1982

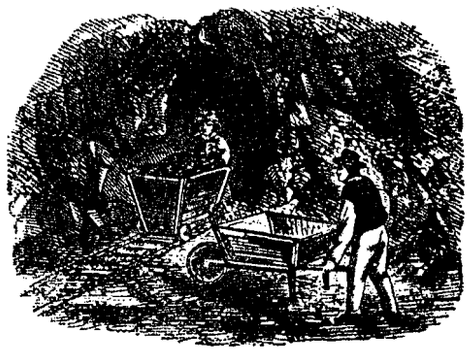
Cumbria Amenity Trust

no 2

Coniston Copper Mines

newsletter

Cumbria Amenity Trust



A mining history research society
Member of N.A.M.H.O.

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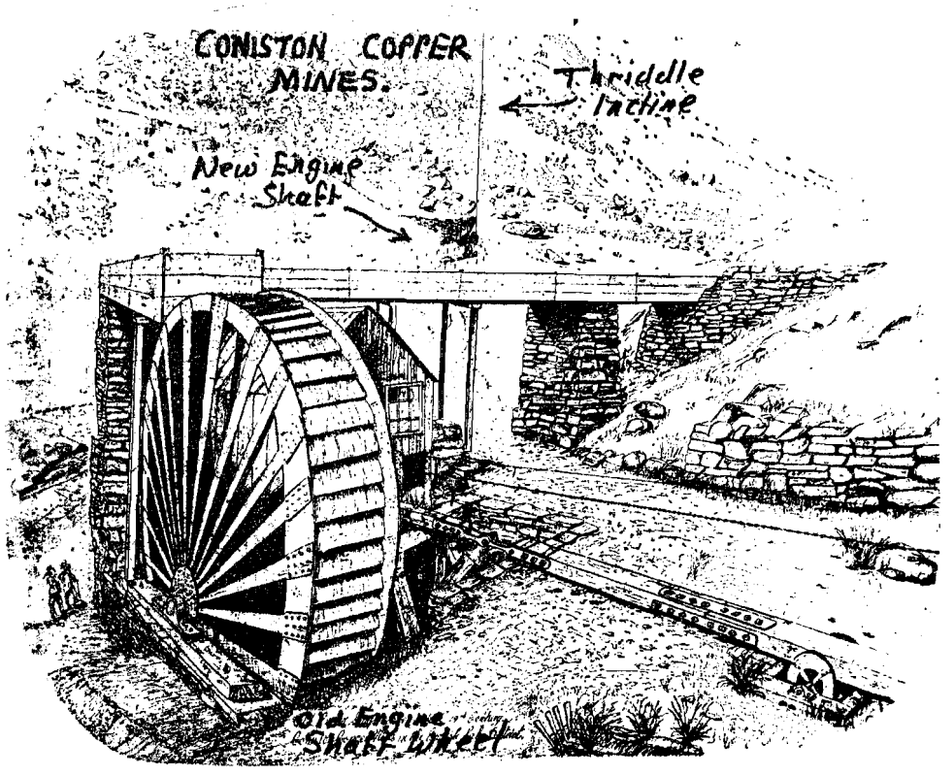


C H A I R M A N ' S R E M A R K S

1982 proved a busy year. The original meets list did not satisfy the more active members and a supplementary one was issued in July.

Most meets have been well attended. Perhaps the largest turnout was for the "working mine" visit to Florence Pit, the haematite mine near Egremont, when twenty-two members arrived. Other popular excursions were the annual Easter Welsh Meet, the July meet based at Ashfell Farm, Ravenstonedale, and the Nent Head meets. Most important of all was Coniston Mines NAMHO Meet, at which we acted host. A tremendous amount of work was done in the mines weeks ahead preparing for visiting clubs and societies from all over the country. This involved bolting some pitches, laddering others, making platforms, putting in new stemples and even making a new entrance to Fleming's Mine. When the big event arrived in September everything went fairly smoothly except for queues at some abseil points. The main thing was that there were no mishaps and everyone seemed very satisfied with our efforts and guidance. CAT has received a number of appreciative letters from other clubs and individuals. During the weekend two new descents were completed by abseil. These were the Old Engine Shaft and the Bonsor East Shaft to Deep Level, both were 200 ft.

As our membership continues to increase so does the workload on officers. Some are suffering from our'growing pains'more than others. To ease the situation a Meets Secretary was appointed and we accepted Chris Jones's offer of help with our Tackle. It seems that further load spreading may be necessary soon. Some of our increase in membership is due to the articles on CAT appearing in magazines such as Lancashire Life, Cumbria and High by Chris Jones, and Meet Reports in local papers by Alen McFadzean. Also the series of broadcasts by Eric Holland on BBC Radio Furness.

A new feature in this edition of our newsletter is a photograph reproduced to illustrate the article on the Coniston Copper Mines. We would welcome members donating a page of this sort using their own photos for future editions. The cost is not excessive. Articles on Trust activities, mines and mining, typed on A4 paper with a braod margin on the left, should be sent to the Secretary or Newsletter Editor for the next edition.

We have had fund raising activities during the year, the most successful being an Auction of varied goods donated by members. This raised approximately £100. There was also a raffle and a couple of PippaDee parties given by the ladies. Many thanks to the organisers. Some of the things purchased with the money were caving rope, electron ladders and a dinghy. We shall have to try similar fund raising De's in 1983, so put that useful old bric-a-brac to one side for now !

Well, the Chairman has said his piece. In closing I would like to thank fellow officers and committee for their work. Eric Holland has actually missed tha last three field meets in order to get this newsletter out for the annual dinner. Special thanks to him (reserving the right to sue him for libel when I get to see it).

COMPLIMENTS OF THE SEASON AND BEST WISHES FOR 1983 !

Peter Fleming

From the Editor:

I'm not going to keep you. I feel your Hon.Chairman has said it all. 1982 has indeed been successful and there is every hope that 1983 will prove likewise. In one respect at least, it will be a 'bonus year' in that a further newsletter will be produced around July. This is also NAMHO CONFERENCE year and the venue is Leeds Industrial Museum, from Friday 10th June to Monday 13th June. If the previous ones are anything to go by, it should be a worthwhile event.

Best wishes,
Eric Holland.

Officers for 1982.

Chairman
Peter Fleming

Secretary
Eric Holland

Treasurer & Membership Secretary
Maureen Stone

Meets Secretary
Alen McFadzean

Tackle Master
Chris Jones

Christmas Mining Puzzle - sent in by Max Dobie Esq.

There are FIVE mines in the side of the valley. Never mind which valley. Each works a different MINERAL. Each is worked by a different NATIONALITY. Each miner is an expert with a particulat TOOL, has his own preference for drink and his own brand of 'baccy.

All you have to do is find the man who has the only wheelbarrow. To achieve this you are provided with lots of valuable information.

The English miner works the copper mine.

The Spaniard is an expert with a shovel.

Coffee is drunk in the lead mine.

The Ukranian miner prefers Vodka of course.

The lead mine is next to the iron mine.

The Medium-cut smoker is good with a joke.

Spun-cut is smoked in the barytes mine.

The miner in the middle mine prefers milk.

In the last mine on the left a Norwegian is hard at work.

St.Bruno is smoked by the miner in the mine next to the mine worked by the man with an air-drill.

Spun-cut is smoked by the miner in the mine next to the miner with a sledge-Hammer.

Golden Flake smoker always drinks orange juice.

The Japanese miner enjoys a pipe of rough cut.

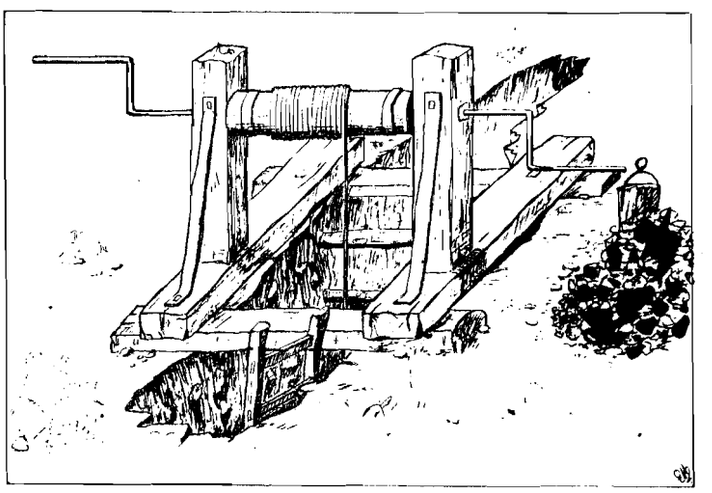
The Norwegian works in the mine next to the zinc mine.

Coniston Copper Mines

Here in the fells above Coniston village, in the English Lake District, was one of the country's largest - and long lived - copper mines. Mining is considered to have commenced here around 1599 using continental miners and expertise under the protection of Elizabeth's 'Company of Mines Royal'. Early workings were upon the outcrops of the veins and with their basic tools, with the aid of fire to heat and fracture the rock, they took their workings down to respectable depths,and to facilitate ore and water removal drove levels through the hard volcanic rock to connect with their deepening workings. Traces of their workings are to be seen in numerous places in the 4 square miles, or so, where the veins were found.

Before the levels were driven all water and veinstuff had needs to be lifted out in wooden or leather buckets raised by simple windlass or jack-roll. In the wetter places up to half a working day might be spent baling out the water thus and drainage tunnels became essential.

The ore was dressed on site by hand to as rich a percentage as possible and packhorsed the 20 or so miles to Keswick where the smelters were situated. They had started mining at that place many years previously. Even so consideration was given to erecting smelters at Coniston though this was never proceeded with.



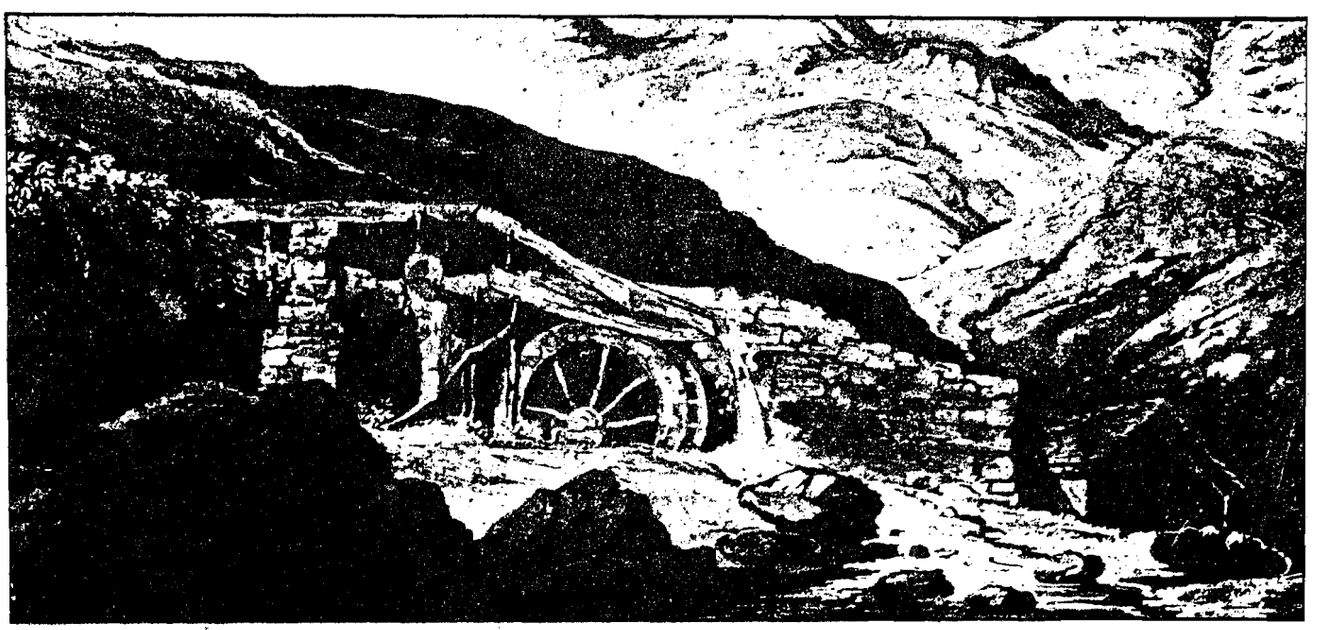
Windlass or Jack-Roll

The 'Royal' concern was brought to a halt by the Civil War during the 17c. The fate of the miners has long been speculated upon, it has even been suggested that they were all killed though this was certainly not so. On the other hand I could imagine some resistance being put up if the Parliamentarian task force sent to close the works started to wreck their beloved equipment,and under such circumstances could visualise one or two being slain for their pains. More likely they simply kept a low profile during the disturbances - quite probably some made their way back to their homes. Certainly the mining was brought to a standstill though it did resume in a somewhat desultory manner later in the century.

