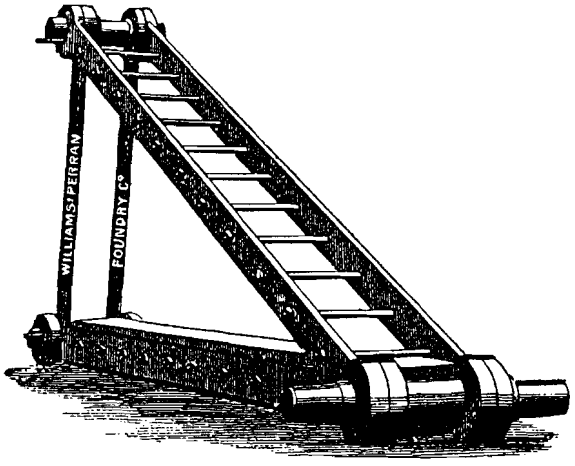
The Newsletter
No.55
November 1998

WEARING PARTS OF ENGINES, &c.

V BOBS, FOR FLAT RODS AND UNDERLAY SHAFTS.



Cumbria Amenity Trust
Mining History Society

COMPILATION

Special thanks to those members who are now submitting material on disc, this is a greet help. To assist me in inputting your contribution please could you submit it in one of the following formats :-

Microsoft Word for Windows 97
TXT
RTF

If you are not a computer Wizard and you don't think you have any of the above, you can save as TXT simply by scrolling down the list of options available when you get the "save as" menu come up on the screen. If in doubt give me a ring. If you are not using Microsoft Word 6.0 or an earlier version of Word please do not include tables and other "fancy bits" such as odd fonts sub or superscripts etc.

PUBLICATION

The newsletter is issued four times a year. Material for inclusion should be with to the editor by the 15th of March, June, September or December for inclusion in the next issue which will appear approximately four weeks later. Information should be sent to :-

Jon Knowles
46 Dukewood Road
Clayton West
Huddersfield
HD8 9HF

☎ 01484 860662

STOP PRESS

Apologies to Mark Simpson and Steve Brown for being unable to include their photographs in this issue. These will be included in Newsletter 56.

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EDITORIAL

Having recently been press ganged by Herr Barker into attending the NAMHO committee meeting (which was being held quite close to home) I have had a sneak preview of the draft of the forthcoming document "Guidance for the Use of Disused Mines by NAMHO Members". Whilst most of this 24 page document, which aims to be a guide to the current law relating to access and safety for exploration and use of disused mines, is sensible it does raise a numbering of points for further thought.

Whilst I, and I am sure most members, applaud the Health and Safety Executives view that they do not wish to interfere with club activities, there are a number of grey areas. Firstly taking members of the public and non NAMHO members underground creates all sorts of problems and is best steered clear of.

Secondly the definition of work in a mine (which does not have to paid), would to my interpretation at least, make what we have done at Hudgill, particularly supporting the roof in the entrance, come under the definition of "work". If I am right then the Mine Inspector should be made aware of the activity. If work is being undertaken then it is covered by current regulations for working mines !

The position with regard to winches is also unclear and they may need to meet current mining specification.

The guidelines are currently only a draft but the consensus of the meeting was that apart from a number of minor changes they should be issued.

I asked / requested that since they were "guidelines" the use of the prescriptive word "must" in relation to obtaining the legal owners position before going into a mine should be changed to "should".

Once the guidelines are formally issued I intend to reproduce them in full in the Newsletter.

Many thanks to those who have contributed to this newsletter particularly the last minute contributions from Dave Bridge and Mark Simpson. Special thanks also to Mrs Descender whose valiant efforts with the red pen have again made this newsletter less of a travesty of the English language than it otherwise might have been.

Ed.

DOCTOR DESCENDER

Dear Dr Descender

I live in a converted barn. The staircase is very narrow, so a trapdoor in the sitting room ceiling and a ringbolt in the roof have been provided to enable furniture to be taken upstairs. The trapdoor is very useful for maintaining my elementary SRT skills; I can prussik up at the start of a television commercial, change over in the bedroom and abseil back down again in time for the next part of the programme. With care I can descend directly into my armchair unless the dog has got there first, or even if it has.

How do I convince my wife (and the dog) that this is a GOOD IDEA ?

Josiah Kellow

Your letter is a little unclear as to how the dog gets into the armchair but I assume that it gets down the "shaft" by jumping like most dogs I have found underground. But if it abseils this really is a good idea and you should not STOP this but develop its skills rather than let it chase COWS TAILS.

Doc.

Dear Doctor

I have a handy hint which might be of use to members. Don'y buy expensive new chocolate bars when you can get it from a jumble sale at much lower prices. Even better if you can get your daughter to buy it at the jumble sale so it dosen't cost you anything at all.

Anon, Computer Man

Yes a very useful tip which I sure most members will take up.

Doc.

P.S. If you can let me know how you eventually broke the bar so that I could pass this "tip" on as well.

MEMBERSHIP NEWS

We are pleased to welcome the following new member :-

Mike Heaney from Washington

THE RED EARTH

This is the title of a forthcoming book by Dave Kelly who previously wrote "The Red Hills". The book which will hopefully be available in December at a price of approximately £10 includes descriptions of all the Furness iron workings. The book includes 65 maps and prospective purchasers can contact Dave at :-

187 Blake Street
Barrow in Furness
LA14 5RS

01229 835760

AGM

Please note that the AGM and annual dinner will take place at the Yewdale Hotel in Coniston on Saturday 12th December. The format will be the AGM followed by a buffet and members slides. The committee regrets to inform members that the all night disco will not take place this year.

TREASURER TIMEWELL TALKS

COVENANTS

Can I thank all those who have covenanted their subs this year. I know it's a nuisance filling all those forms in but it will allow the society to raise over £150 each year by reclaiming tax from the Inland Revenue. Additionally a big thanks to all those who have covenanted over the last 10 or 12 years since the society has benefited vastly from your efforts.

DONATIONS

A big 'thank you' also to all those who gave money for the Hudgill Mine project. We have spent to date over £1200 on re-opening and securing the mine and the hard work continues. It would not have been possible to work in our present way without the money given by so many people.

LITERATURE

The society sells books it has published and at present 3 titles are available :-

Journal No.4	£4.00
Slate from Coniston	£8.95
Slate from Honister	£5.95

Slate from Honister is a new version of Alastair Cameron's masterpiece on the now re-opened mine. This is worth the money if only for the photo's ! (texts not bad either – Ed.)

TRISTAN & JON

A series of conversations. Any resemblance to any person living or dead is unintentional.

"I'm going back tonight so I can't drink so I'll give you a lift to the Grapes"

"Thanks. I'll leave my wallet in the glove box"

"Don't forget it later on"

"Don't worry"

Some time later after a reasonable meal.

"I'll see you in a few months after your trip to New Zealand. Enjoy the next few days in Wales"

"I will"

"Have you got your money"

"Yes"

After a 2 hour journey home the phone rings and a distressed voice says.

"I left my wallet in your van ! Can you leave it outside so I can come and get it. I've got no money for the B&B or petrol and I had to borrow money for this call"

After much time giving directions the wallet is left under the dustbin.

Some days later a further conversation adds

"You got your wallet then"

"Yes but only after more problems. When I eventually found the house and crept round the back watching for suspicious neighbours, I lifted the bin to find – nothing ! After sitting in the car and thinking, I first looked for other bins and found none, thoughts of dustbin lorries and hard up binmen were on my mind. Eventually I did a sanity check and found the wallet had stuck to the underside of the bin"

FFESTINIOG NEWS

My prophecy in the last newsletter regarding a fall at Rhosydd has come true sooner than I had expected. A surface walk over the site on the 13th September revealed a collapsed area of moorland immediately east of the floor 2 adit. The roof of chamber A-east appears to have collapsed. In addition extensive surface cracks go north as far as the remains of the office and saw mill on floor 2. It looks likely that further falls will take place. In theory if the whole of chamber A-east were to collapse then the fall on surface would extend as far north as the open shaft which goes down to floor 4 although the crater would be slightly to the east.

An underground visit with Tristan on the 25th October found the 9 - 5 incline blocked at approximately floor 7 by a large fall. Exploration of floor 9 east found large blocks partially blocking chamber B and a collapsed pillar in E which almost blocks the level and which it was not deemed safe to pass beyond. No major cracks were seen but the whole area outside the confines of 9 adit and east of chamber A-west must be considered unstable and avoided for the near future.

Whilst I personally believe it unlikely that the fall would extend to a point where access to the Croesor connection is blocked, this could be a possibility and needs to be born in mind by people doing the through trip.

Ed.

COMMENT

Partly descending a large shaft in a slate quarry and suddenly being unable to breath is a fairly sobering expereience. Whilst in this case a cool head and a very rapid change over (this is why ascenders must always be worn when on a rope) soon had me out of difficulty, it was a strong reminder of the presence of bad air. Whilst my own belief is that the particular incident was caused by a build up of carbon dioxide and/or a lack of oxygen in a blind dry shaft which obviously has refuse in it, it did take me completely by surprise. Whilst one tends to associate bad air with rapid falls in atmospheric pressure, Limestone rock and winzes in the far reaches of Nenthead to find it in slate in a large shaft only covered by corrugated iron was very surprising. Be warned.

On a more practical level is anybody aware of small, robust and cheap air testers on the market other than a traditional flame safety lamp.

Ed.

NATIONAL COAL MINING MUSEUM

This museum which has been "financially marginal" has at long last secured central government funding and will no longer be paid for by West Yorkshire ratepayers. I am personally pleased on both counts. The museum will be continue to be administered on a local level.

