



MSG  
journal 4

MOLDYWARPS SPELEOLOGICAL GROUP

JOURNAL FOUR, MAY 1971.

..... low in an hollow cave,  
Farre underneath a craggie clift ypight,  
Darke, dolefull, drearie, like a greedie grave,  
That still for carrion carcasses doth crave:  
On top whereof aye dwelt the ghastly Owle,  
Shrieking his balefull note, which ever drave  
Farre from that haunt all other chearefull fowle;  
And all about it wandring ghostes did waile and howle.

-from 'The Cave of Despair',  
'The Faerie Queene', Edmund Spenser  
1590.

### Editor's Comments.

The third MSG Journal occupied some four months over its production, this has occupied five. The period of MSG activity covered is from February to December 1970, although various surveys etc. have been completed in 1971. In this ten month period a considerable number of new discoveries have been made, the most noteworthy being at Eller Beck Head and Keldheads. Work is in progress on other sites, and will be reported on in due course.

At the time of writing, the next publication being considered may well be a joint effort between MSG and the Yorkshire Underground Research Team, towards the end of 1971.

Thanks are due to all those who have contributed and helped with this Journal (see credits). Preliminary reactions to the cover have ranged from enthusiasm to nausea, complaints to our artistic adviser, apologies to Hieronymous Bosch. Also, this issue contains, by popular demand, page numbers and an index!

### Credits.

Artistic advice, cover artwork,  
Internal illustrations, lead end  
of Fibron Tape .....

John 'Chop' Longstaff.

All duplicating, poetic section,  
surveying inspiration.....

Martin (YURT) Davies.

Supply of pencils, words,  
editorship, typewriter and  
reader of compass.....

Peter F Ryder.

Cashbox, clinometer readings....

John D. Cooper.

Words, survey pad, goonsuit,  
crowbar, responsibility for finding  
unpleasant wet caves.....

Graham Stevens.

Words, hospitality at High  
Fagnergill House.....

Pete Stephenson.

Depth records, Australian.....

Phil Robinson.

And also thanks to all other members of the Group for participating in the exploration and surveying recorded in this Journal.

## NEW EXPLORATIONS.

### Moking Hurth and Moking Pot.

This cave system is formed in the Great Limestone of Upper Teesdale east of Langdon Beck. A stream flowing off the overlying shales sinks at the back of a limestone plateau in one of a series of shakeholes marking the shale/Great Limestone boundary, and resurges at the foot of an escarpment (High Hurth Edge) just below a small disused quarry. The quarry contains the three entrances of Moking Hurth Cave.

The cave is also known as Mawkin's Cave and Backhouse Cave, this latter name being after J. Backhouse who carried out archaeological excavations in the cave in the 19th century (Ref.1). The Nature Conservancy scheduled the cave as an S.S.S.I. A sketch plan of the complex entrance passages and chambers by Backhouse was reprinted in the British Caver (Ref.2) and a plan of the Near Series by Myers and Dickens was published in Trans.C.R.G. (Ref.3) where it was used to exemplify joint-controlled phreatic cave development. An extension to the Near Series was found leading to a passage containing the stream, which is thought to have invaded the system rather than formed it. Downstream led to a choke but upstream a long impressive streamway led to a place where a chink of daylight entered from the top of a high cross joint and beyond the passage closed down to a tight triangular crawl half full of water. Near the connection of the Near and Far Series a branch passage enters the streamway high up on the true right. This passage leads to a boulder chamber out of which a small tube enters an inlet streamway which can be followed upstream for some distance (Mud Tube Series). These Far Series passages (surveyed by U.T.C.C. in 1955) and the Near Series plan by Myers and Dickens appear on an unpublished survey which is incorporated in the present survey.

From the entrance to the cave, ascending the escarpment to the limestone plateau and heading north leads to some shakeholes, a large one of these showing signs of extensive collapse into narrow rifts. Nearby another shakehole contains a narrow shaft 26' deep to which 'P.U.' ascribes the name 'W.S.R.S. System' (after the Weardale Speleological and Rambling Society - now defunct). It seems that the pot was known locally as Moking Pot before the re-naming took place, and the earlier generic name is to be preferred.

The shaft (for which a ladder is desirable) leads into a series of high rifts some showing daylight connections with the bottom of the large shakehole. A short muddy crawl leads into a stream passage containing the Moking Hurth water and of similar character to the main streamway of Moking Hurth, being a joint-controlled rift passage. Upstream the passage can be followed for about 550' of gradually diminishing passage until a tight squeeze is met. Downstream the main passage choked but a climb into a branch on the right led to a drop down to water and other rifts too tight to enter. Such was the extent of the pot when MSG parties first visited and surveyed it (Ref.4).

In 1970 two visits were made, both producing extensions. On the first visit the upstream squeeze was passed, and beyond the passage was followed

along a crawl with fossil projections that kept grabbing you as you squeezed along. After about 70' a chamber containing a large slab was reached. The slab was obstructing entry into the passage beyond from which a strong draught emerged. A tight crawl round the edge of the slab led to a deeper water, a lower roof and a partial duck which was left unattacked. Five weeks later imagination had suitably enlarged the passage and a further visit to the chamber was made. A wallow in the pool was not too unpleasant when in a wet suit, and it enabled the head to see into the passage beyond the slab. Disillusionment! - the slab had caused silting of the small stream passage and it was too tight to enter.

Returning downstream to the main choke the branch on the right was entered and a descent made to water level, a deep pool with the floor shelving away. On the left a small triangular passage half full of water appeared to lead to a larger passage 20' along. Progress was on the back, helmet off, with mouth and nose just above water, and excavating the gravel as one squeezed along in the dark. At last the junction was felt and one could sit up. To the right and left the fissure closed in but mercifully another fissure led off behind and after one more submerged squeeze the passage opened up and a right turn led into a high rift passage. On the right a high cross joint had a chink of daylight entering - this was the upstream limit of Moking Hurth. Staggering down the streamway of Moking Hurth (the cold water in the ears having affected the balance) the lone explorer, now making his first trip into Moking Hurth, was just returning from an unintentional detour into the Mud Tube Series when he was met, and escorted from the cave, by the other member of the party.

Thus the first through trip was completed. The "first" is claimed on the grounds that no-one else would be fool enough to try.

#### References.

- (1) Backhouse J. (1898) Upper Teesdale Past and Present. Newcastle.  
(1958) Reprint of relevant part in Br. Caver XXX pp.13-14.
- (2) Backhouse J. and Harris D.R. (1947) Br. Caver XVI pp.10-13.
- (3) Myers J.O. (1955) Trans.C.R.G. IV No.1. pp.29-49.
- (4) MSG (1967) Journal Vol.1.

Graham Stevens.

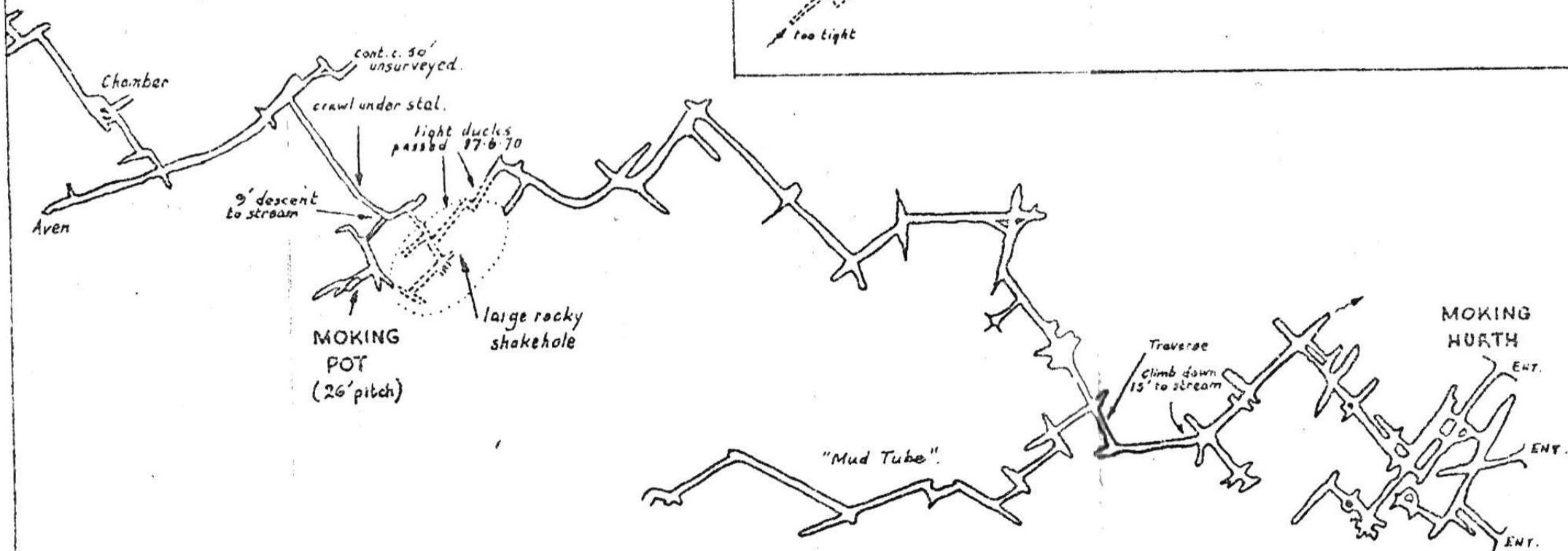
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The MSG Extensions - totalling perhaps 130' in all - bring the length of the Moking Hurth/Moking Pot system to about 1800' - of which about 1000' is Moking Hurth (measured from the NPC/UTCC Survey) and 800' Moking Pot, dividing the two caves at the tight wet crawl described above. This is rather more than the 255' figure quoted in 'P.U.' for Moking Hurth, only the depth, 30', being quoted for the Pot. The first exploration of Moking Pot seems to have been in the early 1950's, by the Vicar of Langdon Beck and friends, and is described in an edition of the 'Meccano Magazine' (although the cave is not named here, it is quite well described).

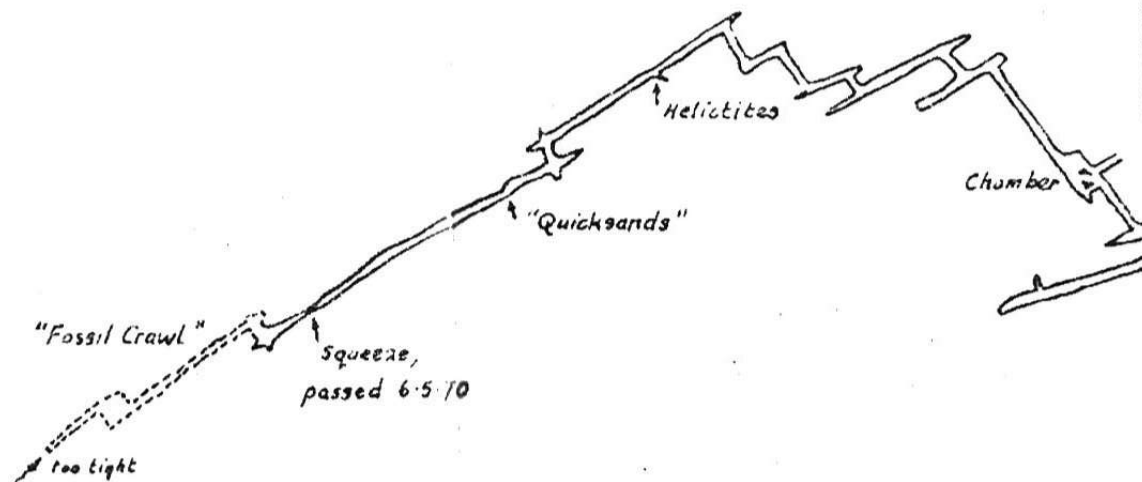
# THE MOKING HURTH SYSTEM

Moking Hurth ; from NPC and UTCC surveys,  
1953/1955; CRG Gr. 4(?)  
Moking Pot ; MSG Survey 1967 CRG Gr. 3.  
dotted passages ; MSG 1970 CRG Gr. 1-2.  
Moking Hurth Ent; N.G.R. NY 868.311; Alt. 1600'.  
Total Length of System c. 1800'.

Scale 0 50 100 Ft.  
N



## INSET Further Reaches of Moking Pot.



ELLER BECK HEAD CAVE, Bowes, Gretaedale.

The Eller Beck Head - Hazel Bush Hill Hole system was first explored by MSG members in July 1968 (see MSG Journal 2). Hazel Bush Hill Hole, the sink of Eller Beck, was found to end after 270' in a pool and a choked fissure. The rising, Eller Beck Head, a third of a mile to the east, was explored for c.70', before ending "too tight".

The question whether the narrow tube reached was in fact "too tight" preyed on the minds of certain members for some time. At last a return was made, on 30th May 1970, by Jan Arrowsmith and Peter Ryder.

The cave entrance is an arch 6' high and 2' wide at the foot of an impressive scar, and a considerable stream (in most conditions) rises. The water level inside the cave was lowered about a foot by digging at the entrance. The first few feet of cave are narrow, but the passage then swings r. to run diagonally across the joints, and continues of easy walking size for 40', the water up to waist deep.

This section ends in a 'T'-junction. To the r. 30' of narrow rift with 4' of water leads to a 10' high chamber with a large fallen block and mud bank, with a very low airspace continuation. To the l. at the junction is a dry tube, with an awkward double bend round a rock pillar, passable on either side. Beyond this the tube forks - to the l. a descending passage becomes very narrow, to the r. is quite an easy crawl (this is what the original explorer, his judgement doubtless affected by the cold water, declared "too tight"). JA easily passed this, and after 15' dropped down into an arched passage 4' high with 2'6" water. This turns r. round another double bend, and splits again. To the l. becomes very aquatic after 20' or so, to the r. is a narrow crawl running back towards the cliff face. After 20' this was divided into two impenetrably tight rifts by a rock flake (later hammered away by GS, 70' of small wet passage beyond), but to the l. just before this an easier crawl continued west to a boulder rubble. At this point FR arrived, finding difficulty attempting a Grade 2 survey, without anywhere dry enough to hold the notepad above water. The choke was pronounced an easy dig with a crowbar, and the cave hurriedly vacated for the sunshine outside.

On the 6th June, PFR, Graham Stevens and Phil Robinson returned. PFR and FR inspected the choke and started digging, while GS vanished down the aquatic side passage, whence his voice was faintly heard announcing that he had found a sump. He was naturally instructed to dive this, which, to the rest of the parties surprise and alarm, he did. The sump was only c.1' long, between two parallel passages running along the predominant joints. The passage beyond ran for 20' or so north to a 'T'-junction, with to the r. a duck, and then the boulder choke with FR and PFR on the other side. A joint attack from both sides reduced the choke to a squeeze over a boulder. This section, entering from the entrance side, now entails a thrutch onto the slab, and immediately beyond a drop into 3' of water and a grovel through an unpleasant duck - subsequently the name 'Paranoid Passage' was bestowed.

Beyond the duck, and the side passage coming from Graham's sump, the passage suddenly opens to a 10' high chamber with two large passages going on, all in waist-deep water. The l. branch was taken, and continued for 60' or so, looping to the r., to return to the chamber as the other passage, thus forming in effect a large cxbow. Having completed this circuit, GS vanished again into a small wet side passage on the l., and PFR climbed via the shoulders of FR through a hole at roof level in the chamber. The two routes rejoined

in a large dry passage 10' square, with banks of silt (Disillusion Way). This continued southwards, and lowered to a canal, which continues round several corners, becoming lower and wetter before finally, 120' from the dry chamber, closing to a rift with unusably small airspace.

Returning to the dry chamber, GS found a small crawl running for c. 20' to a silt choke, beyond which a small passage, with a strong in-draught, could be seen continuing. On 11th July GS returned, with Colin Carson (while PR and Chris Langthorne commenced the survey), and this passage, a tight crawl in thick mud populated with some species of worm (now named 'Worm Sewer') was pushed for 60' or so.

Thus the exploration of Eller Beck Head stands for the time being. The survey is not quite complete, and should appear in the next MSG publication.

Eller Beck Head presents more speleogeomorphological problems than most caves. Some of these were discussed in MSC J1.2. On the more recent visits, in dry conditions a much larger stream was found rising from the cave than that sinking at Hazel Bush Hill Hole. There are certainly no other sinks of any size in the localised limestone outcrop around Eller Beck. At the entrance to the cave the limestone dips steeply south, and the rising is in effect up-dip.

Two possibilities exist as to the source of the major part of the cave stream, presuming that there must be another feeder apart from Hazel Bush Hill Hole.

- (i) That the cave is fed by an artesian supply from a syncline in the Main Imst. beneath Cleasby Hill, to the south. The network plan of the cave corresponds well with artesian caves previously reported, mostly in the United States.
- (ii) That a distant surface sink feeds to Eller Beck Head. The most likely candidate seems Jinglepot Hole (see note on p.33), although there are a variety of faults etc. in between.

The total length of Eller Beck Head Cave must now be c.700'. In the system as so far explored, the Disillusion Way passage has been very tentatively identified as the main inlet from an unknown source, perhaps Jinglepot, and Worm Sewer may be part of the series bringing in the Hazel Bush Hill Hole stream.

Flood Danger - It is uncertain how rapidly the water level in the cave rises, but a rise of 6" would be sufficient to trap a party in the further reaches. The general tightness, wetness and jagged rocks have caused this to be voted the most unpleasant cave in the Northern Dales by some members. An unusual, additional, delight is the presence, at times, of thousands of small flies, on all surfaces above water level, in the first 200' or so of passage.

Thin waterproof insect lovers may enjoy visiting this cave.

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## FAGGERGILL 1970

Interest was first aroused in this area in January 1970 when Peter Ryder, Stuart Hodgson, Derek Taylor and myself made a brief visit following a survey and exploration trip to Old Moulds Level at Lngthwaite.