A more serious approach to working the mines was made by Charles Roe of Macclesfield during the 18c. The art of breaking rock with gunpowder had by then been introduced and he took the workings well below the earlier ones. Waterwheels for winding and pumping were introduced and the print below might well have been one of his wheels. Artistic license however,makes it impossible to determine its position. Ore was dragged up the uneven shafts in heavy iron buckets, banging from side to side, and even shedding part of their load. Snagging could result in the winding chain parting and the kibble, its contents, chain and all, would hurtle down doing damage all the way. It presented a hazard to men climbing the ill-secured shaft ladders. The main 18c. shaft, the Bonsor East, was taken down for more than 300 ft.

Even as late as 1789 the concern was planning to extend their area of operation. They were still at work in 1792 when they had 283 tons of "Copper Ore Waygh t". Three years later they surrendered their rights informing that ".... the Coniston Mine has for some time past been so unproductive that it has been determined to discontinue the work ...." If by this they considered the mine to be exhausted, subsequent events were to prove them very much wrong.

It was about 1834 that the well known mining engineer and financial entrepreneur, John Taylor, formed a partnership and acquired the Coniston Mines. At that time he was acting as manager for the Duke of Devonshire's mines at Grassington and his man-on-the-spot there, Cornishman John Barratt was transferred to supervise things at the new Adventure. Mining began in a proper workmanlike manner, starting



Earliest picture of the copper mines at Coniston.

with Taylor's and Fleming's Levels driven in, to intersect as cross-cuts, the Bonsor Vein which is the most important lode on the eastern side of the property. However, it became clear that the future lay in deep mining for the vein obviously continued downwards as strong as ever.

In the 17c. Ore was packhorsed to Keswick.

The old water-wheel was still in situ but not up to the demands that Barratt's plans would have subjected it to. Nearby a well engineered vertical rock shaft was started and this, in due course, became known as the Old Engine Shaft. For many years this was the most important winding shaft on the mine; it was also the main pumping shaft. In time it was equipped with a huge iron water wheel (over 40 ft. in diam) and turning slowly, with its dramatic backdrop of fellside and mountain, it must have excited the imagination of evry Victorial visitor who happened to chance upon this wild industrial scene.

Early in the 19c. the important Deep Adit Level was started, and this connected the old Bonsor East Shaft and the Old Engine Shafts and a later New Engine Shaft. It connected with the overhead workings on Taylor's Level and those at Thriddle (Red Dell Foot) on the Fleming's Vein and to Thriddle Shaft there. Whatever ore left above adit by the previous operators was soon taken out and the shafts began to sink below the adit level. All of this work had been carried out on the great Bonsor Vein but there were other important veins on the 'sett' the best of these being at Paddies End.

It need come as no surprise to learn that many of the miners were Irish and several hundred, together with their families crowded into the village and surrounding area. Times were very hard and many of their children were put to work at the mine - on the ore dressing floors. Although it is rather difficult to assess how all this affec-

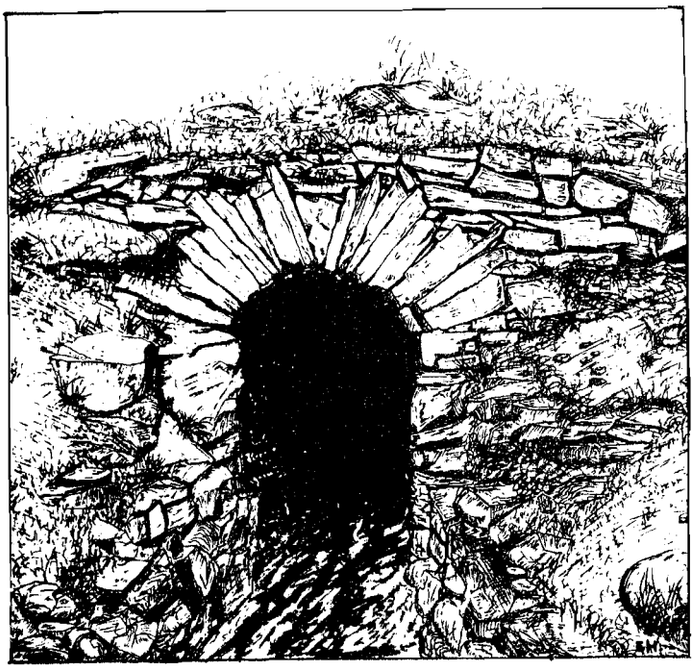
ted Coniston,both it and the local tradesmen, and certainly the pubs and beer houses must have seen a heightening of prosperity. Certainly the company contributed to the Parish rates and the church. It also assisted schooling and it is probable that there was a fair degree of literacy in this otherwise quite remote region as a direct result of the efforts of the firm to provide at least, the 'three R's'. It also built rows of houses, fortunately in local stone. And although the children laboured long hours they were not subjected to the abuse and cruelties found in the collieries of the period. As a result of the mine's presence Coniston owes at least some of its apperance to the once prosperous industry.

After some years the Deep Level was extended to the workings on the veins at Paddies End (now known as Paddy End) and ore from that source was then brought out,by horse-drawn mine waggons, to the main mill at Bonsor. The large mill at Paddy End was then closed down.

Looking down into the Abyss from bottom of the Chute in Fleming's Mine.

Impression of Old Engine Shaft.

Duly John Taylor withdrew from the venture, perhaps disatisfied with the returns, leaving Barratt to form his own company and carry on. For years the mine prospered and at its height perhaps some 400 persons derived some employment connected within its sphere of influence.



Deep Adit Level Entrance.

had to be taken down to the bottoms for the use of the workmen.

The workings at Paddy End were very extensive, although not as deep as those at Bonsor. The main vein there was the Paddy End Vein but it was associated with a number of other lodes some of which were very productive giving rise to such colourful names as 'Californian Bunch', 'The Great Open', and others. At Paddy End the main shafts were the 'Gin' or 'P.E.Engine Shaft', the 'Hospital Shaft', and'South Shaft'. All the workings below adit are, of course, submerged.

Even in the present century mining did not cease entirely - from now on though it was to be small scale operation. The general picture was one of little success. Reasons for failure varied but the end reults were often insolvency.

The attempt by a French concern to recover the tiny percentage of copper left in the spoil heaps using an electro-precipitation process is a story all of its own. Perhaps if the men had not been called up to fight for La Belle France (Ist. World War) and there had been continued improvement of their remarkable (but not too successful) treatment plant; and if the market had been more favourable .... then it might have had a totally different conclusion. It too failed.

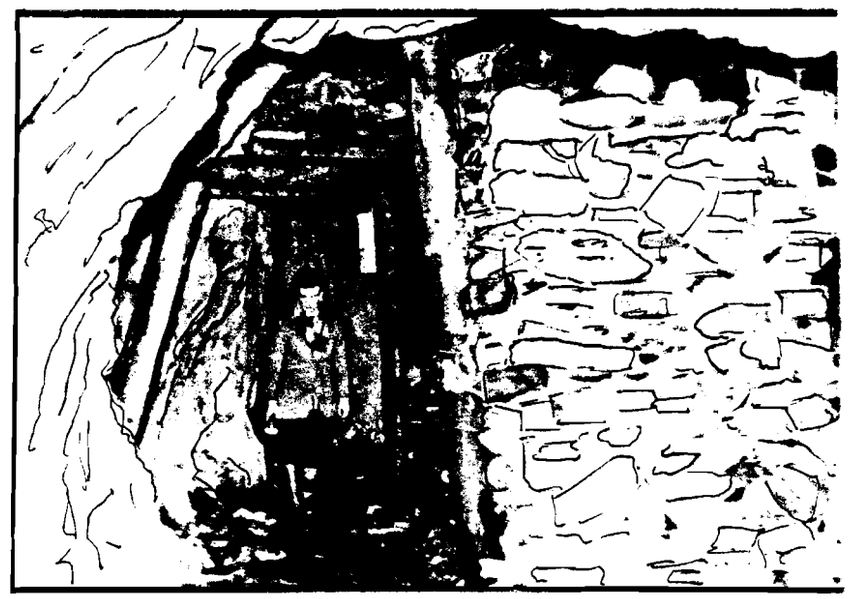
The popular youth hostel at the mines, white painted,and very conspicuous amongst the more sombre ruins of the Bonsor dressing floors, was formerly the counting house and has also served as manager's residence. Although the present day configuration of the surface workings results, in the main, from the 19c. activities, yet enough remains from the earlier operations to provide an interpretable view of some 350 years of toil laced with injury and death.

The ruins, levels, and underground workings, are monuments to this industry and should be preserved as part of our heritage.

A field guide to the mines has been written (Holland 1981) and published by Cicerone Press. This is to be followed by a comprehensive

Copper ore barge found by Holland in early 1960's beached on the shore of Windermere.

In those days, indeed since very early times, the lake has been possessed of considerable water-borne traffic. The mine had its own fleet of barges and the ore was sailed or rowed down to the foot of the lake from where it was carted the several miles to the small port of either Penny Bridge or Greenodd for shipment to the smelters at Swansea and elsewhere. Later the ore was carted the seven or so miles to the canal at Ulverston. Upon the coming of the railway to Coniston the water traffic soon ceased and a way of life was gone for ever! The ore was taken out by rail and shipped from the then, new and important port of Barrow-in-Furness "in consequence of Ulverston," said Barratt to a customer, "only being a creek and the great difficulty in shipping."



Shaw's timberwork by the side of the Old Engine Shaft in 1962 - put in during the c.1954 attempt to re-open the mine. The woodwork and packing is now collapsed. A large boulder fallen from the side lies over the ladderway. Efforts have been made to clear away some of the debris here.

Long before the turn of the century the mine was in a state of decline. When the crunch came, because of market conditions, the Old Engine Shaft had been put down some 212 fathoms from the surface, (170 ftms. below adit); New Engine Shaft was 205 fathoms below adit, while Deep Level had been taken in about 1¼ miles. So extensive were the workings on the Bonsor Vein the mine took 5 years to fill to adit! However, it is all relative, for the make of water was remarkably little. Unlike sandstone or limestone the rock here is impermeable and, indeed, water

history in chronological form and it is hoped that this will be on the shelves by late 1983.

The mines are dangerous and should be treated with respect. Intending explorers should be properly equipped and preferably be with experienced people .... better still to join a suitable club or society.

A.R.Peters out with friends for an evening stroll took a course of action which he will never forget. At Red Dell foot he entered the fenced area and decided to jump across the open stope. He cleared the gap but slipped back in. The alarm was raised at the youth hostel setting in motion what was to develop into a dramatic rescue operation. Peters had fallen in at about 18.10 on Saturday 22 July 1972 and had sustained multiple injuries including arm, hip, and leg fractures. Head injuries suggested the possibility of skull fracture and no morphia was given. The youth was struggling, incoherent, and hypothermic and was brought to surface at 03.50, in a modified Neil-Robertson stretcher, and carried down to a waiting ambulance. He was lucky indeed to survive the plus 150 ft. fall but spent the next 18 months in hospital.

At least he survived. C.J.Willcox who on 15 Jan. 1978 fell into the stope quite close by, did not. The newspaper article tells the story.....

Curiosity led to death fall down old shaft

NATURAL CURIOSITY led to the death of fell walker Christopher John Willcox, 26, of Old Kiln Lane, Bolton, who fell down a disused mineshaft at Taylor's Level, Red Dell Valley, Coniston, on January 15.

This was said by the Furness coroner, Mr W. W. Ellison, at an inquest held in Hawkshead yesterday.

Mr Willcox recorded a verdict of accidental death on Mr Willcox, a motor engineer.