During the recent NAMHO meeting at the site an opportunity was taken to visit the on-site library which is stacked full of mining books on all subjects but with a strong coal bias. Due to the fact that the museum has been donated many books from other libraries and closing collieries they have a large number of copies of some books including more than 10 copies of C.Le Neve Fosters classic "A Text Book on Ore and Stone Mining". Currently the museums status prevents it from selling donated items !

The museum will be visited on the weekend meet being organised by Ian Matheson for the 28th and 29TH November.

Ed.

NOVA SCOTIA

As I mentioned in the previous newsletter Mrs Descender and I spent a fortnight in Nova Scotia in July. Whilst this was supposed to be a "normal" holiday much of mining interest transpired. Kate knew that there was bound to be some underground interest since, when reading the map immediately prior to departure I pointed out a town called "Sydney Mines".

During the fortnight we toured Nova Scotia, the coast of New Brunswick and Prince Edward Island.

As a general comment once you get to Canada its fairly cheap with food, accommodation and especially petrol being much cheaper than in the UK. Admission to tourist attractions was also reasonable, most being the equivalent of £1.50 to get in.

Springhill Miners Museum

This is a small privately owned coal mining museum which appears to be run on a limited budget. The underground tour is brief and takes you into the uppermost workings of a drift. The surface museum has displays recounting the numerous mining disasters which seemed very frequent together with heroic attempts to rescue trapped men. Some miners escaped after being trapped underground for 9 days !

Moose River Gold Mines – Provincial Park

This wasn't visited but it seems to be a picnic site with interpretative sign on the mine site. This site also has its fair share of drama since in 1936 three men (the mine owners and the mine timekeeper) were trapped underground for ten days, by a massive rock fall, by which time one of them had died. The long dawn out rescue appears to have received worldwide media attention.

There was clear evidence that pillar robbing had taken place prior to the fall and also that these three men were down the mine to "salt it" prior to offering it for sale.

Gold Panning

Leaflets advertised Gold Panning at Yarmouth, however this was off our route.

Glace Bay Miners Museum

This is a good site and the best one we visited. There are extensive surface displays together with many artefacts. There is a real and a simulated underground tour. The "real" tour is a walk down a drift where the techniques of coal mining are demonstrated. The simulated trip consists of sitting in a modern man rider which pivots and vibrates whilst a video of a modern mine is played.

The Colliery Route

A brochure describes numerous mining related features in the Cape Bretton area which are threaded together on a driving tour.

Nova Scotia Museum of Industry

This is a purpose built public museum which has obviously had a large amount of money expended on it. In addition to the usual displays on local industries a gallery was given over to mining with extensive reference to the numerous accidents which have accompanied mans attempts to mine the wide (45 feet) but very gassy local coal seam. These accidents have continued up to the present day. On the 8th May 1992 twenty-six men went underground into the recently opened Westray mine, they all died in a massive explosion.

Ed.

LETTERS TO THE EDITOR

From Barry Hunt

Whilst walking in the Bowland Fells recently I came across an old quarry containing the remains of an old steam crane whose only markings were "Rodley Smith" and "A759". I presume the stone quarry was used during the construction of Stocks Reservoir but this is by no means certain as there are several miles between them. There also appears to have been a small railway line linking the quarry to the road near the Cross of Greet Bridge.

Has any member any information on either the quarry or the type of steam crane ?

I am certain a number of books have been written by somebody called Harold Bowtell (or similar) on the reservoirs railways of the Pennines and I am sure these would be a good starting point.

The Rodley area of Leeds has always been synonymous with crane building. The first manufacturer in Rodley appears to have been Thomas Smith who I believe are still in business in Keighley. Two of Smith's original partners William Balmforth and Jeremiah Booth subsequently set up, separately, on their own account in Rodley. Looking through my Booth catalogue for 1930 none of the designs have numbers so your crane may well have been produced by one of the other manufacturers.

Has anybody got any further information ?

Ed.

HAIG PIT

We have received the latest newsletter from the Haig Pit restoration group. Good progress is being made at the site with the engine restoration and thoughts are turning to the procedures necessary to operate the equipment safely. For more information please write to the museum at :-

Haig Pit Colliery Museum
Solway Road
Kells
Whitehaven
Cumbria
CA28 9BG

NAMHO NEWS

Extracts from a draft of "Guidance for the use of disused mines by NAMHO members.

The information in the document is intended to be a comprehensive guide to the current law relating to access and safety for exploration and use of disused mines by NAMHO members. It will replace any earlier NAMHO guidelines.

The use of a disused mine on a voluntary basis by members of a Mining History/Caving Group for exploration research, surveying or training (not involving work) would not require the involvement of the Mines Inspectorate (MI). The MI have made their views clear in that they do not wish to interfere with club activities.

The only circumstances in which the MI would need to be involved are :-

1. **If work is carried out in a mine.**

2. **If members of the public are charged to be taken underground.**

Members of the public can be taken underground on an occasional basis, to foster good relations, they must be well equipped and supervised by a competent member at all times. The mine involved should be appropriate for the purpose and the route within the capability of the least able person involved. The leader is responsible for the safety of the party and should carry out risk assessments before and during the trip.

NAMHO members should not take people who are not regular subscribing members of their organisation (or another affiliated group) into a mine without carrying out a risk assessment. The appropriate safety procedures must be carried out to deal with the identified hazards and thought should be given to first aid equipment and rescue facilities.

Compliance with the points in the above two paragraphs are also required for our insurance cover (BCRA public liability indemnity).

WHITEHAVEN NEWS

On October 9th the sea-lock project at Whitehaven harbour was officially opened by John Prescott. During its construction the historic association of coal mining and shipping at Whitehaven once again reared its head as extracts from the following article entitled "Old mine workings no threat to new lock gates" show. This article appeared in The Whitehaven News on 22/1/98.

Ken Tweddle, who was surveyor for 20 years, says the harbour area "was extensively undermined, as was every part of Whitehaven town." He said the only area that escaped coal mine underworking was that occupied by the Castle, owned by powerful mine owner Lord Lonsdale. He said that both the Wellington Pit and Duke Pit mined coal from underneath the harbour area and out to sea. It was possible to walk underground from the pits on the south side of the harbour through to William Pit on the north side.

"The workings at Duke Pit were all room and pillar workings. Large pillars of coal were left at intervals to support the roof as the coal was dug out. The level of workings was about 600 to 700 feet down. If you look at any mining plans you see that almost all of old Whitehaven is under worked, including the harbour area. You can see what appear to be dips and settlement effects on the old south pier."

He could recall the journey he made with four colleagues when he walked some six miles underground between William Pit and the then Harrington No 10 Pit at Lowca. "Because William Pit was used as a ventilation shaft we walked in fresh air all the way."

Former Haig miners' leader Alec Douglas said it was well known that "You could walk through from Haig Pit to William Pit, passing the Wellington workings on the way. You could still walk through up to 1973 as there was still a pumping station at Wellington until that date."

Mr Tweddle thinks it highly unlikely that the old mine workings will pose any threat to the new £8 million lock gates project.

Dave Bridge

GEOLOGICAL SURVEY OF PADDY END

By the end of this year we hope to have completed the detailed survey of the Paddy End workings down to and including Middle Level. Geological observations backed up by slides etc are recorded as we progress and the question of how to present the data in a manageable form is now occupying much of our time. Computer displays seem to be the answer but how these are organised very much depends on the aim of the exercise. First and foremost we need to present geological information such as the overall pattern of veins and cross-faults, evidence of mineralization, state of the vein walls, etc on a 3-D model of the mine which shows the levels and extent of stoping, and relates this to the surface topology. Here we look forward to feedback from the BGS at a forthcoming meeting with them. Secondly such a model could then also be used as an archaeological database for recording artefacts, drill directions, etc. Finally it would be to CAT's advantage to produce a user-friendly PC package to introduce the intricacies and of the mine workings and the spectacular formations which can be seen underground to a wider public.

We have so far pursued a two-pronged approach. My own line has been to surf the Internet for available software while Mark has been developing ideas based on the AutoCAD suite of programs. In the event Mark's is proving to be the most fruitful line to take if we want get anywhere near to achieving the above aims. The Internet has come up with some commercial software for geological modelling but the programs are mainly related to borehole data and cost between 500 and 10,000 dollars. The caving fraternity however are better catered for and "Wookey" of the BCRA Cave Surveying Group gives an overview of available cave survey software written by amateurs and available at a much more modest cost which I have been investigating.

A program called COMPASS looked the most promising. This has been developed by Larry Fish of Denver and can be downloaded free for trial runs. It produces a wire frame diagram of the mine which can be colour coded according to section (i.e. Top Level, Middle Level, etc), survey or depth and can be viewed in stereo using spectacles with blue and red filters. Once the survey data has been read in this is a very quick way of looking at the overall structure of the mine from any desired angle and in stereo is very

impressive. A database can also be set up for displaying different features recorded in the mine with associated text and photographic images. For our purposes however it has serious limitations. For instance the method of representing tunnel walls doesn't lend itself to modelling stopes, the model can't be annotated, and the procedure for calling the databases is cumbersome and far from user-friendly. Furthermore it isn't possible to call up text or images simply by clicking on markers on the wire frame. The ability to superimpose a bitmap image of topographical data which can be scanned in separately does however work well. Essentially COMPASS provides a quick way of viewing the mine and checking the integrity of the data as it automatically closes loops and detects major errors. Beyond that for our purposes we need to look further - so over to you Mark!

