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The Newsletter of the Cumbria Amenity Trust Mining History Society

The blue pool on Middle Level, Coniston Copper mine. Photo Kate Tyler

No. 126 **February 2017**

Cumbria Amenity Trust Mining History Society
Newsletter No 126, February 2017

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CATMHS AGM & Dinner, 10th December 2016

The AGM and Dinner was held once again at Rydal Hall, ancestral home of the le Fleming family, who owned (and still own) the mineral rights at Coniston. We were welcomed on arrival at Rydal Hall with tea, coffee and cakes, and later there were canapes.

27 members attended the AGM and the Committee was re-elected en mass, with the addition of the Webmaster, Chris Cowdery. Both he and the Treasurer live considerable distances from Cumbria and they are not expected to attend committee meetings on a regular basis. John Brown resigned as Meets Secretary but remains on the committee. The Meets Secretary is now Mark Hatton.

It was one of the most successful and enjoyable of recent years and more than 40 members and guests attended. It was good to see some new faces, even though they won most of the raffle prizes! To be fair, they did buy a lot of tickets. After the dinner the Chairman's Award was presented jointly to Mark Hatton and Chris Cowdery.

After breakfast on the Sunday some people walked to Alcock Tarn, whilst others did some exloring(?) at Tilberthwaite.

CATMHS Chairman's Report 2016

Once again can I sincerely thank the committee and members of the society for their help and support during the year without which it could not function?

This has been a busy year with the Heritage Lottery Grant work starting; the relocation of the archive from the Ruskin Museum at Coniston to the Armitt Museum in Ambleside is now complete, the re-building of the web site, walks and talks, invigorated meets list, the use of social media and the survey work using drones which two of the members have been continuing.

The various committee members will present their reports, so will cover the areas mentioned and others in more detail, but I would like to pick out just a few areas.

The Heritage Lottery Grant of nearly £500,000 has enabled work to start on the conservation of various structures at Coniston Copper Mines especially around the Old Engine Shaft, Bonsor East Shaft, Thriddle Incline and some of the Paddy End Dressing Mill. The work is of exceptional quality and the two structures which stand out are the Bonsor East Shaft which forms one the iconic pictures of the mines and the Thriddle Incline where the middle section was taken down and re-built. It is worth having a look at what has been done, which would not have happened without the Society's persistence over many years.

Other areas of engagement through the project has been with involvement of the public through taking year 9 from John Ruskin Secondary School on a geology trip to the mines, to the recording of the Penny Rigg Mill by volunteers and assisting in an exhibition to publicise the work. Next year will see the recording of the upper area at Tilberthwaite Mine and the Bonsor Mill, further work with the school and archival research. It is surprising how many people who are not members of the society have an interest in the mines and perhaps there should be more collaboration with other societies and people.

After eight long years (Storm Desmond stopped work for 10 months) the Horse Crag Level at Tilberthwaite Mine has finally been finished with the digging through and installation of drainage pipes in the last three falls so the water is no more than welly depth. Not only should Colin Woollard and John Brown be thanked for their efforts, but also the many other members who helped over those years, a fantastic tribute to the society. A council member of NAMHO recently commented that these digs are held up to be the benchmark for other societies throughout the country.

Mark Hatton has developed the use of social media and this has resulted in the most members the society has ever had, as well as helping to invigorate the meets list, which has attracted more people than for many years. The Society is also providing helmets and lamps for people who may have just joined and have not yet purchased one.

Ian Matheson has continued to produce a good quality newsletter which even in this digital age is the backbone of the society and is still rated probably the best in the country. A thank you should to the contributors and I would encourage any member to write an article no matter how small.

Mike Mitchell and Mark Simpson have continued developing their surveying techniques using a drone which is producing quite remarkable results, in-fact as good as the professionals, which they will be showing after the AGM dinner. I have seen some of the results which the National Trust are certainly impressed with, and they are brilliant.

Chris Cowdery has literally re-built the web site which has allowed so much more information to be made available to the members and the public which is important as the Society is a registered charity and as such cannot just be for its members, as it has charitable purposes for the public benefit.

The Society's archive, formerly held at the Ruskin Museum has finally been relocated to the Armitt Museum in Ambleside, where it is much more accessible, especially to the public. The Society should thank Colin Woollard for his hard work, and Sharon for putting up with the mess of it being spread out all over the house. Eric Holland's collection has now been lodged with the Society's archive which Ian Matheson will explain in more detail, but suffice to say that he, Mark Simpson and Mike Mitchell have now digitised it through thousands of images.

Dialogue continues with the various agencies through the mines forum which is unique in this country and at a recent NAMHO meeting other areas have agreed to look at using it as a template to set up other forums especially as organisations such as the Environment Agency are taking an interest in mine sites. Certainly, in the Alston area it is felt that this could resolve some of the tensions around the treatment of mine water, which was also one of the reasons for the recent training day organised in conjunction with the Environment Agency at Penrith.

The society should once again thank Eleanor Kingston from the LDNPA for all the help and support she has given especially with the HLF project, who along with her colleague John Hodgson have been fantastic supporters of the society over many years.

I hope next year is just as busy and successful as this year and it is through the hard work of its members that the society is probably on a better footing than for some time.

Warren Allison
Chairman
6th December 2016

Eric Holland Archive

Some mention was made at the AGM of the Eric Holland Archive, and I would like to expand on this. As most members will know, Eric was a founder member of CAT, having been interested in matters *subterranica* since his youth. He wrote a caving guide, Underground in Furness, and two books on the Coniston mines, Coniston Copper mines – a Field guide, and Coniston Copper – a History. He was one of the first to take an interest in the mines of Cumria, or Lancashire, Cumberland and Westmorland as it then was, and amassed a large collection of mine plans, documents and photographs. After his death in 2004 his wife Maureen (Mo) found the collection a bit overwhelming and put off dealing with it. Now, thanks to the good offices of LDNPA archaeologist Eleanor Kingston, she has very generously decided to put it in the public domain, with the advice and assistance of CATMHS.

There are a large number of mine plans, some ledgers and cost books, a collection of documents and photographs, and some artefacts. Most of the material relates to the Coniston copper mines and to the iron mines of Furness and West Cumbria.

Mike Mitchell and Ian Matheson met with Mo in May 2016 and agreed a way forward. All the mine plans were collected from her and sorted and listed by me, and were then sent to the British Geological Society to be scanned and added to their web site and ours. The originals relating to Coniston and the Lake District have all been deposited in the CAT Archive at the Armitt Museum in Ambleside under the heading 'Eric Holland Collection', and those relating to Cumbrian iron mines have been deposited at the Barrow Record Office, again with the title 'Eric Holland Collection.' The ledgers and cost books have all been photographed and digitised.

This has been a considerable task, which isn't finished yet. A number of people have been involved and I would like to thank John Aird and Chris Cowdery for their work handling and managing the plans on their journey from Mo Holland to the BGS and back to me, Peter Sandbach and Paul Timewell for helping to classify the Furness Iron material and deliver it to Barrow CRO, Mike Mitchell and Mark Simpson for digitising the ledgers and for general assistance and interest, Eleanor Kingston, LDNPA archaeologist, for making arrangements with Mo Holland and the Barrow Record Office, and of course Warren Allison and Colin Woollard for developing our relationship with the Armitt Museum and Library

Ian Matheson.

New members:

Chris Curry, from Richmond, Yorks. Chris is regularly digging, exploring and surveying around Swaledale and Arkengarthdale, and has a particular interest in Old Gang and adjoining mines.

David McKillop, from Mayshill, near Frampton Cotterell, Gloucestershire.

James Eccles, from Carlisle.

Sean Kelly, form Cambridge. Sean knows the Coniston area well and is a member of YMC and Craven PC.

Alen McFadzean, from Orgiva, Spain. Alen was a long time CAT member, Newsletter Editor, Meet Leader etc. He moved away to the North East to be a journalist and has relocated again, this time to the mountains of southern Spain.

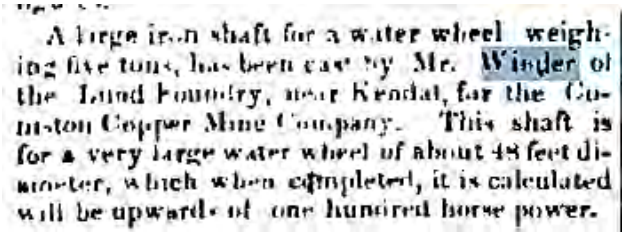
Alasdair Roberts, from Mundesley, Norfolk

Carl Barrow, from Barrow in Furness

Coniston Old Engine Shaft water wheel axle

Peter Sandbach recently found this report in the Soulbys Ulverston Advertiser, 19th Dec 1850.