Mr Robert Neil Gordon, also of Bolton, who was walking with Mr Willcox when the accident happened, told the inquest he and Mr Willcox arrived in the Lake District on Saturday, January 14, and stayed overnight at a house in Bowness.

The next day they went into Coniston and visited several public houses. He said they drank four pints of beer with their lunch and then went walking on the fells. Both men were wearing anoraks and boots.

TURN BACK

After walking for about 1½ hours they decided to turn back. Mr Gordon said the visibility was about 100 yards. After 15 minutes, Mr Gordon said, they came across the mineshaft.

He didn't recognise it as a mineshaft at the time, but thought it was a gully or a fault in the ground.

He said they climbed over the fence to take a closer look at what the hole in the ground was.

which was the lower side of the whcih was the lower side of the hole. Chris walked to the other side," he said.

Mr Gordon said he saw Mr Willcox stand at the hole. He turned away and then saw him slipping over the edge of the shaft, clutching at heather which grew around the sides.

"I shouted down the hole, but heard no reply. Then I went to a hostel at Coppermines to get help," he said.

When Mr Willcox was found he was only wearing one boot. Mr Gordon said he was wearing both boots at the time of the accident. He was also wearing his glasses, as he had poor eyesight.

BIG SEARCH

Sgt John Thomas Lund, of Hawkshead police told the inquest he was on duty at the police station on the day of the accident when he received a report at 4 p.m. that a man had fallen down a disused mineshaft.

He contacted the leader of Coniston mountain rescue team.

A full-scale rescue operation was launched by members of Coniston, Kendal, Settle and Langdale rescue teams, and Mr Willcox's body was recovered.

On Monday, January 16, he went with the leader of the Coniston mountain rescue team, Mr John Anderson, to the mineshaft. They found the shaft fenced off with wooden posts and three strands of plain wire.

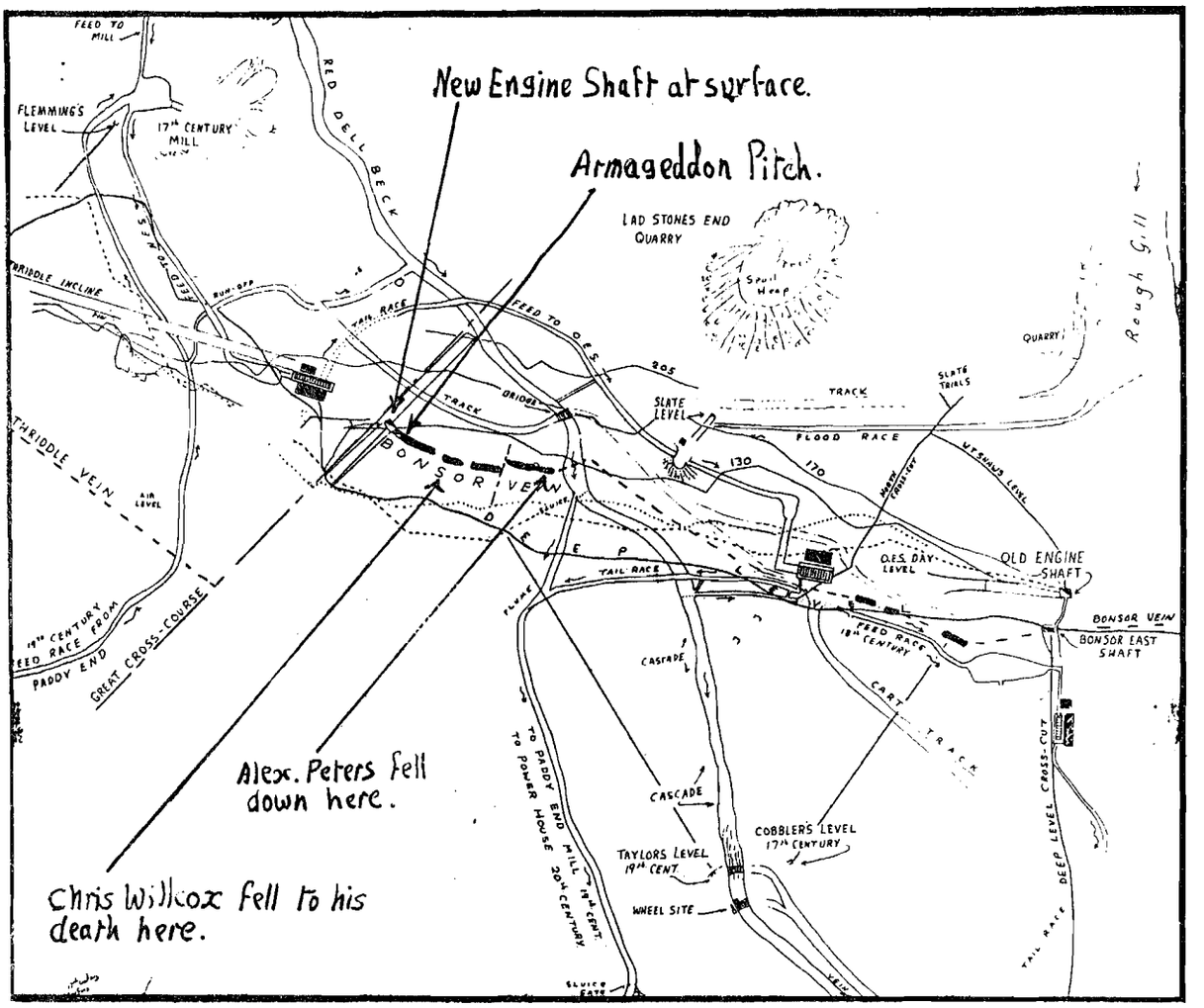
He said the fence was intact and in good condition, but there were no signs to indicate what was inside the fenced-off area.

The dead man's body was recovered by Mr Thomas Brian Redfern, of Langdale mountain reseue team. Mr Redfern was not able to attend the inquest.

Sgt Lund told the inquest that Mr Willcox's body was found at a depth of 350 ft. Blood, skin and hair were found on a ledge 125 ft. down the shaft.

Consultant pathologist at North Lonsdale Hospital, Barrow, Dr Derek Stansfield, carried out a post mortem examination on January 18.

He told the inquest the cause of death was lacerations of the brain due to multiple fractures of the skull caused by a fall on the head.



Plan showing the open stopes at Red Dell foot & etc.

EXPLORATION & ADVENTURE.

It was back in the 60's that Holland managed, with some difficulty, to persuade a few Red Rose Cave & Pothole Club members to forsake their beloved natural caves and come over to Coniston to have a look at what was offered here. The writer had always considered that a route existed, through the old stopes in Paddy End workings, from Levers Water down to Grey Crag Level (blocked at mouth) which connects with Hospital Level (open). Several trips were made and a number of deep stopes descended. In search of the 'route' we got down to Top Level and further laddered down what became known as Windy Stope in the 1980's. The sphincter tightening pitch down to Middle Level was descended and that level in in part explored. Holland found a rather unsafe way down to what he named Pinnacle Rock and gazing into the inky depths of the huge chasm below he (I) had an instinctive feeling that this was the elusive way down. Alas time and tackle had run short and prevented further descent that day. Indeed it was to be the last attempt for years.

There was a shortage of volunteers for this trip, for on the previous, there had been an unfortunate 'near thing'. The lifeliner had allowed coils of rope to lie on loose rock at the brink of the pitch. When the rope was pulled taught a number of large pieces were pulled into the stope. We heard them coming and hurled our-

selves into any sort of crevice which would afford shelter and we escaped injury though the ladder was damaged. The rage of Jim Newton knew no bounds when it was returned. We managed to get hold of gear for this latest trip though as we discovered - not enough. It was on our way out that we had another incident - nothing much really. A few cwt. of rocks decided to move shortly after we had climbed up them. Of course things like this always appear worse underground .. it's bad on the ears. It was also bad on nerves, and despite attempts to off-load the blame onto Peter R.de Young (which he denied for years afterwards), the party were heard to be mumbling things like, "... not coming again.... too dangerous.... unsafe.... it does-'nt happen in caves" (ask Jim Newton about that), and so on.

Dog rescue. It was in Nov. 1968 that Roger Calvert, Andrew Walsh, Duncan Baldwin, David Creedy, David Hodgson and myself decided to have a go at South Shaft. I had heard that 27 days previous a dog had fallen down a shaft in the floor of a tunnel hereabouts. As it transpired, this was the shaft and we found the dog alive and very weak at the bottom. It had survived a series of falls totalling about 180 ft. including a sheer drop of 70 ft. After a meal of a cheese and onion sandwich, and an apple, stump and all, and of course we made it beg, we hoisted the mongrel up in a rucksack. Outside, it was unable to walk for more than a few yards, (the crafty bugger was able to beg for food - mind you it did lean on you while it stood up), and it was carried down to the village and subsequently returned to a disbelieving owner.

. . . . . .

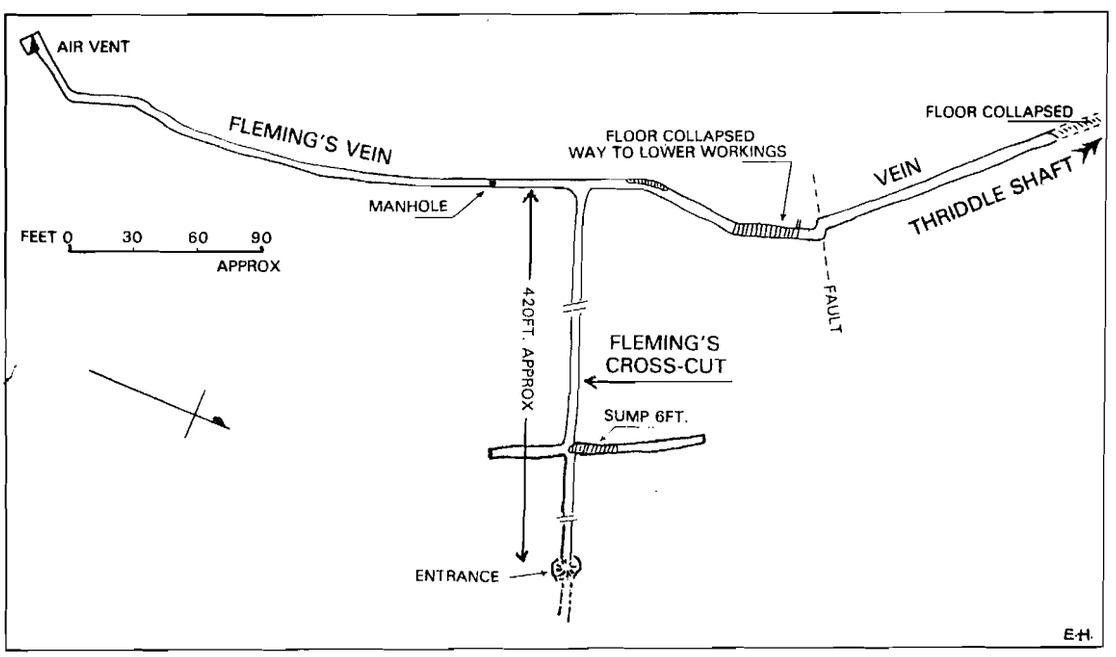
CUMBRIA AMENITY TRUST.

The formation of the C.A.T. was adequately covered in Newsletter No.1. Not surprisingly, with Coniston Mines being close at hand, it was here that our attention was first focussed. After the usual gadding about in the various levels I seem to remember that we decided to dig open the long blocked Fleming's Level. This was accomplished and

Andrew Walsh and Guiness.

Susan Holland at 1st. Pitch in the floor of Fleming's Level.

an open ended drum placed in the loose entrance for security. The cross-cut connected with the vein after 420 ft. and was seen to be taken off left and right upon it. High stopes allow one to climb well up into this early 19c. part of the mine. The floor is seen to be backfilled and the hanging wall, which is very pronounced, is seen in the r.h. branch to be breaking off in massive blocks held back by the waste. However after a short distance the h. wall has come away completely and dragged down the floor timbers leaving a 30 to 40 ft. deep void. providing a view into a great hole below the level. I suppose using bolts etc. it would be possibly to cross this gulf but at that time we decided it was impracticable. Sue Holland and Dave Abbot had meanwhile gone out and up Thriddle Incline to the level running in to the top of Thriddle Shaft to commence dropping stones down the shaft at intervals. Pete and I had in fact hoped to get to the shaft station on Fleming's Level but were prevented by the nasty hole. We did however, hear the clatter of the falling stones a short distance ahead. Myself



Sketch Plan of Fleming's Level.