Since February of this year we have had eleven survey visits to Paddy End.

Meet No 34 (Top Level Extension) - 6.5.98 - MS, DB

A good bit of straightforward surveying was carried out in Top Level Extension which included Ore Wagon Stope and Chain Stope.

Meet No 35 (Crag face workings) - 14.5.98 - MS, DB, Mark Scott

This time we really did have an opportunity to use the theodolite. A survey was carried out along the crag face to link the various workings there with the open workings above. These included the cutting to the NW, the one below Simon's Nick, the two levels, and the flooded stope in the crag above them. The RH level and the flooded stope both lie on the vein which passes through Arete Chamber (stope 4). As a result of this exercise we now have a better understanding of the positions of the crag face workings relative to the internal mine workings.

Meet No 36 (Lake Stope / Paddy End Stope) - 4.6.98 - MS, DB

A second bolting effort in Lake Stope to reach Belman Hole Level at the far NW end resulted in a few feet of height gained which brought us close to an opening for a ladderway through a false floor below the level. From this vantage point we could see that the NW end of the stope had been shuttered off with vertical planking, most of which had now broken away allowing a blue/grey gritty clay containing chunks of rock to collapse into the workings. This appears to have come (at least in part) from the clay cross-course which is found elsewhere in the mine and is exposed at surface beside the entrance to Leverswater Mine. From the volume of loose material in Lake Stope it seems likely that additional infill material has collapsed into the stope, possible spoil from the surface.

We then went on to inspect the SE end of the Paddy End Stope which involved climbing the loose slope above Top Level at that end of the mine. The workings there are close to the surface scree below the crag and water drains in at some point but further inspection would require rope protection with bolt belays. We also looked at stope 1 beyond the recent collapse (i.e. the stope nearest to Top Level portal) but again rope protection is needed before one can safely climb the loose rubble chute at the SE end, not to mention an escape rope through the hole to stope 2 in case of an avalanche blocking the exit!

Meet No 37 (Top Level Extension / Brow Stope) - 11.6.98 - MS, DB

More surveying in Top Level Extension included Earthquake Passage, Chain Stope Level and Cobalt Level. We also surveyed the Ore Wagon-Brow Stope connection and the floor of Brow Stope which includes a remote section of Middle Level. Cracks in the walls of Brow Stope here indicate subsidence, though to a lesser extent than that in the region of Earthquake Passage - possibly evidence of a "domino effect" suggested by Laurence Donnelly, the rock mechanics geologist from BGS, when he visited the mine in June of last year.

Meet No 38 (Crag face workings) - 12.6.98 - DB

A continuation of the crag face survey to record vein widths, dips, etc.

Meet No 39 (Brow Stope) - 7.7.98 - MS, DB

Having got the Brow Stope bug we continued in that stope by surveying the south-easterly line of descent from surface to a vertical depth of about 40m. The sharp edges of the shattered rock and the difficulty of finding good bolt anchorages due to the weathering of the stope walls call for exceptional care in this part of the mine. A start was also made on the north-westerly descent line where the rock structure is complicated by cross-faulting and a marked change in strike and

dip of the worked vein. Hopefully more will be unfathomed here on the CAT meet of November 1st.

Meet No 40 (Lake Stope / Top Level) - 16.7.98 - MS, DB, JD

Once again to Lake Stope where with John's assistance Mark continued the bolting exercise, this time traversing below the false floor of Belman Hole Level in an attempt to gain access to the level away from the unstable end of the stope. A resurvey of part of Top Level was also carried out to fix changes in floor height which had not been recorded earlier.

Meet No 41 (Leverswater Mine) - 6.8.98 - MS, DB

Today we decided to bring Leverswater Mine into the survey, but the mine being chest deep in water at the entrance it seemed prudent to gain access by traversing from Brow Stope. Mike Mitchell had laid this trail many years ago without the comfort of a traverse line which we lesser mortals have now installed across dubious timberwork. This allowed us to survey Leverswater mine as far as the flooded adit.

Meet No 42 (Lake Stope) - 17.9.98 - MS, DB

At last the great day had arrived. With a little more bolting high up in Lake Stope we were able to delicately step onto the remains of the timbered floor of Belman Hole Level beyond Angela's Dig. Great care was needed as most of the supporting stemples had split and bent from swelling and the hangingwall was exceptionally shattered and flaking. We were now about 25m above the sloping floor of Lake Stope. The working continued above but had been shuttered off about 6m up by planking similar to that at the end of the stope. In the direction of Angela's Dig there was a solid roof but the way was soon barred by a collapse as if from a further stope above the level. At least we now know the extent of this part of the level in the direction of Leverswater and the Lake Stope project is complete.

Meet No 43 (Surface workings) - DB

Today more surveying of the open works to record vein widths, etc. An unusual feature near the surface of Jackroll Stope was noted consisting of a sub-horizontal fissure about 35cm maximum width which extends for several metres into both walls and is associated with a brown powder. This may be the result of a very high concentration of iron pyrites in the country rock at this horizon. Similar but less extensive pockets have been found near the surface in stope 4.

Meet No 44 (Crater / Belman Hole Level Stope 2) - 1.10.98 - MS, DB

After resurveying part of the route down to Arete Chamber we moved on to the main purpose of the day in the Belman Hole Level to the SE of Dead Dog Passage. Our previous attempt to record the profile of this part of stope 2 with helium balloons had indicated a draught flowing along the roof in the direction of Simon's Nick (Meet No 30). Now with the drill we were able to bolt up to the roof and confirm that the working did appear to continue in the direction of Simon's Nick on a solid floor at a higher level, though still inaccessible. The state of the footwall in this area leaves much to be desired and the stope widens out further on making progress more difficult, but with the rope still in place we might be tempted to pursue this at a later date. Who knows what surprises might be lying in wait below the floor of Simon's Nick!

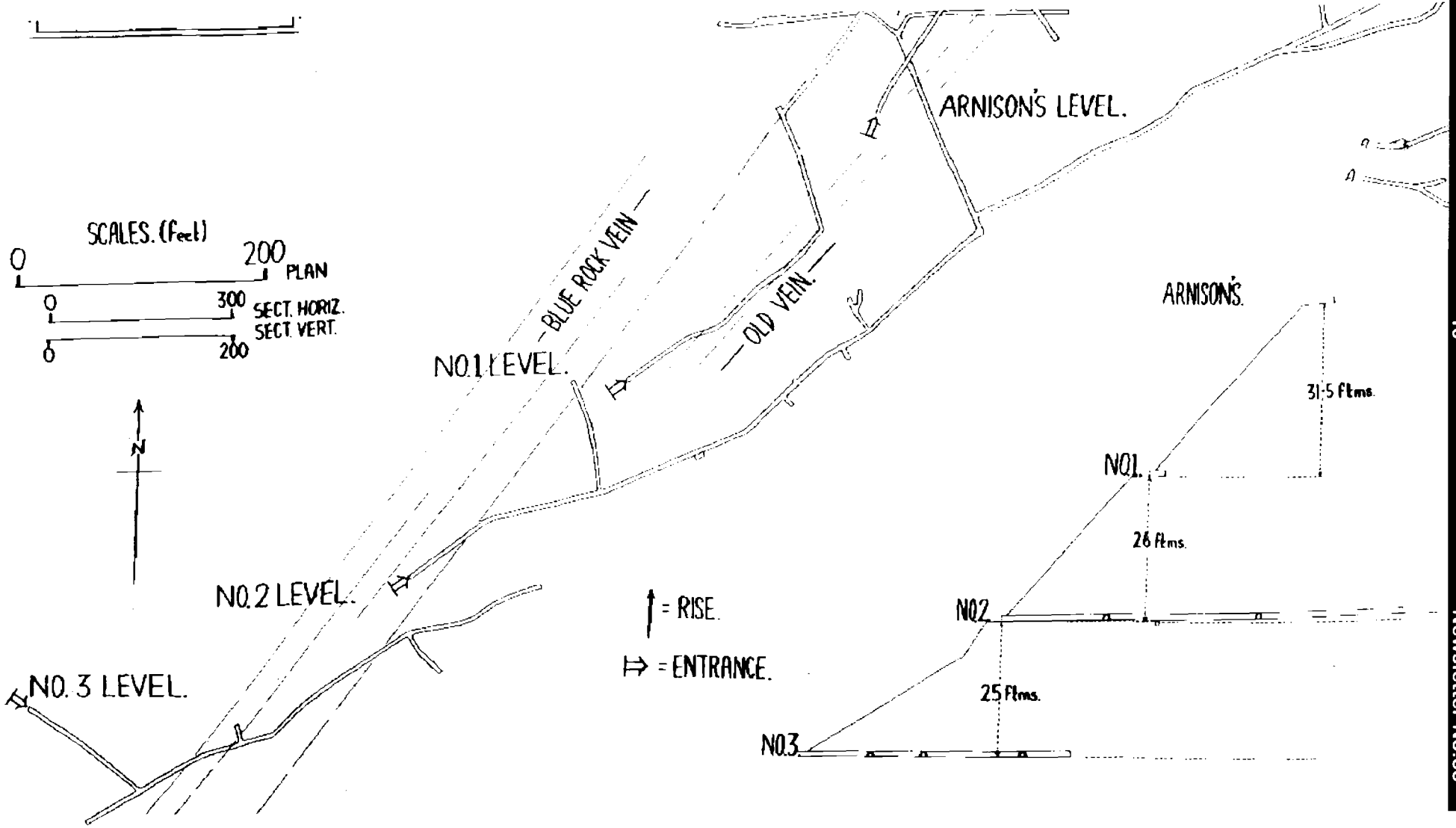
Dave Bridge

HELLVELLYN MINE – 31ST MAY

A week or so before the above date I received a phone call from John Davies to say that Warren could not lead the meet and could I assist. Having no pressing engagements for that day I agreed, though, I did ask how come no other CAT member could help as I had never been there and was not sure where the place was. Apparently there was a lot of staring at the ceiling and everyone had other things to do. I now know why !

