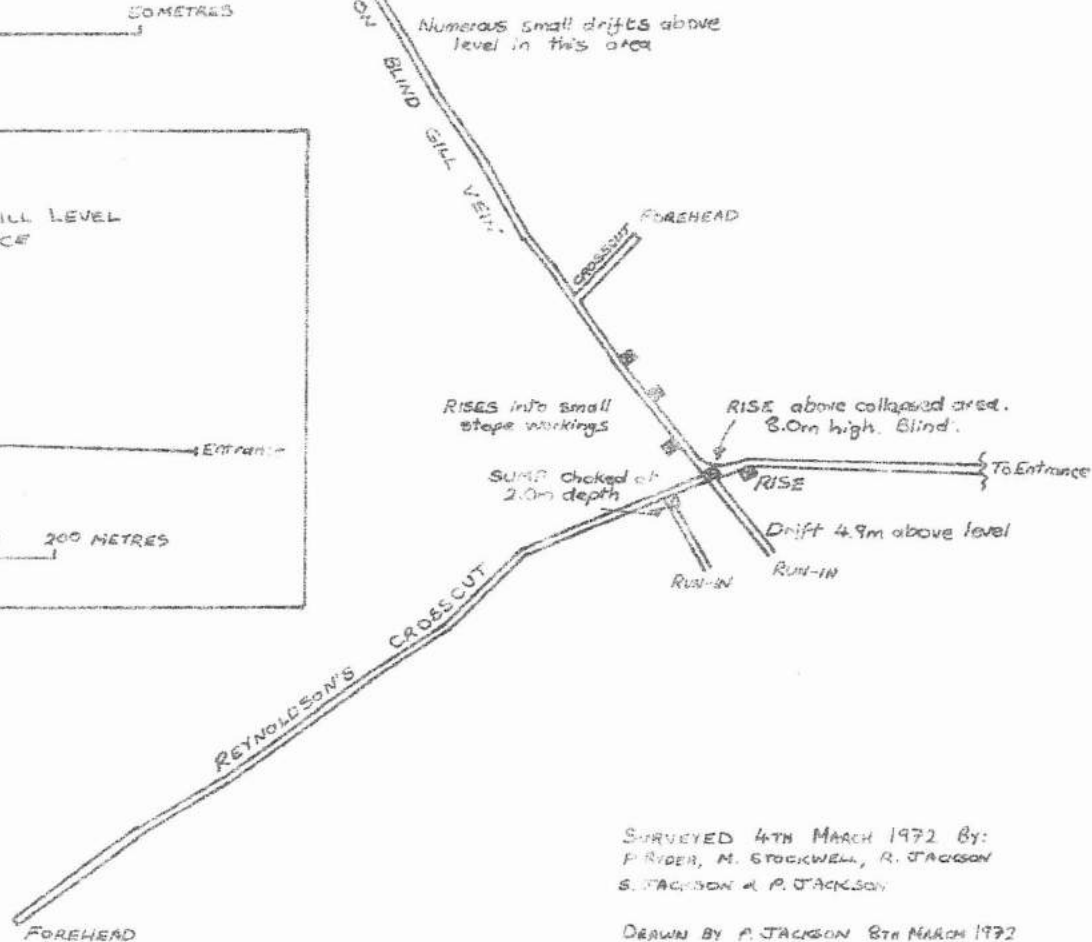
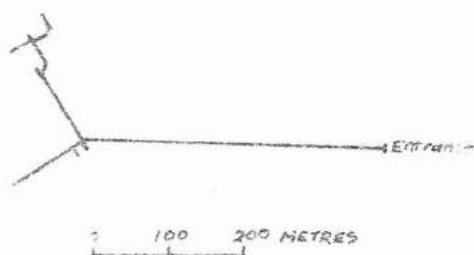


PLAN OF MAIN WORKINGS
BLIND - GILL LEVEL

SCALE 1:1000

0 5 10 25 50 METRES

PLAN OF BLIND GILL LEVEL
INCLUDING ENTRANCE
CROSSCUT



SURVEYED 4TH MARCH 1972 By:
PRYDE, M. STOCKWELL, R. JACKSON
S. JACKSON & P. JACKSON

DRAWN BY P. JACKSON 8TH MARCH 1972

a limestone and is probably the Main Limestone. The vein is accompanied on its eastern side by a zone of limonitized rock extending for varying distances from the vein, in which the majority of the vein workings are driven. When followed to the north the vein degenerates into a series of parallel strings which show up to 20 mm. of calcite where seen in the crosscuts, but no other minerals have been seen. The stope workings wander about the limonitized zone in a haphazard fashion, generally above the roof of the level, but it is apparent that in some areas the vein has been stoped below the level and backfilled. Some of the workings are probably in small flat replacements.

