

# MSG 13



**MSG13**

**THE THIRTEETH JOURNAL OF THE  
MOLDYWARPS SPELEOLOGICAL GROUP**

**AUGUST 2015**

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**Front cover cartoon:** John Longstaff (Cluff)

# 1. INTRODUCTION

It's now about six and a half years since the issue of the last Moldywarps journal, MSG12, in late 2008, and we seem to have enough material about new caves (and old mines) to fill another. The gap between MSG12 and its predecessor, MSG11, was 21 years, so it looks as though things are speeding up a bit. What's caused this – more members, much fitter than in the past and working more diligently? The finding of a sudden rash of easy-to-enter caves? A widening of the usual area of exploration (traditionally the Northern Pennine dales)?

No, none of these. The current number of active “established” MSG members has stabilized at about four, with rarely more than two of these underground at the same time. And we still operate primarily in the Northern Dales. And none of us is getting any younger, or fitter.

So what's the reason? We think the main inspiration nowadays is Pete Roe's underground construction capabilities and his ability to tunnel through seemingly hopeless mine blockages to find natural cave beyond – plus his disarming charm resulting in the recruitment to our ranks, if only on a very temporary basis, of a stream of young, naive and strong potential new recruits, usually from the ranks of the Swaledale Mountain Rescue Team. However whatever the reason, we now have several kilometres of new cave under our belts, and although some of these have already been recorded in other august periodicals (either *Descent* or *Cave and Karst Science*) it's necessary to maintain MSG's established customs and record the findings in our own journal.

The “core” of this journal, and its most important content, is the description of the rediscovery and survey of Hudgill Burn Mine Caverns. We must thank, for enabling our entry to this fascinating system, not Pete Roe but the Cumbria Amenity Trust Mining History Society (CATMHS). The bulk of the remaining content of this journal is the discovery of new cave usually accessed from the redundant mines of Swaledale and Wensleydale. Although mostly short in length, these caves have consumed vast swathes of time and effort and so deserve to be recorded. And we finish with an article for those of a philosophical or spiritual mind (a very limited number in the caving world, we suspect).

By the way, please don't read this journal hoping to find out about the varied social events of the Group or its membership details. We still haven't got round to writing an up-to-date membership list



(the last was published in 1981, we think) even though it would be very short, and the extent of recent social activity has been limited to a celebratory dinner in Alston shortly after the exploration of Hudgill Burn Mine Caverns began in earnest. We still possess a compass, tape measure, pick and spade, however.

*Early days in Devis Hole: the first fall in the entrance level and the notorious Devis drum(JD)*

## 2. Devis Hole Mine Caverns

For much of the early 2000s MSG members could be found digging or thrutching around in Devis Hole Mine near Grinton in Swaledale. This had resulted in the descents of shafts in Robinson's and Cranehow Bottom Levels and the discovery of the West Cave, South Cave and East Cave Series, the descriptions and surveys of which dominated the content of MSG12. However the job in Devis wasn't quite finished at that point. Between the East Cave Series and the South Cave Series lies an unstable area largely of natural cave significantly modified by mining activity and known as Horn's Workings. Although this area had been briefly explored in the early 2000s, it had not been thoroughly looked at or surveyed, thus preventing the issue of a comprehensive survey of the natural maze passages in Devis Hole.

Tony Harrison decided to plug this gap and during the summer of 2009 wandered around the area with a compass and tape measure in his hands, usually by himself. Joined occasionally by John Dale and Pete Roe, especially for the descent and exploration of some natural shafts in the floors of the passages in this area, he eventually completed the job resulting in the production of the Horn's Workings survey reproduced here.

Even then, however, we weren't quite finished with Devis. John Dale took some friends from the York Caving Club into the East Cave Series in May 2012, finding a considerable length of attractive natural phreatic passage on the west side of the main East Cave Series passage. The survey of this, by John and Tony, caused them to look again at Wyvill's Level a little further to the west, resulting in yet more natural passage, all duly recorded in the survey on a page in this journal.

Before a complete survey of the Devis Hole Mine Caves could be drawn up there was a need to survey a small complex of cave passages, again much modified by mining activity, at the eastern end of Wellington Vein around Fawcett's Level. This was quickly dealt with by Tony and John Cameron, allowing the production of the overall survey (which graced the pages of *Cave and Karst Science* in mid-2012, and is reproduced herein).



*Early days in Devis:*

*Elaine Ryder in the Central Maze in the mid-1970s, in a passage at the very top of the Great Limestone, showing a prominent coral band in the passage wall and a blocky sandstone directly above (PFR)*

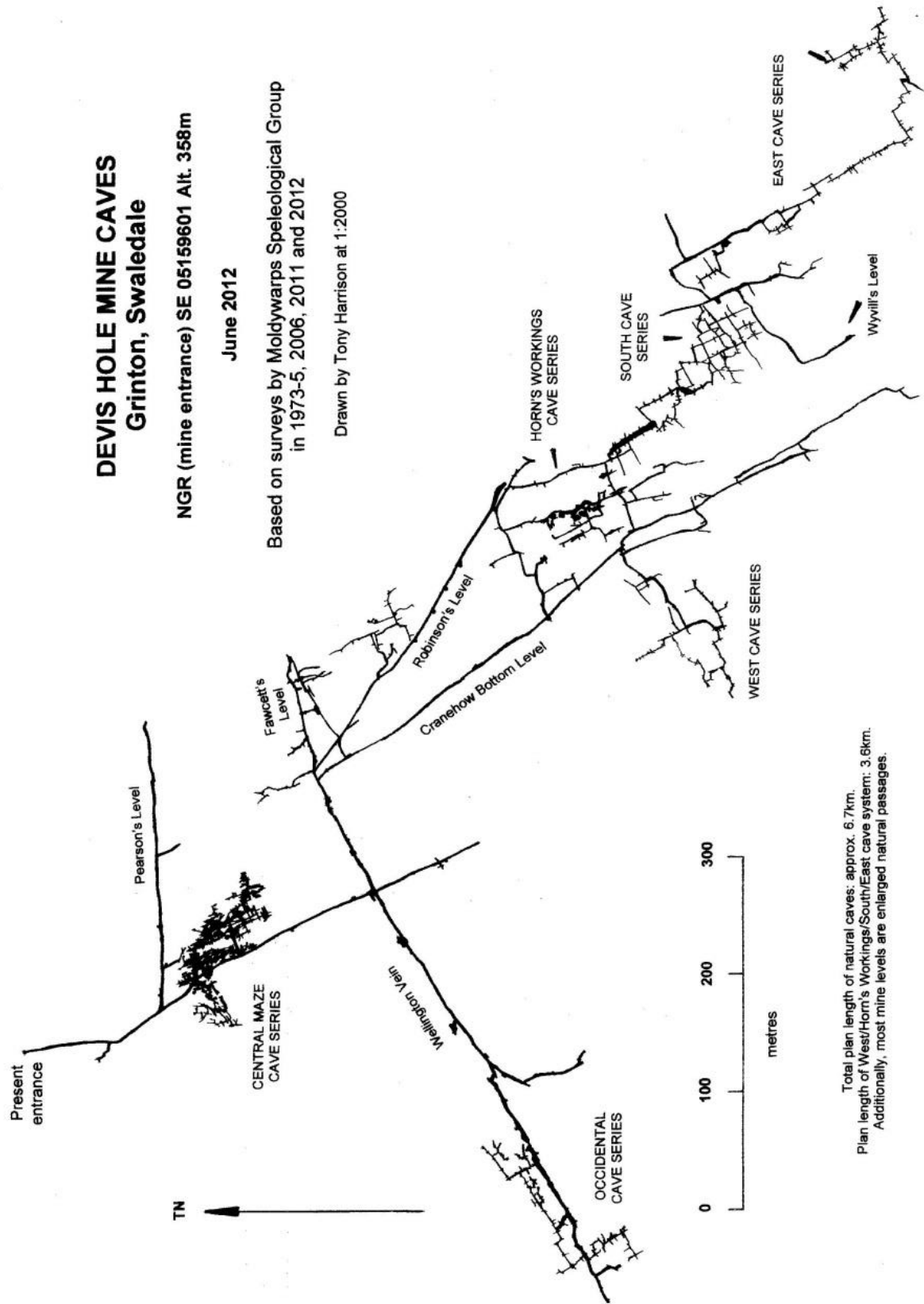
# **DEVIS HOLE MINE CAVES** **Grinton, Swaledale**

NGR (mine entrance) SE 05159601 Alt. 358m

June 2012

Based on surveys by Moldywarps Speleological Group  
in 1973-5, 2006, 2011 and 2012

Drawn by Tony Harrison at 1:2000

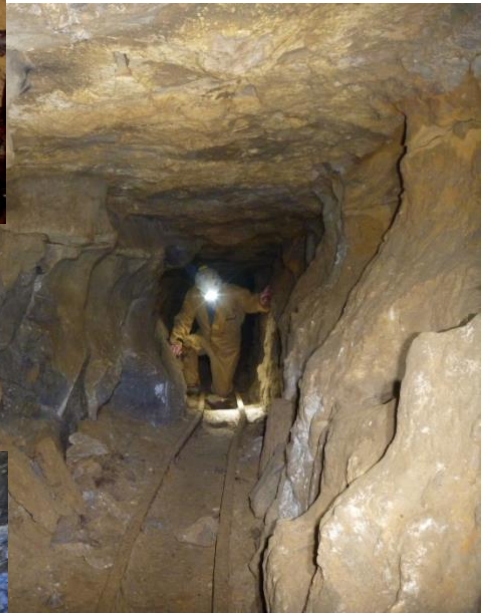


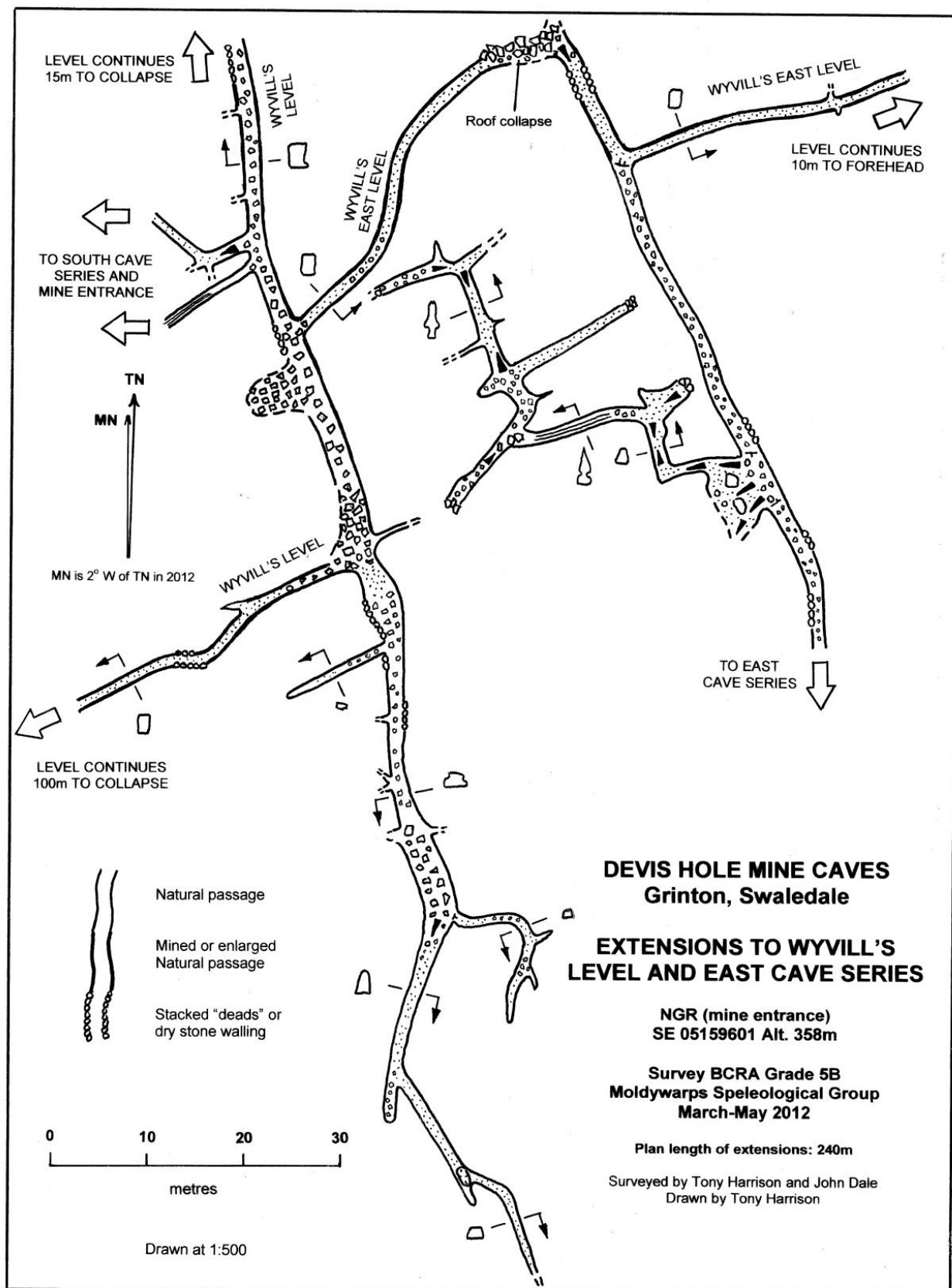
Total plan length of natural caves: approx. 6.7km.  
Plan length of West/Horn's Workings/South/East cave system: 3.6km.  
Additionally, most mine levels are enlarged natural passages.





*Horn's Workings, Devis Hole:  
some John Dale pictures.....*







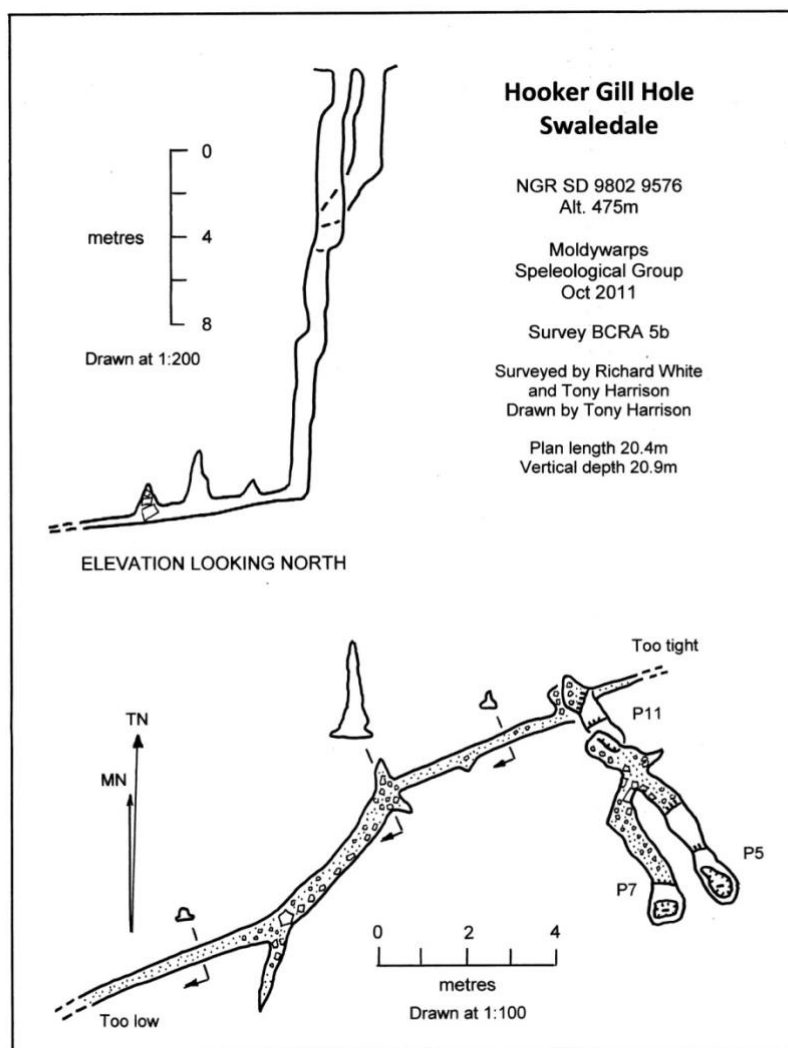
### 3. The Crackpot Cave area

#### Hooker Gill Hole

With Devis Hole close to completion, at least temporarily, attention returned to Crackpot Cave in Swaledale with further attempts to find the fabled miles of attractive stream passage beyond the current terminal blockage. Firstly we had another look at Hooker Gill Hole, the water in which was known by dye testing to feed the Crackpot stream. *Northern Caves, Vol. 1* gives a short, succinct and inaccurate description of the cave: "Length 15m, depth 18m. First pitch extremely tight, second in wider rift, and short climbs lead to final choke." The first error is that the two pitches are essentially just one; the second is the measurements, the depth (prior to our work described below) being only about 9m and the length 5m. The mention of a tight squeeze, however, was correct and so our first task, starting in mid-2010, was to excavate, from the bottom, a second shaft parallel to the entrance

shaft and full of loose boulders. With this open we had easy access to the blocked shaft below, the excavation of which kept us happy and out of mischief for the next year or so.

As nearly always in shafts like these the main problem was the disposing of dig material, but as the shaft was in fact lens-shaped rather than circular we were able to lose most of the spoil on wooden platforms constructed on the sides of the rift, removing the need to haul it all to the surface. After nearly a year of intermittent effort we dropped the full thickness of the Great Limestone, bottoming out about 21m below the surface. Water trickled in here from various narrow openings above but the

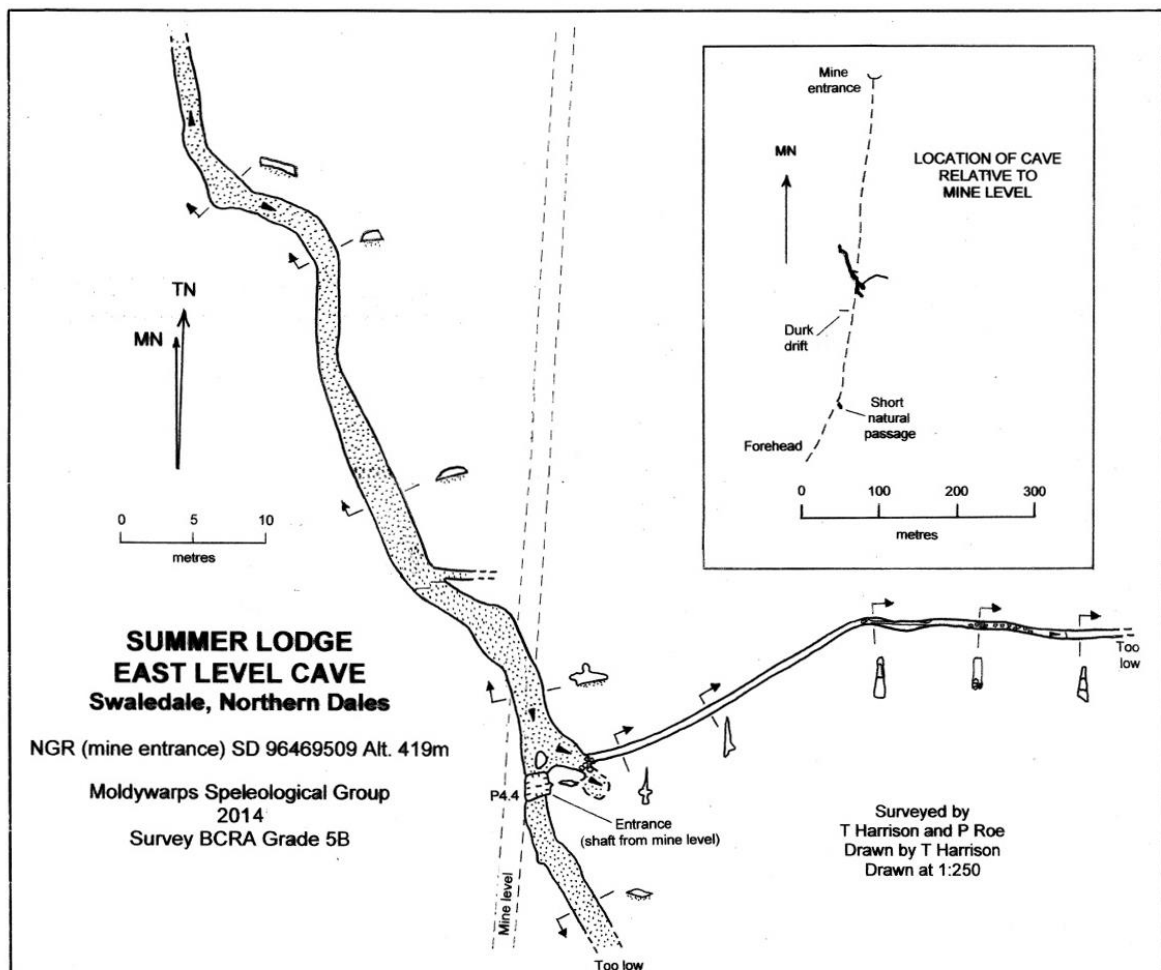


blocked horizontal passage heading off to the west was mainly dry. Several more trips took us a further 14m or so, but the passage remained very low and eventually despondency set in and the venture ended. However it remains a good possibility for future efforts, as the stream bed sinks near the entrance to the hole take a massive quantity of water when in flood.