As luck would have it the weather was as good as one could wish, just as well considering that the mine is high up on the west slopes of Helvellyn. I was gratified at the number of people that had gathered at the car park. They were Steve Brown, Mark Waite, Billy Griffin, Dave Bridge, Angela Wilson and Roger from Cockermouth.

We started up the Hellvelyn track until it met with the old tramway bed that traverses the hillside north through the woods to the mill site that is directly below the mine. The remains were not extensive so did not detain us long, and then it was up the incline that rises up to No 2 Level. The incline crosses a stream about half way up and is very ruinous above this point. At this point it is best to aim


SCALES. (Feet)
0
200
PLAN
0
300
SECT. HORIZ.
SECT. VERT.
0
200
N
NO.1 LEVEL.
BLUE ROCK VEIN
OLD VEIN.
ARNISON'S LEVEL.
NO.2 LEVEL.
NO. 3 LEVEL.
= RISE.
= ENTRANCE.
ARNISON'S.
31·5 Fms.
NO1.
26 Fms.
NO2
25 Fms.
NO3

for the old miners track and follow it up to No 3 level and thence to No 2.

No 3 is badly run in at the entrance and offers no easy prospects of access, No2 is covered by a scree run but could be dug out, though as this level contains the most interesting artefacts it may be wise to leave things as they are (good move, especially for others in the vicinity – Ed.)

After recovering our breath, we inspected the few remains in this area, mainly some revetting and tramway to the top of the incline, and then considered the plan and the steep hillside above. The party made its way up through the heather and I could see that on a wet day this would not be fun!

No 1 Level was arrived at after much labour and we looked around for the level entrance which Dave said should be open. Nothing for it but to move a few rocks, and lo! After a several minutes a hole appeared and having made all safe and ascertained that access was possible we decided to come back to it on the way down. This had revived flagging spirits and the party set off up to Arnisons Level, the going was no easier but at least we knew that now there was something to look at.

Arnisons was open, but before we went in Dave and I went up further to find Top Arnisons, this was located but was run in.

The level proved to be a wet welly job but the stoping inside was well worth the effort of getting there. The stopes were larger than we had imagined although their lateral development was not great, the vertical extent was impressive. After all had a good look around all the nooks and crannies and there are quite a few in this level we descended to No 1.

This level goes in some way until it hits the vein where we looked at what was to be seen, the shaft at the end needs care to circumvent and can be descended to No2. Several members, I think Billy and Roger, wanted to go down, and, having bought all the gear with them for this they were determined to use it. The rest of us decided not to indulge as the pitch was a bit moist and the worthwhileness was not certain.

While No2 was being investigated most of us gradually made our way back down and a more relaxed look at what there was to be seen, Dave staying up until all were out of the mine.

We all met up at the car park and were told that No 2 Level is the most interesting site of the whole mine. I remember thinking that I wish I had known this before I came down, but there it is, I shall have to wait until the next meet there.

The main source of information is The Wythburn Mine by A. McFadzean. and is well worth a read if you can obtain a copy. Adams (Mines of the Lake District Fells) covers the mine and contains plans.

An interesting and enjoyable day, but if the weather is bad think of somewhere else.

Mark Simpson

THE CONISTON SURVEY

Information Presentation.

It has been many months since I have communicated to you about this subject, nigh on a year ago in fact and much has changed.

These thoughts that I am about to share with you have been brought about by the progress made by Dave and I with the Coniston Survey. This project has been progressing albeit slowly and more data has been accumulated. This information consisting of plans, cross sections longitudinal sections, 3D wireframe of the parts of the mine surveyed, plus numerous photographs, not to mention text that will go with the above. As new information will be added the presentation or whatever it will be called must allow for this.

The plans are to a scale of 1/200 and the sheet size is now A1, the wireframe has been produced using AutoCad R12 and is in DRG (the native Autocad file) and DXF format (Drawing Exchange Format) for importing into other applications.

Photographs that Dave has taken have been saved as JPEG's, as well as this there are numerous geological and archaeological references.

The fact that at this time the final type of publication has not been decided upon is a bit unfortunate in that this would have an effect on how the information is saved and the resolution of the scanned images. The way things are going, all line art is saved at a resolution of 100 dpi unless blow ups are

required. Even this gives an average file size for an A4 of about 200k.

The file type used matters as the normal image type is PCX, Tiff's, etc. Should this data be required for a web page then GIF's or JPEG's are required, GIF's are a bit more idiot proof than the other format I have found though with JPEG's you can vary the amount of file compression. Contact Dave for further info.

The other problem is how to transfer this information about, given that we are talking about many Megabytes of data. The publishing industry has long used SyQuest drives, but since these are not cheap the nearest thing would be Zip drives using 100Mb disks, which is in the £100 mark now with disks at about £15. Removable hard drives could be used but moving delicate devices like that around seems like asking for problems.

Since the discussion is about electronic means of data storage and transferral the next thing to consider is who is to use all this wonderful info and what on?.

This is linked to the above paragraphs in that archives and educational/professional institutions may use expensive software i.e. £3000 +, whilst more humbler folk with limited software and memory may only be able to use only part of what is available. (If readers have some thoughts on this some feed back would help). One has to say that using hard copy would in some ways be easier, the resulting paper publication would be of some size, though maybe not as large as the Furness Survey and which is still ongoing. (Houses permitting) Readers should go and see this document

The Ideal

After many hours of thought and discussion Dave and I have come up with an ideal situation as regards electronic means of data retrieval.

This being that a simple plan of the workings would be presented on screen and data access points would be attached, with information about the part of the mine concerned, so that all that a person would need to do would be to point and click on a point and a data sheet would appear. The other way of obtaining information would be by subject i.e. the traditional database way.

The idea is to keep things simple, although setting this up would be the hardest part. (I have recently had a word with Anton Thomas about the decisions that were made about the presentation of the Furness Iron Survey, in which it was decided to used hard copy for ease of access by anyone i.e. no computers needed.)

How to do this?

Although as Dave said recently, in the life of the survey electronic data retrieval has developed a lot, what is useful and for how much has proved difficult to ascertain. This has been not helped by trying to do all this on a minimal budget.

YES in the professional mining field equipment does exist to survey and display data a good deal more easily and accurately than we are able to, but this cost sums with lots of noughts attached.

It was hoped and this may still come to pass that our association with the BGS would provide use with help in this respect, though if this does happen it may be to late as Dave an I aim to work up to the end of the year and collate what we have.

Software Investigated

Dave Bridge is now connected to the WWW and has looked to see what software is available and has come up with some interesting things the best of which is Compass, available in DOS and windows versions (See Compass Home Page at the end of the article), there are others of note such as Karst and Survex. Dave will be happy to speak to you about his findings.

As you can see from the Compass information it is a very versatile programme and for a cheap way of presenting a wire frame survey and associated survey info, is well worth looking at. One interesting feature is, (if you know how) is the ability of connecting it via DDE to a Data base, Borland's Paradox being included in the download. I have had a look at this facility but I think that you have to be into this sort of thing to make it work, so if there is anyone out there who has achieved this I would be very interested.

Another interesting item is an Excel 97 Spreadsheet by R.Griffiths in which you insert all the usual survey data, which it then converts to X,Y and Z information for plotting out. The spreadsheet goes one better in that

it provided a DXF output. See the information sheet at the end of this article.(The spreadsheet does not import into Excel 95) I have only seen this on an Excel viewer and can say it is well worth looking at.

As a point of interest all our survey data is on Excel 95 spreadsheet, though this was originally done in MS Works.

There are programmes available from specialist suppliers that will do exactly what we wish but as usual with software for the professional world there is a hefty price tag unless you are in education or a charity (I thought we were a charity – Ed.)

I am referring to CAD/GIS software (Geographical Information Systems). These come in several combinations CAD only, GIS only or CAD with GIS add on. GIS programmes that I know about are AutoCAD World and MAP Info. GIS with CAD programmes - AutoCAD Map CAD well - AutoCAD 14 or any CAD programme that will produce DXF Files, (be warned all DXF.s are not the same, these vary and the only way is to import and see what happens, I have had problems with layer info.)

The only up and running program that I have had access to is MAPINFO by courtesy of the Yorkshire Dales National Park. Literally all you do is to open the file title of interest , a map/drawing comes up with symbols on it, a symbol is clicked on and a data sheet comes up containing text, graphics even avi files if the machine is good enough. Very impressive.

The price tag is the other side of £3000.
Apart from this point of interest and I have mentioned above, there is the problem of who would use this software. Someone in the Society would need the knowledge to use and have access to this software and are there archives etc who even if they had the equipment etc be willing to use Society information?

The World Wide Web

There is another possibility that is the world of HTML that is using WEB pages and the ability to easily link with other pages. Here I am not talking about making your own WEB site for use on the Internet but using the idea for use as accessing data in individual machines, htm files can be used in more and more applications.

