CAT

The Newsletter of the Cumbria Amenity Trust Mining History Society

No. 79 May 2005

Cover picture

Borrowdale Wad mines, 20th March 2005. CAT members enjoying the view up Borrowdale whilst relaxing outside Farey's Level.

Cumbria Amenity Trust Mining History Society
Newsletter No 79, May 2005.

Contents:

CAT web site: www.catmhs.co.uk

Editorial
An apology! The caption for the February Newsletter cover picture was incorrect – an editorial error, not Richard's!

The caption for the newsletter front photo should read:-
Kawarau Gorge Mining Centre in the Otago Goldfields Park, New Zealand.
A fully operational five head battery stamp in action crushing ore bearing material. The water supply is fed from a dam cut into the mountain behind the frame. The water source also operated a Burden Pan adjacent to the stamp, and a small Monitor behind and to the left of the stamp mill.

West Cumbria Mines Research Group - Newsletter exchange.
Dave Bridge has arranged a Newsletter exchange with the WCMRG. I will publish details of the contents of each issue of their Newsletter before depositing it in the CAT Archive at the Armitt Library. Issue No 30, January 2005, contains information regarding the recent developments at Florence Mine Heritage Centre. Much of the issue is devoted to differing aspects of the work done by German miners in the late 1500's and early 1600's in the lake District. A number of sources have been extracted to pass on this knowledge, and are linked to previous and present exploration of some of these levels in Buttermere. An article 'Elizabethan Keswick' describes the story of the mines Royal.

There are extracts from articles about local mining matters from the Whitehaven News and the Times in the 1930's, and a series of papers from Ron Calvin RM on his experiences down the pit. There is a list of victims of the Nanaimo Mine Disaster in British Columbia in 1887, several of whom were from Cumbria, an account of the explosion at John Pit, Whitehaven in 1838, and a transcript from the Cumberland Mailing List of accidents recorded at Thornthwaite Mine, Bramcrag Quarry, Threlkeld Mine, Greenside Mine and Honister Quarry at the turn of the 19th Century.

News

Third Party Insurance
John Aird has now received the membership insurance cards from the BCA. Everyone should have received their cards by post by the end of April; if not please get in touch with John.

Policy Documents
It has become necessary to formulate policy documents regarding safety practices, research and meets. After careful consideration the following policy documents have been approved by the Committee

CATMHS Safety Policy
The policy of this society and its members is to conduct themselves in any work or activity so as to minimize risk to the health and safety of its members and the public at large. To this end we endeavour to educate and inform our members and any visitors of the particular hazards which are likely to be encountered in our activities.

It is the joint responsibility of all members during our meetings in the field and elsewhere, to be vigilant and mindful of any potential safety concerns and to draw them to the attention of the meet leader or senior member, and the party as a whole.

All members and visitors must have Third Party insurance to cover them in their particular type of activity and be prepared to produce proof of cover when attending a Meet. (This would

normally be by production of their Insurance Membership Card)

No exploration or restoration work is undertaken without carrying out a risk assessment and any potential hazards noted.

A senior/competent member shall act as safety officer on each meet and carry out the appropriate risk assessment, which shall be ongoing throughout the meet. This person would normally be the meet leader or another responsible individual.

CATMHS Field Research Policy

In order to maintain and further the aims and objectives of this society and to remain at the forefront of mines research in the north of England, it is becoming necessary to comply with the ever changing legislation which affects every aspect of our lives today. This means that new digging or other work in the National Park and on National Trust land should not be carried out without first obtaining permission from the relevant authority and submitting a full schedule and risk assessment for the work to be undertaken.

The committee will consider seeking this permission on behalf of the society and its members where necessary. This policy is not intended in any way to inhibit the exploration and documentation of surface or underground features and remains.

CATMHS Policy on Visiting Sites.

Visits and Exploration Meets:

It is not normally CATMHS policy to seek permission to visit or explore sites from landowners or holders of mineral rights for the following reasons:

Visits and exploration meets are intended to be exactly that; no alteration to or work on the site is to be carried out and no damage caused.

1. Should any damage or other disturbance be caused the landowner/ holder of mineral rights interest is protected by Public Liability Insurance.

2. In many cases it is impossible to determine land or mineral rights ownership

3. If asked for permission to visit or explore, either formally or informally, most individuals and virtually all corporate owners would refuse permission for fear of incurring liability for any subsequent incident.

4. Trespass is not a criminal offence except in certain closely defined areas (see below) and successful civil actions for trespass require the landowner to demonstrate loss or damage against which Public Liability Insurance provides protection.

In the event that CATMHS is specifically advised by a land or mineral rights owner that they may not visit a site then the Committee will endeavour to negotiate an access arrangement that will suit both parties. Individual members, who are still covered by Public Liability Insurance as individuals, and wish to visit such a site, are asked to carefully consider the effect of their actions before hand and behave accordingly.

Work Meets:

See document "Field Research Policy"; exceptionally, where the committee believe that unless work is carried out immediately valuable artefacts, structures or access will be lost, then such work as is necessary to stabilise the situation may be carried

out before the appropriate permissions and agreements are in place.

Criminal Trespass:
There are certain areas where trespass is a criminal offence e.g. working mines, certain MOD areas, many nuclear facilities and the area around explosives magazines. CATMHS policy is not to enter any such area without prior permission.

Individual members are reminded that entry into such areas involves the risk of prosecution with attendant severe penalties. In addition it is possible that the insurer may decline to meet any claim under a Public Liability Insurance policy where a criminal offence has been committed.

Risk Assessment
A risk assessment document has been prepared for use at CATMHS meets and approved by the Committee. Copies will be sent to meet leaders.

Thanks to Mike Mitchell and John Aird for the groundwork and development of these policies

Newland Furnace
Work has commenced on the restoration of the Charging House at Newland Furnace. Contractors erected the scaffolding during the second week in April

Mines Forum Meeting, 15th April
Sixteen people attended the meeting, which was held at the National Trust base at Bowe Barn in Borrowdale and chaired by the LDNPA Archaeologist John Hodgson. There were representatives from CAT, MOLES, COMRU, LDNPA, the National Trust, and Alastair Cameron representing Coniston

Round up of activities:
CAT reported on progress at Silver Gill and Newland Furnace.

Ian Tyler said there was nothing to report because there were no permissions in place. MOLES has a project at Yewthwaite Mine but were frustrated as no progress had been made regarding permission from the National Trust. Jamie Lund replied, agreeing that a decision was overdue, but hoping to have a framework of criteria in place soon. This would be in the form of a written agreement for underground access including risk assessment, protection of archaeology etc.

Alastair Cameron reported that funding to review the slate industry at Coniston was being sought. A possible interpretation site at Atkinson Coppice at Little Langdale had been agreed with the National Trust. There were proposals fore a new mining museum in Coniston.

The National Trust had held their first Open Day at Force Crag Mill last Saturday. They were establishing a mines monitoring scheme – a volunteer project to make visual surface inspections of scheduled mining sites in the Borrowdale area to check for unauthorised activity following reports of damage at Goldscope mine. At Cathedral Quarry in Langdale a footpath was becoming coverd by slippage of slate waste. They hoped to commission an independent assessment and a measured survey of the area. Mark Simpson offered the services of CATMHS for this work. The NT archaeologist Robert Maxwell was shortly to take voluntary redundancy as a cost cutting exercise. He would not be replaced and so this would leave Jamie Lund as the sole NT Archaeologist for the North West.

John Hodgson reported for the LDNPA
The over restrictive Caldbeck Fells Mineral Collecting Policy has been relaxed. A permit is still required but this would be easier to obtain. The permit system operates on green, amber and red zones. No collecting is envisaged for red zones, which are sensitive in both archaeological and mineralogical senses, and include areas such as Carrock End, Silver Gill and Red Gill. Permits are for surface collecting only; underground collectors would require an exploration permit. Apply at the LDNPA offices or on line.
The LDNPA is preparing a bid to the Heritage lottery Fund to provide public access to materials held at Murley Moss. They hope to set up a touring display and provide increased website material from pre-history to the recent past.

NT Underground Access Seminar:
To be held on in Birmingham on 9th May and led by a NAMHO rep. The aim is for the NT to look at existing policy in their regions, learn from existing practice and recognise best practice. It would be an opportunity to share and develop a unified approach and a National Policy. Delegates were expected from the HSE, Forestry Commission, National Park Authorities, the National Trust Regions and from local groups such as PDMHS. There could be one representative from the Lake District Mines Forum. It was suggested that the seminar would consist mainly of land owners and managers, and that those who would seek permission to visit mining sites would be under represented.

Code of Conduct for Mine Exploration:
Stewart Cresswell of MOLES was in the process of producing a safety policy based on that in use at Alderley Edge. Aderley Edge is leased from the NT and is an established working environment rather than a temporary one, so it was suggested that that policy might require modification. However, the NAMHO code of practice, the CATMHS Risk Assessment and the MOLES Safety Policy are elements which might well become part of the NT and LDNPA strategy.

Goldscope Coffin Level:
Peter Fleming had previously circulated a proposal regarding access to the Elizabethan Coffin Level at Goldscope Mine. His presentation is printed in full in the article on Gating on page XX, together with his account of the debate at the Mines Forum meeting

Hudgillburn:
Alastair Cameron had prepared a Power point presentation detailing the skills which had been acquired during the Hudgillburn Project. Unfortunately there was by now insufficient time for him to present it in full. His thrust was that a broad range of skills and expertise now existed within the specialist groups which could be used by the LDNPA and the NT for their projects, and that they might consider consulting the local mining groups before looking to commercial contractors. His suggestion was well received.

Fixed Monitoring Points:
Fixed point photography could be used to monitor erosion, vegetation, etc, and underground recording could also be included. Concern was expressed regarding the scale and practice of quarrying operations at Honister and Dubs. It was said that existing buildings had been wrecked, new roads

both inclines had now disappeared. The whole area should be monitored and recorded. There seems to be no current planning consent, but the operation is continuing on the basis that an application in the 1940's is still valid.

A O B:
Alastair Cameron suggested that a list of 'Sites at Risk' be drawn up. Lists have already been compiled of sites worth scheduling, but this would be a much smaller list of sites needing immediate attention. John Hodgson said it should go further and include monuments at risk. The next mines Forum Meeting was scheduled for Friday 1st July, at Coniston.