Further visits were made in March and April, and after contemplating the Blacksike Foot and Oving Nick sinks, various digs were started.

In May my wife and I took the lease of High Faggergill House, situated half a mile from the main sinks, and after a couple of weekends of tidying up, exploration of the valley began, commencing with the descent of Oving Nick Pot I and Crowbar Pot, 60' and 55' deep respectively, ending in chokes. Both pots had been previously descended by various parties.

Our digs were also continued, the main one being at Blacksike Foot in the Flood Sink. Work at this went well, and showed great promise with the constant appearance of draughting holes in the soft peat soil, which ran in as the digging proceeded.

During the weekend of 27th June New Level Mine Cave was discovered. This was done by Peter Ryder, who, determined to frustrate an early start to the Saturday evening session, announced his intention to probe a hole in the floor of Faggergill New Level, which had been brought to his attention by Sandy Meirs, the local gamekeeper. Six of us accompanied Pete to the entrance and were highly amused at the sound of his exertions as he travelled up the level, which begins as a crawl over shingle 1'-1'6" in height for a distance of 100'.

However, after a wait of  $\frac{3}{4}$  hour he reappeared soaking wet, and told of a stream passage encountered at a depth of 10' below the level floor. Ways on to east and west could be seen but were not pushed as he was without a wetsuit. Rift passages in the level were also noted.

As the MSG contingent had to return home that night, it was decided that Derek Taylor and myself should explore further the following day.

On dropping through the hole in the floor of the level we encountered the bedding plane as described in Pete Ryder's following article, and pushed upstream through awkward sideways crawls to a fallen boulder past which a continuation could be seen but not reached.

Returning to the bedding plane we pushed on downstream through a semi-duck caused by a shingle band, which was lowered on the return journey. Advancing further the passage became larger, and our hopes of at last finding the Faggergill Master System rose with every stride. These aspirations were quickly dashed as water and the Terminal Sump were reached.

After several abortive dives we retraced our steps to the mine level and out.

Further attempts to penetrate the sump were made on the survey trip, but again proved unsuccessful. An exceptionally hard diver is required. Anyone interested?

During July the extensive Nut Hole Level was explored and found to be in good condition, although signs of heavy flooding were found.

Various pots were also noted, including Ovening Nick Pot II which a visiting party of CFC, found wandering in Faggersgill, were invited to descend. One member of the party descended after some dispute as to the tying of knots, but re-emerged rather quickly following the discovery of sheep remains on the floor of the pot. The pot was reported to be 65' deep, and further investigation proved it to have been explored by Darlington Grammar School Caving Club, who reported that a mine level ran off near the top of the pitch. This was later verified by the YURT after their exploration in November.

The former ULSA dig ("Dig 87") at Roughton Keld was located and reopened. This proved to be in good repair, and was securely covered over again.

By this time our dig at Blacksike Foot had to be suspended due to lack of manpower and suitable lifting equipment. However it is hoped that this will be recommenced in the near future.

During August, September and October digs at Roughton Keld and further exploration of Nut Hole were undertaken - this included a descent of a 28' deep sump in the mine. From information received from Dave Carlisle, this shaft probably leads to the chamber described by the Geological Survey Memoir (reprinted in the ULSA Explorations Journal article on Faggersgill). This chamber was thought to have been encountered at a depth of c.33', and has probably been filled with 'deads'.

In November and December digs and exploration in other areas have attracted our attention and hence work in Faggersgill has suffered. During the coming year renewed efforts will be made to penetrate the Faggersgill Master System, which should prove extensive, to say the least.

With this in view, I wish to appeal to prospective visitors to respect our digs, and above all the farmer's property, for although we are on good terms at the present, excessive caving activity in the area could place us in jeopardy, as far as caving goes, and one of the best prospects in the Northern Dales could be lost.

Pete Stephenson.

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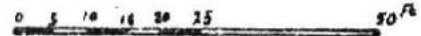
Note - A full report on Faggersgill and all its caves and potholes will be published in due course. I would be very pleased to hear from anyone who has worked in the area in the past, and has information which might be of use to us.

PFR

# FAGGERGILL NEW LEVEL MINE CAVE

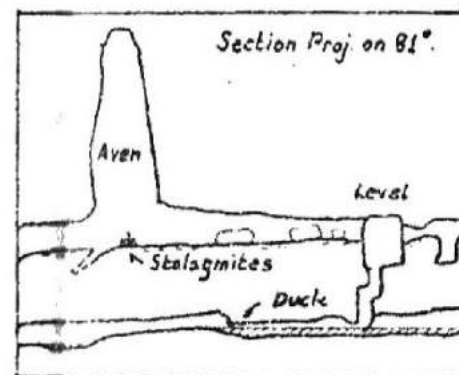
N.G.R. (Level Ent.) NY 992.074. AIL;  
Length; 435'. MSG Survey CRG Gr. 4B, 1970.

Scale

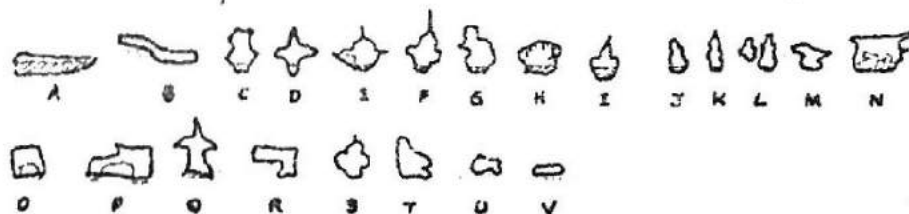


MN 1970  
TN

Section Proj. on 81°



Cross Sections



Inset Plan

Scale; 100'



natural AVEN

Present Entrance to New Level

Streamway

Upper passage

level continues

10' descent to streamway

level ent. 500'

too light

choke

Sump

Aven

Aven

Aven 30

## THE NEW LEVEL MINE CAVE, Fagnergill

The inspection of New Level, Fagnergill, was prompted by a reference in the ULSA 'Explorations Journal', p.62, where it is stated ... "Also, in wet weather this level takes water which is lost into a tight natural passage in the level floor, some 20 yards in from the entrance". A short section of dry natural cave in the same level is also mentioned, and has apparently been known for some time.

The '20 yards' quoted above appears to be a misprint for an estimated 200 yards - the surveyed distance is 510'. ULSA had apparently not descended the hole in the level floor, but previous parties probably have been in part of the cave below, so this is not a totally 'new exploration'.

Entering the level, via a collapse some distance north of the original entrance, the first 100' or so is so badly silted as to be less than 1' high, but after this the crawling eases, and becomes easy walking before a dry natural passage 4' up on either side of the level is encountered, 500' in. The hole in the floor, a scalloped 9' drop (in two steps) is 10' beyond these passages.

### The Streamway.

The 9' drop is not really tight at all, and opens at the bottom into a wide low wet bedding. To the l., upstream, is a pleasant little streamway 3' high and 2' wide, downstream is an ear-wetting duck through a wet section, before the bedding narrows, through a drier 'chamber', and into a steadily descending stream passage following a joint on about 302°. After 60' of easy crawling, passing an inlet on the r. from a bedding becoming too low after 20', there is an 8' high aven (this may be a silted up connection with the dry upper passage), and the stream turns l. then r. again, onto a parallel joint. The passage continues about 4' square, developing into a canal, decorated with stalactites festooned with flood debris. Passing another small aven on the r., the water deepens, there is a near duck, and finally a small sump chamber, where one can stand in water a little over waist deep, 235' from the mine level. A small rift with a couple of inches airspace closes down after 6' or so, and the sump does not appear likely to be free-diveable.

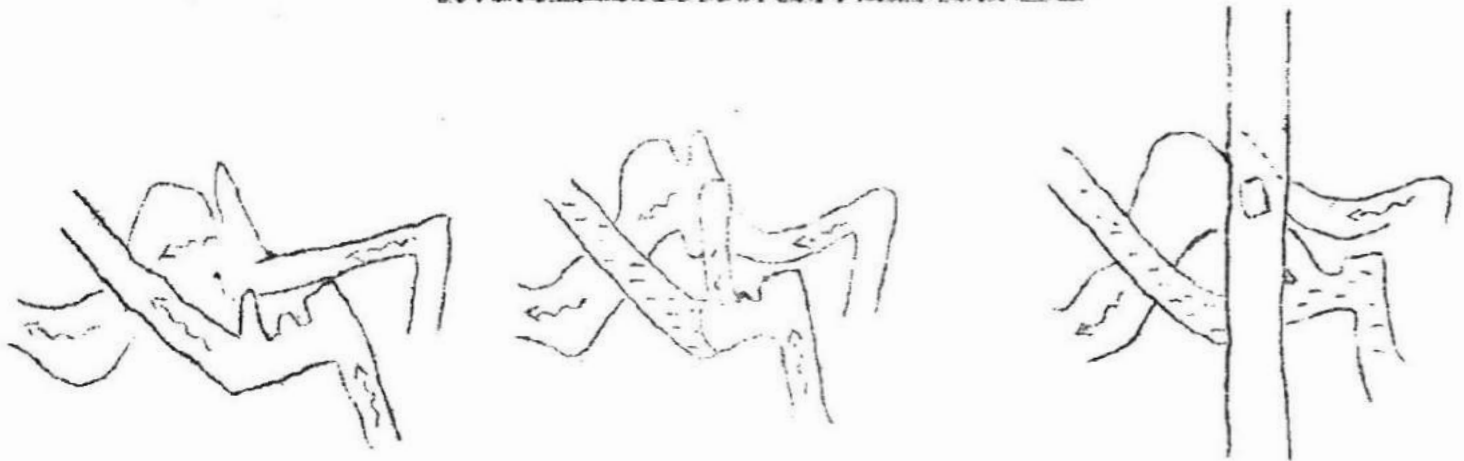
The upstream passage is quite different in character, being a narrow well scalloped crawl, continuing round several bends, then through a 6' wide section, with some collapse, to a final choke 65' from the entry. When first visited a way could be seen through this choke into what looked like open passage beyond, but the first blow from a lump hammer, wielded by Colin Carson, caused a massive slab to fall, totally blocking the passage beyond. A considerable amount of engineering would be needed to open a way on.

### The Upper Passages.

These have, as far as I know, not been, described previously. These passages appear to have been part of the streamway, before the stream migrated to a lower level and cut the present stream passage. This migration to the lower level may have proceeded in stages, with the point of the the descent of the stream to the low level retreating upstream from time to time. Alternatively there may have been two streams, and their confluence moved upstream as new connections formed, the present meeting of the streams being upstream of the limit of the explored cave. The stream which flowed through the upper passage probably originally entered the lower series at the aven 130' downstream from the level. The next route of the water would be to leave the stretch of passage now on

the l. (west side) of the level dry, and join the lower streamway via the present 9' hole in the level floor (see sketch). In time a third route, beyond the explored upstream limit, developed, leaving all the upper level passage so far known 'fossil' (see sketches)

Suggested Development of Junction of Upper and Lower Passages in New Level Mine Cave.



(i) Upper and lower streamways crossing.

(ii) Upper stream joins lower via the "9'" drop.

(iii) Present state - Upper passage deserted mine level driven.

The passage on the l. of the level is at first a crawl over fallen blocks, then opens to an attractive 6' high rift. This opens in a circular 30' high aven, with stalagmite bosses on its floor. Beyond the aven the passage is a muddy crawl, around a few bends, to end too low c.100' from the level, and about 40' from the silted aven in the stream passage.

The passage on the r. of the level is reached through two small openings, and is a muddy crawl over some boulders to end after 35' where a fallen slab makes the passage too tight - the continuation visible beyond is very low.

The total length of natural cave surveyed is c.435', 300' being the lower streamway. The mine level continues for some distance, and contains some other minor natural features.

The cave appears to be part of a system taking water from sinks near the north end of the eastern flank of Faggersgill (e.g. Crowbar Pot) across the valley head to join the flow from the main sink at Blacksike Foot, and thence to Roughton Keld.

It should be noted that the streamway appears to flood quite badly.

SMARBER BECK HEAD CAVE, Low Row, Swaledale.

Along the north side of Swaledale above Low Row, and extending west to above Gunnerside, is an extensive plateau developed along the outcrop of the Middle Limestone. Rumour had been heard of a tight resurgence cave here, and accordingly it was visited on 2nd May, at the somewhat unusual hour of 2.a.m., by John Longstaff and PFR.

The cave is at NY 972.980, just below the narrow road running up from Low Row, where the road becomes very rough, and forks. A sizeable stream rises from a scree below a 30' high scar, the main sink being in narrow rifts at the rear of the plateau 300 yards to the north-west, and possibly other sinks further west as well. At the top of the scree

(continued p.26)

KELDHEADS CAVE, Preston under Scar, Wensleydale.

It was on the 15th of August, 1970, that a small party of MSG members, returning defeated after the last assault on the Mud Slide in Kisdon Cave, first visited Keldheads. We did know that there was a cave of sorts in the area - Myers (NPC J1. Summer 1963, p.50) makes mention of an "interesting little unnamed cave at Keldheads", private communication revealing that NPC had been in for about 50 yards.

On the O.S. 2½" map several possible sites for the cave were apparent, with a variety of springs (in thick woodland) below the road at c.SE 077.913, and another rising half a mile further north at SE 076.916. Since this second rising was only a few feet from the road, it was decided to glance at this.

The "Old" Cave.

For a virtually unrecorded cave in such proximity to a road, the entrance at the rising was of suprising dimensions. A sizeable stream flowed from an arch about 10' square, in a small limestone scar (Main Imst.) PFR, least muddy, after having made the least effort in Kisdon, entered with alacrity.

A few feet inside the entrance (which at some time has been blocked up with a large iron plate, presumably to afford a water supply) the passage turns sharp r., and lowers to a hands-and-knees crawl along an attractive ogce-arched streamway. Just before the r. turn is a low side passage on the r., running parallel with the streamway, choked after 15' or so. The stream passage continues for 33' to a junction. The stream enters from a low passage on the l., and a larger passage, with a small stream entering from under rocks on the r., continues. This leads to a crawl up a boulder slope into a small collapse chamber (the limestone is thinly jointed and rather sandy, Keldheads being the most easterly of the larger caves in the Main Imst., which shows facies changes in its more eastern outcrops).

A few feet of small crawl, with one wall of loose boulders certainly not inspiring confidence, drop into a rather larger chamber, which in turn drops down into a muddy bedding plane. Passing four small branches on the l., this swings r., lowering to c.1' high, and ends in two small holes. The sole explorer only investigated the first two of these six possible ways on, the two larger passages on the l. in the first part of the bedding. Both ended in chokes after 25-30', and both, interestingly, seemed downstream passages.

Having reconnoitred about 200' of cave, and noted a variety of possibilities of extension, PFR returned, meeting JA making her way in to see what fate had befallen him. A closer inspection of the low main inlet revealed that it split into three. To the r. an oxbow rejoined the main passage just before the first collapse chamber, to the l. the stream rushed from a low tube, choked after 15'. Straight ahead a small hole opened suprisingly into an 8' high chamber, with water rushing under the boulders of the floor. A scramble up a loose slope at the end of the chamber (Inlet Chamber) led to a drop down into a draughting but unsafe choke. Having almost caused this choke to collapse, the explorers left the cave, meeting GS engaged in surveying, with great accuracy, the first 15' of the cave, which was as far as he was able to go without getting his feet wet.

A second visit to the cave was certainly called for, and on 22.8.70 JA and PFR returned, to investigate all possible ways on. In the final bedding, the remaining four small passages were all 'pushed' - the first (really the third passage on the l. from entering the bedding) was merely a squeeze into a cavity left by a fallen roof block. The second opened into a low bedding chamber with an inlet and outlet, both too tight. The third and fourth joined, and a low passage opened into a small streamway. Upstream was obstructed by a large poised boulder, downstream was not pursued very far, since it obviously runs into the choke blocking the small inlet on the r. at the entrance to the bedding.

On this occasion a small stream was flowing across the final bedding, and into the second of the two choked 'downstream' passages explored on the previous visit. In the mouth of this passage a mouth organ was discovered, sitting mutely on a mudbank. This had been lost on the previous visit by PFR, and was reclaimed, albeit full of silt. However, this gave a name to this now active streamway - Harmonica Passage. The Harmonica stream was fluorosceined, and, as the party left the cave, the main inlet turned green.

The third trip was carefully planned. The fluoroscein test had shown that the Harmonica stream joined the main cave stream somewhere beyond the choke in Inlet Chamber. The choke in the first l. hand passage in the bedding seemed to be near the choke in Harmonica Passage, and had looked more liable to succumb to digging than that blockage. The small streamway at the end of the bedding, with the poised boulder, was another possibility. Breakthrough.

Accordingly, PFR, GS and John Cooper returned again on the evening of 27.8.70. JC, with hammer, was dispatched down the first l. hand passage (Mudbath) to attack the choke. The remainder of the party advanced to the choked upstream passage at the end of the bedding, and quickly decided that the blockage was too unsafe to dig, although a continuing passage is plainly visible beyond. Retreating, JC was met, who had had a great deal more success, in digging out not one but two holes in the small chamber at the end of Mudbath, and also in sculpturing statues in the sticky mud. One of the holes he had opened proved, as suspected, to open into the end of Harmonica Passage (PFR making the first 'through trip'). The other opened hole dropped into a low canal, the downstream continuation of the two passages. The breakthrough had been made.

#### The Extension.

The low canal split into two after 15' - to the r. an aqueous tube, in fact an upstream passage, and to the l., 15' further on, a horribly unsafe collapse chamber (survey shows this to be only a few feet from the choke in Inlet Chamber). The upstream tube, after 10', turned r. through a duck, with 4" of air. JC had wisely retreated here, and GS was sent for, with his liking for tight ducks, a la Moking Hurth. He wallowed through, and shouted for JC to follow. The unwetsuited PFR considered this a good opportunity to retreat from the cave and get changed.