To prove the idea I have used Claris HomePage which was available as a cover disk and is simplicity to use and operate itself (Microsoft Publisher now includes facilities for doing this as well I believe.) The wallpaper is the Plan or drawing of interest and then text is typed over it in the usual way, text can be made to link with images or other web pages (htm files or URL's) with the relevant info on.

One problem is that if the WWW is not used for transferring information you may be faced with the problem of keeping the main HomePage and associated link files together for putting onto a ZIP disc.

Whether this can work for the whole of the Coniston Survey I do not know but the idea looks promising. Another benefit is that if CATMHS have their own web site, and this has been given some impetus by Adrian Pierce in the Mining Web Site that I think he has created with all the mining history societies in it (when last looked at very few had links to their own information), producing data in this form can be available to the whole world!!!.

That this may be the route to go was confirmed by the recent discovery that AutoCAD 14 is web aware i.e. you can put data links on various parts of your plan that will open into web pages, MS Access 97 also has facilities for linking cells to web files. The down side may be limits in the data that can be accessed in this way i.e. you can put more info in a database than a htm file but I am not certain.

Another idea being bandied around is slide presentation .i.e. using software like MS Powerpoint and Lotus Freelance. At the moment the only use is for a presentation of say Coniston Mines on a computer in a museum/information centre. The software is easy to use.

Dazzler 4.1 Delux (ISC Media Systems) can use linked media such as video and even databases, which is an interesting thought !!.

You may have noticed that limited mention has been made of 3D and the use of computer graphics to achieve that end. Well - a worms eye fly by would be nice but from what I have seen - Truespace, Bryce 3D and more elaborate software such as 3D Studio and Light wave. You have to be into this sort of thing even to attempt to make a useful presentation - any offers. It all comes down

to the basic objectives of the survey and I think we have a big enough job on as it is.

That we have not done more over the time that Dave and I, with the help of John Davies, Peter Fleming and other CATMHS members have been carrying out the survey is a matter of regret. The biggest problem has been the time taken just to get to the survey site i.e. the walk up, the bolting up stopes. An A team to get us access into difficult spots would have been useful but has not yet materialised. This would have free me and Dave up for survey and recording.

Surveying itself is now straight forward and as accurate as we can now make it, when we started our ignorance was profound.

A lot more could be said!

Mark Simpson

Excel 97 Survey Spreadsheet ©1997 Robin Griffiths, Gwynedd Cave & Pothole Club

This spreadsheet is provided free of charge. If you do find it useful, then you may want to make a donation of £5.00 to GCPC. Make cheques payable to Gwynedd Cave & Pothole Club and send to Robin Griffiths, 16 Llys y Foel, Caernarfon, Gwynedd, LL55 2LU.

Any comments should be e-mailed to **Error! Bookmark not defined.**

Two spreadsheets are provided. **BLANK SURVEY.XLS** and **DEMO SURVEY.XLS**

Opening a new survey

- Open the file **BLANK SURVEY.XLS**
- You will be presented with a form asking for Set-up information.
- Enter the **SITE NAME**, **SURVEY TEAM**, **SURVEY DATE** and **SURVEY GRADE**
- Enter the **DATUM STATION NO**. This is the station number of your survey base station.
- Enter **DATUM X** and **DATUM Y** positions. These can be tied to the national grid, or a position relative to another known position can be entered in metres. Default values are 0 and 0.
- Enter **DATUM Z** value. This can be the altitude of the station in metres. The rest of the survey will be calculated relative to **DATUM X**, **Y** and **Z** values.
- Units are optional. The default **Unit of Measure** is meters, and the **conversion factor** will be 1 metre in 1 metre. This is useful as I often do rough solo surveys by pacing and assume that there are 0.81 metres in one pace.

Entering Survey Data

- Data must be entered in a forward position i.e. leapfrog data is not allowed unless it has been manually reversed.
- Each survey leg requires:-
  FROM STATION and **TO STATION** numbers.
- **BEARING**, **CLINO ANGLE** and **DISTANCE** from the **FROM STATION** to the **TO STATION**.
- Optionally passage **WIDTH** and **HEIGHT** can be entered. This is not currently used.
- There is also a cell for **COMMENTS** on the survey leg.
- As BEARING and DISTANCE are entered, DISTANCE in metres is calculated and the COMPASS BEARING is converted to Cartesian bearing suitable for plotting.

Convert Polar Data to Cartesian

- The station data as entered is converted to Cartesian X, Y, Z co-ordinates.
- All legs must be connected in this version as floating legs will not be connected to the main survey.
- To convert data, click the **POLAR -> CARTESIAN** button

Exporting Data to a .DXF File

- A centre line survey is exported as a .DXF file suitable for importing into a CAD program such as AutoCAD.
- Click the **EXPORT TO CAD** button.
- An option to refresh the Cartesian co-ordinates is given.
- An Export Setup form is displayed with options to:
  Export **STATION LABEL** positions and numbers.
- Export a **BORDER** around the centre line survey.
- Export a **SURVEY SUMMARY** as a drawing title.
- Options for exporting wall data and export as .WMF format are not currently supported.

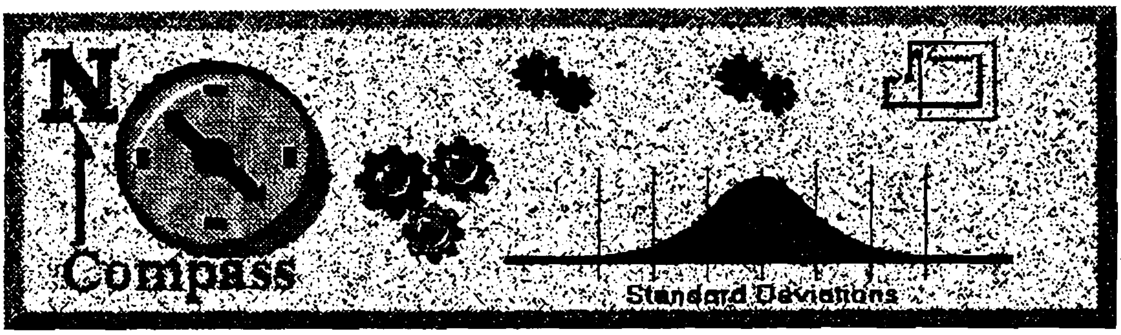
- A Save As... dialog box appears. Select the location and type in the filename of the file to export the centre line survey to. This is saved with a .DXF extension.

Changing Survey Information

- To change SITE TITLE etc.. click the **SETUP SURVEY** button.

DEMO SURVEY.XLS

- A demo survey of a Gwynedd mine called Bwlch-y-plwm is provided.
- To test it, click **EXPORT TO CAD**. Choose to **REFRESH CARTESIAN DATA**, and follow the remaining dialogue boxes.



COMPASS Cave Survey Software Home Page

This Home Page contains information about the **COMPASS** software package for processing cave survey data. This page has been accessed 9169 times since Aug 26 1996.

WHAT'S NEW

This Web Page was last updated on March 15, 1998. There is a major new release of the Windows version of **COMPASS**. In addition, there was a minor update to the software on May 15, 1998. Here is a quick list of the most exciting new features:

1. CaveTools. There is now a wonderful new third party support program for COMPASS called CaveTools. CaveTools allows the ArcView GIS program to directly import COMPASS files. ArcView GIS is recognized as the leading desktop mapping and GIS software product from ESRI, Redlands, California, a leading vendor of GIS and mapping technology. ArcView is widely used worldwide for a variety of GIS and mapping applications. The conversion software has been provided by Bernie Szukalski a caver and employee of ESRI. As a result, CaveTools was designed for cavers and it plugs directly into ArcView and become a part of the program.

2. Sections. View Screen Images of Sections

COMPASS now supports the concept of "sections." Section are large blocks of surveys that have been grouped together in a single file. A section may consist of single cave, a section of a cave or a surface survey. Once you have organized the cave into sections, you can then individually highligh, color or exclude the sections.

3. Depth Bars. View Screen Images of Depth Bars

The Viewer now has depth bars that can be printed on the plots. There are six different modes of depth bar including: scaled, cave height, screen height, mono mode, color mode and date mode. You also have control over the number of tick marks that appear on the depth bar.

4. Drag Mode. You can now optionally drag the cave into position with the mouse. This makes panning and positioning easier to do in some instances.

5. Block Editing. The Editor has a new feature that allows you to modify survey heading information for large blocks of surveys. This means that you can modify the cave name, survey name, declination, instrument correction factors and survey team for hundreds of surveys at a time. The feature allows you to selectively [redacted]

6. Cut, Copy and Paste. The Editor can now cut, copy and paste large blocks

of data. This makes it easy to copy and move large blocks of data both inside surveys, between surveys and between files.

7. Misc. Improvements. Missing data can be inserted into backsight information, the "Action Multipiler" is easier to set, LRUDs can now be associated with the "To" station, grads can be used for inclinations values and the Editor can handle up to 300 shots at a time.

What is COMPASS

COMPASS is a software package designed to edit, process, analyze and view cave survey data using an IBM PC compatible computer. The programs in the system allow you to enter cave data, revise the data, generate statistics on the cave, close loops, view plots from various angles on the screen and finally, print finished quality plots on almost any of dot matrix, laser, ink jet printer and a variety of line plotters.