After the meeting the delgates were given a guided tour of Force Crag Mill, which has recently been conserved by the National Trust. They plan to hold a series of open days there during the summer months. The cost, which includes transport up to the mine, will be £4.00for the general public or £2.00 for NT members. Information can be obtained from the National Trust office at Bowe Barn in Borrowdale.

Threlkeld Mining Museum.
On the way home from the mines Forum meeting some of us went to visit the newly constituted Threlkeld Mining Museum. It is now run by CAT members John and Phillipa Tindal who have been involved since the days of LMQT, and who provided the slate display in the museum when it was run by Ian Tyler. They have achieved a great deal in a short time. The whole museum has been reorganised and the extra space enhances the still considerable displays about Cumbrian mining and quarrying. It is well worth a visit. Outside is an impressive collection of nearly 50 vintage digging machines nearly all or which are in working order, and there is half a mile of newly laid rail track on which it is intended to run a steam locomotive identical to one which operated on the site when it was a working granite quarry. The loco is in the process of restoration and is currently awaiting boiler certification.

Survey aims to raise cash for lime kilns - from The Westmorland Gazatte, Feb 18th 2005.

One of Kendal's last links to the lime burning industry could be preserved for future generations, thanks to an ambitious archaeological survey. Kendal Civic Society has commissioned a wide ranging survey of the Kendal Fell area as part of an attempt to raise money to preserve the lime kiln on Greenside. The Society had applied to English Heritage for funds to preserve the kiln, but had been knocked back as there were many such examples of lime burning kilns in the country.

To strengthen their application for funding Oxford Archaeology North, based at Lancaster, was commissioned to do a study of the Kendal Fell area, which includes Kendal Quarry, Serpentine Woods and Kendal Golf Course.
Chairman of Kendal Civic Society, Stephen Appleby, said that the importance of the lime kilns could not be overstated. "The lime burning industry was one of the key ingredients of the expansion of Kendal in the late Georgian period" he said. Quarrying and lime burning have been important on the Fell since the middle of the 18th century and there are thought to have been up to nine such kilns in the Fellside area.

The society hopes to 'sensitively renovate the site' by clearing away

debris from the lime kilns, siting an information plaque and creating a new footpath and parking bay.

"The opening of the Kendal Canal in 1819 created a boom in the industry and led to it being known as the 'black and white canal', as it carried coal into Kendal from the Wigan coalfields and lime out of the town for use in construction and agriculture", said Mr Appleby.

The society received cash for the survey from the Aggregate Levy Fund, which uses money raised from a tax on the extraction of building materials to fund projects that benefit the environment and offset damage caused to historical sites. It hopes that the survey will strengthen its case for funding for the project from English Heritage.

Meets.
You should find the new meets list enclosed with this Newsletter.

June 18th/19th weekend
Great Orme and Parys Mountain
We are trying to arrange a weekend underground meet to see the Parys Mountain Copper Mine and Great Orme lead mines in North Wales. Deatils are still being finalised. Will all people interested please advise Jon Knowles 01484 860662.

August 27th/28th weekend
Wanlochead. Sheila Barker would like to know if members intend to go to Wanlochhead If 10 attend we can get group rate (£4 each). They want her to let them know how big the group will be. If you are thinking of going please give her a ring ASAP. 01434 381903.

Elterwater and Lingmoor Quarries, May 22nd.
Programme:
9:45am Arrive Elterwater village (please be on time!)
10:10am arrive Elterwater Quarry
12:00 approx leave quarry for walk onto Lingmoor.
16:00 return to Elterwater village.
Equipment - fell walking gear (shorts if required), helmet, wellies optional, torch or light, food & flask, suncream!
Alastair Cameron

Croesor 24th & 25th September
Grade S. Meet at the car park at Tan-y-grisiau at 10.00.
Croesor Slate Mine has been the subject of CAT explorations since its formation. Whilst there have been some notable through trips we have never really looked at much of the mine, particularly the central section and the long abandoned upper workings above it, due to the time it takes to get there. The purpose of this meet is to improve the access to Croesor from Rhosydd to enable Croesor to be accessed more easily and quickly without getting wet. If you have some rope that seen a few years use please bring it along since we will need a plenty of it.
This meet is dependant upon the ongoing meet in the Corris area being completed.

Meet Reports:
Coniston SRT Meet, 15th January.
John Aird, Dave Bridge, Peter Fleming and Roger Ramsden (Underground) Mike Mitchell and Mark Scott (Surface).

(The aim of the meet was to descend the stope from Earthquake Passage on Top Level Extension. This connects with Avalanche Stope in Levers Water Mine, and is thought to terminate beyond the final collapse of Grey Crag Level. This is a Mark Simpson project, but it is a decidedly dodgy area, and not everyone was keen on the

idea, particularly some of those who had been there before! IM.)

The original meet leader was unable to attend for family reasons, which were known to all attending, apart from his deputy. This accounted for the somewhat tardy departure from the BMSC hut; but only half an hour late, we were on our way up to Levers Water. After the struggle to get there the whole party was deeply grateful to those who had installed the ladder on the way in to MAGS Catwalk (they were even more grateful on the way out!)

Once over the stemples and down through the CATMHS dig to Top Level Extension; the stope at the end of Earthquake passage was accessed. Since the "ersatz" meet leader had originally rigged this pitch he went first, demonstrating in quick succession abject incompetence and amazing luck. The pitch is about 25 metres with a re-belay landing on a false floor of piled deads. Having dropped 3 of the 4 available drill bits down the pitch from the top he then descended and successfully found all three in the rock pile!

Descent from the false floor took the party onto a steep slope of loose rocks and a belay was installed so that it was possible to remain safely up the slope away from the area under the false floor. Down the slope the floor dropped away vertically into the stope continuation. The bolts had been installed to continue down when it became clear that the top of one of the group's batteries was separating from the body. Discretion being the better part of valour a return to surface was made, allowing the party to inspect the area in the stope below the preserved mine tub on the way.

The climb up the shaft from Top Level has become much more difficult due to one of the stemples having fallen out. A fixed rope is installed and using a croll makes the whole thing a lot easier. Extreme care is needed in the sloping section above the shaft due to the number of loose rocks, there being no room in the shaft for the person below to take avoiding action.

While the meet may not have achieved everything it set out to do, a couple of hard men took advantage of the bolts installed to get to the bottom of the stope a couple of weeks later, and no doubt the area will be revisited for a proper survey in future.

It should be recorded that Peter Fleming, Ian Matheson and Mike Mitchell have all been through this area before (probably using electron ladders and wearing ballet shoes!).

John Aird.

Quite by chance, and without actually volunteering for the task, I have, for the last two years or so, become the keeper of the CAT drill. For those who don't know, this is a Bosch battery powered hammer drill, used mainly for drilling holes in the rock to place anchor bolts for belays. The batteries had become tired and would no longer accept a full charge. To correct this it is necessary to fully discharge and immediately re-charge the batteries, repeated several times. Clive Barrow had built a discharger using a light bulb, but it was missing the bulb and a replacement proved hard to find. I found an effective alternative was to tie a string around the trigger of the drill and to run it until it stopped. Five sequences of this enabled both batteries to be fully charged. Subsequently the batteries were discharged in this way each time they

were returned, and every three months as a matter of routine.

Prior to the Coniston meet Mark Simpson had arranged to use the drill, and I made sure that both batteries were fully charged. The day before the meet Mike Mitchell called to collect it. A few days later I received an email from John Aird to say that he had inadvertently taken the spare battery home to London. About the same time I received a telephone call from Pete Blezard asking if they could use the drill on safety work for the long term project at Silver Gill. They are clearing out a deep shaft in the hope of getting into a lost Elizabethan Level, an approved CATMHS project.

I phoned Mike to see if he still had the drill, but he had not. Peter Fleming didn't know where it was, and neither did Roger Ramsden. John Aird was in China or somewhere. We thought that it must have been left in Mandell's Office at Coniston, and I arranged to meet P Blezard there with the battery charger. Unfortunately the drill wasn't there, but I passed the charger on to Pete anyway. The only person that I hadn't contacted and who had been on the Coniston meet was Dave Bridge, so I phoned him, and found that he had taken it home with him in order to place some bolts in the Borrowdale Wadd Mines in preparation for his forthcoming meet there. (See his report elsewhere in this Newsletter). Unfortunately he had only one flat battery. The charged one was in London, but we couldn't get it because JA was in China, and the charger was now in Ravenstonedale. It was all sorted out eventually and a procedure put in place so that, hopefully, a similar muddle won't happen again.

Ian Matheson

Hodbarrow, April 17th.

Sixteen people turned out on a cool and windy but dry April day. Angela Wilson had arranged for former CAT member and Chairman of Millom Folk Museum to be our guide. He was a 'mine' of information, and Peter Fleming said that his knowledge was 'oresome'. We walked a circuit of the outer barrier and then went to the Folk Museum, now in new premises at the old railway station. An excellent day

Dr Descender

Dear Doc

I heard one mine explorer say that he always preferred flooded stopes to open ones, since he thought he could swim but knew he could not fly. I though this an interesting idea, was I wrong to try and prove it?

Back from the brink of another world !

I'll call you David to project your real name. Clearly you are of a scientific bent. I think your efforts on water whether canoeing into a nuclear establishment or elsewhere are admirable, but it's the flying which gives us cause for concern. With hindsight it is clear that the first symptom was the helium balloon experiments, which seemed harmless enough, but your recent attempt to defy gravity in a mine shaft was foolish in the extreme. Thankfully prompt action of your two of your colleagues saved the day. Doc.

Competition - only open to PF and RR

To enter all you have to do is finish the following sentence:

"I was sitting having a cup of tea when I heard "HELP" being shouted repeatedly in an urgent manner, I ..."

Clue. "Finished my tea" is not the correct answer.

The Borrowdale Wad Mines, 20th March.