By 1850 the Old Engine shaft had reached a depth of 140 fathoms; the original water wheel could not produce sufficient power so a larger one was installed. This would be the axle for it.



A large iron shaft for a water wheel weighing five tons, has been cast by Mr. Winder of the Lund Foundry, near Kendal, for the Coniston Copper Mine Company. This shaft is for a very large water wheel of about 48 feet diameter, which when completed, it is calculated will be upwards of one hundred horse power.

Extract from a letter written by John Barratt, on November 30th 1850, to Messrs Edge & Son, Coalbrookdale, Salop, chain manufacturers:

… I beg to inform you that the Chains are applied for drawing the Stuff or Work, by Water Wheels, one of which is about 40 Horse Power and the other about 30 at a depth in both cases of about 140 fathoms, the weight of the Kibble and Stuff is about 8 cwt. The mine is increasing in depth about 10 fathoms a year. *We are now erecting a wheel of upwards of 100 Horse Power, which is to be applied to the same purpose* …

CAT Archive, EH Collection, LC 08.1, Letter book 1837-61, image 41.

Extract from Tutwork book, July 1862 –Jan 1867. CATMHS purchase from Hext sale.

Tutwork Bargains let from May 5th to July 7th 1866 **(**image ThCB 00114)

The New Engine Shaft to sink under the 150 fathom level by 4 men stinted 20 fathoms deep, the shaft to be carried 14 feet long and 5 ft wide. The Takers to put in Penthouse, leave an arch in the east end of shaft 7 ft 6 inches deep and 6 ft long. Hang the Roll, cut out sufficient ground in the west end of shaft for working the Roll, secure the dividing Timber, and cut out the above mentioned arch after the shaft has been sunk to the depth of 20 fms and all the work required to be done in sinking this depth.

Taken at £460.0.0 By John Braithwaite, Thomas Dixon, Lancelot Holmes, William Grave.

2017 NAMHO Conference

Bookings are now open for the National Association of Mining History Organisations (NAMHO) Conference 2017, to be based around Godstone, Surrey, over the weekend of 23-26th June 2017. A lively and exciting weekend of underground trips, lectures and social events is to be hosted by the Wealden Cave & Mine Society in their 50th anniversary year, so do come and help us celebrate!

Book by the end of February to enjoy the early bird delegate discount and to benefit from free drinks (yes we did say free!) on Saturday night! For more details see www.namho2017.info

Groverake mine headgear

Standing tall, a skeleton of our industrial heritage high in the Durham Dales, this headgear is an iconic monument to our past. As the last head gear in the County, it has immense importance, not just an impressive landmark but as a reminder of our history, not merely to us but to our children, grandchildren and the generations to follow .

The last mining headframe in County Durham was due to be demolished in September 2016. A public meeting was called early in the year. Lots of people did not want to see this happen. A committee 'The Friends of Groverake' was set up to try to save the headgear. After months of getting nowhere, the land agents finally agreed to give us four weeks to submit a proposal to them. A strong business plan was produced, with the backing of the registered charity 'The Friends of Killhope', and sent to the agents in September. The response we got was that the Coal Authority needed it to be taken down so it was going to be demolished imminently. When questioned about this, the Environment Agency and Coal Authority decided to issue a joint statement clarifying their position. It stated they did not need the headgear to be removed and that they would try to work around if they used the site for water treatment in future. We also went to the press in a final attempt to halt the demolition.

Friday, 25th November 2016: Five members of the Friends of Groverake committee met with the land agents. We reached an agreement to take on a **25 year lease to conserve the headgear in situ**. However there are conditions: timeframe and cost. They want an agreement signed this week. Before we can do this, we need to secure a large sum of money to cover the costs.

A website was set up so we could start fundraising as quickly as possible - we have so little time. Please donate and help the Friends of Groverake preserve the Groverake headgear, to share with future generations, our heritage from Weardale's industrial past. We need to raise £18,000 urgently. The headgear will be demolished.

After consultation the CATMHS committee decided to donate £500 to this cause, on the understanding that the donation would be returned if the fundraising attempt is unsuccessful and the headframe is taken down. Negotiations are continuing with the land agent and the fundraising campaign has reached a phenomenal amount of people, with over 100 donations received.

There is to be a Public meeting at the Rookhope Inn on 30th January for an update on what's happened and where the campaign is now. This will have taken place by the time you read this but there will be a report in the May newsletter.

NIMME LECTURES

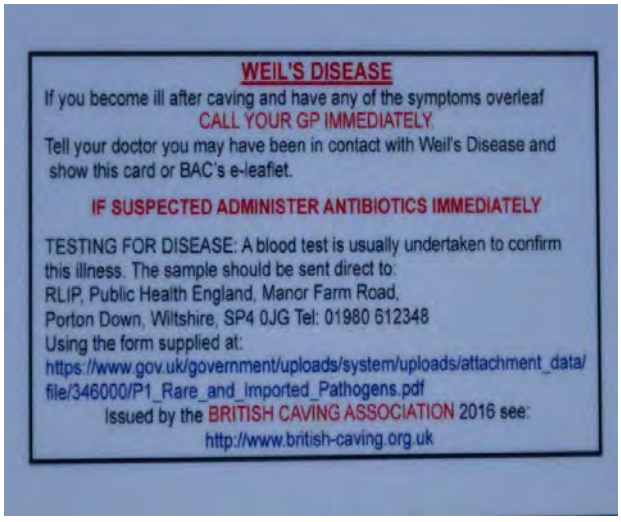
On Thursday 19th January there was a free lecture at the North of England Institute of Mining and Mechanical Engineers on Passive metal mine water treatment in the Lake District, by Dr Abby Moorhouse - Coal Authority.

Force Crag Mine, in the Lake District National Park, is a major source of metal pollution to local waterways. The abandoned mine is situated on land owned by the National Trust.

From 1835 until 1991, the mine was worked for zinc, lead and barytes. Today metal pollution from the mine impacts the Coledale Beck, a tributary of the Newlands Beck and the River Derwent and Bassenthwaite Lake Special Area of Conservation.

To treat the metal rich mine water, a full-scale passive mine water remediation scheme has been constructed at the site. This pilot scheme is the first of its kind in England and aims to provide a better understanding of the passive method of removing metal contaminants from water. This presentation discusses the type of treatment technology being used at the site and how it has performed over the first two years of operation.

Weils Disease



The BCA has put out a reminder of the dangers of Weil's disease. It is a bacterial infection spread by the urine of rats and cattle which can contaminate cave waters and can enter the body through breaks in the skin or via eyes, nose or throat. Symptoms develop 7-21 days after infection and can include severe headache, chills, muscle aches and vomiting. Later symptoms may include jaundice, red eyes abdominal pain, diarrhoea or a rash. It can be fatal. If you become ill after caving and have any of the symptoms call your GP immediately. For more information visit www.british-caving.org.uk

Notes from Mines Forum 8th November

Greenside Tailing Dam drainage project

Swart Beck, which drains the valley below Sticks Pass and flows past High Horse and Low Horse Levels and down through the mine workings, was damaged in several places by storm Desmond. In Upper Swart Beck repairs were carried out to two collapsed walls by a team from International Search and Rescue between 19th September and 12th October. In lower Swart Beck a blockstone wall was underpinned and repaired and some boulders were repositioned to divert the beck back into its proper course.

Work on the Tailing Dam was carried out between 24th August and 9th September with the help of 75 Engineer Regiment and a helicopter. Concrete canvas was laid along a 200 meter section of drainage gully. This is flexible when laid but hardens after it becomes damp and makes a repair which it is hoped will last 20 years. The Engineers also reinstated a section of the track which had been washed away, using spoil from on site.

Water problems at Coniston Coppermines

A localised storm event in August caused some problems at Coniston and there is concern that Levers Water Beck is eroding the Paddy End spoil heap below the Hospital Level footbridge. It is thought that the spoil heap was formed over the original beck bed and that the beck was diverted around it. A considerable amount of fine spoil has disappeared recently and the beck now disappears beneath the spoil, presumably resuming its old course. It is suggested that this might have to be culverted to prevent serious erosion and pollution

Erosion of the spoil heap below the hospital Level footbridge. Photo Mark Simpson

In October there was another blowout in the water main from Levers Water, which runs through the Paddy End dressing floors. It seems to have occurred at a junction where the pipe changes its gradient and is anchored by a large below ground concrete block. No damage was done to the recent conservation work carried out under the Coniston Copper Project on the site, and United Utilities have repaired the pipe and promised to reinstate the ground, an area some 4m x 2m.

Coniston Copper Project
Walling at Paddy End has been completed. Drainage work to the track is the last work to be carried out in 2016. Work will resume in April 2017. It is planned for the volunteers to survey Low Bonsor mill in March and move on to Tilberthwaite mine in May and June. A report is due on the survey they have already carried out on Penny Rig mill at Tilberthwaite.