Through the duck, a larger tube continued, up a slope and into a three-way junction at a small collapse chamber. The r. fork was taken, through a narrow arch (The Postern) and into quite a large (by Keldheads standards) chamber, from which a variety of passages led on. Especially on return journeys, the correct route has on occasions proved elusive,

# KELDHEADS CAVE

Preston under Scar.

N.G.R. SE 076.916. Alt. 900'.

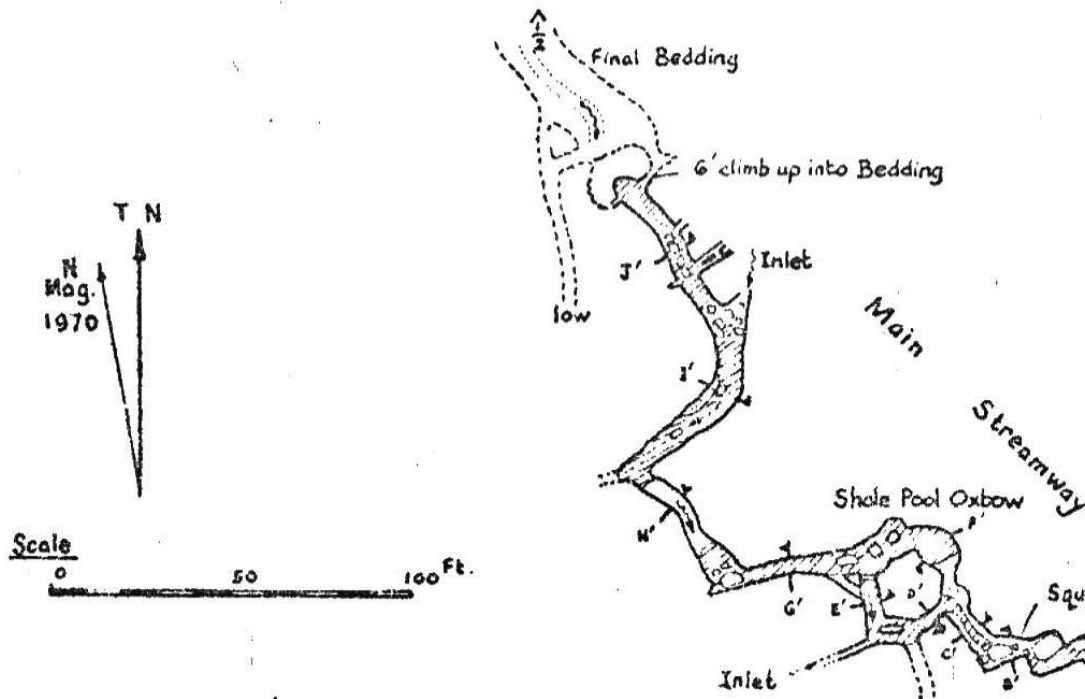
Length ; c. 1300'.

MSG Survey CRG 4B (dotted passages Gr 1)

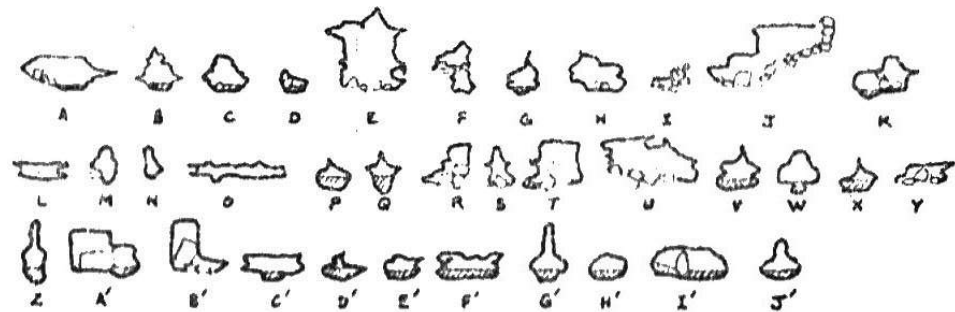
J. Arrowsmith, J. Cooper, C. Langthorne,

P.F. Ryder, G. Stevens. 1970/71

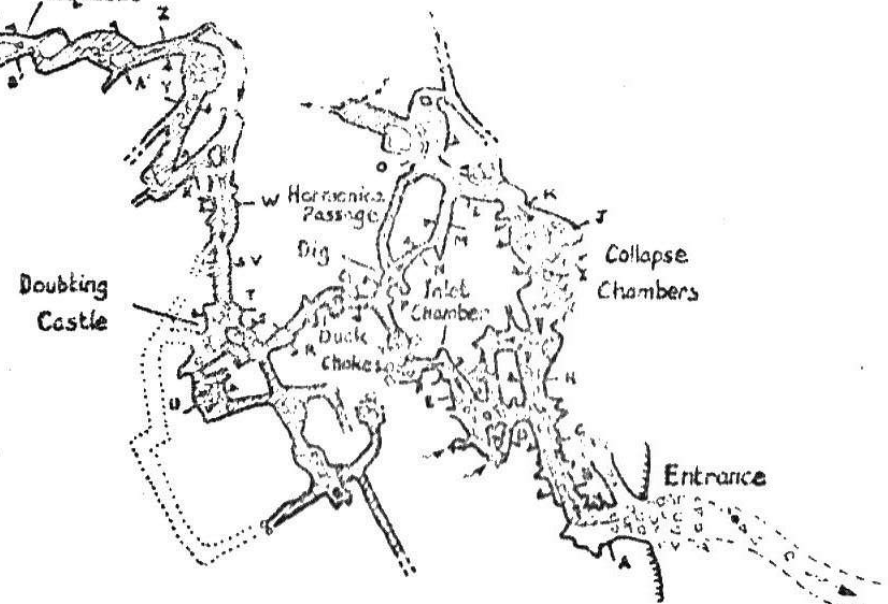
Provisional Drawing.



## Cross Sections



Scale x 2



and the multifurcate chamber has been dubbed 'Doubting Castle'.

The main stream flows under the boulders which floor Doubting Castle, away to the l. into a complex series of passages (explored later) towards the choked Main Inlet and the entrance. At the north end of Doubting Castle the stream enters, from an attractive arched passage, rather like that just inside the entrance, which runs straight (passing two small dry tubes on the l.) for 35', to a 'Y'-junction. Both forks are stream passages, but that on the r. ends in a choke after 15', with an oxbow looping back to join the other fork, the main streamway. This continues as a flat crawl, round a very acute bend to the r., past a tight tube on the l., and through some boulders to a sharp l. bend. One can scramble up into a collapse chamber above the streamway here, and at floor level is a small fissure taking part of the stream - this probably accounts for, or at any rate contributes to, the inlet at the 'Y'-fork.

From the collapse chamber the streamway continues as a hands-and-knees crawl, past another fallen block (with a small 'chamber' above as usual) to a second similar collapse chamber, c.6' high, with the way on, upstream, being a squeeze over a slab at floor level. This regains the streamway, and here a shale band, a characteristic feature of the system, becomes very much in evidence.

The passage is 6' wide and 2' high, with flaky black walls of shale, and banks of shale mud on either side of the stream. After 20' another fork is met. Straight ahead is a "dry" oxbow, to the l. the streamway, almost a 'duck' beneath hanging shelves of shale. Following the stream, a dry passage on the l. is passed, with a slab of fossil coral at its entrance - reef like masses of fossil coral, probably *Lonsdaelia*, are in evidence in several parts of the cave, both in situ and in the boulders of the floor. This side passage continues as a crawl for c.50' before bifurcating and becoming too tight.

A 6" waterfall over a chert band between two pools is passed, with above it on the r. the upper end of Shale Pool Oxbow. Upstream a large slab divides the passage, and can be passed on either side. Beyond the passage is a roomy crawl, with a narrow 6' high rift in its roof. This swings r. again, over some low cascades (razor sharp rocks here caused damage to the original explorer's knee, and the curtailment of the original exploration. On the l. is a low side passage, probably another oxbow, and then another boulder collapse chamber, with a few small stalactites (the only formations in the cave). On the r. here is an inlet from a narrow rift. (The exploration of this part of the cave was completed on 3-9-70 by GS, this time in the company of Colin Carson and Stuart Hodgson).

The streamway continues for another 40' of easy hands-and-knees crawl, passing a narrow rift on the r., before suddenly ending in a blank wall, with the stream entering from a tiny hole on the l. At first sight this seems an abrupt and most unusual end to the cave, however, 5' from the end is a narrow cross-joint rift in the roof, up which one can squeeze into a very side and very low bedding, in another shale band, 6' above the streamway below.

This part of the cave is only sketched in on the survey from drawings by GS. The bedding has been pushed for 30' or so, as a long squeeze, rejoining the stream, which disappears down a hole in the floor to enter the lower streamway. Over to the l. is a gently descending crawl, which was

followed for 40' or so, before becoming very low - this possibly connects with the low side passage 100' back down the streamway. The upstream part of the bedding can be seen continuing, though only about 6" high. Digging the shale floor could perhaps allow a little further progress.

#### Downstream of Doubting Castle.

There are a confusing maze series of passages in this area. It is difficult to see which route the main stream follows - the area is in general semi-phreatic. A wet tube runs west from the main part of Doubting Castle (sketched in on the survey), swinging l. and ending after c.80' in a boulder choke, thought by GS to be the same blockage as encountered in one of the other passages in this series. The main part of this series is entered from the 'antechamber' to Doubting Castle, reached by climbing through a 'window' at the south end of that chamber. Turning l. after leaving the antechamber rejoins the main route into the cave at the three-way junction after the Duck.

One passage in this series ends in a collapse chamber which, according to the survey, is very close to both the collapse chamber reached by continuing down the first canal of the Extension instead of turning r. to the Duck, and to the end of Inlet Chamber, near the entrance.

#### The Survey

The survey of the major part of the cave has taken three visits, the 'main line' and some side passages being surveyed to Gr.4 (Gr.5 in the entrance series). The length of the 'Old Cave' or Entrance Series is c.330' (263' surveyed, remainder sketched in), and of the Extension c. 1,000' (main line distance from the Harmonica Passage Dig to the climb up into the final bedding, 450'

#### Flooding

On one occasion Keldheads Cave was visited in fairly wet winter conditions, by CC and SH, for the purposes of continuing the survey. The water level in the Duck area was found to have risen 3-4", leaving barely  $\frac{1}{2}$ " of air on the Duck itself. In these conditions the Duck can be passed (SH did so, then retreated), but is not advisable. The Duck quite probably sumps at times, but in the streamway beyond is little evidence of flooding, and the cave cannot be classed with the worse 'flood-risks'.

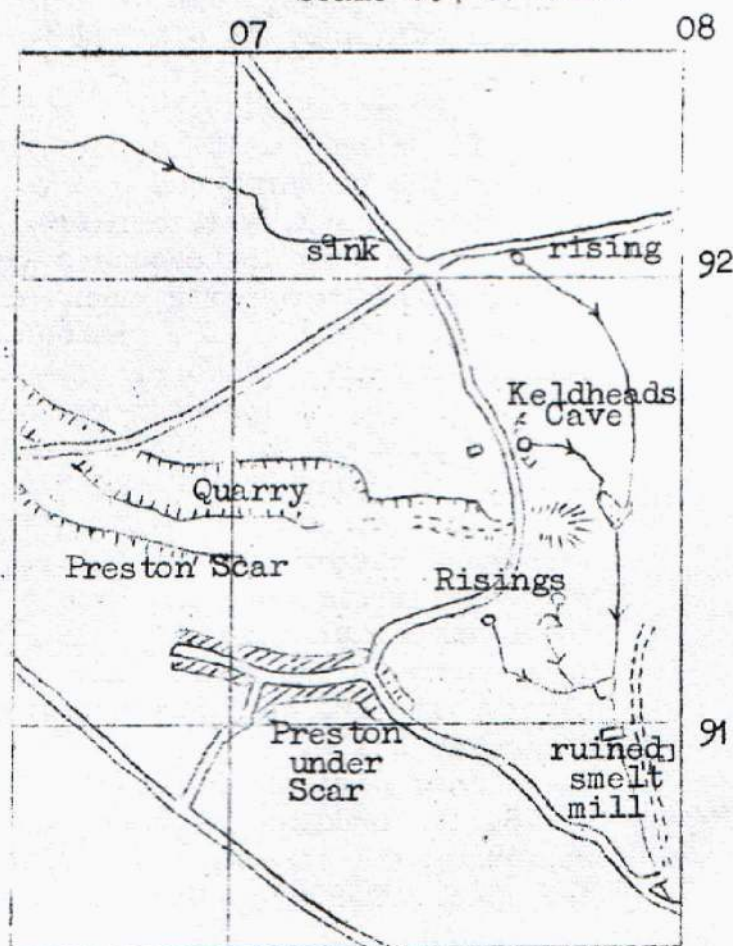
#### Conclusions

The source of the cave stream, which varies considerably in size according to weather conditions, remains a mystery. There are no surface sinks nearby, and the only likely sinks, distant as they are, if indeed Keldheads is not fed by "underground pick-up", are those in Apedale (see elsewhere in this Journal)

(continued page 16)

#### Sketch Map of Keldheads Area

Scale c.4":1 mile.



## Windegg Mine Caverns - A Preliminary Report.

The curious reader of this Journal will note in the 'Meet Reports' section of this Journal a great number of references to 'Windegg Mine Caverns' towards the end of 1970. For various reasons, a full description of, and report on, this system cannot be given here - this will appear, along with the survey, in a few months time.

It was at the 1970 DSA Conference, at Nottingham University, that in a lecture on Swaledale Lead Mining reference was made to natural rifts in mine workings on Windegg Scar, Arkengarthdale. The lecturer, Dave Carlisle, was approached later, and offered to lead a party into Windegg Mine to examine the Caverns he had found a few years previously when the mine had been re-opened by the Earby Mine Research Group. A little digging was again necessary to enter the workings.

That first visit confirmed that there was indeed a very extensive natural system under Windegg Scar, as we had suspected from our observations in Damocles Hole (see MSG Journal 1969/70 - "the fine passage so briefly seen suggests that a very extensive fossil cave system must underlie the area"). A succession of later visits saw the exploration and survey of, while not quite the 'everlasting network' hoped for after the first visit, what proved to be without doubt the most complex and intricate system yet surveyed in the Northern Dales. In the opinion of some members, it is also the most dangerous system in the area.

Whilst not of quite such an extent as the now inaccessible Silverband Mine Caverns, Windegg shows a greater complexity in a smaller area. Virtually all the cave is contained in a block of limestone 300' square and 50' thick - yet there is almost 4,000' of passage, much of it large, and some sizeable chambers. There are a wide variety of types of passage, ranging from rifts over 40' high, followed by traversing 20' up from floor level, to collapse chambers of cross-section 15' square. There is very little, however, in the way of bedding plane development, and the system is almost totally phreatic in origin. The mode of formation of this peculiar, apparently isolated, maze-like system, poses many questions - for example, why all the parallel rifts of Windegg seem to shut down and become too tight, more or less along one east-west line, while a third of a mile further south a brief section of a similar well-developed rift is seen at Damocles Hole. The full topographical and geological description which is being prepared should also include an area report.

The dangers of the system, both in the natural caverns and in the old mine workings, have been so impressed on some explorers and surveyors that they will not be forgotten for quite some time. Dave Carlisle on one occasion made a rather precipitous descent of one 30' rise in the mine workings, accompanied by an assortment of rotting timbers and ironwork. In another part of the mine the effects of carbon dioxide concentrations were noted with interest, and caused the abandonment of a survey trip. In the Caverns, which lie about 30' above the main part of the mine workings, Messrs. Ryder and Longstaff, in what is now termed "Creaking Boulder Cavern", found 40' of boulder ruckle, on top of which they were standing, start to creak and groan - the chamber being hurriedly vacated. This area has changed considerably between visits, and seems on the verge of a massive collapse. Those who consider that at the present day cave development by collapse is

an extremely slow process, and that collapse features now seen are generally of considerable age, would have their opinions drastically altered by a close acquaintance with Windegg Mine Caverns.

It had been hoped, as exploration proceeded, that a natural entrance from the surface into the Caverns might be opened up, but at the moment this seems a remote possibility. The area of the system so far surveyed is overlain by a considerable thickness of grit and shales, and the natural cave never approaches to within more than a few hundred feet of the surface limestone outcrop. Most of the previously recorded "mine caverns" in the Northern Dales have similarly been remote from the surface outcrops of the limestone (e.g. Silverband, Flushiemere, Hudgill Burn and probably Lunehead), and all these are now inaccessible to the caver due to the collapse of the mine levels which ran into the cave systems. It seems that this fate may befall Windegg before very long - the first 50' of so of the mine level by which the cave is entered is in a rather shaky state, and consolidation would entail a lengthy and expensive amount of work, somewhat beyond the resources of MBG.

The complexity of Windegg Mine Caverns is such that our survey and exploration proceeded together, to ensure that too much work was not expended on passages which, as seen when that section of the survey was plotted, merely reconnected with a 'known' part of the system. Over a dozen surveying trips have been necessary to produce the Gr.4 survey now almost complete. A few small and unimportant parts (such as the chamber and passages so unsafe, and apparently about to collapse, that only GS would go in them) have been drawn on to Gr.2. The main limiting factor as to the amount of passage surveyed on each visit has been the muddiness of the tape, rendering it unreadable after a couple of hours surveying. There is virtually no water - clean water, anyway - in the Caverns, and for such purposes as refilling carbide lamps a return to the mine workings at a lower level has had to be made.