COMPASS has hundreds of powerful features, including configurable survey editors, high speed realtime 3D rotation, GIS and data base compatability, sophisticated loop closure and blunder detection. **COMPASS** is the fastest computer survey software. It is also the easiest software to use. Versions of **COMPASS** exist for both DOS and Windows. The Windows version runs under **Windows 3.1, Windows 95** and **Windows NT. Fountain Computer** is a beta test site for **Win98** and **COMPASS** has already been extensively tested on **Win98.**

COMPASS INFORMATION MENU

- NEWEST FEATURES - 1997-1998 Pg 9
- TWO YEAR REVISION HISTORY Pg 31
- WINDOWS COMPASS DEMO - SNAPSHOTS OF COMPASS SCREENS Pg 40
- DOS COMPASS DEMO - SNAPSHOTS OF COMPASS SCREENS Pg 59
- COMPASS FOR WINDOWS FEATURES
- COMPASS FOR DOS FEATURES
- TESTIMONIALS LETTERS AND MAGAZINE REVIEW Pg 62
- GETTING A COPY OF COMPASS Pg 2 (below)
- GETTING 3D GLASSES Pg 4
- DATA FOR CAVES IN COMPASS FORMAT Pg 5
- ABOUT THE AUTHOR OF COMPASS Pg 5
- SELECTED CAVE RELATED WEB PAGES Pg 72
- COMPASS HISTORY, GOALS AND PHILOSPHY Pg 4
- ARTICLE ON LOOP CLOSURE TECHNIQUES Pg 67

How To Get A Copy Of COMPASS

COMPASS is a shareware product. You can try it out free. If you like it and want to

The registration cost is $25.00 for the DOS version and $25 for the Windows version. Combined registration is $38. Registration for the database program is $15 for previously registered individual **COMPASS** users. For new registrations the database program is $20 for private individuals. For instituations, business, and government agencies, the database registration is $50. Special group rates, and support programs are available.

A complete copy of the whole **COMPASS** software package is availble free of charge for evaluation purposes. The DOS package contains 30 programs, sample cave data and 200 pages of documentation. The Windows version consists of a project manager, editor, compiler, loop closer, viewer and 300 pages of documentation in the form of Windows help files. If your browser supports "ftp" protocol, you can down load it directly from the internet.

For people living in Europe, there is now a mirror site in Germany:

German COMPASS mirror site.

COMPASS Down Load Menu

The **COMPASS** distribution has now been broken down into six files. The first file contains the DOS version of COMPASS. The Second file contains the Windows version of COMPASS. It also contains an installation program that will install the basic COMPASS Windows package and the COMPASS database programs. The next two files contain copies of the Borland Database Engine. If you are planning to use the database features of COMPASS, you must load and install the the Borland Database Engine. The final file contains the DEM reader. Even if you plan to use Windows, you should also download the DOS version. The DOS version still has a few utilities and support programs that are not yet available in the Windows version.

Digital Elevation Model.

To down load the latest version of **COMPASS**, just select one of the following items.

- COMPASS for DOS - (700K 8 min @ 14.4K Baud) COMP88n(2).EXE
- COMPASS for Windows - (1.4Meg 16 min @ 14.4K Baud) WCMP88n(1).EXE
- COMPASS Database Program - (263K 6 min @ 14.4K Baud) CMPDBASE.EXE
- Borland Database Engine (Disk1)- (477K 5 min @ 14.4K Baud) BDEDISK1(3).EXE
- Borland Database Engine (Disk2)- (1 Meg 12 min @ 14.4K Baud) BDEDISK2(1).EXE
- DEM Reader for Windows- (200K 3 min @ 14.4K Baud) DEMCOMP(1).EXE

The following two web pages have links that allow you to download CaveTools, a converter that allows ArcView to read and import COMPASS plot files. This tool was written by Bernard Szukalski, an employee of ESRI. Many thanks to Bernie for his support.

- Cave Tools for ArcView CAVETOOLS10.EXE
- Cave Tools for ArcView

Installation All of the COMPASS files are self extracting compressed files. Generally, you want to download them or copy them into a separate directory or folder on your

DOS or a DOS window by typing the name of the file. You can execute them in

Windows by double clicking on them in the "File Manager" or using the "File|Run" option from "Program Manager" menu bar. In Windows 95 you can use the "Run" option on the "Task Bar" or double click on the file in "Explorer." Unpacking each file will put several new files on your hard drive, including installation programs and documentation explaining the installation process.

Once you have unpacked the files, run "INSTALL" to install the DOS version. "WINSTALL" will install the Windows version of COMPASS and the database program. Run "SETUP" to install the Borland Database Engine. At this point, the DEM read must be manually installed using the instructions that in the package.

Notes On Downloading

1. Sometimes people have trouble downloading COMPASS files right after I have posted an update. This problem can occur when your browser has cached an old version of the web page. Since the browers is using an old copy of the page, it tries download a copy of the file that is no longer on the page. If you have trouble downloading one of the COMPASS files, try clearing cache in your browser.

2. Downloading can be slow depending on the time of day and other conditions. During the daytime, the Internet can be bogged down with thousand of users. The best time seems to be after midnight US Mountain Standard Time. This is tricky though because 1AM in Colorado is 7AM in England. At 7AM in England, internet traffic is picking up, so down loading from England slows down after 1AM Colorado time.

3. If your browser does not support downloading, I can send you instruction for doing direct ftp down loads. Just write me at the address listed below.

lfish@nyx.net

4. If worse comes to worst, you can always get an evaluation copy of the software directly from me for $10.00 to cover materials and handling. If you are a registered user you can get an updated version directly from me for only $5.00. My mailing address is:

Larry Fish
123 E. Arkansas
Denver CO 80210
USA

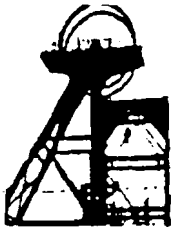
Please specify the size and density of disk: 5.25/3.5, high density/low density. If you like the software, please register. You will receive notification of updates and other special offers.

Three-D Glasses

So that everyone can use the 3D mode, I have purchased a supply of inexpensive red-blue glasses. Anyone, who registers **COMPASS** will receive a free pair of glasses. Previously registered **COMPASS** users can purchase four pair for $5.00.

NAMHO

National Association of Mining History Organisations



NEWSLETTER

ISSUE No 34 **SUMMER 1998**

Editor: Wes Taylor, 18 Station Lane, Walton on Trent, Swadlincote, Derbys, DE12 8NA

FUTURE NAMHO CONFERENCES

1. NAMHO '99 Conference

The next NAMHO Conference will be held in the Forest of Dean on 24 September to 27 September 1999. The hosts will be a consortium of member organisations who are based in the Forest of Dean. The Conference will be based at Whitemead Park at Parkend near Lydney. Chalet accommodation, as well as camping and caravaning, will be available.

The theme of the Conference will be "Free Mining and the Mines of the Forest of Dean and Other Traditional British Mining Rights and Areas". There is a request for speakers to talk on "traditional mining" subjects.

For further information please contact John Hine, The Cottage, 2 Cullis Lane, Coleford, Gloucester. Tel:- 01594 833217. It is anticipated that booking forms and programmes will be available in December 1998.

2. NAMHO 2000 International Conference

It hoped that a special International Conference will be held in the year 2000 to celebrate the new millennium. No details have been finalised but Carn Brea Mining Society are studying the feasibility of holding this conference in Cornwall during July 2000.

DANGER FROM KARABINERS

The British Mountaineering Council Technical Committee has passed papers to the NCA Equipment Officer papers relating to an inquiry into the fatal accident to a young person during an abseiling exercise. This abstract from the paper is to remind members of the dangers of using karabiners in the incorrect manner.

1. Danger from Figure-8/Karabiner combination.

It has been established that in the accident referred to above, the "figure-8" loaded the gate of the karabiner with the full weight of the abseiler in a configuration which applied the load in a torsional (twisting) manner. The gate was broken and the "figure-8" was released with fatal consequences.

It has been found that if the suspended person is below normal weight (circa 70kg) the gate is normally strong enough to support this abused load as the force applied is marginally below the breaking strain of the gate. The breaking strain can easily be exceeded by heavier persons.

The moral is simple! Always ensure that no suspended load is applied across the gate of a karabiner.

2. Weakness of a Karabiner Gate

The gate of a karabiner should NEVER be considered to be a load bearing component. In situations where the loading of a link system is likely to be other than a simple pull, a maillon rapide provides a much safer means of attachment.

This investigation illustrates just how low the breaking strain of the karabiner gate really is, and how close this breaking strain is to the forces which can easily be applied in normal abseiling.

Speleoscene

MORE EARTHQUAKES IN NORTH STAFFORDSHIRE

An earthquake measuring 2.2 on the Richter scale was recorded on 22nd December 1997 in the Newcastle-under-Lyme area. It was centred 500 metres to the south of the M6 Keele Services and shook homes and businesses around Butterton and Whitmore. A week earlier there had been an earthquake of magnitude 1.8 in the same area. Geologists at Keele University consider the quakes to be classic examples of tremors produced by current mining activity. Silverdale Mine is the only deep mine operating in the area.

NSGGA

SECONDHAND AND RARE MINING BOOKS

Arguably Britain's largest supplier of mining books, the Peak District Mining Museum is offering a new service; the selling of secondhand mining (and mining related) books. Books will be accepted, with only one copy of the same title at the same time, on a sale or return basis. The books will be on display at the Museum. If the response is sufficient a book list will be issued periodically.

The price will be set by the vendor though a lower price may be recommended if not sold within three months. The Museum retains the right to refuse or return any book unsold and invoices will not be accepted until after the book has been sold. There will be a commission charge of 33% of the sale price which will go into Museum funds.

Please contact the Peak District Mining Museum, Matlock Bath, Matlock, Derbyshire, DE4 3NR. Tel:- (01629) 583834. The Museum is open from 11.00am to 4.00pm every day, (longer at busy times). Advance notice of arrival with books for sale would be appreciated.
PDMHS Newsletter

WHAT AN ADDRESS!