Honister Slate Quarry
A stone saw established by Bennett Johns a hundred years ago has been replaced by a modern machine.

United Utilities plan to link West Cumbria to the rest of their regional water network via a major new 31.6 kilometer pipeline from Thirlmere to West Cumbria, a new water treatment works, pumping stations and underground service reservoirs. Fine slate waste from Hopper Quarry at Honister is to be used to bed the pipe. It is thought that Elterwater Quarry may also provide material for this purpose.

Mike Mitchell and Mark Simpson have been asked to conduct a survey by quadricopter of the slate mining remains on the north face of Fleetwith Pike. Due to tipping of quarry waste down the face in the 1950's and 60's the ground is too unstable to access any other way.

Ian Matheson

Mines Forum elsewhere in the country
There are two mines forum's in the country, one in the Cumbria and one in mid-Wales with ours meeting every four months. Due to the recent poor publicity in the Nenthead area with the proposal to build a treatment plant like the one at Force Crag Mine to treat the water from Haggs Mine, I suggested that perhaps the various interested parties in the area should consider setting up a mines forum as the one in the Lake District.

It appears that after conversations between Peter Jackson from the Nenthead Mines Trust and the Environment Agency that a forum is to be set up. I presented a paper on our forum at the NAMHO meeting held on the 21st October in Frosterly and it was agreed that this should be also be encouraged in other areas of the country.

People could see the benefits in being able to get interested parties together in one room, understand the competing issues, but be able to find a solution. Peter Claughton, conservation officer for NAMHO highlighted that the forum in the Lakes had been going for nearly 25 years.

Warren Allison

North of England Institute of Mining and Mechanical Engineers (*The Mining Institute)* in Newcastle
We understand that their archive is to be made available to the public. It is thought to include material on Elizabethan copper mining. A group to visit Newcastle is in prospect!

CATMHS recognition in recent publications
In September 2016, the Society was mentioned in an award scheme called the "Brownfield Briefing Awards 2016: Best Public Participation, Force Crag Mine Water Treatment Scheme". This was submitted by the various bodies who built the new water treatment plant at the mine.

The Brownfield Briefing Awards have become the flagship event for the brownfield community, and is one of the highest industry accolades that a company can receive. The annual awards recognise technical and conceptual excellence in projects that have been underway over the past 12 months.

Quoting various extracts from the submission:
A partnership consisting of the Coal Authority, Environment Agency, National Trust and Newcastle University supported by Atkins (consultant) and JN Bentley Ltd (contractors) worked together for over three years to design, gain required permissions and construct an innovative mine water treatment scheme within the picture perfect location of Force Crag Mine in the Lake District, Cumbria. The works were funded by the Department for Environment, Food and Rural Affairs (DEFRA).

This scheme is one of two pilots which are informing a national programme to treat the metal rich discharges from historic metal mines in England. It is the first of its kind in Europe and the blueprint for future systems to address the most serious form of freshwater metal pollution in England and Wales.

The submission covers the background to the project, introduces the key stakeholders, the approach to engaging interested parties and how public participation informed the design and construction of the Force Crag Mine Water Treatment Scheme.

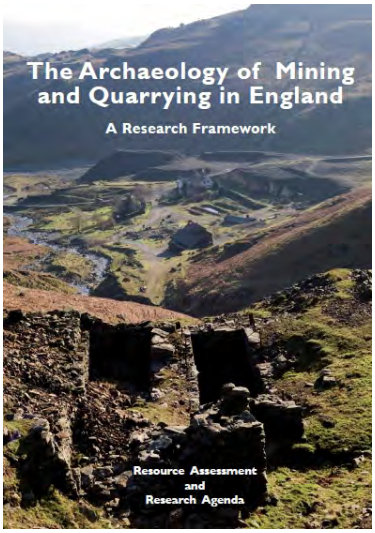
Interested parties included residents and local interest groups including the Cumbria Amenity Trust Mining History Society, Federation of Cumbria Commoners, Derwent Owners Association, Derwent Rivers Trust, Keswick Angling Association and Parish of Above Derwent.

More information of the scheme can be found at various web sites when Force Crag Mine water treatment is inputted.

Force Crag Mine with the treatment plant using the original settling ponds.

NAMHO has recently published **"A Research Framework for the Archaeology of the Extractive Industries in England (Mining and Quarrying)".**

The following is an extract from the Research Framework which is available to download from the NAMHO web site. The picture on the front cover is taken looking down from above the waterwheel pit for Bonsor East Shaft onto the Bonsor dressing floors.



The Research Framework was commissioned by, and jointly funded with, English Heritage (now Historic England) which enabled NAMHO groups and individual member to contribute towards and help influence research priorities. It provides guidance towards conservation and education strategies, and raises awareness of historic extractive industries as part of the wider heritage agenda. At its core is a coordinated effort to collate the results of previous archaeological research, which provide the information needed to achieve these wider aims. NAMHO members supported this phase of the project by helping with the supply of this information and by contributing to discussions at the series of regional seminars held in 2011 and 2012. The first task was to undertake a comprehensive review of existing archaeological data and to compile a series of assessments. Initially this involved exploring county historic environment records (HER's) and collating bibliographical sources. Also, vital to the success of this project was the expertise and knowledge contributed by NAMHO members. The scope of the project includes all archaeological data associated with mining and quarrying.

Some of the quotes from the Research Framework relating to the society include:
The Lake District lead orefield has been researched by members of Cumbria Amenity Trust Mining History Society (CATMHS), whose several articles are published in their journal Mine Explorer. There are also numerous works by Tyler (1989; 1990; 1992; 1995), although that author's otherwise useful output is marred by a lack of references. A general view of Lakeland mining was produced by Shaw (1975). Historical aspects of Greenside Mine have been published by Murphy (1996), and of Bannerdale Mine by Hewer (1984).

The history of lead and zinc mining in the Lake District has been explored in journals by the NMRS and local groups including CATMHS.

Coniston Copper Mines (Anon 2010a) and Penny Rigg Mill (Anon 2010b), and potential post-medieval workings close to Levers Water were the focus of investigations by Time Team (CAT 109, 7-18). 3

Most, if not all, of the accessible subterranean workings mentioned above have been explored and surveyed by mine exploration groups in the Lake District. Much of that material is archived by the Cumbria Amenity Trust Mining History Society.

At Carrock Mine, concerns over the environmental impact of mine water discharges have resulted in remedial work, including stabilisation of one of the mine entrances, and on-going management of the scheduled ancient monument by the Cumbria Amenity Trust Mining History Society; this work was supported by an archaeological survey carried out by ArchaeoEnvironment Ltd (2012). In its turn, that has highlighted the condition of the early-20th-century mill buildings, which will be surveyed prior to conservation work (John Hodgson, LDNPA archaeologist, pers comm 2).

Although having just scanned through the document it is a very interesting read and makes one realise how much of the country has been affected by mining and quarrying.

Warren Allison

Newland Furnace excavation.
Newland Furnace Trust (NFT) have obtained Scheduled Monument Consent to excavate the floor of the blowing chamber at Newland Furnace on condition that the work is supervised by a qualified archaeologist. The project will be managed and supervised by Dan Elsworth, of Green Lane Archaeology, Ulverston, for the digging of the test pits and subsequent report writing. NFT applied for a grant (DONG Energy Community Fund) to cover costs but this was declined. The CATMHS committee agreed to fund the cost of supervision of the digging of the initial test pits.

The final project will depend to a large extent on what is discovered in the test pits. Historic England have made it a condition that the test pits are filled in after the work has been completed. If things of interest are found, (eg floor, hearth etc) then NFT would probably want to review this with them. If there is nothing of archaeological interest in the overburden then Historic England might be happy for the NFT to carry on without further supervision from Green Lane. Archaeology. The initial work was carried out on the 18th and 19th of November.

A meeting was held at Newland Furnace on 8th December to show Andrew Davison of Historic England the results of the test pits from the dig undertaken on the 18th and 19th November. Present were I. Matheson, D. Robson, P. Timewell, P. Sandbach, D. Elsworth (Greenlane Archaeology), A. Davison. (Historic England)

Dan Elsworth summarised the work that had been completed to date, along with an early interpretation of what had been found.

Pit 1 – Rear of the Blowing Chamber

Thought to contain early remains plus possibility of steps to waterwheel doorway. Plus slag

Pits 2, 4 and 7 - In a line with the waterwheel axle
Revealed several layers of infill including large firebricks, limestone blocks (some with drilled holes) and slag. At the base of the dig were large dressed limestone blocks in-situ with extant hold down bolts. Cast iron structural work at a higher level was also revealed.

