The M.S.G. was formed in the autumn of 1966, by the mutual consent of several parties, all sharing a common interest in speleology. The especial interest of the Group is in the caves and potholes of Swaledale and further north — an area so often written off as being of little consequence ("contains a few isolated caves") — by authorities on speleology. In recent years many new caves have been discovered in this region, and it is one of the few areas in the British Isles where the entrances to unexplored cave systems lie open, awaiting discovery, without the tedious proceedings of digging deep shafts, or removing tons of rock with high explosive.

The name of the Group must demand a little explanation, as to its derivation. The term 'Moldywarp' is from Yorkshire dialect, and refers to a mole. In this context it was used in a derogatory fashion on the

pioneer speleologists of some sixty years ago.

The expeditions of the Group recorded in this first report are, with one exception, to caves in Swaledale. This is purely coincidental, and future meets will be at caves in other parts of the area.

MSG REPORT No. 1 Dec. 1966

CONTENTS.

The Moldywarps Speleological Group	1 4	.v	1
The Role of Geology in the Detection and Exploration of Caves. P.F.Ryder.			2.3
Expedition Reports			29)
(i) Kisdon and East Gill			4.5
(ii) Crackpot			5,6
(iii) Jack Scar			6,7,8
(iv) Hard Level Gill			8,9
(v) Swinnergill and Kisdon			9,10
'Cave Girl' - article by Miss C. Robinson.			11.
List of active members, Dec. 1966.			12.



All major caves, with the exception of short sea-worn caves, shallow "caves" behind waterfalls, and man-made mines, underground quarries etc., are formed in limestone strata, by the solution action of water charged with various acids, principally carbonic, derived from atmospheric carbon dioxide. Other acids are derived from the peat and soil through which the water passes before reaching the limestone.

The famous caves and potholes of the Three Peaks area, in western Yorkshire, are formed in the Great Scar Limestone, in places over 600' thick. In Swaledale, and the areas further north, the geological position is somewhat different, with no such great development of limestone. The major limestone of the Northern Dales is geologically younger than the Great Scar Limestone, and occurs in the so-called 'Yoredale Series', a succession of alternating shales, sandstones and limestones. The major limestone is known as the Main Limestone, and though rarely 100' thick (av 80'), contains many interesting cave systems.

In Swaledale and further north the Main Limestone generally outcrops at an altitude of 1000' - 1700' on the valley sides, often forming a prominent scar or erag, e.g. Whiteliffe Scar, near Richmond. Generally there is a plateau above the scar, with short turf, and often development of typical limestone features such as shake holes, and clints-and-grykes. Many streams, flowing from the high moorlands, sink off reaching the limestone, and appear again at its foot. These streams occupy caves in the limestone on their cubterranean courses, and these caves may be entered at the sink, or at the resurgence, or occasionally by dry entrances now forsaken by the stream. Crackpot Cave in Swaledale (see report) is an example of the last type, with the actual resurgence of the stream now being impenetrable due to recent rock falls, but a small fissure nearby leading, at length, into the stream passage. Examples of caves entered at their stream's resurgence are Elph Cleugh, in Weardale, and Jack Scar, in Teesdale. Blue John Hole in Birkdale, in Upper Swaledale, is a stream passage entered at the sink.

Not all caves in the limestone owe their origin entirely to flowing water. At a time when the limestone strata lay below the water table, circulating water dissolved out tunnels along joints, and planes of weakness in the rock. This is known as Phreatic development. At a later date, when the water table fell to a lower level, running water often utilised, and modified, these phreat ic passages. The term Vadose development is applied to this action, often secondary. Some

phreatically developed caves have never been modified by vadose action. In many caves, however, both forms of action have played a part, and this can be seen in the cross-section of the stream passage (see diagram) - a roughly circular phreatic tube with a deep trench cut along its floor by later stream action. Passages of this form are prominent in many caves, notably Jack Scar.

Running water seems to have played little part in the formation of some caves in the area considered, notably some cross-joint systems, with ramifications of passages, many interconnecting. These were developed phreatically along sets of joints in the limestone, running roughly at right angles to each other. A good example of such a system is seen in Molting Hurth, in Upper

Phreatic !tube'

Stream-cut (Vadosc) trench

Teesdale. A small stream in this cave has apparently caused little modification. Anothercross-joint system, Whiteliffe Scar Caves, shows no indication of ever boing occupied by a stream.

