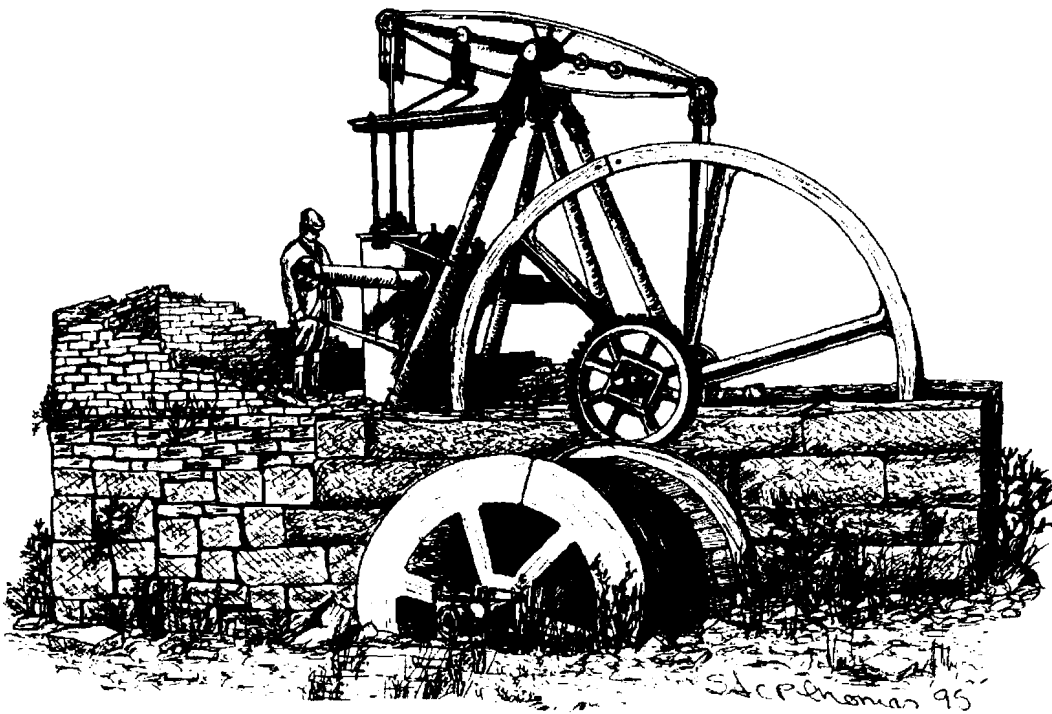




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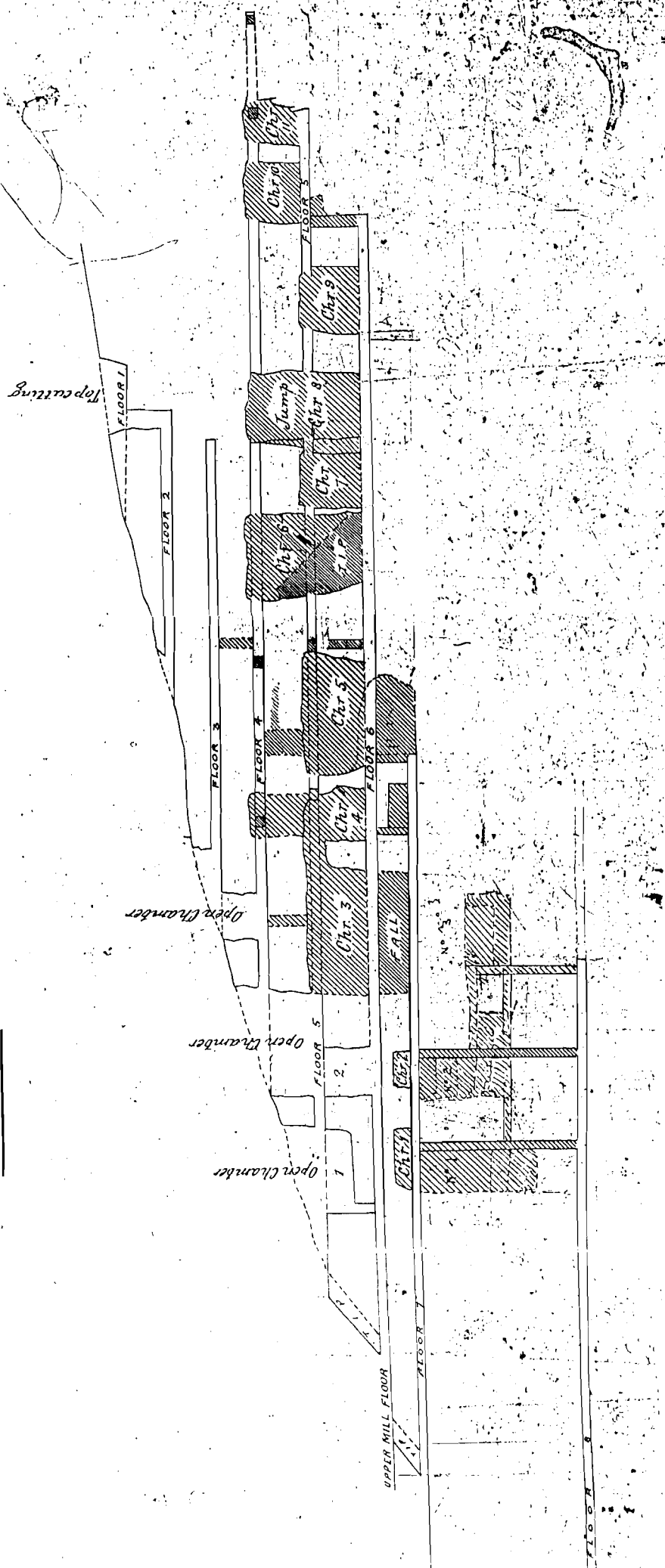
July 1995



The Newsletter of the  
Cumbria Amenity Trust Mining History Society

# RATGORED QUARRY

## SECTION



Front Cover Picture :- By Sheila C.P.Thomas

Engine from Ty Gwyn, Llandudno 1857.

Used at Broughton Collieries near Wrexham until broken up in 1921

## Contents

- 1) Society Notes, New Members.
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Coniston Exploration 18th June - Top Level and South Vein
- 14) Levers Water Mine, Coniston,  
Dr Descender
- 15) Triddle Shaft, Coniston
- 17) Power From Water - Wheels and Turbines
- 20) Minutes of the Committee Meeting of the 20th March 1995

## A) Contents of CATHMS Newsletters 1981 - 1995

To Come :- Extract from:- "Slate From Coniston"

An article about the rescue of the boy from Red Dell stope 23 years ago.

Some notes on photography in mines, drafted by us 4 years ago.

( All the above submitted by Alastair Cameron)

So you want to scan and print photographs!!!. Mark Simpson

ADIT Publications has now published its second book "Cwmorthin Slate Quarry by Graham Isherwood". This is a second edition of a book originally produced in 1982 in limited numbers and in "photocopy quality". The second edition is 106 pages including 8 pages of colour photographs together with a fold out underground plan and numerous diagrams. The book is in uniform style with Rhosydd Slate Quarry. Cover price is £11 plus £1 P&P. When CATMHS members buy a copy £1 is donated to Society funds. Available from the Meets Secretary who took some of the photographs.

Note that 4 of the 5 Adit partners are CATMHS members.

Jon Knowles

Proof Reading - Dave Bridge, Printing - Jon Knowles.

## Society Notes

In case you had not noticed this publication is now nameless, the committee decided that

'The Bouse Team' was not right, so until some person can come up with something better, nameless is the way things will stay.

Whilst looking round for inspiration for this column, a small incident at the last Hudgill meet reminded me of an exercise that was done several years ago, namely sending out a questionnaire asking for members comments. Thirteen members replied !!.

Dave Blundell made some worthy comments at the time, when asked if he could recommend any projects that you think the Society should undertake.

I quote " Consolidation of records of mining sites - drawing of surveys etc. For a Mining History Society, this organization spends a disproportionate amount of time and effort on rope swinging, and precious little on research & historical recording."

I leave it to individual readers to contemplate whether this is still true. The FMA's Furness Relic Survey apart, if you are undertaking useful work, dont be shy, lets hear about it, there is still a lot out there that needs investigation. May be not as easy to come by as when the Society was founded, but it is still there.

As I have probably said before, a society is the sum of its active membership, and so reflects their wishes - the meets arranged and what is in the newsletter, this in turn is what the outside world sees of the Society. This in turn affects how we can promote Mining History and its worth to the public at large.

So come on !! the next meets meeting is not that far way, some inspiration would be helpful.

Some small asides. - Jon Knowles is pleased to be not the youngest active member anymore, that honor goes to Tristan Goldsack from Brighton!

Ian Matheson must get an award for perseverance above and beyond the call of duty in retrieving a tacklebag left at the start of a privately organised Croesor/ Rhosyth trip when stripping out had almost carried out, with a very dodgy ankle.

The hole that I excavated some time ago at Hudgill is now no more.

Please note that the minutes of the CATMHS Committee are now in with this publication. MWTS

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## New Members

Tristan Goldsack Little Stanbridges A23 London Road, Handcross W Sussex, RH11 6BA

John A Knight 40 Fladgate Road Leytonstone London E11 1LY

Mr K Blackledge Ascona 12 Lower Hill Drive, Heath Charnock, Nr Chorley, Lanes, PR6 9JP

Mr W.D.Kelly (Author of "The Red Hills") 187 Blake Street, Barrow-in- Furness, LA14 5RS

Mr R Parsons, Glebelands, Broughton-in-Furness, Cumbria. LA20 6HS

Mr P Blackwood, 250A Devonshire Road, Mag Fold, Atherton, Gt Manchester. M29 9QB

# Diary Dates

29th -- 30th July	Derbyshire Weekend - ML Jon Knowles Saturday - Mines of the Via Gellia, Sunday - Long Rake Spar Mine	It is planned to visit the sites of Woodend and Gategill mines followed by a ridge scramble up Blencathra and return via Glenderaterra. An important geological site will be visited en route. Boots, NOT wellies. A Petzl lamp and helmet could be useful. Meet in Threlkeld village main street near the Salutation Inn (NY 323255). Grade E. Dave Bridge 01946 822484.
13th -- August	The Mines of Blencathra ML D. Bridge.	
19th -- 20th August	Silver Panning & Wanlock Head ML Pete Blezard, Anne Danson.	To all Grinders. If you belong to this select group, who are regulars at the Hudgill Burn Dig, Breaking through is certain even if it looks now to be some working days off, but only if a certain minimum number come each day!! . Two working days a month should be aimed at if we wish to be in by the end of summer. It would be helpful if you would let either Jon Knowles or Sheila Barker know if you are coming or if there are times more convenient than others. If non scheduled meets are being organised the regulars will be contacted in due course.
26th -- 27th August	Hudgill Burn Mine . Only for those who like a long grind.!	
2nd - 9th September	Cornwall - ML Jon Knowles Please support, France next year?	The number minimum number required for each working day is :- 5 1) Face digger 2) Hooker on / off 3) Engine man (rope puller) 4) Unhooker / barrowfiller/ barrow pusher. 5) barrow puller.
17th September -	A day with the F.M.A. - ML A.C.P. Thomas	It can be seen that 1 can do 2's job as well and 4 can do 3's job but life is made harder and progress slows. If more people are on site, jobs can be broken down further and things become easier all round.
18th September-	Meets Meeting	
24th September -	Frog Shaft - Nenthead - A long drop to Barrons Sump Engine Room. ML D. Bridge	
29th September - 1st October	National Caving Conference & Exhibition Floral Hall Complex, Southport, Lanes	

## CHANGE OF DATE FOR BLENCATHRA MEET

NOTE - The date of this meet has been  
changed from 6th August to 13th August.

The next meets meeting will be held at the  
BMSC hut at 8.00 p.m. on Monday 18th  
September. All members welcome to attend.  
Even if you are unable to come please let Jon  
Knowles (01274 871012) have your ideas. It  
would be nice to see some new faces with new  
ideas. Remember all spaces on the Meets List  
will be filled with death defying trips to Wales  
- don't say you weren't warned!. J.K

# Meets Reports

## KNOCKMURTON MINE

19th March 1995

Due to the unavoidable absence of the meet leader, Sunday 19th March found a group of six marching up the slanting miner's track heading for the spoil heaps of Knockmurton and clutching written instructions regarding the locations of six reported open levels. Three of these had been visited by CAT on previous meets, and the other three having recently been opened up by WCMRG were to be 'new ground'.

No 3 level on No 8 vein was the first to be located. This was quite extensive once the continuation was gained by climbing the stope. Returning to day we found the sun had shown up and so an early lunch was taken - a good idea as the glutinous red mud was beginning to take hold, despite canine type antics in the heather to try and remove it.

A short climb up the fell found No 4 level, recently opened by WCMRG, after which a hunt took place to try to locate No 2 level on No 8 vein, also dug open by WCMRG. This was reported still to be open but well disguised beneath stones and heather, so much so that we were unable to find it! Light snow had started to fall as we crossed towards the forest to find No 10.

A scramble through thick undergrowth following a collapsed iron fence eventually brought us to No 10 level on No 9 vein, originally dug open by Dave Bridge. Inside, Dave Parsons was discouraged from doing a tightrope walk across a plank over a large shaft as it was known that the level only went a few yards on the other side, and also from crossing a flooded area on a 'not too healthy looking' stemple. Returning to day we found a covering of snow.

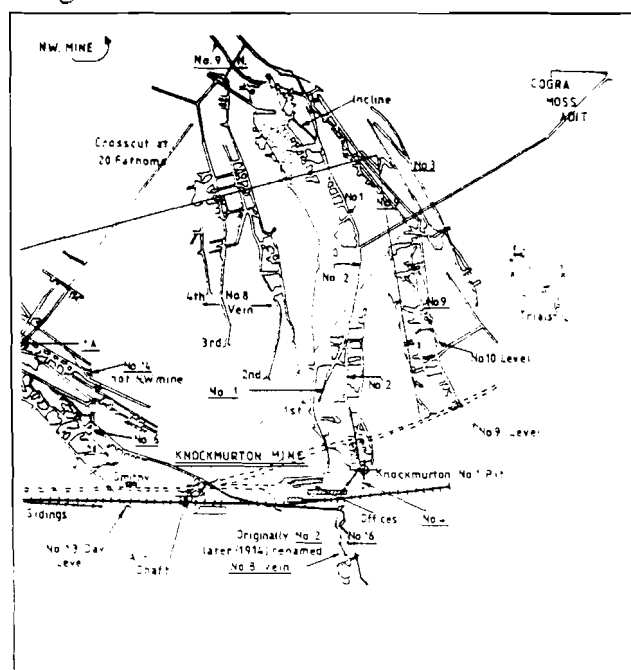
Following the forest fence down, we had a look at some spoil heaps in a clearing in the forest, finding what looked like a run-in level. It was later discovered that this was Cat Gallows level. Remains of old mine buildings were located amongst the trees on the track below the forest road, and after again fighting

with the undergrowth a nicely timbered entrance was found in the bank a little way above. Low Bottom level on No 4 vein has a short timbered shaft leading to a rather small entrance - lay on your back and wriggle while nose scrapes the rock above type - still, we managed to get in and explore the new area to a collapse where a rise connects from Cogra Moss level below, but the ground here was very unstable. We returned once again to day to find yet another change in the weather, the sun was out and not a sign of snow anywhere.

After a quick look down the big shaft (blocked) a few yards on in the trees, we made for High Bottom level on No 9 vein. This now has a fence around it and also an oil drum has been inserted in the entrance (LMQT). Fine for getting in, not so easy getting out if you happen to be one of the 'shorter limbed' species. We had a good look around here, taking photographs of the 'cartoon' wall and inspecting the 200 ft shaft down to Cogra Moss level which had been descended on previous CAT trips.

By 4.30 pm we were back at the cars, all looking nearly as 'sunburned' as our Membership Secretary, only ours we hoped would wash off.

Angela Wilson



## Wales 95

Jon Knowles

A blisteringly hot Good Friday saw Ken Geddes, Clan Thomas and the Meet Leader assemble at the bottom of the Aberllyn Gorge. The route up to the mine passes the large remains of the mill and some time was spent pondering its workings since there appeared to be buddles on most of the levels. A hot slog up through the trees followed until the top of the Gorge was reached, at which point everybody collapsed in a heap and had lunch. Hot looking tourists in tee shirts and shorts looked strangely at people wearing furry suits - even if they had removed them as much as modesty would permit ( have you tried eating after seeing Anton in his underwear ? ).

After lunch Ken, Anton and myself headed underground. After a short grovel and some water we were soon into a large stope the walls of which were covered with hydrozincite. The stope ended in a loose slope and a vertical drop to the floor below. Just before this stope a small hole in the floor showed the way on. An easy descent of 40 feet gave access to the next floor down ( Floor 3 ) which proved very extensive. The main working is very extensive and for obvious reasons is called Cathedral Stope. At its widest point the stope is 25 foot wide and approximately 200 feet high and is hundreds of yards long. The workings appear to have been conducted on a safety conscious basis for there are some handrails and in one place what appears to be a gate to stop the miners from walking over an edge. During our explorations we kept stumbling across wooden boxes about 18 inches square each with two approximately 12 inch diameter holes. It took us a while to work out that these were not privies but connectors for joining sections of ventilation pipework together. At the far end of one level we came to the bottom of a shaft which had a good ladder going up. unfortunately it did not start until about 12 feet above the ground and could not be reached.

A lower level ( Floor 4 ) was attained down a good extant ladder and this gave access to large areas of stoping which time precluded us from exploring fully. In addition another

ladder led down to a lower level but this could have done with a safety line and was saved for a return visit.

### Saturday morning

saw the troops assembling at Abergynolwyn where we were joined by Brian Marshall, Nicola Bissett, John Bowers, Dave Bridge, Angela Wilson, Alastair & Ian Cameron, Tony & Ruth Rawlins, and Anton & Sheila ( pt ). The younger members drove up to the mine whilst the more experienced walked and were not far behind !.