It's more than ten years since a party from CAT made the 400ft descent through the Wad Mines. We had no problem with belays then, but things change with time. When the Barrow Mountaineering Club attempted the trip some years later they discovered that the anchors had been removed at the top of Dixon's Pipe and had no alternative but to climb back up the Grand Pipe without SRT gear. The week before the present meet I went to the mine with Angela and found the upper pitches well supplied with eye-bolts cemented in with araldite, though most are beginning to show a small amount of movement. There was also a fixed traverse line across the top of the Grand Pipe providing a safe exit from Farey's Level. Below that hangers were in place but the condition of the 8mm anchors was an unknown quantity. For that reason we decided to take the drill with us on the meet. We also took enough rope to leave the bottom four pitches rigged. But the best laid plans can be thrown by the unexpected as we were soon to find out.

In contrast with the meet ten years ago, when a large number of people attended, there were just five of us -

Mark Simpson, John Aird, Peter Fleming, Roger Ramsden and myself. (average age of the party censored). The 900ft slog up the zigzag
track with heavy gear doesn't get any easier and we were glad to deposit the drill and 110m of rope at Farey's Level before continuing up to Gill Stage. After a welcome breather I left the bright sunshine behind and set off to rig the first pitch at the end of the short level where I had been the week before. In doing so I managed to walk right past the backup eye-bolt that I was searching for and stepped straight into Grisedale's Pipe!

In the Cat Newsletter of Summer 1987 Peter describes some narrow escapes he had experienced underground, adding that "without the element of danger I would feel the lack of excitement that these adventures give". I know what he means. Out of nine lives he reckoned he still had three left. I lost one of mine at that moment! But to save the reader from further suspense, I managed to grab a small incut hold with my right hand and something less reassuring with my left while my legs just dangled down the smooth slippery walls below. Mark and John quickly came to the rescue and with a bit of quick thinking John threaded a rope through an eye-bolt above, leaned out over the abyss and passed the rope under my waist belt while Mark kept a firm grip on my arm. With immense relief I felt a tug on the rope and the moment of excitement was over – thanks Mark and John, you won't be forgotten!

We descended the two pitches down to Farey's Level by pulling ropes through and explored Rhodes Stage off the second pitch. Mark was busy with his new toy taking digital photographs and staging posed shots of mine explorers dangling on ropes. His one regret was missing the shot of the year! After

a quick recce of Farey's Level we emerged into sunlight for a well-earned lunch.

The remaining 300 feet of descent was more predictable. John inserted several 10mm bolts on the way down, two of these to enable us to safely explore the section of the Grand Pipe below the Old Men's Stage where a collapse of the floor had opened up a hole to Dixon's Stage below.

While the rest of the party were inspecting the coffin level and miners' bait cabin, making use of a rope that Roger had previously hung to gain access to it, John and I descended the 40ft or so below the Old Men's Stage. In the event it was considered too hazardous for the whole party to use that route for fear of running scree blocking the hole (memories of Mike Mitchell being buried in a similar situation at the bottom of Wagon Stope still spring to mind). The floor there has dropped by several feet, possibly due to the collapse of a timber partition or bunning lower down the pipe, and the original "tide mark" can be made out on the walls. One interesting feature in this part of the Grand Pipe is a vertical recess cut in the south wall for a manway.

After prussiking back to the the Old Men's Stage we joined the others and made our way down to the top of Dixon's Pipe. A fast descent of the first 30ft pitch on a rope now well-lubricated with graphite landed us at Dixon's Stage which was explored to its extremity in both directions. Peter took the opportunity to inspect the lower section of the Grand Pipe that John and I had just visited by climbing up through the hole. From a newly inserted belay point arranged for the rope to hang clear of sharp rocks Roger then led the second (long) pitch of Dixon's Pipe on a 55m rope with ample rope to spare. The final "waterfall" pitch down the 70ft man-way we completed on his own rope which he left in place.

Rather than ascend the long wet pitch of Dixon's Pipe for de-rigging it was decided that two of us should leg it back up to Farey's and de-rig the top three pitches from there. We estimated 1 hour and it took just that, due largely to the untiring efforts of the ever-energetic JA. Thanks to all for a successful meet in the true CAT tradition, not without its excitement. As I trudged back to the car in a torn caving suit and colander wellies, face smudged with graphite, I would have challenged any LDNP kommandant who dared to accuse me of being a middle-class white!

Dave Bridge

All photos by Mark Simpson.

Oakeley Slate Mine, Blaenau Ffestiniog, April 2004.

Many years ago the author and Tristan Goldsack tried to push into the lower levels of the Oakeley Slate Mine, since they were convinced that much of this mine lay unexplored. To assist with this bolts were installed to descend from the main DE haulage level to Floor G, which at the that time was the lowest accessible level since it was the lowest point to which the mine drained naturally. This gave access to new ground but no major discoveries were made since the way on was always blocked by geological faults and collapsed timbering, a remnant of the Great Fall which collapsed over six million tons in the 1880's. There was only one potential way on and this was over an old pipe spanning a chamber. It would have needed extensive bolting to make it safe and in those days we didn't have a drill. In 2004 a determined effort was made to push this exploration further and two weekend meets took place.

24th & 25th April.

Attendees John Aird, John Ashby, Mark Simpson, Mark Waite, Steve Brown, and Jon Knowles (ML) On arrival at Cwmorthin we took up John Aird's offer to use his Land Rover to take the large amount of gear up to the lake. On the descent back down to the car park the farmer appeared and the usual altercation took place. Despite being accused of breaking padlocks etc., we were strongly advised that "you can't trust the locals", which from somebody who lived only 100 yards away, seemed very telling. Descending the usual long route through Cwmorthin and Oakeley we installed some new bolts and descended down to Floor F. The pitch was reasonably dry and there was not the raging torrent which had been seen on the previous trip. At this point the group split in two; Messer's Simpson, Ashby and Knowles took the drill and headed along floor F, whilst the remainder of the party descended to G.

The chamber to be bolted across was only approximately 20 feet wide at this point but the pipe was very small, and neither John Ashby nor mad man Simpson (yes it was that bad) were keen to go first so the meet leader set off across. Initially progress was good but the further you got along the pipe the more it moved away from the wall and bent downwards; at this point an audience from the other team had gathered below. To progress further it was necessary to tie the pipe to the wall with a short length of rope. At the end of the pipe things got very interesting since this coincided with extremely poor rock in the hanging wall that was not good enough for bolting. Just as defeat loomed, an iron peg was spotted on the wall above. Using a sling and krab this was lassoed to provide the final attachment point to get to the far side, where further anchors were put in before Mark and John came across. Disappointingly the level beyond had been timbered and was soon found to be collapsed, despite the best efforts of our Chairman. After de-rigging we descended to join the other group.

Mark Simpson starts to de-rig the traverse over the pipe.

The second group had more luck since not only had they found a chamber missed by the author and Tristan during their previous explorations but this chamber was dry to floor H below. In addition it contained the remains of a fine timber ladder way. Clearly this was an exciting development since it indicated that the working quarry was being pumped and that this had drained a floor in the mine. The pitch was rigged and the group descended to H. This was one of those awkward pitches which was neither too steep nor too shallow and ascending it was always a t£&t.

Timber Ladder way from Floor H to Floor G.

A number of potential ways on then presented themselves. Outbye the level was blocked with fill and inbye it ended in a flooded chamber although a way on could be seen on the far side of the water. Part way along the level going inbye (towards Cwmorthin) a chamber in an underlying vein, or a second chamber in the same vein, could be seen but not entered since the floor had been worked away and the top of a flooded chamber had to be crossed.

Time precluded either of these options being explored. However installation of a few bolts did give access to a ledge that took us to the back of the chamber we had descended, but it was not possible to proceed further. We vowed to return to continue the exploration at a later date.

2nd & 3rd October.

Attendees John Aird, John Ashby, Mark Waite, Ken Geddes (Sat only & NL), Jon Knowles (ML).

Returning to floor H we were relieved to find that this was still dry. Heading inbye we quickly came to the point where the we had to cross the top of a chamber that had broken through from the floor below. The water level was about 10 feet below. After installing a few bolts the author descended onto a ledge just above the water where, after a few failed attempts, it proved possible to lasso a steel peg and climb into the chamber beyond. It was clear that the chambers beyond had not been explored for many years since there was no way on and very few artefacts, although a nice blasting shelter comprising two large slabs propped up in the corner of the chamber did survive.

Blast Shelter

On the ascent that evening Ken learnt how to ascend past a re-belay, a task hampered by his new light failing.

A very wet (in all senses of the word) Saturday night was spent in Spooners in Porthmadog where the party was treated to a bottle of wine by our treasurer.

On the Sunday the team, now down to four, prepared to cross the expanse of water in the final chamber.

Once ropes had been placed to facilitate descent to the water, 15 feet below, and Captain Ashby had inflated his boat, he set off with Bosun Waite. Underground boating is an excellent spectator sport but is generally slow, wet and uncomfortable for the participants, especially when it is necessary to abseil into the boat and prussick from it.

Initially the working face of the chamber was explored and whilst a level was found this did not get into any significant ground. Boating further along the side of the chamber we were able to use Ashby's pitons (at last!) to hold the boat steady enough for Mark to drill and install a series of bolts, giving access to the level above. At this juncture a series of ropes were rigged to enable the boat to be pulled back across the chamber so that the remainder of the group could make the journey. When you are in a small cheap boat in a flooded chamber at least 50' deep, and are 400' below the surface and almost a mile horizontally from where you entered the mine, you realise that you need to pay attention since you are a long way from any external help.

Mark Waite prepares to land

Once we had all reached the far side again there was no useful way on other than another boat trip and at this point we admitted defeat since we were running out of gear and time. As some readers will know this author's track record on successful pull-throughs is not great, but fortunately the one carried out from the boat worked. Ultimately it seems likely that any secrets Oakeley has beyond this point will remain it's own.

Note that a visit to Cwmorthin in late December 2004 indicated that this area has now flooded again to just below floor G. It is assumed that the quarry is only pumped at times of low rainfall.

The group consisting of the author, Mark Waite, Chris Cowdery, John Ashby and John Aird, joined on occasions by others, continues to explore Mines in North and Mid Wales. Most of these trips are in addition to the meets listed on the meets list.

Jon Knowles

A Trip to Chile, Australia, Tasmania and New Zealand, by Richard Hewer.

Once again your roving reporter has been travelling around the world in an effort to return home with fresh news from distant shores.