The following address was noted in a recent edition of the Craven Pothole Club publication "Record". The name of the Craven Cub member has been deleted.

A Member, 121 Rojana Connndo-Plaza, Village No 3, Asian Highway, Klongsuanplu Sub-District, Phra Nakhon Sri Ayudhaya District, Phra Nakhon Sir Ayundhaya Province, 1300, Thailand.
R Paulson

FRIENDS OF WILLIAMSON'S TUNNELS

The Friends of Williamson's Tunnels was set up in 1996 to save the extensive system of tunnels that had been driven under Liverpool between 1805 and 1840.

The driving of these tunnels was funded by Joseph Williamson, to provide work for the unemployed. In later years most of the tunnels were filled with domestic rubbish.

The Friend's of Williamson's Tunnels group has begun a new dig on the site of some derelict tenement flats. They are confident that they will find a part of the Joseph Williamson tunnels that have not been seen since the flats were built in the 1930's. Records show that there were six layers of tunnels stacked on top of each other, forming one of the the more intricate parts oft he labyrinth built by the eccentric 18th century "Mole of Edge Hill".

With the co-operation of a sympathetic architect, a few of the 370 Friends have made some preparatory excavations, coming across signs of a number of interesting brick structures not far below ground surface. A few administrative hurdles need to be overcome before they begin the dig proper. News is available the Friends of Williamson's Tunnel web site at:- http://ourworld.compuserve.com/homepages/bill_douglas
Bill Douglas

WORLD WIDE MINING INCIDENTS

(Abstracts from Mining Journal)

1. At least 59 coal miners were killed in a methane gas explosion at Zyryanovskaya Colliery in the Kusbass Region of southern Siberia. The gas explosion was followed by a powerful coal dust explosion.

2. About 100 miners died when floods covered their primitive single-shaft workings for tanzanite at Merelani near Moshe, N Tanzania. About 17 shafts, up to 90m deep were hit by flash flooding. It is unlikely that the precise numbers of deaths will ever be known.

3. 63 Miners were killed by a gas explosion at Shockinsky Colliery and a further 5 miners were killed in a similar explosion at Petrousky Colliery. Both of these collieries are near Donetsk City, Ukraine.

4. A German coal mining company has agreed to pay Celtic Mining (Wales) up to 10 million dollars in compensation for dumping subsidised anthracite in the UK. They have also agreed to stop dumping and to permit Celtic to compete in Germany.

5. An explosion, followed by a cave-in killed 14 miners at Dyjiang Colliery in Schuan Province, China.
I J Brown

BOOK REVIEWS

"Machinations in Coal Mining" by Charles Round. 1996, xi+399pp, 68 photos, 15 figs, 4 plans, 3 charts and 4 others. Cost £18.50.

This is a fascinating autobiography of a man who left secondary school without any qualifications and started work in the coal mining industry at the age of 14 as an underground pony driver. By sheer hard work at night school, and later at technical college, he qualified at an early age as a mining engineer and colliery manager. He soon progressed to the highest Area Production and Managerial posts.

This book will appeal to a wide audience and will take its place in posterity as an invaluable and essential historical record of the evolution of the British mining industry. It tells the story from the pick and shovel, steam engine and belt driven eras to the modern fully powered coal-cutting, road driving, roof supporting, underground coal and personnel transport system era with their vastly improved productivity and safety records.

The author is a brilliant engineer and throughout the book one is impressed by his ingenuity in designing and developing coal mining equipment. This constant drive to achieve a fully mechanised scenario increased productivity by over twenty times. Unfortunately success came too late to save the industry from the savage effects of the Thatcher Government.

The author is also a dazzling diplomat, well able to negotiate with top management or at shop floor level. The difficulties experienced in overcoming "backward looking practices", "management by fear" and "small minds in big jobs" are vividly portrayed. In virtually every position he was able to increase productivity, only the stubborn Welsh thwarted him.

He describes many well known personalities and was on first name terms with Lord Robens. Some Board members, however, proved to be difficult people to get on with. His "warts and all" vignettes of these folk will probably provide the lawyers with work for many years to come.

Finally the management of the NCB proved to be too much for him and he took early retirement at the age of 58. He then undertook mining consultancy work for a number of years with assignments emanating from within the UK to Spain and the USA
Tony Oldham

"*Land Restoration and Reclamation - Principles and practice*" by J A Harris, P Birch and J Palmer. A5, soft cover, 230pp, about 70 tables and diagrams, 4 photos. Published by Longman, 1996. Cost £20.99.

The book is very much for "discussion", even the title seems odd, surely reclamation comes before restoration! Most "disturbed" or changed areas of land (again the book shows the need for precision - disturbed, degraded, derelict and contaminated each has its own definition) has to be reclaimed before it can be restored. In fact, few sites today condition - what is "original" anyway!

Once this is all sorted out the book is easier to follow. It looks at the way mining, quarrying construction and other related industries change the natural environment and then at the methods of restoring the disturbed land to an acceptable afteruse.

Today this does not mean simply restoring to agriculture, other uses are permissible and recreation, conservation and amenity use are now fully accepted. To those involved in mining history it is satisfying to see that consideration of historic interest is included in the assessment papers, although the whole subject is given only a few sentences and conservation/ preservation does not feature in the detailed index.

There are a few doubtful comments as on page 27, the reviewer is unaware of any provision in the Mines & Quarries Act which directs the Opencast Executive to "draw up a detailed restoration plan prior to permission being granted for work to begin". Overall, however, it is a fine textbook and undoubtedly fulfils the needs of students in the newly combined mining and environments courses and it is a source book for practising personnel. As explained on the back cover, these are the groups for whom it was intended - it does not seem to assist the mining historian in his chosen path.
I J Brown

"*Database of metal mine impacts in Wales. Construction of a database as a bank of information and environmental assessment tool*" produced by the National Rivers Authority Welsh Region. Final report, January 1996.

This report contains some 1,300 mines provided by Robert Protheroe-Jones (Mine Consultant) and extracted from (for example) the DoE Review of Mining Instability in Great Britain, the work of David Bick, R W Vernon et al. considered. The mines are listed in various ways including alphabetically, National Grid Reference etc.
Paul Sowan

NEW PUBLICATIONS

"*Geologists Association Guide No 59 - Geology of Hadrian's Wall*" by G A L Johnson. Cost £8.50.

"*Handbook for British and Irish Archaeology Sources and Resources*" compiled by Cherry Lavell. Paperback, 440pp. Cost £29.95.

Answer all your questions with a single source book! A truly comprehensive, dedicated and reliable source book of British and Irish Archaeology. It includes a full subject and author index.

"*The Dartmoor Tin Industry*" by Phil Newman. 80pp, 20 illustrations, 20 b&w photos, index, glossary. Cost £4.95.

The Dartmoor tin industry has been the focus of much historical and archaeological research in recent years but until now no book has concerned itself with this subject alone. This new guide includes established and recently researched material to give the reader a clear, up-to-date interpretation of remains left by the tinners to be seen on Dartmoor today.

"*Wheal Jane Underground*" by A Buckley & A Karla Riekstins. Penmellick Publications. 29 photos. Cost £3.50.

"*Steam Engines of Thomas Newcomen*" by LTC Rolt & J S Allen. Cost £17.99.

"*The Moorfield Pit (Dickie Brig) Disaster*" by Harry Tootle. Landy Publishing Nov 1998. 64pp. illus. Cost £6.00.

"*Mines of Cornwall & Devon*" by Peter Stanier. ISBN 0 906294 40 1. 108pp, 115 photos, maps and illus. Cost:- £15.00.

Historic photographs of the mines of Cornwall and Devon with a well informed commentary. Many of the illustrations, photographs and drawings have not appeared in print before.

MEDIA EXTRACTS

Home Fires Burning - A plan to support the UK's deep coal mine industry by selling electricity produced at coal-fired generator stations to consumers who want to support the coal industry has been unveiled by Eastern Group, the electricity generator, and RJB Mining, the troubled coal company. *Financial Times*

Coal Collusion - A Welsh-based coal producer has alleged that Government plans to prevent the collapse of the coal mining industry are being undermined by collusion between its own Environmental Agency and a cosy cartel of big power generators. *Guardian*

Power Sale - Rio Tinto, the Anglo-Australian mining group, and a US associate have sold their interests in an Indonesian power plant and transmission facilities. *Financial Times*

Coal-fired Market - Electricity generators may be forced to sell coal-fired power stations to mining companies to stimulate the market for coal. *Times*

Silverdale Colliery to Close - More than 300 miners are to lose their jobs when Silverdale Colliery in North Staffs closes in the near future. *Guardian*
R Gosling

BLUE HILL TIN WORKS

The Blue Hill Tin Works are located near St Agnes, Cornwall. A five head stamp battery, driven by a waterwheel, a ball mill and shaking table have been set up and a working miner and his son are reworking old tips. The tin is smelted on site. In an hour on this site you can learn more about stamping mills and the smelting of tin than can be gleaned from a host of text books.
Welsh Mines Society

SHROPSHIRE ENGINE HOUSES

Shropshire County Council has consolidated Ladywell Engine House and work is in progress on White Grit.
Welsh Mines Society

SPEEDING THE PRODUCTION OF MINING REPORTS

The Coal Authority has a duty to provide public access to mining information. The majority of this information is required by solicitors and local authorities in the form of "property searches" to be included in a coal mining report. These requests are received at a rate in excess of one thousand per day and a fast response to these enquiries is required.