The group walked up to floor 10C and prepared to go underground. On entering the mine we were greeted by the sound of falling rocks which was not encouraging. After ascertaining that the noise was only small pieces falling down a tip, and encouragement from the white faced meet leader, we proceeded although on the way out a close look at the roof indicated that this part of the mine is far from stable. The 120 foot descent to 15C is one of the most pleasant descents I have ever undertaken with excellent rigging points and a smooth gentle drop. The only difficulty is getting a krab into a large eye about 9 foot of the floor but Ian Cameron leaped onto his fathers shoulders and did the necessary. Once all were down, Floor 15C was explored. This is an interesting level since it was the floor being worked at the time the mine was closed, due to a large rock fall in 1947, and consequently all the machinery remains. Numerous cast iron framed hand winches and wagon's are to be seen together with a nice inscription carved in the rock ( R.E.Lewis 1909 ) and a curious basket type arrangement which defied reasonable explanation. After a thorough look round we prussiked back out. Due to the sloping, but not vertical, nature of the rock techniques for ascending varied, but the "beached walrus" method employed by Cameron-The Older is worthy of special mention for its obvious difficulty and slow rate of progress.

After lunch the daylight adit was entered although a number of members decided that getting wet was too much for them and did not get to the end ( Dr Descender will take revenge in due course ). In the final chamber a very loose route back

up to floor 15C was discovered. One member, renowned for sporting north Pennine through trips, remarked that a good through trip would be from 10C down to 15C and then down again to the daylight adit, along this and then down the main shaft and out along the lefel fawr ! - any takers ? This would need to be done in summer and would be very wet at the bottom of the main shaft.

On the surface we found the top of the main shaft and also looked at the interesting remains of the water powered hoist used to haul material from the narrow vein out to day.

On Sunday the same members as Saturday met in Aberllefenni before driving round to Cymerau and walking up to Ratgoed. The mine has suffered much damage recently with a new forestry road having been driven up the northern edge of the site although this does make access much easier. In addition one of the mills has been demolished to provide building stone.

Floor 5 was entered first and whilst members explored, the pitch down to floor 6 was rigged. The pitch is about 50 feet and descends mainly through the chamber except for the final 15 feet which is down a shaft through which waste would have been tipped. On the descent Ken Geddes superbly demonstrated his new "Italian" auto-lock descender which locks even when the brake is held off - very safe ! Once on floor 6 a number of artefacts were to be seen. These comprised a wagon full of tools, the remains of a jumper which is the type of hand drill used for drilling slate, some gelignite, and a hand winch. At the inner end of the level the remains of a massive fall which completely blocks the final chamber are to be seen. The fall must have occurred whilst the mine was working since the hawser to the winch is wrapped around the block which completely obstructs the entrance to the chamber. This is surely a case of pulling the roof down, and one can only wonder what happened to the man waiting to load the block onto a waggon.

After lunch floor 7 was entered and the tops of two large chambers descending to floor 8, 150 feet below, could be observed. It is worthwhile at this juncture to look in detail at

how these mines were worked and this is superbly described in an article in the transactions of the Royal Geological society of Cornwall by C. Le Neve Foster. Although based on the nearby Aberllefenni Slate Mine it is equally applicable to Ratgoed.

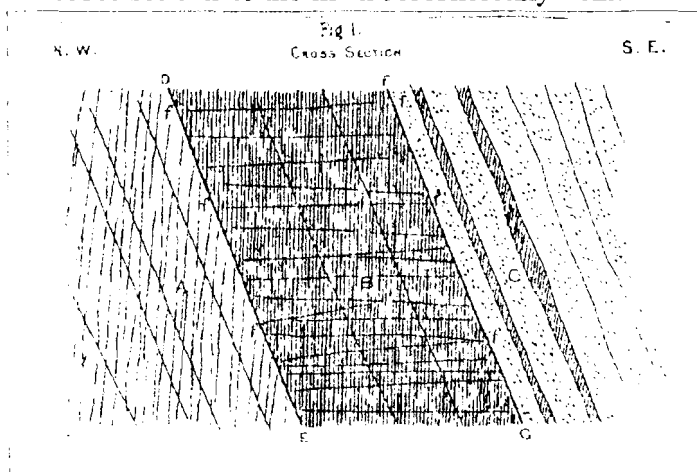
Aberllefenny (sic) Slate Mine lies about two miles NE of Corris, Merionethshire, near the mouth of a small valley, through which runs the Llefenni, a tributary of the Dulas. The rocks of this district, which are of Caradoc age, consist of slate, interbedded with grits and sandstone, and form part of the zone of slaty beds which extends from Towyn, on the west to Dinas Mawddwy, on the east.

The workings at Aberllefenny are carried on upon two of the veins of this district. I use the vein in the same sense given to it by miners and quarrymen, who often call any sheet-like deposit a vein. At the same time, to prevent any misapprehension, I may state that the veins of slate are in reality beds, i.e. deposits of sedimentary origin.

The principal vein worked at Aberllefenny has a thickness of 57 to 63 feet, and about 60 feet on an average. Its strike is from 34 to 44 degrees east of north ( true ), and the dip is about 70 degrees to the south-east.

Owing to the fact that the sides of the valley rise up to a height of seven or eight hundred feet above the brook in the bottom, the vein can easily be attacked by adit levels.

The method of working a slate vein depends very largely upon the natural joints, the direction of the cleavage, and the nature of the roof. These features can be best explained by a diagram ( fig. 1 ), which exhibits a cross-section of the main Aberllefenny vein.

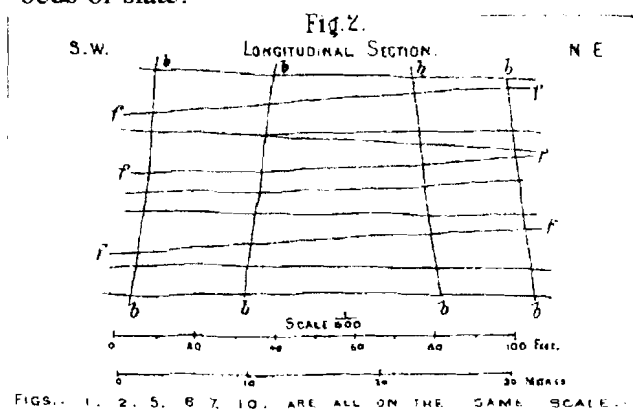




A is called the so-called "spotted rock" lying under the vein. It is a hard spotted slate with an imperfect cleavage, and it often contains iron pyrites.

B is the vein, separated from A by a plane of stratification DE, known as the bottom slip. The cleavage planes of the slate vein dip in a contrary sense to the vein itself, and make an angle of 2-3 degrees with the vertical. The strike of the cleavage planes is the same as that of the vein.

Above the vein, and separated from it by the plane of stratification FG, comes the hard C, a bed of bluish-grey argillaceous (whats this? - JK) grit with interstratified thin beds of slate.



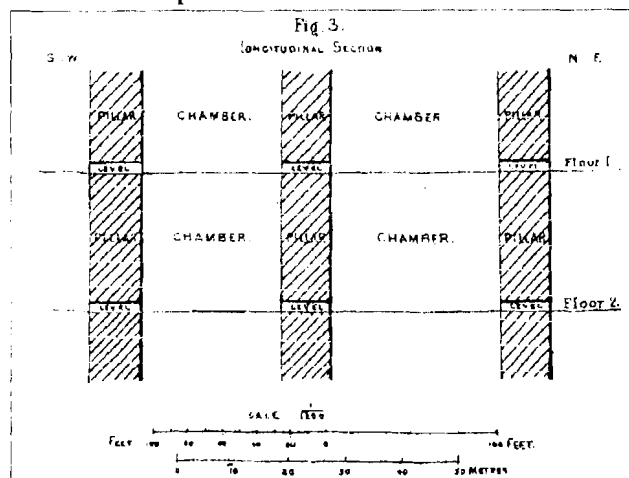
Running across the vein from wall to wall are more or less flat joints, known as foot-joints, marked f, f, f in the sections (figs. 1 and 2), and back-joints, b, b, b, b in fig. 2, which represents the two kinds of joints as they are seen when one is looking across the strike. The foot-joints are from 2 to 8 or 10 feet apart. The back joints run from NW to SE (i.e. at right angles to the strike), and dip steeply either to the NE or SW.

Lastly, we have to mention the important line of pillaring. The slate possesses the property of rending along at right angles to the cleavage planes - in other words, in a NW and SE direction - and these planes of pillaring dip to the NE at angle of about 80 degrees: in fact, they are parallel to some of the back-joints. We have thus - 1. the cleavage; 2. the foot-joints; and 3. the back joints and the pillaring planes. The intersection of the two first sets of planes with back-joints or pillaring planes divides the slate into rough parallelopeds.

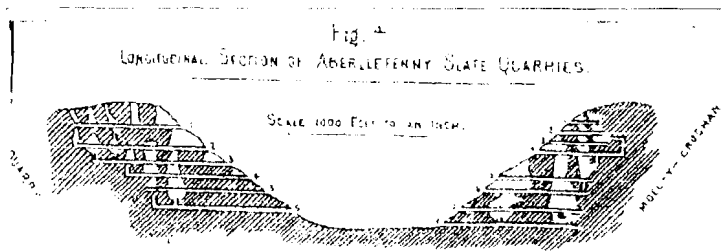
These peculiarities of the Aberllefenny

slate having been explained, I will now proceed to describe how the blocks are severed from the vein and conveyed to the surface.

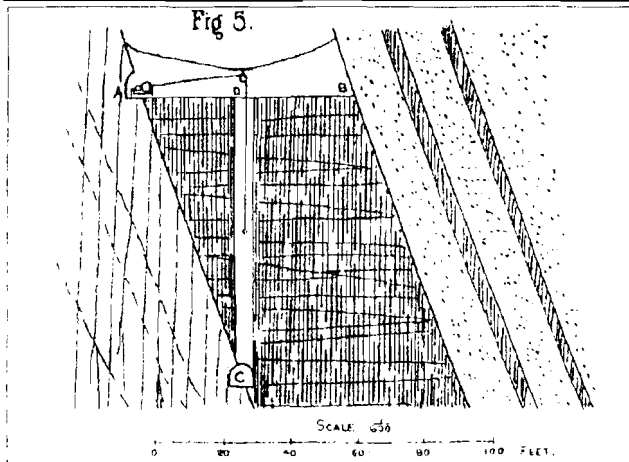
The method of working may be described as that of alternate pillars and chambers following the line of dip. The pillars are from 24 feet to 30 feet long in the direction of the strike; whilst the chambers vary a good deal, some being as much as 100 or even 187 feet along the strike. Fig. 3 is merely a diagram, and no such regularity is followed in practice.



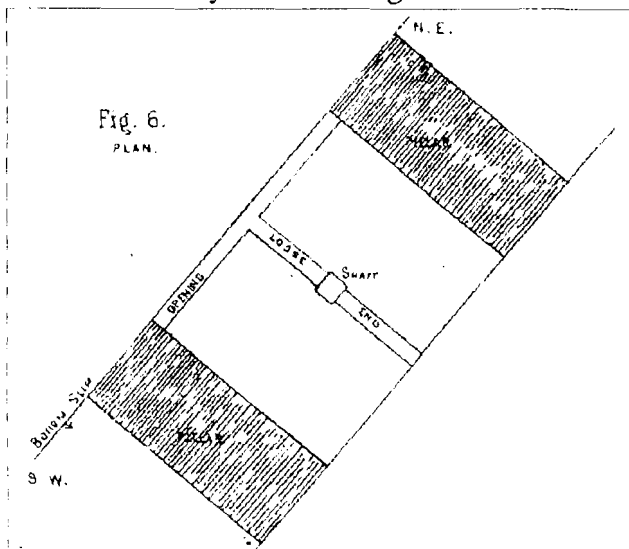
If the vein were of uniform goodness throughout, such an arrangement would be possible; but as the back-joints are occasionally so numerous as to divide the rock into blocks which are too small for use, these value-less parts of the vein are not removed. Fig. 4 is a correct representation of the workings. The shading shows the pillars and the slate that is yet unworked, and the blank parts indicate the chambers which have been excavated.



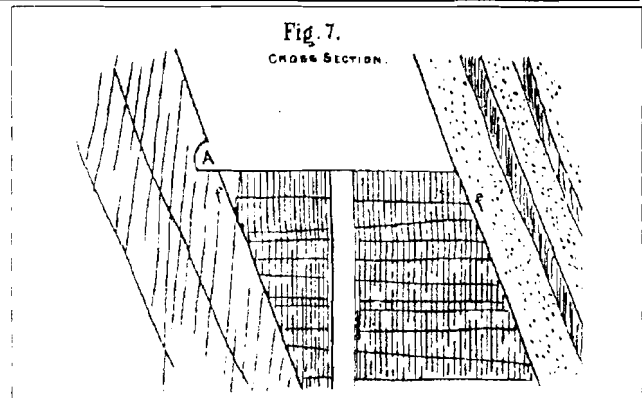
The slate of the chambers is worked away in horizontal floors of slices from 44 to 150 feet in thickness, starting from levels driven along the strike of the vein. The slices are removed in descending order, and the cavities produced are not filled up.



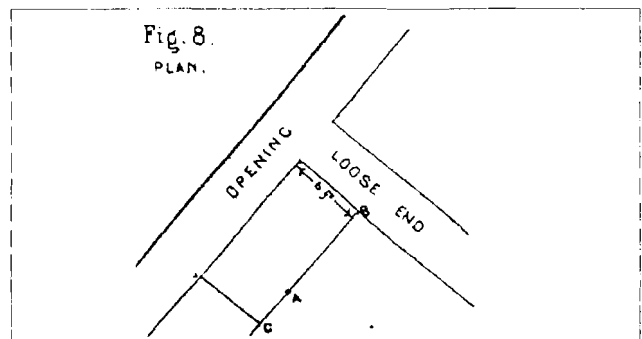
I will suppose that the vein has been worked away to the level AB ( fig .5 ), A being a gallery or tunnel along the "bottom slip". In order to commence the attack upon the next floor or slice, a level, C, is driven along the bottom slip, at a depth in this case of 80 feet below A. A shaft, CD, about 6 feet or 7 feet square, is then put through, partly by sinking and partly by rising. A strong chain is fastened across from side to side, and a block suspended at D, immediately above the centre of the shaft, and a powerful winch erected in the level A, with a chain passing from its drum through the block, and hanging from the shaft. All is now ready for removing the slate.



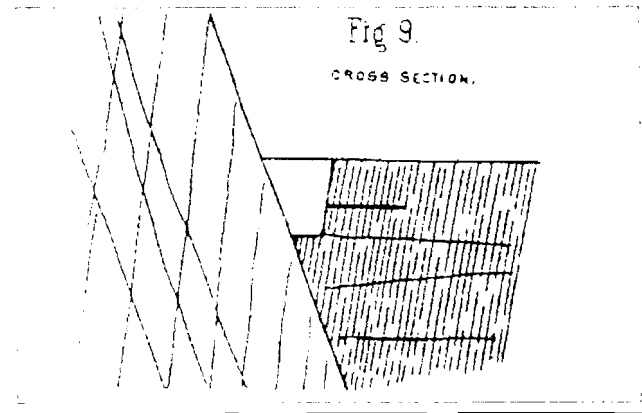
A trench about 4 feet wide, called the opening ( fig. 6 ), is blasted out all along the foot-wall side, and carried down till a foot-joint is met with ( fig. 7, f, f ). A second trench also about 4 feet wide, known as the loose end, is then excavated across the vein ( fig. 6 ), and the slate is free for a certain depth on three sides. The rock-men, or men employed in removing valuable slate now take the place of the miners, who do the preliminary work of making drivages and cutting the openings and loose ends.



The rock-man endeavours to get off block after block of slate, taking advantage of the joints and planes of splitting. He first of all produces a split along the cleavage planes, about 6 feet from the opening. This is effected by boring or jumping a hole A

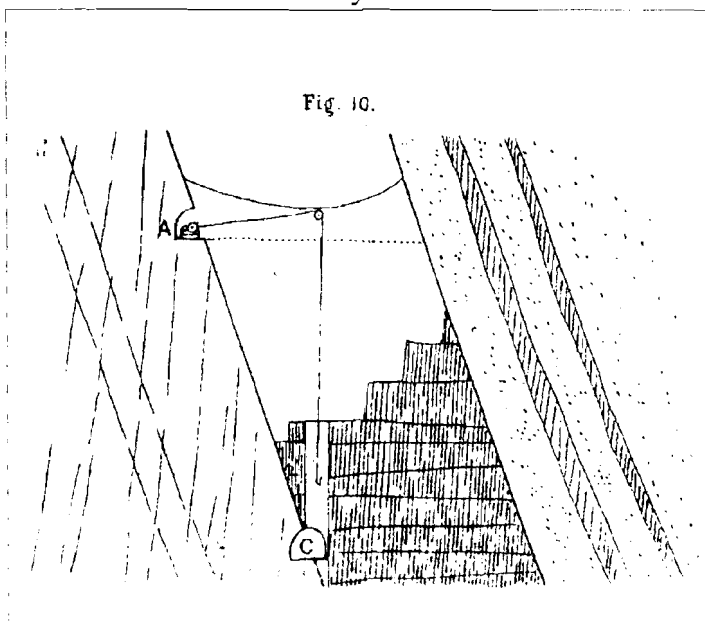


( fig. 8 ) along the line of cleavage, and reaching down halfway to the next foot-joint, or occasionally to the foot-joint itself. The hole is charged with 2 or 3 inches of powder, lightly tamped, and fired. The blast causes a crack along the line AB. If the crack is not large enough to effect the desired severance, the hole is re-charged, and fired once more. In order to set the block completely free, it is now only necessary to produce a rent along line CD. If a suitable back-joint exists, the rock-man naturally avails himself of it, and by driving in wedges finally detaches the block from the parent bed. If no suitable back-joint can be found, recourse is had to the property of pillaring, or cross-rending, already alluded to.



A groove about an inch deep is cut along the line CD, and wedges are driven in until a cross rent is produced which extends to the foot-joint below.

It may happen that there is a difficulty in forming the desired fissure, and in this case a hole is bored in horizontally from the opening (fig. 9) in the direction of the pillaring, and charged with powder very nearly to the top. About 2 or 3 inches only of tamping are put in, and the hole is fired. The result of the blast is a crack along a pillaring plane, and the block can now be thrown down by means of wedges and crowbars. the workmen then split it by wedges along the true cleavage into blocks weighing 2 or 3 tons. A chain is passed round each block, and hooked on to the winding-chain. After being raised and swung over the shaft, it is lowered on to a trolley in the level and trammed outside. By means of self-acting inclines the loads are lowered to the mill-floor to be made into slabs, or are split into roofing slates in sheds near the entrances to the tunnels. Block after block is detached in the manner described, and after sufficient space has been cleared the opening and loose end are deepened to a second foot-joint; so that in time the workings present a step-like outline, as shown in fig. 10, which represents a slice or floor, between two levels A and C, about half worked away.