Towards the end of March 2004 Eileen and I set off for Chile. The Sheraton Hotel in Santiago became our operations centre and we had already booked a four-day trip down to Torres del Paine via Punta Arenas. A superb national park encompassing glaciers, sharp peaked mountains, deep valleys and awesome waterfalls. Trekking was graded according to one's wishes or ability; we chose a 14 mile walk to Grey Glacier, a trip where walking was difficult in places due to the bitterly cold gale force glacier winds funnelling in the narrow side valleys. It was well worth the effort for the experience and views. Upon our return to Santiago we set off for the ski resorts of the Nevada and El Colorado mountains.

Our guide enquired whether we had felt the earth tremor the previous evening. What earth tremor? Yes, everyone had felt it except yours truly. The El Colorado ski resort was not operational at the time of our visit. Atop of the flank of the mountain in the adjacent valley (approx 5 miles away) lay the biggest deposit of copper minerals I have ever seen. The deposit shaded from green / blue at the top and running along and down the flank changing colour to the usual brown of oxides. There must have been a million tons of ore but there was a snag, it was in a national park and could not be exploited! In fact in the distance I could see another smaller deposit. During the construction of the ski resort the contractors had cut through a large area of mineralization. Unfortunately our guide decided to whisk us away before I could work out 'what was what'; after all we still had 42 hair pin bends to negotiate as well as descending some 8500 feet. It was a dizzy day!

In the evening I was delighted to find I had been issued with a 'Speakers Pass' at the conference when it should have been for Eileen. I privately hoped I didn't have to answer any questions regarding cervical cytology, could I blag my way out? After all plumbing is all about pipes too!

The trans-continental highway skirts the periphery of Santiago, twisting and changing places with the river (Rio Mapocho). Sometimes (each day) the river flows with a greenish tint, clean; when the copper mines release mining effluent into it, it changes to brown, polluted; like - seagulls don't dip their feet in the water. The major copper mining region is further north from Santiago around Illapel. The miners live in poverty and work with basic equipment; disease is rampant. The locals appreciate gifts rather than money, be warned it's a sobering place. There are a number of genuine craft markets around Santiago where goods for sale are manufactured using the most basic of tools. However the products are of a high quality, showing off the flair of the craftsmen. Lapis Lazuli, copper, gold, pottery and artwork are offered for sale at very reasonable prices. It would appear that the mining regions are at the mercy of the multi-national companies who are very actively engaged in opening and closing mines depending on their output and the rise and fall of copper prices, but not the exhaustion of the workings.

After our visit to Chile we prepared ourselves for a foray into Australia, Tasmania and New Zealand. Eileen had been asked to present some papers in Brisbane and to lecture in Melbourne, Hobart (Tasmania) and to advise the

health authority in Christchurch, (New Zealand). Once again I was invited along (as the baggage boy and I'm sure my arms are getting longer). We left for Singapore in early October and moved on to Brisbane, a beautiful city, vibrant, clean and definitely for the young. It was here that I purchase my opal, $10 (£3); granted it was still in the base of brown sandstone, however the hydrated silica showed some lovely colours (dark blue, green, light blue and whitish grey). Opals are sold as; pure solid opals; doublets – a thin veneer of opal on a plastic backing or base rock; triplets – full of fire and looks expensive it is in fact a quartz dome to maintain the glow, with a thin veneer of opal beneath and bedded onto plastic. Consequently the solid opal is the most expensive and the triplet has little resale value. To maintain the fire and colour opal should be wrapped in a piece of cotton wool which has been immersed in glycerine. More information at: www.flameopals.com.au or flameopals@bigpond.com.

The main opal mining fields are at Lightening Ridge, New South Wales, famous for the black opals (red on a black background). Mintabie, and Coober Pedy, South Australia, where white and milky opals are mined (as well as other colours) and Quilpie, Western Queensland, where some of the most colourful opals are mined. From Brisbane we moved north for a few days to Hamilton and then on to the Hayman Islands on the edge of the Great Barrier Reef, where we visited Whitehaven Beach (No, we haven't returned home). The yacht took us onto the silica sands, it was a scorching day and the sands were cool, they squeaked as we slid our feet over the surface. I stuffed sand into my pockets to bring home but unfortunately the sand dried, and where ever I walked I left a trail of white sand, like gunpowder. (someone suggested I should walk the plank).

Four days later we landed in Melbourne. It was cold, wet and we had both caught 'something' which left us listless during the day and fevering through the night. It was not a happy time, but we did manage to see the penguins coming ashore at night to feed the chicks at Phillip Island.

A trip to Sovereign Hill took us into the heart of gold mining country at Ballarat. Although Sovereign Hill has been recreated (similar to Beamish) it has been designed as a mining township and put together with as much authentic and original equipment as possible. A steam whim (made in England) operated a battery of Californian stamps which crushed the gold bearing material This was washed down a sluice into a man made stream where visitors could pan for gold (at least it wasn't salted) and there was a fair showing too. I was quite pleased with myself having panned several small pieces of gold, to say I was still shivering; perhaps the shakes assisted the recovery process! The site offered underground tours and to observe the way of life a hundred years ago. A highlight was to see the pouring and casting of a $50,000 gold brick. Other demonstrations included wheel-wrighting, candle dipping, metal spinning and working steam powered machinery (including a beam engine, balance bob and pump). Many of the modern homes around the periphery of Ballarat are built on gold bearing ground; as a result, some back gardens have a 'hummock' look about them! And the local streams are a focus for the kids to do a bit of panning; it can be quite profitable too. A very interesting area and well worth a visit.

We continued on our journey to Hobart, Tasmania where Eileen was to present another lecture and where the hotel had cancelled our booking We arrived at five minutes to midnight. No room at the inn!

I was bad tempered and not impressed. What is there in Tasmania? For a start, mountains of tin, copper, iron, lead, zinc. It's an island waiting to be mined away!! Eileen was due to lecture in a few days time so we went off for some more holiday towards Cradle Mountain. The first port of call was Queenstown where gold had been discovered at Mount Lyell. The remains of the mountain and surrounding hills are all devoid of trees and vegetation due to sulphur fumes, bush fires and flooding.

Queenstown, Tasmania.
A sparsely covered landscape, a result of copper mining, timber extraction and surface flooding. Vast amounts of ore have been removed from Mt. Lyell. Major mining extraction continues deep underground.

Charles Gould explored the area in 1862. Mount Lyell Gold Mining Co was formed in 1881and when the gold petered out in 1892 they focused on the waste product, copper. It is now a world class mine, the ore body is among the top ten in the world for copper minerals. More details see: - http://www.tasminerals.com.au/members/copper-mines.him
The odour of sulphur permeates the countryside. In one area you can view a huge volcanic blow out. Queenstown is definitely a company town. There are underground tours available but we were too early in the season, not open. You can find more information at: http://www.discovertasmania.com.au/clincludes/printversion.clm?productid-1221

From Queenstown we proceeded to Rosebery (named after Lord Rosebery, PM of England). Tom McDonald discovered gold in Rosebery Creek in 1893. Zinc, lead and copper were discovered in 1894 leading to the opening of Primrose Mine in 1897. Ore was transported by rail to Burnie. Mount Lyell Company revived the mines in 1927. They built most of the town and the miners rented accommodation. Today the town relies on the Pasminco Mine for employment and at the smelting plant. Some of the minerals were mined from the Hercules Mine at Williamsford (now a ghost town) some 7K south and carried via an aerial tramway. The treatment works recovered zinc, lead, copper, silver and gold. Mine tours are available at Pasminco Mine. Whilst filling up with petrol at the only station for miles, I spotted samples of local Peacock Ore for sale. The colours were fantastic. $5 each (£1.75p). They were about 9" long 5" wide. I did not buy and I'm kicking myself now, but there you go!

Our next stop was at Waratah to look at Mount Bischoff the site of one of the world's richest tin mines. It's massive. Most of the mountain has been removed, some of it avalanched down to the base. A nugget of tin was found in 1880 weighing 5cwt; it is still possible to pick up nuggets up to 6cm in size. We drove down to the lower adit and you were walking on mineralisation, especially iron pyrites, chalcopyite, lead and zinc and I suspect tin. The site is under offer for lease and I can only say it is a mineral collectors delight. For a history: http://www.crocoite.com/mainadit/bischoff.htm Once you have read the report you'll be itching to go!

Mount Bischoff, Waratah, Tasmania. One of the world's richest mines. Virtually a mountain of tin. Most of the mountain has been removed, partly by mining and partly by a collapse of it's undermined flank! R.E.H. inspecting a block of Chalcopyrite.

Other adjacent areas are under investigation and very promising deposits have been tested. Now it is a case of access to the other sites and then combining into one massive mine. A book has also been written regarding the mine 'Baron Bischoff, Philosopher Smith and the Birth of Tasmanian Mining' by C. Nic. Haygarth. $29.95 Aus. Our trip to Cradle Mountain was excellent, with an estimate of only 30 clear sunlit days a year we got three of them on the three days we were there, can't be bad. I observed on the map 'Savage River – mine'. I had to go.

Miles of quiet roads, perhaps a car every quarter of an hour. When we got there we discovered that the old road had nosed dived into the tailings dam containing many dead trees and a new road surface climbed over a bluff to the 'company' town and entrance to a mammoth open cast working in the distance (not much to see) so we ventured down the driveway only to be escorted out by a jeep flying a red flag from its aerial! The mine turned out to be an iron ore open cast pit producing pellets (66% iron) and concentrate. 500,000 tonnes of pellets can be converted into 350,000 tonnes of pig iron each year. There are ore reserves for 25 to 30 years and production could be expanded beyond the initial target of 2.6 million tonnes of pellets and concentrates. Selling its product to India. More details on: http://www.prnewswire.co.uk/egi/news/release?id-27964

We made our way back to Hobart for Eileen's lecture and then flew onto Sydney where I did the bridge walk (it was my birthday treat, so E. said, though why she should bribe the guide to push me off, I don't know!) From Sydney our travels took us to the Blue Mountains where we visited the Katoomba incline railway (the steepest in the world). The track descends at a maximum gradient of 52 degrees, is 1360 feet long and has a vertical descent of 585 feet. Operating now for the tourist (I did the trip twice) but originally constructed to exploit the coal seams in the escarpment face and haul the minerals up to the main railway line. Now, a pleasant walkway from the base of the incline guides the wobbly knees along the face of the escarpment to the coal mine entrance and adit. On the way one can see the odd aerial ropeway bucket that had fallen from the original ropeway leading to the nearby kerosene shale workings. The layout is quite well presented with the exception of the talking pit pony! The incline was only part of the network of tramlines utilized to haul the coal and shale to the railway. Kerosene shale had been located near Ruined Castle and a ropeway was constructed to transport the shale, unfortunately it collapsed after 6 months. The shale oil industry was abandoned in 1903.