At the time of writing, our work in Windegg is still incomplete. Regarding this, the hazardous nature of the system, and various problems of access with the landowner, I would ask any readers to respect this cave for the time being - there is little to interest the 'sporting' caver anyway. It may be possible in time to make some arrangement for visiting parties, if the level can be consolidated.

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#### Keldheads Cave - Conclusions (Continued from page 14)

About a quarter of a mile north of the cave part of a small stream sinks in wet conditions (c.SE 072.921). This could account for the small inlet on the r. near the cave entrance, although a more likely rising is the small cave (too tight to enter) just below the Redmire-Richmond road at SE 075.920.

The stream rising from Keldheads is sizeable at times, but only a fraction of the size of a very large rising a quarter of a mile to the south, c.150' lower (SE 077.913), which apparently comes from a collapsed mine level. There is a smaller rising a little higher up and further west, from an impenetrable bedding - probably connected with the main rising. The size of this rising, which is probably from the Undersett Limestone, is quite comparable with the largest Northern Dales risings.

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MEETS REPORTS. March to December 1970.

(This Meets List is not comprehensive, one or two meets, mostly on Craven, are not included).

7-3-70. Swinnergill. J. Arrowsmith, S. Hodgson, P.F. Ryder.

Some surveying was carried out - the Gill was sinking 100yds. below the Kirk.

21-3-70. Hard Level Gill. - see postscript, Journal 3.

27-3-70. Barningham Moor. J.A., C. Carson, J. Cooper, P.F.R.

Near Barningham village, at NZ 077.098., a small stream sinks and rises in a thin lmst. band. In the dry bed between sink and rising is a small cave ent. noticed by C.C. and P.F.R. the previous Christmas day - this leads to the streamway after 10', downstream too tight, upstream a too tight bend after a further 15'.

30-3-70. Cotterdale. S.H., P.F.R., J. Wedderburn.

A cave was found in the Main Lmst. gorge in East Gill (Cotterdale House Cave?), at c. NY 831.956, a roomy ent. above a rising, 4' high streamway for c. 120', ending too low, apparently just a subterranean ox-bow to the Gill.

31-3-70. Swaledale. J.A., C.C., P.F.R.

An old level was dug into on Green Hills, south of Healaugh (see small surveys) and showed some small nat. rifts. Surveying at Hard Level Gill continued.

1-4-70. Kisdon Cave. J.C., P.F.R.

Survey commenced.

3-4-70. Teesdale. J.C., J. Longstaff, P.F.R.

A previously noted rising at Stonygill Head, nr. Middleton was revisited. 40 yds. W of the impen. rising (NY 932.267) is a small cave - with permission (this is a water supply) this was entered, and 30' in a small wall partly removed to reveal a 'T'-junction with a streamway - the Stonygill Head water - unfortunately, close and open jointing of the lmst. had caused massive collapse, and both upstream and downstream quickly ended in hopeless chokes. Total length of cave c. 70'. Later a small cave at Low Ravelin - too tight 20' in - was visited, and then Firestone Level, Hudeshope.

4-4-70. Kisdon Cave. J.A., P.F.R., G. Stevens.

Survey concluded, see article by G.S.

18-4-70. Ashberry Windypits. J.A., S.H., P.F.R.

This proved a quite interesting and sporting, albeit muddy, little system. Length perhaps 250'. Published descriptions are very inaccurate.

2-5-70. Smarber Beck Head. J.L., P.F.R.

On this occasion only the first 15' explored - see New Explorations.

6-5-70. Moking Pot. J.A., P.F.R., G.S.

See New Explorations.

9-5-70. Bearsett Rising. S.H., P.F.R.

A rising from the Hardraw Scar Lmst., which Brian Heys of NPC told us. At first sight very promising, a little digging revealed that blasting would be necessary to force entry into the cave (SD 857.917). Impen. sink  $\frac{1}{2}$  mile to E.

14-5-70. Jacob's Well Cave, Frosterley. J.A., P. Ray, P.F.R., G.S.

A new ent. - tight - was found 30' NE of Quarry Entrance, dropping after 12' into the first small side passage on the l. as one approached Flood Rising Series. The upstream end of the Stream Passage was also inspected, but no real progress made. At this time the system remained intact, but since then it is reported that much has been quarried away - Weardale quarries claim yet another cave. Alas!

16-5-70. Duerley Beck S.H., P.F.R.

A Main Lmst. gorge at SD 846.841. was inspected, and a few small holes entered. The rising cave at the gorge foot is a 20' crawl to a loose chamber with chinks of daylight entering from the shake above, and a very low wet crawl going on. The sink is nearby. A little further up the gorge is an 8' deep pot leading into a small cave c. 30' long. The day was concluded with a walk in the Sod Hole Gill area.

23-5-70. Sod Hole Gill. J.A., C.C., J.C., P.F.R.

The Main Lmst. plateau was followed S. from Sod Hole Gill, and round to Sargill. A few open holes were found, unfortunately all choked or too tight c. 25' down.

27-5-70. Sargill. C.C., S.H., P.F.R.

An open hole was found at Sargill Head, but again choked c. 25' down. West Side Pot was found (see ULSA Review 1), the ent. being in a very unsafe ruckle. P.F.R. descended, and ascertained that there is no way on above water from the final sump chamber, even though conditions were abnormally dry. The ent. was blocked with boulders, since the ruckle is very unsafe and could easily run in.

30-5-70. Eller Beck Head Cave. J.A., P.F.R.

A long overdue return. See New Explorations.

6-6-70. Eller Beck Head Cave. J.A., R. Evans, P. Ray, P. Robinson, P.F.R., G.S.

See New Explorations - surface survey was also carried out.

13-6-70. Swaledale. J.A., S.H., P.F.R.

The Swinnergill risings in East Gill, Keld, were inspected, and some time spent in excavating a tight rift in the cliff above, which closed down after 12'. The small rising cave further upstream, on the east bank, just below, and opposite East Gill Cave 1, was explored, and proved to be c. 30' long, all narrow jagged crawl, ending too tight, the stream presumably of local origin.

Faggergill was then visited, and P.F.R. entered New Level, to inspect the tight hole in the floor mentioned in the ULSA 'Explorations Journal'. This was not in fact tight at all, and a streamway below was entered. The following day Pete Stephenson and Derek Taylor, who were in residence at High Faggergill, explored the remainder of this cave - see New Explorations.

17-6-70. Moking Pot. P.F.R., G.S.

See New Explorations. Chester Sike Cave was inspected by P.F.R. (see small surveys page) - since last visited, BACC had lowered the water level, and allowed access to another 40' of low wet crawl, making this little cave c. 80' long, ending too tight. It is interesting that this cave, the resurgence of a system running parallel to and quite near Moking Hurth, is totally different in character from that system, being developed on bedding planes and not on joints.

20-6-70. Stang Area. L. Beever, S.H., C. Langthorne, P.F.R.

Hope Edge Pot (NZ 030.075) proved to be 20' deep and choked. Horrocks Cross Pot (at the cliff foot below Horrocks Cross Cave - see Journal 3) was descended, and proved to open into a short series of old mine workings, rather unusual, and with a total length of c. 120'.

27-6-70. Faggergill New Level Mine Cave. J.A., C.C., D. Taylor, S.H., P.F.R.

The cave was surveyed - sump diving (free) attempts failed.

4-7-70. Faggergill New Level Mine Cave. J.A., C.C., C.L., P.F.R.

Survey completed, a dig at the upstream choke caused it to collapse and totally block the passage.

# SMARBER BECK

## HEAD CAVE,

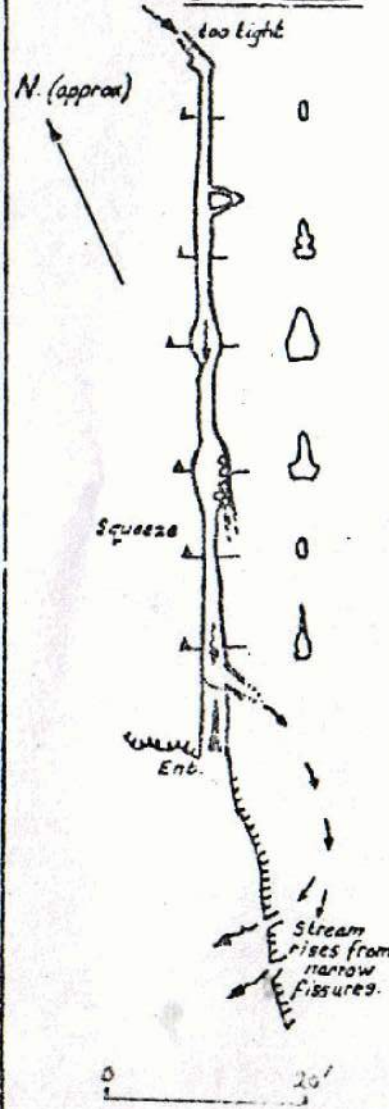
Low Row, Swaledale.

N.G.R. NY 972.980.

Length c. 70'.

Gr. 2. Sketch Survey. G.S.

Scale -



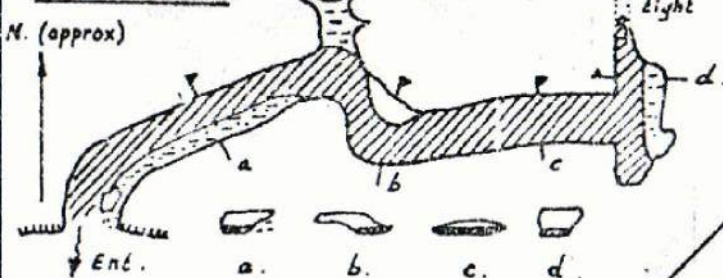
# CHESTER SIKE CAVE,

High Hurth Edge, Teesdale.

N.G.R. NY 871.312. Length c. 80'.

Gr. 1 Sketch Survey P.F.R.

Scale -



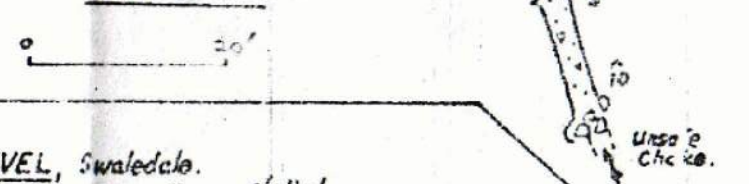
# BUNTON HUSH CAVE,

Gunnerside Gill, Swaledale.

N.G.R. NY 943.012. Length; 30'.

Gr. 2. Sketch Survey. P.F.R.

Scale -

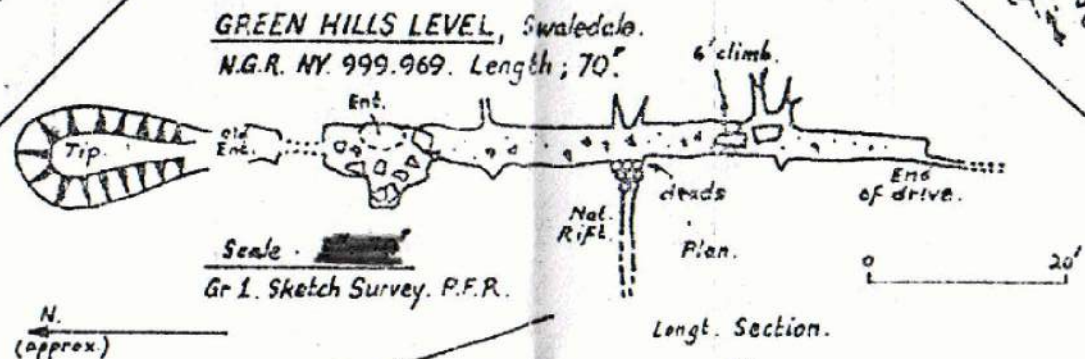


# GREEN HILLS LEVEL, Swaledale.

N.G.R. NY. 999.969. Length; 70'.

Gr. 1. Sketch Survey. P.F.R.

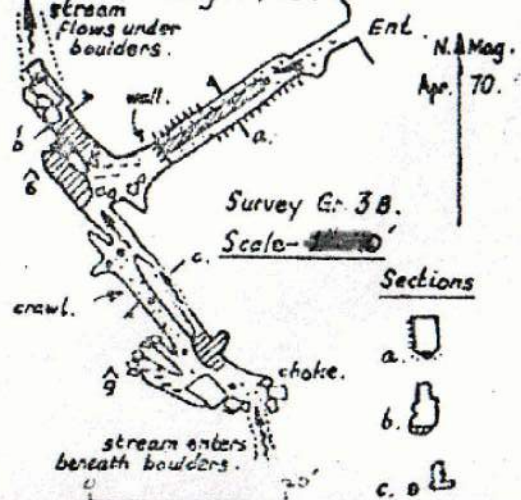
Scale -



# STONYGILL HEAD CAVE,

Middleton in Teesdale. N.G.R. NY. 932.267.

Length; 75'.



# APEDALE HUSH CAVE,

Apedale, Castle Bolton.

N.G.R. SE 013.949.

Length c. 80'.

Gr. 2. Sketch Survey P.F.R.

Scale -



11-7-70. Eller Beck Head Cave. C.C., C.L., P.Robinson, G.S., R.E., P.F.R.  
New Exploration, survey, and water testing activities.

18-7-70. Priorsdale. J.A., S.H., P.F.R., G.S., J.W.

Once again no progress was made at the end of the cave. The cave was surveyed, proving to be 132' long. For a description of the drainage, see YURT Report 2, and notes in MSG Journal 3.

24-7-70. Faggersgill. J.A., P.R., P.F.R.

Tip Foot and Sloat Hole levels were visited.

25-7-70. Littondale. J.A., S.H., P.R., P.F.R.

Litton Rising and Litton Pots, and various "promising" goles nearby were inspected on a surface walk.

29-7-70 Smarber Beck Head. G.S., P.R. & P.F.R. surface.

See New Explorations.

1-8-70. Littondale. S.H., C.L., P.R., P.F.R.

All the "promising" holes previously noted proved hopeless, as usual...

8-8-70. Gunnarside Gill. J.A., S.H., P.F.R.

Several levels and natural holes were looked at. Botcher Gill Sink failed to yield to an assault with hammer, shovel and Stuart's garden rake. Botcherside Pot, a highly fluted, choked 21' deep shaft (NY 936.005) was uncovered and descended. Bunton Hush Cave (see small surveys sheet) was explored - 30' long to a loose strongly draughting choke - this little cave is in a remarkably similar position in Bunton Hush to Friarfold Hush Cave in Friarfold Hush (see Journal 3). Various holes in Eweleap Scar were also probed.

9-8-70. Eweleap Scar. J.C., J.L., P.F.R.

Unsuccessful dig in Eweleap West Cave, Foxglove Pot found.

15-8-70. Kisdon Cave. J.A., P.F.R., G.S.

Another unsuccessful dig. Landy Level, 200 yds. E of Kisdon Cave was visited.

On the return journey Keldheads Cave was "found".

22-8-70. Keldheads Cave. J.A., P.F.R.

See New Explorations.

25-8-70. Houghton-le-Spring. J.A., J.C., W.Laverick, J.L., P.F.R.

A trip to investigate various natural holes and rifts on the brow of the Magnesian Lmst. escarpment north of Houghton-le-Spring, in the half mile or so to the east of the cutting on the Durham to Sunderland road.

All the holes found seem to be natural slip features, almost identical to the North Yorkshire "Windypits", parallel to the escarpment. The area is very interesting to the geomorphologist, but all the holes were very loose. Descents of a few were essayed (i.e. J.C. was lowered down them), but the unstable nature of the walls, floors and roofs would have made full exploration suicidal. The deepest hole - depth estimated by dropped stones - could be over 100' deep. Others are certainly 50' +.

27-8-70. Keldheads Cave. J.C., P.F.R., G.S.

29-8-70. Apedale. J.A., C.C., S.H., P.F.R.

A walk into the arid wastes of upper Apedale in a vain search for the sinks for Keldheads. In a deep hush at SE 013.949 a semi-natural "cave" was found, 80' long (see small surveys sheet), emitting an icy cold draught - it was a very hot day. In Harker Level, a roomy dry mine in Cat Scar, a few natural rifts were found, near the entrance.

3-9-70. Keldheads Cave. C.C., S.H., J.A., P.F.R., G.S.

5-9-70. Ayleburn Mine Cave. J.A., C.C., S.H., P.F.R.

A photographic trip, successful for once.

19-9-70. Fells End Pots. S.H., P.F.R., J.W.

Several holes south of the road at Hollow Mill Cross were inspected. The main pot is quite impressive, though 30' less deep (from our Gr.3 survey) than the 1960 CPC Journal (p.354-6) states. Nevertheless, at 120', this is one of the deepest pots in the Main Lmst. 1st pitch, from a dry shake nr. a stream sink, can be done with 25' ladder belayed from a rock spike 10' below the actual ent. The 2nd pitch, on the l. at the foot of the ladder, is an easy 25', the 3rd, directly below this, is a 60' into a blind rift, with a rather tight initial section. The survey is reproduced here, along with that of another of the deeper Main Lmst. pots of Upper Swaledale, Great Sleddale Pot (briefly mentioned in Journal 3, first explored by NPC). Further reports on Sleddale should appear later.

1-10-70. Keldheads Cave. J.C., P.F.R., G.S.

3-10-70. Devis Hole Mine, Grinton. G.M. and S.Davies (YURT), P.F.R.

A dig near the collapsed mine ent. was tentatively commenced.

3-10-70. Alston Area. J.C., A.Holmes, J.L.

Caplecleugh Low, and Tynebottom Levels were visited, minerals collected.

10-10-70. Fells End Area. C.Day, J.L., P.F.R.

A surface walk, without result. Where do Fells End Pots resurge?

10-10-70. Kingsdale Master Cave. S.H., G.S., J.W.