Of course, whilst the slice AC is being removed another level should be in course of drivage for the purpose of working away the next horizontal slice below C. the workings in the main Aberllefenny vein are prosecuted on

both sides of the valley. Those on the NE side furnish a slate well adapted for slabs, whilst the SW part of the vein produces a good roofing slate.

The slate blocks destined for slabs are split into slices about 3 inches thick, and then sawn by circular saws into rectangular form. These pieces are finally split to the desired thickness, and after having been planed are fit for the market. In the year 1882 Aberllefenny Slate Mine employed 101 hands underground and 74 above ground, and produced 4656 tons of dressed slate and slabs.

In conclusion, I desire to express my thanks to Mr. David Jones, the manger of Aberllefenny Slate Mine, for his kind permission to publish these notes, and to Mr. Michael Roberts, the resident agent, for much useful information concerning the workings.

After exploring floor 7 and marvelling at the catwalks, around the top of 150 foot high chambers, used to maintain the hoists time was pressing on so the descent to floor 8 was saved for another trip. On our way back to the cars level 8 was inspected and the three shafts going up to floor 7 could be clearly seen. A descent from floor 7 to floor 8 would enable the working floor to be seen.

Monday dawned damp, i.e. typical Welsh Easter weather. A select group consisting of Ken Geddes, John Bowers and the meet leader flogged up through the trees and descended the very slippery shaft into Minllyn. I would like to say that vast new previously unexplored chambers were seen but that would be untrue, although there is further exploration to be done at this mine. There are a number of interesting points to note regarding the workings at this site. The first is that an underground steam crane was used to lift from a sine in one of the chambers - the boiler and jib remain. Secondly there is a superb example of channelling - see photograph.

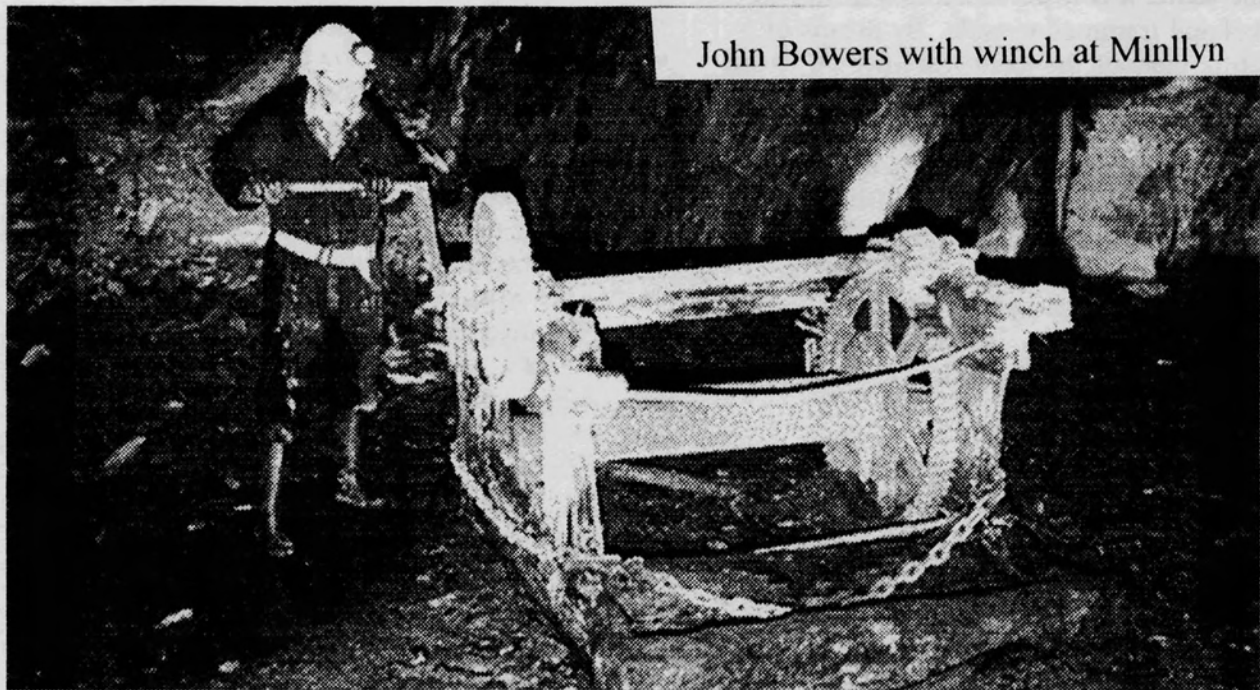
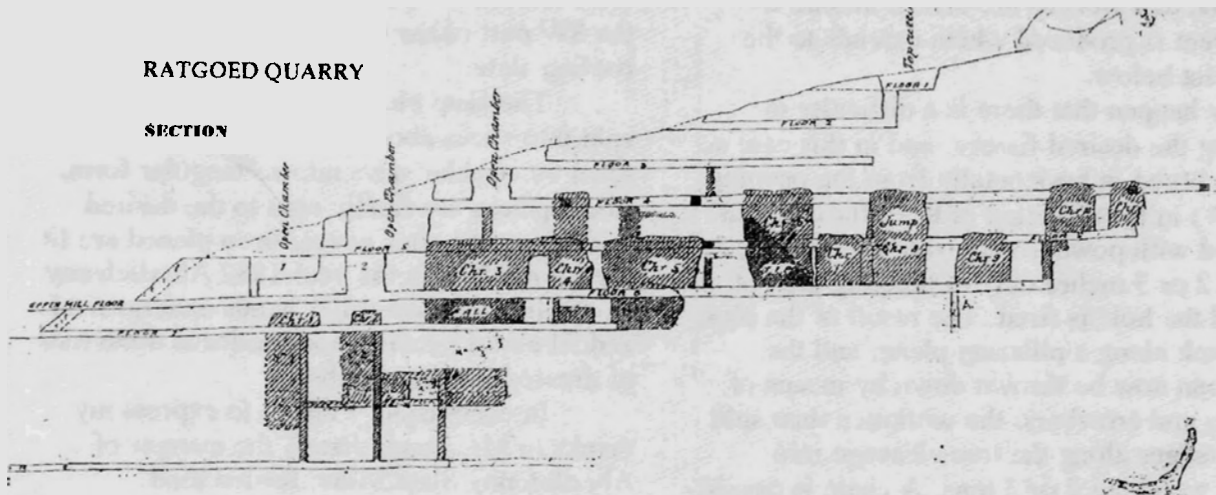
Wales is still a popular venue and next years trip will be to the Metal Mines in the country to the east of Aberystwyth.

#### Further Reading

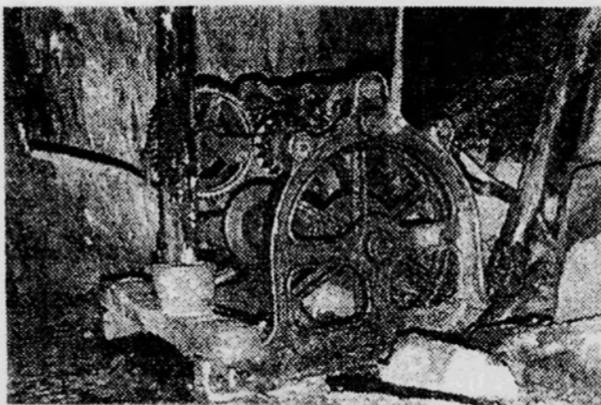
1. Slates from Abergynolwyn by Alan Holmes.
2. Slate Quarrying at Corris by Alun Richards.
3. Mines of the Gwydyr Forest Part 4 by John Bennett and Robert Vernon.

# RATGOED QUARRY

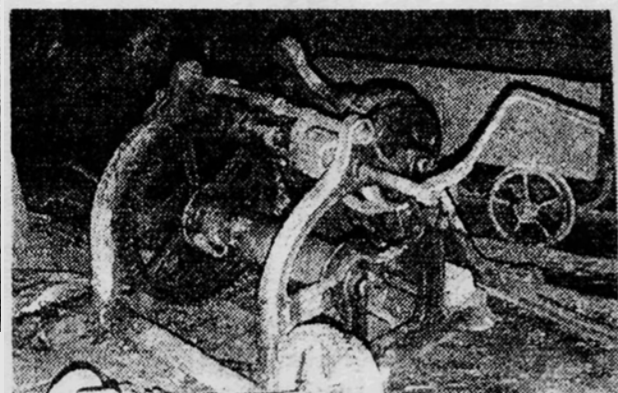
## SECTION



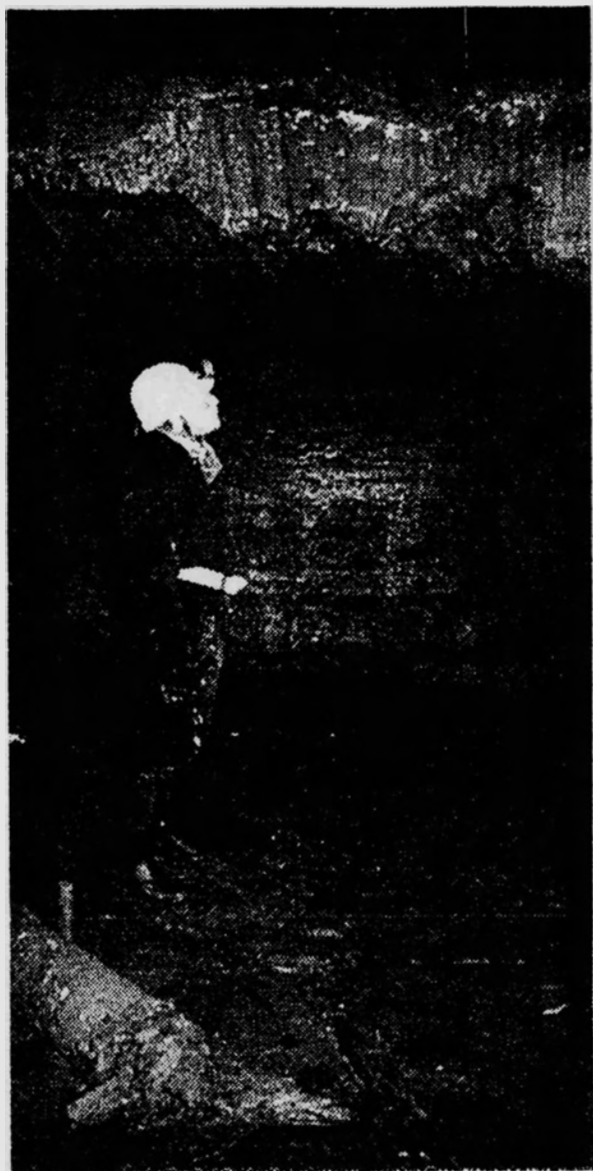
John Bowers with winch at Minllyn



Bryn Eglwys

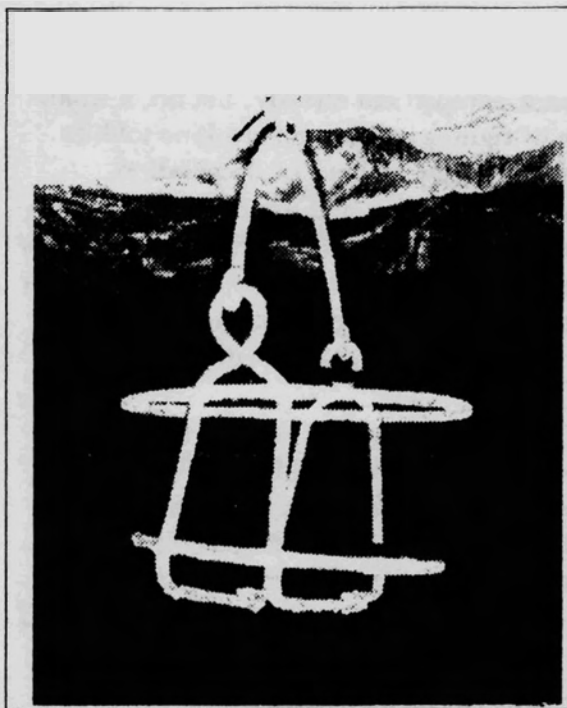


Bryn Eglwys

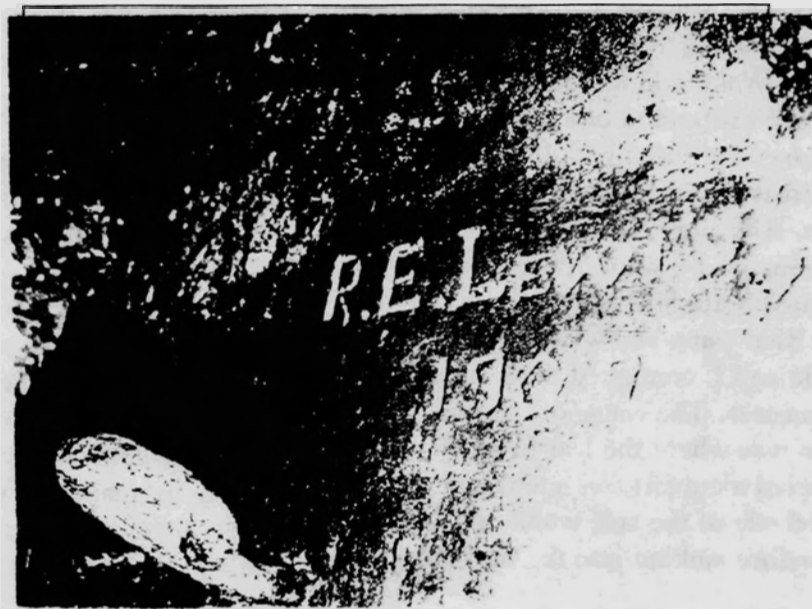


Chanelling at Minllyn

? at Bryn Eglwys



Engraving at Bryn Eglwys



All photographs by Jon Knowles

Lowfield Mine - 10th May - No Report received - Is Dave Robson going to enlighten us?

Hudgill - 13/14 May- see the June Bulletin.

Coniston Pumping - 21st May - Report to come from Mark Scott.

Slate Mine of the Duddon Valley 21st June- No Report received.

## Hudgill - 3/4 June

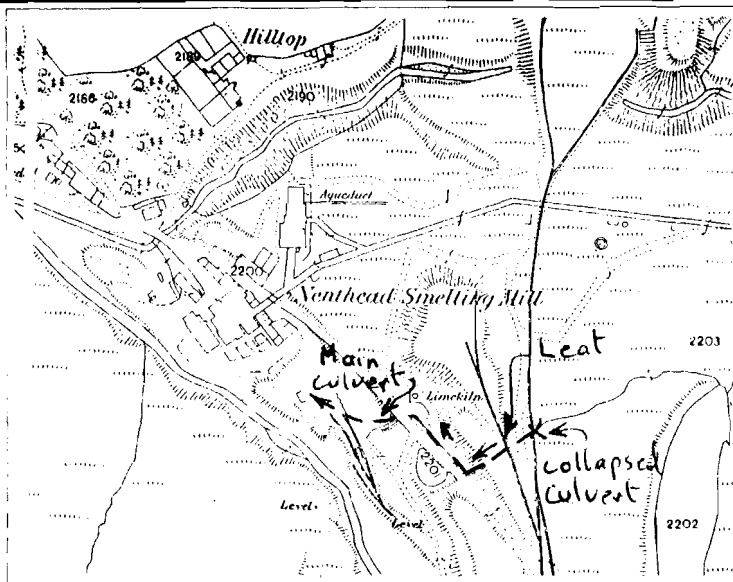
Saturday - I arrived at the usual time about 10.15 and heard - Nothing ! Good, the mine had been pumped out already, but no, a small group of figures around the machine told its own story. After an hour of desperation, dismantling, pulling and imprecations.

Nothing !! There is nothing quite so useless as a pump that will not go, and to cap it all it was raining as well. The immortal words were said, we had lunch and decided what to do next.

Sheila rescued the day, by suggesting that something useful could be achieved down at Nenthead in the way of repairing storm damage to some leats above Smallcleugh. Apparently these leats were part of a system that conveyed water to near the restored carpenters buildings by Rampgill. As we walked up the track Sheila pointed out where the leat ran, part of the project involving building an aqueduct over a stream, all very interesting. The afternoon was spent repairing the ravages of the previous months wet weather and satisfying it was too.

At the end of the day Jon, who had arranged to stay over, decided to return home with the pump and sort it out, he took it well I have to say - Wakefield to Staverly to Hudgill and back to Wakefield in one day.

Sunday. I seem to recall sunshine, Ann Danson turned up, and Chris Jones made a flying visit. After an hour of doing several small jobs on site we went down to Nenthead and continued Saturdays activities, only further upstream. Rain came and went but undeterred Ann, Sheila and I continued the leat recovery and with success. The cause of the main obstruction was where the leat from the dam outfall entered a culvert (see plan) and undermined one of the side walls causing its collapse, before sinking into the limestone floor.



It seems that originally the culvert was floored with planks to prevent this water loss. (A month later the water had disappeared into the limestone again so the plank flooring will have to be restored if the water flow is to be maintained). At the end of the afternoon water flow was restored right through to the other side of the main track. Just by the start of the main culvert to the carpenters shop.

## Hudgill 2nd July

No, we were not surveying, but the pump did work first time, the sun was shining and there was a good turnout of members. It seem to take an age to pump out, but when the workings were dry it was all systems go. At the end of the day (about 4 o'clock due to midges) about 3 foot had been dug out and another head frame put in. This seems to put the fore end under the middle of where the clay has come in, Jon and Clive did some prodding with a long bar but found nothing but more clay. So it will be some days yet before entry is achieved. It seems that Sheila Thomas has a lust for digging, and was most upset when I did a bit myself just after lunch, demarcation disputes? still she has a nice mattock action.

Several things came up, however, the wood pile does not seem to be as big as it was last time, more pile and lining boards will be needed for the next work day. Also several more buckets will be required. It would also speed up matters if pumping out could be done the evening before a work day. (The pump etc was left at Sheila's 'van).