In 1925 the coal mine at the base of the cliffs was reopened and the incline railway refurbished. The depression of the 1930s led to the closure of the coal mine and birth of the tourist trade.

http://infobluemountains.net.au/rail/ksr/kat_tram.htm .

Not far away is Hartley Vale where the convict built sandstone property has been saved. The Vale was a site of intense activity for mining kerosene shale or torbanite. Although discovered in the early 1800s and thought to be coal, the shale wasn't exploited until the 1860's when it was carted to the railway and shipped to Sydney for refining. Eventually some 80 retorts were set up in the valley as well as a candle factory. An incline climbed up the steep valley side to a tramway that led to the main rail line. The tramway is easily walkable and pieces of kerosene shale can be picked up from the bed. The tramway terminates at the engine house above to incline. Nearby lies a boiler and retort/s. Unfortunately most of the land at the base of the cliffs has been declared a hazardous area and exploration is actively discouraged (the landowner cannot sell his land due to pollution and would have to pay for the clean up; the powers that be will not let him remove the material). More info: http://infobluemountains.net.au/rail/upper/hartley.htm From Hartley we drove onto Lithgow where we were just in time to board the Zig Zag Steam railway, originally opened in 1869 and driven through rock cuttings and supported by a series of stone viaducts. The line runs backwards and forwards, descending to the valley floor and thus provides transport from the main line in the valley to the top road. Now a popular tourist trip enabling one to marvel at the Victorian workmanship. A superb booklet presents the full story of the zig zag line 'Lithgow, ZigZag Railway. Blue Mountains. New South Wales' by William A. Bayley.

It was time to move on to New Zealand. A very strange individual sat in front of us on the plane, he kept wandering around from seat to seat before settling We finally cornered him and found out it was Sean Astin who played the part of Sam, one of the Hobbits, in Lord of The Rings! We flew in to Christchurch airport and then moved off towards Arthur's Pass and Fox Glacier, calling at Ross where gold was first discovered in the area in 1864. By 1865 the town of Ross was in the process of expanding and adjacent to it deep sinking to a depth of 30 metres had commenced to reach the pay dirt. Around 1870 the annual gold production was around 40,000 oz. Dams and sluices including a 573 feet long aqueduct were built to provide water for washing and for the monitors. Steam engines were introduced in 1867. By 1877 40 miles of water races had been developed. The mining continued successfully until 1917 when no gold was recovered, though timber and quarrying continued. In 1988 mining began again using modern techniques. It is estimated that the town is sat on gold worth approximately $700 million Info: rossgoldfields@netaccess.co.nz We spent a little time up the stream leading to the gold mining flats where 'free' gold panning was allowed, but without success.

Fox Glacier was quite spectacular but Mount Cook was in total cloud. On reaching the coast we saw dolphins and seals in the sea. Our next port of call was Queenstown, a very touristy town in the heart of gold mining country. (Arrowtown is much nicer). By now we are in the middle of Lord of the Rings location sites. At Kawarau Gorge stands the mining centre where the large wide valley has been the centre of three periods of gold mining. The miners concentrated on three distinct layers of gravel deposit. The heavy upper layers were first panned, then the middle levels and finally in the 1900's the lower levels, where true mining was developed. These levels of working can

be clearly seen from the road. They were never rich, however in the past 15 years visitors to the diggings have recovered 8 palm-sized nuggets. Any nuggets found can be either taken by the discoverer or offered for sale at the mining centre. The dams higher up the valley side feed working Californian stamps, Burden pan and demonstration monitors (when the latter valve was turned on we all dived for cover - Let the force be with you). Gold panning is allowed and it's just a case of luck.

The main object was to seek out gravel at the base of large boulders that had trapped the gravel in deep pockets. A few of the large boulders had rolled over as a result of undercutting so one had to take care. It was all virgin ground, finders' keepers. We did OK, Eileen and I went for a cream tea, lovely - and then back to panning, we were hooked! Most of the surrounding valleys had received attention from the dredges. The telltale herring-bone piles of stone are testament to their activity; there was no point in panning. Even in the narrow valleys stark, bare stacks of stones indicated that the miners had worked there and even the Chinese who followed the miners and still found gold.

From Queenstown we hired a driver to take us up to Macetown, a ghost town abandoned at the turn of the century and only accessible by four-wheel drive. Twenty five times we crossed the Arrow River. Several times the river came up to the door handles, but the brand new Land Rover didn't let a drop of water inboard. We climbed high up the flank of the gorge and down into a basin now occupied by sheep farmers and rabbits but which at one time was a bustling industrial site.

Californian Stamps, Macetown, NZ.
A ghost town only accessible by four wheel drive. The Anderson brothers erected this stamp battery in 1907 to treat ore recovered from three tunnels Power is supplied by a pelton wheel

There are a few remains, including a Californian stamp battery, 10 heads I think. Five in position and the other five laid out in the grass. A Burden Pan lay to one side together with the remains of a Pelton wheel. The foundations of the town can be located, with only the bakery intact. Old photographs show it as a busy centre with a post office, school, bakery, laundry and many cabins. Our guide took us down to the river where we chose a sweeping bend to pan for gold, lots of black sand, and a good sign! However panning was a bit limiting, even using my Garrets pan, there were only a few signs of colour. More info:- http://www.nzsouth.co.nz/goldfields/today.html and so it was time to move on, put the gold pans away. Our travels took us to many places; the above account is only part of the trip relevant to mining. The return flight from New Zealand to Singapore took us over some of the major mining regions of central Australia.... Now there's an area worth looking at! See, I'm already planning, or is it panning, ahead.!

R. E. Hewer.

Gating

In the last Newsletter I asked for comment on the gating of mine adits in the Lake District. Here are some responses:

Extract from a letter by CATMHS and MOLES member Kirsten Crowther, printed in MOLES Newsletter.

".... My first concern is the gating of levels which are currently 'open' but with the entrance covered over. I feel that bringing these levels to the attention of the authorities and gating them poses certain problems. I believe that the health and safety risk could increase as levels would become more obvious to less experienced explorers. The archaeology is more likely to be damaged by increased visitors and by the action of installing the gate.

The proper installation of a well designed gate or door causes much damage to a mine level, and is usually an eyesore, detracting from the history of the site and the aesthetics of the surrounds. An example of this is the monstrous door in Silver Gill. I think that gating levels which are currently open could be setting a dangerous precedent; the authorities could decide that all levels/shafts should be gated. I also question the motives of people wishing to gate a level; the possession of the only key to a level puts them in a position of power, able to regulate absolutely the access to the level.

I believe it has been proposed to gate the Elizabethan level at the back of Goldscope. I am particularly concerned that the installation of a gate at the stope end of the level will cause damage, that increasing the size of the opening will encourage more visitors which will lead to the wear on the hand pick marks and lead to the build up of rubbish. I cannot think of any benefit to carrying out this work, the level entrance is already secured by the presence of oil drums, and covered over to prevent the ingress of animals and idiots. ...."

From Ian Tyler, Chairman of MOLES.

Dear Sir

I feel I must write and convey my concern over a recent article which appeared in the spring 2005 CATMHS Newsletter with regard to the gating of adits and proposed restrictions of access. .....

Goldscope Mine, Newlands Valley. Any attempt to gate the water level would, in my opinion, be sacrilege and would serve no real purpose whatsoever. It would presumably finish up as Silver Gill has, with damage to the 16th Century hand work and access only allowed to the select few, not all of whom have had insurance.

From Jon Knowles

In an ideal world mine entrances would not be gated. In an ideal world people would be responsible for their own actions and would not seek redress from others when they made mistakes themselves. Whether we like it or not we do not live in an ideal world.

I believe that gates should be fitted only the following circumstances :-

a) Where access agreements call for them.
b) Where the entrance exposes curious people who are not mine explorers to real danger i.e. levels near footpaths with open stopes immediately inside.
c) Where important artefacts need to preserved.

The best means of keeping people out is by making it physically difficult to get in remembering that really

determined will always find a way as in Rampgill. A good example is Davey's Engine in Sir Francis level in Swaledale where casual visitors are deterred by the chest deep water.

I like simple gates which do not need keys, the north Pennine type being good example as are a number in the Peak District where only an adjustable spanner is needed. We must also remember that gating a level brings responsibilities if we are to avoid a repeat of what took place at Rampgill. If we gate a mine we have to find the time and people to show other interested groups and individuals around if they are not going to get fed up and seek to break down the gate. To this end all gates should have a sign on them giving details of how access can be arranged.

From Peter Fleming:
Our Hon. Editor in Newsletter No.78 asked for opinions on the gating of mine levels. I think he covered this topic fairly well himself.

We need to consider the changing policies of the National Park Authority, the National Trust and English Heritage, and certain landowners. They now belatedly realise that our mining heritage in the Lake District is an important part of our history and influenced the development of many of our villages. Their awakening to this field of archaeology has already born fruit in the excellent ground surveys of some of our classic mine sites. For example, Coniston, Greenburn, Roughton Gill and Silver Gill, etc., undertaken by English Hertitage or the Royal Commission of Historic Monuments . These surveys help to provide a management plan for the conservation of our mining heritage, which is in stark contrast to the authorities' stance in earlier years when they took no interest and were turning a blind eye to the destruction of certain mining sites.

On the question of gating levels, I would prefer them to be secured only with a nut and bolt to deter casual, inexperienced and ill-equipped visitors or adopt the pivoted gate idea from the Northern Pennines which seemed to work with no problems. At Coniston we now have five gated levels which are locked at the request of the land owner. CAT has keys for these gates.

Perhaps all paid up members of mining history societies affiliated to NAMHO and who abide by their guidelines should have free access to locked mines, including Greenside and Silver Gill, and any others in the future. How this could be administered would need further discussion in committee and between societies.