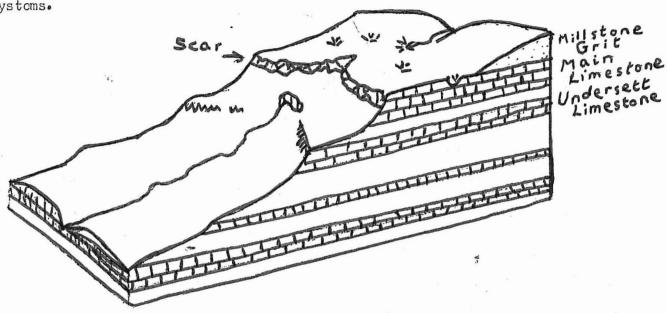
Various geological features, if correctly recognised, can help in the detection of unknown caves, or extensions of known ones. Dry passages, of typical stream-passage section may indicate a former stream which has now migrated to a lower level. High shafts, or avens, in the roof of a stream passage, or factive qave, may connect with upper levels, now deserted by the stream.

In cave-hunting, a geological map should be used to find the position of the Main Limestone, as it is here that most caves will be found. The Undersett Limestone, a siliceous bed some 20' - 30' thick, occurs below the Main Limestone, and may also form a scarp feature. Caves are found in this bed, but are not

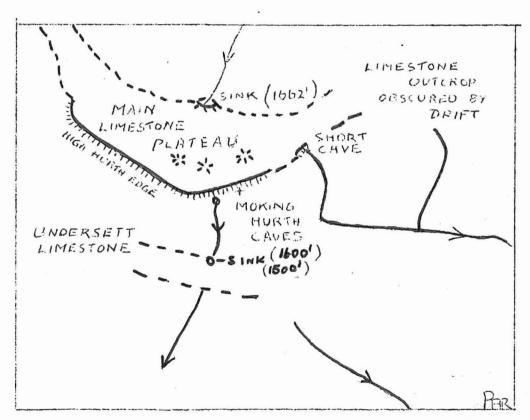
Geological Maps of the Dales are somewhat hard to obtain, except the 1" 'Alston sheet', recently re-printed, and covering UpperWeardale and part of Toesdale. For other areas, the most recent map of a useful scale (1") obtainable, and then usually only in Reference libraries, is about one hundred years old, hand painted, and often very inaccurate.

Geology is the foremost of the many sciences inseparable from Speleology, and geological knowledge is essential for the caver whose ambitions rise higher than the mere following of previously explored, mapped and documented cave

systems.



Block Diagram of a typical Dales hillside



Sketch Map of the Moking Hurth Area.

29. 10. 66.

Expedition to Kisdon and East Gill Caves, Keld.

Kisdon Cave.

The half-collapsed mine level entrance, which leads into Kisdon Cave, was found in a hollow behind a grassed over mine heap, just N. of the Keld - Crackpot Hall track, some 200 yards to the K. of the prominent barm on the east flank of the East Gill valley. The Grid Reference given in 'Pennine Underground' (895.012) indicates a site to the west of East Gill. The correct Reference is 899.012. The actual entrance is a small hole leading down into the mine level, beside a silver birch tree.

One slides down this hole into knee-deep water, in a lead level running N. Low cave entrances on either side of the level were found after what seemed much more than the 100' given in 'P.U.'. On the r. (E.) side of the level, before the cave entrance was reached, there is an impressive stalagmitic growth on the wall of the level, composed of bright orange muc.

The entrance on the r.hand side (E.) was entered first, and led over boulders into a low chamber with 'Earby Pothole Club 1957 1962' carved on the wall. A crawl over a dry sandy floor leads into a second small chamber, then a long climb up a sandy slope into a larger clamber, c. 20' high. A hole on the wall high on the l. was examined, and proved to lead into a tight muddy crawl, which was not forced. On the r. a larger opening leads into a fourth chamber, with dripstone and small stalactites. From here the cave continued as a winding muddy passage, evidently by its cross-section a former streamway. Exploration was concluded where the passage became so tight that there would have been no room to turn around.