**M.W.T.S.**



## Coniston Exploration 18th June Ian Matheson

Two exploratory investigations were planned for this meet, one of which was to examine the rises above Taylors level using Mike Mitchells maypole, Mike maintains that he and others did this many years ago, but it has not been documented, and is worth another look. However, a couple of weeks beforehand Peter Fleming reported that the National Park Voluntary Wardens were planning a work meet on this day, to repair the fences around the Red Dell Stopes. Access to the inner reaches of Taylors level is by abseiling down the stopes, using some of the fence posts for anchors, and so it was felt that it would be politic to postpone this enterprise for another day. It was decided instead to examine the stopes below the main adit of Top Level, which had also, so far as is known, only received one undocumented descent many years ago, by Mark Wickenden and Alen M. dzean.

Eight members turned up for the meet, together with Mikes maypole, the Meet Leaders aluminium extending ladder, and a vast amount of rope, Peter Fleming, together with Mike Mitchell, Jon Knowles and Mark Simpson went up to Levers Water to descend to Top Level, examine the stopes there, and continue down the through trip to Hospital Level. They accomplished their mission, and obtained some unexpected results, but these will have to be reported in detail by one of those who took part.

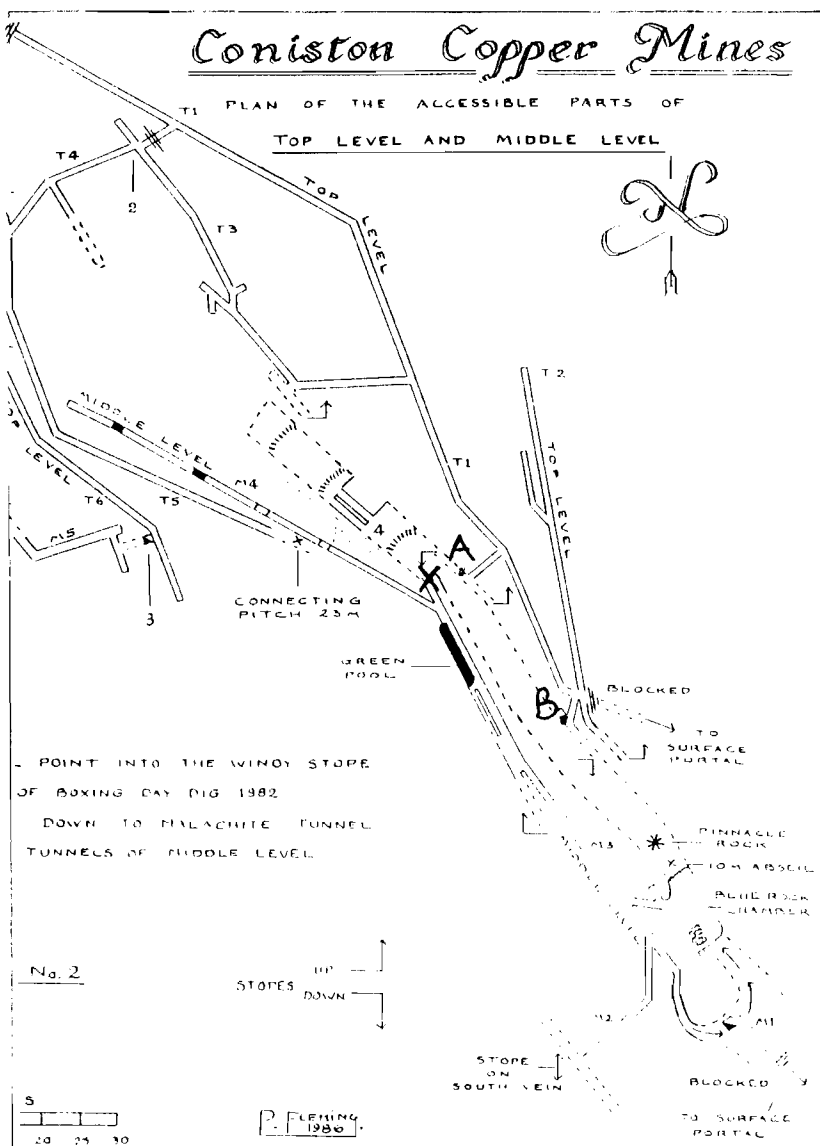
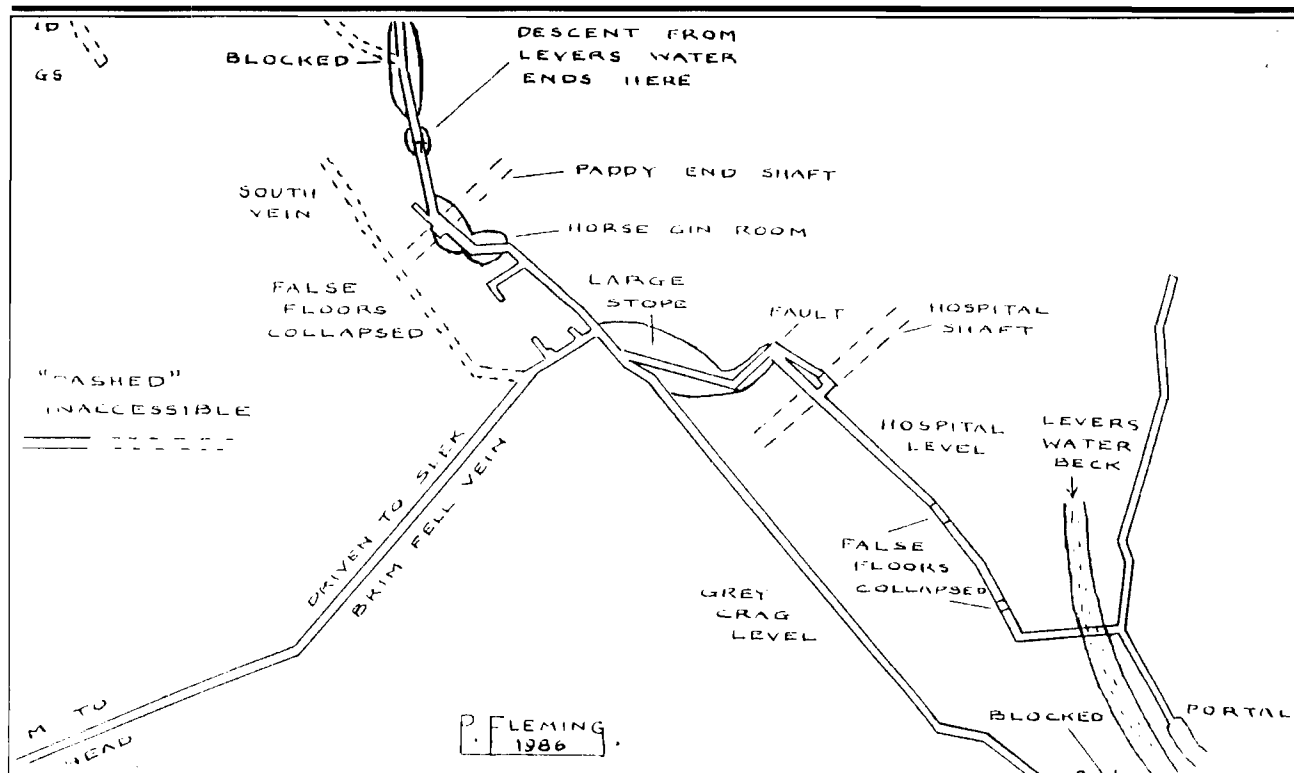
The meet leader Ian Matheson, venturing out on his first underground trip since sustaining a sever ankle injury whilst completeing the Rossyth/Croesor through trip at the end of April, Tristan Goldsack, who had travelled all the way from Brighton for what he said was to be his first underground SRT trip, Clive Barrow, and Brian Marshall formed the other group. They set off with the extension ladder to abseil down South Vein, beneath the Pudding Stone Level. This very large stope descends all the way from Top Level, and must have once reached down to Deep Level. It is part of a complex system of parallel and branching veins, and is not many yards away from Paddy End Shaft. Part way down South vein was a level supported along the stop on

stemples, the roof of which was stacked with deads. This has long since given way, and the bottom of the stope consists of a mound of debris. At the lowest point is a clayey bottom which appears to fill with water at wet times, and to drain slowly away in time of drought. By standing on the top of the rubble cone one can see the remains of the level above. There are some timbers still in place, and there is a faint possibility that the level may continue on out of sight. The only way to find out is to climb up and see.

There is a lot of debris and large blocks resulting from the collapse of false floors above, and several rebelayes are necessary. A steep broken slope is followed down for about seventy feet, and this is followed by a vertical pitch of about sixty feet. Fifty meters of rope ended some 10 feet above a rock floor, and once Ian was down Clive adjusted the re-belayes to make it reach, just! The ladder was lowered down, and a new belay sought. Nothing could be found, and a new bolt was driven in by hand in the very hard rock. 3No 8mm spits were totally blunted in the process, and the final anchor protruded more than 6mm from the rock! This looked so horrible that it was only used as a deviation for an extension of the rope from above, which was backed off to a large stemple.

The next pitch, though quite short is also quite unpleasant, being very, very unstable, and only Ian and Brian descended to the bottom. It was immediately apparent that the ladder was nowhere near long enough, and that no further progress was to be made that day. Something like 50 feet of maypole will be needed to reach the horizon of the old level, and this is a project for a future date.

Good use was made of the ladder to shorten the pitches on the way up, and a spare rope was used as a transfer to avoid a very awkward rebelay. Tristan made good use of his practices in a barn to ascend in fine style, and the ladder was hauled up without difficulty. The group then went to the bottom of the Through Trip in Grag Level, where they were able to make contact with the others who were about to descend. As it was getting late, and because the Meet Leaders second lamp was failing, it was decided to go out to day. (We will not say anything about meet leaders turning up without lamps - ED)



### Peter Flemings party -

We descended to Top Level via Arret Chamber, pulling the rope down behind us (it did not come easily), and made our way to the first site of investigation (A). After much completion of the false floors over the descent line, Mike and Jon rigged the pitch. This done Jon and Mark descended while Peter and Mike rigged the descent at point (B). Pitch A ends on a pile of rocks just below Middle level just by the point (x). Voice contact was made with the Peter who had descended pitch B. The stope roof between goes down below the middle level horizon. Jon and I made our way back and changed over with Peter and Mike. The floor at the end of pitch B seems to be rock, with a drop off each side into to stope below. A lot of copper secondary deposit which was nice. Jon Mike and I derigged and made our way down to point (X) and waited for Peter to complete measuring of bits of Paddy End Stope under twin tunnels. Peter then came up to where we were and all made our way out down the Through Route.-- Mark Simpson  
(Peter may give a fuller version of events and places in future).



# Levers Water Mine, Coniston

Jeff Wilkinson

Some 18 months ago Mark Simpson (The Human JCB) and myself dug down about 5ft at the entrance to Levers Water Mine. The intention being to locate and unblock the end of the iron pipe which had cease to drain the mine.

Though we were successful in this respect it took two subsequent visits by myself to dig a 6ft trench and install extensions to the pipe, thus taking the outlet end away from the constant bombardment of debris. Although the workmanship would not impress the Northwest Water Authority I take some satisfaction from the fact that the mine appears to be still draining efficiently. The same satisfaction however does not apply to the build up of rubble.

At the end of April 1995 a workparty of one assembled at the lip of The Funnel with the intention of doing a little clearance work. Anyone who visits the area on a regular basis will know that it is in a constant state of change. The precipitation of a lakeland winter

has a devastating effect here. Many large blocks have broken away from the hanging wall and a considerable number are due to part company with it in the near future.

After an hour all the large blocks had been despatched to a new, lower resting place, the old bolt hanger excavated and a scoop dug out where the entrance to the mine was at its "tightest". Finally I fitted a new bolt anchor nearer to the entrance and breaking with tradition fitted an orange marker to it!

It must be stressed that a "bomb proof" anchor is not possible in this area as the rock is a soft slate type, very friable and often hollow. Close inspection of the original anchor revealed that for some considerable time it's security has been of a psychological nature.

By the time you read this the build up of rubble will be already well underway again. I would like a small workparty (probably 3) to do a more thorough job later in the year before the winter sets in. If you would like to help give me a call.

## Dr Descender

Dear Doctor

Please advise me why mine won't ( descend that is ! ). Should I put on more weight or would an acetylene lamp to burn through the rope be a more healthy solution ? Would oiling the rope help ? I know you suggested replacing the equipment, but I am still puzzled. Which would be more suitable for underground work, a hang-glider or a parachute ? Perhaps the hang-glider for chambers and the parachute for shafts ? I am desperate for a solution. I can't stand hanging about like this.

Talkative, Clitheroe

My initial thoughts on this case, based on your medical history, was that the problem was due to operator error. Having had a pull myself, so

to speak, it does appear that yours is a little stiff. With regard to your specific queries, whilst putting on weight would speed your descent I feel it would further slow your ascent the net benefit being zero. I feel that you misquoted me concerning replacing the equipment, I recall my sentiment being that you should fit the device to the vendor in a suitable place !

Doc

Note. Dr Descender reserves the right to completely change any written queries and to introduce, slander and/or complete fabrications as appropriate.

On page 15 of the last edition of the News Letter (edition 43) a few sentences were missed out of the first paragraph of Pete Fleming's article on Triddle Shaft, Coniston Copper Mines. At Pete's request this is reprinted below. His articles tend to become important reference material and it is suggested that the paragraph below is pasted over the original.

=====

Nothing stays the same for long, especially in disused mine workings. Several changes have taken place at Coniston over the last 15 years or so. Part of the false floor of "Blue Rock Chamber", Middle Level, collapsed around 1987, leaving a pile of rubble 10 metres below, adjacent to Pinnacle Rock. More recently a small crater has appeared near by which is now crossed with the aid of a plank. Where this 'run-in' actually went to is not known. It was not into the Paddy End Shaft or this would have been evident down on Grey Crag Level.

# Triddle Shaft, Coniston Copper Mines

Peter Fleming

Nothing stays the same for long, especially in disused mine workings. Several changes have taken place at Coniston over the last 15 years or so. Part of the false floor of "Blue Rock Chamber", Middle level, collapsed around 1987, leaving a pile of rubble 10 metres below, adjacent to Pinnacle Rock. Where this "run in" is not known. It was not Paddy End Shaft or this would have been evident down on Grey Crag Level.

Earthquakes are an obvious source for concern. One was recorded on Boxing Day 1979 through West Cumbria. It was responsible for bringing down those two large angular blocks which now lie in the entrance to Willie Shaws By-pass level, just beyond the Old Engine Shaft, Deep Level. The worst damage on that occasion, however, occurred on Great Gable, where on a notable climb on Kern Knotts, known as Sepulchre, the entire first pitch collapsed, rendering the route virtually impossible.

As recently as 18th July 1994 was an Earthquake at 2.2 on the Richter Scale with its Epicentre as close as Wrynose Pass. Until now nothing has been noticed to have suffered, with the possible exception of the Old Engine Shaft Launder Tower. A good shaking is the last thing it needs now that the LDPB have pledged to spend £4000 on consolidating the structure after our long struggle to get scheduled monument consent for the work.

Severe winter weather also takes its toll on our mining remains. The most obvious example to me is the area called The Funnel at the Back Strings, Levers Water. When I began fell walking in 1950, this was a pleasant grassy hollow, ideal for picnicking. Only a small slot in the back wall showed where the vein came to surface. The funnel is still getting bigger, due to the expansive action of frost and ice on the overlying boulder clay. Hence the pile of rubble which constantly collects at the entrance to Levers Water Mine. Had all this erosion not taken place it would be interesting to speculate on whether or not Levers Water Mine would have been discovered, and if so by what route.

Prolonged sub-zero temperatures can sometimes cause freak effects. During the winter of 89/90 a long cold spell in Moss Head slate cavern on Coniston Old Man caused this large underground chamber to act as a massive refrigerator, and many days after the thaw had set in outside, the lower workings still had ice hanging from the roof and walls, with bulbous and columnar growths rising from the floor. When it did eventually melt, it resulted in several large blocks of slate falling into the level.

Timbers put in during the nineteenth century are now rotting and are probably the main cause of collapses, such as the one already mentioned in "Blue Rock Chamber". However the moor recent collapse in the Triddle Shaft is of more serious proportions. Just over 20 metres below Flemings level used to be a commodious area where one could walk about or relax and enjoy one's bait, but not any more. It is now just a gaping crater a further 30 metres deep. No wonder Phil Merrin could make no sense of our instructions, shouted down to him when he led this section of the shaft on the Society's last meet there on 16th January 1994. To follow the original and true line down the shaft would be quite tricky. It requires a small working party to make the area remaining safer to land on ( and to be underneath of - Ed). The rubble which came down finished up on the boulder slope leading up to the "View Point".

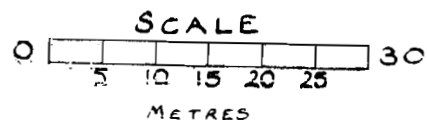
A relatively minor collapse in the same area had previously been noticed on the meet held in March 1990 and was regarded at the time as an omen. From the drawings attached to this article, the change which has taken place will be clear. Also shown is the rise to Bouncy Mine. This has not yet been proved, but according to contemporary plans and sections, there is a link via a sub level a short distance below Bouncy Mine.