PFR note: Back in the late 1960s we assumed that was the same hole as 'Shooting Palace Pot' in which it was reported (in I think 'The Speleologist') that the Kendal Cave Club had found 1600 ft. of "tight twisting passage" but Colin Carson thrutched into the cave and could find no way on, and the whole thing seems to have been a rumour without foundation.

### Summer Lodge East Level

With Hooker Gill laid temporarily to rest, and still in search of a back door into Crackpot Cave, we moved to the south of the current limit of the cave, where a mine level (un-named at the time but subsequently called Summer Lodge East Level by us) was known to exist on the side of the beck which flows from south to north before rushing below the entrance to Crackpot. At the time of our initial interest the "Thursday Evening Mine Diggers" of Wensleydale had already discovered the probable location of the mine portal, a chaotic pile of boulders and clay in a small cliff on the left bank of the stream, and had started a dig, but were happy to pass further effort on to the Moldywarps. It didn't take too many weeks to tunnel through this blockage and break through into a mine probably un-entered since the 1800s. It proved to be primarily a single passage, 512m in length, driven almost due south with just one short durk drift, 18m in length, on the west side of the level about 450m into the mine. The level thus runs from its entrance to a point under the Askrigg/Healaugh road just south of the bend where the Summer Lodge track starts, ending under Summer Lodge Moor to the west of the road. It was driven mainly through the top of the Great Limestone and did not hit any significant



ore-bearing veins, the Summer Lodge veins having unfortunately run out some distance to the north-

west. Almost uniquely for the Askrigg Block orefield, the level was found to be equipped throughout most of its length with wooden ore-tub rails.

This was clearly an exploratory level which was probably abandoned after one or two years of effort. In the absence of any known records it is difficult to be precise about the period in which the mine was driven, but from the presence of the rails, construction has been estimated by Dave Carlisle at between 1830 and 1840. After that time, iron rails were almost invariably used for ore-tubs. Few other artefacts are to be seen in the level, although some excellent clog prints and wheelbarrow marks can be found near the entrance. Nearer the forehead an abandoned pair of clogs was found beside the rails and subsequently loaned to the Reeth Museum. The level is of fairly uniform rectangular dimensions, about 2m high and 1.5m wide, trending slightly upwards (as is usual) at a slope of about 2° over the first two thirds of the mine length, but increasing steeply and unusually towards the forehead (a function of the increased dip of the strata).

We found a number of indications of phreatic cave formation in the mine. The west wall of the level a short distance from the forehead comprises a natural sculpted face with no signs of mining action (e.g. shot holes or pick-axe marks), indicating where the miners had found a natural rift which they had subsequently widened. 90m short of the forehead is a short (5m) natural passage which heads off to the east but soon closes down. More significantly, about 400m from the mine entrance the mine level wall on the east was found to be walled up with “deads”, a location which was draughting strongly. We started excavating and soon revealed the presence of a “sump” (shaft) backfilled to the brink with mining spoil. Over a period of two months we excavated down to a depth of about 5m and found a phreatic bedding plane cave heading off from the sides of the sump and floored throughout with dried glacial mud. At a low point in the cave near the sump a narrow key-hole shaped phreatic rift heads off to the east. This was blocked by a small rock-fall but was soon cleared to reveal about 60m of narrow but traversable passage, roofed by Richmond Chert at the top of the Great Limestone. Unfortunately eventually further progress became impossible as the passage narrowed.

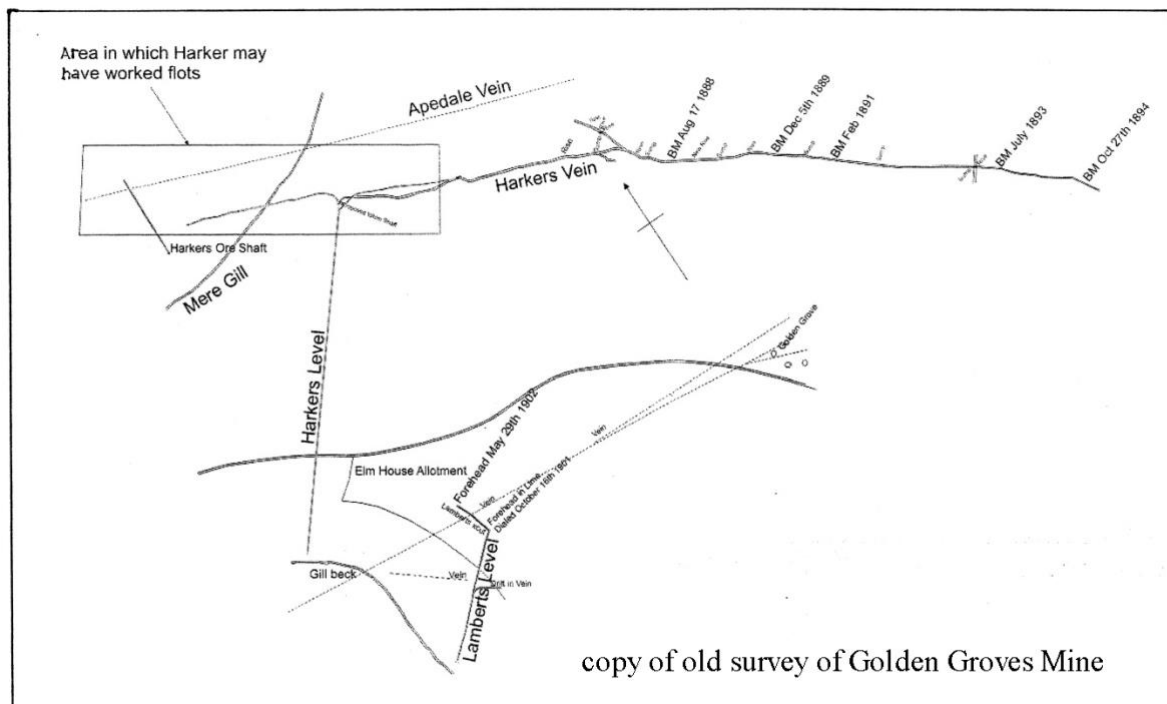
We returned to the job of emptying mining spoil from the shaft, but to no avail, as eventually, about 20m down, the shaft terminated in solid rock. One more option remained, however. Near the key-hole shaped rift, a wider phreatic passage led off to the north but was filled almost to the roof with dried mud. We excavated this over several evenings and made significant progress, but eventually the passage ended in a tight and low choke. We can claim, nevertheless, the discovery of an interesting phreatic system with two passages entirely different in structure and of 142m total length.

One more possibility of new passages leading into the back of Crackpot Cave still remained; near the entrance to the Summer Lodge East mine passage a small stream trickled out of the bottom of the right (west) wall before immediately sinking at the foot of the left (east) wall. The stream flowed through fissures much too small to enter, but just a few metres away another back-filled miners’ sump beckoned. Again we dug and found it to slope towards the sinking stream on the east, but in a few metres we found that the miners had stopped digging, and so did we.

## 4. Mines around Grinton and Preston Moors

### Harker's Level

With the back door to Crackpot Cave proving difficult to open, we turned our attention in late 2012 to Harker's Level in Apedale on the Wensleydale side of the dales watershed. This was one of the most important adits of the Golden Groves Mine, probably driven in the early 1850s after George Harker leased the mine in 1849 and worked until 1898, although overall it produced very little ore. The level was driven almost due north from Cat Scar in Bolton Gill to reach, in about 390m, Harker's Vein which was then worked mainly to the east. The level had been of interest to cavers for many years as an old story tells of the miners, probably near the east end of the vein, breaking into the roof of a cavern so big that when lowered into it on a rope a miner could neither see the sides nor the bottom. For many decades the level had had been blocked at the point where the entrance level first hit the vein, and during the 1980s and 90s several attempts were made to dig through the blockage, but without making much progress. The cave-bearing nature of the Great Limestone in the mine had been confirmed, however, as the entrance adit has intersected several short rifts and, near its junction with Harker's Vein, had broken into a quite substantial rift, 4.5m in length and up to 8.2 m high.

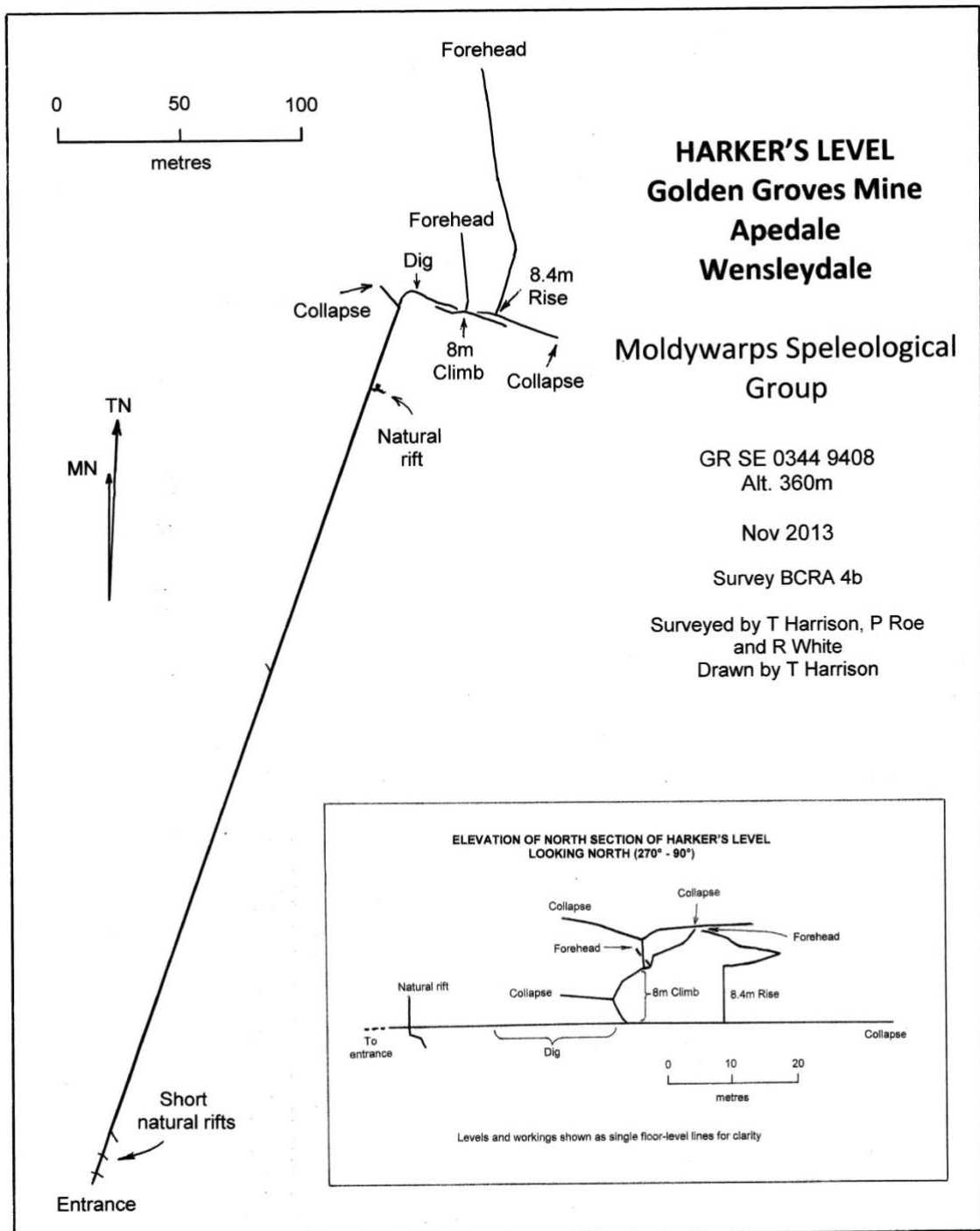


We continued from where earlier attempts had finished and over the first half of 2013 made steady progress (albeit with some difficulty as the dig, following the vein, veered to the east in a tight bend making the hauling of drag trays very awkward). In September 2013 we finally broke through into rubble-strewn workings blocked by another roof fall in only 50m. We started work on this second fall but after just a few weeks gave up, as it became clear that continued efforts would have a significant suicidal element to them; the fall was obviously fed by an inexhaustible supply of fridge-sized boulders and clay, falling from a blocked rise above.

Two other options remained, however: two rises between the fall and the first dig, which we thought may lead to upper workings that may have traversed to the east over the final fall. The one nearest the



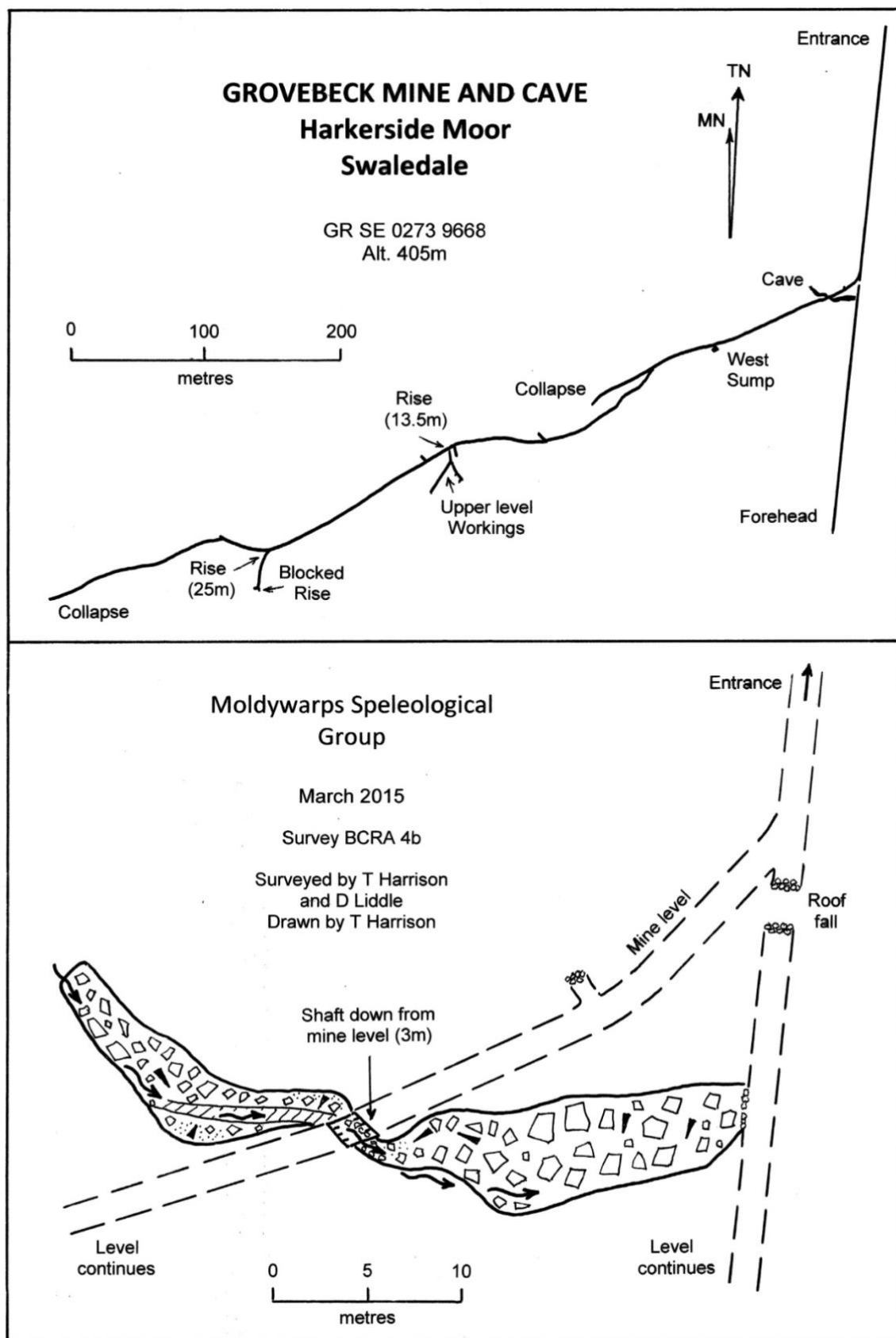
fall was tackled first. It required just an 8m ladder, at the top of which was a 100m horizontal passage directed almost due north and ending in a forehead. The second rise was free-climbable to workings aligned east and west above the initial dig and its continuation, but both passages unfortunately ended in falls. Along the east workings another passage was found, again heading due north and this time still equipped with wooden rails, but again it ended in a forehead after 30m or so. There our efforts also ended, in November 2013. No sign of the fabled cavern or of any other natural passage beyond the dig, but at least our knowledge of the Golden Groves Mine has been expanded, just a little.

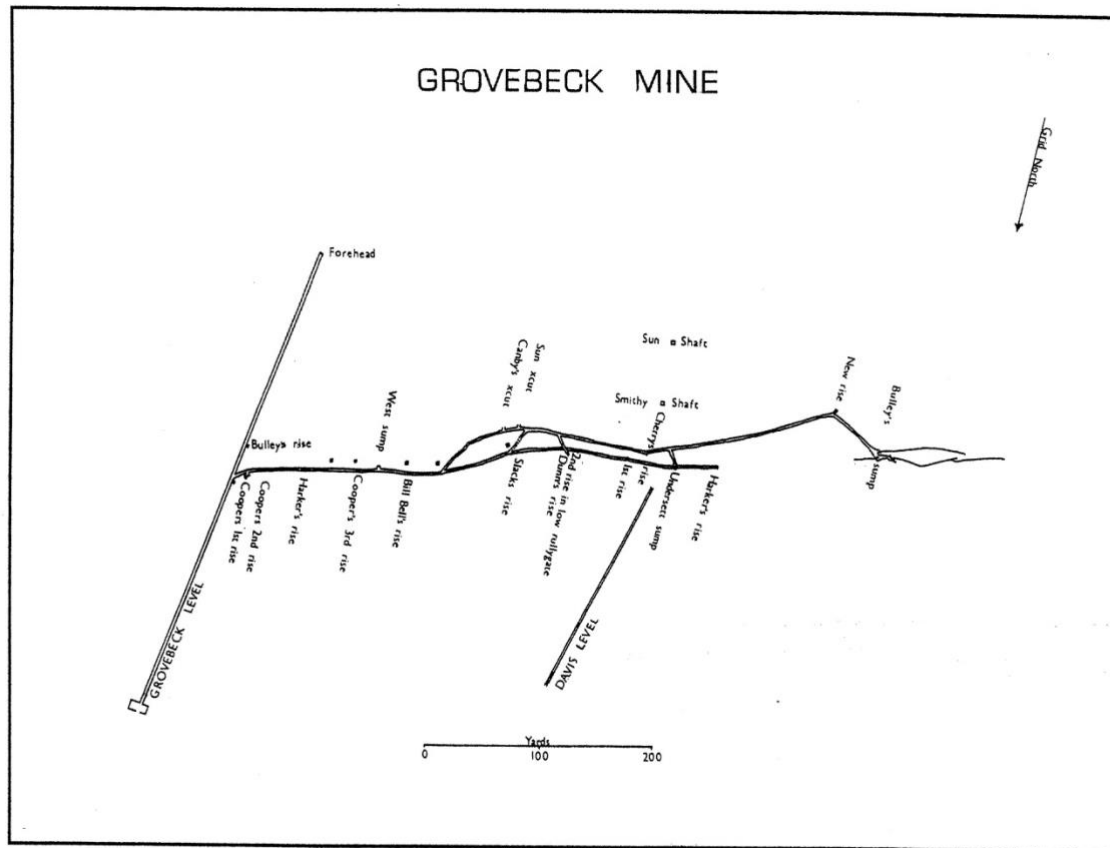


## Grovebeck Mine

Attempts to find natural cave in Apedale having been thwarted, in late 2014 we moved over the watershed to Harkerside Moor to examine Grovebeck Mine. Harkerside Moor has been worked for lead ore for centuries, initially via bell pits and surface shafts, but in the early 19th century Grovebeck Level was driven at the bottom of the Main Limestone, at first to the south and then south-west to work the Underset. Dunham (in *Geology of the Northern Pennine Orefield, Volume 2*, 1985) notes that the workings to the south-west were driven for 576m “*terminating against a NW-trending string known as Water String. It may be surmised that this was a natural cavern feature rather than a vein. It was shown on the plan as extending almost ½ mile from the point of discovery in a westward direction*”. This sounded worth looking for, particularly as Dave Carlisle and his colleagues in the Earby Mines Research Group had cleared the fall at the entrance to the mine and several other collapses in the levels a few years before.