On the 1. (W.) of the mine level, one slides down a slope of jagged stones under a low arch, then crawls into a large chamber, c.8' high, with no apparent practicable continuation.

Continuing up the mine level, a few yards after the cave entrances, on the 1. a tight little passage led to the foot of an avon.

The lead level itself continued for some distance further, in a straight line, with towards the end, interesting formations, such as a calcite icc-like crust over pools on the floor, and nests of cave pearls. The level ended where the roof had apparently collapsed.

East Gill Caves.

Two caves were explored in East Gill, both on the W. bank rather more than half a mile above East Gill Falls, where the stream joins the River Swale.

The first cave entered, apparently not mentioned in 'P.U.', has a double entrance, divided horizontally by a limestone slab, which one can either crawl under or over. This leads into a winding crawl, of typical "stream-passage" section, which after about 50' drops down into a large (c.8' high and wide) passage running roughly parallel with the bank of the Gill, containing a small stream. To the r. (upstream) the passage continued for several yards before suddenly ending, where the stream entered from a narrow fissure, and daylight could be seen from the bank of the Gill through an impassably low bedding plane.

Downstream, the passage ended after three or four yards in a blank wall, with the stream vanishing under the wall on the L., and narrow fissures on both sides terminating at the bases of high avens.

The second cave explored in East Gill, about a hundred yards further upstream, is apparently that mentioned in 'P.U.', but one may question whether both length (225') and grade (M.C.) given there may not be underestimated.

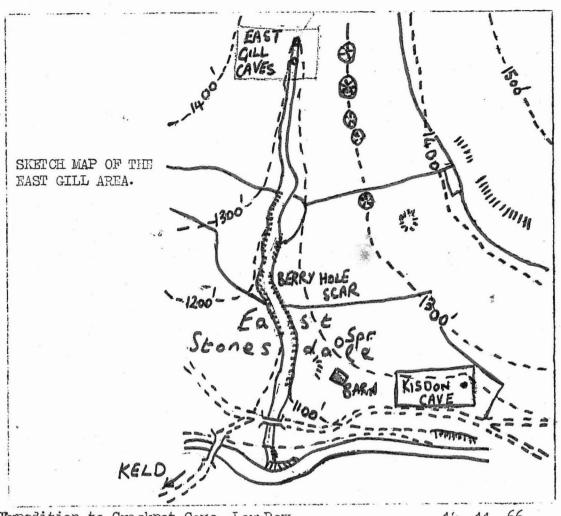
The cave is in the form of a cross-joint system. The general form of plan and passage section are reminiscent of Moking Hurth, in Teesdale.

The entrance passage, in a prominent fissure in the cliff, is a hands-and-knees crawl in mud and water. Straight ahead is soon blocked, but a passage to the r. is high enough to permit walking, to a 'T'-junction, where daylight can be seen through a narrow fissure to the r., and the passage to the l. continues for a few yards easy walking, until a very low passage enters on the r., and straight ahead the clay floor rises to reduce the passage to a flat

side passages.

Returning to Keld high along the E. side of East Gill, several sinkholes were noticed, one of which must be Rosebush Pot, mentioned in 'P.U.'

J. Cooper, N. Edwards, B. Peaurt, S. Peaurt, P. Robinson, P. Ryder. Party:



Expedition to Crackpot Cave, Low Row.

12. 11. 66.

The entrance to Crackpot Cave (also known as Fairy Hole), is found on the west side of Summer Lodge Bock, about a quarter of a mile south of Summer Lodge Farm, which is some two miles south-west from Low Row.

Until recently there were two entrances to the cave, at the foot of a limestone cliff, with the stream from the cave emerging from the scree below the cliff. A recent rock fall has completely blocked the larger northern entrance. This entrance, which had been unsafe for some time, led down a boulder stope into a single large cavern, with the stream flowing across its floor. Ramifications of small bedding plane passages, many interconnecting, led off from this cavern, with one, difficult to find, opening into the stream passage part of the cave, now reached via the smaller entrance.