(This link is looking now more likely- ED)

The moral of Peters article is obvious - where ever you go or do, record - record - record. Tomorrow may be to late and the opportunity to revisit has gone forever. ED

# Coniston Coppermines

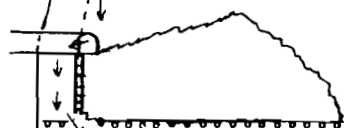
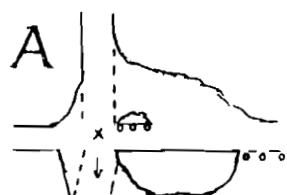
SECTION OF TRIDDLE SHAFT  
BONSOR VEIN, RED DELL



RISE TO  
BOUNCY  
MINE

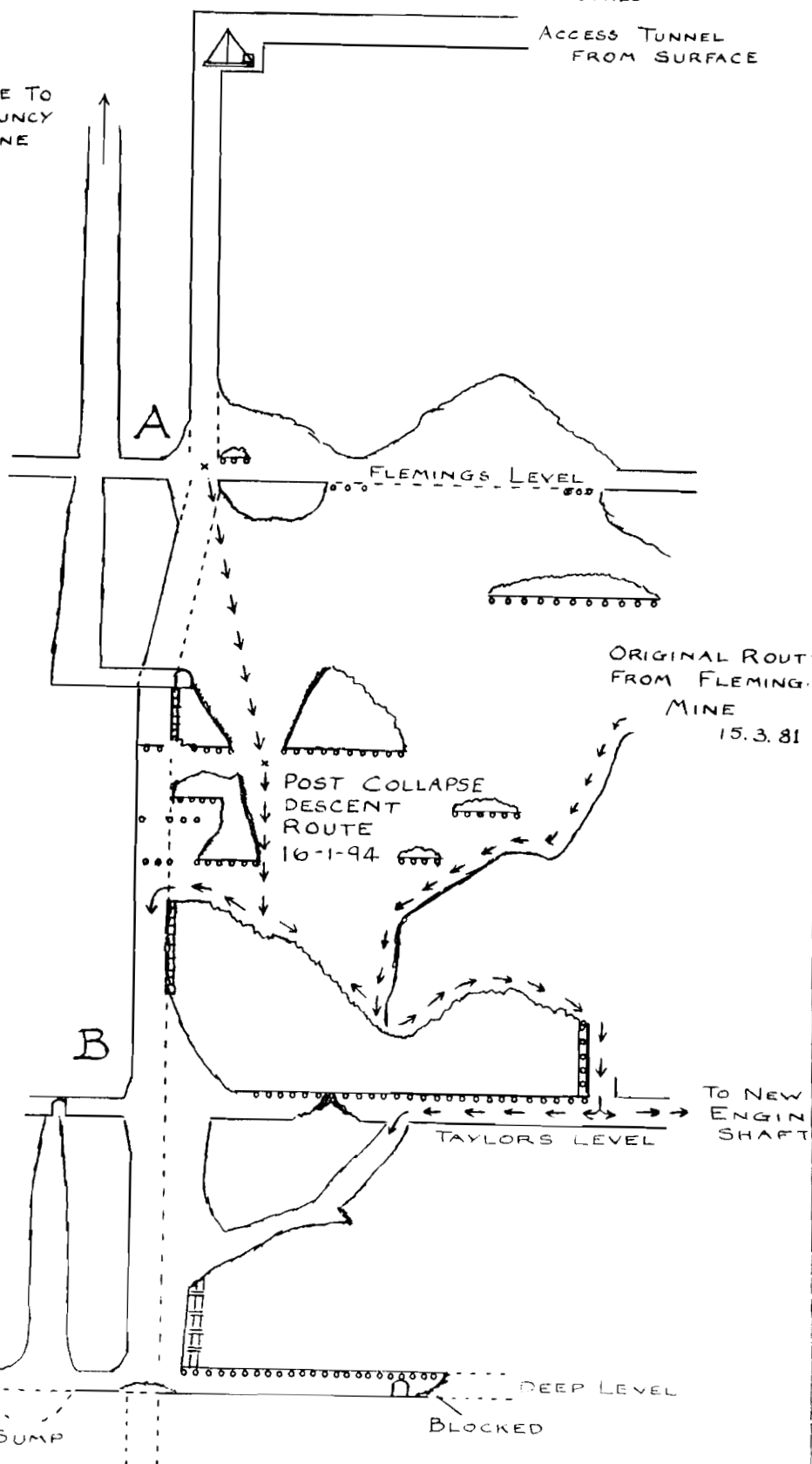
ACCESS TUNNEL  
FROM SURFACE

SECTION OF SHAFT  
PRIOR TO COLLAPSE



ORIGINAL  
DESCENT  
ROUTE  
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B



P FLEMING  
1995

# Power from Water -- Wheels and Turbines

Dave Sewart

For some time I have wanted to contribute to the CAT publications, but being barely more than an armchair miner it seemed I had little to offer. A recent comment in a newsletter about surface remains decided me to have a go

Until the advent of the heat engine (steam to most people) in the last century, industry relied on renewable energy wind and water and muscle. Even once it had been invented, the heat engine was not an option for those mines situated in inconvenient places or running on a shoe-string. Such power would not be available to them until the more compact, inexpensive internal combustion engine became common. Of the alternatives wind appears to have seldom been used & too fickle perhaps. Muscle, though flexible in its ability to get to difficult situations and work in them, produced little power which left water as the only choice.

Many methods of extracting the power were used, from water blasts for pumping fresh air into mines to counter-balanced buckets, working a beam engine to pump water; or the beam might be driven by a piston. But by far the most common prime mover were water wheels, many of which were later replaced by turbines. This article attempts to outline the strengths and weaknesses of these two systems, and allow the various types to be recognised.

There are two fundamentally different methods of getting the energy out of the water; impulse and reaction. In reaction systems the pressure or weight of the water is allowed to push the wheel. In the impulse systems the potential energy in the water (the pressure or head) is converted into kinetic energy (i.e. a water jet) and the jet used to hit the wheel round. These systems apply to both wheels and turbines.

Most water-wheels are of the reaction type. The water is fed into the top of the wheel, fills the buckets, and is lowered a distance slightly less than the diameter of the wheel. As the water spills out it is still travelling at the speed of the wheel, which represents some loss of kinetic energy. The power generated is roughly proportional to the quantity of water flowing times the distance it is lowered by the

wheel. The breast wheel is similar to the overshot wheel except that the water is fed into the buckets part way down rather than at the top. None of this is energy-efficient, and the energy loss is greatly compounded when a long leat is required. The majority of the original head may be lost in simply getting the water to the wheel. As a means of extracting energy the water wheel is very inefficient.

In its favour is its simplicity. It is easily understood and maintained, and can be built of local materials. For the 20th century observer it is a satisfying machine to watch and listen to (unlike a turbine which is a buzz in a box).

The undershot wheel works on the impulse principal. Water accelerates under a sluice gate and hits the paddles. Turbulence and the speed of departure of the water from the wheel probably make this type even less efficient than the reaction wheels.

To generate more power it is necessary to either increase the flow or increase the distance over which the water is lowered. The supply of water in any situation is, of course, limited, and wheels can only be built so big. So if more power was required, then more wheels were needed, each one lowering the water to the wheel below it, and transmitting the power by a series of inefficient rods moving to and fro on wheels.

The turbine swept away most of these restrictions. For a start it was capable of extracting around 90% of the energy available from the water, vastly more than the water wheel. Not only was its mechanism more efficient, but it could extract the energy from the whole head (less a small loss in the pipeline). No costly leats diligently following a contour were needed, instead a relatively cheap cast iron pipe could be used with little thought as to its route. Because the whole head was used, less water was required with benefits in drought and in size of pipes. The turbines were an industrially manufactured item, and were relatively cheap to purchase and install.

Again there were reaction and impulse designs. Most of those dotted around the Lakeland fells are impulse Pelton wheels (the only design of impulse turbine now commonly used). These are high head, low flow machines (c100 ft or more for mining, 600 ft or more for power stations) and, to an engineer, they are a delight because the simple design is incredibly subtle with few compromises. The supply of water is led to a spear valve. This is an orifice through which the water rushes as it changes its pressure energy into kinetic.

The size of the orifice can be varied by a plug (the spear) which pushed in from the supply side the further it is in, the smaller the hole. The beauty of this is that the full head is always employed; there is no loss of energy by throttling the turbine with a partially closed valve in the pipe. All that is varied is the rate of flow but it flows at full pressure. The jet of water thus contains all the energy and always comes out at the same speed. This jet is then directed at the runner where it rushes into a set of buckets (spoon like cups). The runner is set to run at exactly half the speed of the water from the jet. The water hits the bucket, rushes round it, and emerges having turned round almost 180 (not quite, or the jet would hit the back of the next bucket one of the Peltons few compromises). Try holding a spoon under a tap (preferably outdoors) to experience the thrust of so changing the direction of a jet of water. By having the speeds as described the water is all but stationary in space as it emerges from the bucket almost all the energy has been removed. It drops to the bottom of the casing and runs away (another slight compromise the last couple of feet of head are wasted). If more power is required, and water is available, more than one jet may be used on each wheel. There was a slight side thrust from the bucket, and this is normally balanced by having two sets of buckets molded together so the thrusts cancel each other out, leaving the bearings lightly loaded. Further, should the load on the turbine be removed by, for instance, a belt snapping, the turbine will only double its speed at most normally insufficient to damage any equipment attached to it (not so in power stations!). Some turbines had a governor that automatically opened and closed the spear valve according to the turbine's speed.

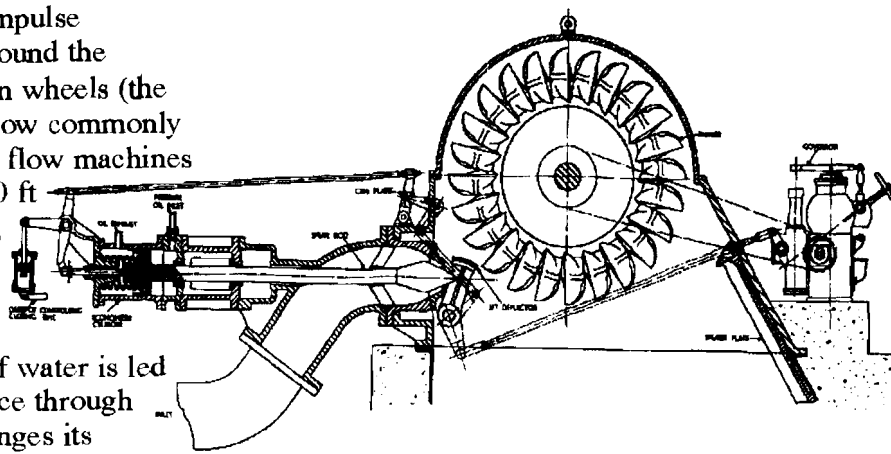


FIG. 218. SECTIONAL DRAWING OF A TYPICAL SINGLE-JET PELTON WHEEL.  
(Courtesy of Gilbert Gilbey and Gordon, Ltd.)

When there was not such a great head of water, there had of necessity to be a greater flow to get the same power. Under these circumstances a Francis turbine would be used (there is a recently restored example at Stott Park Bobbin Mill). Francis turbines are used nowadays from a few feet of head up to c600 ft. These are reaction turbines, and run completely full of water. The incoming water is led into a spiral casing (like a snail shell). From this it flowed through a set of vanes into the runner, which consisted of further vanes to slow down the inwardly spiralling water and direct it downwards into the tailpipe. The shaft of these turbines might be vertical rather than horizontal as common in the Pelton. The flow could be regulated by moving the vanes in the spiral to alter the gap between them. Like the Pelton, this ensured that the total head was used at all times. A further trick was to make the tailpipe funnel shaped (called a suction tube) with the wide exit below water. This allowed the turbine to discharge water at high speed but at a pressure below atmospheric. The water slowed down as it passed down the funnel, and in doing so its pressure increased until it reached atmospheric at the water surface. Should a Francis turbine suddenly come off-load then the centrifugal force in the vortex inside it would resist the flow of water, again limiting its run-away speed.

Those old engineers knew a thing or two about water, and those heaps of rusting iron tell of great ingenuity to those with eyes to see it.

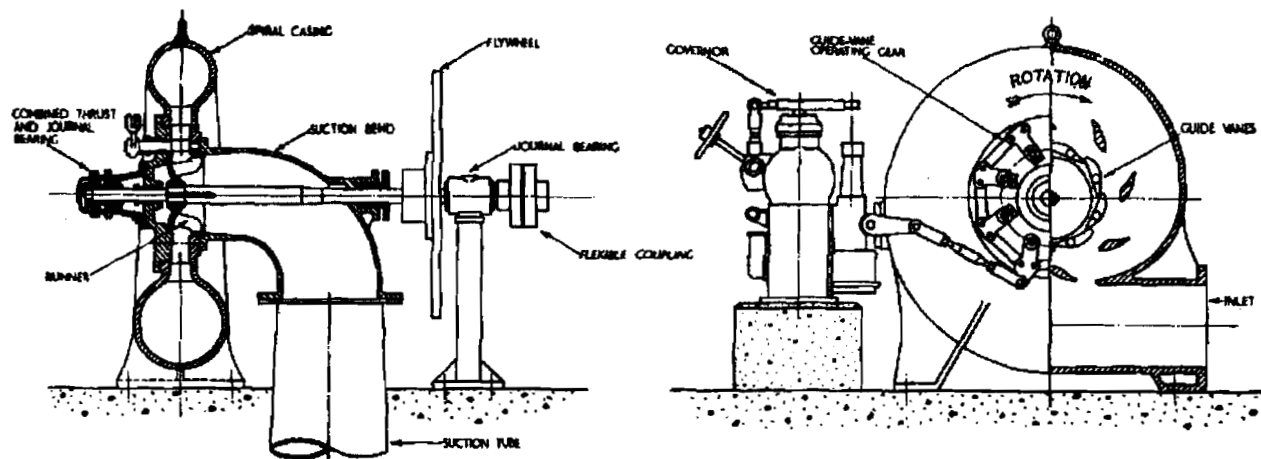


FIG. 322. SECTION OF TYPICAL FRANCIS TURBINE

(Courtesy of Gilbert Gilkes and Gordon, Ltd.)

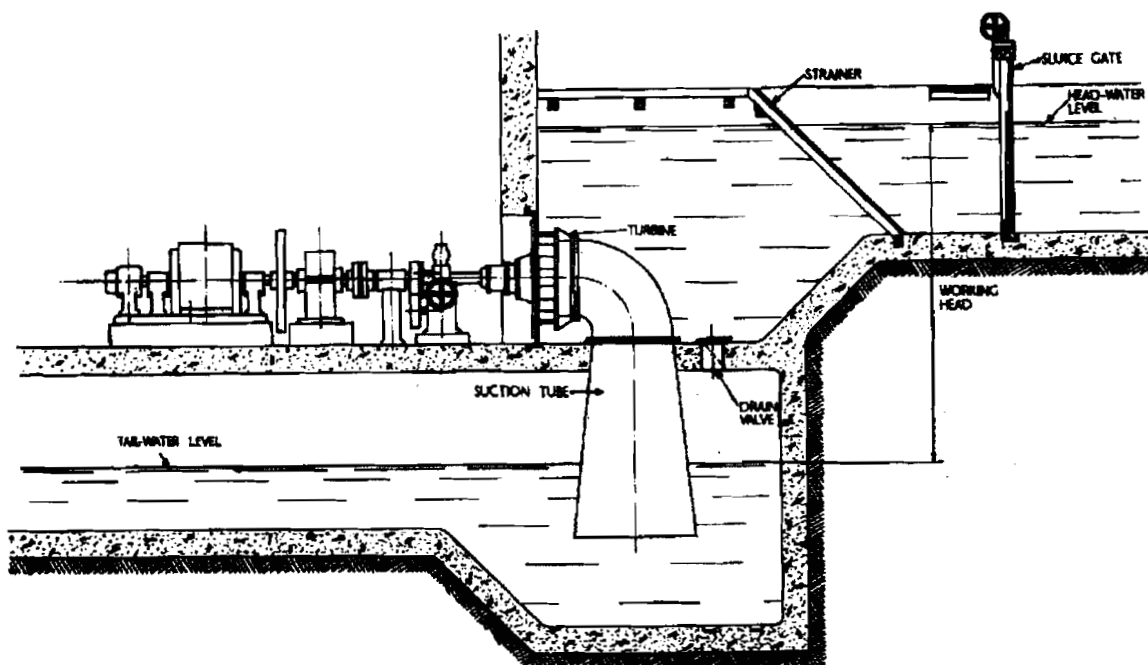


FIG. 321. OPEN TYPE OF FRANCIS TURBINE INSTALLATION

(Courtesy of Gilbert Gilkes and Gordon, Ltd.)

## CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 20th March 1995 at the BMSC Hut, Coniston.

## Agenda

- 1 Apologies for absence
- 2 Minutes of last meeting
- 3 Matters arising.
- 4 Secretary's Report
- 5 Treasurer's Report
- 6 Membership Secretary's Report
- 7 Meets Secretary's Report
- 8 Publicity Officer's Report
- 9 Furness Projects
  - 9.1 Woodbine Mine
  - 9.2 Heritage Survey
  - 9.3 Stainton Quarry
- 10 Journal
- 11 Slate from Coniston
- 12 Newlands Furnace
- 13 Greenside Ladderway
- 14 Coniston Coppermines Site
- 15 Library
  - 15.1 Mine plans for the Library
  - 15.2 Postal costs
- 16 Date and venue of next committee meeting
- 17 Any other business

Present M. Mitchell, S. Barker, J. Helme, D. Parsons, P. Fleming, J. Knowles, M. Simpson.  
A.C.P-Thomas, A. Wilson. 9 Members in total.

The meeting commenced at 7.35 pm. D. Bridge was unable to attend the meeting, it was PROPOSED by J. Helme and SECONDED by A. Wilson that M. Mitchell would chair the meeting. All were in favour.

- 1 Apologies for absence D. Bridge & A.D. Cameron.

- 2 Minutes of the Last meeting

The minutes of the committee meeting held on Monday 16th January 1995 had been previously circulated to members.

It was PROPOSED by J. Helme and SECONDED by D. Parsons, "That the minutes be signed by the chairman as a true and correct record of the proceedings". This was carried unanimously

## Matters arising

3.1 Item 6 (16-1-95) D. Parsons wished to re-affirm the decision made, to send new members all the years newsletter's if they paid a full years subscription. He thought this would become expensive. After discussion it was decided to stick to the original plan.

3.2 Item 5 (16-1-95) J. Helme reported that the publishers Red Earth were closing down. they would send us a cheque for royalties due, at the end of April.

3.3 Item 6 (16-1-95) S. Barker reported an article by Alen McFadzean had appeared in the Evening Mail telling of CATMHS's activities.

## 4 Secretary's Report

- 4.1 The secretary had received:

A) Letter from the AIA asking if the society would care to become an affiliated member. It was decided, as we may have difficulty raising sufficient funds for our current commitments, we would not take up membership at present.

B) A copy of the Cumberland Geological Society meets list.

C) Letter from NAMHO regarding the Third Party Liability insurance (TPLI) situation. NAMHO have resigned from the NCA, which means they can no longer arrange insurance for the members of NAMHO. All societies now have to arrange their own insurance, this can be done by joining the BCRA or similar group. It was PROPOSED by M. Mitchell and SECONDED by J. Knowles that CATMHS should join the BCRA, the secretary to send off the application form.