We spent the last couple of months of 2014 resurveying all the open passages in the mine and ascending two rises to be found on or near the south-west-trending main passage. The first, about 300m from the entrance adit, rose for 8.5m to a limited stretch of higher level workings and then another 5m to a similar short complex of workings. No sign of natural cave, so we moved to the second rise about 170m further into the mine. Ascending this was a significant undertaking for Pete Roe and Dan Liddle as it rose vertically for 25m or so in unstable rock, but again only to a short length of high-level workings. It seems possible that the link to Water String and the probable natural cave is via a third rise a little beyond the second rise, but now completely filled with fall material and not a reasonable “dig” prospect. Our unwillingness to tackle this blockage was also fuelled by another factor – we had found some natural cave much nearer to the entrance! Just beyond the point where the entrance adit swings to the south-west, a small hole at the foot of the west side of the passage could be seen to reach a swift-flowing stream, disappearing into boulders under the passage. Upstream was 20m or so of wide natural passage, unfortunately ending in a tight low sump. Fluorescein dye testing showed us that the stream, probably fed from sinks in Apedale, re-emerges at a strong rising in Cogden Gill near Grinton Smelt Mill (at SE 0493 9636), a straight-line distance of 2.2km with a fall of 78m, taking the dye about 24hr. to traverse. The only way to get into the downstream passage was to dig out the floor of the level into which the stream sinks, a two-month job completed in March 2015 when we crawled through along the stream and then climbed up to a wide cave where the stream was hidden by boulders. The cave passage was then found to break into the entrance adit, previously inaccessible to us as it was beyond a roof-fall. There the matter currently rests. We have about 45m of interesting fast-flowing stream passage under our belts, but further digging is necessary if we’re to progress much further towards Grinton Smelt Mill.





Old mine survey reproduced from *The Grinton Mines (British Mining No. 51)* by L O Tyson and I M Spensley with R F White, Northern Mine Research Society, 1995.

## Herontree Mine

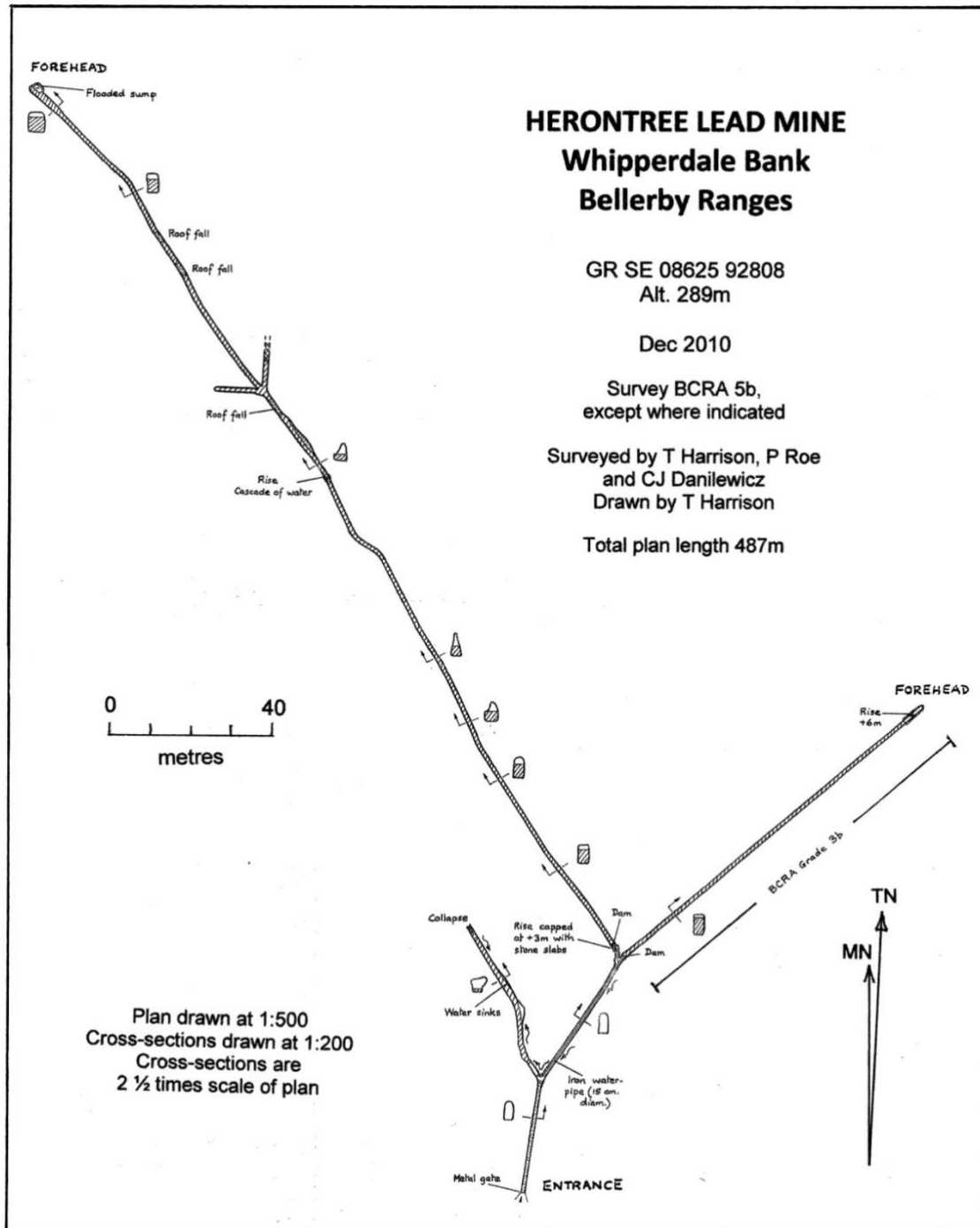
Before leaving the lead mines of Wensleydale, it seems sensible to record here the doughty efforts of two Moldwarpers in another Wensleydale mine, just 5km east of Harker's Level. This was Herontree Mine, now located on the army's Bellerby Ranges and so normally inaccessible to mine explorers. In 2010, however, the army decided that their squaddies required more rifle practice and that the numerous shooting ranges which already adorn the Catterick ranges were insufficient for this purpose. A new range was to be built above Herontree Mine on Whippardale Bank, but the thought had occurred to the generals at Catterick that, given the presence of disused mine workings in the area, there was a possibility of soldiers, or worse a tank, disappearing down a disused shaft never to surface again. An underground survey was required and through a marvellous process of contracting and sub-contracting (expense to tax-payers being added at each stage), the job ended up with Moldywarpers Pete Roe and Tony Harrison, accompanied by an old caving friend of Pete's called Danny.

The task was allocated to a freezing period in the week before Christmas, and after a formal briefing by the army reminding the cavers not to pick up any round smoking objects or to approach privates waving guns, we were let loose on the mine. This is gated and locked, and has been significantly modified since the "old man" left it in the late 19<sup>th</sup> century. The mine splits into two levels just inside the portal and several decades ago it was modified to become a reservoir by the construction of concrete dams located at the start of these two levels. In other words we had to survey two canals,



each chest- or occasionally neck-deep in cold water. No problem, said Pete, who had recently been donated two dry suits, acquired by George Bee (an ex-Moldywarper) after one of his working sojourns in North Sea some years before. Unfortunately neither George nor Pete was aware that the wet-suit seams had perished in the interim period. By the time the first forehead was reached both dry suits seemed to have more water inside than outside and hypothermia was at an advanced stage.

Somehow the job was finished. The original copy of the mine survey now probably resides at the bottom of a dusty filing cabinet in some Defence Estates office, never to see the light of day again, but



in order to ensure that future mine explorers know what delights wait them, another copy is reproduced herein.

## 5. Hudgill Burn Mine Caverns

### The Exploration and Survey

We have all known about Hudgillburn Mine Caverns for quite a long time. Since 1820 in fact, when quite a lengthy article, reproduced in full below, appeared in the *Newcastle Magazine*, which in turn was reprinted in 1833 in Thomas Sopwith's *An Account of the Mining District of Alston Moor, Weardale and Teesdale*. Sopwith (1803-1879) was one of those great 19th century polymaths, famous as a geologist, mining engineer, and proponent of isometric drawings; from 1854 to 1871 he was mine agent for W.B. Lead Mines and lived in Allenheads Hall (where his rock gardens of mineral specimens, now sadly decaying, still attest his geological interests). His interests in efficiency and social reform did not sit well with local miners, and provoked a major strike in 1849 which resulted in many of them having to emigrate to the USA.

### *Hudgillburn in 1820 – after Sopwith*

*In the celebrated lead mine of Hudgill Burn is another but less curious and picturesque cavern in the great limestone. It was discovered in the spring of 1816 by a rise of six fathoms high from the level, 391 fathoms from the entrance to the mine. This rise was in a vein (supposed to be Hudgill Burn third sun vein) at this place not exceeding 4 inches in width. The vein, which at the extremity presented a crust of the burnt-like matrix or rider common in veins, and contained a thin rib of galena rich in silver. This vein improved to the eastward so much, that, at 30 fathoms from the shake or cavern, it was worked at seven shillings a bing, and continued rich until cut off by the thick alluvial deposit of the side of the mountain. On the west side of the cavern the same vein in 10 fathoms dwindles to nothing. It is stated by some of the miners that no veins have been discovered to come through the cavern, and that no traces of veins are to be seen in it as at Ale Burn.*

*The following notes, descriptive of this cavern, are extracted from the Newcastle magazine, Sept. 1820. They are attributed to a military gentleman, who explored it with a party in Feb. 1818.*

*“At about 4 P.M. being dressed in the working habiliments of the miners, and seated in ore waggons, two in each, vis a vis, we were hurled along the interior region of the mountain of Middle Fell.*

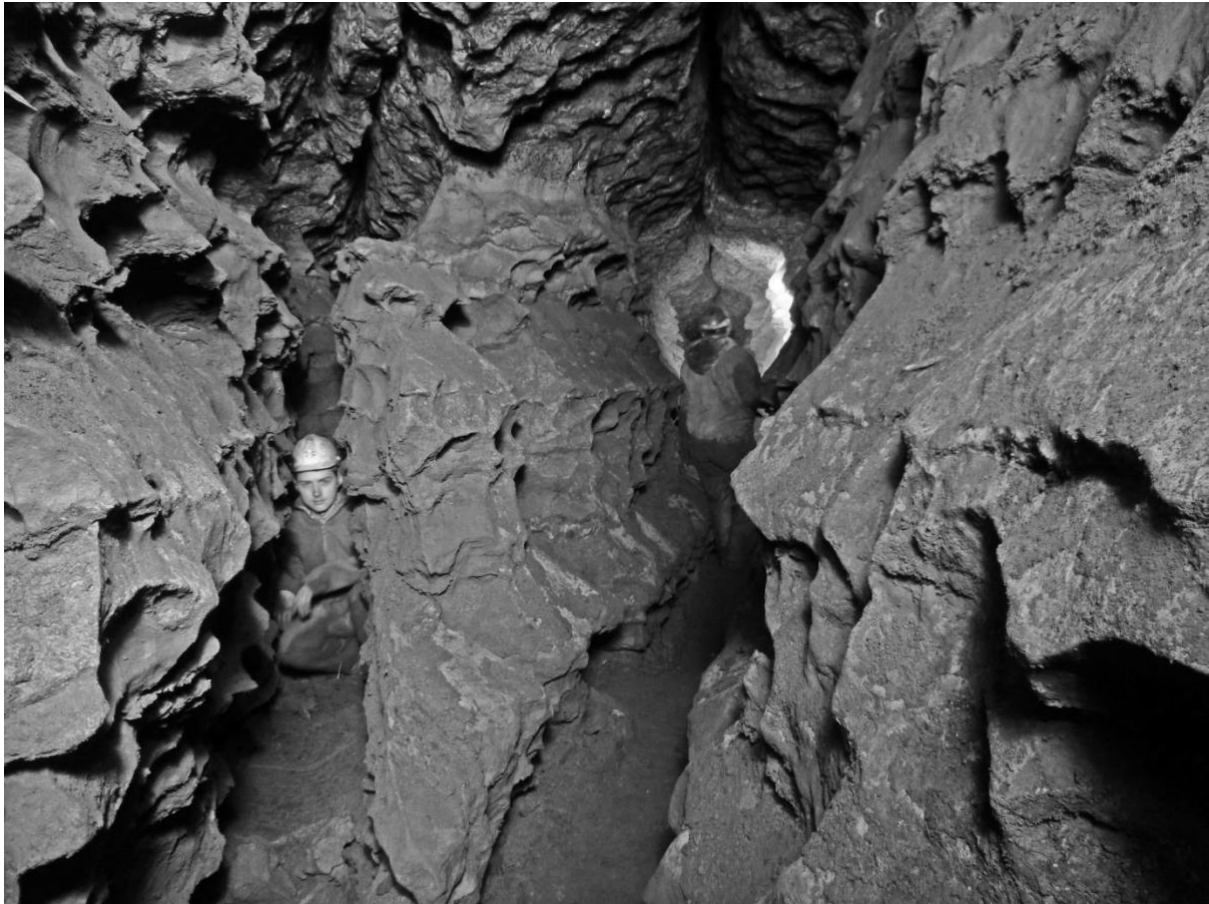
*A lighted candle folded round with clay to prevent its melting by the heat of the hand, was carried by each person, and the ponies trudged in steady pace along the adit or level, with each its own candle suspended at the collar, beneath the breast. In this order the whole proceeded in silence, gazing upon the different strata that appeared in the roof and sides of the level for perhaps nearly half a mile. When we arrived at a part where another adit branches off to a different working in the mine, the boys conducting the horses then stopped, and the party got out to walk on foot along the right-hand level, with each his own light. In this passage there is a running stream of water drawn off from the mine, and the working parts are dry. We passed air pipes, rising sumps or shafts, and some large masses of rich ore, piled up in open spaces on the side of the level, ready to be conveyed out to the bank.*

*The party advanced, viewing with much curiosity and pleasure the signs of persevering energy and art which the mining works presented.*

*Pursuing the subterranean route by direction of two of the owners of this rich mine, for a distance we supposed to be nearly a quarter of a mile further, our attention was arrested by a clattering noise a little way in front, occasioned, as we understood, by the stones and rubbish, from working, falling down a shaft upon cross-sticks, fixed alternately, a long step, one above the other at right angles, serving as a ladder, by which the workmen ascended to a vein above this shaft which opened into the cavern. Up this shaft we had to scramble near 30 feet from one cross rafter to another, by hands and feet; an exertion of some difficulty, for in places these crosssticks were so far distant as to require all the active agility of youth to mount them, and some of our party were somewhat wearied by the progress they had already made. Having accomplished this our most arduous task, the entrance into the cavern or chasm was perceived. During our clambering up to this part the working ceased, and the men offered their hands and assistance with becoming and manly civility. They then conducted us into the cavern, at the entrance to which they were pursuing their trial of a vein of no great promise.*

*The wonderful art attained in splitting the hard limestone by blasting, &c., to unfold the stores of nature, and to realize her treasures, strikes the senses of those unaccustomed to such work with astonishment. We entered the cavern — a light was sent forward, which showed the direction to be in a straight line for a great distance.*

*The light appeared dim, and like a star peeping through a dingy cloud. The width varies from about three to six feet, as I thought, but we did not then measure either the width or the height. The roof has along its centre an indentation the whole length, and the chasm appeared somewhat wider at the top than it is at the bottom; which, with the groove or rent in the middle of the roof, impressed a conception of the mind, of the sides having been thrown to recline backwards by some convulsion of nature. The groove is shallow, and appears like a wound healed up, leaving the scar as a mark of the injury formerly received.*



*In Peeping Star passage, much as described by the 'military gentleman' in 1818 (PFR)*

*Advancing about half way, we came to a thin rock which divided our passage into two. We pursued the right-hand passage, now become so narrow, that a bulky man could scarcely get through, but it widened a little farther on. As we passed along, several openings and small recesses on our right and left were seen, but not of the sort to excite much interest, until we reached the far end of this passage, where there is an open space equal to a room of ordinary size, with a beautiful cabin on one side, nearly square, lined with smooth jet-black walls, richly spangled with stalactites, that sparkle equal to brilliants of the first water. The solemn grandeur of this place inclined the whole to pause, and contemplate the sublimity of the novel scene around us. We rested on the floor of solid limestone, and gazed on this charm of nature with awe and wonder. When I beheld a scene so superior to what can be produced by all the arts of man on earth, I could not conceal my regret that such treasures should be made so difficult of access, that they would be where-*

*"At each step  
Solemn and slow the shadows darker fall,  
And all is awful, list'ning gloom around"*

*The substance of so jet a black with which this charming little cabin is lined, is called by miners 'black jack'. It contains a position of the ore of zinc, and is smelted for its valuable produce, in great demand throughout this realm for potteries,*

medical purposes, brass, &c. In this beautiful little room, there are two openings, in form nearly square, from the floor upwards, about 1 ½ foot each side, lined with substance the same, and embellished with glittering spar, of exquisite brilliancy. These transparent particles are very regularly distributed over the walls, neither too thick nor too thin, to give the effect of genuine taste and finish: but the process of nature is going on, and that brilliant spar will most probably become a thick crust, if not impeded by the hand of the workman, and will in time attain to a solid mass of quartz, of which numerous large pieces are found in the mines.

While we rested here, men were sent farther in advance, to explore the extent and nature of the several low and narrow passages and openings in the rock, which communicated with this open space; and having taken hold of the end of a clew of pack-thread, to direct their retrograde steps by the same way, they tried to advance:—they proceeded on hands and knees, or feet, as necessity dictated, a considerable way forward in the largest openings they could find, until they were called back by the voice and a tug of the line. They found no end to these numerous intersecting openings in the rock, the passages of which are extremely intricate and dangerous, without proper precautions taken; for, to retrace exploring steps in such a labyrinth, if lights should fail, without a clew or their companions stationed as we were in the main track, would be to hazard their lives.

Our curiosity on that occasion being gratified, we commenced on our return, by the same passage before described, but discovered some other passages which communicated with it, and in which some of our fellow travellers ventured to wander, and were able to join us again, without being obliged to return to the part where they entered the by-way.

The length of the main chasm is 320 yards. Evident signs would seem to prove that this cavern and all its communicating fissures have been filled, at no very distant period, with water, and the probability is, it has been drained off by the adits in the mine, in which there runs, as I said before, a constant stream from some contiguous part of the works. The rocks of the cavern are covered by a sooty mucus in nearly a dried state, which, it may be presumed, was generated by the stagnant water and impure air, previous to its draining. There is little mud left on the bottom of the cavern in a moist state, and the small tends to confirm the conjecture of these concavities having been a reservoir for thousands of years, and drained off by the level of the mine. It appeared to me that some little ventilation passes through the whole, which might have been so ever since the water was let off; for the air from the level would follow the vent of the stream, and since the opening to the cavern was effected, a slight circulation of air would probably be created.

There was I think nine of us altogether; we were in the cavern upwards of half an hour, and we felt no material difficulty in breathing, while our candles, one to each, burned sufficiently clear, which, with the animal breathing, must together have consumed a considerable quantity of pure air, such as to have made a scarcity perceptible, if no fresh air had been supplied”.