Two lengths of scaffolding were acquired, sawed each in half to get them through the drum, and these were then clamped together in the bottom of the hole. The object was to construct a 'maypole' in order to hoist an electron ladder up to the continuation of Fleming's Level. This was done with Holland climbing up first, somewhat fearfully, as the 'pole' sagged unpleasantly in the middle. It was no easy matter getting off into the level either as the thing was too short. P.Fleming came up next and together the two with some excitement set off to explore. Alas after about 20 yds the floor had gone completely had persuaded the Red Rose to attempt a descent of this shaft back in the 60's and there we came to be with a great deal of tackle only to have the descent aborted after about 120 ft. Mike Mitchel and friends made an attempt more recently and apparently got down as far as the stope above Fleming's Level. It is to be expected that some sort of a through trip via this shaft will be made in the near future.

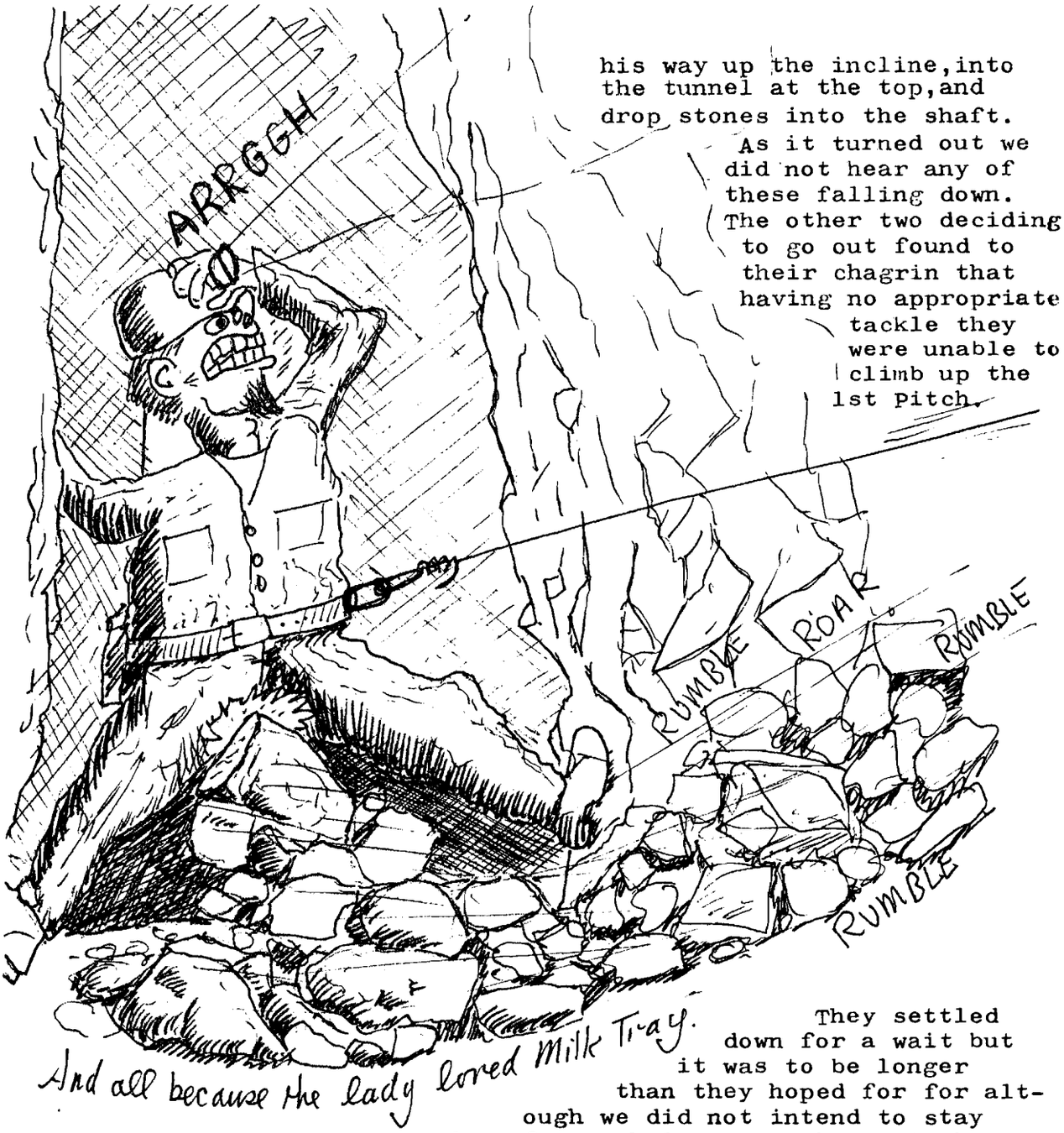
It wasn't very long before we were back again to have a look at things in greater depth, as they say. We were soon down the First Pitch and through the Tube into

the continuation of the stopes (the vein is shifted here by a fault)and at the head of Narrow Pitch. What a lot of thrutching was needed in those early descents until we had perfected a way of climbing with less effort and constructed a little landing at the top of this,indeed narrow descent. From the bottom, a duck below timbers, (we thought the floor here looked a little dodgy) brought us to a steeply sloping Chute down to what appeared a further drop. Peter Fleming,tied onto a safety line, picked his way down the debris strewn slope to the brink of what he described as a great Void. After an attempt to describe what he could see, he called for someone else to join him and observe for themselves. Eric Holland started off down using the rope as a handline. Now right at the top of the Chute some of the side had come away above our heads, pulling down a mass of deads formerly stacked on woods. A lot of this had obviously gone down the Chute and over the edge, but a great pile had been left at the top of the Chute and this was even more unstable than it looked. As Eric descended it it suddenly gave a grunt and a lurch. Scrambling back up the downward moving pile,with a fair amount of vigour, he rejoined the open-mouthed Alan McFadzean and Mark Wickenden as a wave of deads began to jostle its way down towards a rather worried P.Fleming. As if he did this sort of thing every day,he leapt into the air,to transfix himself, legs apart, on each side of the stope, as the stream of debris shot below him and over into the Void with a fearful roar. It could have made a splendid "And all because the lady loves milk tray," advert. We noticed in the pub that night,that Peter sat with his legs a bit further apart than usual.

We were so pleased with our discoveries that we decided to arrange another meet (April 11-12th 1981) and on the Sat. M. Wickenden, P.Dawes, A.McFadzean. M.Mitchel, P.Fleming, Stuart Cole, and E.Holland turned up.

An early discovery was that not enough tackle had been brought along and this meant that the 1st Pitch was cannibalised of its ladder, and a rope left. Quick progress was made and we were soon down Narrow Pitch. Whilst passing below the timbers just beyond here, the dodgy floor suddenly began consuming large quantities of debris. We watched with some fascination as material poured into the insatiable gullet. While we watched the hole reached hungrily for an uncoiled rope and a ladder and as these started to slither into the (as A.McFadzean called it, the Egg Timer) orifice, the hypnotised onlookers sprang into action and rescued the rapidly disappearing tackle. The hole was covered by a piece of decayed plank but it still lurks malevolently below.

The Chute and the Void at the bottom resounded with noise as much loose debris was picked loose and allowed to roll down we all the while keeping a wary eye on the huge piles of deads piled on the timbers above our heads. On this occasion hand lines were put into the Chute and ladders hung from these into the Void which now did not appear to be quite as immense as we had earlier, in our excitement, imagined it to be. Lifelining was awkward at the bottom of the Chute and there was always the annoyance, if not the real danger, of loose material rolling down and possibly clonking someone on the ladder. What was below? P.Dawes offered to descend first - funny how everyone was engaged in doing some small but important thing just wat that time - you know... adjustments to kit; having a pee; removing a stone from a boot; that sort of thing! At the bottom of the hole Pete Dawes started to make a hell of a racket with rolling ,or was it falling, rocks. Then we saw him, making his way up a steep, unstable, pile of deads. Next down was E.H. Mark W. and Peter F. Dawes called to us that he had arrived at the brink of a great shaft .... well it could only be the Thriddle Shaft. Upon hearing this Mitchell decided to exit and make



his way up the incline, into the tunnel at the top, and drop stones into the shaft. As it turned out we did not hear any of these falling down. The other two deciding to go out found to their chagrin that having no appropriate tackle they were unable to climb up the 1st Pitch.

They settled down for a wait but it was to be longer than they hoped for for although we did not intend to stay down for much longer we began to be carried away by our repeated discoveries. At the bottom of the Void we went off in the other direction to Dawes climbing first a rock-pile which we discovered was from a horrifically unstable hanging wall - indeed Hanging Corner was no place to hang around! Then we arrived at the 30ft. Shaft and there appeared to be a level at the bottom. It could only be Taylor's Level. Despite the shortage of time we just had to go down and at the foot of this delightful little manway we found that we were indeed on a level. Holland had kept a check on descent figures considered that it must indeed be Taylor's, and as it turned out, so it was. Westwards the wooded roof had collapsed though we knew Thriddle Shaft was beyond the blockage. A deep hole in the floor here appeared to connect with the shaft and later when stones were thrown down this was confirmed as we heard the noise coming up the hole. That was a future expedition. Easterly we were astonished to discover that the deads, which filled the stope down which the 30ft. Shaft ran, had broken down the roof wood and piled up on the level; some had gone through the floor and into the backfilled stope below, but what was amazing was the easterly wall of the shaft was a single 'skin' of deads with nothing behind. The level continued and was in good condition for much of the way. In places the floor was gone and through the narrow crevice a deep wide stope could be seen below.

Down there somewhere was Deep Level. The only place Deep Level could be seen was around its entrance as far as Bonsor Vein - to get down to it here.... now that would be a 'prize'. Taylor's Level carried on until we were stopped by a blockage. Some hasty digging got us up into a high and narrow stope down which a lot of deads had fallen. The tunnel continued beyond the block for it ventilated strongly but we decided to return. It would have to wait. On the way in we had passed through the Great Cross-course and a branch off along it was investigated. This ran through the clayey fault material for some 80 yd. to a fork. Left was blind, but right the tunnel was back filled. Was this to be a future dig?