A tourist trip.

11-10-70. Windegg Mine Caverns. D.Carlisle, C.C., A.H., P.Stephenson.

See New Explorations.

17-10-70. Cross Pot, Swindale. P.F.R., G.S.

23-10-70. Cross Pot, Swindale. C.C., J.L., P.F.R., G.S.

A rough survey of the system - 220' long - was made.

25/28/29/31 - 10, 6/7-11-70, Windegg Mine Caverns.

Various exploratory and survey trips.

15-11-70. Devis Hole Mine, Grinton. D.C., S.H., J.L., P.F.R., P.S.

Digging continued.

21-11-70. Keldheads Cave. C.C., S.H.

It had been intended to continue the survey, but the "duck" was virtually sumped, and in the prevalent weather conditions it was thought unwise to go any further. A surface walk revealed nothing of interest.

21-11-70. Gunnarside Gill. A.H., J.L.

Several levels inspected, unsuccessful dig in Barbara High Level attempted.

1-12-70. Bluebell Wood Cave. J.Mellors, P.F.R.

See New Explorations.

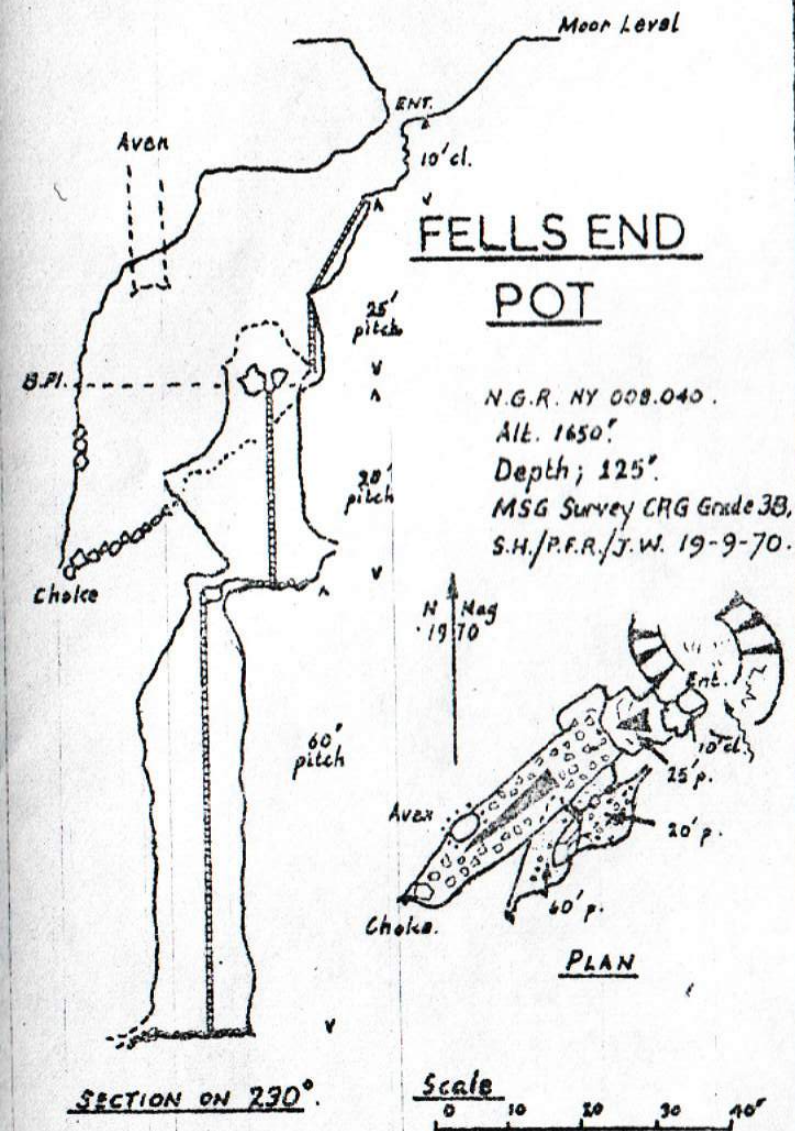
4-12-70. Bluebell Wood Cave. J.M., G.S.

5-12-70. Crossgill, Garrigill, and Ashgill (Teesdale). J.L., P.F.R.

Several levels were examined in Crossgill, none of any length, and one or two small cave ents. proved to quickly close in. In Ashgill, a small cave was noted in Green Scar (NY 804.360). A tubular crawl runs into the cliff on the W side of the small Main Lmst. gorge, and becomes too tight after 25'. However, above the cliff is a small pot 10' deep, ending in an impassable slit, from which a vocal connection was established with the cave - a perfect miniature example of a "through system".

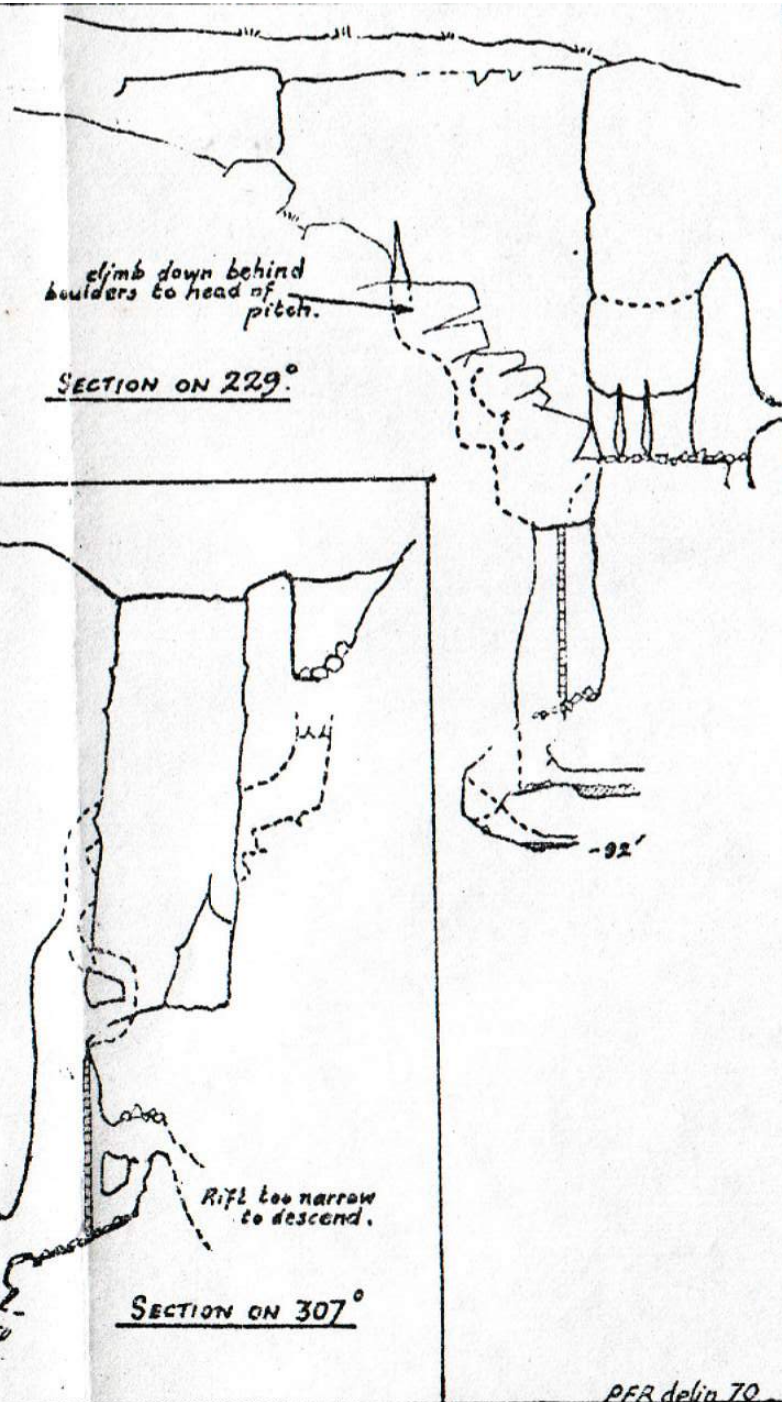
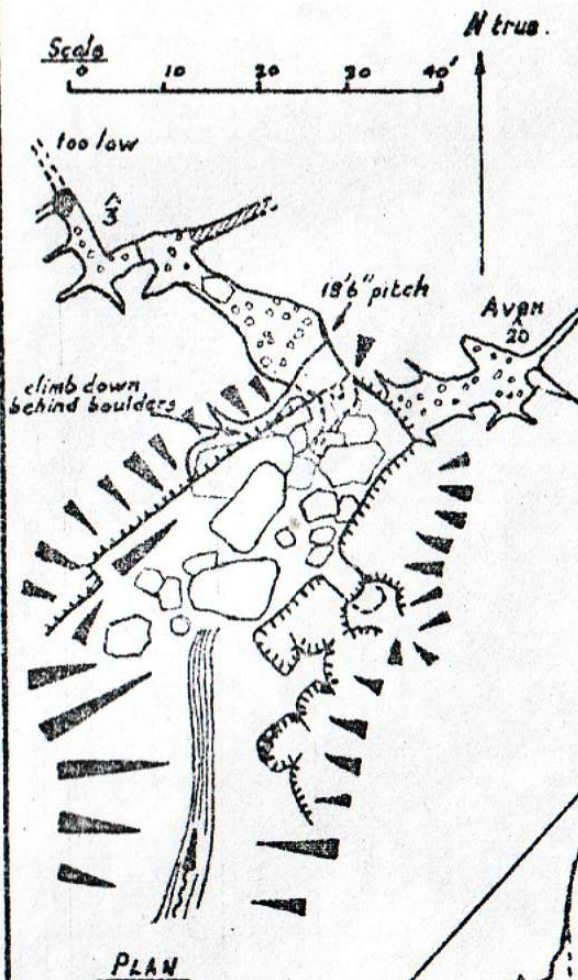
12-12-70. Windmore End Cave. R.E., P.F.R.

The survey was continued, and various observations made.



## GREAT SLEDDALE POT

N.G.R. SD 827.988. Alt; 1675'.  
Depth 82', Length 50'.  
MSG Survey CRG Grade 5C,  
C.C./P.F.R. 6-9-69.



15-12-70. Harker Level, Apedale. J.C., P.F.R.

A return visit to Harker Level (SE 034.941), to reinspect the various natural rifts, bearing in mind that the level is said to have cut large natural caverns, and that only a few yards from its entrance is a possible sink for Keldheads, over three miles away. The first natural rift (the whole level is in the Main Lmst) is on the l., 30' in - a fluted 30' high aven. About 60' from the ent. is a rift on the r., entered by a squeeze up a wall of 'deads' under a huge poised slab - after about 12' this closes to 4" wide. The only other enterable rift found is about 1000' in, on the r., where a very small fissure was enlarged to allow a 'letterbox' squeeze into a natural aven, c.25' high, closing in at top and bottom, the entry being about 8' from the floor, with a strong upward draught - scope for cave geomorphologists. The level ends in a total fall 460 paces from the ent., with one branch, on the l. just before the end, choked with clay after about 30'.

About 500' into the level a small bat, which proved very aggressive when disturbed, was found, hanging on the roof. The only other place MSG members have encountered bats in the Northern Dales is in Hilton Mines, Hardside Low Level.

19-12-70 Windegg Mine Caverns.

25-12-70 Hudeshope. G.C., J.L., P.F.R.

After being turned away from Firestone Level, Low Skears Level, on the W. bank of the Beck just below Jack Scar, was partially explored.

28-12-70. Hudeshope. A.H., J.L., C.L., P.F.R.

Low Skears Level was explored more fully, without climbing any rises. The main level drive ends after 4625', but there are extensive side passages, with some excellent cave pearls and calcite floors.

NOTE - Since these last two meets it has been learned that all levels in Hudeshope are supposedly 'out of bounds' to unauthorised visitors, due to insurance matters with the company which is at the moment re-working some of the mines. There are also apparently access restrictions to all other mines in Teesdale north of the river - e.g. Flushicmere. Please make full enquiries before visiting this area.

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#### Caves and Mines in Weardale and Teesdale - Access and Quarries.

It seems that cavers who frequent the Teesdale and Lower Weardale areas have been deprived of a far greater proportion of their haunts, by access restrictions and quarrying activity, than in any other part of the Dales. Apart from the current problems mentioned above, other sites affected are - Fairy Hole - Eastgate, formerly 2½ miles long, much now destroyed by massive quarrying, and despite promises of access from the quarry when it opened, now apparently little hope of what remains of this fine system being re-opened. Jacob's Well Cave - (see MSG Journal 3 for survey and description) - now reported to be mostly quarried away. Nearby Harehope Quarry Cave totally disappeared a few years ago.

Hope Level Mine Cave. - latest reports are that this level is now thoroughly blocked by a concrete wall, owners seem uncooperative, so another 2000'+ cave, of both scientific and sporting merit is lost to the caver.

Sowan Burn Cave. - the stream passage part of this system is a water supply, and should not be entered, the dry rift series is however open.

Old Levels. - with the current interest in re-opening old mines, many old levels are now closed to cavers. Bad feeling among owners has been caused by the gates on levels at Nenthead being broken open by 'persons unknown'.

## The Deepest Pothole in Australia.

(Philip Robinson, one of the "original" Moldywarps, and a loyal member throughout the Group's four year history, left England in early August 1970 to commence work in Hobart, Tasmania, and promptly became involved with caving. Since then I have received frequent letters describing extensive new systems found by P.R. and friends in Tasmania, the most significant of which is Tassie Pot in the Florentine Valley area. The following article is taken from two of his letters, the first part a general description of the Florentine Valley and its caves, the second from a later letter dealing with the trip that bottomed Tassie Pot and claimed the depth record - P.F.R.)

### Junee - Florentine.

The action area of recent trips. This is a large limestone area only 60 miles from Hobart. Gordon Limestone, Ordovician again, it occupies a belt 15 miles by 2 miles in the Florentine Valley, also extending east to Maydena (Junee area). Dense forest makes going difficult. The area is uninhabited but has an extensive network of roads (?) - land rover tracks - as it forms the principal timber supply for the Australian Newsprint Mills. The Junee area has relief with creeks going underground around 1300' above the principal resurgence - Junee Cave. Cave systems of depth up to 1200' are possible. The Florentine area has lower relief, with a number of horizontal systems with good decoration. The most spectacular is 'Welcome Stranger Cave'.

A few of the caves :-

Bone Pit: Depth 350' with long ladders, no water, numerous bones.

Frankcombe Cave: Approx. 3000' of passage, depth c.60', good decoration, outstanding fossils.

Groveling Swallet: Subject to sudden floods, 560' deep, no ladder drops! Many glow worms.

Junee Cave: Immense resurgence! Must be a tremendous cave beyond the sump.

Passage blocked by sump 300' in, dived for 550', depth 55' (not bad for non cave-divers. They were terrified afterwards and vowed never to cave again)

Pillenger's Cave: 325' deep with 170' ladder which can be by-passed.

Fort Cave: Small stream, depth 430'.

Satan's Lair: Series of pitches needing 9 30' ladders, depth 450' approx. Very large chamber with waterfall entering through the ceiling.

Welcome Stranger: over 1 mile, very good formations.

Other goodies being explored -

JF 10: - 320' deep approx. with 170' ladder pitch, ends in a low wet crawl off a chamber.

Hairygoat Hole: Depth 200', 1000' long, 2 x 10', 30' and 50' pitches, dry, draughting, ends in a dig through a choke - promising.

JF 4.5: Enormous sink, impossible amount of H<sub>2</sub>O to climb even with a wet suit. Dry entrance via two 60' drops leads to water again, needs a rig to avoid water. Deep shaft the 3rd pitch.

Cauldron Pot: Impressive, water thunders down shaft. Can see 100' below? Wet suit job? Water probably needs diverting.

Tassie Pot: - 150' entrance pitch leads to 90' pitch, 80' chimney and finally a 120' pitch undescended. Dry and dead pot right next to the track. We will be there soon! Could be a deep one this, 450' at least.