*This graphic description supersedes the necessity of the author saying more than that his own inspection of this remarkable cavern enables him to state that its details are as correct as they are highly interesting.*

After Sopwith, as regards information on Hudgillburn Mine and its cavern, the line goes dead for over a century. It appears that the mine was last worked in 1885. Moldywarp interest in the place was aroused after the 1968 extension of Ayleburn Mine Cave, the other major cave in the Alston area (which Sopwith also describes); we became interested in the possibility of regaining access to Hudgillburn, and in 1978 Pete Jackson of the Northern Cavern and Mine Research Society wrote an article in our club journal MSG 9, reproducing an old mine plan showing the cavern (as a single passage) but sadly the mine level by then had a massive collapse at the entrance which was beyond our resources to tackle.

Time went by. Then in 1994 the Cumbria Amenity Trust (CAT) Mining History Society, a group experienced in large-scale projects, started digging at the collapsed entrance. It took them four years’ hard labour before they finally broke through, and it was Sunday 8th March 1998 before they re-entered the long-lost cavern. They admired the cave, and surveyed its main line (leaving a guide line) but did not feel led to become unduly intimate with non-man-made passages. More years passed by; Pete Ryder, having heard on the grapevine that the mine had been re-opened, eventually got round to making enquiries, and so it was on Thursday 30th May 2013 that Pete, Tony Harrison and John Dale found themselves at the entrance, clutching borrowed keys and a bag of survey gear. We were



admittedly hopeful of finding some un-entered natural passage, and anticipated maybe half a dozen visits to get everything properly recorded. Little did we know what we were letting ourselves in for....

A quote from the PFR log for that trip:

*'There is a padlocked gate at the level entrance, and then a much more massive iron gate about 30m in, where the initial walled level (rebuilt by the CAT) gives way to rock-cut passage. The water is around knee-deep, but gradually shallows. There are a few junctions but one goes straight ahead each time (the first 600m or so is dead straight) and then eventually the passage lowers to a short length of stooping and then, at a point said to be 2346 ft (715m) from the portal, it comes to a dead end with on the left a rise now provided with two modern fixed ladders of c.3 and 6m, solid but the upper a tad awkward where it comes close to the rock.*

*At the top of the second ladder one is into a natural passage, a shapely deeply-scalloped phreatic rift heading south; scaffolding bars and deads hide any sign of a continuation to the north. The first hundred metres or so are easy walking (tip-toeing under one huge dangling flake), with lots of smaller cross rifts – clearly unentered when we first visited - heading off. Then things start to get more complicated, and there is quite a large cavern, perhaps 10m wide, 2-3m high and 20m long, where it looks as if several parallel rifts have collapsed together leaving a bedding roof. The CAT guide-line eventually forked. We followed the right branch, but it soon ended. Here it was that Tony and John started surveying; Pete went back and followed the left fork of the string, now rather more scrambly going with quite a lot of fallen slabs; the passage doglegged right and then left again, into a hands-and-knees crawl where the string ended in a passage with one mined wall, with shotholes evident; the end of the 'old cave', as shown on the 19th century surveys'.*

On writing up the log that night, it was commented that “the 19th century survey is deceptive, only showing a centre line (probably the route now followed by the string) and its quoted length of 320 yards (293m) can probably be quadrupled – at least!”

And with that a fast-forward to Wednesday 8th October 2014. Tony and his main survey partners, Pete Roe and John Dale surface, having completed the task. Tony the surveymeister had made 67 visits, over 17 months. We had logged 13.2 km (eight and a half miles in oldspak) of natural passage, making this the seventh longest cave system in England, and, we believe, only the second longest to have a single entrance (Slaughter Stream Cave pipped us to this post by less than a km). As regards the Northern Dales, Hudgillburn is around three times as long as the next contender, Knock Fell Caverns. Is there anywhere else in the British Isles where so few people have explored and surveyed so much cave in so little time???

In a place like this, exploration and survey had to be carried out with military discipline and efficiency. Around 2,500 survey markers were installed, each one a plastic stick, the type one buys in garden centres to label pot plants, bearing a letter (later doubled -and then tripled, i.e. A then AA then AAA) specific to that trip, and then a number relating to the number of survey legs, written in pencil. In theory if one became lost one could follow the letters and numbers back down to station A1 on Peeping Star Passage; in practice one wipe of the stick with muddy fingers would erase the pencil inscription. A combined Suunto compass/clinometer was used for the readings, and a Leica disto for distances. At every junction bearings and distances were taken down all passages, whether accessible or not, then corrected when these were entered or intersected as the survey proceeded. One rule was rigorously kept – turn right at every junction, even when this meant that walking-sized passages

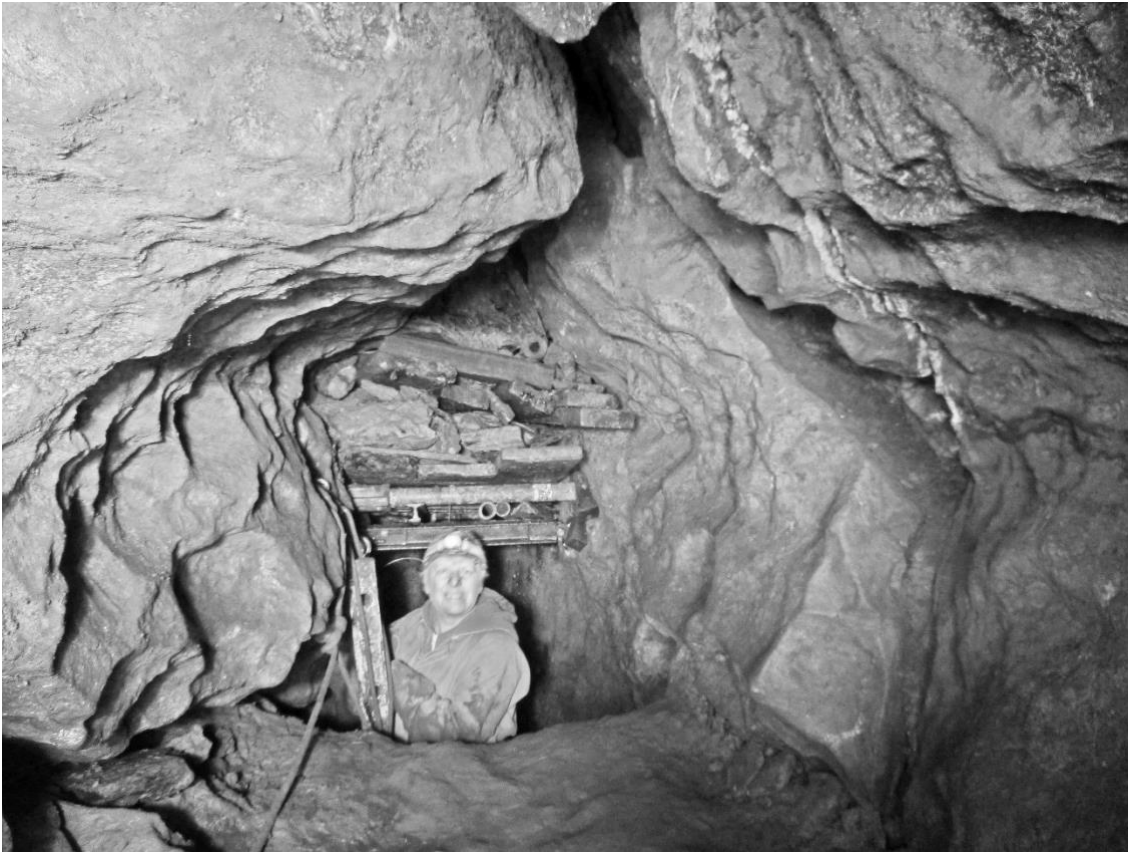
disappearing into the unknown were left unentered for months. The end results were plotted as a centre-line survey using the “Survex” cave survey programme, subsequently expanded by hand drawing at 1:250 on a series of 24 A4 sheets. Week after week Tony e-mailed out the slowly growing spider’s web of the survey which took on the feel of an organic lifeform. On a good week 300m might be added, in more difficult terrain less than 100m. Several times we thought we were getting close to the end and then a new area would open up. And of course the drawing up of the survey took many more hours than the time spent underground. At last it was done! The Moldywarps have always been into cave surveying, beginning with a Silva compass and a tagged plastic clothes line in Moking Pot almost half a century ago, but there had never been a survey like this; the finished result is now pinned to my hall wall, and every day I make obeisance before it, grateful to have played a walk-on part in such a wondrous exercise.

And in between that first venture in May 2013 and the final trip in October 2014, a taster of a visit (on 19th February 2014). The vast bulk of the work was borne by the ever-present Tony, with Pete Roe not far behind, and John Dale the taker-of-remarkable-photographs. I managed half a dozen or so visits, after one of which I wrote the following: (For the sake of posterity, I was the un-named caver who first turned back at the Iron Curtain, Pete Roe the one who subsequently punched his way through it, and John the one who got briefly but memorably lost, an experience he will not forget in a hurry).

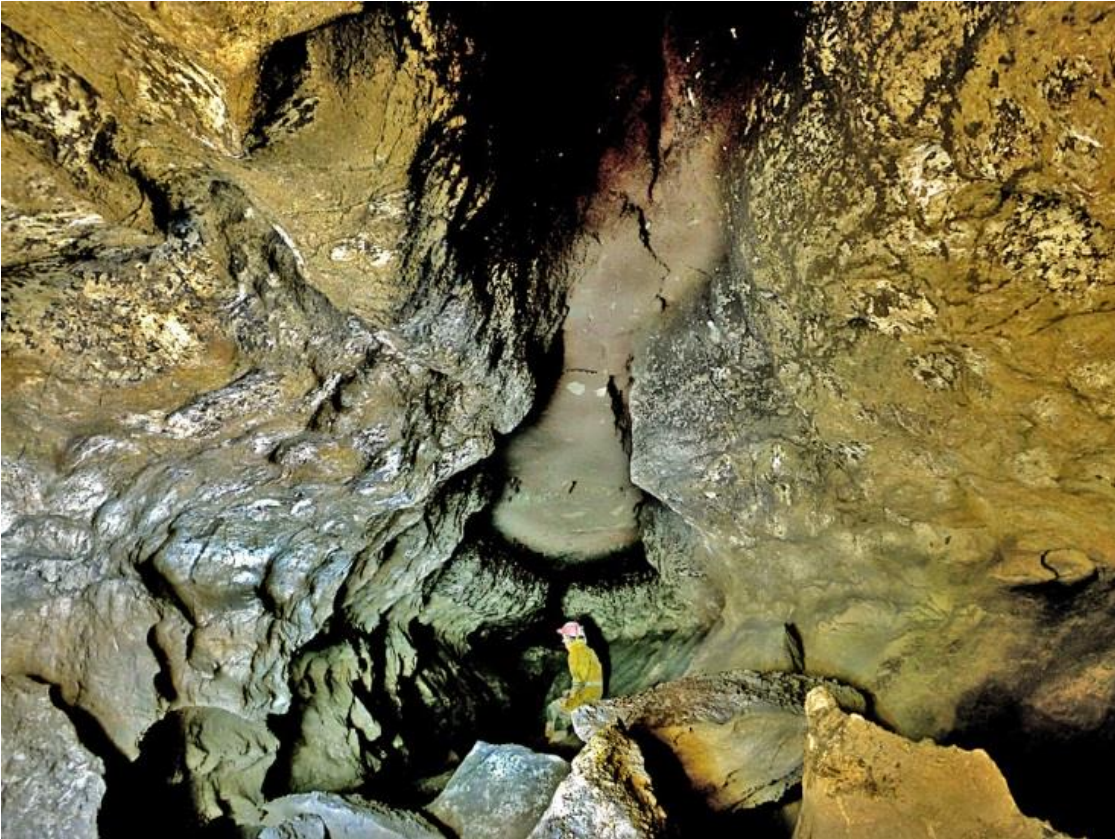
*We parked in a caravan site, kitted up, walked a couple of hundred metres uphill over the grassy humps and bumps of old mine tips, then into an icy pool just short of waist deep and unlock a metal gate to enter the mine. A hundred metres in is a second more massive gate, and then a long wade follows, passing various junctions, under ascending shafts into other workings, and eventually the water shallows, the roof drops so one must crouch for fifty metres, and one scrambles through a muddy hole to the foot of a short ladder up to a wooden platform, then up a second ladder for five metres or so and one is into the natural cave. The plastic string line heads off down a tall but narrow passage, but we only follow it a few metres and turn right, and it is down onto hands and knees to crawl over the cracked mud floor that has had almost two hundred years to dry out since the waters drained, but is still claggy. (I was following the Sopwith account here; Tony thinks the system drained far earlier). Then the walls narrow in, and breadth-of-buttock dictates one must lie flat to wriggle forwards; branch passage after branch passage leads off, you have to know where you are going. You need to be on your right side for one bend, left for the next, then the roof lowers further. The first explorer turned back here, it looked like an end, but a more intrepid companion a few weeks later realised that the construction was formed by a tiny vein or stringer of ironstone vein so thin that he simply punched it with its visit and it crumbled, and he wriggled on. This was ‘The Iron Curtain’, cue for the naming of the strange terrain that lay beyond. It was easier now; five people had been through here before me, and all had come back to tell the tale. Now it was just follow the pair of boots in front, but actually it became a sweaty struggle, just looking for energy for the next thrutch, and longing for somewhere even to get up onto hands and knees. My glasses steamed up and some innate demon of claustrophobia, which one would have thought long-exorcised by many years of caving, started to cackle somewhere inside. In reality the tight stuff does not last long, maybe thirty metres or so, then higher voids start to appear, eventually wide enough for one to wriggle up, oh blessed relief, and stand on one’s feet again. Standing in a new world.*

*Quite suddenly everything opens up, The first thing to strike one is the remarkable symmetrical shape of the passages, a very regular inverted triangle of about five metres, with a flat roof and the sides sloping down to a narrow trench in which one is standing, with the expansion taking place at around shoulder height. Sometimes the trench is choked with boulders, or just too narrow, so one must*

*scramble up and down, or back-and-foot along, quite awkward going for such a spacious gallery. And every few metres is a junction, four, five or six-ways. The cartographer in one's mind just gives up. The only way to approach a place like this is with discipline, actually survey as one goes, and leave a marker at every junction – a little plastic stick upright in the mud floor, each inscribed with a letter*



*Hudgillburn - arriving in the natural cavern at the head of Thomas Shield's Rise (PFR)*







*Partition Passage (JD)*

*Peeping Star Passage (PFR)*



*and number. Exploring without surveying is pointless, and could be fatal; without a compass, disorientation is immediate. One colleague was lost for half an hour on one visit, and was seriously panicked. The place could, quite simply, go on or ever, or at least one believes it could, and that is quite terrifying. Like the concept of eternity, the sort of thing most of us manage to spend our lives avoiding.*

*Even with a survey in hand, a crumpled paper inside a muddy polythene bag, route-finding is difficult; the passage are shown, hopefully in roughly the right place, but it is not clear how amenable each one is to human progress. Some have been sighted through but are too narrow to pass, others are threatened by dangling flakes of loose rock – a real danger. The miners drained this place five minutes ago in geological time, interrupting the natural process of cave development, leaving boulders posed to topple, or roof slabs ready to drop at the slightest vibration....you have to be careful, but careful is not necessarily enough. Nevertheless, the topography of this unique subterranean landscape is being logged and named; we were on the west side of the system, the Urals; over on the east, beyond the boulder chaos of Stalingrad, is the Trans-Siberian Highway, 7 metres high and 5 metres wide, the grandest gallery in the system – so far. In this area the eastward-trending passages get bigger and bigger until they end in tottering collapses of huge boulders, and any shred of sanity the explorers retain dictates a retreat. Then to the far north; by contrast, everything seems to narrow down, perhaps approaching a fault. West is a different matter again; at the moment, dozens of open passages lead on.*

*Cavers sometimes dig for months to gain a few metres of small passage; there are caves in some areas, such as Derbyshire or Mendip, where every centimetre has had to be excavated. But here is the stuff of speleofantasy, gallery after gallery, some big enough to drive a car along, heading off into the gloom, places no human foot has ever trod. And must not tread, unless it is supporting a body clutching a compass, distometer, pencil and notebook. Apart from the wretched mud, one could just stay down here and survey forever. Today our total length passed 7 km, over four miles in old currency, and this became the tenth longest cave in the country.*

*The discipline is to turn right at every junction, and survey whatever one finds. Our job was to follow the white markers to 'X8' and then survey in into virgin territory, which turned out to be a maze of smaller rift passages, usually of hands-and-knees size although one could quite often stand where they intersected. At every junction take a bearing and fire the distometer down each branch – often giving figures of 8-10 metres – but keep on turning right until some impassable object, a tightening of the rift or a boulder ruckle - forced a retreat to the previous junction. In practice after a few such forays one finds oneself squinting down unentered passages and seeing a distant white marker and realise you are looking into somewhere you have just been, and are at the other end of a passage you have been looking along from the other end.*

*A couple of hours later, the mud just becomes too much. You lick to clear the compass eyepiece; it tastes horrible and probably does you no good at all; trying to write notes in the notepad, or label the white plastic marker sticks, becomes more and more difficult. Mud showers of the walls as you brush past, down your neck, your hair is full of it. A little over 200 metres done, enough. We started off with one ongoing lead, and leave with a dozen...*

*So back to 'X8' and follow the line of markers back to where we had arranged to meet the other duo surveying further north; they too had found dozens of new leads. It was time to return to daylight, but before that was the long grovel, the steamed-up glasses, the summoning up the energy for the next heave forwards... probably only a quarter of an hour or so, but the relief when it was over and one*

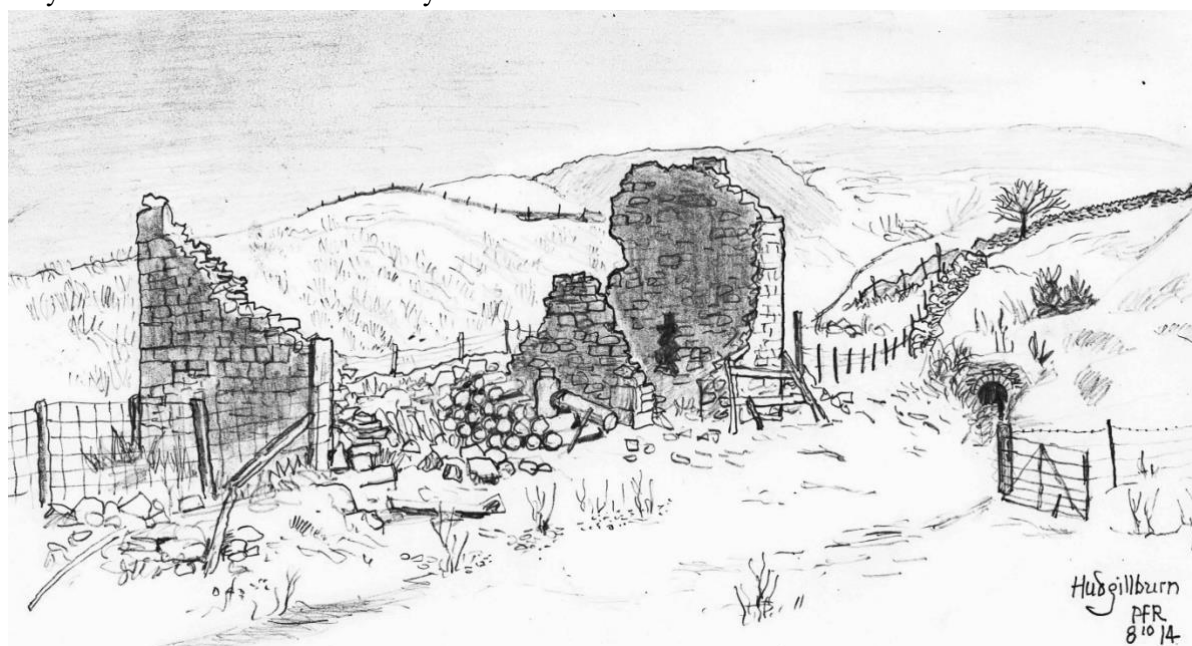
*could stand again. Then down the ladders, stoop then walk along the long mine level, and the long slow wade towards the pinprick of daylight far ahead. A beautiful sunny late afternoon outside, so unusual this year. We had been underground five hours or so and, hey, I'm still alive...*

*When we arrived Tony, surveymeister, was talking of maybe achieving 8 km; now he is saying at least 10...*

And so in October 2014 it was finished. The final phase of activity had been in the east; on our first trip we thought we would be able to get beyond the eastern limit of the 'old cave' but despite quite a bit of effort we made no more than a few metres of progress here; there was a very complex series of passages to the north here, but everything going east closed down on around the same line, despite us finding a couple of sets of small animal footprints and semblances of draughts. There are old mine shafts only a couple of hundred metres away from this area, so maybe there is some connection through passages too small for human passage.