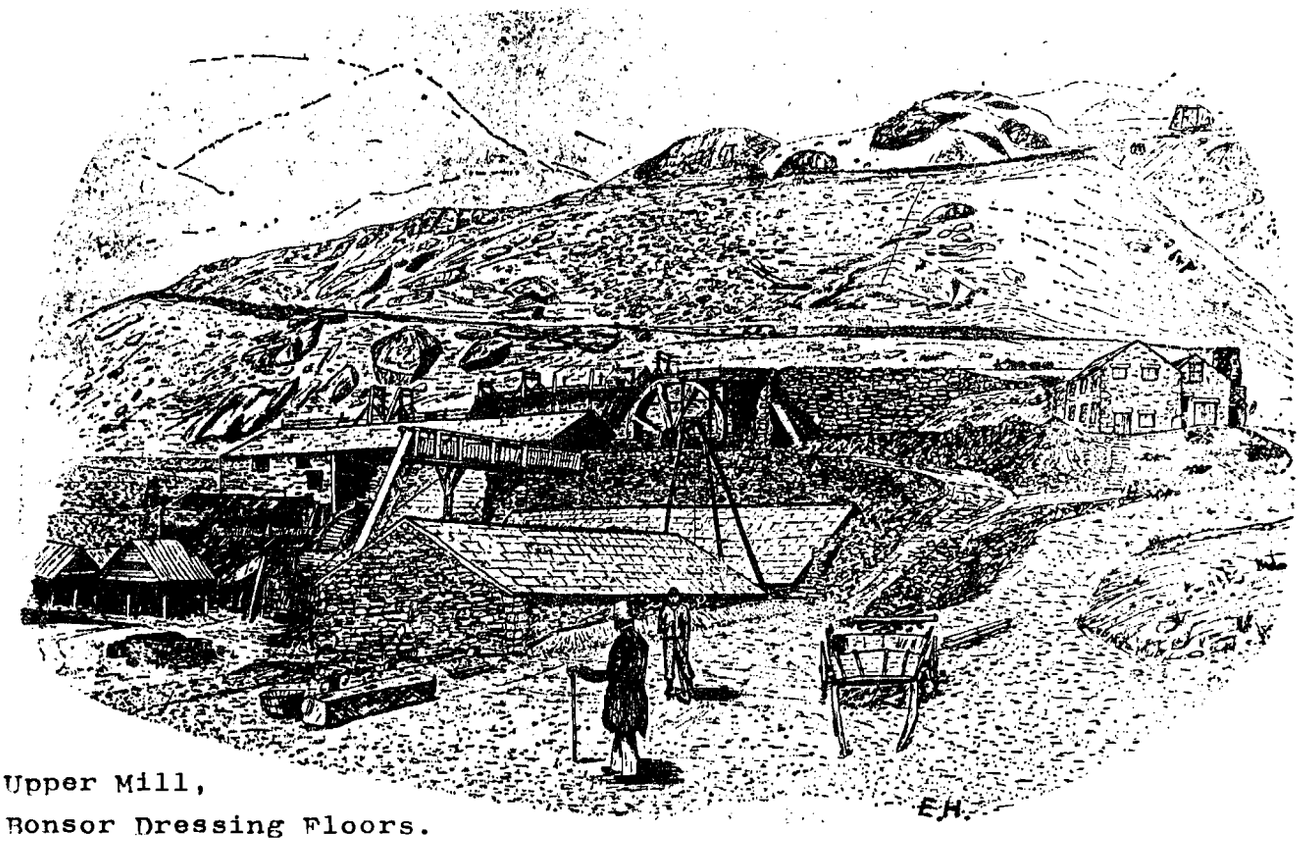
On the return we found Dawes waiting to lifeline us up into the chute, and the other two (bit frustrated by now) waiting for someone to prussic up and fix a ladder. Later in the mellow warmth which Hartley's gives us as it reaches into the parts that ordinary beers don't we thought of absent colleagues. It was sad that Alan Westall's back was still not better, though on the mend. Perhaps we would see him on the morrow? There he was however, to congatulate us, sharing in our joy,and the nice meal prepared for us by Maureen, and eaten in the austere circumstances of the mountain hut.

On the Sunday we had A.McFadzean, myself, M.Wickenden, P.Buney, P.Fleming, Colin Horne and Chris Jones came along on this trip but having a "bowel disturbance" came into Fleming's Level but did not descend. We were all pretty much impatient to get down to Taylor's, time seemed to drag while we waited our turns to descend. P.Fleming and myself decided to put ladders down into the long stope below Taylor's in an attempt to get down to Deep Level. The others carried on to dig the blockage. At the bottom we found large chunks of wall had come away and there was much evidence of dry rot. Smashed timbers suggested that Deep Level was crushed out of existance. At the far end was what appeared to be a tunnel. With Pete holding back in case of emergency Eric made his way over large unstable blocks to find but a very short portion of Deep Level intacto and there only because it was in solid. It was blocked by a run in, and water stood in the sole.

Back at the top (Taylor's) we discovered that the blockage had been cleared and that the others had gone on to a great stope down which filtered daylight. Now that was interesting! Fleming and Holland went off to see this marvel and discovered that they were without doubt in the deep stopes within the fenced-off area at Red Dell Foot. Taylor's Level was found to be obliterated by an immense fall of rock from the side. At the foot of this an iron wheel leaned on debris in a'window' which opened into what could only be New Engine Shaft. The shaft,an open space down the stope, fell steeply down into blackness - and water. Climbing up the boulders,and along south easterly, we found that the stope was practically filled with a great mass of rock which had come away from the hanging side and had dropped a short distance before 'jamming'. Climbing up on the left we found we could squeeze between the rocks and the wall until we came to a point where the rocks ended and we could look out into the uncluttered stope beyond. A short distance ahead ,and from below in the depths, rescuers had recovered the broken body of one who had ventured too close to the edge of the fissure on the surface.

Back along Fleming's, from the New Engine Shaft, a deep shaft in the floor of the level drew our attention. By now, Wickenden and the others had returned and after suitable threats the latter volunteered to descend. This meant a delay while the ladders were brought and then securely belayed but eventually Mark began the descent. At the bottom, well over 100 ft., he found himself at water level with what appeared to be the main floor timbers of Deep Level well above. He was able too to look directly up New Engine Shaft to daylight!

On the return we removed the debris and wood over the hole in the floor of Taylor's Level a little way along from the 30 ft. Shaft. This revealed a steeply sloping stope-like space falling into dark. Several of the others went on past Void Pitch, and up the boulder slope, to drop stones down Thriddle Shaft. Fleming and Holland heard these clearly in the hole below confirming the latter's opinion that they were connected. Clearly this was yet another trip to be done.



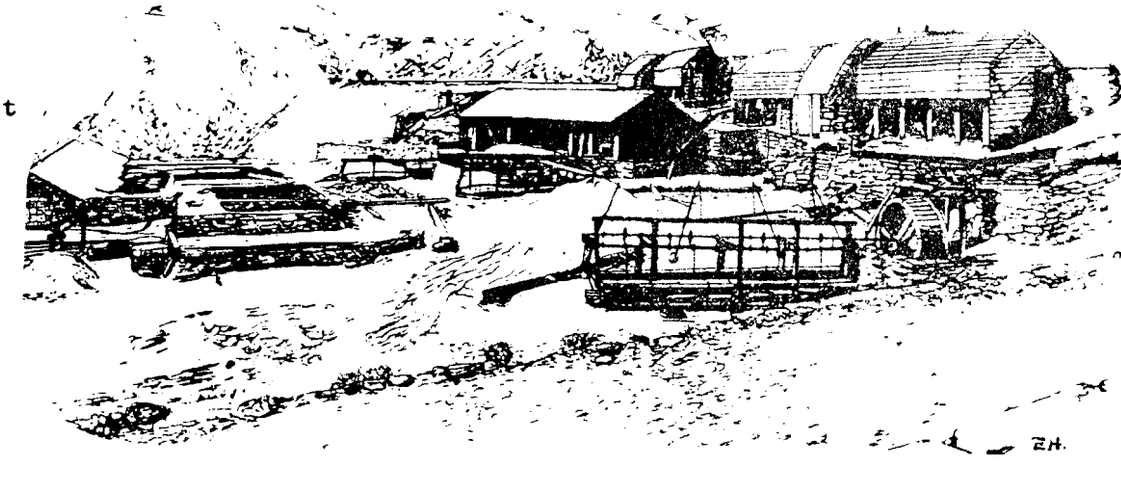
Upper Mill,
Bonsor Dressing Floors.

Sunday 28th June was arranged ..... and C.Horne, E.Holland, Ann Danson, P.Blezzard, M.Mitchell, A.McFadzea, P.Dawes, P.Fleming and M.Wickenden turned up. The descent to Taylor's was made without delay - the Eggtimer slumbered. A bolt was put in for the electron and Holland descended to a curiously apexed part of the roof which was named Tent Lodge, to here the going was steep and the ladders were not essential. However, below a flat place the way down appeared vertical and the stope was joined by Thriddle Shaft. As we climbed down Thriddle By-pass we were, I remember, very impressed by a great timber and plank structure clearly holding back vast amounts of deads. At the bottom, standing in shallow water, lo-and-behold, there was Deep Level strongly timbered where it ran below the deads (or so we imagined) and in solid ground in-bye. Wading down the level, black patches in the floor indicating an unknown depth of water-filled stope below, we didn't fail to notice that the roof timbers had become severely affected by dry rot - in fact it was very very dangerous. The waste piled on these collapsing stemples reached, as we knew, right up to Taylor's Level more than 100 ft, above. Eventually we were halted by a run-in and we must have been but a few yards short of the descent made earlier by Holland & Fleming. Here a cross-cut was followed up but as expected was blind and offered no new discoveries. Certainly, in the writer's opinion, it is scarcely worth the risk of being sealed in by a collapse. From the foot of Thriddle Shaft, which appeared to be covered over as it certainly falls deeper than this, we waded into an extension of the vein shifted by faulting. Here a deep sump was crossed by Dawes, with acrobatic agility; he then followed up the level/stope to its conclusion.

The next trip was the 5th July 1981 and the same members attended. On this trip we were to attempt to enter Taylor's Level in Fleming's Mine by way of the open stopes at Red Dell Foot. Pete Dawaes pioneered the route down aiming for the great boulder pile in the stope south-easterly of the New Engine Shaft. A steep but awkward descent was made (more of a traverse) to the viewpoint where on an earlier trip Fleming and myself had looked out into the open stope uncluttered by loose rock. P.Fleming climbed to the top of the boulder 'heap' and discovered that when the great mass had detached itself, it had only fallen a few yards before jamming, leaving a 'roof' above it and forming thus a large flat chamber - Boulder Plateu. This was reckoned as being 40 to 50 ft. in length, 6 to 10 ft. wide, and the height of the pile to be some 50 ft. It was estimated to be some 75 ft. down from surface but as the stope is roofed above it it was not possible to descend directly down onto the plateu. Nor is it at all convenient to ladder diagonally down onto. It must be climbed up onto from inside. Whilst all this was going on the rest of the mine was being laddered to effect a through trip. The writer spotted, in the meantime, a possibly better descent down through these stopes and on a subsequent visit Mike Mitchell and Mark Wickenden proved it to be so and at the time was dubbed Armageddon Pitch - sometimes these rather silly names stick.

Meanwhile the society had offered to act as hosts for the 1982 N.A.M.H.O. Field Weekend. We were to take them down through the stopes at Paddy End on the Levers Water/Grey Crag Level descent - an abseiling trip, earlier pioneered by the society, and this on Saturdey. On the Sunday it was to be a through trip of Fleming's Mine, abseiling down the Red Dell stopes and climbing out on electron up through Fleming's Mine to exit via Fleming's Level.

To prepare for this prestigious event there was much to be done! Loose rock had to be cleared and potential danger points to be made as safe as possible often by placing fresh wood. Special attention was to be given to Chute in Fleming's Mine where loose rock was to cleared, and wooden frameworks, landings, belay points, and a seat for the Void lifeliner, were put in. Particular thanks go to A.McFadzean, Max Dobie, M.Wickenden (not to forget myself) for their efforts. The steel drum in the entrance was now eliptical and rather off-putting and this was to be replaced. On the allotted evening several members turned up and some, like Stewart Cole, A.McFadzean, Wickenden M., and Dobie Max, Mitchell, Dave Blundell and the writer put in a considerable effort to clear away rocks and dirt and remove the old drum which promptly fell to pieces. An attempt to obtain a stainless steel replacement having failed Holland decided to replace the old one with a wooden framework (copper treated of course) and all this had to be humped up the mountain on the previous two evenings. All the evening having been spent preparing the hole the task was not completed and special thanks are due to M.Wickendedn and Max Dobie gave up the following evening to assist Holland place the timber and make good the site. My word, Isambard Brunel himself would have been proud of us!



Low Mill at Bonsor Dressing Floors.

CAT Members after their successful explorations in the Red Dell Copper Workings, Coniston, Sunday July 5th 1981

The Members shown are those who completed, possibly for the first time this century since the mine closed, a hazardous through-trip of Fleming's Mine, Taylor's Level and out to daylight via the new Engine Shaft stopes.

They also descended Triddle Shaft to Deep Level.

The equipment used in the course of this exploration included 700 ft of rope and 500 foot of electron ladder.

Members from left to right are Alen McFadzean, Mark Wickenden, Colin Horne, Anne Danson, Peter Dawes, Mike Mitchell, Peter Blezard, Eric Holland, and not shown, Peter Fleming, who took the photograph.

Levers Water/Grey Crag Level/Hospital Level THROUGH TRIP.