The entrance to the cave is a narrow fissure, down which one slides into a low boulder strewn cavern. In the furthest corner of this a hole between boulders leads down into a flat crawl: At the end of this crawl (only a few yards long), one drops down into a somewhat larger passage on the 1. The passage straight ahead from the crawl is blocked after a short distance. 'One continues along a low tunnel, littered with boulders, and with occasional changes of direction, containing muddy pools through which one must crawl. After some distance, this passage opens into a chamber about 61 high, with straw stalactites. At the far end of this chamber, one descends a short slope to the downstream end of the stream passage.

To one's r. the stream vanishes under a rock wall, to the l. the passage continues upstream, and straight ahead across the stream is the entrance to another passage.

Upstream, the stream can be followed for a considerable distance, through high and wide caverns, with very fine stalactite and stalagmite formations, and the stream flowing beneath piles of large boulders, alternating with narrower and lower sections, with the stream rushing over a clean limestone floor. In the final large cavern of this section is a calcite pillar joining floor to mof

This opens into a very large cavern, the floor of which is a boulder slope, with numerous stalagnites. From the highest point of this boulder floor, one can climb down a rather loose slope into a low cavern. To the l. is a muddy passage a few yards long. To the r. one enters another section of the stream passage, upstream of the sump, similarly decorated to the sections further downstream, but somewhat lower. The re-entry into the stream passage flatters only to decieve, and after a short distance the stream flows from under an apparently impenetrable boulder slope. A small passage opening on the l. as one faces the choke, was followed for a few yards up a mud slope, to its termination beneath a small aven amongst loose boulders. Crowbars lying here suggest that attempts are being made to force a passage.

On the return journey the party explored the passage opening opposite that from which the stream passage was entered. This was followed by walking for some distance, until it ended where mud banks met the roof. It is said to be here that the crawl from the former N. entrance enters.

In the parts of the cave near the downstream end of the stream passage an irregular dull thumping can be heard, which must be of hydrological origin, above the sound of the rushing water.

The party were underground for some two hours.

Four groups of sinks have been proved to feed the Crackpot stream, by water testing with fluorescein etc. These are :-

Whitasido Sinks.

Beczy Hill Sinks.

Whirley Gill Sinks.

Woodale Sinks.

N.G.R.

980.957.

N.G.R.

945.941.

N.G.R.

973.934.

Woodale Sinks.

N.G.R.

994.938.

An interesting point to note is that the latter three groups are all on the Wensleydale side of the surface Wensleydale - Swaledalo watershed. Of these sinks, only Whirley Gill has been entered, and explored for some 1,000. Hooker Gill Sink, of the Whitaside group, (known as "Shooting Palace Pot") seems a promising site for a dig.

The distance of the sinks from Crackpot Cave, and the size of the resurging stream, suggest that if the boulder choke terminating the cave could be passed, considerable further lengths of cave passage would be accessible.

Party; G.N. Edwards, P.B. Peaurt, S.N. Peaurt, V. Perkins, S. Porter, P. Robinson, P. F. Ryder.

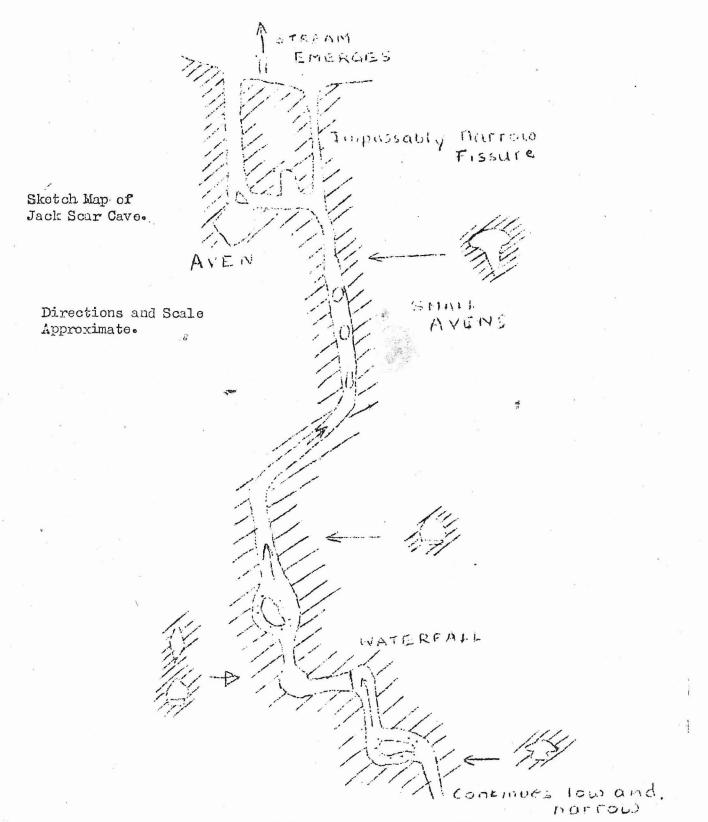
Expedition to Jack Scar Cave and Hudeshope Beck.