A final thank you to the CAT; they are the ones who did all the hard work to render Hudgillburn Mine once more accessible; for many many reasons a place like this cannot be open to the general public, and indeed the general public, if properly informed, would probably have no desire to go there.

Cavers with a real interest in the unique underground geomorphology will be able to seek the necessary permissions; to be honest we would not recommend they proceed too far beyond the 'old cave' with its reassuring survey line. Yes, in terms of passage length the place is immense, but there are just too many dangers. We have left many of our survey markers in, and theoretically they could be used as route finders (although as explained above many have lost their pencilled inscriptions) but even with a survey there is a horrible possibility of getting very badly lost indeed. There is a lot of very loose rock. And that is before you start to think about the radon...



*The ruined mine shop and, beyond, the level entrance, sketched by PFR as he awaited the return of Tony and co from what proved to be the final surveying trip.....*



# HUDGILL BURN MINE CAVERNS

**Alston Moor**  
**Northern Pennines**

NY 7505 4546  
Alt. 397m (mine entrance)

Moldywarps Speleological Group

November 2014

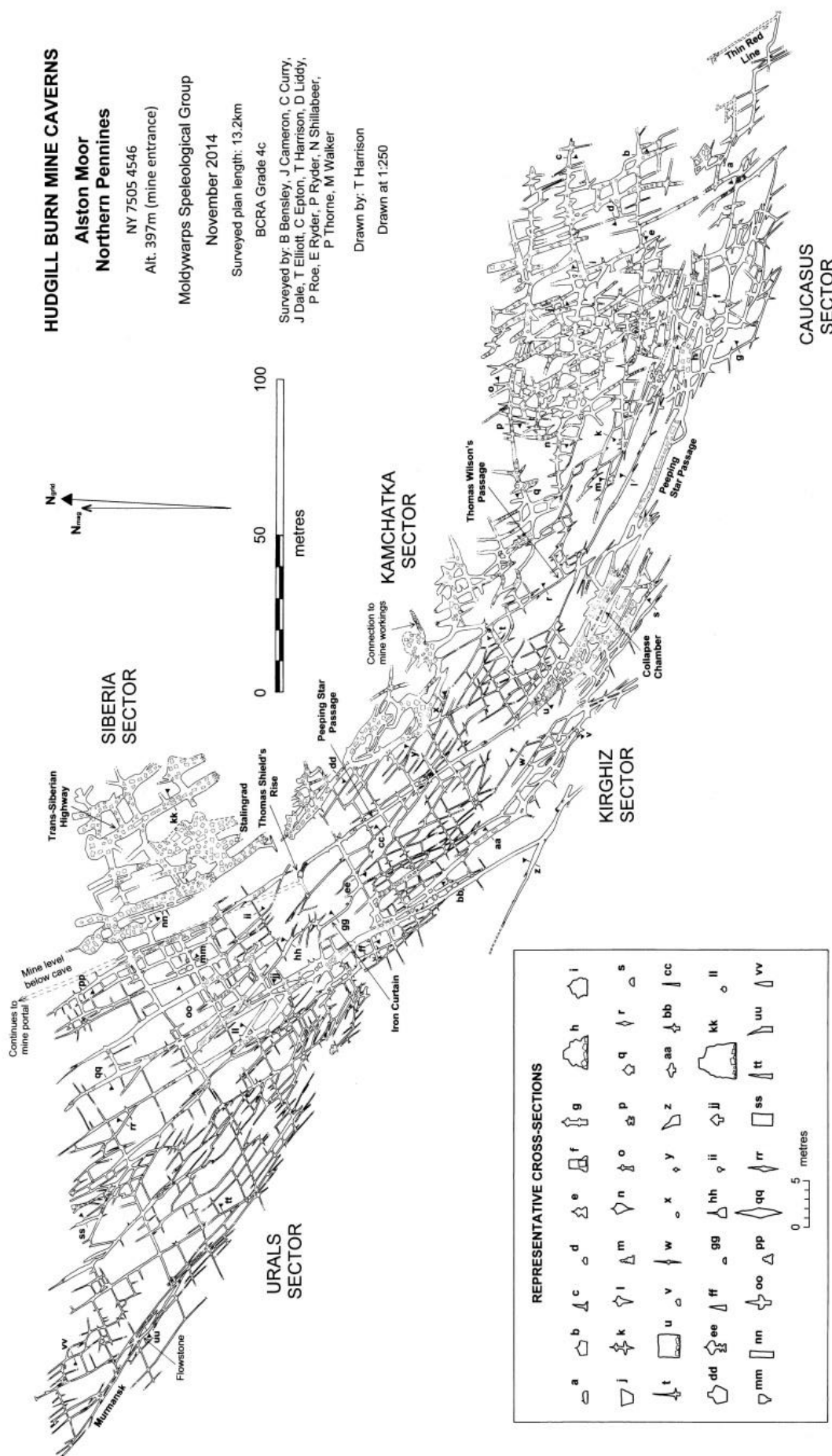
Surveyed plan length: 13.2km

BCRA Grade 4c

Surveyed by: B Bensley, J Cameron, C Curry,  
J Dale, T Elliott, C Epton, T Harrison, D Liddy,  
P Roe, E Ryder, P Ryder, N Shillabeer,  
P Thorne, M Walker

Drawn by: T Harrison

Drawn at 1:250



## Description of the system

Tony Harrison writes:

The reticulate network geometry of Hudgill Burn Mine Caverns is straightforward. The system is two dimensional, i.e. it comprises only one storey, in contrast to many maze caves which have formed on multiple levels. The plan of the cave shows an arcuate structure, the main axis running for about 500m from the middle of its northern boundary initially to the south-east and then to the east. At its northern edge the system is about 220m wide, decreasing to 70m in the middle of the system and widening slightly to about 90m in the south-east. In most of the maze area the passages are aligned on three major fracture axes: 150°-330°, 125°-305° and 60°-240°. In the northern part the 150°-330° fracture alignment dominates, but in the middle of the system the 125°-305° alignment becomes more pronounced thus giving the system its arcuate structure. In the far south-east area of the cave another alignment becomes apparent, on 110°-290°, giving a further emphasis to the arcuate appearance of the cave plan. Rift-shaped passages are common on the 150°-330° and 125°-305° alignments, and those on the dominant 150°-330° fracture in the far north of the system are particularly impressive, sometimes up to 5m high and 0.5m wide. Narrow “playing card” diamond- and spade-shaped passages are also to be found on these alignments, as are wide, square passages formed by the collapse of thin passage walls and the amalgamation of previously separate narrower passages. The 60°-240° alignment is frequent in the north and central parts of the system and has a greater preponderance of circular cross-section passages, usually with a slot at the foot. V-shaped (triangular) passages are also frequent on this alignment. Passage shapes are often difficult to discern in totality because of the usually thick layer of sediment in the base of the passages.

A detailed description of the cave’s passages, with over 350 loops and a total passage length of 13.24km squeezed into an area equivalent to a rectangle with sides not much longer than 100m by 300m, is almost impossible. However the description below lists the main features of the cave and the easiest routes to reach them.

The mined shaft giving access to the system (**Thomas Shield’s Rise**) is about 50m south-east of the middle of the northern edge to the system. North of this point are two of the five sectors into which the cave has been divided: the Siberia Sector and the Urals Sector, access to which is described below. **Peeping Star Passage** runs south-east from the shaft and defines the edges of two more of the sectors, the Kamchatka Sector to the north-east and Kirghiz Sector to the south-west. The passage runs for about 90m to a boulder slope up into a rectangular chamber, **Block Chamber**. Peeping Star Passage leads round to the east of this space to reach another low, wide chamber, **Collapse Chamber**, in about 40m. Exiting again on the east, Peeping Star Passage now enters the Caucasus Sector of the cave, continuing as an occasionally low and circuitous route to a blockage close to the far south-east of the cave.

Returning to the initial 50m length of Peeping Star Passage, several low openings on the east give access to the **Kamchatka Sector**. The short crawls all lead to one of the cave’s widest passages, **Partition Passage**, which runs parallel to Peeping Star Passage for a length of about 60m. Beyond, to the east, is a complex area of breakdown, all possible options soon closing down. At the south end of Partition Passage a high-level short crawl gives access to **Old Man’s Chamber**, where signs were found of the entry to the cave by miners via excavated workings to the east (now inaccessible from the mine itself). South of Old Man’s Chamber is a section of wide passages in the far south of Kamchatka, more easily reached from near Block Chamber. The route from Block Chamber starts at Peeping Star Passage immediately east of Block Chamber and winds through crawls to a long, narrow



passage, again aligned with Peeping Star Passage, **Thomas Wilson's Passage** (so called from old graffiti on the wall of the passage at the usual point of entry). From here all of the south part of Kamchatka is accessible, although only two passages (other than Peeping Star Passage) link through to the Caucasus Sector of the cave.

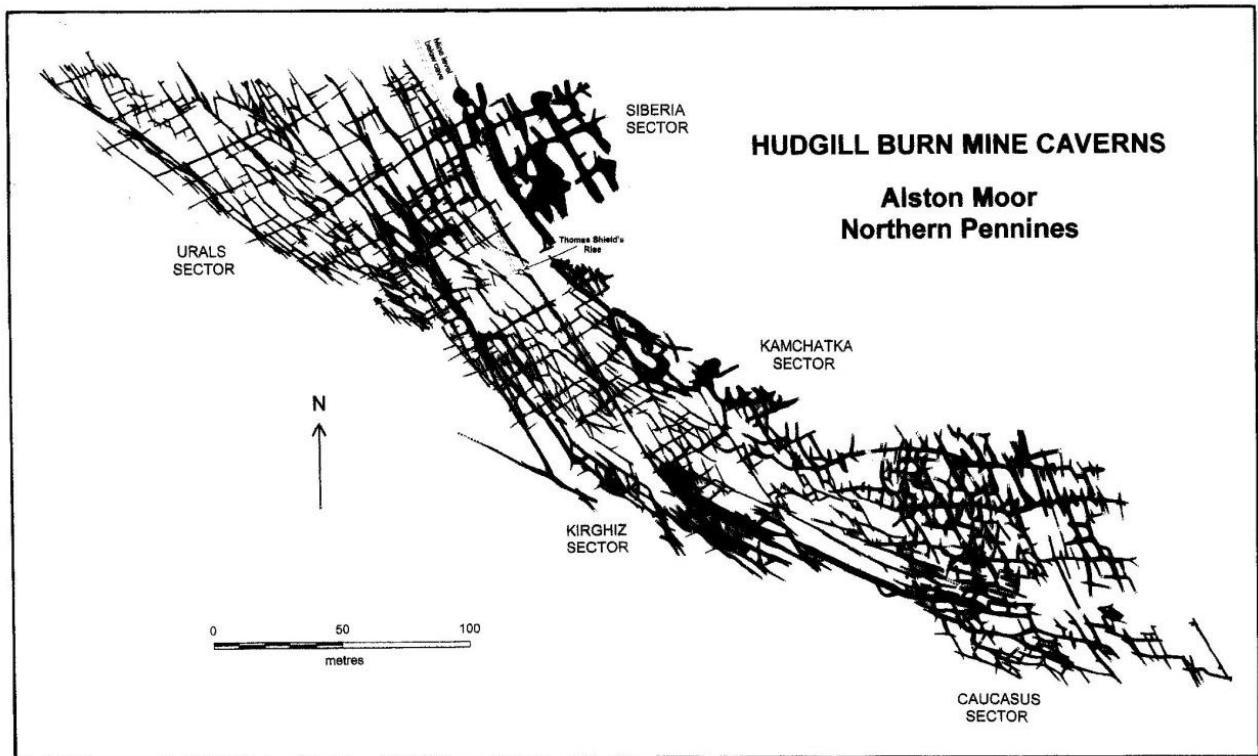
The north part of the **Caucasus Sector** of the cave is best reached from points in Peeping Star Passage about 90m further than Collapse Chamber, just past a widening in the passage where Georgian or Victorian visitors have inscribed "WXY" in large letters high on the passage wall. Crawls to the north-east from here lead to a very complex area of cave with more than three kilometres of passages, all eventually closing down if pursued to the north and the east. Just before the blockage at the far end of Peeping Star Passage, a crawl off to the left (east) eventually reaches the furthest easterly point in the cave, where the tight **Thin Red Line** traverses north-west before becoming too tight. The southern part of the Caucasus Sector is entered from several points on the south side of the last 60m or so of Peeping Star Passage, and comprises generally wide, easily-traversed, mud-floored passages.

The easiest entry point to the **Kirghiz Sector** of the cave is just north-west of Collapse Chamber where a low sandy crawl winds round first to the south-west and then to the north-west. Initially comprising wide and easily traversed passages, the Kirghiz Sector deteriorates to tight rifts to the east, some of which can be connected to Peeping Star Passage between Thomas Shield's Rise and Block Chamber. To its west, the Kirghiz Sector has wider and more pleasant passages, eventually linking, via a high-level key-hole shaped passage, to the first passage on the right of Peeping Star Passage after entering the cave from Thomas Shield's Rise.

The Urals and Siberia Sectors of the cave are both reached initially by the same section of passages. From Thomas Shield's Rise, the first passage to the right (south-west) along Peeping Star Passage leads in 18m to a four-way junction from where the continuing passage is smaller and key-hole shaped. A traverse along this followed by further short crawls can lead to a wide walking-sized passage, **Volga Passage**; this runs parallel to Peeping Star Passage and gives access (in its north-west direction) to the Urals Sector of the cave. (Progress in the opposite direction to the south-east connects back to the Kirghiz Sector, as described above). The more usual route to the Urals and to Siberia is to take the right-hand passage at the four-way junction for a crawl in 15m to the **Iron Curtain**, a squeeze past a vertical thin flake of iron-containing rock. Continued crawls beyond this restriction for a further 35m lead to another four-way junction where progress is possible in all three continuing directions. Straight on and to the left are the routes to the Urals Sector (with connections to Volga Passage otherwise reached by taking the key-hole shaped passage before the Iron Curtain), whereas the passage to the right (north-east) is the usual route to the Siberia Sector.

The passage to the right from the second four-way junction eventually closes down but turns to the left and then to the right at any of the preceding junctions enables one eventually to reach a wide boulder-strewn passage (**Garden Slide Passage**) located almost directly above the mine level leading to Thomas Shield's Rise. This eventually narrows and closes down but two short passages off to the right (east) reach a narrow rift heading south, from which climbs to the left (east) enable one to enter the **Siberia Sector**. This is dominated by a large and dangerous area of roof collapse, **Stalingrad**, in the south, and the **Trans-Siberian Highway** to the east. This relatively short (50m) passage is the most impressive in the cave, although all subsidiary passages to the east and north soon close down in falls or end in blank walls.

The four-way junction beyond (north-west of) the Iron Curtain provides the best route to the **Urals Sector** of the cave. Straight on from this junction, with (after 10m) a scramble to the left and then right, enables a rift passage to be gained. A long trek north-west along this, beyond a several squeezes and boulder restrictions, will provide access to northern edge of the maze. Complicated crawls roughly directed west from here enable the north-west corner of the cave to be reached, an area called **Murmansk**. The passages to the south-east from this far corner of the maze take one to a high rift containing the only known speleothems in the cave, white and yellow flowstone on the west wall of the rift. This area can also be reached from the northern end of Volga Passage by crawling alternately south-west and north-west at various junctions in a vast region of usually low and narrow passages.



## 6. North York Moors

The activities of one Moldywarps member in the explorations by the York and North Yorks Moors Caving Clubs of Excalibur Pot and Jenga Pot near Pickering is perhaps the most exciting episode in the recent past of cave exploration outside the Northern Pennines involving the Moldywarps, and the only other known Moldywarps venture with tape and compass outside the Northern Dales is also in the North Yorks Moors, in Coate Moor Mine. Both are described below, the first including an interesting history of caving in the area.

### Caving in the North York Moors

John Dale writes:

**Exploration History** The earliest cave explorers of the North York Moors left archaeological evidence which has been dated to 2000BC. A late Neolithic beaker found on a ledge in Slip Gill Windypit by John Ford and evidence of later Iron Age use of Antoft's Windypit were confirmed by Hayes *et al.* Kirkdale Cave and its associated pre-glacial animal bone assembly were discovered by quarry workers in 1821, eventually leading to the Rev Buckland's early explorations of this cave and the Windypit that bears his name in Duncombe Park. By the mid 1930s the Yorkshire Ramblers' Club were actively exploring the major windypit systems of Ashberry, Bucklands and Gowerdale. And during 1941 Edward Dowson and Raymond Hayes explored Dowson Pot, Hayes

publishing their unusual find in *British Caver* in 1942. These important early explorations by Hayes inspired ideas regarding the potential for "active" stream systems in the Corallian limestone forming the valley bottoms in the area. During 1950 Paul Fitton and Doreen Mitchell published an early study of their explorations of the Ryedale Windypits, and in 1955 the Ampleforth College Venture Scout Unit made a significant extension to Antoft's Windypit.

The area received some renewed vigour during the 1970s when MSG produced the definitive survey of Ashberry Windypit and Nick Coghlan unearthed the highly unstable Blood Windypit in Shallowdale. The windypits of Duncombe Park were thoroughly explored and high quality surveys produced, again by MSG, in 1981. In the same year, the Cave Diving Group and Scunthorpe Caving Club pushed Bogg Hall Rising on the River Dove through two sumps into open cave passage ending at a deep flooded shaft (The Font).

The more ancient pre-glacial phreatic passages in Kirkdale Cave succumbed to Scarborough Caving Club (SCC) diggers in 1995, producing a sporting extension of 260 metres leading through some decorated passages to a pair of characteristically squalid digs. During 1997 Noddle End Windypit, which was partly explored by Raymond Hayes as far back as 1944, was pushed out to a second entrance in the valley side opposite Peak Scar by a team of SCC and MSG members. Later in 1998 a "dry" caver's entrance to the active Bogg Hall system was engineered by SCC & York Caving Club (YCC), producing arguably one of the area's most sporting caves. Following the discovery of the Bogg Hall system, work focused upstream in the River Dove with Jerry Gibbs' initial diving probes into The Well, where he noted that the initial tight section led into a more spacious river passage (which would have gone further if the diver had not "been overcome with Brown Fear"). The Well and Guinevere's Slit, which both lie between Excalibur Pot and Bogg Hall Rising, are noteworthy for their extreme water flow rates which are reputedly the highest experienced by CDG divers operating in the UK.

Once the possibility for an active stream system in the Corallian limestone was realised, the North York Moors Caving Club (NYMCC) and YCC focused their attentions on Hutton Beck directly below Dowson Pot - cumulating with the discovery of the fine active stream-way of Excalibur Pot during 2007. In 2011, alerted by a farmer whose trailer wheel had opened up a hole in a remote field, Richard Edwards (NYMCC) discovered Mr Sparkles Glory Hole, a new windypit which proved to be one of the most extensive and important in the area. As the NYMCC and YCC continued to develop the Excalibur system, a five year dig at Jenga Pot broke through into significant horizontal development during late 2012.

**Recent activity** MSG has held a particular interest in the North York Moors since the formation of the group. The area has a rich variety of speleological interest focused on the windypits and abandoned “relic” phreatic cave systems. Whinstone, ironstone and jet mines, being largely dry, provide a useful distraction from probing many of the dig-able sinks and resurgences that the area sports. However despite early attempts during the 1970s (at Dowson Pot), the group failed to enter any of the potentially active systems it had postulated as existing, such as those associated with Hutton and Hodge Becks.