Mining Equipment.

The majority of the rails and sleepers have been removed from the workings but odd lengths remain and are of 'T' section. A wooden kibble in an advanced state of decay lies in the main crosscut west of the vein, and is accompanied by short lengths of galvanized air pipe. A small iron w edge has also been recovered. Two wagons which (1) in 1962 were standing where the main crosscut cuts the vein, are not now visible.

Comment.

The well engineered entrance crosscut contrasts with the poor nature of the vein and lack of any well developed orebody and it is probable that Blind Gill Level was a failure as a mining venture, further evidence for which is supplied by the lack of remains of any surface plant.

Historical Supplement.

I have been unable to find any details of the history of Blind Gill Level, in published literature. However, one reference (2) supplies some useful information. In 1864 the Blakethwaite Co. held the mining lease of the area to the west of Gunnerside Gill, and this was wound-up in 1867. The A.D. Company, formed in 1873, included Blind Gill Level in its lease, and some work was being carried out in the level from Priscilla Level by 4 men, in late 1875. In 1876 good ore was found at a rise in the level and men transferred from elsewhere to work it.

The continuation of the entrance crosscut to the west of the vein is referred to as Reynoldson's Crosscut, driven between 1896 and 1898 as a prospect for veins to the west of Blind Gill vein, and, as is obvious underground, was a complete failure.

A plan of 1892 (2) shows that both sumps were driven as rises from Priscilla Level, a vertical distance of 40.34 m. (22 fathoms).

A Comment on Preservation.

It is beyond my understanding why a certain group who profess to be interested in mine preservation, have left their initials at the forehead of Reynoldson's Crosscut.

References

- (1) S.H. Jackson, MSS., Calverley.
- (2) P.W. Crabtree, Sir Francis Mine, Pt.1. Cave Science V., 33, p.1-18. 1963

These notes are based on a visit to the mine of 4th March 1972.

A Note on Barbara Level

During 1964, whilst carrying out a field investigation of the mines in Gunnerside Gill, it was found that the entrance to Barbara Level was blocked. This level lies on the east side of Gunnerside Gill at N.G.R. NY 942.006., at an approximate altitude of 1450 ft. above O.D.

The blockage at the level entrance was caused by scree material which had come down from the adjacent scar formed by the Main Limestone, and had evidently not been disturbed for many years.

On the 1st November a return visit was made in order to excavate the entrance, and this was relatively easy as the scree material had merely filled the entrance, and had not caused a collapse.

On the following weekend, 8th November, the level was explored and surveyed underground. The level is driven in the Main Limestone and runs in a straight line, as far as may be explored, in an approximate eastward direction. 35 yards from the entrance is a rise on the north side, which was unclimbable. Adjacent to the rise, on the south side, were two short side levels which had both run-in within a couple of yards. 42 yards from the rise, the level was arched for 17 yards, followed by a short unarched section of 5 yards. The arching commenced again, but further progress was stopped by a complete block, in 2 yards. This block was caused by large blocks of limestone, associated with clay, dropping from the roof, and is not a recommended dig.

Adjacent to the entrance, there are several clay-filled joints crossing the level, some of which have been utilised by rabbits. Rails and sleepers have been removed from the level.

In order to secure the entrance, large stones were placed in the hole, and the scree pushed over them, so that access could be accomplished relatively quickly if ever necessary.

Personnel.

Excavation and exploration were carried out by A.D. and G.P.Benn, with S.H. and P.Jackson.

Peter Jackson, May 1972.

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Dark, deep, and cold the current flows
Unto the sea where no wind blows,
Seeking the land which no one knows.

- from 'Plaint' (Ebenezer Elliott 1781 - 1849)