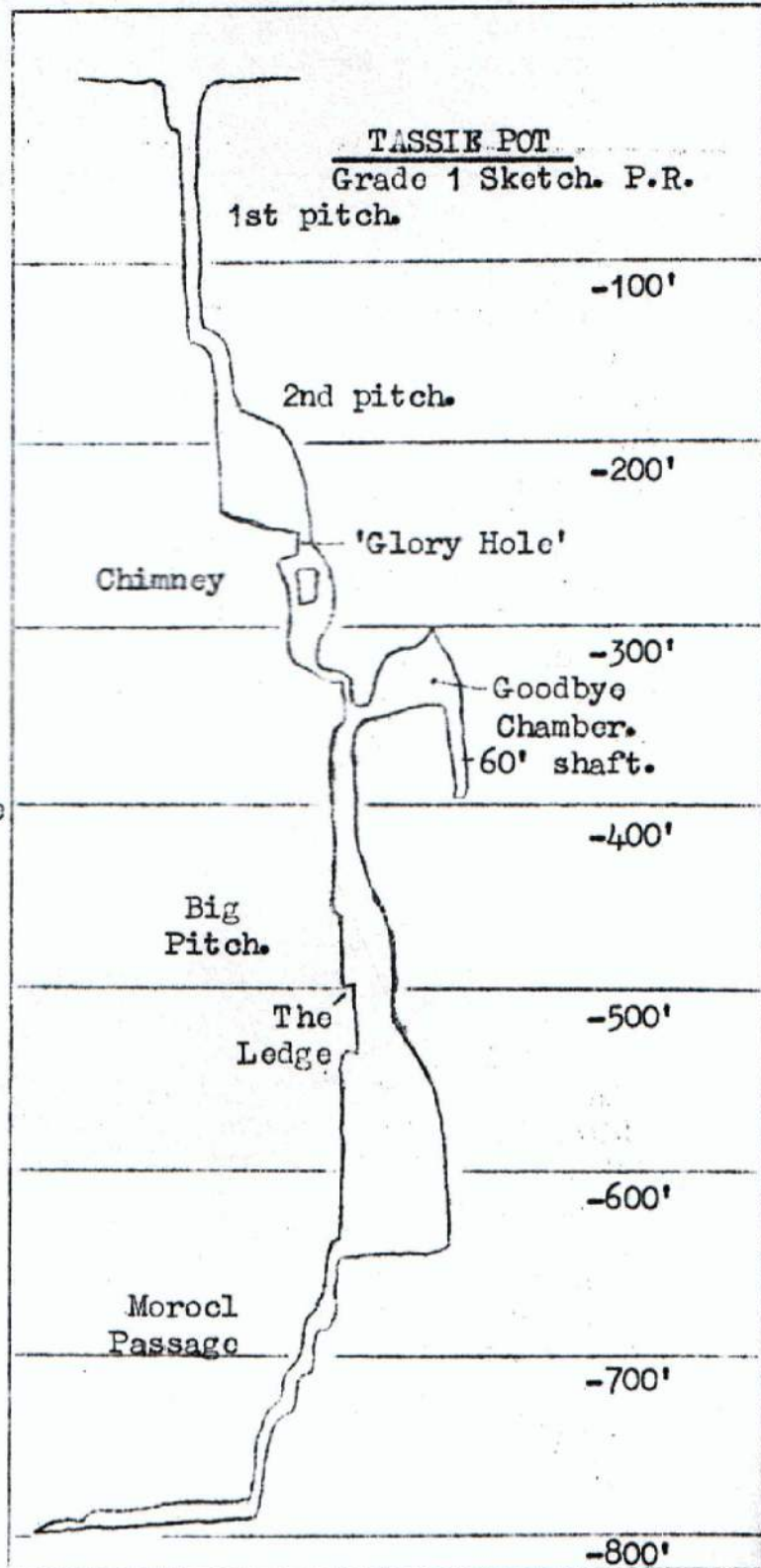
All these pots must lead into the Junee resurgence. A vast amount of water comes out there, 5' deep, fast flowing and impossible to stand or swim in during winter. Some disagree - the bush is so dense, it is quite likely that resurgences exist we know nothing about. This area could keep one busy caving for a lifetime. An interest in descending deep shafts and penetrating impenetrable bush is essential.

### The Depth Record.

Near midnight on Saturday November 14th a party from the Southern Caving Society bottomed Tassie Pot at -800'. I was lucky enough to be with the team on the 17 hour trip (previous record - Mini-Martin, 720' by Tasmanian Caverneering Club in 1967).

The first man descended the 150' entrance shaft at about 1-00 p.m. on Saturday. The seven man team were soon pressing down with tackle. The second pitch, 90', and the 70' chimney were descended. We found ourselves after a few more climbs in a sizeable chamber with a deep chasm off one side. 300' of wire ladder were lowered over and John Morley prepared to descend. Soon his usually audible voice had disappeared, and we were left wondering. His absence from the end of the rope when it was hauled up suggested he had bottomed it - 270' rope had been used. I tied on, and descended steadily, the ladder was twisted, caught and heavy, the climb awkward. At -140' a narrow 2' wide ledge provides a welcome rest. A candle was lit below, and John could be seen vaguely in the darkness. Continuing down an overhang is reached, and the last 80' is free-hanging in a very large chamber. At -260' the bottom was reached. I climbed up a slope and joined John. About 20 minutes later Arthur Clark had joined us. The altimeter read -640' and the cave went down.

We climbed through some loose rocks and down a series of short unstable drops. Between the big pitch and the bottom are many loose rocks, and care is needed in the descent. We gingerly descended, down, down. Where was the bottom? At last it levelled off and we walked for 100'



or so. The passage lowered and a squeeze was encountered. Eagerly the altimeter was read, -820', the record!, easily. We shook hands and felt very pleased. The depth was later amended to 800± 20' to allow for error in the aneroid. Arthur decided this wasn't enough, and proceeded to force the squeeze. John followed and a further 30' of passage was found - another cave was entered, another stream, but no way on. The bottom had definitely been reached.

The return was careful, and the big 260' pitch planned. We ascended without mishap. Some excellent lifelining by Chris, David, Graham and Kevin was very much appreciated. Also, on the surface, John McCormack lining on the 150' entrance shaft had a very long wait. Once up the big pitch we were as good as out of the cave. The entrance 90' and 150' ladders seemed like chicken feed. We were on the surface at dawn, Sunday, weary and jubilant.

Phil Robinson, T.C.C.

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### The MSG Card Index of Northern Dales Caves.

Briefly mentioned in the last MSG Journal, this card index has at the moment 149 entries, each card referring to a cave, pothole, or site of interest such as a major rising or sink. Some cards cover groups of caves or pots, such as Swindale Pots, or Sod Hole Gill Caves.

Each card is colour coded to an area, and gives the grid reference, approx. altitude, date of first exploration, length, depth, survey and other information on the site concerned. A list taken from the Index is lodged with the Durham Cave Rescue Organisation, since the majority of the indexed sites have not been included in previous works of reference such as 'Pennine Underground'. Broken down into the areas referred to by the colour coding, the number of sites listed is-

Alston area	9
Weardale	17
Teesdale	24
Vale of Eden	30
Swaledale	39
Wensleydale	30
total	<u>149</u>

It is hoped to commence a similar index referring to the major mine workings in the area - this would be particularly valuable to the C.R.O. as old mines, from their nature and number, present perhaps more of a danger to inexperienced novice 'spelcologists' than do Northern Dales Caves. Such a card index would however take a great deal of compiling. Any useful information on old mines which would help in this should be sent to the MSG Mine Exploration Group Secretary, Alan Holmes, via. 6 Somerset Grove, Darlington.

A third MSG Card Index, on the caves and 'windypits' of the North York Moors area, is being compiled by the Group Librarian, Graham Stevens. The main Index is held by myself, the Research Sec., and will be shown to any interested party.

Peter F Ryder.

THE SONG OF BEOWARP

One of the lesser known Anglo-Saxon poems is the brief but magnificent epic describing the exploits of Beowarp, a semi-legendary hero of the Dark Ages. The poem is written on vellum, mainly in Roman letters, although some runic characters are present. The title is wholly in runic, which suggests a link between the magical powers of the runes and the hero.

Beowarp is believed to have been a warrior-king who lived in the eighth century A.D. in a great hall known to have existed in Djarrlintun. So far as is known he had another hall at Wyntirr Ings, in the west of his domain. He was the leader of a group of young warriors called the Moull Diwarps among whom were various prominent men of the day - Colloyn, son of Car; Peytirr, the rider and John, of the long staff. Other than these facts we know little, although one can only speculate as to what their descendants might now be doing.

BMPPFRK  
(BEOWARP)

1. Hear now the song of Beowarp the warlord  
Killer of dragons and scourge of the south.

In the bright mead-halls of Ullsa and Crai Ven,  
Bradford and Pen-nyn, brave warriors all,  
Fear lay on those who once had been joyful  
When messengers came with grim tales of plunder -  
"Gone are the caves and gone all the potholes,  
Wrenched from the hills by the great dragon Mmendip,  
Borne all away to his lair in the sun-lands".

2. Then did the kings send swiftly a message  
North to the wild-lands where Beowarp dwelt,  
Called for the slayer of dragons to aid them,  
To win back their caves and break the beast's spell.

Beowarp came and with him his warriors -  
Brukk the invincible and the bold Yurtt.  
Southward they strode to the land of the dragon  
Came to the cave where the fire-worm, Mmendip  
Hid with his plunder behind a great wall.  
Beowarp thundered "Yield, foulest of creatures,  
Yield that your miserable life might be spared."  
Nought said the dragon who thus was commanded,  
Who would with his flickering flames have devoured them,  
But threw out the bones of a cave he had stolen -  
Calf Holos/Brow Gill, beloved of all.

3. Then was great Beowarp mightily angry  
Carved on the cave-wall death-runes for the beast  
Donned he then grimly the rune-helmet, Texolex,  
And his dark armour, of neoprene wrought,  
Grasped hard the runepick Stonedeath, the digger,  
Smote long the rockpile, burst wide the wall.  
Down bore the dragon with fire about him  
Fearless stood Beowarp safe in his wet suit  
And drew the charm-compass Suunto, the slayer,  
and swift spoke the bind-runes, holding the beast,  
Then unlashed the war-tape Fibron, the knotted,  
And soon was the hell-worm with granny-knots girded  
Quenched was his fire and broken his power.

Forward bold Beowarp strode into darkness  
And lighting a carbide he saw the vast cave-hoard,  
Larger than legend, all caves lay before him  
Then, sundered their bonds, the northern kings took them  
Back to their homes in the hills of the Pennines  
Returned to their shakeholes the pots that were stolen  
Sent back the leaders in peace to their kingdoms.

4. And calling on Yurtt and Brukk to come with him  
Homeward in triumph rode the brave Beowarp,  
Back to the great hall in distant Djarrrlintun,  
Bearing his prize - the caverns of Mendip  
Which he distributed throughout the Pennines  
So that the men of the north could enjoy them  
And long sing the praises of Beowarp the fearless,  
Slayer of dragons and friend of the cavers.

Martin Davies.

New Explorations - Smarber Beck Head (continued from page 10).

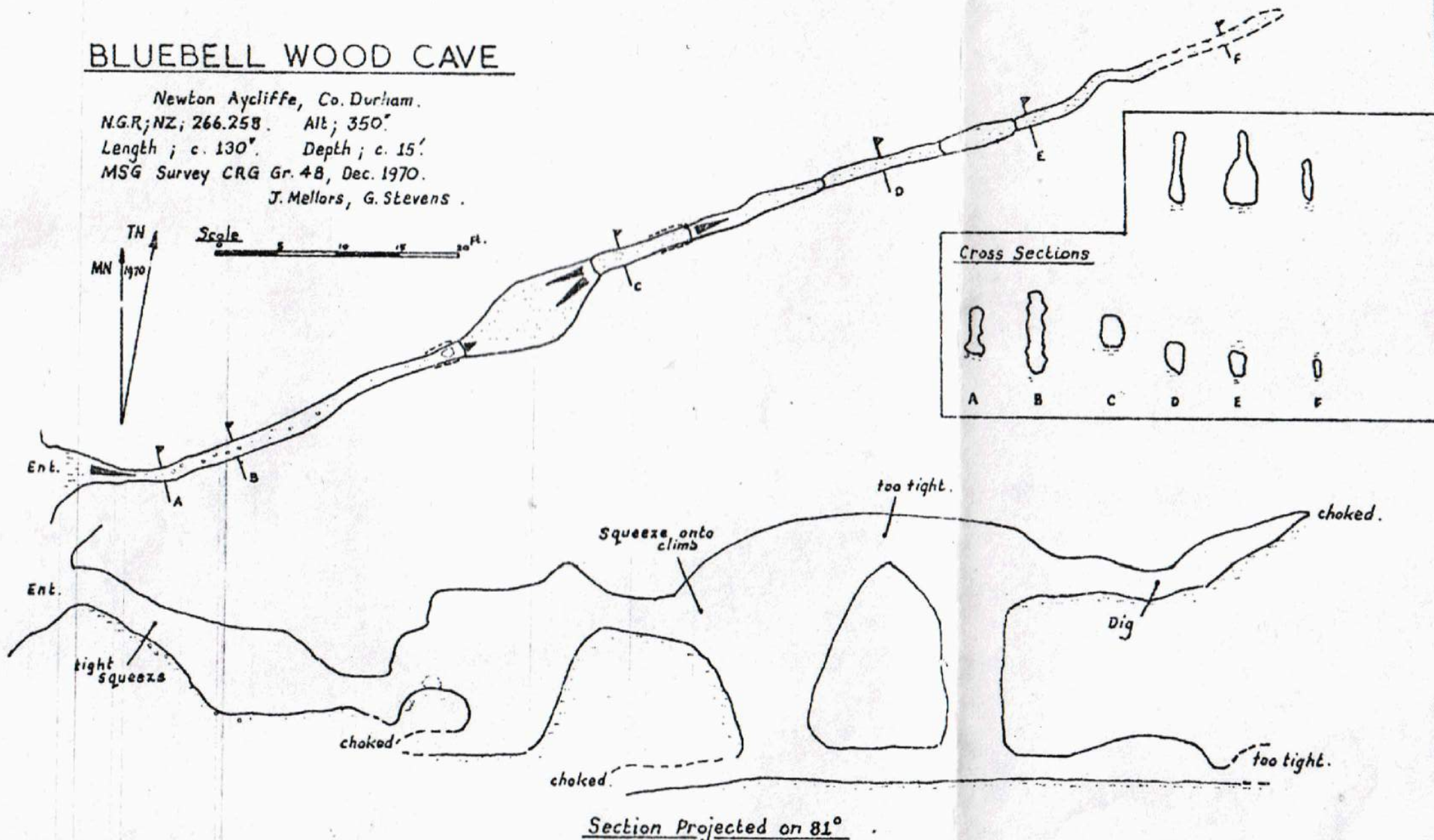
is a small cave entrance, dropping to join the stream, which is here sinking into a tiny slot to reappear at the foot of the cliff a few yards away.

PFR donned gear and entered, finding the passage swiftly closed to a tight jagged sideways crawl in 6" cold water. After 15' his cell jammed, and a large piece of the wall detached itself and fell on him. Mr longstaff, on the surface, did not seem predisposed to come in and rescue the explorer, and a painful quarter of an hour was spent in reversing the 15' of passage to the entrance. It was now 2.30 a.m., visions of a vast new system had faded, and the party stumbled back along the fellside to Winterings.

On the 29th July PFR, Phil Robinson and the Stevens returned to the cave. Graham Stevens was inserted into the cave, and the remainder of the party departed to dig out a sink a short distance below the cave, where the stream disappeared underground again (finally resurging 2-300

# BLUEBELL WOOD CAVE

Newton Aycliffe, Co. Durham.  
 N.G.R; NZ; 266.258. Alt; 350'.  
 Length ; c. 130'. Depth ; c. 15'.  
 MSG Survey CRG Gr. 48, Dec. 1970.  
 J. Mellors, G. Stevens.



yards further south). The dig revealed an open hole which promptly collapsed before entry could be made. The resurgence is impenetrable.

Meanwhile, back in Smarber Beck Head, GS passed the squeeze 15' in, and, destroying boulders and pieces of the walls with his trusty crowbar and lump hammer, crawled and quarried his way for a further 40' or so, along a triangular sectioned passage with a shale band, through which the stream had cut a trench, in the floor. He was stopped by a large fallen flake which did not succumb to the hammer or bar. The next section of passage may have been too tight to be passable in any case, although a small cascade was visible 15' further on.

Thus Smarber Beck Head is at present 70' long, all tight crawl, with just enough room for a small person to t n round about 20' in. A short distance west of the impenetrable main sink, in a shakehole, is Smarber Pot, a 30' deep shaft choked at the bottom.

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#### BLUEBELL WOOD CAVE, Newton Aycliffe, County Durham.

(This cave was found by John Mellors, of Bishop Auckland Cave Club, and explored by him and GS. John has contributed the following account).

The cave is situated at the south-east end of Bluebell Wood, a disused quarry. The entrance, between the roots of a large tree, was found and dug out by the writer in July 1970, and subsequently explored as far as the second squeeze with another member of BACC. Operations were suspended until December, when on a visit with Graham Stevens the cave was extended for a further 50', and surveyed.

The entrance squeeze leads into the roof of a narrow rift passage. After about 20' this is partially blocked by a roof fall. The roof here is very unstable, large boulders being stuck in the clay. Beyond the fall is a chamber, with a drop of about 6' to the floor followed by a steep climb up a silt bank. This can be avoided by traversing across the chamber, but care should be taken in the choice of footholds as the rock is very soft.

From the top of the bank a narrow passage leads on to the second squeeze. This can be partially avoided by crawling over the top of the squeeze and traversing over the 15' drop until the passage is wide enough to descend. A rope belayed to a stake in the silt bank is helpful. Under the silt bank a narrow passage leads to a small chamber. The passage ahead is partially blocked by another silt bank, but at its foot an easy 10' crawl leads to the final chamber. In wet weather there is a small inlet in the roof here. Ahead is a silt choke, with a passage above the scene of an unsuccessful dig, ending completely choked. A lower passage has also been partially cleared, but is extremely low. A way on can be seen, but several feet of digging are necessary to pass the constriction.

On the west side of the quarry, on the opposite side of the Middridge to Newton Aycliffe road, is a small cave too tight to enter, possibly a continuation of the main cave, cut across by the quarry.

The cave is in Magnesian Limestone, and is thus a comparative rarity. Although probably of solutional origin, and now generally dry, in times of flood the quarry fills and the cave acts as a sink (flood debris is evident within - the cave apparently completely fills).

W.J.Mellors.

Kisdon Cave, Keld, Swaledale.