*Bogg Hall Rising (one of the drier bits) (JD)*



Over the subsequent decades, MSG's occasional probes at sinks in the North York Moors proved difficult due to the lack of manpower. But as modern digging techniques evolved in the 21<sup>st</sup> century two little known and fledgling caving clubs took an interest in the sinks of Hutton Beck below Dowson Pot. This cumulated in the discovery of Excalibur Pot and the underground course of Hutton Beck during the summer of 2007.

Initially MSG attempted to ignore what was essentially a significant find in its own "back yard" by focusing its efforts on the far superior phreatic mine caves of Swaledale and Arkengarthdale. However during the summer of 2012 on a sunny afternoon, with nothing better to do, a club member (the writer) decided to take a look at the Excalibur Pot area to see what further potential there was. Arriving at Hutton Beck he observed three shady characters operating an electric pump which was extracting Hutton Beck water and pumping this into Dowson Pot. Setting off across the field, smartly dressed as usual, he prompted the three characters into the dropping of various hand tools along with a lot of mumbling and shuffling of feet. The elder and better-spoken of the threesome was dispatched across the field on an intercept course and I was politely greeted as if I was going to a business meeting. Arriving back at the pump, the other two less eloquent characters breathed a visible sigh of relief – as they had originally thought I was some sort of "official".

It turned out that "Operation Dowson Wash" was a North York Moors Caving Club project undertaken by Andy Brennan and "Chalky". The very posh gentleman that these two characters referred to as "Dickwad" appeared to be the NYMCC ringleader. Later that evening, the York Caving Club turned up, and it was pronounced that the Dowson Pot water entered Excalibur Pot at a normally dry inlet – confirming, rather belatedly, Edward Dowson's and Raymond Hayes' 1942 assertion that Dowson Pot would provide access to the underground Hutton Beck.

Later (over beers), having heard of the discovery of MSG Hole, I was informed of the truth of the



matter. The hole had originally opened up beneath a surprised farmer's trailer wheel. After a quick inspection a makeshift fence had been erected and during the night the fence had blown down. During the hours of darkness over 30 sheep had realised that there was a new "pen" in their field and that this was now debouching warm air into the frigid night. One after one they followed each other down the 30 foot shaft, the late comers surviving by bouncing off the deceased.

And so between 2012 and 2015 MSG has been assisting the NYMCC and YCC to further extend the Excalibur system. Jenga Pot (above, JD photo) was the initial focus and the two groups kindly provided a brazier at the entrance to keep the aged MSG contingent warm while the lesser groups dug an extremely muddy bedding sixty feet below ground. A bicycle-based hauling system was also built

to allow MSG to undertake some light exercise during long waits for buckets of slop to arrive at the bottom of the entrance shaft.

During this time I was introduced to someone called “The Farrier” who seemed to have a penchant for blowing things up with Hilti caps and a particularly severe case of Turrets’ Syndrome. I was dumbfounded at the 2014 Hidden Earth conference to find the last slide of a particularly interesting digging lecture promoting “The Farrier” and his bicycle contraption as “*The Future of Digging*”. Clearly the esteemed lecturer had never met the man, whose main responsibility is for NYMCC’s “landowner relations” due to his intimate knowledge of the area’s farmers’ wives and the local female horse riding fraternity.

During the exploration of Jenga Pot a particularly low muddy sump attracted the attention of Chalky, whose main function in the NYMCC appeared to be in scattering digging paraphernalia in what was essentially the opposite role to a womble. It was here I became acquainted with a couple of unusual character traits of the NYMCC, whose surveys always appeared to be done on the back of beer mats actually ahead of any discoveries and were supported by wild theoretical arguments between “Dickwad” and “Chalky” as to what might be found beyond whatever filthy dig they were currently engaged in. During one particularly interesting debate they decided that the mud sump in Jenga Pot would lead to a large chamber containing a Dinosaur penis bone and when this was eventually entered that they would be able to entice the delightful Professor Alice Roberts into its environs.

#### *Streamway in Excalibur Pot (JD)*

This thought catalysed an attempt to dive the mud sump and two NYMCC divers jostled for position. I have always wanted to do some cave diving and watched with interest as 1970s vintage regulators were dug out of attics and plastic toilet plumbing was cut up for “line belays”. A last minute omission of line and reel was corrected by a swift visit to a hardware store to purchase some garden twine, which I was told would be “hand held” due to the lack of a reel of some description. On the great day (and unsurprisingly), one diver found himself suffering from sleeping bag lassitude, thereby leaving the remaining diver to entertain the large crowd that had assembled to carry the antique equipment to the sump.

Unable to come up with a reasonable excuse, the aged diver entered the mud sump feet first. Said diver tied the garden twine off at base and then forgot to take it with him just as the ancient tie wraps holding one of the dive lights popped, plunging him into darkness. This was accompanied by lots of bubbles from leaks in the





perished hoses and a partly passing regulator. The state of the art toilet plumbing line belays remained at base because the diver had quickly ascertained that he would not be able to see anything to wedge them into. After probing two body lengths into the sump “Dickwad” surfaced and on checking “The Farrier’s” waterproof camera the visibility was pronounced as “zero”. This fact was fairly obvious to the MSG contingent as it was actually possible to trowel the slurry out of the sump because there was so little water in it.

Again the thought of enticing Dr Alice into the as yet undiscovered Dinosaur Penis Bone Chamber prompted a major NYMCC / YCC effort into draining the sump over the summer. An initial effort involved the use of a hand pump installed in Chertnobl chamber which was subsequently named “The Wank Cabin”. As the combined flagillative efforts of the two clubs failed to drain the sump, a submersible electric slurry pump was connected to 200m of cable and hooked up to a petrol generator at the entrance. Individuals drew lots as to who would handle the pump when the electricity started to flow.

Over a few trips a small airspace appeared, MSG arriving (late) to grab the glory by forging into the unknown along one of the filthiest low airspace canals ever encountered underground. A duck at the end led up a slope into a magnificent chamber which unfortunately did not contain a Dinosaur penis bone but did contain another squalid low airspace canal leading to sump 2. Such is the interest in this area that the pump is still in place in the now flooded sump 1 and nobody has plucked up the courage to tell the pump’s owner – who is a very large “body builder”. If he asks for it back someone is going to have to find another diver or a very long “Hook a Duck” tool.



During the long hot summer of 2014 and being repulsed by sumps, the clubs sought a surface dig and “The Farrier” found one by wiggling a crowbar down a joint in the beck, thus creating a splendid mini whirlpool. Six months later this was thirty feet deep and had entered the aptly named “Death Rift” before the YCC had found out – such is the inter club rivalry. A few more months later it was sixty feet deep and had breached a particularly fine “Main Chamber” which Chalky promptly filled with a ton bag of spoil to the delight of the NYMCC and despair of the YCC.

#### *Death Rift in Secret Dig (JD)*

“Secret Dig”, as it has become known, subsequently entered the further reaches of Excalibur and allowed prolonged digging in the potential Jenga / Excalibur connection area. In a profound coincidence, the crucial

connection was eventually through a mud sump similar to that already found in Jenga. The problem

was that the now defunct pump was underwater just short of Dinosaur Penis Bone Chamber. Attempts were made to drain the new sump (the Sewerz Canal) using two wet-suited bodies writhing in unison aided with siphoning by sucking through a garden hose. Unfortunately no ladies could be tempted into the activity, such was the squalor. In one amusing incident a NYMCC member was at the far end of the low airspace slurry canal when the YCC blew down the hose instead of sucking - prompting a rapid feet first reversal of 50 feet of low airspace passage in a blind panic as massive air bubbles rose at the sumped end of the canal.

The sump was eventually broken and a fine block-fall chamber was discovered. Later the connection between Jenga and Excalibur was made by digging into this area (Joey's extensions) from Jenga's right hand branch of the "Sandpit" passage. The latter eventually became a misnomer since Chalky turned this into yet another another muddy canal in his continued attempts to "enlarge it".

In the three years of MSG's involvement with the NYMCC and YCC many new friends have been made, much fun had, and a fine 2.5 km long active system has been discovered and explored in the Jurassic Corallian Limestone of the North York Moors.

The healthy rivalry between the NYMCC and YCC continues. At the clubs' joint Christmas 2015 dinner they actually held separate AGMs across the room from each other, and then attempted a series of cross-club personnel auctions which was akin to people trafficking. MSG trumped both groups by making Laura Bennett (YCC) an honorary member and, in doing so, secured the services of a very hard caver and a potential future source of young Moldywarps with which to further the cause.

*Coate Moor Mine (JD photos)*

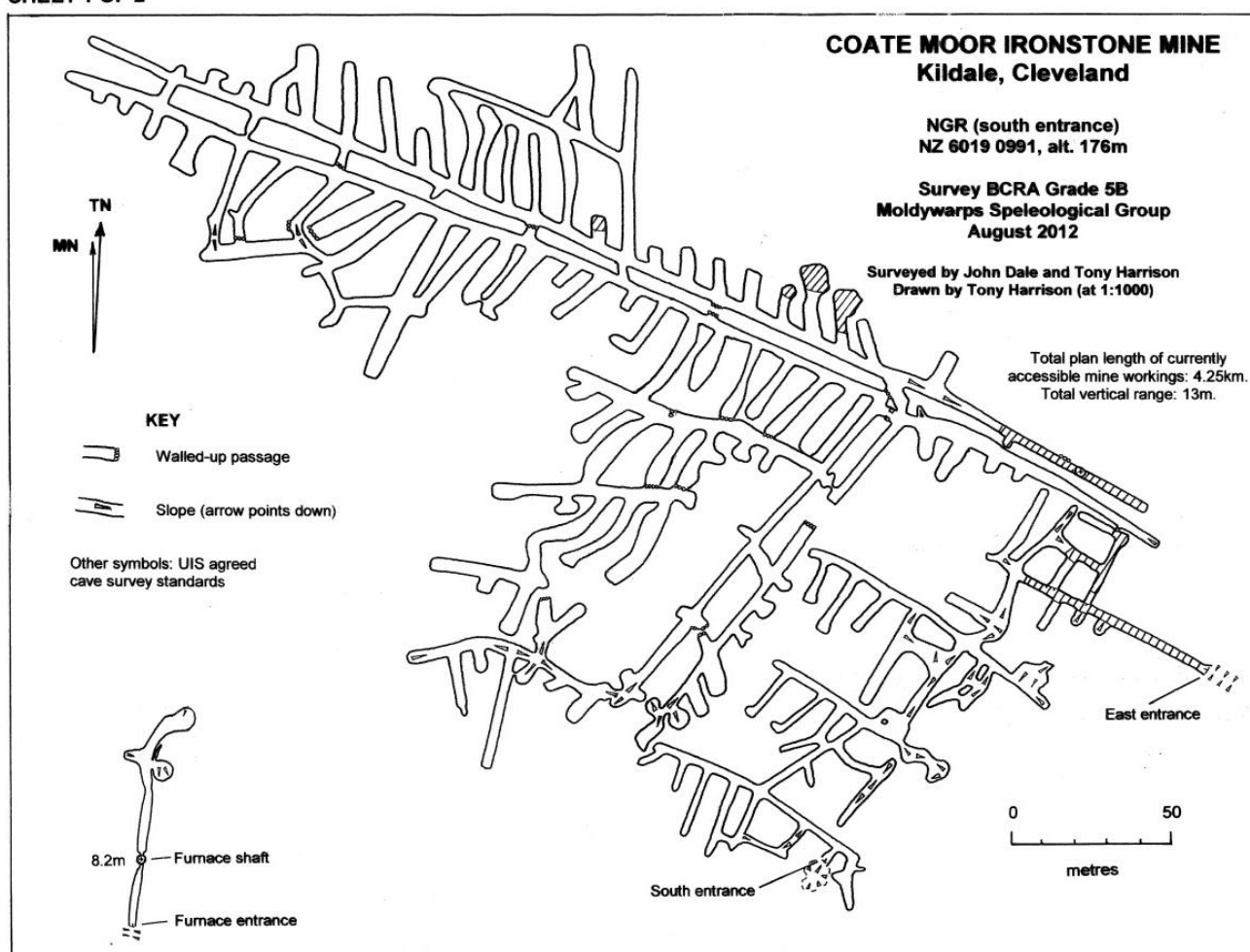


## Coate Moor Mine

Tony Harrison writes:

Coate Moor Ironstone Mine is near Kildale in the North Yorks Moors and was worked from probably the mid-1800s to 1876. In the mid-2000s a group of mine enthusiasts reopened various areas of the mine which then appeared in need of an accurate survey. Tony Harrison decided to tackle this over a number of months in 2012, usually on a solo basis but occasionally accompanied by John Dale. The mine differs significantly from the lead mines more usually explored by Moldywarpers, comprising wide, rubble-strewn passages separated from nearby passages by thin walls hopefully supporting the roof. For the record, the completed survey is reproduced below, and comparison with a working mine survey dated 1876, also reproduced below, shows that much of the original mine still remains hidden behind roof falls.

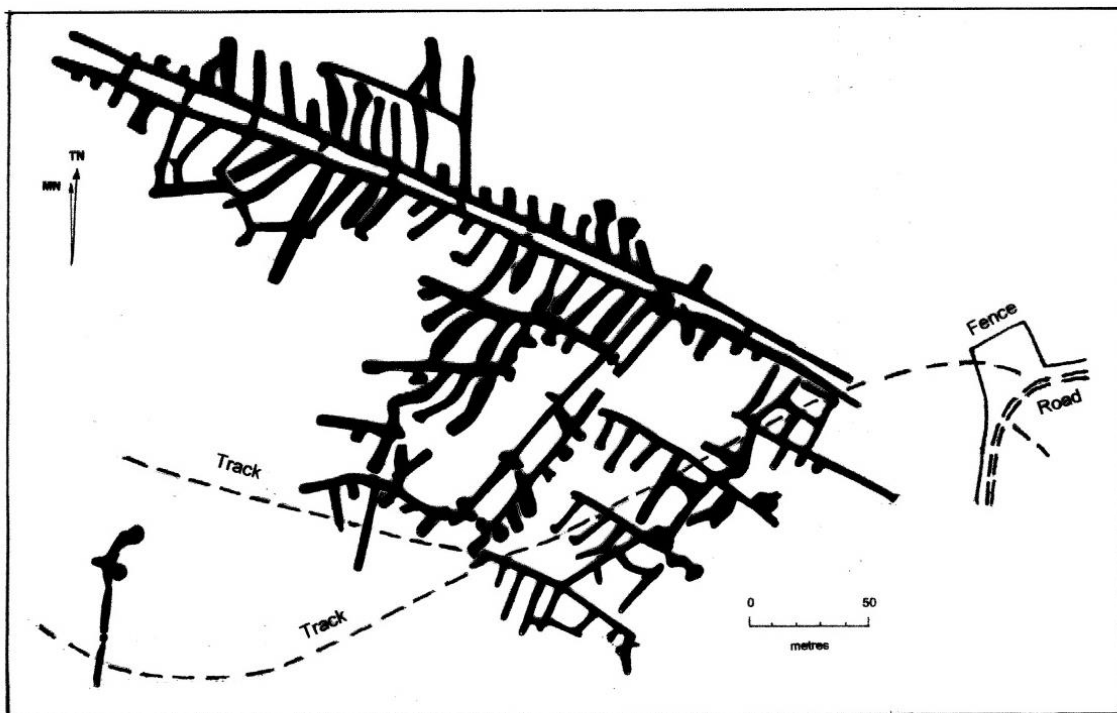
**SHEET 1 OF 2**



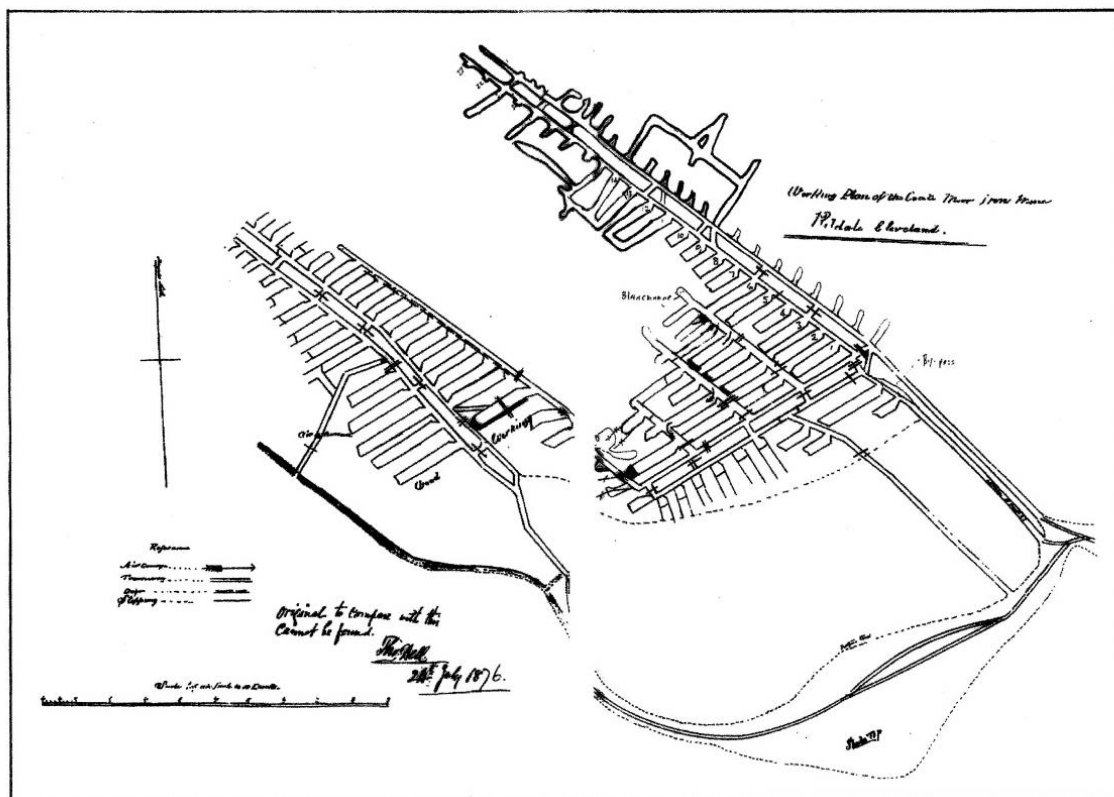


SHEET 2 OF 2 COATE MOOR IRONSTONE MINE

MINE WORKINGS IN RELATION TO SURFACE FEATURES



MINERS' PLAN DATED 1876



## 7. Bits and Pieces

### Hard Level

Hard Level Cave in Swaledale (NGR NY969007), close to Hard Level Mine on the north side of Old Gang Beck, is well known to Moldywarpers, having been extended by the group several times in the late 1960s (see MSG3). It is about 220m long and in the Underset Limestone near the foot of the gill. The nearby mine is a favourite “mine through trip” that goes from the Hard Level portal through to, firstly, Old Rake, then North Rake and Black Cross-Cut, and finally (damply) out of Brandy Bottle Incline. Chris Curry, one of our new, young (and hence fit) Moldywarpers, recently had a look at the high level mine workings on North Rake Vein. These are reached by walking and wading north and north-west along Hard Level for a kilometre or so to Old Level Whim; turning west there along Old Rake enables the North Rake Cross-Cut to be reached in a further 270m. A short distance north from here is North Rake Whim where Chris has found some new natural cave. This extends south, above the North Rake Cross-Cut, and is probably in the Great Limestone. Chris, supported by Pete Roe, has found about 50m of cave, comprising a small stream-way interspersed with small mud-floored chambers. At the time of writing the system has not yet been surveyed.

### Harnisha Burn East Sink

This sink in Weardale (NY986346) was briefly chronicled in MSG 12 (p.48) when it was a mere 8m deep and 12 m long and comprised a squeeze from the surface stream bed through to a 5m pitch (ladder useful). Recently Ben Coulthard has made some progress; he writes “at bottom of pitch crawling size passage extends south east for approximately 20 metres eventually rising to an impenetrably narrow rift (more cave is visible but a lot of work would be necessary to reach it). Approximately 10 metres along the crawl is low bedding heading east and zig-zagging south and then east again for approximately 10 metres before becoming too low and tight, could possibly be extended by digging out the gravel floor.”