One (shady) practice which I am sure 99% of our members would frown upon is where levels are clandestinely re-opened, secured with an oil drum and covered over to hide them. It is not the re-opening and covering of them that is wrong but their reluctance to share this information with other interested parties/members. Unfortunately most societies have active members who are only interested in taking advantage of what they may learn from it and not contributing anything in return to the mining community as a whole, for everyone's benefit.
It has been suggested that there are thirty or more opened and concealed levels in the Lake District National Park, mainly in the Western and Northern Fells. I would like to challenge the 1% to produce a list and details of them for publication in the next CAT Newsletter, anonymously or

otherwise, for the benefit of everyone, not just a chosen circle of their friends.

Discussion Paper – Goldscope Mine
Proposed project to re-open the late 16th Century "coffin" level situated on the north west slopes of Scope End, Newlands Valley at GR NY22351840.

Brief History
Goldscope Mine is famous for its involvement with the introduction of the German Miners who were brought here in the reign of Elizabeth I in 1564, and thus the formation of the Company of the Mines Royal, with Daniel Heckstetter being the principle figure and Thomas Thurland as agent. Long before this, in the early part of the 13th Century, it is recorded in the Rolls of Henry III that work was going on here to extract copper. These early workings would no doubt be on the backs of the veins. There would have been obvious outcropping on the surface on both sides of Scope End Ridge which may still be seen today, having been enlarged and deepened by later operators.

The mine developed more rapidly on the arrival of the German miners, who were brought because of their expertise in driving through hard country rock using only hand tools. Explosives were not used in Cumbrian mines until late in the 17th Century. The Germans probably started to drive the "grand" level soon after their arrival. On reaching the lode deep underground it was found to be very rich and was given the name 'Gottesgab' (God's Gift) which became corrupted to Goldscope.

On the west side of the ridge they drove at least three more coffin levels for access and drainage purposes. One of these also carried wooden water launders to supply two underground waterwheels used for pumping and raising the ore from the deepening mine which eventually reached a depth of over 700 ft below Adit Level. Shortly after 1600 the attention of the Mines Royal Company was concentrated on the Coniston Mines, where they realised the rich copper deposits there had never been fully exploited. Over the 17th Century several speculators took leases to work Goldscope, many extracting lead as well as copper. One such man was Thomas Robinson, Rector of Ousby, after whom it is believed Robinson Mountain was named. The mine was idle for most of the 18th Century.

The early 19th Century saw a renewed interest, with several speculators trying their luck. The mine ceased production in 1864. However one or two trials were made nearby as late as 1920.

The Mine Today
The Grand Level which pierces the eastern side of Scope End above the large spoil heaps, is still open and accessible as far as one of the two hand cut underground waterwheel chambers. Overhead at this point are the old stopes which would connect with the surface workings still evident. The level itself has been much altered and widened by later operators to accommodate rails and wagons.

On the western side of the fell is the large open cut, referred to on OS maps as a quarry. Many interesting hand cut Elizabethan features are found here. One of these is a constricted shaft descending into hand cut underground workings which includes an unaltered and outstanding example of a late 16th Century coffin level. This formerly came out on the open fell side but is now covered over. Nearby is a more

recent (1850's??) waterwheel pit and two entrances. Also evident is the leat that carried water from the dam 1.25 kilometres away at the Head of Scope Beck.
Goldscope Mine is within an area of the Lake District National Park owned by the National Trust and is a scheduled site, National Monument Number 34954. It is also an SSSI.

What the Proposed Project Involves
1.) To remove the accumulated overburden covering the entrance, the result of many years of erosion and slippage from the fellside above.
2.) To reveal the original entrance in solid rock, as it was made over 400 years ago.
3.) To place a specially designed steel grid over the small shaft at the end of the tunnel for safety reasons. This should not require bolting or fastening down.
4.)To place a specially designed barrier made from steel bars in the left hand branch of the stope to the left of the floor grid (this is not a coffin level). It would not require bolting and fastening to the sides. The right hand branch does not require any safety work. It is blind, driven into solid rock and presents no hazards.

Consent for this work would need to be sought from English Heritage, English Nature, the National Trust and the National Park Authority.

Reason for Undertaking the Project
This Elizabethan coffin level, which has been hidden away beyond living memory, is probably the finest example of a hand driven tunnel relating to this period of mining in the Lake District National Park and arguably in the north of England. It is the classic coffin shape, narrow at the top for the head, widening at shoulder height and tapering down for the feet. Unlike most other coffin levels which have been altered and widened with explosives to accommodate wheelbarrows at a later date, for example those at Coniston and Roughton Gill, etc., this one is still as it was made, with each individual pick mark clear to see. To re-open and make safe this tunnel would fulfil some of the new criteria recently put forward by the National Trust "to generate interest in our mining heritage" and to encourage specialists, students, historians, guided walk leaders etc. to study 16th Century mining techniques. The site is well away from busy footpaths but should not be given widespread publicity. It should be kept a low key facility for groups as referred to above for free access when they want, as at Castlerigg stone circle or Duddon Furnace. On the 12th December 2003, a meeting was arranged on site with John Hodgson and Eleanor Kingston, archaeologists of the Lake District National Park Authority. The tunnel was entered and the project and safety concerns were discussed. It was considered the project was worth pursuing further and would be in keeping with the National Park Authority's more relaxed approach to our mining heritage for the benefit of those visitors who had a genuine interest in the subject.
A further site meeting with National Trust Staff would be arranged if the response to this proposed project is positive.

Objections which may arise:
Could be vandalised**:**
The tunnel is in solid rock and bomb proof. It is off the beaten track. Vandalism is not a major problem at other sites which have been always open and much more obvious.

Livestock, sheep could wander in:
Sheep do wander into old mine tunnels during winter storms and sometimes come to grief. This tunnel is short with nowhere they could be in danger.

Mine tunnels should not be locked and gated for the benefit of a privileged few who have a key:
This tunnel will not be gated and locked. There is no need. Access beyond the steelwork will still be available by the way it always has been, via the shaft from the surface.

Fitting steelwork will cause damage to the archaeology:
It is not intended to drill and bolt any walls to secure the steelwork. The preferred method would be to use screw jacks or long bolts through the framework backed up with lock nuts to provide pressure against the walls into any existing recesses using small pressure plates.

Why not just leave it as it is?
For the sake of a few hours work the majority of mining historians and researchers, including many of our own members (of various Societies) are denied the privilege of seeing the finest Elizabethan coffin level in the Lake District. Why should it be kept restricted to a minority who are capable of accessing it via the shaft from above, using Single Rope Technique.

The proposals and opinions expressed in the foregoing paper are purely my own. They are for open discussion and any reasonable criticisms, amendments or comments are welcome.

Peter Fleming

Follow up:
The foregoing discussion paper was briefly given an airing at the packed Mining forum meeting on 15th April at the National Trust offices near Keswick.

Out of the fifteen people present only three members of MOLES raised objections. Ian Tyler expressesd concern about the safety barrier in the stope preventing those who abseil down the shaft from the surface making an easy exit out of the tunnel, and also that sheep could get their legs trapped in the grid over the shaft if they wandered into the tunnel. Both these objections were premature as the final decision for the design of the steelwork has yet to be determined.

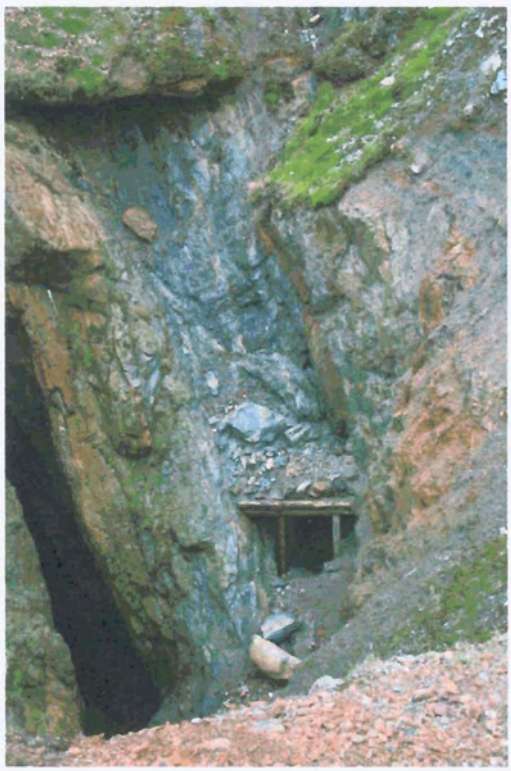
Stuart Cresswell raised the issue of insurance (third party liability). If this project goes ahead, and when everything is in place there will be no hazards or potential danger at all. The tunnel is in solid rock. There is nowhere to fall and nothing to fall on you. There are far greater risks on the open fell outside. Persons entering the tunnel would be far safer there than they would be in their own home. Fortunately Jamie Lund, the National Trust Archaeologist intervened to say that insurance would not be a problem.

Other exaggerated reasons for not going ahead with the project were put forward which had already been dealt with in the discussion paper.

The outcome was that the National Trust requires a full project proposal which would include a clear method statement, and assessment of landscape impact, outline design for the steelwork, photographic record and a survey of underground workings etc. In order that the National Trust can develop an understanding of the site they require a field visit some time in the near future ... watch this space!

PF

Goldscope Coffin Level entrance, 24.4.05



Levers Water Mine entrance

As had been anticipated, further falls have occurred from the right hand wall of Levers Water Mine. As this picture by Mark Simpson shows, the recent conservation work which we carried out has done its job in protecting the entrance. Our aim was to clear and conserve the entrance to the mine, but a condition of the permissions obtained for carrying out this work was that the level should be gated.

"EIGHTY YEARS OF AMAZING CHANGE"

by

William Bickford

REID'S

HANDY COLLIERY GUIDE

AND DIRECTORY

FOR THE COUNTIES OF

NORTHUMBERLAND, DURHAM,

YORKSHIRE, CUMBERLAND

AND

WESTMORLAND.

This small 1923 handbook came from the estate of a Newcastle solicitor; the contents include maps showing collieries and railways, lists of collieries with details of Owners. Agents, Managers and Engineers, followed by details of H M Inspectors of Mines and a copy of the Coal Mines Act 1911.