19. 11. 66.

On Hudeshope Bock, a little over a mile above Middleton-in-Teesdale, is a narrow gorge with limestone cliffs overhanging the stream. This is Jack Scar, and the cave, well known locally, is found on the south side of the stream, opposite an old quarry. The entrance is small, but prominently in view, being some 15' above the bock, and with the stream from the cave emerging a few feet below it, and forming a small waterfall.

On entering the cave, after a few yards one comes to a junction, with the main passage bending away to the 1. and a narrow opening straight ahead. This opens into a small, roughly circular chamber, at the foot of a high aven, with no other exit.

The main passage continues for some distance with a typical 'key-hole' cross-section, consisting of a tubular tunnel with jagged limestone walls, along which one scrambles, with a deep and narrow fissure in the floor, in the depths of which runs the stream. A few yards from the junction is a sharp turn to the r., with to the 1. daylight visible through a narrow passage running back to the cliff face. Continuing upstream, one passes beneath some small avens drizzling water, and then the lower part of the passage widens until one can walk in the stream. Gradually the height of the passage diminishes, to around 31, and then the passage suddenly opens into a small but high chamber, with a dry gravel bank beside the stream, and names and initials of various dates carved on the walls. From here there is a choice of two routes forward, either by crawling on hands and knees beneath the low arch through which the stream enters the chamber, or by the dryer but much more tortous method of climbing the aven at tho end of the chamber, and squeezing through a narrow fissure, at grave risk of tearing one's clothing on sharp limestone projections and fossil corals. Both mutes converge where the stream passage bends sharply to the 1. and again



of the cave, where the stream falls into the narrow rift cutting the passage floor. At the head of the waterfall the passage turns sharp re again and opens after a short distance into a second small but high chamber. The stream passage continues from this is a straight course as far as one's light can penetrate, again of 'key-hole' section, but so small and tight that reversal from it would have been extremely difficult, and it was deemed unwise to try and force it any further.

In the last chamber one can climb up an aven for some distance, into another small passage, apparently running directly over the upstream passage. This proved too tight after a few yards.

Towards the upstream end of the cave a band of fossil coral (Dibunophyllum) was found. The corals have resisted crosion, and remain protruding from the passage walls and roof.

Upper Hudeshope Beck.

After Jack Scar Cave had been explored, two possible caves in Upper Hudeshope Beek, noted previously by members of the group, were investigated. Both proved disappointing. The first, a small stream passage (natural?), opening

from the level. On the mine tip at the entrance to the level several interesting minerals can be found - Quartz (good crystals), Fluorspar, Galena etc.

A short distance further up Hudeshope Beck, on the east side, is a very large rising from below a small cliff. The passage is little over a foot high, and is mostly occupied by a rushing stream. A few feet in the air space diminishes even further. In very dry weather (at the time of the visit it had been raining for some time), one might be able to force this rising by crawling on one's back. The size of the stream suggests a major cave, but there is no sink of comparable size in Upper Hudeshope.

A large roof fallafter some 200 yards terminated the exploration of the lead level (knec-deep water), beside the ruined house (N.G.R. 942.298) on the east side of the beck.

Expedition to Hard Level Gill Cave.

26. 11. 66.