D) Letter from Brian Ellis (BCRA) answering a question asked by the secretary about age limits with regard to the TPLI policy. He stated there was no age limit upper or lower. The conditions for joint membership however still remained fuzzy, J. Knowles to write to the BCRA on this subject.



E) Letter from the CCC Neighbourhood Services unit (Barrow-in-Furness) asking for a progress report on the Furness Survey. They granted the Society £400 last August, and wish to know how the money was spent. The secretary to answer.

F) Letter from Eric Instone of the Cranstone Consultancy. He has taken over the Iron Mining section of the MPP and asks for information on Cumbrian mine sites. A.C.-P-Thomas is compiling a list with the help of the Furness group.

G) Letter (1) from the Lancaster University Archaeology Unit (LUAU) wanting information on any survey's of industrial sites we have carried out in the years between 1980 and 1994. A.D. Cameron to deal with this matter.

H) Letter (2) from the LUAU regarding the preliminary report on Stone and Lime for the MPP. It asks for any information on Stone, Slate, Sand etc. A.D. Cameron to compile a list.

Member Mary Parsons attended the NAMHO council meeting and AGM on 19th March as CATMHS's representative, the next meeting will be on the 29th October, (not at the July NAMHO conference). The secretary has the Conference application forms.

#### 5 Treasurer's Report

The treasurer presented a balance sheet (which had previously been circulated covering the period since the last committee meeting. He made the following comments:

5.1 Journal sales now total 392 copies producing £1443.25 (including p/p)

5.2 Donations received included profit from a committee supper, and from a slide show given by M. Mitchell and I. Matheson.

5.3 Roanhead expenses are for materials to manufacture gutter hangers. Acceptance of the balance sheet was PROPOSED by J. Knowles and SECONDED by P. Fleming. All were in favour.

#### 6 Membership Secretary's Report

The Membership secretary reported that there were 92 members at present including two new members. All paid up members had been sent a membership card.

A point of interest noted from the Masson newsletter March 1995. Roy Paulson the DCA Liberians PROPOSED disbanding the library, this was agreed. D. Parsons would obtain a copy of the book list, to go in our newsletter when it is available. D. Parson would be attending the BCRA regional meeting, on 8th/9th April in Swaledale PDMHS had now published 'Mining Before Powder'. 152 pages, 125 illustrations. Price £8 less 33% to bona-fide clubs.

7 Meets Secretary's Report J. Knowles reported the Meets meeting had been held in March, and a list drawn up. There were only a couple of blank spaces. Further exploration at Coniston and a trip down Ding Dong were arranged. J. Knowles would like names of members who wish to go on the Cornwall meet. A slide show at the Eagle and Child Staveley was fixed for the 10th November, M. Mitchell to book the room. PDMHS are coming on 29th October for a meet at Force Crag mine. D. Parsons to be meet leader. Next weeks training meet (26-3-95) will be held at the Low Blue Quarry instead of Tilberthwaite, Cathedral Cavern. The NT had written to I. Matheson asking groups not to use the cavern on safety grounds. I. Knowles to write to the NT on this subject. The summer meets list to go out with the next newsletter. The CATMHS first aid kit seems to have been lost. S. Barker to ask Dr. Merin to put together 2 First Aid kits to be taken on meets.

#### 8 Publicity Officer's Report

A.D. Cameron was unable to attend the meeting, he had sent a written report. The Bulletin was in the post. He had started work on material for the Whitsuntide exhibition to be held in Coniston and invited suggestions for new displays. Help would be needed gutting up and taking down the displays. (to be arranged nearer the date).

8.1 John Ruskin Museum Project J. Wilkinson had contacted S. Barker, asking if a list of artefacts suitable for the museum display could be drawn up, as plans have to be made regarding costs. S. Barker to write to the Museum Trust.

#### 9 Furness Projects

9.1 Woodbine Pit, Newton. A. C.-P-Thomas told the meeting this project would be going ahead as soon as the weather improved.

9.1 Furness survey. This project is going well.

9.3 Stainton quarry. No developments.

10 Journal J. Helme asked if members would start going round the shops again before Easter, as no Journal's had been sold in March. This item to be removed from the agenda till the material starts to come in for the next Journal.

#### 11 'Slate from Coniston' - ADC

In his written report A. Cameron said the book was progressing well. he still had a few more interviews to conduct. This item to be removed from the agenda till nearer publication date.

12 Newland Furnace J. Helme reported the £500 grant (from the CCC) had been authorised. the group were now working to build up the support walls on top of the concrete roof. Discussion was taking place with the Quarry management regarding supply of corbelling stones. Next work meet will be on the 25th March.

13 Greenside Ladderway A workmeet still has to be arranged.

14 Coniston Coppermines site P. Fleming reported on the situation in the Coppermines valley. The LDSPB have agreed to provide £4000 towards the repair of the Old Engine Shaft launder tower, EH are also likely to provide funds. It seems the work will be going ahead soon.

P. Johnston appears to still be residing in the Powder House, P. Fleming still wants to start a new exploration project at Coniston and is planning a three pronged attack on the Twin Tunnel area of Paddy End mine, anybody interested please contact him. C. Jones will finish the re-bolting of the Paddy End through route ASAP.

15 Mine plans for the library

15.1 A.C-P-Thomas asked if the committee would approve the purchase of more Furness mine plans (to come out of the Furness budget), all agreed.

15.2 Access to collection (postal costs). It was agreed that the postal costs should be paid by the borrower. Rare items could not be borrowed but used for reference only, copies of maps to be taken away from the library, not the originals.

16 Date and venue of next Committee Meeting This was arranged for 7.30 p.m. on Monday 22th May 1995 at the BMSC Hut at Coniston.

17 Any other business

17.1 J. Knowles asked if the voting system at the AGM could be discussed at the next meeting. 17.2 A. Thomas reminded the committee that he had been asked to look out for a reasonably priced extending aluminium ladder. J. Knowles told the meeting that he had a contact who sold ladders and he would get a price from him. All agreed with this suggestion.

17.3 S. Barker asked if she should book the annual dinner at the Yewdale Hotel as usual, all agreed to this suggestion. The question of an after dinner speaker was discussed, John Crossfield was suggested, S. Barker to contact him. there being no further business the chairman closed the meeting at 10-00 pm.

SB 24/03/95

Chairman

## CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 22nd May 1995 at the BMSC Hut. Coniston.

### Agenda

- 1 Apologies for absence
- 2 Minutes of the last meeting
- 3 Matters arising
- 4 Secretary's Report
- 5 Treasurer's Report
- 6 Membership Secretary's Report
- 7 Meets Secretary's Report
- 8 Publicity officers Report
- 9 Furness Projects
  - 9.1 Woodbine Mine
  - 9.2 Heritage Survey
  - 9.3 Stainton Quany
- 10 Review of voting procedure
- 11 Newlands Furnace
- 12 Greenside Ladder way
- 13 Coniston Coppermines Site
- 14 Library
  - 14.1 Mine plans for the Library
- 15 Date and venue of next committee meeting
- 16 Any other business

Present D.Bridge S. Barker, I. Helme. D. Parsons, P. Fleming, J. Knowles, M.Simpson, M. Mitchell, A. C-P-Thomas. A. Wilson, I. Matheson arrived at 9 pm.  
11 Members in total.

The meeting commenced at 7.35 pm.

1 Apologies for absence M. Simpson

2 Minutes of the last meeting The minutes of the committee meeting held on Monday 20th March 1995 had been previously circulated to members. It was PROPOSED by D. Bridge and SECONDED by P. Fleming, "That the minutes be signed by the chairman as a true and correct record of the proceedings". This was carried unanimously.

3 Matters arising

3.1 Item 4 H (1) A.D. Cameron had answered LUAU's letter which had asked for information on extraction sites of stone, sand, lime and slate for the MPP.

3.2 Item 4 C A.D. Cameron had answered the second LUAU's letter regarding surveys of industrial sites.

3.3 D. Bridge had sent details of old copper sites to English Heritage.

3.4 Item 7 A.D. Cameron asked if the first aid kits had been obtained from P.Merrin. S. Barker replied, the contents of the kits were on order.

3.5 Item 4 (C) T. Knowles had written to NAMHO regarding the third party insurance, which is paid up till October of this year.

3.6 J. Knowles had priced ladders, as the prices appeared high D.Parsons agreed to obtain an estimate for comparison"

3.7 Item 7 I. Knowles read out a draft of the letter he was asked to write to the National Trust.

3.8 Item 14 C. Jones and P.Merrin had finished re-bolting the Paddy End through trip.

3.9 S.Barker reported she was distributing Dave Blundell's gear to the successful bidders.

3.10 Item 16 S. Barker had booked the annual dinner at the Yewdale H. John Crossfield had agreed to be the after dinner speaker.

### Secretary's Report

4.1 The secretary had received:

A) Letter from the National Radiological Protection Board, which included a draft of proposed advice on the limiting of exposure to Radon during caving and similar activities. The society's comments were invited.

B) Letter from the LDSPB asking for comments on a planning application for a mineral water bottling plant, to be built in the Kentmere valley. M. Mitchell outlined the details of the proposed scheme. After discussion it was decided to oppose the planning application.

C) Copies of newsletters from the RFDCC and the CIHS.

D) Letter from the CCC Neighbourhood Services unit (Barrow-in-Furness) asking for a progress report on the Furness Survey. They granted the Society £100 last August, and wish to know how the money was being spent. The secretary to answer.

**Treasurer's Report** The treasurer presented a balance sheet (which had previously been circulated) covering the period since the last committee meeting. He made the following comments:

5.1 Journal sales now total 453 copies producing £1740 (including p/p).

5.2 Donations received £74.60 (see balance sheet).

5.3 The Coniston exhibition realised £123.09.

5.4 Thanks are due to Cathy Blundell and to the members, for the excellent results from the sale of Dave's equipment. £207.00 to date.

5.5 Metal support props purchased: 5 to replace borrowed items (Greenside), 8 to be stored in the South (Roanhead) and 12 to be stored in the North at Ravenstonedale. Acceptance of the balance sheet was PROPOSED by J.Knowles and SECONDED by A.D. Cameron. All were in favour. D. Parsons asked if the society had ever considered reprinting Journals 1 and 2, as he thought they may sell. A.D.Cameron thought we should consider this after "Slate from Coniston" had been published J.Knowles thought one volume of selected articles may be a better proposition. All agreed with this suggestion.

### 6 Membership Secretary's Report

The Membership secretary reported that there were 106 members at present, including two new members: Dave Kelly and Richard Parsons. The distribution of minutes to members was discussed. I.Knowles PROPOSED "That the minutes should be printed in the back of the newsletter". SECONDED by A. Wilson. All were in favour.

## 7 Meets Secretary's Report

J. Knowles expanded on the details of the new meets list. D. Parsons thought the content of the new list excellent, all agreed with this sentiment. The Meets secretary had been disappointed by the low attendance at the training meet. Arrangements for the Cornish meet were going ahead. any interested members, please contact J. Knowles. S. Barker asked if a meets list could be sent to Brian Young (BGS). This had been requested made at the last Mines Forum meeting.

## 8 Publicity Officer's Report

A.D. Cameron reported on the Whitsuntide mining exhibition held in Coniston. The numbers attending were down on last year (as were the overall numbers visiting the Lake District). Several new panels had been made, based on our new publications. A.D. Cameron needs laminating facilities, if anyone can help. J. Knowles congratulated A.D. Cameron on this years excellent exhibition.

8.1 John Ruskin Museum Project S. Barker had written to V. Slowe giving her a list of artefacts available from CATMHS members for the museum display. She had replied expressing their thanks for us donating our exhibition takings to their fund.

## 9 Furness Projects

9.1 Woodbine Pit, Newton. A. C.-P-Thomas told the meeting this project was going ahead. A ladder in short lengths would be needed to gain entry into the base of the chimney. D. Parsons to take this into consideration when pricing a ladder.

9.1 Furness survey. This project is going well. A. C-P-Thomas and the Furness group had compiled a list of mine sites for the MPP. This was handed to Eric Instone of the LUAU (Newcastle Office), when he attended our March social to discuss sites, prior to his visit to the area.

9.3 Stainton quarry. No developments. This item to be removed from the agenda for the time being.

## 10 Voting procedure at the AGM

After discussion it was decided the constitution was sound and should remain unchanged. The past problems were probably caused by the lack of organisation on the night, this to be rectified

## 11 Newland Furnace

Work is proceeding slowly the CIHS have assisted with two work meets recently. A start has been made on a second layer of corbelling stones. I. Helme and Dr Marshall were shortly to attend a site meeting with members of RCHME.

## 12 Greenside Ladderway

No progress, D. Parsons will assess the condition of the shaft.

## 13 Coniston Coppermines Site

P. Fleming reported on the situation in the Coppermines valley. The LDSPB have agreed to provide £4100 towards the repair of the Old Engine Shaft launder tower, EH are also likely to provide funds. It seems the work will go ahead as soon as planning consent has been obtained. We have agreed to transport scaffolding up to the site. At the previous days Coniston meet the Sisis was successfully tested for taking materials up to the Red Dell tower. Later in the day an iron pricker was found in one of the stopes (another artefact for the Coniston museum). P. Fleming suggested the society wrote to the Minister for the Environment, as the outcome of P. Johnston's appeal is to be decided shortly (without another public inquiry). All were in favour of this course of action.

## 14 Mine plans for the library

15.1 A.C-F-Thomas asked if the committee would approve the purchase of 4 microfilm viewers, which he could acquire at a very reasonable price. All agreed these were now a necessity as we now have a collection of mine plans on microfilm. Thanks went to D. Parsons who presented the library with photocopies of documents referring to the Coniston copper mines.

## 16 Date and venue of next Committee Meeting

This was arranged for 7.30 p.m. on Monday 24th July 1995 at the BMSC Hut at Coniston.

## 17 Any other business

17.1 J. Knowles had a message from M. Simpson giving the beginning of July as the date for publication of the next newsletter.

17.2 A.D. Cameron thought the last newsletter was excellent. The change of name was discussed. D. Bridge PROPOSED "That the name should revert back to the Newsletter". SECONDED by A.D. Cameron, all were in favour.

17.3 A.D. Cameron asked What progress had been made at Hudgill Burn mine. S. Barker reported the work had been slowed down by inclement weather in the winter months, but the fixing of headtrees and digging out was now going ahead well. This project to go on the next agenda as a separate item.

17.4 D. Bridge had given a lecture at the CIHS annual conference, which appeared to be enjoyed by all their members. There being no further business the Chairman closed the meeting at 10.30 pm.

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- CAT 2                      Coniston Copper- A History with pictures and CATS explorations.  
 Helvellyn Mine.              Occurances of Copper in Furness and South Cumbria.
- CAT 3                      1983  
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- CAT 4                      April 1984  
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- 6 Welsh Notes (Parys Mountain, Sygun Mine, Cwm Ciprwth Mine, Dorothea Engine House,  
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- 6--7 Honister Up-date Parys Mountain Project
- 8-9 Geevor Annual Report
- 10 Gold News
- 11-13 Book Review - Hidden side of Swaledale, Randfontein Estates, Historia minima de la  
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- 14-17 New Books-The Cornish Mineral Industry, Minerals of the English Lake District, The  
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- 18-21 Knockmurton revisited.
- 22-29 Meets reports.-Coniston 15:1:89 Paddy End ML P.Fleming, Warton Grag Mines  
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- 10-12 Coniston Exploration by CAT,s
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- 32-34 Coventry Colliery, Keresley, Warks
- 34 Active Mines 1991.
- 10-25 Meets Reports:- Corris Slate - Braich Goch to Gaewern, Coniston exploration - Earthquake Passage and Avalanche Stope. Hodge Close, Bonsor East Stopes Below Grey Crag Level, Honister Slate.

## CAT 33 December 1992

- 1 New Book- The Mines of Flintshire and Denbighshire.
- 2 I A. News Extracts from National Park Newsletter.
- 3 The Underways of Arras.
- 6-10 Mine Forum Meeting 17:06:92
- 12 NAMHO Field Meet Ironbridge 27:06:92 ML I. Brown
- 14 Honister Update - A. Cameron.
- 15 Moel Fera Slate mine Cywd N. Wales - J. Knowles.
- 16-17 Furness iron - Henning Valley 1 - A.C.P. Thomas.
- 18 Furness Iron - Mine Shaft at Ruskinville - A.C.P.T
- 19-20 Churchill and the Coal miners - D. Bridge.
- Meets Reports.
- 24-27 Furness Iron - B.30 site clearance 03:05:92
- 28-29 Pylon Pot, Furness, 20:05:92 ML A. Thomas.
- 30-32. Force crag, 07:07:92 ML D. Bridge, Ennerdale Iron 02:08:92, ML D. Bridge. Cashwell, Nr Alston 27:09:92

## CAT 34 April 1993

- 5 Coniston planning Inquiry - Mr P Johnson.
- 6-16 Meets reports-Greenside Oct 1992, Coniston Top Level Boxing Day 1992, Penton Stone Mine 03:01:93, Kentmere slate 17:01:93, Coniston Top Level
- 17-21 Recent Developments on mine sites and general I.A. news. Other societies
- 22-27 List of Mine Abandonment Plans for Cumbria.
- 28-30 Welsh and Cumbrian Slate workings - Some Comparisons - P. Hay
- 31 J.O. Mara Of Coniston - J. Wilkinson.
- 32-33 Triangular Drill Holes - J. Knowles.
- 35-36 History of Quarrying at Kentmere Head - D. Glover
- 37-42 Furness Iron-Tail of Two Addits -B36 Level system
- 43-46 Furness Iron-B30 Shaft- Project prognosis A.C.P.T.
- Books in the Archives. - Steam Engines and Waterwheels
- 47 Facit and Britannia Stone Mines, Shawforth Lanes
- 48-49 The Gynceriog Slate Mines - Nr Llangollen, N. Wales.