To produce these reports the Coal Authority uses a data base that it inherited from British Coal. This data can be interrogated spatially to produce a written report.

The basic problem was getting an accurate spatial reference quickly.

To overcome this problem the Coal Authority has entered into a Service Level Agreement with Ordnance Survey which gives access to the Ordnance Survey digital maps.

The new system allows properties to be located quickly and accurately and has significantly reduced the time required to provided the report.
Paul Sowan

EXPLOSIONS AT RJB MINE

Two explosions occurred in a sealed off part of Prince of Wales Colliery, near Pontefract on 3 April 1998. The explosions followed a mini tornado in the area. It is believed that the extremely low atmospheric pressure, associated with the freak weather, together with the lack of ventilation in the sealed off area, resulted in the escape of high levels of methane.

No miners were injured in these explosions.
I J Brown

NEW MANX MINES AND MINERALS VIDEO

This video illustrates the history of Manx mining and features spectacular underground footage. It includes the mines at Bradda and the water leats that provided water for the Laxey Wheel.

The working life of the Laxey miner is also explored.

For further information contact Duke Video, PO Box 46, Douglas, I of M, IM99 1DD. Tel- 01624 623634.

PROSPECTING FROM SPACE

Geologists from the British Geological Survey are working with an Australian team to develop a system using sensers on aircraft and satallites to rapidly map and detect minerals in large unexplored areas.

The system works by scanning and analysing sunlight reflected from earth. Subtle variations in soil, which could indicate the presense of minerals, can be identified.
PDMHS Newsletter

NATIONAL ASSOCIATION OF MINING HISTORY ORGANISATIONS
Registered Charity No 297301
Registered Office, c/o Peak District Mining Museum, The Pavilion, South Parade, Matlock Bath, Matlock, Derbyshire, DE4 3NR.
Tel:- Matlock (01629) 583834.
wkweb4.cableinet.co.uk/adrian.pearce/NAMHO.HTM

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 14th Sept 1998 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	Furness Projects
9	Hudgillburn Mine	10	Newlands Furnace
11	Coniston Coppermines Site	12	Video Film Project
13	Publications	14	AGM & Dinner
15	Date and venue of next committee meeting	16	Any other business

Present D. Bridge(DB), S. Barker(SB), P. Timewell(PT), P. Fleming(PF), , M. Mitchell(MM), A. Wilson(AW).

6 Members in total.
The meeting commenced at 7.30 p.m.

1 **Apologies for absence**
Apologies were received from M Scott(MSc), I. Matheson(IM) and M Simpson (MS).

2 **Minutes of the last meeting**
The minutes of the committee meeting held on Monday 6th July 1998 had been previously circulated to members. It was PROPOSED by MM and SECONDED by AW 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 4.1-SB had sent details of the Barrow salt industry to D. Cranston(MPP) and received a letter of thanks. PF had done the research at the Barrow Record Office.
3.2 Item 9-DB had been unable to trace the HGB mine plans. PF had seen a reference to mine plans of Cashwell and Rotherhope Fell Mines.

4 **Secretary's Report**
The secretary had received :
4.1 Speleoscene.
4.2 A draft document from NAMHO called 'Guidance for the use of Disused Mines by NAMHO members'. Which sets out clear guidelines, the relevant details to be published in the newsletter.
4.3 A copy of the Greenside Mine management plan from the LDNPA, which delt with all aspects of the mine site. The details which effect CATMHS are:
a) No parking at the head of the valley without permission.
b) Permission must be obtained from the Ranger for each visit.
c) Both entrances to be locked, DB has the CAT keys.
4.4 DB had received a copy of the West Cumbria newsletter, which contained an article on South Caradon Mine by R. Fellows.

5 **Treasurer's Report**
The treasurer presented a balance sheet covering the period since the last committee meeting. The following points arose:
5.1 Noted-postage costs for meets list, we must try to send it out with a newsletter.
5.2 We now have to pay our own NCA subs.
5.3 The Furness Building Soc. now needed four officers to hold the account.
5.4 The BCRA insurance was due, we decided to get a landowners certificate for J. Watson (HGB).

6 **Membership Secretary's Report**
IM was unable to attend the meeting, he had posted the Newsheet.

7 **Meets Secretary's Report**

JD was unable to attend the meeting. After a discussion on how to encourage members to attend meets, MM PROPOSED "That we hold a CATMHS meet on the first Sunday of each month, this should make it easier to remember". SECONDED by DB, all were in favour. It was also suggested that the Meets Meeting could be held on the CAT social evening in October and so get a better attendance. PT suggested we should ask members to show slides and talk on their subjects at the Wednesday social evenings.

8 **Furness Heritage Survey**

The Survey will be starting again in the near future.

9 **Hudgillburn Mine**

SB reported that on the July meet work on the East Waggon Level went well, with some members clearing loose rock off the walls and others clearing the fall to the Sun Vein. This fall saw a breakthrough on the 6th September. W. Snaith led the way into the new ground, the level ahead was open to a forehead some 100m ahead, which had a blocked hopper. A left turn led to the Sun Vein, here there was a fall of large sandstone blocks which will be easy to remove but the roof will need supporting.

10 **Newlands Furnace**

PT reported the work was continuing, they had almost filled the large hole above the wooden beam and would be starting to remove the bulging wall above.

J.Helme had sent a written report which included the following points. South Lakes Council had awarded £250 towards the cost of building materials. The Trust Company will soon become a registered charity and a feasibility study is going ahead. Negotiations are taking place with the landowner regarding the lease of the site.

The Newlands Valley meet on the 6th September visited the Furnace and the other very varied industrial sites. The last place seen was a house which used to be occupied by Park Benson, a very eccentric gentleman with no plumbing but his own turbine.

11 **Coniston Coppermines site**

DB reported there had been three survey meets since the last Committee meeting, they had been surveying in Levers Water Mine having first traversed into the mine from half-way up Brow Stope. MS and DB had been discussing which would be the best way to produce a 3 dimensional mine plan of Paddy End Mine. DB had obtained information off the internet about cave surveys which were very good. The committee agreed to support them when the choice of method had been decided.

BECTEL's work at Levers Water was discussed, they had suggested we may be paid a fee for future advice and consultancy work.

12 **Video film project** Nothing to report.

13 **AGM and Dinner**

As decided at the last meeting the evening will be the same format as last year. SB to contact members to give slide presentations. AW will buy the accessories and PF will price the buffet.

13 **Publications**

A. Cameron has had 100 copies of 'Slate from Honister' printed at a cost of £3.50 each, he suggested the price should be £5.95 retail. All agreed to this price.

He has continued to plan the re-printing of 'Beneath the Lakeland Fells', all the authors have agreed to amend their chapter (where appropriate). ADC has planned a critical path for the project leading to a publication date of February 2000.

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

This was arranged for 7.30 p.m. on Monday 16th November 1998 at the BMSC Hut at Coniston.

15 **Any other business**

15.1 DB had been invited to visit an archaeological dig in Eskdale. The dig was being done by a team from Minnesota University USA. They are looking at early industrial sites and to date have excavated coppicing areas and a bloomery.

There being no further business the Chairman closed the meeting at 10-00 p.m.

SB 17/9/98 Chairman

Balance July 1998			4404.41
Income			
Subs 3@ £10		30.00	
Literature sales			
SFC-40 Hills@		198.75	
SFC -P.Fleming		10.60	
Bank interest-2 months		1.22	
	Total	240.57	240.57
			4644.98
Expenses			
Memb Sec. expenses		59.05	
Postage-Meets list		21.80	
Printing-Newsletter		113.83	
Subs-NCA		10.00	
Projects			
Coniston Survey-drills		41.18	
	TOTAL	245.86	-245.86
Balance			4399.12
Balance held as:			
Building Society		3999.22	
Bank		399.90	
	TOTAL	4404.41	

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

HONORARY PRESIDENT	Lord Egremont
VICE PRESIDENT	Major Hext

Officers for 1998

CHAIRMAN	Dave Bridge, 28 Abbey Vale, St. Bees, Cumbria 01946 822484
SECRETARY	Sheila Barker, The Rise, Alston, Cumbria, 01434 381903
TREASURER	Paul Timewell, 10 Athens Drive, Barrow in Furness, Cumbria, LA13 9ND, 01229 839708
MEMBERSHIP SECRETARY	Ian Matheson, Lanehead, Coniston, Cumbria, LA21 8AA, 01539 441293
NEWSLETTER EDITOR	Jon Knowles, 46 Dukewood Road, Clayton West, Huddersfield, West Yorkshire, HD8 9HF, 01484 860662
MEETS SECRETARY	John Davies, 1 High Park Cottage, Little Langdale, Ambleside, Cumbria, LA22 9NS, 015394 37354
JOURNAL EDITOR	Don Borthwick, 38 Salcombe Gardens, Tyne & Wear, NE9 6X2, 0191 482 2873
LIBRARIAN/ARCHIVIST	Anton C.P.Thomas, 189 Greengate Street, Barrow in Furness, Cumbria, 01229 835951
PUBLICITY OFFICER	Alistair Cameron, Linden Lea, Pass Street, Eckington, Nr Pershore, Worcestershire, WR10 3AX, 01386 750494

Committee Members

Peter Fleming	Mark Simpson	Paul Timewell
Ian Matheson	Dave Bridge	Mike Mitchell
Angela Wilson	Sheila Barker	John Davies
Mark Scott		

Honorary Members

John Marshall	Mike Mitchell	Peter Fleming