The entrance to the cave was found on the east bank of the Gill, a few feet below Hard Level Gill Cave Force. The cave is unusual in that it is formed in the Undersett Limestone (the only other cave in this horizon in the area is the Hope Level Four Fathom Mine Cave, at Stanhope).

Directly below the entrance, c. 3' high an: 2' wide, a small part of the Gill sinks in narrow fissures. At the end of the entrance passage, about 10' in, one descends a narrow vertical fissure, c. 101 deep. This fissure continues back under the entrance passage, where water enters from the sink, and immediatly disappears under rocks. Inwards, the fissure, rather tight, opens into a small and low chamber. To the 1. the stream appears again, flowing down an impassably narrow passage, and to the r. is a somewhat larger chamber, with daylight entering through an impassably narrow fissure running back to the bank of the Gill. On the far side of this chamber a low opening leads down an earth slope into a large passage running east-west, about 12' wide and 6' high, its floor much encumbered with large boulders. To the r. (west) the passage is soon silted up, and must connect with the low silted cave in the bank of the Gill (see plan). To the l. the passage divides, one branch a low bedding plane choked with boulders, the other a small tunnel of a size necessitating handsand-knees crawling alternating with flat crawling, and containing shallow pools. In wet weather this passage apparently takes a stream, flowing into the cave (eastwards).

Following this small passage, after some distance there is a branch passage on the 1. This itself soon bifrucates, straight ahead being a flat crawl, with occasional fissures in the floor, becoming impossably low where a stream can be heard - probably that sinking in the small chamber nearest the entrance. To the re is a tight passage, then a narrow chamber, and a low passage with water in a 'trench' along its floor but wide clean rock ledges on either side, eventually joining the 'stream passage' in a small chamber. The 'stream passage' can be followed further eastwards, past two very low branches on the re - the first leading into a wide but very low passage, becoming too low, the second blocked by boulders almost immediatly - until a pile of rubble prevents further access. The passage continues in a straight course as far as one's light can penetrate, but too tight for progress.

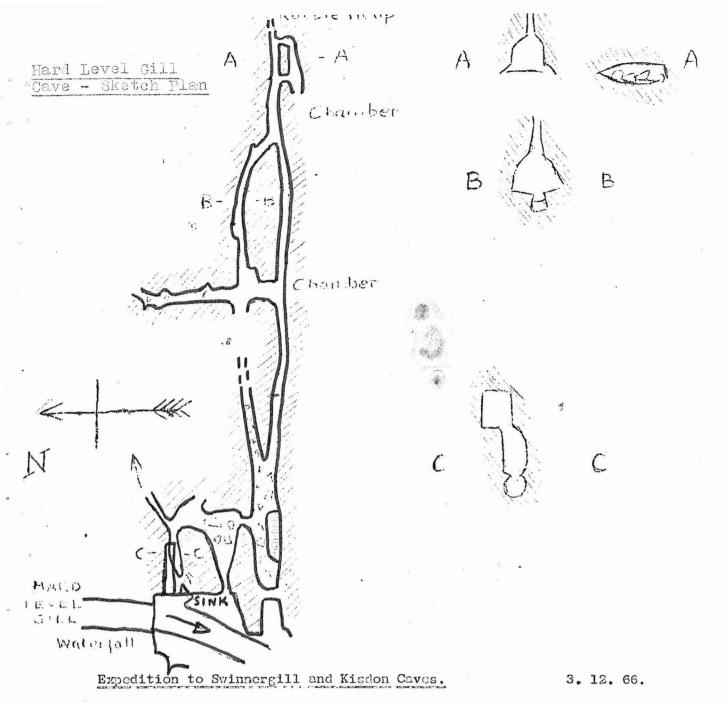
The lay-out of the cave can best be understood with the aid of the sketch-plan reproduced here, which, based on memory and a few notes and compass directions, is in no sense an accurate survey.

The cave contains no stalactites, dripstone, or other typical formations. Nodules of chert have resisted erosion and stand out from the walls as small blackish projections. Leaves, straw and other debris found in the further reaches suggest that the cave may be liable to flooding.

The description of the cave given in "Pennine Underground" seems very inadequate. Possibly the grade (Moderate) and certainly the length (150') given there are underestimated. The total length of all the passages in the cave must come to something over 350'. In the description given it is stated that the water sinking in the cave reappears in the mine - doubtless the nearby Hard Level, which the party did not have sufficent time to investigate zero.