## CAT 35 July 1993

- 2-17 Meets Reports - Furness Iron -B30 Shaft Head 07:03:93. Derbyshire-Odin Mine, Peakshole Sough, and Old Millclose Mine 8/9:05:93, NAMHO Conference Isle of Man. April.  
Coniston - Brow Stope to Grey Crag Level March. Furness - Woodbine Mine Chimney  
May, N Wales, Cwmorthin, Croesor to Rhosydd 10/11 April.
- 18 Photographs for Archival purposes S.C.P.T
- 20-26 Railways Remembered, F.Heap, (East Lanes Railway)
- 27-29 News Abstracts.
- 29 Books in the Archives-Water in Mines and mine pumps Railways of Cumbria, Mines of Dartmoor and the Tamar Valley
- 30 Honister Update.

## CAT 36 October 1993

- Meets Reports - Wanlock Head-Gold Panning 23 May, Thrang Quarry (Slate) Langdale, 26 May, Rotherhope Fell Mine Alston 19 June, Eskdale Iron 4 July, Caldbeck Fells 13 July, Hardlevel to Brandy Bottle Incline Swaledale 22 August, Woodbine Furness 29 August, Bowscales Mine 5 September.
- 11 Woodhead Spider Nr Askham Furness.
- 13 Underground Dangers
- 14 Mine Air and its Properties.
- 16 Rats Rats Rats
- 16 Spreading the Word
- 18 Minera Lead Mine.
- 20 Minutes of the Mining Forum Meeting of 14 July
- 22 Dusting Along The Bookshelf:- Industrial Archeology Review Vol XII No 1, Mines of the Gwydyr Forest Pts 1 & 2.
- 25 The Hathorn Davey Engine at Violet Pit, Roanhead.

## CAT 37 January 1994

- 1 Chairmans Remarks
- 2 Diary Dates
- 3 Meets :- Visit to the British Geological Survey Office at Newcastle.  
Great Orme Copper Mine 16/17 Oct  
Greenhead Gill Survey Meet 31 Oct  
Danby Level -- 21 Nov  
Abercorris Visit Nov  
Yew Crag Slate Dec 27
- 15 Mine Gase Pt 2 A Near Miss at Nenthead  
Spreading the Word
- 17 News -- Minewater Pollution, Snailbeach Land Reclamation, British Coal, Boulby Potash Mine
- 18 Tech Info -- Water Pressure, Anchors.
- 19 Geology -- Erythrite
- 21 Rhosydd -- Reworking
- 23 Silverband Mine (Spitfire Crash)
- 24 Book Review-- Mines of the Gwydyr Forest Pt 5

## CAT 38 April 1994

- 1 Diary Dates
- 2 Society Notes
- 3 Meets Reports - Completion of Taylors Level Dec93  
Boxing Day meet -- Greenside

Triddle Shaft to Taylors Level Jan 94

Borrowdale Wad Mine Feb 94

Furness Bat Survey Jan 94

8-22 Frog Shaft Project

23-25 Post Mine Mineralisation in the Coniston Coppermines

25-29 Nantiago Mine - Mid Wales.

29 News -North Pennine heritage Trust,Alstonite, North Wales news

31 Mine Forum Meeting, Index Record for Industrial Sites

32 Spreading the Word, Comment on Water in Mines.

New Books -- Rhosydd Slate, Bailiff of Blackmoor.

Future of the UK Coal Mining Industry.

#### CAT 39 July 1994

1 Diary Dates

2 NAMHO Field Meet Details -- Forest of Dean

3 Society Notes.

5 Meets Reports:- North Wales 15th - 18th April

Ingleton Quarry, Ingleton Coalfield 22nd May

Hudgill Nenthead - 11/12 June

Mines of Grassington Moor 18 June

Gavel Mine Buckden 19th June

20 Mine Forum Meeting (15 June)

21 IRIS Index Record for Industrial Sites

22 Dr Descender

23 A Visit to Wet Earth Colliery-- Peter Hay

25 Plynlimon Mine by D. Blundell

30 The Great Lindal Rail Disaster -- John Helme

31 News -Bursting Stone Quarry, Coniston, Wanlockhead,  
Collieries, Pit Ponies, Chatterley Whitfield Museum  
Photographic Copy for the Newsletter.

#### CAT 40 October 1994

1 Dave Blundell -- Orbituaries

2 Society Notes -- Editorial

4 Meets Reports -- Greenhead Gill 3rd July 1994  
Coniston Exploration July  
NAMHO Field Meet -- Forest of Dean  
Hudgill Burn 17th September  
Brewery Shaft, Nenthead, 18th Sept.

9 Hudgill Burn Mine -- A few notes - Sheila Barker

10 Roanhead Survey Meet -- 21 August -Peter Sandbach

11 End of Plunger Pit - Furness -- Peter Sandbach

14 Early Copper Mine Sites in the Lake District. D.Bridge

19 CATMHS Library Index on Disk

20 News -- Horse Crag Mine,Tilberthwaite. Haig Pit. Whithaven. South Crofty, A case for  
Dr Descendeur. Snowdonia Quarry Project.

22 Mine Conservation In Wales.

Book Reviews - Lewis Morris and the Cardiganshire Mines

The Lancaster & Westmorland Mineral Statistics with the Isle of Man.

26 Rescue at Coniston -- 31st July, Sheep in wheel pit  
Croesor File.

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CATMHS 41 January 1995.

- 1 Chaimans Report for 1994
- 2 Society Notes
- 5 Meets Reports Dufton Fell 2nd October  
Taylors Level 16th October  
Simons Nick-Grey Crag Level 25th October
- 16 Beneath the Alsace
- 17 Hunter Saws
- 20 A Boxing Day Meet - Martin Carter - A Prolific Digger
- 21 News items- Colliery winders to Sellafield, Water Pollution, Ireland Mining Exhibition,  
Great Orme Prehistory, Lime Kiln in action, Petts Quarry, Scottish  
Gold, Tilberthwaite Slate, Backbarrow, Woodbine chimney.
- 26 Letters to the Editor
- 27 Photographs - Kilhope and Brewery Shaft.

## CATMHS 42 April 1995

- 1 Society Notes
- 4-6 Meets Reports- Carrock Wolfram Mine, Hudgill, Coniston-Levers Water Mine to Top  
Level, Hudgill, Manchester- Wet Earth Colliery, Stone Mine and Astley Green  
Colliery Museum, SRT Training Meet.
- 7 Ruskin Museum Update.
- 8 Early Stone Quarry near Maastricht
- 9 The Mines Of Stater Bob - Coniston & Tilberthwaite
- 11 Reminiscences of an Iron Ore Miner.
- 19 New Mineral Discovery at Nenthead.
- 20 News
- 23 Book Review - Mining Before Powder.
- 24 The CATMHS Library List.

## CATMHS 43 July 1995

MWTS July 1995.

# BRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 16th JANUARY 1994  
BMS Hut, Coniston.

da

Apologies for absence  
Minutes of the last meeting  
Matters arising  
Secretary's Report  
Treasurer's Report  
Membership Secretary's Report  
Recruitment of new members  
Insurance  
Meets Secretary's Report  
Publicity officers Report  
Furness Projects  
Woodbine Mine  
Heritage Survey  
Stainton Quarry  
Journal  
Slate from Coniston  
Newlands Furnace  
Greenside Ladderway  
Coniston Coppermines Site  
Mine plans for the Library  
Date and venue of next committee meeting  
Any other business

ent	D. Bridge,	S. Barker,	J. Helme,	D. Parsons,
	A.D. Cameron,	P. Fleming,	J. Knowles,	I. Matheson,
	M. Mitchell,	M. Simpson,	A. C-P-Thomas,	A. Wilson.
	12 Members in total.			

Meeting commenced at 7.40 pm.

Apologies for absence  
None

## Minutes of the last meeting

The minutes of the committee meeting held on Monday 20th November 1994 had been previously circulated to members.

It was PROPOSED by M. Mitchell and SECONDED by P. Fleming, "That the minutes be signed by the chairman as a true and correct record of the proceedings". This was carried unanimously.

## 3 Matters arising None

## 4 Secretary's Report

4.1 The secretary had received:

- A) Letter from Mr P Robertson from Workington which contained additional information on the Cumberland Mines Rescue Service, including two interesting photographs and a map of the Workington coal field.
- B) Minutes of the last NAMHO committee meeting. Where it had been decided to pay travelling expenses to society representatives attending meetings. The next meeting would be held on 19th March 1995.
- C) The 1995 NAMHO mining history conference would be held at Lilleshall on the 14th/17th of July.
- D) Newsletters from NAMHO and the NCA, were given to the newsletter editor, who after use will pass them to the librarian.
- E) Letter from member J. Wilkinson stating he did not wish to be co-opted on to the committee. Thanks are extended to Jeff by the committee for his contributions in the past.

## 5 Treasurer's Report

The treasurer presented a balance sheet (which had been circulated) covering the period since the last committee meeting. He made the following comments:

- 5.1 Received 68 membership subscriptions to date.
- 5.2 Donations received included £25 from the Langdale Society slide show.
- 5.3 Literature sales misc.; include £29.50 for old newsletters sold at the annual dinner.

J. Helme was disappointed a larger percentage of the membership had not responded to his request for the early payment of this years subs. After general discussion, it was decided the Membership secretary should send a reminder to members who had not yet paid. The February newsletter to be the last sent out to members who have not paid their 1995 subs.

A. Cameron asked if we were still receiving royalties from 'Beneath the lakeland fells'. The treasurer was expecting to hear from Red Earth shortly.

Acceptance of the balance sheet was PROPOSED by M. Mitchell and SECONDED by I. Matheson. All were in favour.

## 6 Membership Secretary's Report

The Membership secretary reported that there are 63 members at present, several of whom were new members. D. Parsons explained his intended method of record keeping and showed members the letter he would like to send out to new members. He thought it may prove too expensive to re-print that years previous newsletters, to send to new members when they join, as part of their first years subscription. Several members thought that new members should receive all the years newsletters if they paid the full subscription. J. Knowles PROPOSED "If new members pay the full years subscription they must receive the years newsletters, extra newsletters to be printed at time of publication". Seconded by I. Matheson, all were in favour.

# CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 20th March 1995  
at the BMSC Hut, Coniston.

## Agenda

- 1 Apologies for absence
- 2 Minutes of the last meeting
- 3 Matters arising
- 4 Secretary's Report
- 5 Treasurer's Report
- 6 Membership Secretary's Report
- 7 Meets Secretary's Report
- 8 Publicity officers Report
- 9 Furness Projects
  - 1 Woodbine Mine
  - 2 Heritage Survey
  - 3 Stainton Quarry
- 10 Journal
  - 1 Slate from Coniston
  - 2 Newlands Furnace
  - 3 Greenside Ladderway
  - 4 Coniston Coppermines Site
- 5 Library
  - 5.1 Mine plans for the Library
  - 5.2 Postal costs
- 6 Date and venue of next committee meeting
- 7 Any other business

Present	M. Mitchell,	S. Barker,	J. Helme,	D. Parsons,
	P. Fleming,	J. Knowles,	M. Simpson,	A. C-P-Thomas,
	A. Wilson.			
	9 Members in total.			

The meeting commenced at 7.35 pm.

Mr Bridge was unable to attend the meeting, it was PROPOSED by J. Helme and  
SECONDED by A. Wilson that M. Mitchell would chair the meeting. All were in favour.

## Apologies for absence

D. Bridge & A.D. Cameron.

## Minutes of the last meeting

The minutes of the committee meeting held on Monday 16th January 1995 had  
been previously circulated to members.

It was PROPOSED by J. Helme and SECONDED by D. Parsons, "That the minutes  
be signed by the chairman as a true and correct record of the proceedings". This was  
carried unanimously.

## 3 Matters arising

3.1 Item 6 (16-1-95) D. Parsons wished to re-affirm the decision made, to send new  
members all the years newsletter's if they paid a full years subscription. He thought  
this would become expensive. After discussion it was decided to stick to the original  
plan.

3.2 Item 5 (16-1-95) J. Helme reported that the publishers Red Earth were closing  
down. They would send us a cheque for royalties due, at the end of April.

3.3 Item 6 (16-1-95) S. Barker reported an article by Alen McFadzean had  
appeared in the Evening Mail telling of CATMHS's activities.

## 4 Secretary's Report

4.1 The secretary had received:

- A) Letter from the AIA asking if the society would care to become an affiliated  
member. It was decided, as we may have difficulty raising sufficient funds for our  
current commitments, we would not take up membership at present.
- B) A copy of the Cumberland Geological Society meets list.
- C) Letter from NAMHO regarding the Third Party Liability insurance (TPLI)  
situation. NAMHO have resigned from the NCA, which means they can no longer  
arrange insurance for the members of NAMHO. All societies now have to arrange  
their own insurance, this can be done by joining the BCRA or similar group. It was  
PROPOSED by M. Mitchell and SECONDED by J. Knowles that CATMHS should  
join the BCRA, the secretary to send off the application form.
- D) Letter from Brian Ellis (BCRA) answering a question asked by the secretary about  
age limits with regard to the TPLI policy. He stated there was no age limit, upper  
or lower. The conditions for joint membership however still remained fuzzy,  
J. Knowles to write to the BCRA on this subject.
- E) Letter from the CCC Neighbourhood Services unit (Barrow-in-Furness) asking for  
a progress report on the Furness Survey. They granted the Society £400 last  
August, and wish to know how the money was spent. The secretary to answer.
- F) Letter from Eric Instone of the Cranstone Consultancy. He has taken over the Iron  
Mining section of the MPP and asks for information on Cumbrian mine sites.  
A. C-P-Thomas is compiling a list with the help of the Furness group.
- G) Letter (1) from the Lancaster University Archaeology Unit (LUAU) wanting  
information on any survey's of industrial sites we have carried out in the years  
between 1980 and 1994. A.D. Cameron to deal with this matter.
- H) Letter (2) from the LUAU regarding the preliminary report on Stone and Lime for  
the MPP. It asks for any information on Stone, Slate, Sand etc. A.D. Cameron to  
compile a list.

Member Mary Parsons attended the NAMHO council meeting and AGM on 19th  
March as CATMHS's representative, the next meeting will be on the 29th October,  
(not at the July NAMHO conference). The secretary has the Conference  
application forms.



The membership secretary had re-designed the headed note paper and compliment slips and produced a new membership card. All agreed with the new formats.

#### 6.1 Recruitment of new members

D. Parsons asked if the society wished to encourage the recruitment of new members. All agreed that they did want to increase the membership. As a point of interest the treasurer pointed out, that £8-£9 per year was spent on each member (publications). Not that he thought this should deter us. Ideas for encouraging younger members were discussed. J. Helme had been approached by Alen McFadzean of the Evening Mail (local Furness paper) who wants to do articles on local societies, and A. Wilson (who has an empty shop in Windermere) agreed to display advertising material.

#### 6.2 Insurance

D. Parsons had written to BCRA regarding details of our present insurance policy. As CATMHS used to obtain third party public liability insurance cover through the BCRA via NAMHO, the circumstances appear to have changed (since NAMHO decided to leave the NCA). S. Barker was requested to write to NAMHO to establish the current conditions. This subject to be discussed on the next agenda.

At this point the meeting was joined by the Tackle Master. Who asked the committee if they wanted him to buy new karabiners for use on CATMHS meets, as the present stock of gear was virtually non-existent. After general discussion it was decided members should all use their own gear, as society gear always seems to get misplaced. M. Mitchell outlined guidelines from Brussels regarding Personal Protective Equipment (PPE). Manufacturers must describe the care required and the life expectancy of all new equipment they produce.

The committee asked C. Jones if he would keep a log of CATMHS's ropes etc. and have them tested when he thought it necessary.

#### Meets Secretary's Report

J. Knowles reported on forth coming meets. He had produced some guidelines on SRT training, which would be printed in the next newsletter. It had been decided to hold a slide show in the summer months at the Eagle and Child in Staveley nr Kendal, hoping to attract members from further afield to attend. The seven day meet in Cornwall was discussed, the date most popular was the 2nd September 1995. The membership secretary reminded the meeting the next meets meeting was on the 13th March. P. Chandler (SCMC) had requested an exchange meet at Coniston.

#### Publicity Officer's Report

A.D. Cameron reported on his activities, most of his time at present was being spent researching his book, this was progressing well. He would need help with the Coniston Exhibition to be held on the 6th/8th May, to be discussed at the next meeting.

#### Furness Projects

0.1 Woodbine Pit, Newton. A. C.-P-Thomas told the meeting he had received an offer of the use of a mobile crane, which would enable rigid ladders to be dropped down the chimney. Staging's could then be built inside and pointing of the chimney could then be completed.

0.1 Furness survey. This project is going well.

9.3 Stainton quarry. No developments.

#### 10 Journal

J. Helme reported revenue received from Journal No 4 to date was £1226 -335 copies sold.

Questions were asked regarding the date of the publication of the next Journal. D. Bridge said "The date cannot be decided till the material starts to come in".

#### 11 'Slate from Coniston' ADC

A. Cameron had nothing further to report.

#### 12 Newland Furnace

J. Helme had a meeting with M. Daniels (County Archaeologist) at the furnace site. He was impressed with the site and what had been achieved, and promised County funding. J. Helme had listed details of expected expenditure over the next 18 months and would be sending a letter shortly (from himself and Dr J. D. Marshall) asking for funding of around £500. This money would re-build the furnace up to the height of the wooden beam and as suggested by Mike Daniels, this would be a good time to pause and consider future efforts. Next work meet 28th January when the 4" concrete 'roof' will be poured.

#### 13 Greenside Ladderway

A workmeet had been arranged for the 18th December (meet leader P. Fleming) to stabilise the two lower sections of the ladderway. This however received no support (perhaps to near the festive season). D. Bridge to arrange another date.

#### 14 Coniston Coppermines site

P. Fleming thanked I. Matheson for taking the required photographs of the Triddle incline arch, which were delivered to the NPA's archaeologist John Hodgson. P. Fleming reported the latest situation in the Coppermines valley, P. Johnston had pulled down the extension to the Powder House but at too late a date to comply with the Inspectors ruling. He was fined quite a large sum for non-compliance. There is to be a TV programme, shown next week regarding the Coniston copper mine valley.

P. Fleming wants to start a new exploration project at Coniston and is planning a three pronged attack on the Twin Tunnel area of Paddy End mine, anybody interested please contact him. He asked if the committee would consider buying a may pole. M. Mitchell said we could use his.

C. Jones will finish the re-bolting of the Paddy End through route ASAP.

#### 15 Mine plans for the library

A. C.-P-Thomas had enquired about copying and storage at the Carlisle record office. They informed him the records now stored in Edinburgh would, in about 6 month's time be transferred to a new site in Whitehaven. It was thought unlikely the copying facilities would match those at Edinburgh.