Pit 3 – Protruding wall by LHS of blowing arch

Crude wall of stone blocks on a rubble foundation. Evidence of lime. Presumed to be built post working era of the furnace. No slag

Pit 6 – Centre of furnace hearth

The upper layer contained brick demolition rubble. At the base of the dig brick built channel was found. One half of the dig contained a hard sand layer which is presumed to have supported the hearthstone. The other half was filled with demolition rubble.

Pit 5 – Dug on RHS of blowing arch

Dug to find continuation of wall in Pit 3. Nothing found. No slag just brick and slate and pebbles

Preliminary perusal of the finds seems to be that most are modern. One clay pipe was found in Pit 1.

Following a discussion with Andrew Davison it was agreed that Pits 2, 4 and 7 were worthy of further expansion and that pits 1, 3, 5 and 6 could be filled in.

It was agreed that the extra work in Pits 2, 4 and 7 could be done under the existing schedule consent with oversight from Greenlane Archaeology. Consent was given for the disposal of surplus spoil off-site.

It was also agreed that the floor level under the furnace stack could be lowered to make access easier subject to a future scheduled consent application

David Robson
Secretary – Newland Furnace Trust

Coniston Copper Mines – Collapse in Flemings Level

Reports during summer of 2015 suggested that a serious collapse had recently occurred in Flemings Mine, rendering a major section of the working inaccessible from Flemings Portal. This was later confirmed during a visit to assess the situation. Anyone familiar with this working will recall that from the portal, a right turn arrives at a point where the false floor of the level has collapsed. A short rope pitch leads to a scramble down a large boulder pile; the result of the hanging wall peeling off, to a point where faulting shifts the vein to the left, necessitating a low crawl to regain the vein. Here, tiers of false flooring and stacked deads are visible above (photo 1.) It is here that the collapse has occurred, totally blocking the approach down to the head of the second rope pitch, known as the 'Narrow Stope'.

Photo 1. Looking towards Narrow Stope prior to recent collapses

Photo 2 First collapse looking inbye.

The collapse was unfortunate, but maybe it was possible to avoid the blockage by another route, one that would climb back up onto the continuation of Flemings Level and subsequently descend back down at some point beyond the blockage. We knew Flemings Level was (mostly) intact inbye, having bolted & safety-lined it from Thriddle Shaft a number of years previously.

Some ingenuity was required to gain the inbye continuation of Flemings Level to arrive at a point first reached by maypoling in the early days of CATMHS and documented in Newsletter No.2. Almost immediately, a floor collapse was encountered (Photo 2). Nearly the whole width of the level had gone for a distance of about 3 to 4 ft. the edges of which appeared very loose and dangerous. It is not apparent what had caused the floor collapse and no stacked deads appeared to have fallen down from above. (The debris pile visible in photo 2 was there prior to the hole appearing). Probably just ancient timbers drying and shrinking. After bolts & safety line were installed, the hole was negotiated and a short climb up onto the debris pile offered some security. However looking ahead, we were greeted with a scene of alarming devastation. A large flake weighing many tons appeared to have peeled off the footwall, taking out a large section of the false floor and wedging itself firmly in the stope, about 10ft below (Photo 3). The edges of this second

Photo 4 Top of Big Flake looking outbye

hole were very insecure, large blocks rocked alarmingly when stood upon. It was with some difficulty that bolts and safety-line was installed, but once in place, the wedged flake offered a solid, secure stance.

Photo 5 Third Floor Collapse

Photo 6 Site of Third hole before collapse

Regaining the remaining level after the second hole, we were greeted with yet another floor collapse (Photo 5, Photo 6 prior to the collapse). This third hole was by far the longest and most difficult to bolt & line, there being very little left of the floor upon which to stand. Looking back to the false floor section between holes 2 & 3, the floor at that point is a mere few inches in thickness and many of the supporting stemples appear to have dropped away. This area of Flemings Level has deteriorated alarmingly in the previous few years. Having negotiated the three new voids, we arrived at a point where the false floor had long ago fallen (see photo 7). Only a short section of existing floor inbye separates this area from the Thriddle Shaft. Below this point the stope widens enormously, and a descent here, it was hoped, would provide a route back to the head of the Narrow Stope Pitch.

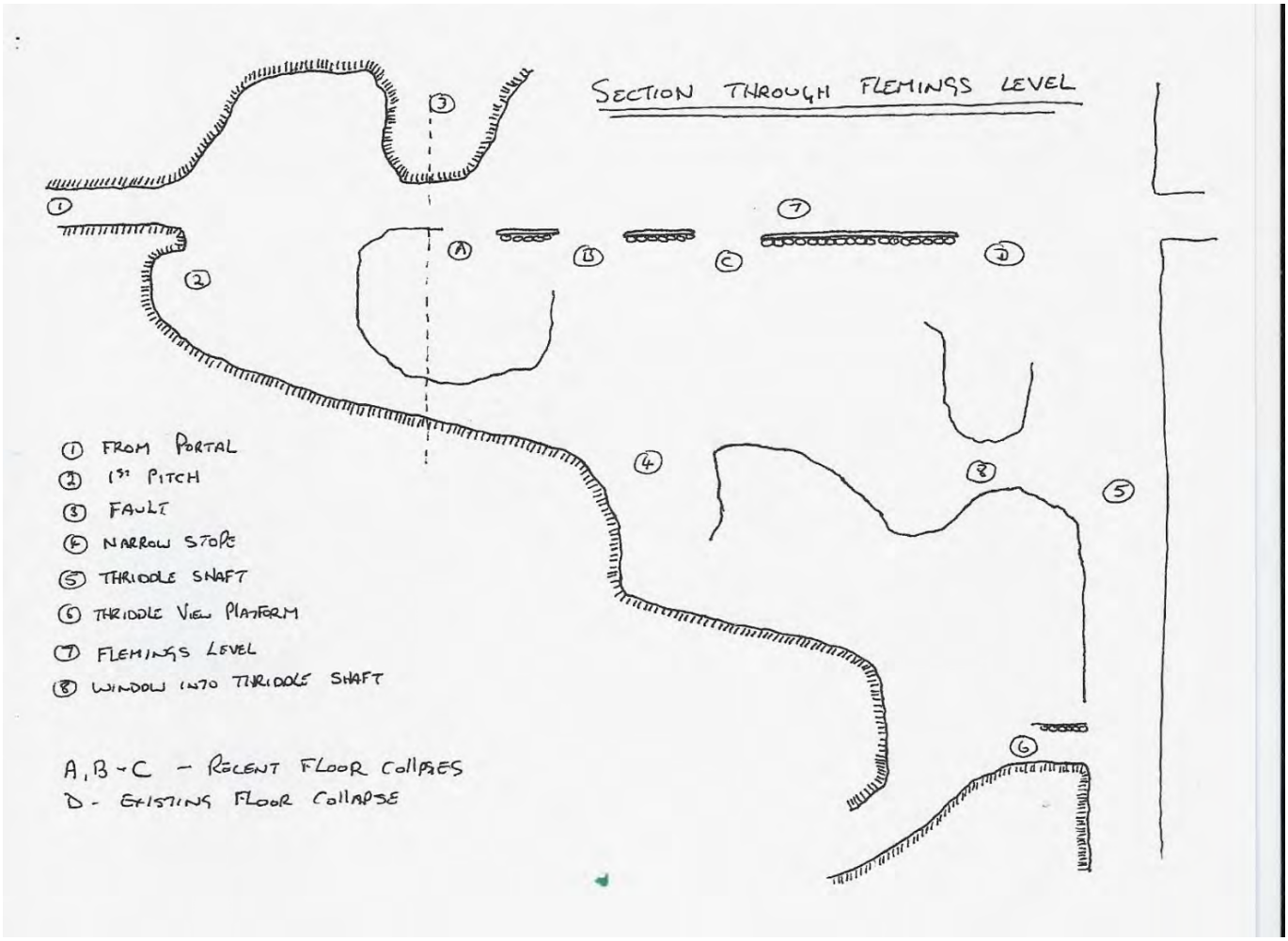
Photo 7 Missing floor very close to Thriddle Shaft

Upon descending the stope and arriving on a pile of fallen debris at its base, inbye led to a 'window' offering a remarkable view into the Thriddle Shaft. Outbye led back to the head of the Narrow Stope. However, all there was to be seen was a huge slope of fallen material stretching way up into the stope above. Here, at the inbye side of the collapse it was apparent just what an enormous quantity of debris had come down. There was not a sign of the Narrow Stope pitch, now buried beneath countless tons of fall material.

To access the inner reaches of Taylors Level via Flemings Level may now only be possible with a partial descent of Thriddle Shaft.