Party: J. Cooper, N. Edwards, J. Longstaff, B. Peaurt, S. Porter, V. Perkins, P. Ryder.

Party at Jack Scar: S. Peaurt, S. Portor, P. Ryder.



The first section of the party approached Swinnergill by the Crackpot Hall track from Keld, on a fine morning, with the Upper Swaledale hills under a light covering of snow. Swinnergill flows into the Swale from a spectacular gorge, with the only track up the valley high on its west flank. At the head of the gorge, some half a mile upstream from the Swale, East Grain joins Swinnergill, and the ruins of Swinnergill lead smalling mill stand on the tongue of land between the two backs. A short distance further up Swinnergill the stream flows out of an impressive ravine in the main Limestone.

Following the stream up, the party found three small caves on the r. (east) bank of the Gill. Two of these were possible for some 30°, the third was somewhat shorter. The parge widens somewhat at its head, with the stream falling into it as the waterfall of Swinnergill Kirk. The cave of that name opens at the base of the cliff on the west side of the fall.

Swinnergill Kirk cove consists of a single passage, which can be followed by ensy welking for some 690', whenthe passage suddenly closes down to a tight crawl, which can be followed for a few yards further until the water meets the roof. The passage runs in a direction just west of north. A small stream, probably larger in wet weather - there is plentiful flood debris in the cave - runs into the cave, and is said to resurge in East Gill, over a mile further west. This is the cave mentioned in 'P.U.' (length 210', grade E.C.)

On the west bank of the Gill, some 30' downstream from the waterfall, is the entrance of a second cave, not mentioned in 'P.U.', and apparently undocumented, (although a cairn and used flockbulbs indicate a previous exploration). The entrance is small, and loads into a flat crawl, which after a few wards cains height and transactions downhill to a descent of some 20' in

terminated, the water sinking in a debris-choked bedding plane (this stream presumably also resurges in East Gill). Upstream from the point of entry, the stream passage soon splits up, and all three passages end or become impassably tight after a few yards. On the opposite side of the stream passage to the point of entry, a few yards downstream, is a small branch passage. This is a very low sandy crawl, which turns r. and then l., and then ends too low some 25' from the stream passage. The stream passage contains some pleasant formations, notably one calcite ledge fringed with orange stalactites, in the downstream section of the stream passage.

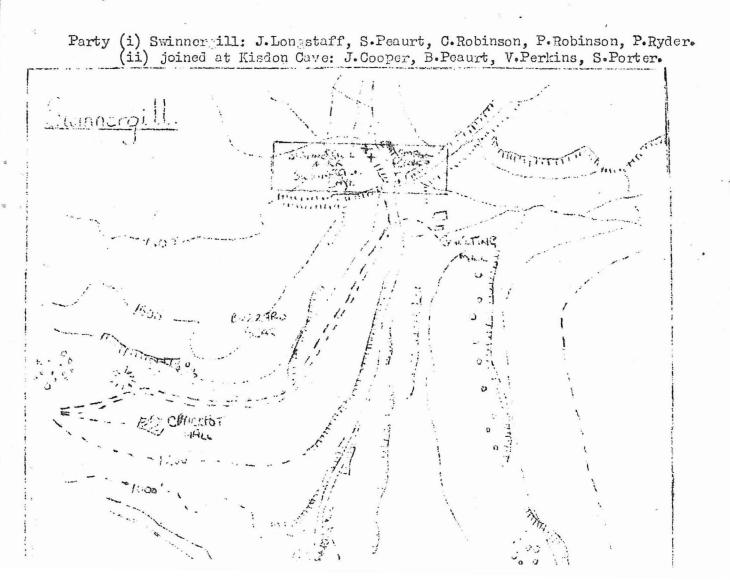
The total length of this cave must be around 300', and there is no difficulty to suggest a higher than 'Moderate' grade. To distinguish it from the less interesting cave beside the waterfall, the name 'Swinnergill Cave' is suggested.