The staggering changes in the last 80 years in Northern mining show in the production tables.

OUTPUT AND PERSONS EMPLOYED.

1920.

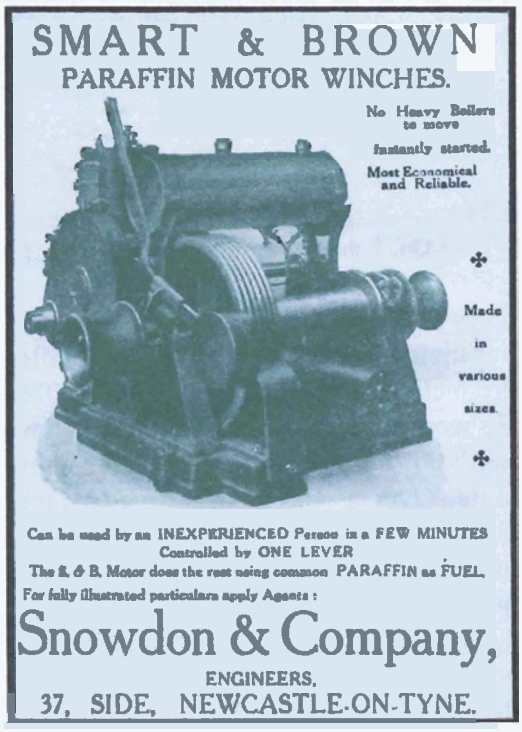
County.	Tons of coal produced.	Persons employed.		Total Above- and Below-ground.
		Above-ground.	Below-ground.	
	1920.	1920.	1920.	1920.
Northumberland	11,185,958	14,985	47,350	62,335
Durham	30,818,241	37,994	137,176	175,170
Yorkshire ...	36,182,855	37,986	134,623	172,609
Cumberland ...	1,847,699	2,759	8,963	11,722
Westmorland ...	1,670	6	20	26

If the employment figures look large then remember that virtually every ton of output was shovelled by hand into tub or onto conveyor belt; in the 1920's power loading from the coalface was a thing of the future.

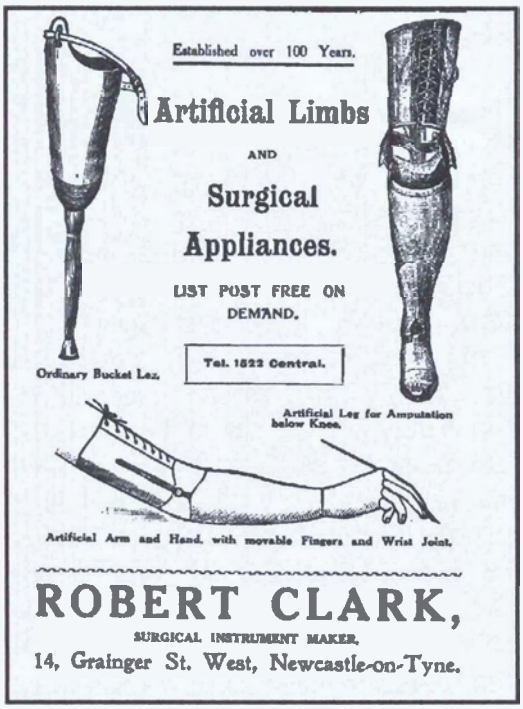
Since most of the Northern production was hard coal there was obviously huge demand for explosives as indicated by this advertisement:-

(Who would purchase explosives, other than "BEST QUALITY ONLY"?) Again we see huge changes in a short period of time; the UK explosives industry disappearing completely in the intervening years.

However there were aspects of all this activity, which were less appealing.



Given the approach of Messrs Smart and Brown to industrial training and safety in their sales pitch above it is hardly surprising that the publication abounds with advertisements such as these two:-



Thirteen percent of the advertisements are for medical supplies; a far cry from today's safety culture.

Slate Industry Origins
Alastair Cameron

It has always been a bit of a puzzle to me how Coniston's slate industry could have become so well established in such a short time after the Norman Conquest. It is generally accepted that the craft skills came over with the Norman settlers, but from where? Are there any clues to help us pinpoint the link? We had already visited slate workings in the Loire Valley in France and the Moselle in Germany and could find no evidence there. A possiblilty was the Ardennes area of Belgium. A number of northern abbeys had been set up after the Norman Conquest as 'daughter abbeys' of those in the Ardennes region. As well as a religious link there could be an industrial link as well. But we had no evidence and the only way to find out was to go and see.

On a freezing cold Thursday morning in February the *Pride of Burgundy* edged its way into Calais harbour. The Calais shoreline, which never appears at its best from this angle, looked extremely arctic as snow blew across the dunes. Fortunately, once clear of the port, the A26 motorway had been properly treated and we settled down to the long haul east. By late lunchtime we had landed in the Ardennes at a small pub in the village of Chiny on the banks of the Semois River. Not far away was the Bason of Herbeumont, mentioned by Alen McFadzean as an ancient slate working site. There was still a bit of daylight left so, after settling into our room, we started on a quick tour round.

The Forest of the Ardennes is like a much larger version of the Forest of Dean. As we drove along narrow roads we were conscious of slate spoil tips on either side. Suddenly we came across a sign half covered in snow advertising a show mine. We drove down the private road with care, to find the site at the end closed up for the winter, but with one car parked outside the buildings. Yves Crul, who ran the Ardoisier show mine was spending a few hours painting in the visitor centre. We explained who we were and our mission and he put his paint away and put the kettle on.

Yves was one of eight people who had put their life savings into the mine after production ceased in November 1976. He was the only full-time employee and ran both the visitor centre and the show mine. Over a mug of tea we explained our mission. I showed him photographs in *Slate From Coniston.* He became quite excited about the picture on Page 47 of rivers at work. "C'est une pioche" he exclaimed. He also had a name for the large 'mells'. But what was of

greatest interest to him was the picture on Page 35 of the Matty-Spedding tunnel explaining that that was how tunnels had been constructed in the Ardennes slate mines since before Roman times. At last we were getting somewhere!

Although it was getting late Yves offered to show us round the mine. He had visited Llechwed in Snowdonia and was aware of what was happening at Honister. He had modelled the Ardoisier mine on the Llechwed system. He fired up the generator and the whole site came to life.

We went down quite a distance on the man-rider. Below I could see where the water level lay, filling the lower part of the incline tunnel. "We have pumps to keep the water down. They are controlled by a float switch". I asked him what would happen if the float switch failed and he just shrugged. The mine was impressive, on several levels. A sophisticated audio-visual system operated at each station. Safety was paramount and optical and infra-red cameras monitored every location.

We returned to surface on the man-rider. Yves mentioned that he often had visiting groups of industrial archaeologists from Germany and France and had a 'special tour' for them. Perhaps we should include this on a future meets list!

A CAT meet in France for 2006?

It is some time since CAT had a meet abroad; the last one was in the Picos de Europa in September 2000. I propose that we have a French meet in Summer 2006, perhaps on the lines of the BMSC alpine meets which run over an extended period during which people come and go. Maybe two bases over two weeks?

Perhaps Alastair could arrange a visit to the Ardoisier mine? A few years ago I was holidaying on the Loire and discovered a fascinating slate museum at Trelaze, near Angers. Most of the slate was mined some 550 meters below ground. Access at Trelaze was by two shafts with headgear, and the huge underground chambers were worked upwards from the bottom. The museum was set up by the local industrial history society.

There must be mines to explore in northern France. There is an underground working slate mine at Warmifontaine, in Belgium. There is a wine festival at Vouvrais on the weekend 13 – 14 August 2006. Any suggestions? Let me know if you would be interested.

Ian Matheson.

Water + Stone = Karst
Voda + Kamen = Krs

John and Joan Helme found this on a visitor information board in Plit Vice National Park in Croati,a where a limestone gorge is dammed by deposits of travertine forming lakes and pools whose level and size vary as the soft rock is eroded again.

A contest between water and stone is the characteristic of karst. If you have the chance to bet on the winner – whom would you choose? Solid, firm stone? Transparent drops of water?

Before you answer remember that nothing in life really is as it seems to be. Limestone and dolerite interact in the cliffs of these mountainous parts, precipitation enters the karst trying to pass through the rocks, stubborn rocks attempt to resist but water uses its secret weapon, carbonic acid. Patiently she carves the rocks; using the weak sides of her opponent she leaves behind the apertures of various sizes. The caves are thus formed.

Playing with the stone the water creates the cave ornaments: stalactites and stalagmites, sometimes she needs ten years for 1mm of such ornaments, sometimes even a hundred. This however does not hinder her to be diligent.

After defeating the stone, water becomes a generous victor. With the help of living organisms she returns to nature a part of what she destroyed, a porous rock which is made by waterfalls, travertine.

The man cannot but marvel at the result of the contest. Friends and foes at the same time she returns to nature a part of what she destroyed, a porous rock which is made by waterfalls, travertine.

The man cannot but marvel at the result of the contest. Friends and foes at the same time, water and stone make a perfect team. Plitvice Lakes are the result of the living world which inhabits them.

Once upon a time there was a river in this karst valley. Its clean and transparent waters offered life to many of the valley's inhabitants, both plants and animals. Some of them decided to thank the river by making it even more beautiful.

The rain collected carbon dioxide when passing through the ground and thus created ions of carbonic acid which dissolved the underground rocks. Water was enriched with dissolved calcium carbonate. Microscopic algae and bacteria came to live on the surface of the moss.. Their mucus caught the crystals of calcite from the water.

From the calcite sediment and fossilised algae and moss, the porous type of stone, travertine, is formed. The large travertine barriers were thus formed which slowed down the river and re-modelled the river valley. The lakes were born.

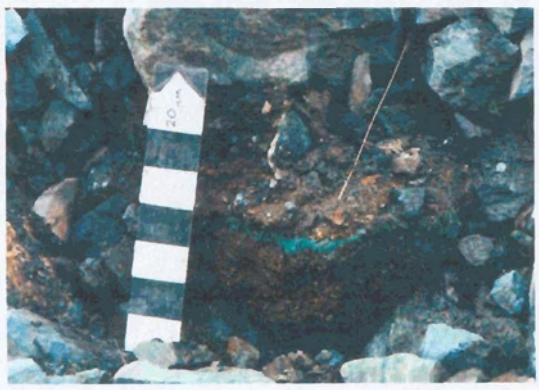
Even today, on top of the barriers over which the waterfalls come down, in the water which never stops flowing, live little travertine makers, the moss and the algae. Every day they continue to create this phenomenon, which made their river beautiful and famous throughout the world. The process of travertine formation is at its peak in the summertime, and is slowed down by the presence of any organic matter by each pollution, even the simplest swim in the lake.