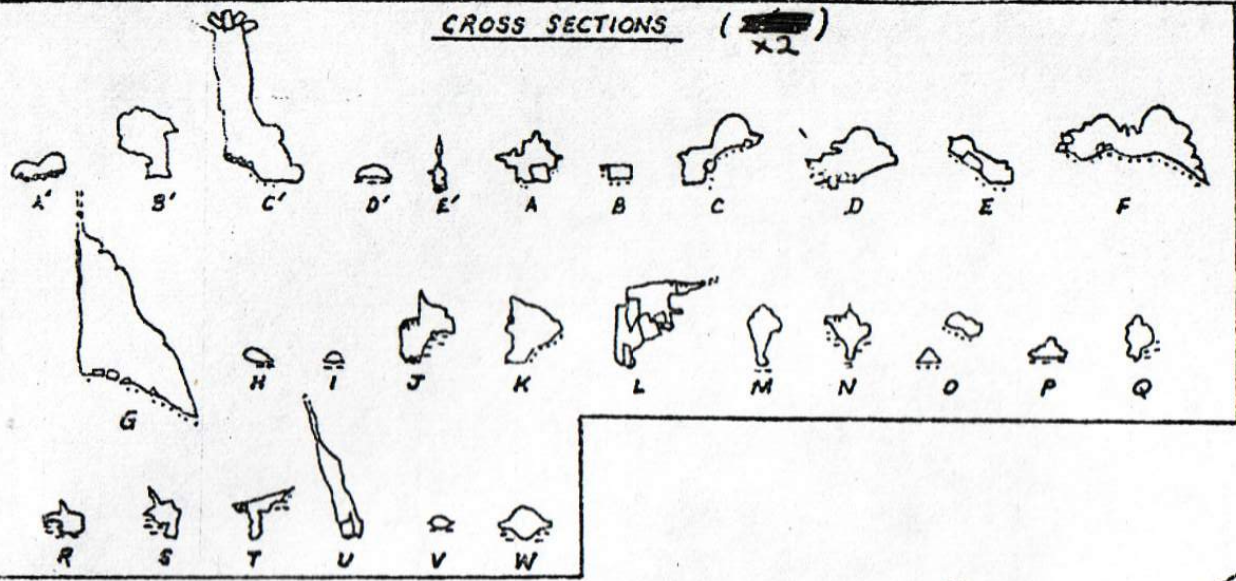
'Pennine Underground' does not score very highly for its description of Kisdon Cave. The cave is entered from a mine level whose entrance is situated at N.G.R. NY 899.012. From Keld follow the path to the river, cross the footbridge and continue to the bridge over East Gill, just above the waterfall, where a bridleway is met. Across the bridge, the bridleway is followed for about 300 yards to where it levels out and a gate is reached. On the left, just before the gate, is a grassed over mine tip, and behind this, about 50' from the track, is the partially blocked entrance to a stone arched mine level.

The level, 4' wide and 6' high, is entered by sliding down a mud bank into about a foot of water. The water gradually gets shallower, becoming mud, and finally gives way to a rock floor. The stonework runs for about 100'. 220' from the entrance the level has cut a natural passage, and squeezes through boulders lead off left and right. 45' further in, a hole in the left wall of the level leads into the bottom of a natural aven, and beyond the floor of the level contains dried out gour and crystal pools. The end of the level is reached 635' from the entrance at a substantial fall of shale.

The longest portion of natural passage is entered by climbing down boulders on the right of the level (on entry) into a low chamber. A crawl along an interesting passage with sides of layered silt, sand and clay leads into a chamber containing a large bank of sandy fill. Beyond, a steep climb up a bank of fill leads into Fault Chamber in which the near vertical fault-plane left wall contrasts with the sloping wall opposite. High on the left of Fault Chamber a climb up the wall leads into the mud tube described below. The other exit from Fault Chamber is a roomy rift passage leading to a short crawl. Beyond, a small stream has cut a vadose trench in the floor of the passage, a small tube oxbows on the left and a larger branch oxbows on the right. The stream, often dry, enters from a very small choked inlet on the left, and the main passage ends at a choke in a 20' high narrow rift in shattered rock.

The mud tube leading off from Fault Chamber is entered via an awkward climb. The first part ascends very steeply, and has in it a tight elbow bend. The slope levels out, and then the tube descends slightly. Contrasting with the sandy fill in the rest of the cave, the floor of the tube consists of sticky clay which tenaciously grips anything which touches it rather like a contact adhesive. Since the height of the tube (about 15") necessitates flat out crawling, progression is very strenuous and resting only makes matters worse as the clay moulds itself to the clothing, and there is insufficient room to get free before continuing. The passage also appears to close in at each bend, but on arriving it is then found to continue further. On my first visit my main concern was whether I would find a turning space at the end! The "end" was reached after passing two features of interest in the roof, one a 6' tall narrow rift, and the other a 2' whirlpool pocket. In a small chamber a narrow rift with virgin mud floor ran on and seemed to open out beyond a boulder. The strong draught in the tube enticed one forward, but the rift was too narrow. Turning round in the chamber

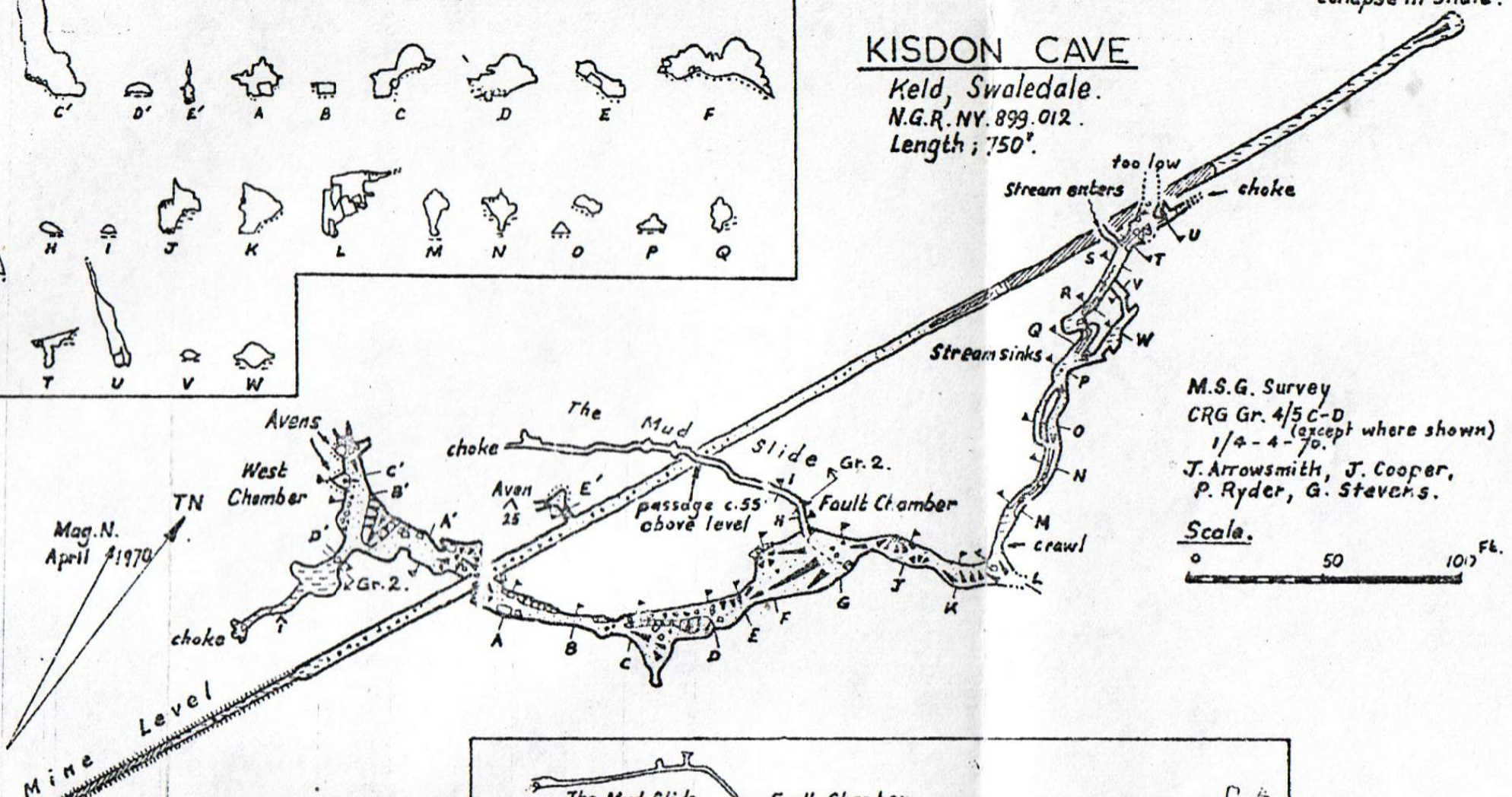
CROSS SECTIONS (x2)



**KISDON CAVE**

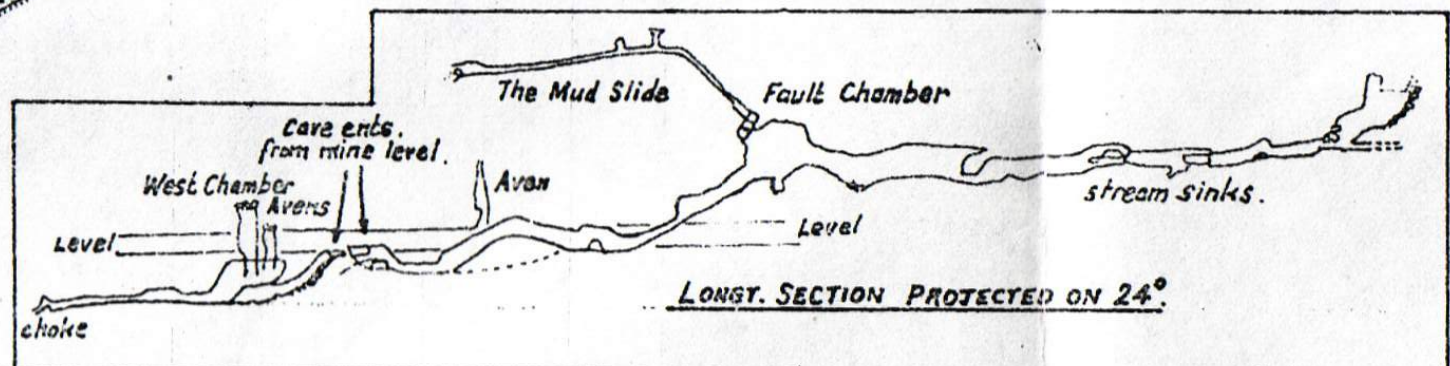
Keld, Swaledale.  
N.G.R. NY. 899.012.  
Length; 750'.

Collapse in Shale.



M.S.G. Survey  
CRG Gr. 4/5 C-D  
(except where shown)  
1/4 - 4 - 70.  
J. Arrowsmith, J. Cooper,  
P. Ryder, G. Stevens.

Scale.  
0 50 100 FE.



required only mild contortions, and the return journey was slow and exhausting, though fortunately not very far. The total length of the tube is a little over 100', from the sketch survey made (more accurate surveying of this passage would be virtually impossible). The highest point of the tube is around 50' above the floor of the mine level where the cave is entered.

The portion of the cave on the left of the level (on entry) is entered via a small hole at the top of a boulder slope leading down into a sizeable chamber. On the left a low crawl leads off, but eventually becomes too tight where the passage is largely filled with flowstone. At the far end of the chamber two avens ascend, showing signs of water entry, and being blocked by loose boulders a short distance up. These avens and the one already mentioned on the left further along the level would seem to indicate higher level development, which is also suggested by the opening out of the rift at the end of the mud tube.

Thus enthused with the prospect of entering the "upper series" an attempt was made four months later to dig the rift at the end of the tube. "Digging" in the accepted sense of the word proved impossible, as the entrenching tool once embedded in the clay could hardly be removed. However, by tearing out hunks of clay and rocks with the hands the wider lower part of the rift was entered for about 6'. Ahead the upper part of the rift was definitely too tight and view of the lower part was obscured by a boulder and clay bank. Having run out of space to dig the clay and stack it in the confined space, the dig was abandoned. In view of the absence of evidence of a negotiable passage beyond or below the clay bank, the effort required to dig scarcely seems worthwhile. An attempt at a vocal connection between the digger at the end of the tube, and the remainder of the party shouting up the avens in West Chamber proved fruitless.

The length of natural passage is about 750'.

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#### Some Thoughts on the Origin and Development of the Cave.

Kisdon Cave offers many challenging problems which seem to defy most of the simple theories of cave genesis and development. All I am able to do is to present some facts, theories and observations and hope that someone might be inspired to make a more detailed study.

The cave is thought to be in the Main Limestone which in this area dips generally westward between Swinnegill to the east and East Gill to the west. Correlation is made difficult however by the existence of extensive faulting. Situated 150' above the River Swale, the cave lies remarkably close to the valley side. It bears no relationship to any present surface features, such as valleys or catchment areas. The main cave gives the impression of being part of a comparatively direct hydrological system, in that the cave consists of a single tunnel rather than a complex joint network. This latter might be expected from a slow phreatic flow with long residence times underground.

The deposits in the cave deserve comment. The mud tube seems to be in the fill stage of phreatic development containing its original clay, whereas the lower passages have had the clay partly removed, and largely obscured by the sandy fill, probably of glacial origin. This fill has been partly removed, leaving the open passages now known. This requires several distinct stages of water flow :-

- (a) A phreatic flow forming essentially the whole of the cave.
- (b) Abandonment of the upper levels, and the partial removal of the clay fill in the lower levels.
- (c) Glacial infilling of the active lower levels.
- (d) Re-excavation of the fill in the lower levels.
- (e) Complete abandonment by water flow (excepting the present very small stream near the end of the main passage).

The next problem is finding the water for these stages. The nearest hydrological system of any size is that connecting the sinks in Swinnergill at 1400' O.D. to the risings in East Gill at c.1250' O.D. These risings are very immature, and scarcely do justice to the impressive karst scenery, and well developed caves at Swinnergill Kirk. They are regrettably at a higher level than the passages in Kisdon Cave (which range from about 1085' to 1150' O.D.), which rather spoils any theory of abandonment of upper levels for lower active ones.

Perhaps the cave was formed at a time when the landscape was so totally different from the present day scene that correlation with the present landscape is meaningless. This seems unlikely in view of the maturity of the present surface forms. So we can imagine the cave undergoing phreatic development carrying water from Swinnergill towards East Gill. Water may well have been flowing up the avens in West Chamber, and going along higher levels to a resurgence (the main passage of the cave shows massive scalloping, though no real indication of direction of flow can be determined from it).

Development of a lower level passage (perhaps the stal. choked passage off West Chamber) would result in drainage of the upper series and the abandoned resurgence could be obscured by scree from glaciation. If glaciation now blocked the sinks off after partially filling the cave with sand and other fluvioglacial deposits, then deepening of the Swinnergill valley could perhaps expose a new block of limestone allowing development of a new system in the same beds but separated by faulting from the old cave. Lastly we need a flow of water to remove some of the sandy fill, and form the vadose trench seen near the end of the cave. This flow could have come in from the original sinks before the postulated original sinks before cutting down left them high and dry (and presumably buried under scree).

Some thoughts on the major hydrological systems and associated caves in the Yoredale Limestones of the Northern Dales.

Introduction.

The concept of major hydrological systems, bearing no relationship to surface topography and watersheds, in the Yoredale Limestones of the Northern Dales, was first established by Myers (Ref.1) in 1963. He cited a dozen or so instances of systems comprising major risings fed by sinks up to three miles away, often on the opposite sides of surface watersheds. The classic examples of these situations are Crackpot Cave (the main feeder of Summerlodge Beck, a tributary of the Swale, three sinks being on the Wensleydale side of the surface watershed, and the fourth on the Swaledale side) and Cliff Force ( a similar pattern, a Swaledale resurgence fed by sinks in valleys running down into Wensleydale).

It is difficult to define exactly what hydrological systems can be classed as 'major' - presumably those which either cut beneath a surface watershed of some importance, or have a considerable sink to resurgence distance.

The Caves.

It seems beyond reasonable doubt that the majority of the systems described in this article will have cave development to an accessible size over much of their lengths. The only one of these systems as yet explored over the greater part of its underground course - the Weardale Fairy Holes - yielded two and a half miles of passage, and the furthest point reached in that was still around a mile from the sinks. As lamented elsewhere, this fine cave has fallen prey to quarrying. Leaving aside Fairy Holes, and following the hypothesis (usually roughly correct) that the average Northern Dales system has three times the length of passage as the straight line sink to resurgence distance, one can assume that the twenty or so fairly probable systems here listed should eventually yield around one hundred miles of cave. Of this 'grand total', very little has so far been explored, 1500' of well decorated passage at Crackpot, 1700' of less pleasant cave at Whirley Gill, 2000' or so at Thackthwaite Beck Cave, about 5100' in all at Ayleburn, and elsewhere little more than oddments, some admittedly very interesting oddments, a few hundred feet in length. The new discoveries of Eller Beck Head and Keldheads Cave should also figure in this list, although neither system is as yet fully understood.

It is true that Northern Dales caves present some problems to exploration peculiar to the region - boulder chokes caused by the collapse of thinly bedded limestone, usually at resurgences, and the fact that many sinks become too tight - but they also lack some of the difficulties experienced in other caving regions, such as long sumped zones and deep pitches. The next few years could well see the exploration of some very extensive systems.

Water Tracing.

Of the ten systems listed by Myers (all in the Askrigg block - this article, covering the Northern Dales as a whole, includes the Alston block, i.e. north of Stainmore, where geological conditions are virtually the same), four have been proved with fluorescein tests, the others assumed from dip of strata, comparable volumes of water at sink and rising etc. Little testing has been done since, and most of the systems suggested here still require definitive water tests. Fluorescein is rather prohibitively costly to a small group such as MSG, and the activated charcoal detectors

used for this dye seem to suffer some adverse effects from peaty water. However, MSG are hoping in the near future to experiment with other tracing agents, and to run a series of tests, the results of which will appear in future publications.

A method of tracing hydrological systems without resort to dyestuffs, most of which have serious drawbacks, such as spreading alarm and despondency among the local populace, or the possibility of missing the dye if one does sit by all likely risings night and day, can be used where the sink occurs in the bank of a surface stream. This can be blocked off, or alternatively the whole stream diverted into it, and the suspected rising watched for a decrease or increase in flow. This method was used by NPC some years ago to prove the Little Gill to Priorsdale connection.