To Be continued…

Tony Holland
Roger Ramsden

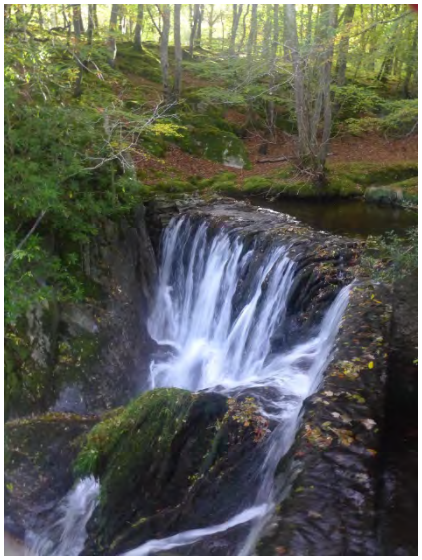


Section Through Flemings Level

Dyfi Furnace, 21st October

Present: Alan and Meriel Postlethwaite, David and Janet Penglington, John and Owen Bate, Mark Waite, Peter Sandbach, Dave Robson, Kate Roberts, tour guide.

Dyfi furnace is a charcoal fired blast furnace built in 1755 by Ralph Vernon and the Kendall family. It was operated by the Kendalls until it closed about 1800. It was then used as a woollen mill and later as a saw mill. The charging house is now a summer roost for horseshoe bats and visits are only possible after the bats move to their winter quarters in October. The site has been stabilised by CADW with a new roof and re-instatement of the stack. The top of the stack had been cut down after closure to allow a single slate roof to cover the whole building.



The dam and leat

At 30ft the waterwheel is about the same size as the last wheel at Newland but mounted higher on the building. This is possible because the furnace is situated close to a waterfall, allowing a much larger head. The position relative to the stream would also explain why the layout of the site is a mirror image of Newland or Duddon.

The most striking difference between the furnaces is that where the blowing arch and taphole entrance at Newland are corbelled and Duddon has stone arches, Dyfi found an artist in brick.
In this picture the first arch is the taphole entrance. The second arch leads to the blowing chamber and is equivalent to the arch connecting Newland to next doors garage. The third arch corresponds to the narrow walkway at the back of Newland blowing chamber. It is described in the Dyfi

brochure as the counterweight room. As there are unexplained pillars in the same place at Newland, it seems that they served the same purpose.

Note also the circular brick windows on the charging floor. The ceiling of the blowing chamber is a vaulted brick arch in the style popular on the railways 100 years later and supports a stone slabbed floor in the charging house. In the background there is a fireplace in the wall but it is not known whether this was workers houses or offices.

Amazingly the hearth has survived and it looks nothing like what I was led to expect.
The wall behind is the outer lining, the inner firebrick lining having been stripped out from top to bottom at a time when the stack was used as a root vegetable store.

The hearth viewed through the blowing arch.

The alcove in the taphole entrance is of interest. If the ones at Newland are at the same height relative to the hearth, we may not expect to find any remains in the proposed dig.

Looking from the charge house into the stack. With the firebrick lining removed there is no indication how wide or how high the tunnel head might have been. A camera left here in summer might make a great wildlife film.

The charge house

As at Newland heat damage and decaying lime mortar left the stonework in a crumbling condition. Dyfi furnace has been repointed but still shows the scars from use. This painting was made in 1804 and shows a crack that is still visible after repairs.

There is some evidence in the Backbarrow ledgers of ore being shipped from Ulverston to Dyfi:

Henry Kendall Esqr's exors & Co Dr to Whitriggs iron ore £34 9s for 60 tons customary weight dd them at Dovey in 1787 as per acct rendered to 10 May 1788 viz:

Apr 18 1787 by the Industry, Thomas Daniel 31t at 11/- ton put on board at Conishead £17 5s

May 26 1787 by the Bridget, Will^{m} Richard 29t at 12/- ton put on board at Barrow £17 8s
Henry Kendall Esqr's exors & Co Dr to Stenton iron ore £34 15s 6d for 53t 10 cwt customary wt dd them at Dovey ye 17th Oct 1787 by the Three Cousins, Jacob Rees as per acct rendered

10th May 1788. 13/- ton put on board at Barrow.
Gaskell & Bell Dr to Stenton Iron Ore £31 17s for 49 ton customary weight delivered them at Dovey by the Lark, David James master 21st August 1900 @ 13/- a ton put on board at Barrow.

With thanks to Kate Roberts for showing us the non-public areas of the furnace and to Dave Robson for taking the photos.

All photos by D Robson, except the first, which was taken by Kate Roberts.

Peter Sandbach.

Ystrad Einion, 21st October

Present: David and Janet Penglington, John and Owen Bate, Mark Waite, Dave Robson, Peter Sandbach, ML

This mine may have been worked intermittently for 200 years or more but the major developments took place after 1871 when Adam Mason, a Lancaster man, invested £3000 in the site. Dave and I explored the first adit on a reconnaissance visit on the Thursday and found it long, wet and stoopy, ending in a small stope. We also visited the main drainage level but declined to cross a walkway over a flooded stope, Dave having fallen through a similar one quite recently where he was saved by being clipped on to the handline. Here there was no handline. *Photo D. Robson*

The following day the party spent a considerable time examining the underground waterwheel. Nearly all the pumping and winding machinery is still in place, the scrap men having only got as far as taking the bearings. All that is missing is the clutch mechanism for the winding drum and timber supports to a pulley wheel which supported the chain linkage between the crank and the pumps.

The underground waterwheel in the main drainage level. Photo P Sandbach

A few yards away is the flooded winze, 25M deep.

Dave and Mark went on to explore the inner reaches of the mine while I went round the surface remains with the rest of the party. These are on a steep slope with the crusher house making an imposing feature in the centre. Below this is the site of the jiggers and below that two circular buddles, 20 Ft diameter. Off in the woods there is a circular magazine and an elaborate system of settling ponds. There are three wheelpits, one for pumping and winding at the new engine shaft, one for the crushers and one for the jiggers and buddles. At the top of the slope is the new engine shaft, 60M deep, now covered with a steel framework. We spent some time here looking at the layout of the mine and listening to Dave and Mark passing far below us. It turned out that although they could be heard for a long time they were still on their way in at that stage and we had returned to the cars and got changed before they emerged from the mine.

COUNTY OF CARDIGAN.

COPPER MINING ESTATE,

CONSISTING OF A

Freehold Farm, Sheepwalks, Mines, Mining Plant, and Machinery, situate and known as

YSTRAD EINION, AND CWM EINION,

In the township of Ysgyborycoed, near Glandovey, in the County of Cardigan, to be Sold by Auction by

MESSRS DANIEL, SON, & MEREDITH, at their Sale Rooms, Queen's Road, Aberystwyth,

ON WEDNESDAY, 20TH JUNE, 1900,

At 3 p.m., subject to conditions to be then produced.

The property contains about 406a 2r 33p, with the Mines and Mineral Substances therein and thereunder and the Mineral Substances within and under two plots of land adjoining, containing about 363 acres held for a term of 21 years from 29th September, 1887, at a nominal rent; and also the Vendors' rights in gold and silver ores and rights of pre-emption of minerals respectively comprised in two Crown Leases dated the 22nd March, 1890.

The Original Leases may be inspected at the Offices of the Auctioneers at any time prior to the Sale.

Printed Particulars and Conditions of Sale with Plans of the Estate and all information may be obtained of the Auctioneers, Aberystwyth; Capt. Williams, Tre'eddol, Glandovey, R.S.O., Cardiganshire; and of Wilmot Hodge, Solicitor, Southport.

Mr Mason saw little return for his money. In 1891 the mine produced 5 tons of silver bearing lead (value £37), 10 tons of zinc ore (value £15) and 5 tons of copper ore (value £7). It employed 9 men and 2 boys in that year but closed in 1903. Another source gives the entire production since 1845 as 9 tons of lead ore, 79 oz of silver from 4 tons of lead ore, 10 tons of zinc ore and 45 tons of copper ore. If that were so there would be far more metal put into the mine than ever came out.

Work started in 1993 to consolidate the building remains and to open the mine to mine explorers. The interpretation of the site included the production of an animated film describing the operation of the mine which can be viewed here: https://www.youtube.com/watch?v=IrCdiPen6A0 The work was paid for by the Welsh government and the EEC and was very much appreciated on our visit.

Sale notice: Montgomery County Times & Shropshire & Mid-Wales Advertiser - 9 June 1900

References

www.coflein.gov.uk/en/site/33908/details/ystrad-einion-lead-silver-zinc-and-copper-mine
Coflein is the online database of the Royal Commission on the Ancient and Historic monuments of Wales

Aberllefenni Walk, 22nd Oct

Attendees:
Andrew Hurrell (PDMHS), Peter Sandbach, Dave Robson, David Penglington (CIHS), Janet Penglington (CIHS), Jon Knowles (ML)

A cool but dry start saw the group on a circular tour of Aberllefenni, its Quarries, and other features of interest.