There was a certain amount of speculation,as we trudged our way up the montain's back laden with gear, as to the likely conditions we might encounter in the workings resulting from the recent heavy rain. It was the weekend 15/16th of November 1980 and it was a cold blustery day the Saturday. Dawes and Mitchell were first off into the old workings positioning ropes and after an interval Holland and Wickenden followed in fixing ladders on the first three pitches. At Arete Chmber Fleming and McFadzean joined us as we laddered the Big Pitch (a real sphincter tightener) and set off down. The lights of Mitchell and Dawes could be seen far below on the Ledge, later proved to be part of Top Level. At the back of the ledge a low blocked tunnel provided a period of hectic digging for Holland whilst the remainder of the gear was lowered and Wickenden joined him. M.M. & P.D. meantime were fixing a rope down the next pitch, the one down to Middle Level. The last time that Holland had dug in this blocked 'tube' was back in the '60's and as it ventilated clearly linked up with something. Later on Alen McFadzean and Wickenden,Jones and Dobie dug through the rubble and established a fresh link with Top Level workings. The first descent to Top Level was down the pitch at the far end of the passage beyond Arete Chamber but several members thought this was, er, "dirty".

Holland assisted Mark to ladder the Second Pitch, about 67 ft., down to Middle Level and set off down, closely followed by Fleming & McFadzean. This sets one onto a section of timbered roof over Middle Level but the woodwork appears quite good - it needs to be - and under this the floor of the level is seen to be false with two 'manholes' leading into a respectable stope below. Mitchel and Dawes had already shot off down this.

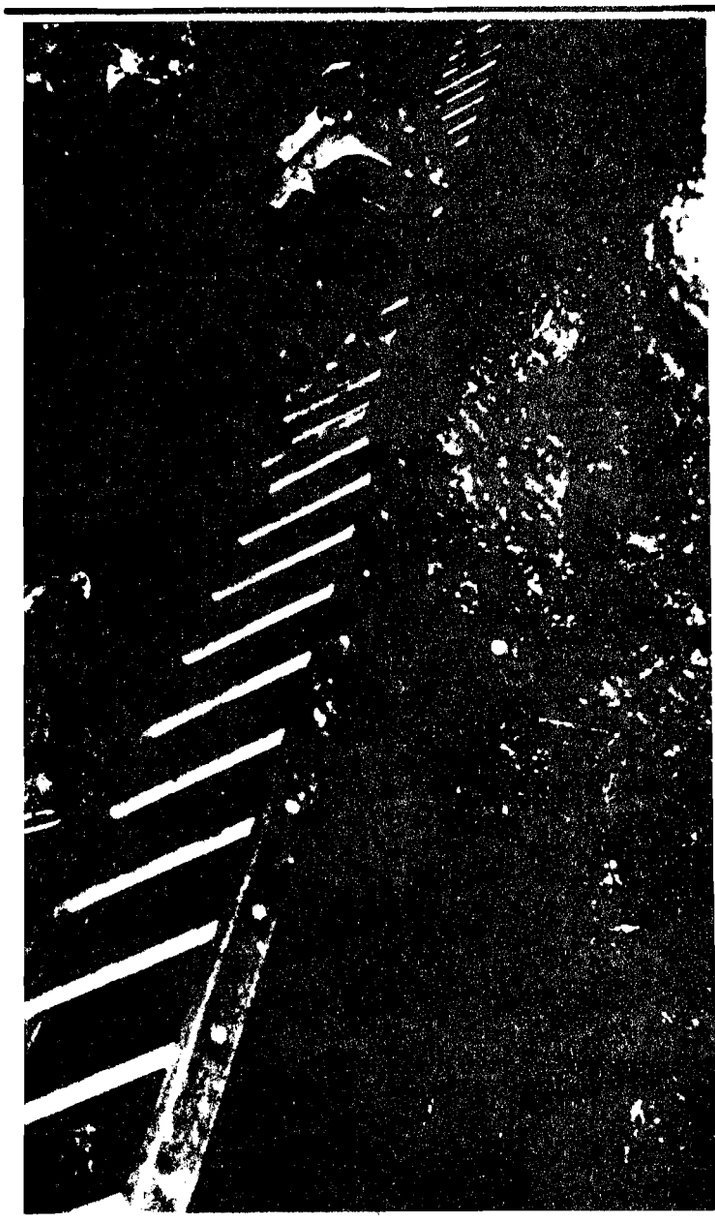
Conditions were quite good. There had been a great roof fall in the entrance,over which we now had to climb, leaving loose deads stacked precariously on well decayed stemples and a view right up to the sky! There could well be a further complete blockage at this point, but later on,whilst investigating a little tunnel well up above this horizon, Holland discovered another 'reserve' route in. Down here on Middle Level,for him (that is me), it was more a case of refreshing me memory. For the others it was new stuff and they were most impressed. The great stope that we stood in is likely to be Paddy End Vein and our lights reached up into blackness - who knows how many tons of deads are stacked up there on rotting timbers .... waiting? Meanwhile there were other things to occupy our minds - the colours of the secondary minerals plastered on the more sombre ochreous walls. Northely the level was followed up, crossing over two deep sumps, to its end. The other way brought us to a a left hand branch ,adjacent to a deep lake of pale green water, which led off into the side of an immense stope possibly Paddy End Old Vein. Here we were able to climb down onto the top of an enormous rock fall which had 'torn away' a section of this brach of Middle Level. The continuation was directly ahead, but out of reach. There has been a great deal of discussion and theory about getting up/across to the beckoning opening, but so far it has eluded our efforts. Duly Dawes and Mitchell rejoined us having, from the bottom of the stope they had descended, heard our voices and caught glimpses of our lights through a gap betwixt shattered boulders - this meant a connection between their stope and this one! Their description of the descent and of the 'link', and a wheelbarrow they had seen prompted myself and Pete Fleming to repeat the trip using electron - this being done the following day.

Carrying on along Middle Level we soon reached the junction with P.E.O.V., and here,standing on the false floor, we gazed in awe down the great verical sided stope into blackness. Thirty feet or so below us was the top of Pinnacle Rock a great slab which had detached itself from the side of the stope,and dropped,and jammed,and now known to be

about 40 ft. long, or high, depending on how one looks at it. It effectively splits the first part of the stope below here into two.

From sketch plans made long ago, Holland had concluded that somewhere below this point was the top of the Paddy End Engine Shaft. In fact it had once existed right up to the false floor on which we now stood. Where was it? The writer theorises that up through a mass of deads below here, it existed as a timbered way but that the wood collapsed under the strain, blocking the shaft, but precipitating much debris down onto Grey Crag Level where it is piled up on the floor timbers over the shaft there. An attempt by A.Westall, M.Fidler, P.Fleming and E.Holland, to scale the shaft up from Grey Crag Level, using a light alloy extension ladder was aborted due to lack of time after we had climbed about 66 ft. Subsequently Fleming and Holland tried again and climbed as high as possible to be stopped by dangerous loose rock and smashed timber indicating that the top of the shaft had crushed in. We did notice a 'window' which looked out into the dark of a a stope beyond - it was not safe to climb up into it. Later on this weekend we were to look into this window from the other side!

Here at the false floor cupriferrous water has beautifully coated rocks and floor in brilliant blues and greens. This is a real gem - and specimens removed simply break up when dry. Far better to take only photographs away!



Scaling Paddy End Engine Shaft with an alloy ladder - 1980.

A short distance back along Mid.Level, a branch runs off ending in the side of a stope which ventiates, at times, very strongly. This is thought to be South Vein and is thought to drop down, perhaps to Deep Level, passing the Pudding Stone Cross-cut, from which a branch was taken off. Alas the floor of this has gone, eaten away by dry-rot! It might be possible to effect a trip down to Pudding Stone Level but if the vertical was very far along the floor-less branch, it might prove impossible to traverse into Pudding Stone Level.

Holland suggested to P. Dawes that he have a cack at this descent but received a nervous giggle in reply, and this despite being informed that he could well be in line for a trophy for performing meritorious deeds. Can't understand some people!

Now Alan Westall was supposed to be below us, somewhere on Grey Crag Level. It was his job to listen for our shouts, or dropped stones. We shouted, and dropped stones but had no response. Later we found that he, P.Blezzard & Anne Danson, and Stewart Cole,

had decided to do something else. Meanwhile time was running out and we decided to have another go on the morrow. The weather outside, we discovered was far more unpleasant than conditions underground,and we made our way down to the hut in a combination of gale,sleet,and icy rain.There was much excited chat whilst we washed and ate and this continued unabated in the Crown - our tongues gradually loosened by Hartleys.Would we make the through trip on the Sunday? Well we would find that out soon enough but there was the night to be got over with first!

It Really Happened.

There we were, all snorting and grunting away in our sleeps, adrift in our private dreams, or nightmares. When suddenly, in the early hours of the morning there came a strangled cry from out of the darkness, followed by a fearsome crash, a variety of thuds, gasps and groans. What could it be? Lights on, and, there was young Mark Wickenden who had (or so he claimed) forgotten that he was on a top bunk, and feeling the urge to go for to attend to a call of nature, having earkier ensured the survival of Hartleys Brewery for at least another six months,and "stepped out of bed"! After being extricated from the overturned furniture he staggered off, bruised. Odd thing was he never came back and so a small search part went out to find him asleep in the frost covered grass. He was brought back in and put to bed. When the lights went out a faint voice was heard to say, "but I was sure I could fly." In the morning he insisted that he had been sleepwalking, and it wasn't a recurrence of Wickenden's Syndrome, first reported in Newsletter No. 1.

Sunday dawned (again) and the party set out for Levers Water. A.Westall and lady friend Sheena,with S.Cole, were to go into Grey Crag Level and listen for any sign of our presence above. This time P.Blezzard and Anne Danson came in with the rest of us and with the gear in position from the Saturday we were all of us soon down to Middle Level. Here P.Fleming and myself laddered the stope under the floor and descended to where Mitchell & Dawes had discovered the wheelbarrow. Discovering the hole leading up through into we placed in position half a ladder,i.e. it only had one side and no rungs, and managed the most unstable climb up into the huge stope through smashed boulders. Here we could see the lights of the others who,like us on the previous day,had climbed down onto the top of the ginormous rockfall. For us, this was high, and loose enough, to deter a climb up to join them and we were forced to return the way we had come,neither of us relishing the climb down through the rock pile. At the opposite end of this great chasm we found that the floor fell away into a stope of unknown depth.... groan.... a future trip.

After de-laddering we joined the others at the Junction above Pinnacle Rock and here a ladder was being hung down to the rock. I seemed to remember a rather dangerous alternative way down to there and went off to look for it, found it, and joined a rather nonplussed Pete Dawes at the bottom of the ladder. He looked as if he had seen a ghost when he got to the bottom and found me standing there! As matter of fact though, the ladder (or a rope hung from the edge of the false floor is the safest way down. Soon the others joined us at this station and we surveyed our surroundings with some excitement.

Pinnacle Rock split the stope into two divisions and clearly the right hand 'cleft' was the safest way down. The impressive stope simply continued downwards .... somewhere down there out of the range of our beams was Grey Crag Level. At this point in time however, we were not sure if there was a way down for us or not. We hurled a few stones into the void. Almost at once we were rewarded by a series of dismal cries from the depths - it was Alan Westall. So there was a connection. Could mere human beings get down/through it?

The route down was very steep between the Pinnacle Rock and the near vertical side of the stope and a ladder was put down here and we were glad of this for at the bottom of this cleft a 10 ft. drop onto a steep and slippery bank had below it a 20 or 30 ft. deep drop into a narrow pit. A traverse across brought us to a jumble of boulders offering sanctuary. Beyond these another steep, rubble strewn slope, led down onto a ruckle of boulders beyond which was a vertical drop. Westall's voice echoed up in errie fashion - could he perhaps have been hit by one of our thrown stones? To eliminate the doubt a veritable shower of missiles were hurled in the direction of his voice but there were no cries of pain. Meanwhile back up at the Sanctuary an enormous slab was seen to be partly detached from the side of the stope - a legacy of past rockfall. Further back was the window through Holland and Fleming had peered on their ascent of the Paddy End Shaft.

Dawes set off down the slope using a hand line. The voice from the depths came up louder - more stones were thrown in its direction. Still no direct hits. At the bottom he began fixing ladders into what turned out to be the last pitch, about 71 ft. Westall's light suddenly appeared below and a veritable shower of stones was dropped towards it. With great wisdom he decided to move himself to safer quarters.

Yes it was Grey Crag Level, a short distance in from the P.E.Shaft. By the time we were down we found Alan had taken a 'shivering Sheena' home (say that quickly 20 times) but Stewart Cole had remained to shake hands with us. The only thing missing was a toast of champagne - but on reflection rum would have done, or whisky, or gin, or Glayva, or anything to toast the propitious event. After a chat and a rest Dawes, Mitchell, Holland and Fleming decided to retrace the climb, removing the lowest of the tackle. Some was left in for a further trip - the Sunday after the C.A.T. annual dinner. (1981)

Over the following months groups of members made a number of descents with the odd discovery here and there. The work goes on. More recently descents have been made of both Old Engine Shaft & Bonsor East Shaft through to Deep Level.

One event which should not escape notice was the succesfull hosting of N.A.M.H.O. during their field weekend at Coniston Mines. Members of Northern Mines R.S., Shropshire C.&M.C., P.D.M.H.S., Earby Mines R.G., Red Rose, & N.Wales C.C., attended and 38 of us made our way safely on both trips. All those members who assisted have been warmly thanked by the visiting groups ... "best weekend exploring I've ever had," said one. The social evening and hot pot at the Church House Inn, Torver, went down well, and Holland's slide show on the Hodbarrow Mines Sea Wall was well received.

No it is not Max Dobie.

It is a Coniston Knocker saying goodbye on behalf of your bleary-eyed editor.

Wickenden descending
The Void in Fleming's

A.Westall in entrance Fleming's Level
June 1978 BBB.*

Mitchell, Fleming, Ann Danson & others
at the stopes in Red Dell Foot. 1982.

The 30 ft. Shaft down to Taylor's Level
in Fleming's Mine.

Fleming near Deep Level
in Fleming's Mine.

Thriddle Shaft By-pass.

* Before Bad Back.

A REPORT ON THE EXPLORATION OF HELVELLYN MINE

.....

BY ALEN McFADZEAN

.....

GENERAL DESCRIPTION.

Helvellyn, or Wythburn Mine is situated above the eastern banks of Thirlmere on the steep slopes of Helvellyn. The principal workings consist of five adit levels driven on, or as crosscuts to, several veins. These veins include two NNE SSW veins (the Blue Rock and the Old Vein), a SW NE (Brown Cove Vein), and an E W which is presumed to be the western extension of Eagle Crag Vein, Patterdale. The five adit levels, all of which were sealed deliberately during the 1880's, are situated in vertical succession in, or near to, the deep defile of Mines Gill. The highest, Arnison's Level, was driven on the Old Vein at an altitude of 2100 ft. Little is left of the entrance, which was in a shallow gill, a subsiduary of Mines Gill, and only the spoil heap remains to mark the site. 150ft below is the entrance to No.1 Level. The ruins of two stone walls divided by an access ginnel mark the location of the adit portal though this too has been obliterated by the encroaching scree. No.2 Level, which was the main producer and haulage level of the mine, was driven from the north bank of Mines Gill Beck 200ft below No.1 and at an altitude of 1750ft. Here a large spoil heap spans the beck and specimens of galena, the principal ore mined, and barytes are plentiful. Down again, another 150ft, and on the southern side of the beck, is No.3 Level. This was driven as a crosscut to the Old Vein. The entrance is readily discernible as a walled construction, resembling a waterwheel pit, though choked with large boulders and lengths of rusty rail. No.4 Level, at 1400ft the lowest of the group, was driven from the side of a beck as a crosscut to Eagle Crag Vein. The entrance is in a shallow depression in the depths of the fir wood and is not easy - believe me - to locate.

Work was initiated by a Mr. Henry Molyneux and partners during the 1840's. The company was dissolved and reformed several times over the years till 1880 when Manchester Corporation took over the valley and prepared to flood it. Presumably they did not want lead contaminating their water supply.

The ore was dressed and crushed at a mill, the site of which can be seen above the Ambleside/Keswick road directly opposite the castellated well-house on the banks of Thirlmere. The ruins are in a state of advanced dereliction, there being no remains whatsoever of buildings or even foundations. Piles of tumbled stones and several wooden launders remain, but these shed little light on the extent or development of this vanished industry. The mill was powered by water brought down from a dam, in a cast-iron pipe. The dam is still largely intact and is quite an impressive construction spanning the mirky cleft of Mines Gill. The pipe has been spirited away though the inclined causeway, which marks its course, can still be traced up the fellside.

The old powder house, a squat building beneath the eaves of the forest, is in excellent condition and now serves as a bait cabin for forestry workers. Several years ago a German wireless set was exhumed from the earth floor, giving rise to the theory that this was the lair of an enemy agent sent to spy on the Barrow shipyards.

Transportation of crude ore from No2 Level to the mill(a vertical distance of 1000ft) was a problem alleviated by the costruction of an inclined tramway. This is one of the finest examples of an incline remaining today in Cumbria. The ruin of the drum house, on the same horizon as No.2 but a little to the west, stands adamantly midst a chaos of scree. Baulks of heavy timber and large cast bearing mounts remain in situ, while a section of the cast drum wheel lies shattered

1.

3.

5.

2.

4.

1. Members of C.A.T. at Red Dell.
2. Timber framework in Thriddle Shaft By-pass.
3. Intrepid P.Dawes prepares to descend - Red Dell stopes.
4. Deep Level at Fleming's Mine.
5. P.Fleming highly satisfied with the day.

outside the entrance of No.3 Level. The upper half of the incline is of a raised masonry construction and is mostly intact. Halfway down it crosses Mines Gill Beck, originally by means of a wooden bridge which has since vanished, and continues to the mill in the bottom of a deep cutting which can be easily viewed from the road.

Above the entrance of No.3 Level, on the old miner's track which zig-zags up the fell, was the smithy and mine office. A close inspection of the ruins reveals the remains of the smith's hearth. Small holes in the stonework of the doorway are the tell-tale signs of where the smith tested his newly sharpened drills.

High above Arnison's Level, and a little to the east, is a shallow troughlike depression atop a spoil heap. This is a collapsed trial and is not mentioned in either Postlethwaite or Shaw. At an altitude of approximately 2300ft this must rate as one of the highest mineral ventures in Cumbria.

EXPLORATION.

Enthusiasm whetted by a sentence in Shaw's "Mining in the Lake Counties" - "It is said that, in all, 650 fathoms of levels were driven", I embarked on an exploratory foray up the defile of Mines Gill in July 1981. My theory that the levels above No.2 were linked by an internal shaft or ore-pass was given impetus by the fact that no traces of inclines or miner's paths could be discerned on the fellside above No.2. This information, coupled with snippets gleaned from various literary sources, suggested that the best place to commence operations would be the top rather than the more obvious and appealing entrance to No.2. However; a swift visit to Arnisons Level put paid to this idea, the adit being lost beneath a daunting expanse of scree, and so I decided, Hobson's choice really, to concentrate on No.1.

Several months later, on the day before Christmas Eve, Chris Jones and I battled our way through the December snows, wielding ice-axes and crampons, to the humid black hole that was No.1. By the time we had sliced our way through a six foot deep drift into the adit night was closing in fast. I made a hasty sortie along the level (concious of being 2000ft up England's third highest mountain in the depths of an arctic evening), without my spectacles which refused to stay un-steamed because of the dramatic difference in temperature. Nevertheless things went well.

The first ten feet, where the tunnel ran through the scree, was timbered and in a relatively unstable condition; after that it ran through good solid ground, following the line of the Old Vein. Several backfilled passages branched off here and there, and in one place the level opened out into a quite sizable stope. Two hundred feet in there was an upturned wheelbarrow lying in the passage, though sadly it was wheelless, and beyond the stope an improvised bench for the miners to sit on and take their snap. Three hundred and fifty feet in I could hear cascading water; and there, above my head, was an impressive stope soaring up to Arnison's Level. Aha, thought I, things are hotting up. Twenty feet further, in the floor, was a black chasm down which the water plummeted. I regarded it, spectacleless, with mixed feelings of horrer, jubilation, and dismay. This, it appeared, was the route down to No.2.

A meet had been organized for the 27th of December. We assembled on the road outside Wythburn carpark (the carpark itself was snowed up) equiped with ice-axes, ropes, crampons, etc., and made the ascent to No.1 in Alpine conditions. At times the wind and spindrift were so severe we were forced to lie in the snow and hang on grimly to our gear while the elements blasted. Nine members made that ascent: they will not forget it quickly.

I had not fully explored the level on my previous visit for I hadn't

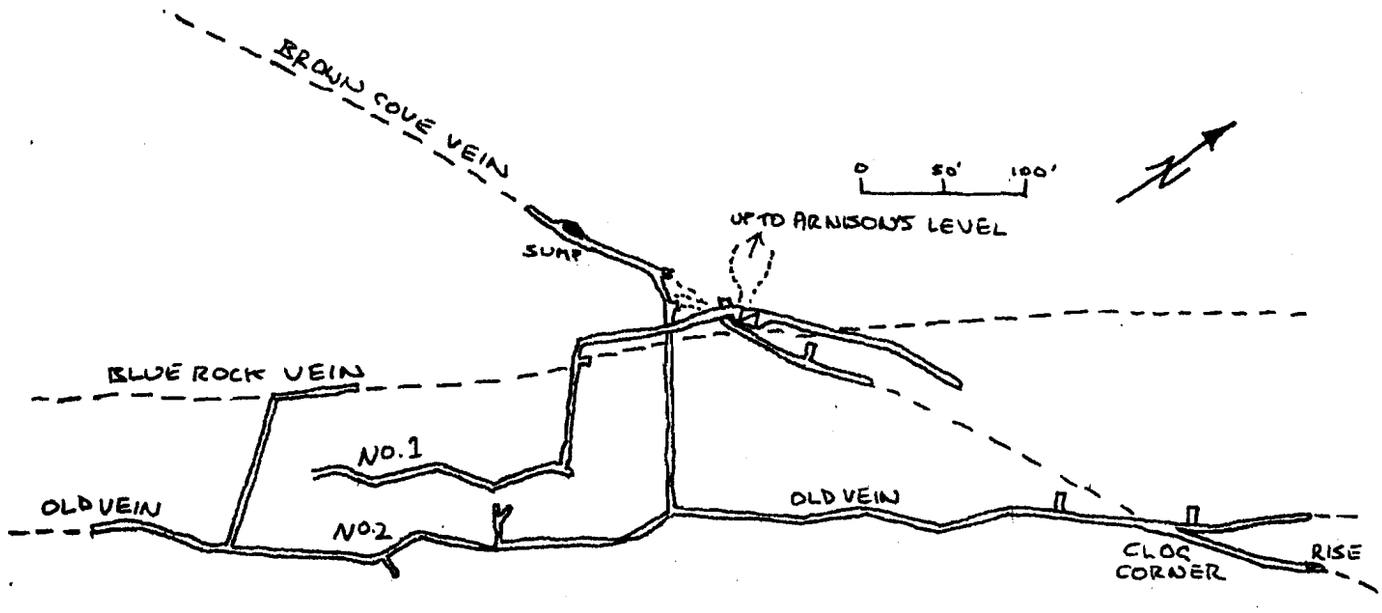
fancied skirting the shaft by myself. Shaft negotiated the passage continued for some distance before ending in a small stope. We found a broken drill-steel, two iron wedges, and an oil lamp. But most impressive was the shaft down to No.2. It was steeply inclined for the first thirty feet but appeared then to drop into a black void. We lobbed stones down and from the noise formed the impression that it was vertical for its entire 150-200ft.

In February, when the snows had finally vanished, Eric Holland, Mark Wickenden, Chris Jones and myself returned with ladders and ropes for an attempt at the shaft. But we were confronted with a problem hitherto unforseen. During the cold spell the volume of water splashing down the void had been little more than a trickle. Now there was a veritable Niagara. We regarded the situation dubiously before rigging the pitch.

Mark descended first, reluctantly followed by myself. The descent was spectacular: once past the inclined section it dropped into an immense stope the dimensions of which, and mind-boggling vastness, defy description. Mark was on a ledge sheltering from the spray. Beside him was a wheelbarrow in perfect condition, a wooden ladder, and a set of drill-steels. We left all artifacts in situ for posterity.