### Swindale Pots

Ben and friends have also been busy at Swindale Pots north of Brough (NY823172). He relates: “On 21/02/2015 I and Paul Rodrigues of the Durham Cave and Mine Club were having a look at Swindale Pots. In the vicinity of West Sink and Blackbone Pot we noticed that there were spaces amongst the boulder ruckle that it may be possible to squeeze down into, this may be the chamber beneath the boulders of the shake floor referred to in Northern Caves 3. We moved a couple of rocks around and I squeezed down into a small dirt floored chamber, please note the cave is really just a space amongst large limestone boulders and as such may be very unstable. Whilst looking for a way on I noticed a large, dirt covered, canid skull amongst the boulders near the entrance. As I have always been interested in natural history it immediately sprang to mind that a team from York Museum, led by Colin Simms, excavated Moking Hurth Cave and associated pot holes between 1967 and 1971 unearthing wolf, bear and lynx remains (*Cave Research at Teesdale Cave 1878 to 1971, Post Glacial Fauna from Upper Teesdale* by Colin Simms, published by the Yorkshire Philosophical Society in 1974), and that it was highly possible that this was also a wolf. Further evidence was required so squeezed further into the chamber where fallen boulders almost closed it up at the end, through a hole between rocks another large canid skull of similar proportions and shape was visible along with an associated skeleton. Unfortunately however the hole was nowhere near large enough to get through and as neither of us had any tools there was no way to reach the remains.

The next weekend saw me back on the hillside above Brough, this time with Chris Twigg of the North Yorks Moors Caving Club and John Dale of MSG. Accessing the second chamber was surprisingly easy and we bagged the remains after photographing everything in situ. The chambers were thoroughly explored but were not extensive.

After cleaning the skulls I sent pictures to a number of archaeologists and zoo archaeologists who were all very positive that these were wolves. I eventually met A.M.Ayers who is currently studying for a PhD in carnivore taxonomy at Durham University; he has excavated wolf remains before and confirmed that the skulls are indeed wolves from the Holocene period, probably a young adult male and female.

A few weeks later Alec accompanied me back to the cave and we dug through the dirt floor; a large number of bones were found, from rabbit, sheep, deer and even a small cow. It would appear that the chambers beneath the boulder ruckle were at some point a carnivore caching site although the reason the carnivores themselves were there remained a mystery. Another correspondent, Tom Lord (who co-wrote the archaeology section in the recently published Vol. 1 of *Caves and Karst of the Yorkshire Dales*) emailed saying that as both skulls had their vaults smashed it was possible that the shake hole had been a lair site and was then utilised as a wolf trap in medieval times. There is historical proof that this was done with shake holes on the escarpment above Langdon Neck in Teesdale. Unfortunately we have no definitive cause of death.”



*Wolf skull from Swindale Pots (JD)*

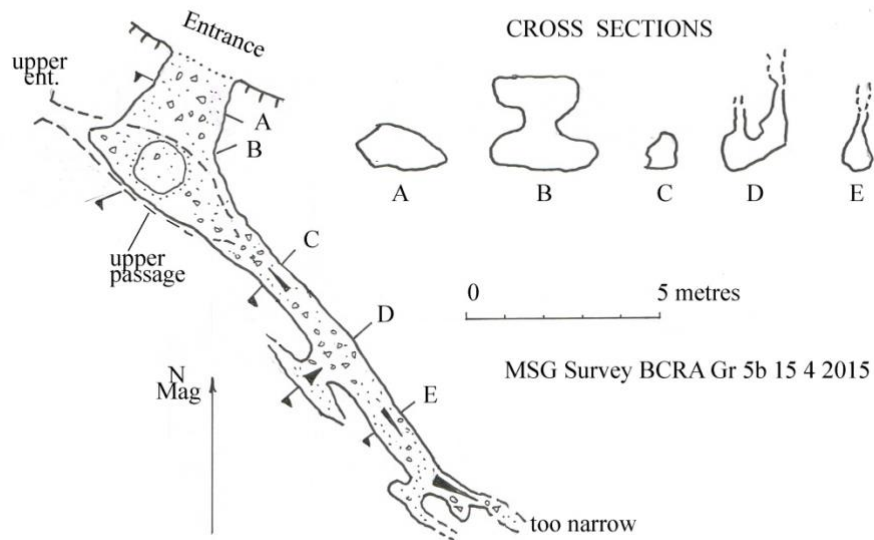


## Hairyman's Hole

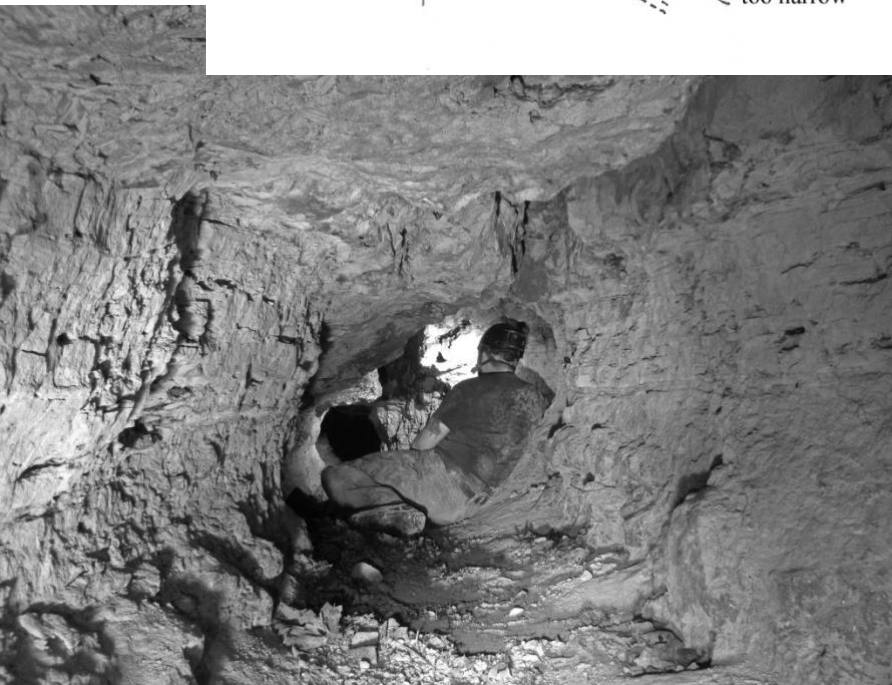
A minor Magnesian Limestone delicacy, overlooked in previous MSG forays into East Durham back in the days of preparing "Northern Caves", but checked out by Ben Coulthard, with PFR drafted in to survey; there were rumours it was a hundred metres long, but it wasn't... about 15 m in fact. The hairy man or men, were apparently bearded Roman Catholic priests secreted here in the days that the authorities did not feel very excumenical.

### HAIRYMAN'S HOLE

Hesleden Dene, Co Durham NGR NZ 443378



PFR 2015



## 8. Fairy Holes Regained

At around the time of the formation of the Moldywarps in 1966, Fairy Holes in Weardale, until recently the longest cave in the Northern Dales, became inaccessible, and there ensued a near-half-century of frustration during which the cave was partly destroyed by quarrying, and promises of its re-opening to cavers endlessly deferred. However in the end, the authorities yielded, and the cave is once more visitable, under strict access controls. Graham Stevens and Ian Cummins tell the story, John Dale takes some photographs, and Pete Ryder relates his very-belated first trip into the cave....

### Fairy Holes: History to May 2015

Ian Cummins (WRPC) and Graham Stevens (MSG)

Fairy Holes is one of the wonders of the Northern Pennines and despite suffering at the hands of extensive quarrying operations, enough still remains to constitute one of the major stream caves of England. One can only read historical accounts of exploration with a mixture of admiration at the fortitude of cavers back in the 1950s with their modest equipment, and sadness at the destruction of approximately 800m of cave from the original resurgence to the final limit of the quarry face. Although the loss of so much cave passage is to be lamented, it is fortunate that the cave has not been totally destroyed, like so many in Weardale. A 19<sup>th</sup> century record of the history and features of Weardale by W.M. Egglestone states that “Weardale is rich in caves”. Were it but so now, with the Heatheryburn Cave at Stanhope, which yielded many artefacts in 1862, totally quarried away, together with Bolihope (sic) Craggs Cave and others, during the time when Weardale was a rich source of limestone, lead and iron.

We cannot be sure who first ventured into the cave, or for what distance, although inscriptions (now lost due to quarrying) approximately 450m from the original entrance, indicated that curious miners were exploring in the middle of the 19<sup>th</sup> century. An apocryphal legend from this time (told by Maling and Myers -see below - and R Hylton in *Northern Pennine Club (NPC) Journal*, Vol. 2(1), 1957\*) is that two miners carrying a week’s supply of food and candles entered the cave at Ludwellburnhead and reappeared at Ash Cleugh on Westernhope Moor, over two miles away, some eight days later down to their last jam sandwich with only half an inch of candle left between them! One can say more definitively that the cave was re-discovered by local geologist and explorer D.H. Maling in early 1953 (around the time of the Coronation!) and these events are recorded in detail (*Fell & Rock Climbing Club Journal*, No. 49 Vol. XVII (No II), 148-155, 1955\*), where the author appears to be more impressed by the presence of blind trout than a large cave system. Indeed, this aroused the interest of the British Museum, from where a zoologist was dispatched to record the sighting. Remarkably a trout was recently sighted and photographed in a pool close to the entrance (A Hinde, *pers. comm.*), suggesting that the cave is an adequate ecosystem for the fish, or that they have some unknown connection to surface inlets.

William Morley Egglestone (1838 – 1921), who was a prodigious local historian and author, born in St. John’s Chapel, Weardale, described exploration of, in the colloquial of the time, ‘The Kittly Huels O’ Whessnup’, detailing the exploration of Westernhope Cave by 8 men or more some years previously, in his remarkable record of the dale (*Stanhope and its neighbourhood: an historical and descriptive sketch of Stanhope-in-Weardale, County of Durham*, pp124 -126, by W. Morley Egglestone, 1882). After apparently spending 6 hours in the cave, the explorers emerged to describe stalagmites up to 8-feet, some forming columns, with deep pools bearing blocks that had fallen from

the roof, walls resembling 'Black Japan' work, calcareous intrusions in the wall and a 10-foot cascade. This sounds remarkably like the description of Fairy Holes pre-quarrying, so it seems likely that the boulder-choked resurgence found subsequently must have been open at that time. It is likely that the grey psilomelane (hard black manganese oxide) mineral deposits present throughout much of Fairy Holes accounts for the 'Black Japan' coating analogy. W. Morley Egglestone also displayed more than a cursory knowledge of cave formation, describing erosion of joints in the limestone by the action of carbonic acid and his comments regarding the loss of Heatheryburn Cave indicate that he at least valued the preservation of caves.

Derrick Maling and John (Jack) Newrick, then President of the now defunct Durham Cave Club (DCC), based at Ireshopeburn, found the rising and the main sinks in Blaeberry Burn two miles away. The resurgence was blocked with boulders but they managed to enlarge a fissure in the outcrop above this to gain entrance into a chamber. Newrick, with only a candle for illumination, gained the streamway and waded upstream to be met by a waterfall. A week later the entrance was enlarged and exploration continued, with one of the aforementioned inscriptions reading "*June 8, 1844, J. D. Muschamp*", being discovered. This is recorded as '*J.D Muschamp 3rd June, 1844 Geo Race and Jacob Walton*' by R. Hylton in NPC Red Journal Vol 2(3) of 1963\*. The explorers deduced that due to the pristine nature of the passage beyond, they were the first to progress thus far. Over the winter of 1953 and the spring of 1954 the cave was extended to about 1200m and with interest from cavers beyond Weardale being aroused, the present upstream limit was reached later that year, with a 3000m system recorded. This was a remarkable achievement by what one imagines was a small group of individuals engaging in activity that was probably deemed to be even more obscure than perceived today.

Surveying was carried out in April 1954 by NPC members Jack Myers and Brian Heys with occasional helpers including Jack Newrick. A small section of the survey is in a paper by Myers ('*Cavern Formation in the Northern Pennines*' *Cave Research Group Transactions Vol 4(1) 1955, 31-49*). Colin Armstrong led the DCC surveying team that checked, revised and added to the NPC survey during 1956 to 1963, up to the final sump (excluding the 'Myers Passage' branch from Sarcophagus Chamber).

Writings at the time declared a trip into Fairy Holes to be second in severity only to Mossdale Caverns, then only explored to its limits by the remarkable Bob Leakey, and a number of articles in the journals of Yorkshire caving clubs describe the misery of negotiating its wet passages in the equipment of the day. Journals of the Craven Pothole Club (CPC Journal Vol. 2 No. 2 1956, 98-99) and Yorkshire Ramblers Club (Jones, D.M.H., 1957. Fairy Hole Cave, Weardale. *YRC Journal*, Vol. 8(28), 118-126. Leeds: YRC\*) document the lower, now lost, sections of the cave in some detail, describing a deep pool above the fall near the entrance and the Miners' or Farewell Chamber with its inscriptions mentioned above and the relatively spacious, at 10m diameter, Boulder Chamber 200m beyond. These features are now quarried away and the current entrance to the cave lies upstream. Jones describes the cave in some detail, recording efforts at the time to preserve 'Coral Gallery' by blocking its access, as well as documenting a visit by the French caver, Corbel, reproduced below.

Though there are several routes out of the Vein chamber only one is advisable. An upper passageway leads to the second Coral Gallery — now out of bounds in order to preserve these fine formations. The first Coral Gallery lies further downstream, a little way before Ashworth's swim. In spite of frequent visits to the Vein chamber, I still find myself about to crawl along the wrong passage or to descend the wrong slope. It is quite surprising how often one manages to lose one's way in a cave where by and large there is only one route. For instance the route back through the Duck is not

the apex of the pool of water but slightly back along the right hand wall. One duck is bad enough; to fumble around trying several in succession is no fun. And so, by trial and perhaps error, you reach the water again and continue wading upstream. After a while, a choice of two narrow fissures presents itself — both mercifully widened by the passage of many bodies. Then more wading, past "Corbel's Waders Pool" — once deep, now shallower; so called because the French speleologist Jean Corbel came to grief in enormous waders in this pool. These superb objects had kept out water in many continental caves; in Fairy Hole they met their Waterloo!

It is apparent from these records that the DCC were justifiably proud and a little possessive of their find, with Coe (CPC Journal Vol. 2 No 5 1959, 316-317), noting that their DCC guide suggested that waterproof kit was not required and should be left at the entrance since he had none! Indeed, such was the difficulty in negotiating the streamway in pre-wetsuit days, that certain features were named, for example "Corbel's Pool" and "Ashworth's Swim", with the misery endured by these early explorers clearly evident in their records. On a personal visit (by GS and friend) in May 1962 the unavoidable pools were found to be armpit deep (1.4m) on our 'goon suits' as the ex-RAF Exposure Suits were known. Wearing these it was possible to stay in the streamway to avoid excessive roof climbs by using low airspace ducks under the obstructions! In a 7½ hour trip we reached the confusing area some 2700m in, just before "Sarcophagus Chamber".

Further exploration is recorded in subsequent CPC journals (CPC Journal Vol. 2 No 5 1959, 316-317), whereby the complex nature of the passages beyond 'The Choir' is described. The possibility of making a circular detour from this chamber via 'The Vestry' is related in a manner familiar to the author (IC)! Judson (CPC Journal, Vol. 3, No. 3, 1963, 148-9) described in detail the correct route to find 'Sarcophagus Chamber' and the passages beyond. The Northern Dales appear to have been a regular haunt for Yorkshire clubs in the early 1960s. The White Rose Pothole Club Newsletter No 32, June 1963 describes a visit during a Whitsuntide Camp that coincided with meets of CPC and the Red Rose Pothole Club. Further CPC journals record the onset of quarrying operations and loss of access to the cave.

The cave was designated as a Site of Special Scientific Importance (SSSI) by the Nature Conservancy Council (NCC, predecessor of English Nature and now Natural England) in 1961, but in keeping with the practice at the time, only the entrance was protected. When planning consent for quarrying was sought by APCM, verbal assurances were given at the public enquiry that access to the cave would be maintained and the cave would be undamaged by quarrying! On this basis, NCC withdrew its objection and consent was granted 'in the national interest' as a shortage of cement was delaying the motorway construction programme. When quarrying began in early 1964, the cave entrance was gated (with a permit system for the key administered by DCC) and access was possible for a year or so. The building of the Eastgate Cement Works by Blue Circle took place in 1964.

Graham Wright recorded a trip into the system at this time (A Last Look at Ludwell Fairy Holes, CPC Journal, Vol. 3, No. 4, 1964, 185-6) and described the already massive scale of quarrying operations. However, by whatever means, cavers made trips into the system on both days of their weekend visit, reportedly photographing features of interest and reaching the upstream sump. The title of this article suggests a certain resignation to the fate of the cave.

Graffiti in the form of names and dates on the muddy wall of Vein Chamber ('K Cowle, E Acland, D Holden BSc, '64 and '65', members of Kendal Cave Club), indicate that other cavers were also active in the early to mid '60s. Later records by John Batty, recording the CPC Weardale Meet of Easter

1966 (*CPC Journal*, Vol. 3, No. 6, 1966, 293), noted that access to the cave at this time was impossible, although the cave passages had not yet apparently been destroyed. Quarrying operations were described as being substantial and the cave entrance gated, with warning notices displayed.

When the entrance passages became too unstable, the company denied access. Discussions started on possible alternative entrances and the company agreed to give 'mechanical assistance'. One scheme was to dig out one of the sinks in the 'Killie Holes' (shakeholes some 300m from the line of the cave) and a '3-legs' hoist was erected where stones fell 12m down to water, but cavers' interest in digging waned. A better idea was to put a borehole in a sink in one of the shakeholes close to the 'Showerbath' 100m before 'Boulder Chamber' which would give access for 5 - 6 years before the quarrying encroached. Others favoured the Killie Holes as these were outside the consented area. The company challenged the cavers to make up their minds as they only had one chance. The cavers then had doubts and considered a gravimetric survey to confirm the preferred location, but in the event, apathy prevailed and nothing happened.

During attempts in 1969 by members of the Durham Cave Rescue Organisation to re-open access negotiations, the company raised concerns of their Legal Department over hazards of access. No progress was made. In 1973, the Council of Northern Caving Clubs (CNCC) wanted to try again and the NCC was approached. They confirmed that the cave remnant outside the planning consent was not protected, but they were interested in doing this. Their regional officer Tim Bines played the leading role and a site meeting was held in Aug 1974.

At the time of the meeting, the original entrance was still intact in an isolated knoll about 30m long, possibly to comply with the promise not to damage the SSSI! When the passage behind the knoll had been cut, the company had reported to the NCC that they had breached the roof of the SSSI. The company claimed not to have seen any accessible cave passages as they developed the quarry, since the blasting debris fills any fissures, but they deduced the position of the cave from various resurgences of water into the quarry, though these did not seem to correspond to the survey. They also said no cavities were met when the 'Showerbath' shakehole was removed! They agreed to an attempt to gain short-term access for a new survey to define the course of the cave and any side passages and identify possible future access locations. They would excavate silt and debris from the fissure around the resurgence to lower the water level below the cave roof for a temporary entrance to confirm the actual presence and state of the cave. Since the Water Authority would not allow any extra solids to be discharged, the possibility of the silt removal overwhelming the settling lagoons and breaching the consents for discharge to the river led to postponement until the following spring for cleaning out the lagoons. However the Legal Department required indemnity from CNCC and the legalities took until June 1975.

Finally, the water level was lowered and in July 1975 the cave was entered by three MSG members via a low airspace restricted duck and about 300m of passage explored. The first 8m had some loose rock but thereafter the passage was unaffected. The duck was more awkward to exit, and it was agreed that this was not a suitable temporary entrance and proposals for improvement were presented. However, a week later, the company declared that the entry had been foolhardy, in breach of the indemnity, and CNCC members were now banned from the site. To resolve the issue, Tim Bines proposed finding a 'specialist' to assess how to make the entrance safe and the company agreed. The search led to Gordon Batty of NPC, but he was unable to agree any mutually convenient date for a visit so Dave Carlisle (a mining engineer with NYCC Planning Department and well known for accessing old mines) was nominated. After a site visit in Feb 1976 when the passage was found to be

under water again, Dave made two proposals of which the cheaper option of lowering the water level and installing a concrete pipe through the shattered parts of the entrance was adopted. In May 1976, Dave and Tim Bines supervised the clearance of loose boulders and insertion of a pipe. A picture of this entrance appeared in the County Durham Geo-diversity Audit 2004\*.

Subsequent visits were made 'under the guidance of Dave Carlisle' by Martin Davies (of Yorkshire Underground Research Team - YURT) and Dave and Alan Brook (of University of Leeds Speleological Association - ULSA) who carried out a new survey of the cave. An outline sketch map from this survey appeared in *Karst & Caves of Great Britain* (1997), A.C. Waltham *et al.*, JNCC). Access was once again withdrawn as the quarry re-commenced development in the area of the cave. In 1991, the NCC re-notified the SSSI to include all of the remaining cave and remove the area of the destroyed cave from the designation. However between 1988 and 2002 a further 80m of passage were quarried away right up to the boundary of the original consent.

The quarry company APCM (renamed Blue Circle Industries in 1978) was taken over by Lafarge in 2001 after a two-year battle. Quarrying and cement production continued until 2002, when Lafarge took the decision to close it down. The site was declared to be not for sale to continue cement production and the factory and chimney were finally demolished in 2005. The Weardale rail line was at one time the major means of transport of cement from the works, but this was transferred to road haulage in 1993, although the Weardale Railway Trust currently maintains some of the line.

Plans for redevelopment of the site as an Eco-village with geothermal energy were mooted and given outline planning permission in 2009, subject to access to the cave being maintained. In its Environment Report for 2010, Lafarge says it carried out some work on the SSSI in 2009 to make the cave entrance safe and agree access rights with Natural England and CNCC. This resulted in the SSSI classification improving from 'partly destroyed' to 'favourable'. The project involved a £1.5m investment by the regional development agency 'One North East' but when it withdrew its support in 2011; the project was shelved, though Lafarge is continuing to seek geothermal energy developments on its land. The current access situation is that there is no public access to the quarry site, but the recent access agreements between Natural England and Lafarge allow one permit per month for caving under the access system managed by the Council of Northern Caving Clubs (CNCC). The story of these latest negotiations and the new access arrangements which were spearheaded by Andrew Hinde of Natural England are described in their newsletter *Earth Heritage*, No. 41, Spring 2014, 15-16\*, and by the CNCC cavers involved in *Descent*, No. 232, June/July 2013, 28-29.

Landscaping of the site has left a huge spoil mound which hides much of the quarry from view and although there is little vegetation on the site, several large ponds of water support a range of birds. Wide tarmac highways (of a quality that would shame many public roads in current use) exist as testament to the scale of the works and conveyors down the hillside and across the Wear to the site of the former factory still stand. Despite the amount of exposed rock, little of it would be of interest to the climber and for whatever reason, the casual explorer, the curious caver, the crystal hunter and others are all discouraged from the site, which will hopefully gain a green cloak in the future to remain wild.

There is no doubt that Eastgate Works contributed hugely to the economy of the region and with demand for minerals always likely to increase, it is possible that quarry and mine spoil will be seen as a resource in the future, although the status of Fairy Holes as a SSSI should result in its preservation.



Curiously, in 2015 permission was given by Durham County Council to allow the building of a film set for the TV series Beowulf in the quarry, with filming to occur throughout 2015 and perhaps for years beyond (<http://www.bbc.co.uk/news/uk-england-tees-30718105>), and in March 2015 ITV created a film set of over twenty 'Dark Ages' buildings in the quarry under a five-year lease. A planning document pertaining to this development is available (<http://democracy.durham.gov.uk/documents/s47254/Eastgate.pdf>), surprisingly concluding that the development would not affect nesting birds in the quarry. The same month, the Cement Works and quarry (with the existing planning consent and filming lease) were to be sold at auction, but were withdrawn when talks with a private buyer commenced.

\* indicates references available on-line.

Thanks to Paul Swire and Steve Warren for some references.

### **Fairy Holes - At Last! PFR Cavelog; Saturday 14<sup>th</sup> September 2014**

A note of introduction. Fairy Holes – or as it was once known, the Kiddley Holes of Westernhope – is the longest cave in Weardale, and one of the longest in the Northern Pennines. Entered at Fall Head, where a major stream resurged on the south side of the valley a little above Eastgate, the first quarter mile was explored as long ago as the 1840s, but the cave was explored to its limit, around two and a half miles in, in the 1950s by the Durham Cave Club and Northern Pennine Club, an epic task in pre-wetsuit days. Then came the Quarry, in the 1960s, just when I was starting caving. Even then the cave was realised to be important, and scheduled as a Site of Special Scientific Interest, but the quarry company cynically found a loophole in the law which allowed only the cave entrance to be scheduled – so they retained the entrance in an upstanding knoll of limestone, and quarried away almost half a mile of cave beyond that. It had undertaken to reopen the remaining cave to cavers when quarrying ceased, but this, as usual, when minority interests come up against big commercial concerns, was a piecrust promise. The quarry reached its limit about thirty years ago, but only now has the cave been reopened. However, from this summer, Fairy Holes is once more open to properly-booked visits through the Council of Northern Caving Clubs.

One is allowed to drive half way up the quarry track from the valley bottom, but then there is a locked gate and one has to walk up the track, past the knoll with the original entrance, and then through the moonscape of the immense quarry. The present entrance to Fairy Hole is on a ledge behind a big pool, not from the base of the limestone but about a third of the way up its outcrop. The quarry has dug deep, so that the towering wall above exposes not only the limestone but 50m or more of the varied overlying beds. The stream now emerges from a metre-diameter concrete pipe fitted with a heavy iron gate (dated '09'), with a padlock that required the first of the two keys we had been sent; the second was for another gate a few metres into the pipe; another short grovel in the water and the pipe debouched into a lofty and shattered boulder chamber, but a short crawl to the right gained firmer ground.

Fairy Holes is basically one upstream passage, a very long one. The great majority is easy walking – or more usually wading – in an attractive scalloped passage with lots of ledges and hardened mud formations, stepping right and left on cross joints. Really, this is a typical Weardale stream passage, very like that Sowan Burn, and that seen briefly in Lynkirk; the difference is that in this case it seemingly goes on for ever. You have got to be a bit careful underfoot; the stream is sometimes in a narrow slot (so you walk along the ledges on either side) but sometimes the ledges are just

underwater, and on a lot of corners they give out and there are pools up to waist deep; the deeper parts usually have a firm sandy floor. Periodically there are obstacles where collapse has taken place, again usually on corners, usually easy scrambles up and down over boulders, with a few hanging nasties you don't want to stay too long under. A hundred metres or so in there is an obvious side passage on the right, over a silt bank (apparently it is c. 30m long) but there are a lot of apparent branches full-to-the-roof with sandy deposits. There is also apparently a high-level route 10m or so above the streamway, called Coral Gallery – very like the Spar Shop Series in Cliff Force Cave – with occasional points of access.

Eventually, after an hour or so, and around a thousand metres, we came to a collapse on an altogether larger scale, and a chamber entirely in boulder ruckle. A narrow bouldery chimney led up into a higher-level cavern at the level of Coral Gallery, Vein Chamber, with some stalactites. At this point we divided; Tony and PFR headed back, whilst John Dale and Tim Elliott went on as far as The Choir – very similar going for about as far again. Tony Harrison and PFR were underground about two and three quarter hours, John and Tim about five. All adjudged it an excellent trip, and quite a lot easier than anticipated; John took quite a lot of photographs. The official paperwork recommends wetsuits for the trip, but only John had one – the others found their furries perfectly adequate, although this might not be the case in the winter with the stream a few degrees colder. Froth clinging to the walls showed that the cave had flooded quite badly within the last week or two (the trip was originally scheduled for last Saturday but the quarry rang to say the cave was impassable) so one needs to be careful, although the real hazard is probably loose rock in the periodic collapses.

*Fairy Hole: The Choir (JD)*





## 9. Speleology and Spirituality



Pete Ryder writes (and John Longstaff/Cluff cartoons):

Speleology and Spirituality are not words normally coupled together; as even *Google* knows nothing of the combination, perhaps we ought to start by defining terms. Speleology is the study of caves – basically, a posh word for caving and/or potholing. Spirituality is more difficult; I have heard it described as ‘juggling with jellyfish’ which is perhaps too hard-edged, rigorous and concrete a definition. ‘Spiritual’ refers to the innermost part of us, what is left after all the onion skins have been peeled away. Most people think it exists; it is not necessarily linked to God or Religion; even Richard Dawkins describes himself as a ‘Spiritual Atheist’, a term which I admit has a certain jellyfishiness about it. But if there is something there inside the onion, something that by definition escapes definition except for its ultimate slipperiness, then I have a proviso. Lots of things point towards it, secret signs are everywhere (Dan Brown eat your heart out). Everything can be seen as evidence, or as I sometimes say ‘nothing is only’. A recent U2 song talks of ‘the moment of surrender to vision over visibility....’, as good a moment of nailing-the-jellyfish as I have heard recently. The vision is the spiritual; you have to look beyond the merely visible.

*(In the interest of honesty, at this point I ought to put my cards on the table. I am a keen speleologist; I am also a believer in the spiritual – in fact I have gone as far as becoming a Reader in the Church of England. This essay began as a presentation I made as part of my studies leading up to this; it gained a reasonable mark, but also the assessor’s comment ‘You are quite mad’.... But what follows is not an attempt to proselytise, but to share and integrate ideas and experiences important to me. Maybe they will resonate with someone out there.....by its very nature it is something of a journey in the dark, but that of course is what speleologists are into.)*

I want to start off with a vivid memory of one early event in my caving career. In the 1960s I visited Gaping Ghyll on what is termed a winch meet, when visitors are offered the ultimate in white-knuckle rides, down the premier pothole in the Yorkshire Dales. Strapped into a small chair, attached to a cable, one is dropped, virtually in free fall, the 360 feet into the Main Chamber. In reality the descent I remember was my second (on my first, the year before, I had simply shut my eyes tight all the way

down). What I recall is being absolutely mind-blown by the stunning rock architecture and the great spaciousness of cavern into which I plummeted – big enough to hold York Minster – animal fear suddenly morphed into awe and wonder. And what sprung up in me, quite to my surprise, was an overwhelming desire to say THANK YOU. Hey God, I'm a potholer. You're in heaven, that is up not down....I'm not invoking the guy who is traditionally said to reside down rather than up because this place and this experience are Good, Good with a capital G.

Subjective, I know, but it is a feeling that has never quite left. Caves are often uncomfortable, they hurt, they make me puff and wheeze, but there is something of the Gaping Ghyll experience still there. Not necessarily in the big spaces, but in the beauty of the rock architecture one finds underground, the symmetry of a phreatic tube or the sensuous curves of a twisting water-worn canyon passage. Why are they so attractive, why do I still see them in my dreams?

Caves have always affected people; even before written history. Archaeology shows that they have been seen as special places. My interests in caves have often taken me to the less well-known areas. One of these is the North York Moors, where there are a series of slip-rift fissures known as Windypits. In the 1980s I was part of a team making surveys of some of these; in one we retrieved some bones littered on the floor, and they turned out to be human. Bronze Age man had been there before us, burying his dead on ledges and boulder floors in the main rift, some of which had collapsed precipitating their deceased occupants to greater depths. In other windypits there were hearths and animal bones, presumably representing the Bronze Age equivalent of the funeral tea or wake...

Windypits are not easy of access; there are vertical pitches, tight rifts, lots of loose boulders. We had ladders, ropes and reliable electric lamps. Three thousand years before, going to a funeral there must have been quite an exciting experience.

On the Continent where archaeology tends to be bigger and better, cave dwellers went in for interior decoration, places like Lascaux and Altamira. The artists must have been motivated men (or women) – but exactly what they believed is more difficult to reconstruct, and I am suspicious of people who attempt to do this. Reconstructing religion and ritual is a risky business; we bring too much mental baggage to get back into those of distant generations. As an archaeologist I work with old nonconformist chapel buildings; it is difficult to reconstruct exactly what a Primitive Methodist service was like in the 1850s, how much more a Bronze Age burial ritual! On Orkney I once visited a stone circle, at sunset. and had an interesting moment – suddenly realising that the other folk around were not the ordinary tourists I had presumed them to be; a girl was writhing on her back on big stone in the middle (I greeted her and received a cordial reply). Then I realised that her companions had taken up places where stones were missing from the circle, and were silently standing with their arms raised above their heads. I bet they thought they 'were doing it right'....some chance!

I have already said that in popular tradition, Heaven is up and Hell is down; medieval people in Northern Europe believed that the entrance to Hell was Mount Hekla, the volcano in Iceland, but it and the devil get into many cave names. Liberated popular taste has allowed Peak Cavern to resume its 18th-century name of the Devil's Arse; Devi(l)s Hole mine in Swaledale and the Devil's Grinding Mill at Kirkby Stephen are other examples. Interestingly, God is allowed responsibility for natural bridges (God's Bridges in Chapel-le-Dale and near Bowes) but they are on the surface and in daylight – but in reality there are more holy mountains than holy holes. At my son's dedication the clergyman (who was a friend but, it has to be admitted, a rock climber) prayed 'Lord, may he climb mountains to be nearer Heaven, and not follow his father to the Other Place down holes in the ground...'

In recorded history, caves figure in all sorts of religious texts. The only one I have any familiarity with is the Bible, which to be honest gives the caver little to explain and justify his predilection. One Old Testament story (1 Samuel 24, 1-7) does demonstrate a wrong attitude towards caves. David, a hero-with-failings (a bit of a Robin Hood figure), is being pursued by Saul, a bad king. At Engedi David and his outlaw band are hiding in a cave; Saul does not know they are there, and goes into the cave to cover his feet (so says the King James version); more modern versions say ‘for a private purpose’, ‘to ease nature’ or even ‘to go to the bathroom’. Old Testament euphemisms can be fun! Seriously though, there is a message there, bad kings use caves as toilets. Had the story been enacted today, Saul should of course have taking in a container (a Darren drum?) with him and brought it out, containing all his doings, hermetically sealed, so as not to pollute the unique cave environment. What happens in the story is that David and friends are already in the cave. Saul comes in, and, before covering his feet, hangs up his robe on the robe-peg on the back of the cave door, and David snips off a corner of it; later David shows it to Saul ‘we know what you were doing...’ – or rather, I could have killed you mate, but I didn’t - why are you trying to kill me.?



Really caves have only an occasional role in mainstream religious history. The Dead Sea Scrolls were found in one. In parts of England a few centuries ago the establishment persecuted nonconformists to the extent that they had to worship in secret, and caves might be suitably secret places, like Swinnergill Kirk (left) in Swaledale where they would have had to sing hymns vigorously and preach fiery sermons to keep warm.... Toplady penned his famous hymn ‘Rock of Ages’ after sheltering in a cave-of-sorts in Burrington Combe, Mendip, during a downpour. St Francis emphasised the idea of the natural world offering praise to God, but caves do not figure in his lists.

In the modern times W H Auden wrote ‘*In Praise of Limestone*’; although a notoriously hard piece to interpret *in toto*, its opening and closing sections resonate strongly with this caver:

*If it form one landscape that we, the inconstant ones, Are consistently homesick for, this is chiefly Because it dissolves in water. Mark these rounded slopes with their surface fragrance of thyme and, beneath a secret system of caves and conduits....*

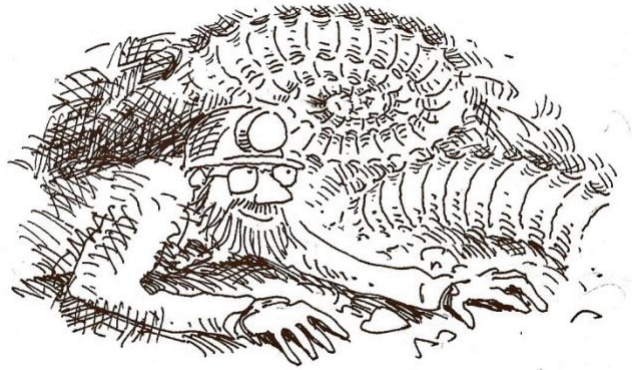
*..when I try to imagine a faultless love*

*Or the life to come, what I hear is the murmur*

*Of underground streams, what I see is a limestone landscape*



Coming back to caves and how they affect us (or how they affect me) there is another way in which they connect with something hard to define. In a sense one is crawling back into the history of the earth, into where we come from. Limestone is organic, full of fossil life forms. In Sandy Hole on the Isle of Portland I found myself crawling beneath and around giant ammonites of the aptly-named species *Titanites giganteus* but in many places one finds oneself in the presence of lesser fossils, with the rock virtually made up of crinoids or corals, a brief visitor to one of the earlier days of the Creation Week of Genesis 1. Geological History becomes real; one is actually inside it. I have never had any trouble with seeing the ancient account as an inspired poem or myth – in fact it meshes remarkably well with modern geology – despite the dollar-fuelled resurgence in so-called ‘Creation Science’ seen in recent years. Crawling around ammonites and corals is becoming intimate with past life, the organic become inorganic, but there is a sense in which most caves themselves are organic, alive, as well. Streams are cutting down, rock falls enlarging passages, silt banks depositing and then being eroded again – and, best known, calcite is being eroded and then re-deposited in the form of stalactites and stalagmites, or more technically, speleothems. All this inspires me to wonder. But last of all, after wonder, comes **Mystery** and this too is spiritual. Why do we want it? Why do we need it? If one sees man as merely an evolved ape, then this desire to seek out and explore uncomfortable, wet and dangerous places does not chime well with our supposed drives that prioritise survival and comfort. But we do have another drive. ‘Man gave names to all the animals’ as Genesis records (and Bob Dylan later sang); exploring, recording and understanding our physical environment all seem a basic ordinance.



And so to one final illustration. As well as the ‘Gaping Ghyll Moment’ one of the most abiding memories of caving, the mental DVD most often replayed, is that of the moment of Breakthrough. This is one that surface-dwellers may struggle to empathise with – but if any are reading this, please try. Imagine lying flat out in a crawl, roof and walls claustrophobically close, amplifying the thudding of your own heart. You are scraping at the sand or gravel of your floor, seeking to enlarge the route ahead by that vital centimetre or two that will allow your chest at last to fit through. At last comes the breathing-in, the wriggle, the thrutch forward into ..... unknown space. What lies beyond? Nobody knows, but you are about to be the first to find out. That is the heady rush, the turn on, the one that can even intrude on human fantasising time, displacing all the things the media set us up and expect us to fantasise about.

At this critical moment (one small grovel for mankind?) you are at two boundaries. One is simply the limit the cave as previously known to humankind, the other is at the boundary of certainty and uncertainty. Certainty is the passage behind, uncertainty the undiscovered terrain ahead. This is precisely where you find the thing we call faith. ‘Believing what isn’t there’ says the cynic. No, believing, where you have evidence but no concrete proof. It is present in at least two ways. One is faith in one’s own abilities (and equipment); another, perhaps call it ‘back-up faith’ is in one’s fellow explorers, in slow recumbent procession behind your boots. Faith is set against a highly-uncertain environment. It is risky; it can be misplaced; faith itself is a departure, not an arrival. Lots of people



depart, not all arrive. In his poem 'Ulysses' Alfred Lord Tennyson wrote... 'it may be that the gulfs will wash us down, it may be we will touch the Happy Isles'.

This thing about being at the interface of certainty and uncertainty is something I need, that cavers need. I am not sure how surfaces-dwellers deal with it. An awful lot of things in society seem to deliberately blind us to it, to stop us even thinking about things like that. Everyone peddles certainty, OK for-a-short-time certainty, certainty that we really know will not last (but let's not talk about that shall we?). Creationists with pseudo-science are looking for scientific certainty to back up their beliefs, to reduce the amount of faith they need.

But the caver thrutching into new passage is also a picture, a parable or a pre-run, of something that in the end we all face, the transition moment between life and whatever-happens-next. An end, or maybe a beginning? 'The undiscovered country from whose bourn no traveller returns' says Shakespeare. ....this is the real exciting moment, the ultimate breakthrough experience. Unless your own abilities are a bit unusual, they will fall short here. Maybe back-up faith is called for? - but this is getting religious so I'll stop.



*This piece is in fact an essay written by PFR as part of his studies to become a Reader in the Church of England, which drew the sage comment from the examiner 'you are quite mad'...*



*"DAYLIGHT — WE'VE BROKEN THROUGH CHAPS"*

.. A 1968 Longstaff, from the pages of the long-defunct 'Speleologist'