Starting at the National Resources Wales (formerly the Forestry Commission) car park just south of the village, the walk went via the main village mill, which dates from circa. 1850. It is still in use and even has half of its original water wheels, since, when the floor was concreted, these were simply cut down to floor level and plated over. The village remains interesting since almost every building was associated with the quarry and the majority of the houses are still owned by the company which operated the quarry from 1956 to April 2016. Although the quarry has been sold, a group of 16 houses and land remain on the market with an asking price of £1.5 million. The next point of interest was the quarry office which has been restored as a "weekend retreat", but externally it is in excellent condition with the original pattern of slating and bell being re-instated. Moving on to Hen Gloddfa Floor 6, the quarry workings were explained in detail together with the nature of the narrow vein and the water balance incline was inspected.

Leaving the main site via the terrace of cottages known as “Bluemaris”, the expensive 6km long road which climbs 325m on route to the top of Hen Gloddfa and Ceunant Ddu, installed in a largely abortive attempt to un-top the older workings, was seen. The valley road was followed up the Llefenni valley to see the remains of the Cambergi Mill and its workings on the skyline. The limited extraction here proving that the narrow vein on which most of the workings in the Corris area are situated being superior to the Broad Vein, exploited only at Cambergi and Abercwmeiddaw.

Returning down the valley to the main Aberllefenni Quarry at Foel Grochan the inclines and other features were seen together with the rails which run out of floor 8 remain in the road.

Water balance incline Photo Dave Robson

It always amazes the author that whilst the quarry bought the last new locomotive to be used in the slate industry in 1974; it only bought its first locomotive in 1956 and this was 8 years after the railway, to which it had been connected for nearly 100 years, had been closed. The group then returned to the village before taking the track to Cwm Ratgoed. It was interesting to note that the conifers have been clear felled below the track in Cwm Ratgoed improving the views, although they remain above it. The Aberllefenni workings pass right through the hill and where they emerge a red derrick crane manufactured by Rushworth of Colne exists in situ above a deep chamber; it being a remnant of a pillar robing operation which saw blocks latterly being transported by road around the hill rather than through it.

Level 5 was entered although there was some remonstrating with the guide regarding the depth of the water since when questioned at the start of the walk he had said walking boots were fine and that wellies were not needed. When it was pointed out that most of the party had wet feet he was heard to reply that people had not run through the water quickly enough since his feet were dry. The full accessible length of Floor 5 was seen together with the numerous remnants of cranes. All were impressed by the verticality of the workings.

Once back outside the majority of the party ascended to Floor 4 to see the remains of an ex. marine steam winch, latterly powered by compressed air.

Jon Knowles

Borrowdale Mines Tour
Report and pictures taken from Facebook

The CAT meet in Borrowdale on 30th October was blessed with a good turnout of fifteen members, beautiful weather and an interesting selection of mines to explore. Most of the time was spent in Copperplate, with a walk through Manesty to Brundleholme and Old Brandley to round the day off. Thanks to everyone who came along and hope you all enjoyed it.

PARYS AND MONA MINE TRIPS 12th & 13th November 2016

Parys, Saturday 12TH November 2016
Mark Waite (ML) John Aird, Mark Hatton, Dave Donkin, Mike Oddie.

After much organization, the Anglesey weekend meet was finally upon us. We all met punctually on the 12th, on top of Parys Mountain which is normally a very wet and windy place. However, luckily, the weather was on our side with dry and warm conditions. "What? In November!", I asked myself....

To call myself the meet leader would be unfair and unjustified due to the fact that the Parys Underground Group had offered to take us exploring. We had two guides arranged for each day, and they met us as planned, with warm welcomes and friendly smiles. Before we ventured underground we were shown the giant opencast pit, and also roughly where we would be underground in relation to the surface. Many capped shafts were pointed out, and we would have the chance to look up some later in the trip. (As if that was not enough to whet the appetite!)

Now was the time to kit up. Cowstails and hand jammers were advised, paperwork sorted and tags given out, and we were ready for the off. It is worth pointing out at this stage that the site is privately owned by Anglesey mining PLC. Parys Underground Group are the only society that have negotiated a favourable agreement to enter the site, to do much research and conservation work, bearing in mind that this is one of the most important copper extraction mines in Wales.

Entering Parys via a fine hut built over an old footway going down, now with a few modern concrete steps, you soon reach the bronze-age workings. This is now entwined with more modern methods of extraction, but it is hard to distinguish the two. A full explanation of artifacts and methods of extraction was given as we fully explored most levels and stopes which are full of mineralisation.

Making our way down through the thirty fathom complex, our aim was to see the giraffe stope on forty- five fathom. The route is hard to navigate, so having our guides proved to be invaluable. At one stage even they lost their bearings, which all added to the experience! Once giraffe stope was found, a short lunch stop was taken, whilst some took photographs.

Our final box to tick was to see the rare wheelbarrow, which has only been discovered in recent times. Off we set and en-route it became clear that one member was struggling with severe toothache, so he decided to sit it out at a planned junction and wait for our return.

The rest of us carried on and it soon became a real expedition, with climbs, crawls and a tight squeeze up a stope using rope, jammers, and sheer brute force. This slowed progress down, and whilst waiting at the bottom of the final pitch to the wheelbarrow, one member decided to not go any further, and also waited for our return. The final three members, along with the two guides, reached the top of the pitch and were rewarded with one of the best examples of an early wheelbarrow, totally intact.

At this point I noticed an element of sweat and exhaustion on the face of one member. Due to this, and the fact that two other members were still waiting, we retraced our steps as quickly as was safely possible to reunite with them. After explaining what they had missed, (sorry guys!) it was time to surface. This didn't take too long, and we made it out just before sunset. Due to the group having different accommodation on opposite sides of the island, it was not practical for us to meet up in the evening, but I'm sure all were happy for a bath and a hot meal!

Mona, Sunday 13th November 2016
Mark Waite (ML) John Aird

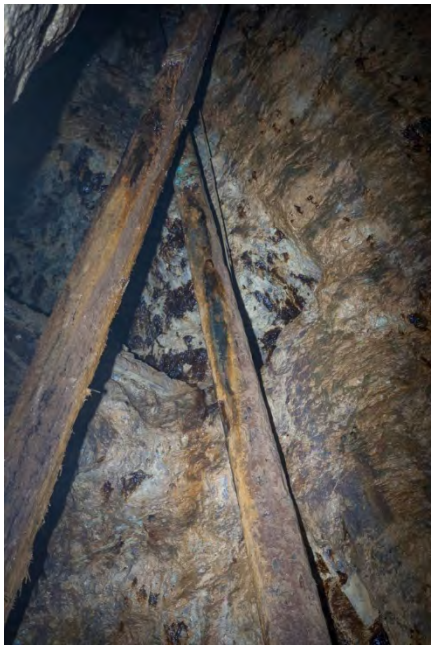
Sunday was to be another glorious day, and we were met by two different guides this time. However, things had drastically changed late on the Saturday evening. News came through

that three members would not be coming on Sunday's trip due to tooth problems, "being knackered" (quote), and the long journey home on Sunday night. The ratio of two guides to two explorers was a little embarrassing, but the reasons were explained and luckily they were still happy to take us. The plan was to explore Mona, and finish with the famous through trip from Mona to Parys via the drainage level.

We entered Mona via an old shaft that had been dug open by PUG, and which was now sealed with a hatch cover. The hatch is covered with rocks so as not to be seen by casual passers-by.

Now the numbers were down, it gave the group more options to have a real good look around. Once again much was seen, such as the balance-bob, and even more detailed information was relayed by our guides.

After viewing many shafts from the bottom, which had been pointed out on the surface the day before, we came across one with a very impressive set of pump rods that are still in situ.



The time had come to enter the drainage level and get very cold and wet, submerged in water that has got a pH level of 2. (We had been advised to wash our kit ASAP after the trip due to the high level)

We got lucky! Due to dry weather, what should have been a chest deep walk/swim, turned out to be just a quick dip.

Now, being wet, the plan had been to make our way straight out to the surface. However, en route we were given more options to explore, so we grabbed that with both hands, finally reaching the surface to, once again, find the sun just setting.

Thank you's were exchanged and a donation from the CAT members was given towards the fine work that PUG are continuously doing.

In summary, a great weekend with knowledgeable guides who made sure we saw the best that these fascinating mines have to offer. It's also nice to know that at least two of the older CAT members have still got it!!

Lots more information can be found about the site at www.parysmountain.co.uk

Mark Waite Photos John Aird.

Aerial Photography – underground

As has been reported in this and other newsletters Mike Mitchell and Mark Simpson have been developing techniques to photograph and record mine sites from above. First attempts were using a pole mounted camera, which is especially effective when surveying small sites such as buildings, and enables them to produce 3D models.