We had a look up a short tunnel, waist deep in water, blind at one end and collapsed at the other. And that appeared to be it. Disappointed, we shuffled about in the debris feeling cold, wet, and quite miserable. Then Mark dislodged some rocks and a hole appeared. We rumbled down through this mass of perched boulders and dropped, literally, through what had once been a wooden hopper into a grand, spacious level. And, my God, it was endless. It went on and on; branches here branches there; zinc air ducting, piles of barytes, clevis hooks, shovels. No.2 really had been the main producer. We spent the best part of an hour poking about, looking into corners and weighing up digs. Clearly another visit was required, later in the year, to survey the mine and take photographs.

The ascent back to No.1 was, to use a caving rather than a mining expression - sporty. Only those who have scaled 200ft of electron, suspended in a voluminous torrent of melt-water, wearing nought but cotton overalls and a hard hat will appreciate the dubious delights. I can say with my hand on my heart, looking back at the glaring white thundering water blurring my eyes and wrenching the air from my lungs, that it was the worst experience of my life. Roll on Summer.



PTO

EL DORADO ?

Summer came and went, so they tell me, in the blinking of an eye. July and August rumbled by and September, which was rather damp, would have escaped also had I not roused my porters from their premature hibernation and coaxed them over Dunmail Raise with promises of leisurely rambles and classic abseils. Seven of us met at Wythburn one wet morning and stalked off through the dripping forest; but by the time we reached the mine the sky was blue and the sunshine, glorious. Alas, the waterfall was in full spate and seemed even more unappealling than it had done in February. Undaunted, and wisely garbed in neoprene, we abbed down Godafoss Stope impervious to the thundering spray (Godafoss - Icelandic for waterfall of the gods.).

Down on No.2 Mark discovered an old clog, which we had missed on the previous visit, and, curiously enough, a sheep's horn trimmed and fashioned so we believe, for carrying black powder.

At the north-eastern extremity of the level is a rise choked with collapsed vein material. We had a look at this with a view to digging it some time in the future. Interesting point - we could look up the rise through the debris and see a compressed-air pipe running up the side; also there was much timber mingled with the rubble. Another interesting point - all the rails had been removed from the mine during the 1880's immediately after it was closed down; yet there are short lengths jutting out from under the rubble, therefore this collapse occured before the scrap men ransacked the place. I have a burning desire to see what lies at the top of the rise yet to dig from the bottom would be a major operation and fraught with danger. I have reason to believe that it leads into an immense stope. Watch this space.

While plotting out my survey the following evening several interesting points came to light. The most important one was that from my modest sketch it was possible, for the first time, to work out where the principal veins were situated in relation to the levels. Arnison's, No.1 and No.2 were all, according to Shaw, driven on the Old Vein. Fair enough, it's all straightforward so far. But both 1 and 2, halfway along, veer west onto the Blue Rock. Previously I had assumed Godafoss Stope to be on the Old Vein. It's not, it's on the Blue Rock.

Shaw states that these two veins were richest at their junctions with the SW-NE Brown Cove Vein. Godafoss lies at one of these junctions. But he also goes on to state:"The Old Vein was the more productive and produced some highly argentiferous galena". Yet the Old Vein, on both levels has not been stoped out at all. So where is the other junction, which, we are led to believe, was richer than the one on the Blue Rock?

I shall reveal all. If we project a line along Brown Cove on No.2 from Godafoss, it intersects the Old Vein at Clog Corner. Here No.2 level forks. The left branch continues along the Old Vein while the right follows Brown Cove. Therefore Clog Corner is the site of the rich ore-body alluded to by Shaw. At this point my theory should dissipate with the beery fumes from which it arose for at Clog Corner there is nought but a confluence of passages. But it stands firmer than ever. Thirty paces from the corner, on Brown Cove, is the choked rise with its air-pipe, its vein stone, its timbers, and its rails.

I believe that the rise ascends into a stope which is larger than Godafoss; that it soars mind-bogglingly up to Arnison's Level 350ft above as does Godafoss (Shaw states the junctions were mined on all three levels), and that unlike Godafoss it will be quite dry. My theory is strengthened by the fact all the zinc air-ducting and hangers for air-hoggers etc. to be found in the whole mine, are in the passage leading to the rise, asserting that this was the scene of the final operations. The tunnel to the hoppers at Godafoss is devoid of all such parafanalia.

Food for thought, eh?

Occurences of Copper in Furness and South Cumbria.

(Most of this information is taken from a paper submitted by Ray Bland but has been edited for this publication by Chris Jones.)

This account attempts to list some of the mines, trials, shows and historical references to copper in the south of Cumbria, excluding the area which is covered by Eric Holland in his recent wwrk on Coniston and District.

ULVERSTON AREA.

It seems very likely that some mineral must have been present judging by the amount of interest shown in this area in the 18th and 19th century but no trace of the mineral can be found today. The first evidence of interest so far found is that in 1759 searches were being made at Egton-cum-Newland and Arrad Foot by the Arrad Company, otherwise known as Anthony Tissington of Alfreton & Co. Despite obvious interest after this nothing was accomplished until the 1850's when several take notes were issued by the Buccleugh agent although little work seems to have been done.

Duchess Lot(may also include Outrake):-In 1901 Robison recalled seeing, as a boy, an attempt by Col. Braddyll to find copper but abandoned the venture after a few feet, this was probably in the 1840's. A hole at the top of Outrake near the Coronation bonfire site was stopped after four feet, the searchers were unknown. It is probable that they were one and the same. Later exploration also proved nothing in 1854-55.

Egton-cum-Newland:- According to Fell, Tissington had a lease in this area as well as Braddyll but no evidence exists as to where or how many trials were made(Fell, 1908)

Newland Beck Trial:-A short mine level at the side of the beck, this may be a copper trial though no mineral is visible(Holland,1967)

Arrad Foot:- Fell gives details of the lease, and states that in 1759 Arrad Foot was the site whilst the smelthouse was probably in Greenodd. Fell also states that the work never attained any importance and were soon abandoned. No work is now visible.

DALTON AREA

Anty Cross:-Copper Ore was found in the Iron ore vein along the whole length of the 2,000 feet vein,though much more strongly at the west end. The vein continues to the East though no trials were ever taken along it. The western end stopped at a fault and although it showed every sign of continuing work could not be advanced because the surface was covered by a cemetary.

(Other information regarding Anty Cross Mine has been received by me and will hopefully be incorporated into a future article. CDJ.)
The copper ore was found interspersed in the iron. This strange state of affairs can be partly explained by the highly shattered fault zone which ran through this area. The ore was complex, consisting of sulphides, oxides and carbonates.

Park Mines & Thwaite Flat Mines:- Although no copper is reported found small bits of malachite have been collected off spoil heaps at both sites.

North Stank Mines & North Newton Mine:- Pockets of copper ore were reported occurring in in these mines but it is not known which vein carried the ore.

LINDAL AREA

Lindal Moor:- Chalcopyrite was found at B39, but no certain proof exists.

Haregill & Highfield Mines:- Malachite and Cuprite have been found in traces and in 1915 the Barrow Haematite Steel Company re-opened the latter to search for copper but with no apparent success.

Martin Copper Trial:- The exact site is not clear and so far as is known no copper was found.

OTHER AREAS

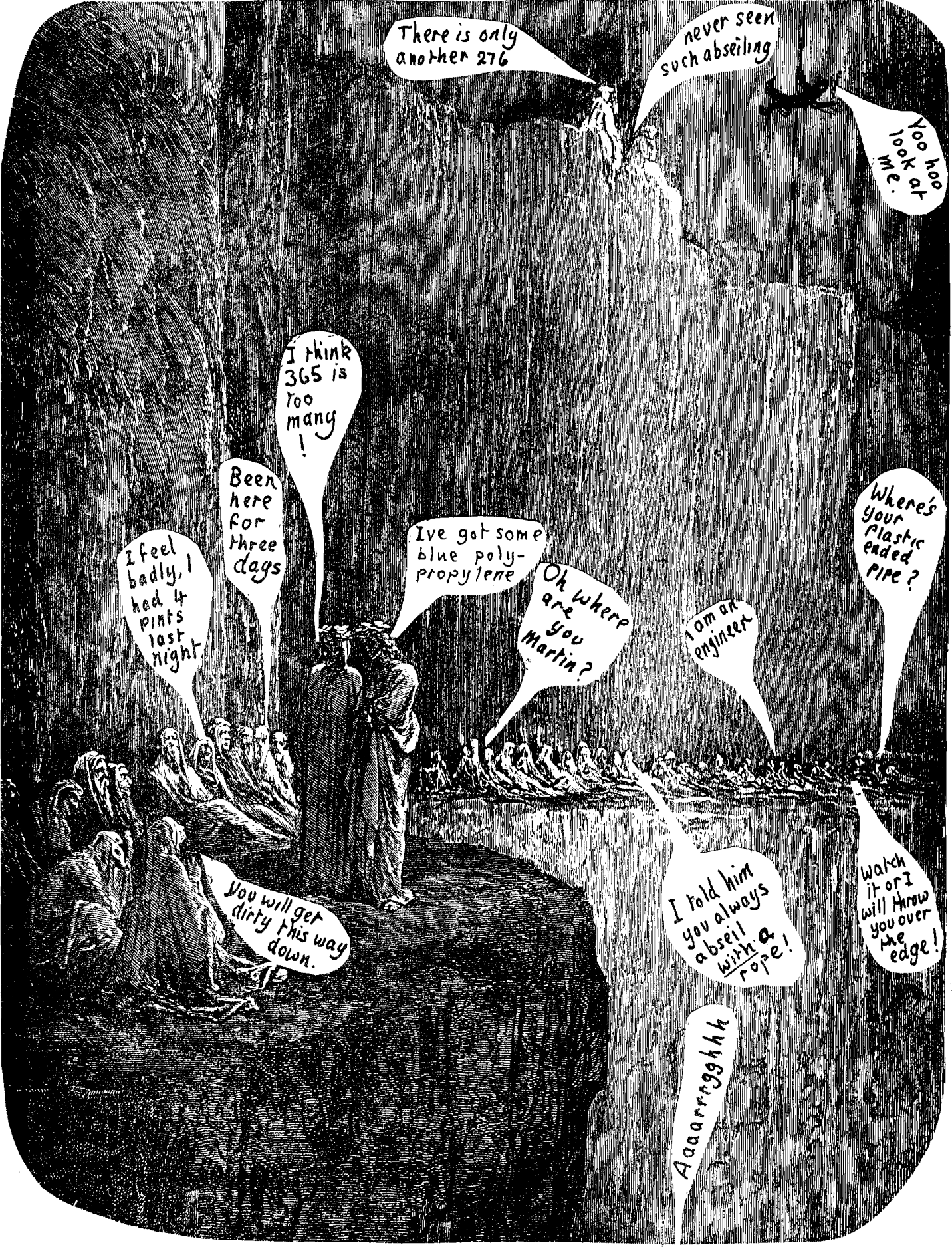
Sea Wood Copper Mine;- The physical layout of this mine is outlined elsewhere (Holland. 1960 & 1967). Its complete history is also outlined and written up. The almost vertical calcite vein carries traces of malachite, azurite, cuprite and tenorite which have concentrated in pockets. There is some 1300 feet of ground explored though only half of this was productive. The mine was last worked by some unidentified miners from 1863 to 1870. The level in the quarries above was an access tunnel.

Burlington Slate Quarries:- Chalcopyrite can be found on the North-South Joints.

Rusland Pool:- Fine specimens of copper ore can sometimes be found near the brooks of Rusland. There are no evidence of Copper veins, but there is a story that Greenburn copper was brought to Rusland woods where a forgers mint made "Rusland guineas: copper bright as gold". When magistrates attempted to find the mint, the counterfeiters threw their plant, coins and ore into the pool and made good their escape. Pieces of ore dropped in the rush are probably those reported.

Greenodd Smelter:-Built by Tissington in 1759,the details of which can be seen in Fell (1908)

The above are only an abstract of a much longer and more complete work which includes details of the North Lancashire copper mines around Wharton. Exploration and research on this subject is still continuing and much has yet to be done.



N.A.M.H.O. FIELD WEEKEND AT CONISTON COPPER MINES - HOSTS CUMBRIA AMENITY TRUST. 1982.