Returning towards Keld, the second section of the party were met at the entrance to Kisdon Cave (for a full description of which see earlier report). All possibilities of extending the cave were checked, and proved somewhat disappointing. The furthest reaches of the cave contained a small stream, emerging from one impenetrable fissure, and soon disappearing in another.

The main passage, a few yards on from where exploration was terminated on the previous visit, becomes impassably narrow. Various small side passages all close down within a few yards, with the exception of that opening high in the wall of the largest chamber in this part of the cave (on the east side of the mine level) This is a very tight and muddy crawl trending uphill, which was forced by S.Peaurt and P.Robinson for a considerable distance, until it became so low that the extraction of an explorer who had become wedged between the floor and the roof a few inches above, would have been virtually impossible.

The aven in the short passage opening off the mine level a little further in than the two cave entrances was climbed by J.Cooper, and proved to close down to impenetrable fissures after some 30.

The total length of Kisdon Cave does not seem to come to the 850' quoted in 'P.U.' (unless perhaps the length of the mine level is included), and although in the further reaches extremely muddy, and with a roof of questionable safety, the cave hardly seems to merit a grade higher than 'Difficult', or just possibly 'Very Difficult'.



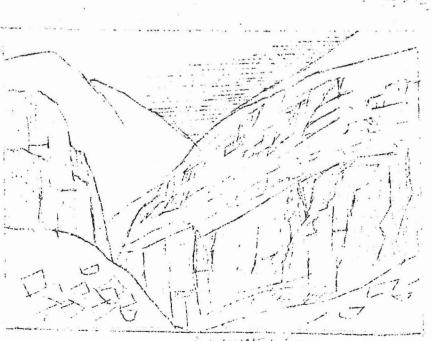
What makes people crawl into holes in the ground, to emerge several hours later covered in mud, dripping wet, yet insisting that they had enjoyed it? Out of curiousity I joined the Moldywarps on a caving expedition to find out.

The clothes you wear should be the oldest you can find, unless you have a boiler suit. You cannot look elegant when potholing, but it hardly matters as you cannot see anything for more than a few feet most of the time. The caves were situated in lovely countryside, and the particular ones we went down were near Keld. There was a layer of snow which outlined the crags and hollows of the hills and the sun shone brightly as we made our way up the hillside to Swinnergill. There were several holes in the hillside which were possible passageways. The procedure is that one of the group crawls into one of the holes to see if it "goes". If it does we all follow. The hole was decidedly forbidding, and as the others disappeared one by one I began to change my mind, but the only alternative being sitting in the snow by myself for the next few hours and watching night fall, I went down anyway. It was much warmer underground, as the temperature stays constant all the year round (or so I was told), so that it warm in the winter, and cool in the summer.

Once underground your eyes become count omed to the dark and your immediate surroundings being only dimly lighted. There are many tunnels, some so low and narrow that you hardly have room to move along them, then suddenly opening out into large caverns, with the roof high above. There are tunnels leading from holes in rock faces, tunnels from gaping holes in the floor, tunnels you think you cannot possibly squeeze down, but manage to somehow. One comforting thought is that if you manage to get into an awkward position, you can somehow contrive to get out of it.

There are three important points to remember while crawling underground, to keep your heal low so as not to knock yourself out on the roof, to carefully watch the boots of the person in front, and not to kick too hard with your own feet lest you injure the person behind you.

The caves contain fascinating formations, stalactites and stalagmites of all sizes, some forming columns between floor and roof. In some places the floor is strewn with crystals. It did not seem that we were underground for long, but the actual time was several hours. I had not suffered from claustrophobia, the roof had not fallen in, and I had enjoyed caving much better than I had imagined I would.



INTIMAL YOURK

List of members of the M.S.G.

J. D. Cooper

G.H. Edwards.

J. C. Longstaff.

P. B. Posurt.

C. M. Posurt.

V. Perhans (Miss)

G. Porter

P. Robinson.

C. Robinson. (Hiss)

December 1966. 31 Groundonk Rood, Darlington. Latinor Road.

61 Barron Street.

14 Stonedale Crescent.

14 Stonodale Crescent. Pease Street.

68 Hellin Road.

47 Coleridge Gardens.

47 Coloridge Gordens.