Both Mark and Mike have purchased quadricopters, which enables photographic recording of much larger sites, producing both still and video images of very high quality

Now they have tried flying underground, using the closehead in Tilberthwaite Penny Rigg adit for a first attempt. Results indicated that a different form of lighting is required – but watch this space!

PS. I understand that Mark Hatton has also acquired one of these machines. Perhaps we should become CATMHFS. (Cumbria Amenity Trust Mining History & Flying Society) Ed.

Visit by S2 Resources Ltd to Carrock and Greenside Mines, in one day.
Not sure how S2 Resources Ltd contacted Colin, but several of their staff, including four main board directors of the company, were looking at various mining sites in Britain and asked if they could be shown around Carrock and Greenside Mines.

From information on its web site, S2 Resources Ltd engage in the exploration of various mineral properties in Australia and Scandinavia. It explores for gold, nickel, silver, sulphide, copper, platinum, and zinc metals. The company owns 100% interests in the Polar Bear project that covers an area of 151 square kilometres; and the Norcott project, which covers an area of approximately 256 square kilometres, as well as has 80% joint venture interest in six exploration licenses covering 103 square kilometres located in Australia. In addition, it owns 1,306 square kilometres of exploration reservations in the central Lapland greenstone belt of Finland; and 271 square kilometres of exploration permits in the Skellefteå - Boliden district of northern Sweden. The company was incorporated in 2015 and is based in Scarborough, Australia. S2 Resources Ltd is a subsidiary of Sirius Resources NL.

So, on the 15th September 2016 at 8.00am, Colin and myself met the group at the gate to Carrock Mine and after a short talk on the history of the mine, we ventured into the Canadian level taking in all the various workings apart from the cross-cut to the Emerson vein. It was soon obvious that they were extremely experienced people and it was a pleasure to be in their company who took the time to explain the geology.

On exiting the mine, Colin produced tea, coffee and home-made cakes (made by Sharon) for our guests which they were very surprised at and it was all very civilised.
Once the frivolities were over with we made our way to Greenside Mine. On arrival, we gave a brief overview of the history of the mine using old photographs and plans which were used to explain where we were going to go.

Entering the Lucy Tongue Level we explored all of it to the shaft descending from the Alma Stope where we followed our footsteps back, but pausing to look at the huge stope above the Lucy Level just before Hicks Sump, which they were all very impressed with. The guests explained that they are unable to see this kind of stoping in-situ and as with Carrock, they were gaining so much knowledge from the visits, especially for the younger members.

S2 Resources Ltd at Smiths Shaft

On exiting the mine in sunny weather, we were thanked for a superb day and it very gratifying coming from people who were in the exploration business. This then led into discussions around producing 3D imagery of underground workings, which the company has offered to do for the society at no cost if we can provide good quality plans and sections. This was a very generous offer and is one the society has taken up.

This had been a very interesting day and our guests were superb, a lovely bunch of people who were also prepared to share their knowledge and expertise. We have provided a few of the societies publications to the company as a good will gesture for the 3D underground imagery.

Warren Allison

Vielle Montague conference at Nenthead

On the 6th and 7th August 2016. a celebration of the arrival in Nenthead 120 years ago, of the Vielle Montague Company (affectionally known as the VM) was held. It had been organised by the Alston Moor Historical Society with help from the Nenthead Gala Committee, Nenthead Village Hall Committee, Nenthead Primary School, Nenthead Chapel Project, the staff of Killhope Lead Mining Museum in County Durham and the people of Nenthead who worked hard to cut grass, put up international flag bunting all over and generally tidy up the village.

On Saturday, there was a conference which was opened by Jeff Rogers the current Chairman of the Alston Moor Historical Society who gave a general overview of the VM on Alston Moor. This was followed by a talk on the origins of the VM and in the world by Roger Baltus who works for the VM today in charge of Business Unit Building Communications and Public Relations.

Peter Jackson described the technical features of the VM on Alston Moor and was followed by Armando Angelucci the retired Honorary Italian Consul for the North of England, who has contacted the Pestarena Mining Society, in the Macugnaga village in the Alps where many of the Italian VM miners came from. Since the conference this has expanded into a whole new area of research which now includes the Italian miners who worked at Greenside Mine.

Daniel Sobanski, M.A. a freelance historian and part time guide at the LVR Industrial Museum of the Rhineland, housed in the former Altenburg Zinc Works at Oberhausen gave a presentation on ore processing and museums. This was followed by Jonathan Lowy the technical marketing manager of today's VMZINC in the UK, now part of UMICORE, based in Hertfordshire whose talk was on the VM since 1950.

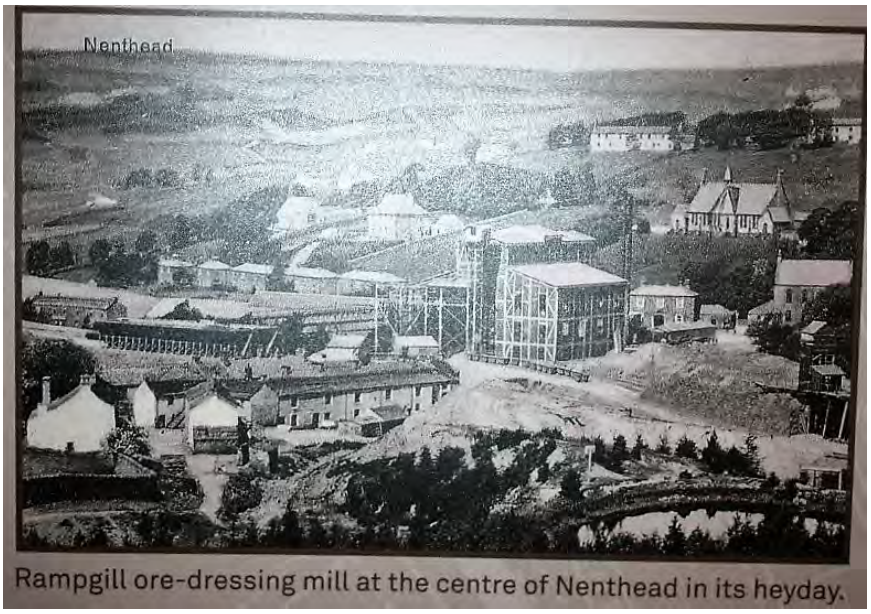
After the conference a plaque in memory of the VM was unveiled in the middle of the village by Claudia Eickhoff (left) & Sylvie Fabeck from Kelmis in Belgium, the birthplace of the VM in 1837.

At the conference were Mrs.Ida Bettoni, Mr Vincenzo Nanni and Riccardo Cerri from the Pestarena Mining Society and on speaking to Riccardo, I mentioned that Italian miners from North Italy also worked at Greenside Mine and that when the Italian prisoners of the Second World War arrived at the mine in 1943, it was thought the Italians from the First World War period could converse with them, but unfortunately the dialect was different as they were from opposite ends of the country.

After getting back home, I looked on the internet and in various books as to the names of the Italians at Greenside and armed with the information returned on Sunday and spoke to Riccardo. Mentioning that I had also contacted my 90-year-old Aunty who was born in Glenridding, asking if she could remember any of the Italians and one which stuck out was Geremia Voletti who she said 'was a proper Italian, married a Glenridding girl and had six daughters'.

On Sunday, there were trips underground at Carrs Level and down the Brewery Shaft, as well as a gala day held next to the primary school where there were exhibitions by the children and the VM.

Some of the work the children had done



One of the other displays on show

The gala was opened by Arthur Robertson, Peter Jackson, Mr Vincenzo Nanni, Mrs. Ida Bettoni, and Armando Angelucci

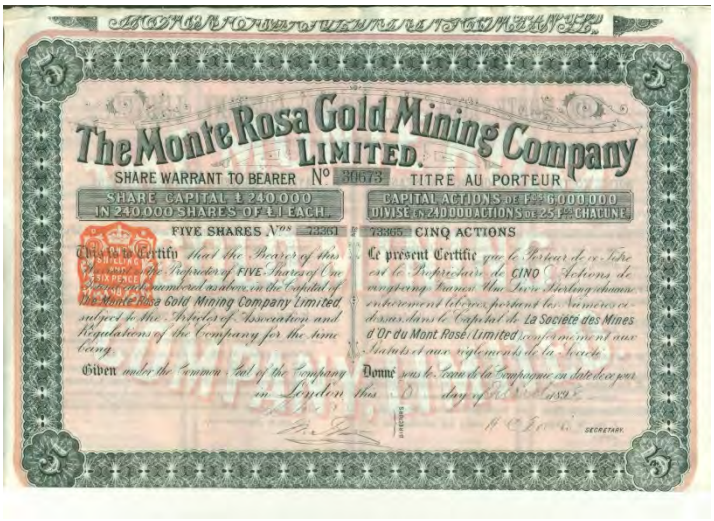
I had decided to go on the surface trip to Barney Craig Mine over the hill into Northumberland (which was worked by the VM and connected into Nenthead) on an old-fashioned bus and what a superb trip it was. Arriving at the mine Peter Wilkinson a well-known mining historian helped explain the site before making our way back to Nenthead.