15.1 The purchase of mine plans of Furness would be going ahead this year.

15.2 Access to collection.

When the list of books has been published, a postage system will have to be worked out. This subject to be discussed again at the next meeting.

# **Date and venue of next Committee Meeting**

This was arranged for 7.30 p.m. on Monday 20th March 1995 at the BMSC Hut at Coniston.

## **Any other business**

1 D. Parsons told the meeting he had contacted Mr C. Rodgers the author of a new book 'To be a Gypsum miner', who had now joined CATMHS. He had lent us tapes recording local mine workers experiences.

2 A. Thomas asked if he should give a copy of Journal No 4 to Mr McWilliam in appreciation of his help at Logan Beck Mine. All agreed with this suggestion. There being no further business the chairman closed the meeting at 10-00 pm.

/01/95

Chairman

CATMHS Financial Statement		JAN. 1995	
Balance	November 1994		1378.53
Subscriptions		694.00	
Annual Dinner		34.97	
Donations		47.00	
Literature sales			
	Journal 3	28.54	
	Journal 4	551.55	
	Misc.	35.50	
Interest	Current	0.19	
	Building Soc.	77.76	
Neighbourhood Forum Grant		100.00	
	Total	1569.51	1569.51
			2948.04
<b>Expenses</b>			
Auditor Fee		11.00	
Rent of meeting room (BMSC)		3.00	
Subscription NAMHO		15.00	
Subscription CLHS		06.00	
Membership Sec Expenses Sibbald		1.76	
Parsons		30.00	
Sec. Expenses		32.38	
Publicity Officer Expenses Postage		28.56	
Printing		05.00	
Library Ink pads etc.		18.12	
Library Book (Blundell) Embsay		272.50	
Library Mine plans Geol. Survey		46.41	
Furness Survey tape etc.		40.50	
FMA Guttering etc.		21.56	
Project Mandall Office Guttering		13.72	
	TOTAL	545.51	-545.51
	Balance		2402.53
Balance held as:			
	Building Society	2266.33	
	Bank	136.20	
	TOTAL	2402.53	

## MBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 22nd May 1995  
at the BMSC Hut, Coniston.

### Agenda

- Apologies for absence
- Minutes of the last meeting
- Matters arising
- Secretary's Report
- Treasurer's Report
- Membership Secretary's Report
- Meets Secretary's Report
- Publicity officers Report
- Furness Projects
  - 1 Woodbine Mine
  - 2 Heritage Survey
  - 3 Stainton Quarry
- Review of voting procedure
- Newlands Furnace
- Greenside Ladder way
- Coniston Coppermines Site
- Library
  - 1 Mine plans for the Library
- Date and venue of next committee meeting
- Any other business

Present D. Bridge S. Barker, J. Helme, D. Parsons,  
P. Fleming, J. Knowles, M. Simpson, M. Mitchell,  
A. C-P-Thomas, A. Wilson, I. Matheson arrived at 9 pm.  
11 Members in total.

The meeting commenced at 7.35 pm.

**Apologies for absence**  
M. Simpson

### Minutes of the last meeting

The minutes of the committee meeting held on Monday 20th March 1995 had been previously circulated to members.

It was PROPOSED by D. Bridge and SECONDED by P. Fleming, "That the minutes be signed by the chairman as a true and correct record of the proceedings". This was carried unanimously.

### 3 Matters arising

- 3.1 Item 4 H (1) A.D. Cameron had answered LUAU's letter which had asked for information on extraction sites of stone, sand, lime and slate for the MPP.
- 3.2 Item 4 G A.D. Cameron had answered the second LUAU's letter regarding surveys of industrial sites.
- 3.3 D. Bridge had sent details of old copper sites to English Heritage.
- 3.4 Item 7 A.D. Cameron asked if the first aid kits had been obtained from P. Merrin. S. Barker replied, the contents of the kits were on order.
- 3.5 Item 4 (C) J. Knowles had written to NAMHO regarding the third party insurance, which is paid up till October of this year.
- 3.6 J. Knowles had priced ladders, as the prices appeared high D. Parsons agreed to obtain an estimate for comparison.
- 3.7 Item 7 J. Knowles read out a draft of the letter he was asked to write to the National Trust.
- 3.8 Item 14 C. Jones and P. Merrin had finished re-bolting the Paddy End through trip.
- 3.9 S. Barker reported she was distributing Dave Blundell's gear to the successful bidders.
- 3.10 Item 16 S. Barker had booked the annual dinner at the Yewdale Hotel. John Crossfield had agreed to be the after dinner speaker.

### 4 Secretary's Report

- 4.1 The secretary had received:
  - A) Letter from the National Radiological Protection Board, which included a draft of proposed advice on the limiting of exposure to Radon during caving and similar activities. The society's comments were invited.
  - B) Letter from the LDSPB asking for comments on a planning application for a mineral water bottling plant, to be built in the Kentmere valley. M. Mitchell outlined the details of the proposed scheme. After discussion it was decided to oppose the planning application.
  - C) Copies of newsletters from the RFDCC and the CIHS.
  - E) Letter from the CCC Neighbourhood Services unit (Barrow-in-Furness) asking for a progress report on the Furness Survey. They granted the Society £100 last August, and wish to know how the money was being spent. The secretary to answer.

### 5 Treasurer's Report

The treasurer presented a balance sheet (which had previously been circulated) covering the period since the last committee meeting. He made the following comments:

- 5.1 Journal sales now total 453 copies producing £1740 (including p/p).
- 5.2 Donations received £74.60 (see balance sheet).
- 5.3 The Coniston exhibition realised £123.09.
- 5.4 Thanks are due to Cathy Blundell and to the members, for the excellent results from the sale of Dave's equipment. £207.00 to date.

### **Treasurer's Report**

The treasurer presented a balance sheet (which had previously been circulated) covering the period since the last committee meeting. He made the following comments:

- Journal sales now total 392 copies producing £1443.25 (including p/p).
- Donations received included profit from a committee supper, and from a slide show given by M. Mitchell and I. Matheson.
- Roanhead expenses are for materials to manufacture gutter hangers.
- Acceptance of the balance sheet was PROPOSED by J. Knowles and SECONDED by P. Fleming. All were in favour.

### **Membership Secretary's Report**

The Membership secretary reported that there were 92 members at present, including two new members. All paid up members had been sent a membership card.

A point of interest noted from the Masson newsletter March 1995. Roy Paulson the DCA librarian PROPOSED disbanding the library, this was agreed. D. Parsons would obtain a copy of the book list, to go in our newsletter when it is available. D. Parsons would be attending the BCRA regional meeting, on 8th/9th April in Swaledale. PDMHS had now published 'Mining Before Powder', 152 pages, 125 illustrations. Price 8 less 33% to bona-fide clubs.

### **Meets Secretary's Report**

J. Knowles reported the Meets meeting had been held in March, and a list drawn up. There were only a couple of blank spaces. Further exploration at Coniston and a rip down Ding Dong were arranged. J. Knowles would like names of members who wish to go on the Cornwall meet. A slide show at the Eagle and Child Staveley was fixed for the 10th November, M. Mitchell to book the room. PDMHS are coming on 9th October for a meet at Force Crag mine, D. Parsons to be meet leader. Next weeks training meet (26-3-95) will be held at the Low Blue Quarry instead of Milberthwaite, Cathedral Cavern. The NT had written to I. Matheson asking groups not to use the cavern on safety grounds. J. Knowles to write to the NT on this subject. The summer meets list to go out with the next newsletter. The CATMHS first aid kit seems to have been lost, S. Barker to ask Dr. Merrin to put together 2 First Aid kits to be taken on meets.

### **Publicity Officer's Report**

A.D. Cameron was unable to attend the meeting, he had sent a written report. The bulletin was in the post. He had started work on material for the Whitsuntide exhibition to be held in Coniston and invited suggestions for new displays. Help would be needed putting up and taking down the displays, (to be arranged nearer the date).

#### **John Ruskin Museum Project**

J. Wilkinson had contacted S. Barker, asking if a list of artefacts suitable for the museum display could be drawn up, as plans have to be made regarding costs. S. Barker to write to the Museum Trust.

### **9 Furness Projects**

- 9.1 Woodbine Pit, Newton. A.C.-P-Thomas told the meeting this project would be going ahead as soon as the weather improved.
- 9.1 Furness survey. This project is going well.
- 9.3 Stainton quarry. No developments.

### **10 Journal**

J. Helme asked if members would start going round the shops again before Easter, as no Journal's had been sold in March. This item to be removed from the agenda till the material starts to come in for the next Journal.

### **11 'Slate from Coniston' - ADC**

In his written report A. Cameron said the book was progressing well, he still had a few more interviews to conduct. This item to be removed from the agenda till nearer publication date.

### **12 Newland Furnace**

J. Helme reported the £500 grant (from the CCC) had been authorised. The group were now working to build up the support walls on top of the concrete roof. Discussion was taking place with the Quarry management regarding supply of corbelling stones. Next work meet will be on the 25th March.

### **13 Greenside Ladderway**

A workmeet still has to be arranged.

### **14 Coniston Coppermines site**

P. Fleming reported on the situation in the Coppermines valley. The LDSPB have agreed to provide £4000 towards the repair of the Old Engine Shaft launder tower, EH are also likely to provide funds. It seems the work will be going ahead soon. P. Johnston appears to still be residing in the Powder House, P. Fleming still wants to start a new exploration project at Coniston and is planning a three pronged attack on the Twin Tunnel area of Paddy End mine, anybody interested please contact him.

C. Jones will finish the re-bolting of the Paddy End through route ASAP.

### **15 Mine plans for the library**

- 15.1 A.C-P-Thomas asked if the committee would approve the purchase of more Furness mine plans (to come out of the Furness budget), all agreed.
- 15.2 Access to collection (postal costs).  
It was agreed that the postal costs should be paid by the borrower. Rare items could not be borrowed but used for reference only, copies of maps to be taken away from the library, not the originals.

### **16 Date and venue of next Committee Meeting**

This was arranged for 7.30 p.m. on Monday 22th May 1995 at the BMSC Hut at Coniston.

any other business  
 J. Knowles asked if the voting system at the AGM could be discussed at the next meeting.  
 A. Thomas reminded the committee that he had been asked to look out for a reasonably priced extending aluminium ladder. J. Knowles told the meeting that he had a contact who sold ladders and he would get a price from him. All agreed with this suggestion.  
 S. Barker asked if she should book the annual dinner at the Yewdale Hotel as usual, all agreed to this suggestion. The question of an after dinner speaker was discussed, John Crossfield was suggested, S. Barker to contact him.  
 There being no further business the chairman closed the meeting at 10.00 pm.

Chairman

03/95

CATMHS Financial Statement		March. 1995	2402.53
January 1995		262.00	
Options			
Insurance sales		27.00	
Journal 3		63.41	
Journal 4		212.20	
Honster		17.00	
Misc.		21.83	
Current		0.51	
Total		603.95	3006.48
ses			
of room(BMSC)		3.00	
rinting		48.63	
rinting		100.17	
Roanhead		5.56	
		7.20	
TOTAL		164.56	2841.92
Balance			
held as:			
Building Society		2703.77	
Bank		138.15	
TOTAL		22841.92	

5 Metal support props purchased: 5 to replace borrowed items (Greenside), 8 to be stored in the South (Roanhead) and 12 to be stored in the North at Ravenstone Dale.

Acceptance of the balance sheet was PROPOSED by J. Knowles and SECONDED by A.D. Cameron. All were in favour.

D. Parsons asked if the society had ever considered reprinting Journals 1 and 2, as he thought they may sell. A.D. Cameron thought we should consider this after "Slate from Coniston" had been published. J. Knowles thought one volume of selected articles may be a better proposition. All agreed with this suggestion.

#### **Membership Secretary's Report**

The Membership secretary reported that there were 106 members at present, including two new members: Dave Kelly and Richard Parsons. The distribution of minutes to members was discussed. J. Knowles PROPOSED "That the minutes should be printed in the back of the newsletter". SECONDED by A. Wilson. All were in favour.

#### **Meets Secretary's Report**

J. Knowles expanded on the details of the new meets list. D. Parsons thought the content of the new list excellent, all agreed with this sentiment. The Meets secretary had been disappointed by the low attendance at the training meet. Arrangements for the Cornish meet were going ahead, any interested members, please contact J. Knowles. S. Barker asked if a meets list could be sent to Brian Young (BGS), This had been requested made at the last Mines Forum meeting.

#### **Publicity Officer's Report**

A.D. Cameron reported on the Whitsuntide mining exhibition held in Coniston. The numbers attending were down on last year (as were the overall numbers visiting the Lake District). Several new panels had been made, based on our new publications. A.D. Cameron needs laminating facilities, if anyone can help. J. Knowles congratulated A.D. Cameron on this year's excellent exhibition.

#### **1 John Ruskin Museum Project**

S. Barker had written to V. Slowe giving her a list of artefacts available from CATMHS members for the museum display. She had replied expressing their thanks for us donating our exhibition takings to their fund.

#### **Furness Projects**

1 Woodbine Pit, Newton. A. C.-P-Thomas told the meeting this project was going ahead. A ladder in short lengths would be needed to gain entry into the base of the chimney. D. Parsons to take this into consideration when pricing a ladder.

1 Furness survey. This project is going well. A. C.-P-Thomas and the Furness group had compiled a list of mine sites for the MPP. This was handed to Eric Instone of the LUAU (Newcastle Office), when he attended our March social to discuss sites, prior to his visit to the area.

3 Stainton quarry. No developments. This item to be removed from the agenda for the time being.

#### **10 Voting procedure at the AGM**

After discussion it was decided the constitution was sound and should remain unchanged. The past problems were probably caused by the lack of organisation on the night, this to be rectified.

#### **11 Newland Furnace**

Work is proceeding slowly, the CIHS have assisted with two work meets recently. A start has been made on a second layer of corbelling stones. J. Helme and Dr Marshall were shortly to attend a site meeting with members of RCHME.

#### **12 Greenside Ladderway**

No progress, D. Parsons will assess the condition of the shaft.

#### **13 Coniston Coppermines site**

P. Fleming reported on the situation in the Coppermines valley. The LDSPB have agreed to provide £4100 towards the repair of the Old Engine Shaft launder tower, EH are also likely to provide funds. It seems the work will go ahead as soon as planning consent has been obtained. We have agreed to transport scaffolding up to the site. At the previous days Coniston meet the Sisis was successfully tested for taking materials up to the Red Dell tower. Later in the day an iron pricker was found in one of the stopes (another artefact for the Coniston museum). P. Fleming suggested the society wrote to the Minister for the Environment, as the outcome of P. Johnston's appeal is to be decided shortly (without another public inquiry). All were in favour of this course of action.

#### **14 Mine plans for the library**

15.1 A.C.-P-Thomas asked if the committee would approve the purchase of 4 microfilm viewers, which he could acquire at a very reasonable price, All agreed these were now a necessity as we know have a collection of mine plans on microfilm.

Thanks went to D. Parsons who presented the library with photocopies of documents referring to the Coniston copper mines.

#### **16 Date and venue of next Committee Meeting**

This was arranged for 7.30 p.m. on Monday 24th July 1995 at the BMSC Hut at Coniston.

#### **17 Any other business**

17.1 J. Knowles had a message from M. Simpson giving the beginning of July as the date for publication of the next newsletter.

17.2 A.D. Cameron thought the last newsletter was excellent. The change of name was discussed. D. Bridge PROPOSED "That the name should revert back to the Newsletter", SECONDED by A.D. Cameron, all were in favour

17.3 A.D. Cameron asked what progress had been made at Hudgill Burn mine. S. Barker reported the work had been slowed down by inclement weather in the

winter months, but the fixing of headtrees and digging out was now going ahead well. This project to go on the next agenda as a separate item.  
 7.4 D. Bridge had given a lecture at the CIHS annual conference, which appeared to be enjoyed by all their members.  
 There being no further business the Chairman closed the meeting at 10-30 pm.

1/06/95

Chairman

CATMHS Financial Statement		May. 1995	
Income	March 1995		2841.92
Subscriptions	3 @ £10	30.00	
Donations			
	Knowles	20.00	
	Matheson - Mitchell	24.60	
	Fleming	30.00	
Merchandise sales			
	Journal 4	297.05	
	Coniston leaflets	150.00	
	Remainder	81.75	
Interest	Current	0.34	
Mandall Bequest:			
	Austin	96.00	
	Knowles	12.00	
	Dixon	44.00	
	Jones	37.00	
	Barker	18.00	
MRU (1/2 Mandall rent)		25.00	
	Total	865.74	865.74
			3707.66
Expenses			
Secretary		25.00	
Publicity Officer Postage		31.20	
Publicity display board		20.74	
Printing photocopies CCC		9.00	
Printing NL Staples		138.36	
JPB Rent Mandall		50.00	
ISC rent of room		6.00	
Al props (25)		100.00	
Survey Scythete, developing, etc.		47.25	
A Posts, wire, etc.		17.53	
Head		9.88	
	TOTAL	454.96	-454.96
Balance			3252.70

Balance held as:

Building Society  
Bank

TOTAL

3152.47

100.23

3252.70

# **CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY**

**HONORARY PRESIDENT** Lord Egremont

**VICE PRESIDENT** Major Hext

## **Officers for 1995**

**CHAIRMAN** Dave Bridge, 28 Abbey Vale, St. Bees, 01946 822484

**SECRETARY** Sheila Barker, 411 West Shore Park, Barrow in Furness,  
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**TACKLE MASTER** Chris Jones, 3 Bell Hill, Cottages, Lindal, 01229 63892

**LIBRARIAN/ARCHIVIST** Anton C.P.Thomas, 189 Greengate Street, Barrow in Furness,  
01229 835951

**PUBLICITY OFFICER** Alistair Cameron, Linden Lea, Pass Street, Eckington, Nr  
Pershore, Worcestershire, WR10 3AX, 01386 750494

## **Committee Members**

Peter Fleming  
Anton C.P.Thomas  
Mike Mitchell  
John Helme

Mark Simpson  
Ian Matheson  
Angela Wilson  
David Parsons

Jon Knowles  
Dave Bridge  
Sheila Barker  
Alistair Cameron

## **Honorary Members**

John Marshall

Mike Mitchell

Peter Fleming