### The Individual Systems.

The various systems are described working from Wensleydale northwards. Those previously described by Myers (Ref.1) are only briefly noted, except where recent work in the area merits a mention. The systems are listed under the area in which the rising occurs:-

#### Wensleydale.

##### (i) Howden Lodge - Waterforth.

Sinks at Howden Lodge SE 043.846, at 1300' to Waterforth SE 061.850 at 1100', fall of c.200' in a little over one mile. Not tested but probable. Cave at rising c.60' into boulder ruckle.

##### (ii) Cragdale Head System.

Rising at SD 921.822, suggested sinks in Thoraby Common area (SD 94-.84-.). See Ref.2.

##### (iii) Fossdale - Hearne Beck.

Sinks on W side Fossdale, e.g. Woffell Scar Pot SD 863.956. at 1600' to Hearne Beck Cave SD 851.945. at c.1450'. Fall of c.150' in about one mile. Suggested, seems probable. Cave at rising c.50' long.

##### (iv) Thackthwaite.

Sinks at c.SD 985.932 in Beldon Beck at 1375' to Thackthwaite Beck Cave SD 987.911 at 1200'. Suggested (Ref.1).

##### (v) Apedale - Keldheads Cave.

Sink on Apedale Beck at Cat Scar SE 035.941 at 1300' to Keldheads Cave SE 076.916 at 900', a fall of 400' in just over three miles. Suggested. There are other risings in the Keldheads area which may derive from the same postulated system.

Also sinks e.g. SE 021.947 at 1400' on N flank Apedale to Keldheads, a fall of 500' in over four miles. Suggested but see Swaledale (iv).

#### Swaledale.

##### (i) Sargill - Cliff Force.

Sink SD 879.932 at 1730' in Sargill to Cliff Force SD 874.960 at 1500'. Tested (Ref.1) Also probable sinks at West Side Pot SD 887.933 (Ref.3 - 37' deep, 175' long) and in Pike Slack area SD 873.931.

##### (ii) Whitey Gill - Oxnop Rising.

Sink SD 916.943 at 1690' in Whitey Gill to Oxnop Rising SD 929.955 at 1490'. Tested (Ref.1.) Also probable sinks on the Swaledale side of the watershed at Routin Gill and Mason How Top (SD 917.960) Suggested (Ref.4).

(iii) The Crackpot System.

Whirley Gill Sink SD 974.933 at 1525' to Crackpot Cave SD 963.953 at 1300', tested (Ref. 1.)

Beezy Hill Sink SD 948.943 at 1670' to Crackpot. Tested (Ref. 1.)

Woodale Sink. SD 993.938 at 1580' to Crackpot. Suggested (Ref. 1.)

Hooker Gill Sink SD 980.957 at 1575' to Crackpot. Suggested (Ref. 1.)

Recent rumours and reports of a sizeable cave at Hooker Gill Sink are unfounded. There is a tight pot around 60' deep (Ref. 2.), with no passages.

(iv) Apedale - Cogden Gill.

Sinks in Apedale e.g. SE 021.947 at 1400' to mine level in Cogden Gill SE 049.970 at 950'. Suggested (Ref. 1.) but see Wensleydale (v). The mine level, from which a considerable stream issues, is completely blocked after a few hundred feet.

(v) Swinnergill - East Gill.

Sinks at Swinnergill Kirk NY 911.012 at 1400' to East Gill Risings, NY 898.020 at c. 1250', a fall of c. 150' in just over a mile. Tested. Myers (Ref. 1.) comments that this flow seems too small to have developed caves of any size - however, the two caves at the sink, Swinnergill Cave and Swinnergill Kirk, show good development. Kisdon Cave at NY 899.012 and alt. 1150' could possibly be a fossil part of the same system (see elsewhere in this Journal).

(vi) Hard Level Gill - Fore Gill.

Sink at NY 963.007 alt. 1375' in Hard Level Gill to risings in Fore Gill c. NY 998.012. Suggested only - the system has been interfered with by mining. The valley of Fore Gill, where the suggested rising was, now only has a small stream, but seems rather large to be accounted for by the present flow of water. The water sinking at Hard Level Gill Cave now resurges from a nearby mine level. Cave 700'+ long. In the Undersett (stratigraphically the same as the Four Fathom) Limestone.

(vii) Little Punchard - Great Punchard.

Sinks at NY 959.035 alt. 1500' to rising by bridge in Great Punchard NY 961.044 alt. 1350', a fall of c. 150' in just under one mile. Suggested (Ref. 5.)

(viii) Faggergill - Roughton Keld.

Blacksike Foot Sink NY 991.085 at 1430' to Roughton Keld NY 965.071 at 1240', fall of 190' in just over one and a half miles. Tested by MSG 1970. Other sinks in Faggergill obviously feed the same system. Also Jinglepot Hole NZ 009.088 at 1525' to Roughton Keld, suggested, but see Teesdale (i) Jinglepot Hole has been tested on various occasions, but always without a positive result, local risings, however, now seem unlikely. Various pots and caves in Faggergill, see Ref. 2. and elsewhere in this Journal.

Teesdale.

(i) Jinglepot Hole - Eller Beck Head.

Jinglepot Hole NZ 009.088 alt. 1525' to Eller Beck Head Cave NY 993.103 at c. 1250', a fall of c. 275' in about a mile and a half. Tentatively suggested. See elsewhere in this Journal.

Vale of Eden Area.

(the area west of the Eden is not included in this summary - see Ref. 7.)

(i) Swindale Pots - Pool Rising.

Sinks e.g. NY 819.181 at 1400' to Pool Rising NY 831.164 at 1175', a fall of c. 225' in just under two miles. Suggested, seems probable. See Ref. 6.

(ii) Amber Hill Rising System.

Rising at NY 761.222 alt.c.1400', sinks in Marne Gill, c.NY 767.207, alt. c.1600'. Tested (Ref.8.); other sinks in Siss Gill etc. This system is unusual in being in the Melmerby Scar Lmst., near the base of the Yoredale Series. Small pot (Siss Gill Pot) nr. sinks.

Weardale.

(i) Blaeberry Burn - Fairy Hole.

Sinks at NY 928.347. alt.c.1300' to rising at NY 945.373. alt.c.1200'. Tested, see Ref.1. and Ref.1(a). Holes at sink too tight after a few feet.

(ii) Sally Grain - Wellhope.

Sink at Sally Grain NY 801.391 alt.1925' to rising in Wellhope NY 813.409 alt.c.1700'. Suggested (Ref.4.) but see Alston Area (i). Cave nr. sink 320' long, ends too tight.

(iii) Harnisha Burn - Bollihope.

Sink of Harnisha Burn at NY 987.346 alt.1025' to mine level at Bollihope Shield NY 998.348 alt.850'. Tested. Original resurgence unknown, probably further east in the Bollihope Valley.

Alston Area.

(i) Priorsdale System.

Sink at Little Gill NY 779.391 alt.1875' to Priorsdale Rising NY 779.411 alt.1650', a fall of about 225' in about one and a half miles, tested. Various small caves in Little Gill and near Priorsdale Rising (Ref.5.) Sink at Sally Grain NY 801.391 alt.1925' to Priorsdale, suggested, but see Weardale (ii).

If Sally Grain flows to Wellhope, other sinks must account for the volume of water at Priorsdale as well as Little Gill.

(ii) Ayleburn - Saffron Well.

Sink at NY 730.499 alt.c.1100' to Saffron Well, Barhaugh, about three miles to the north-west, and 350' lower. Suggested (traditional). Various other small sinks about two miles west of Ayleburn probably join the system For the caves at Ayleburn see Ref.5.

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This list is by no means exhaustive, a considerable number of other systems probably existing in both the Main and other limestones throughout the Northern Dales. MSG have noted a variety of 'problematical' sinks and resurgences, which must be connected with 'major' systems as yet untraced. Descriptions of four of these puzzling sites follow - I would be pleased to hear from anyone with knowledge or suggestions which might help explain these.

Four Problems.

Swaledale - Botcher Gill Sink.

NY 936.006. Alt.1450'. A major tributary of Gunnerside Gill sinks in its bed in a Main Lmst. gorge. The amount of water sinking varies, but the sink has been known to take virtually the whole Gill under flood conditions, the streambed continuing virtually dry down to its confluence with the main valley. The limestone apparently dips south-westward. There are no risings of comparable size in Gunnerside Gill, and it has been suggested that the stream enters old mine workings, but again, no suitably large rising from a level has yet been located. Preliminary surface walks around the banks of the Swale from Ivelet to Swinnegill, where a rising might be expected, have revealed nothing, so no real suggestion can be made. The sink in

the stream bank at Botcher Gill is too tight and silted up, and a nearby pot chokes 20' down, so hopes of entry from this end of the system are not great.

#### Vale of Eden - Mousegill Sink.

NY 853.119., alt. 1375'. At times, Mousegill, quite a large stream, sinks entirely in its bed in an impressive gorge in the Main Limestone, although it is not clear from a brief inspection whether the water enters this bed or the underlying Four Fathom Limestone. On these occasions the bed of the Gill is dry all the way down to its confluence with the Belah (at NY 826.130), proving that the rising cannot be local. Following the Main Limestone northward from Mousegill, round towards Stainmore, more smaller sinks are found, which also do not appear to rise locally (?).

The limestone, as far as can be made out from the mid-19th century O.S. 1" Geological Map, appears to dip gently eastward. It is just possible that Mousegill and the other problematical sinks in the Barras area flow eastward down dip to the next exposure of the limestone - God's Bridge. The Greta here sinks and rises twice, and the greater part of its underground course is still unexplored, so an underground tributary could exist here. The straight line distance from Mousegill to God's Bridge is in the region of seven miles - so this suggestion is rather a long shot.

#### Teesdale - The Hudeshope Rising.

In the remote valley of Upper Hudeshope, above the scars and hushes of the disused Coldberry Mine, is a shallow Main Limestone gorge, with on the east bank of the stream, at the mouth of the gorge, a sizeable rising (NY 939.305., alt. 1300'). The water cascades down over the shale which here underlies the limestone, from a low cave entrance. This is enterable, but only 20' in splits into tubes which are too tight to follow. A search in the gorge revealed no trace of a streambed sink which would account for this rising, although such sinks can be very hard to detect - but it should be noted that the rising 'floods' in wet conditions, as it would not do if fed by a sink in a surface stream bed.

Looking further afield, the obvious answer would be sinks in the headwaters of Flushiemere Beck, c. NY 910.317, at about 1500'. An inspection of this area showed no active sinks, although there were several places where in wet weather conditions some water could well pass underground. The lost Flushiemere Mine Caverns lie in the Main Limestone between Flushiemere and Hudeshope, and provide more evidence that a hydrological connection may exist.

#### Weardale - Sowan Burn Cave.

This well known cave (NY 998.380., alt. 875') is a sizeable rising, the source of the Sowan, or, on older O.S. maps, Sound Burn. There are no obvious sinks on the hillside above the cave (which lies in a buttress of limestone left between two disused quarries), and the most likely area for sinks seems to be around Newlandside (NY 976.376., alt. 1000'), although I believe a search here by NPC some years ago revealed nothing. Between Newlandside and Sowan Burn another of Weardale's giant modern quarries is avidly devouring the Main (or, in Alston Block terminology, Great) Limestone sandwich, and could perhaps soon cut this postulated system. The fact that Sowan Burn Cave is now used as a water supply complicates the matter for cavers and water-tracers alike (although access is allowed into the dry rift series of the Cave). It seems likely that Sowan Burn Cave is the downstream end of another major hydrological system.

There are a variety of other 'problematical' sites known to MSG members throughout the Northern Dales. In some caves the situation has been so much altered by lead mining that it is very difficult to reconstruct the original hydrological system - one instance is Hard Level Gill. Hope Level Mine Cave is a similar case, with the cave now draining into the mine level which cuts it, and the original resurgence unknown. The South Tyne Level at Garrigill has a very strong stream flowing out, which might be connected with the sinks in Dry Burn two miles or so to the west..... and to describe all these possibilities would make this article overlong.

#### References.

1. J.O.Myers, NPC Journal Vol.2.No.3., 1963, pp 43-53.
- 1(a). D.Hylton, "Ludwell Fairy Holes", NPC Journal 1963 pp 29-33.
2. ULSA Explorations Journal 1969, pp 57-64.
3. D.Adamson, ULSA Review No.1., 1967.
4. G.M.Davies, YURT Report No.2., 1970 pp 28-9.
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6. P.F.Ryder, MSG Journal 2, "Hydrological Problems of the West Stainmore Area", 1968.
7. B.Heys, NPC Journal Vol.3.No.1. 1967. "Around Mallerstang Dale and Ravenstonedale", pp 6-12.
8. CPC Journal Vol.4.No.4. November 1970. pp.234.

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#### Kisdon Cave (continued from page 30).

One last thought concerns the abrupt change in the direction of the cave at the crawl a short distance beyond Fault Chamber. Perhaps the main passage continued in its previous north-easterly direction, and is now buried beneath the fill.

Graham Stevens.

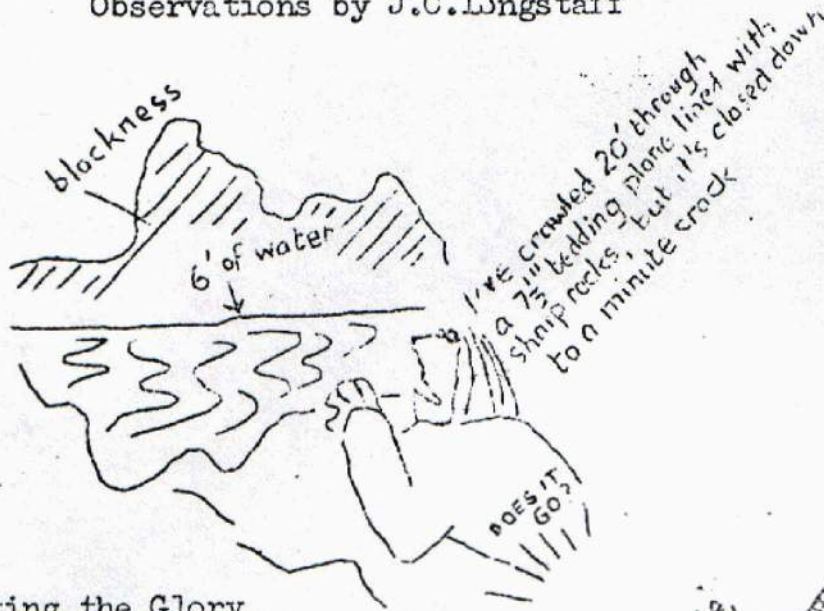
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#### The Kisdon Cave Survey

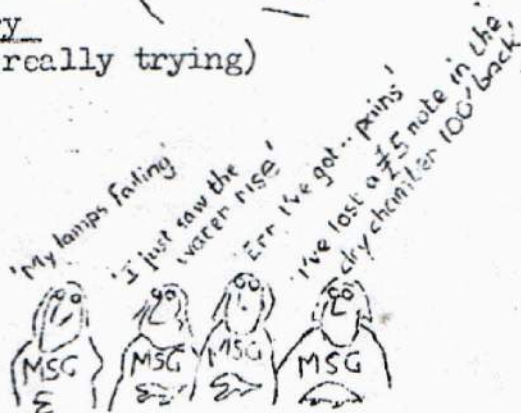
This was completed in two leisurely trips of four and seven hours on the 1st and 4th of April 1970. The mine level and 'main line' of the cave were surveyed to Grade 5, with Fibron Tape, Suunto compass and Abney Level. On the last 50' or so of the main passage the level was not used - the passage is fairly horizontal, and low muddy and awkward. The mud tube and low filthy crawl off West Chamber are from Grade 2 sketches by GS, lengths measured by body-lengths. The ground surface rises steeply above the cave, and there seem no relevant surface details.

SPELEOLOGICAL TRAINING CAMP

Observations by J.C. Longstaff



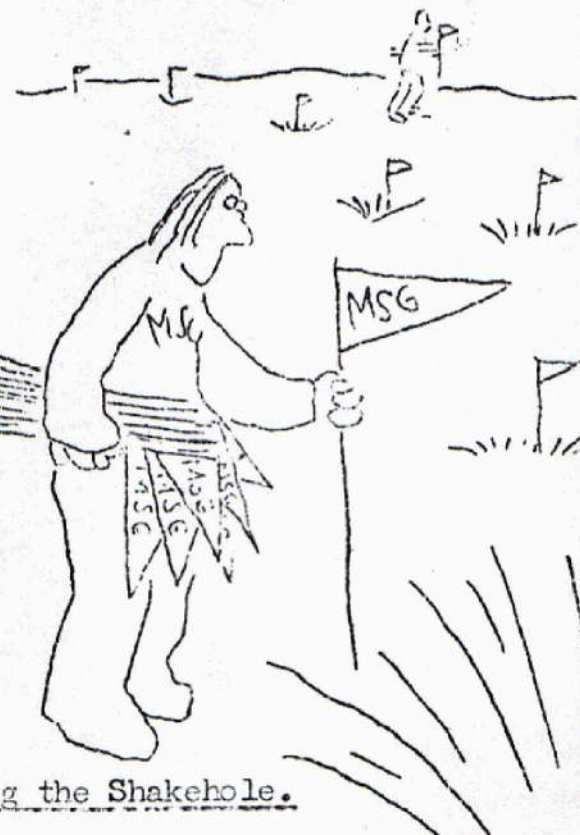
Getting the Glory  
(without really trying)



Avoiding the Duck



Reading the Compass



Claiming the Shakehole.

Hurling  
the  
Fibron

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Special thanks to Dave Popple for the printing of the cover.