Returning to Nenthead, I decided to go on the tourist trip to Carrs Mine and it was very enjoyable, especially as Rosemary Vidler who guided us round, was very good at explaining the history and the workings.

Mr Vincenzo Nanni and the bus at Barney Craig

After the weekend, looking on e-bay for items relating to Monta Rosa in Italy and a mining share came up for sale, which I purchased. It was written in English and Italian, so after scanning it and sending it to Riccardo, he confirmed it was from his area of Italy and was at a time that English Companies were taking an interest in mining in Northern Italy.

One of the villages in the Monta Rosa area is Macugnaga a small mountain village located in the Piedmont region of Italy in the province of Verbania-Cusio-Ossola. The village is located along the Anzasca valley in the Monte Rosa mountain range and is famous for its gold mine, which operated from 1710 to 1961 and was the first Gold mine in the Alps to be open to tourists and was also was Italy's first mining museum.


The Monte Rosa Gold Mining Company
LIMITED.
SHARE WARRANT TO BEARER No 30673 TITRE AU PORTEUR
SHARE CAPITAL £240,000
IN 240,000 SHARES OF £1 EACH.
CAPITAL ACTIONS DE F^cs 6,000,000
DIVISE EN 240,000 ACTIONS DE 25 F^cs CHACUNE.
FIVE SHARES N^os 22361 73805 CINQ ACTIONS
This is to Certify that the Bearer of this
is the Proprietor of FIVE Shares of One
Pound each numbered as above in the Capital of
The Monte Rosa Gold Mining Company Limited
subject to the Articles of Association and
Regulations of the Company for the time
being.
Given under the Common Seal of the Company
in London this day of 1892.
Le présent Certifie que le Porteur de ce Titre
est le Propriétaire de CINQ Actions de
vingt-cinq francs Une Livre Sterling chacune
entièrement libérées portant les Numéros ci-
dessus dans le Capital de La Société des Mines
d'Or du Mont Rosé Limited conformément aux
Statuts et aux règlements de la Société.
Donné sous le Sceau de la Compagnie en date de ce jour
SECRETARY.

This had been a very enjoyable weekend, fascinating in terms of the history of the VM, the miners who came from Italy and whose decedents still live in the area, why did they come and the link between Cumbria and Italy, one which has now expanded into a new area of research which is now becoming international and has resulted in numerous communications, which will be part of another article.

Warren Allison

Possible locations for the German Stamping Mill and Charles Roe's Mill at Coniston

In May 1620, the Company of Mines Royal was taken to court and found guilty for polluting the beck and land in Coniston from the detritus from the stamp mill at the mines. The site of the stamp mill has been previously put as being located near to the entrance to Flemings level in Red Dell. However, since the Time Team visit in August 2012, I have thought, for several reasons, that it could have been located below the entrance to Cobblers level.

We are not looking for waterwheel pits as Agricola shows the ones installed by the Germans were free standing- see the extract. Time Team uncovered a cobbled floor below Cobblers Level where the cobbles were placed vertically, which indicated that the floor was built to carry something heavy. At the same time, a stone lined leat was found coming into that area, but nothing was made of it. Recently while taking photographs for an article on the Coniston Project, I spent some time looking at the area below Cobblers level and found what could be the remains of a dam and the take off point for the leat, found some five years ago.

Cobbler's level is in the top left hand side of the photograph; the leat is in the wall directly below the level and the cobbled area is below the main wall in the middle of the photograph.

The take off point for the leat.

The other intriguing question is that the walling on the opposite side of the beck appears to have different styles of building. I wonder whether the section below Taylors Level was re-built when the level was driven to carry the tramway, and the front wall of the strange structure on the left of the photograph, which has been built up later, may have originally been a store for the ore ready for transportation to the smelter at Keswick.

It would seem logical that once Cobblers Level had been driven the ore would have come out of there; could a Rowle wagon as used at Silver Gill Mine, Grasmere Mine and Goldscope have been used? It seems improbable that once the level had reached the vein the German miners would have continued to lift and take the material to the previously proposed site at Flemings Level. (which could account for the mortar stones in that area used for dressing the ore)

I think that Charles Roe, who started to re-work the German workings in 1750, must have had a mill to process the ore before transporting it to the smelter and, as he built the waterwheel at Bonsor East Shaft for pumping and presumably winding, he could have built his mill at Flemings Level. It is in a location which has ample space for a mill, a good water supply and an area to dump the waste rock and importantly is nearly level with the top of the workings making it easy to transport any ore.

There appears to be three phases of working at the site; the first being the water leat coming off the beck and feeding the waterwheel for the mill, and this appears to be virtually intact for its whole length. The second phase is when Flemings Level was driven which cut through the leat as its tip is well below the top of the waterwheel. The third phase is when the original leat is re-used and the area around Flemings Level is converted into a stilling pond to feed the waterwheel at the New Engine Shaft.

It would be worth spending a day with several people to look over the sites and a survey carried out including elevations to gain a better understanding of both sites.

Warren Allison

Extracts from Dave Blundell's diaries.

These few extracts from Dave's extensive diaries describe the early years of the re-establishment of the Force Crag mill and mine. Reading the diaries day by day there were clearly bad times and good times but eventually Force Crag Mine was re-commissioned and started up again in production - as the Lake District's last ore mine.

27th August 1984. *"Company is to be called New Coledale Mining Ltd, registered office Oakfell Farm, Ravenstonedale. Company secretary is Pete Blezard. Directors are Pete Blezard, Anne Danson, Mick Sutcliffe and Lindsey Greenbank with 25% each. The last two of these are late of Cumbria Minerals Mining Company of Rogerley, Weardale where they are in the process of closing down for sale their sample- mine. If workable reserves of ore are proved, the idea is for Pete Blezard and Mick Sutcliffe to work full time at the mine, along with Ronnie Calvin starting off on a 3 day week to build it up."*

Over the next five years Dave's diaries describe the trials and tribulations of getting the underground areas cleared and repairs under way to the structure of the Force Crag mill and the machinery within it. There were long periods when little progress seemed to be made - but the team persevered.....

24th November 1985. *"Tried to empty down steel hopper beneath grizzley. Conveyor belt to jaw crusher extremely stubborn at first; reluctant to move after standing for 5 years. Main problems were at head of the line where the ratchet drive on the sprocket of the apron feeder cog kept missing which stopped the feeder and necessitated someone hanging on to it all the time....."*

The years passed, but during the first few weeks of 1989 the situation at long last started to improve significantly in both the mine and mill.....

19th March 1989. *"Anne present and everything seemed to go right. Anne and I spent the morning fixing the remaining buckets on the elevator and Anne greased up all the machinery ready for a production run which took place after lunch. Mike appeared very pleased with the results, pronouncing himself well pleased with the operation of the mill. Only a few small jobs need to be done before production can commence, probably towards the end of April, on a more regular basis. The zinc concentrate averages around 51% which is very satisfactory."*

16th April 1989. *".....next week ready for laying rails for 8-tub sidings in No. 1 stope in No. 1 level. Rails now extend from the portal of No. 1 level as far as ore hopper to mill but do not extend over as shortage of rail prevented this. Almost ready to go now."*

30th April 1989. *".....only a little more track-laying today over the ore hopper and beyond for a rake of tubs, and now all systems go with the mine producing zinc ore from 2 points and the mill turning out a saleable product"* !!

Prepared by Alastair Cameron

Another extract from Dave Blundell's diaries.

26th December 1981 *Wythburn Lead Mine. CAT Meet (A8)*
9 men dragging 2 x 40 gallon bottomless oil drums up Helvellyn through deep, frozen snow in a blizzard at 10am the day after Xmas!

A. McFadzean had dug out entrance to No. 1 level through frozen scree, hence oil drums to support entrance before thaw. Slithering through entrance under timbers to reveal level abandoned in 1880 when Manchester Corporation Water took over Thirlmere.
Level c.200 yards long, driven on vein, shaft in mid-point; c. 200' deep down to No. 2 level. Future possibility for exploration. Underground 1.30 – 3.30pm.

Guess it would be dark when they finally got back to the cars. Men were men in those days!!
Alastair Cameron

Editor's Note:
There is a full report of this event by Alen McFadzean in CAT Newsletter No 2. You can find it on our website, www.catmhs.org.uk; Resources, Past Newsletters, Newsletter 002 1982. IM

Photos by Peter Fleming

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

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