Levers Water Beck, Coniston.

There are substantial mining remains upstream from the footbridge between the entrance to Hospital Level and that of Grey Crag Level on the left hand side of Levers Water Beck. This area has always fascinated me, not least because there are no obvious clues as to their date or purpose.

Much of the side of the beck is lined with masonry, some of which has been carried away by the water, which is now eating into the lower part of the Middle Level Incline. There is a flat area on which can be seen the outline of a building and there are several remnants of masonry which look like the side of a track leading further up.

Just beneath the first waterfall is what appears to be the base of a substantial wheel pit. Curiously it has been built in the bed of the stream, and across it rather than in line with it. The stream itself looks as though it had once been diverted to the east to leave the structure to one side. Over the years the floods have straightened it out again and have carried away all of the lower side of the wheel pit, but a bit of its floor still remains together with some substantial stones forming the lower part of its upper side. Just below, the stream has exposed part of a heap of fines showing clear traces of copper. Did the wheel power a set of stamps which crushed this material? If so, where did the ore come from?



A few yards away, and more or less in line with the wheel-pit, is the head of Hospital Shaft. It appeared a few years ago after a flood but is once again covered over. Was this the source of the ore? It was about here that Mark Scott found a very fine shot hole pricker (which is displayed in the Ruskin Museum). During the short period when the shaft was exposed CAT members examined it and descended it as far as Hospital Level. It resembles the head of Bonsor East Shaft and of Woodends Rise in that it doesn't come directly to the surface but connects with a short horizontal adit.

None of the remains described are now easily inaccessible and they are more or less buried by the spoil which has come from Middle Level and from Top Level. They are therefore older than these workings. So why were they built there, and for what purpose?

I am sitting on the end wall of the wheel pit, feet on its base. The survey pole marks the location of Hospital Shaft Adit.

If they pre-date Middle and Top levels then they also pre date the Middle Level incline. And what if they also pre-date Deep Level, which was started in 1834? Before the incline was built and the spoil was tipped from the Victorian workings above the easy way up would have been the left hand side of the beck, where there would then have been plenty of room for a track. If Hospital Shaft had existed then, it would have been the lowest access to the Bonsor Vein. Could this be one of the sites worked by Charles Roe of Maclesfield in the eighteenth century, or could it be even older, and originate from the Elizabethan period?

Ian Matheson.

Temperature in Mines.
Alastair Cameron

Recently I read an article in a geological journal published by the University of Georgia, which discussed phenomena of the flow of chilled air out of a disused ore mine in Texas. The mine was located in a very arid part of the state at about 8,000ft and the workings had broken into a series of natural caverns. Recently geologists on a field trip had noticed a strong flow of cold air from the mine, which they decided to investigate further.

They eventually developed a theory behind the phenomena. They felt that the chilled air had originated from a 'great depth' where, because of the increased air pressure, heat had transferred from the air to glacial water very rapidly. Exactly where the glacial water came from was not explained. They referred to this as 'reversed inversion' and the cold air rose at a high velocity and flowed out of the mine.

The details reminded me of similar phenomena that we noticed on a CAT trip to the Picos de Europa in Northern Spain. We found an entrance to a zinc mine in a high and very arid part of the Picos from which chilled air was flowing at a high rate – in fact it was possible to lean against the flow, as it was so strong. The outside afternoon temperature was well into the 80's and it was very pleasant to stand in the air stream, although probably not very good for us, as the air temperature could have been little more than 10 deg C. I explored the level for about 500 meters. It twisted and turned quite a bit and then entered a huge chamber partway up a wall. Cap-lights would not reach the far walls, roof or floor. Time to turn back!

There can be no easy explanation for the source of the chilled air in such a location in the Picos. It would require a mass of water/ice/rock which was at a much lower temperature than the air which eventually flowed out. Perhaps if we ever visit the area again we should take longer ropes and all the gear needed for a thorough exploration.

Terminal!
Part way through printing this issue the CAT printer started to display messages that some of its parts were worn and reaching the end of their life. A few hundred pages later it stopped with all its lights flashing and couldn't be revived. Dead! Kaput! Terminal! I bought it in Feb 2003 for £115, and it has printed eight and a half newsletters, 125 copies of each with about 30 pages, that's getting on for 35,000 sides of A4! Impressive.

After checking prices on the internet I rushed out to Kendal to buy a replacement. Two years on there have been two new models and prices have gone down. The current version, the C86, is smaller, quicker, quieter, delivers better quality and is £45 cheaper at £70! (This is not intended to be an advert for Epson, merely a comment on modern electronics)

The new printer comes with a set of ink cartridges included in the price. To buy a set of these from Epson would cost £30. That leaves £40 for the cost of the printer. How cheap is that!

Incidentally, I use compatible inkjet cartridges which cost about £10 for a set.

Editor.

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 17th January 2005 at the BMSC Hut at Coniston, starting at 2.30pm.

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	Meet Report	8	Newsletter
9	Publications	10	Library
11	Coniston Coppermines	12	Hudgillburn
13	NAMHO 04	14	Date and venue of next committee meeting
15	Any other business		

Present S. Barker (SB), J. Aird (JA), I. Matheson (IM), D. Bridge (DB), J. Brown (JB), P. Fleming (PF), M. Mitchell, M. Scott (MSc) & A. Wilson (AW).
The meeting commenced at 2.30 pm. 9 members attended.

1 Apologies for absence from: M. Simpson (MS).
As the chairman could not attend, it was voted that M. Mitchell would chair the meeting.

2 Minutes of the last meeting
The minutes of the committee meeting held on Monday 29th November had been previously circulated to members. IM wished the second line of Item 6 to read "two members had resigned for personal reasons", with this amendment completed, it was **PROPOSED** by IM and **SECONDED** by PF 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 3.2 PF reported he had been in contact with Heritage Lottery Initiative regarding funding for the intended conservation treatment of the tub recovered from Daylight Hole, Lindal in Furness. As £2000 was the lowest amount of funding given, it was decided to cost a case to keep the tub in. A publicity leaflet would also be required.

3.2 Item 3.3 PF had held a site meeting at Coniston with S. Dickinson and P. Meredith, the latter had been very keen to be involved this year in a field project covering 2/3 different sites. Will need a written proposal. Action PF.

3.3 Item 3.4 JB had produced a draft plan of steelwork for Goldscope.

4 Secretary's Report
Received since last meeting:

4.1 LDNPA - information regarding changes to the TIC's and the guided walks programme.

4.2 NAMHO - the 2005 AGM and next council meeting will be on 12th March at the Castle Inn, Highley. The 2005 annual conference will be held near Box Hill, Dorking on 8-10 July. The booking forms are available on the NAMHO website.

4.3 Opening day of the Keswick Mining Museum (Ian & Jean Tyler) on 6th March, including the launch of his latest book 'Goldscope & the Mines of Newlands Valley'.

5 Treasurer's Report
JA presented his report and the balance sheet covering the period from 27th November to the 17th January, the current a/c stood at 1841.40 and the Scottish Widow a/c at 12400.00. Income for the period was 2278.86 and expenditure 4326.23.

It was proposed that JA would informed John Helme of the Newlands Furnace Trust (NFT) that CATMHS was willing to provide an interest free bridging loan up to the sum of £7,500 to the NFT, to cover the period between them paying the contractor for roof repairs and the reimbursement of the expenditure by English Heritage (probably April/May 2005). **PROPOSED** IM, **SECONDED** PF, all were in favour.

JA reminded members the EEC directive (to be published in June) 'working at height' could affect our activities.

6 Membership Secretary's Report
We have 92 paid up members (inc. hons), 4 had resigned. All the rest had received 3 reminders.

7 Meets Report

The next meets list would have to be discussed at the next committee meeting. JB reported that the date of the Faggergill meet had been changed.

JA reported that rather than purchasing 20 ring hangers as agreed at the Committee meeting on 29th November he had found it more cost effective to purchase 50 stainless steel thimbles, 4 Lockable Gripples and a Gripple Tensioning tool. These items allow the use of normal stainless steel hangers with 6mm wire rope. All these items along with the wire rope, cutters, rope grips and spanners are now stored in Mandall's. He requested the re-imbursement of £143.82; this was agreed. He also reported that we now had 3 X 40m, 1 X 53m & 1 X 115m ropes in Mandall's.

8 Newsletter

9 Publications

IM reported that 6 packets of LMH and several Journal No. 5's stored at his house had been damaged in the recent floods. He was awaiting the result of insurance assessment. Detail of our proposed publication 'A Walker's Guide to LMH' was discussed. Proposed to be printed for Christmas 2006. JA will be producing a CD of the Haygill letters; it will be available to members.

10 Library

A. Cameron had visited.

11 Coniston Coppermines

DB had produced an album of digital images of all his Paddy End mine slides. A copy to go in CAT archive.

12 Hudgillburn Mine

A work meet had been arranged on 20th February to sort out the problem of surface water draining into the level through the roof.

13 Mines Forum meeting

MM had drawn up the policy and health and safety documents required by the National Trust and LDNPA, before we can access mines on their land for conservation work. This document has to be acceptable to these two bodies. Discussion followed and amendments were made. It will be discussed at the next Mines Forum meeting, which will be held 15th April, at Bowe Barn, Borrowdale at 10am.

14 Date and venue of next Meeting

To be held on 21st March 2005 at the BMSC Hut, Coniston, at 2.30 PM

15 Any Other Business

15.1 Photographs were needed for our display at the Threlkeld Mining Museum.

15.2 JA asked if the CAT website could be discussed at the next meeting.

15.3 PF reported that cars had been damaged at the BMSC Hut, if any members have had their cars damaged would they please report it to the local police.

There being no further business the meeting closed at 9.00pm.

SB 20/01/05 Chairman

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY