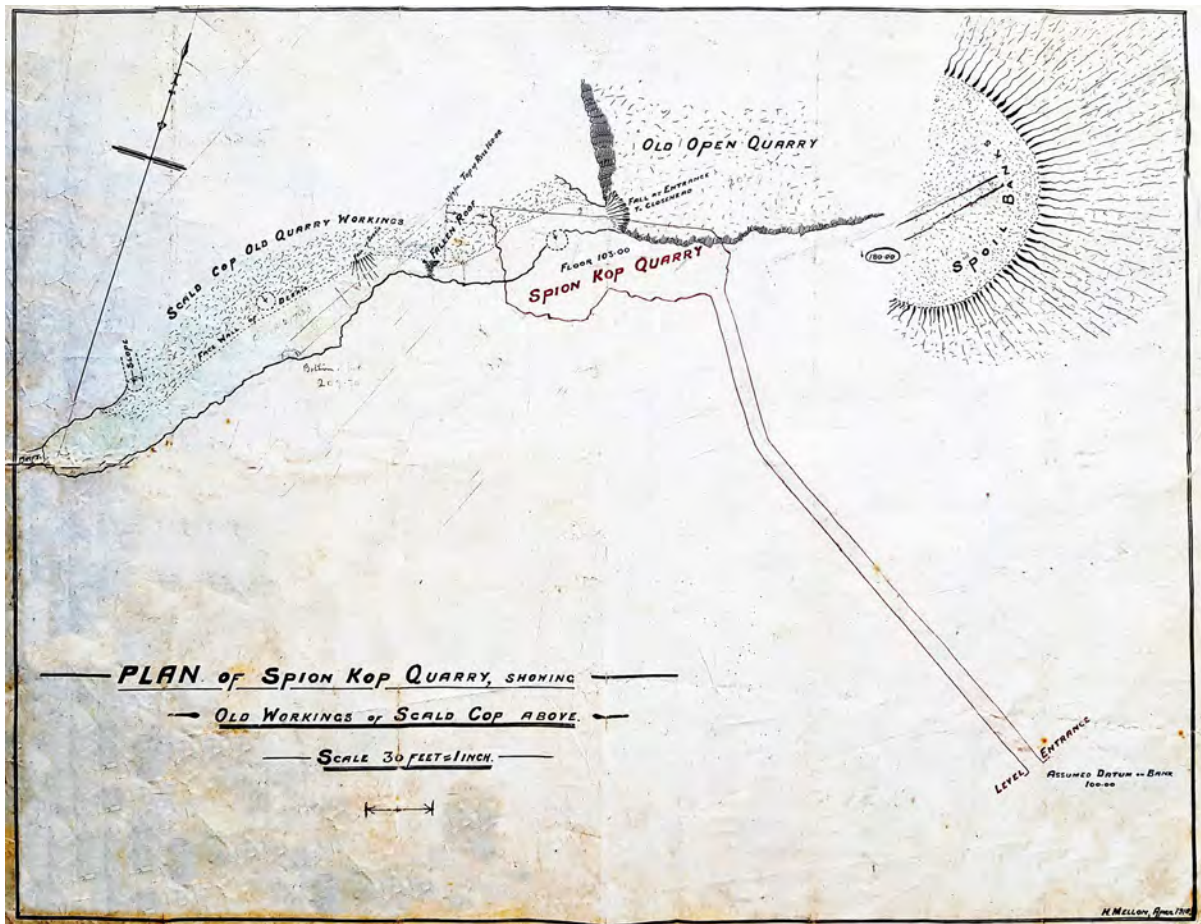


# CAT

The Newsletter of the Cumbria Amenity Trust  
Mining History Society

---



Henry Mellon plan of Coniston Old Man slate quarries circa 1910



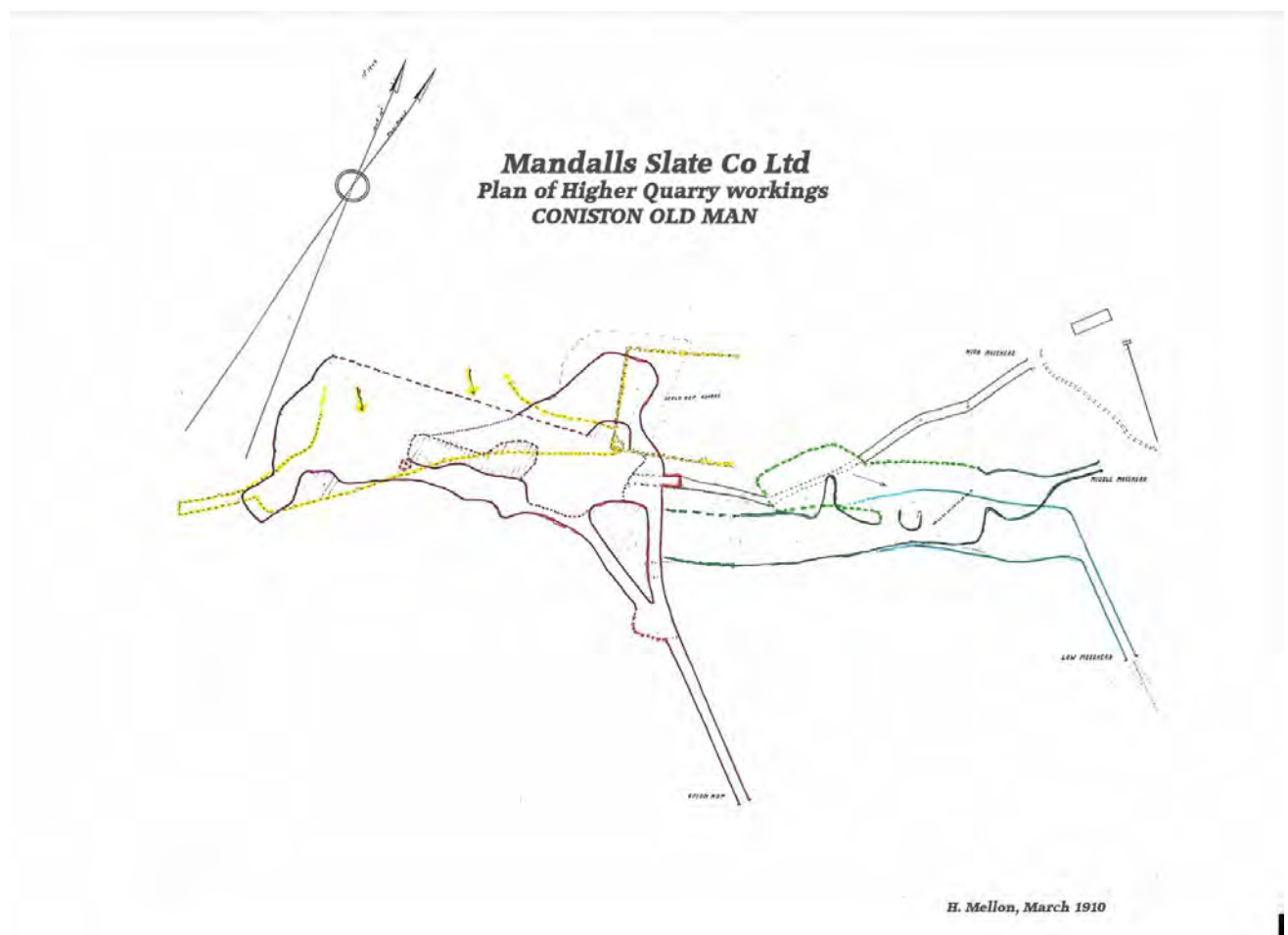
### Cover picture – Henry Mellon

Many members of CATMHS will have heard of Henry Mellon, a surveyor and illustrator specialising in surveying mining and quarrying sites in the north west of England in the latter part of the 19th and early 20th centuries. He was particularly renowned for the accuracy and thoroughness of his work and many of the sites he surveyed are known to us today, especially in the Coniston and Tilberthwaite areas.

In 2005 the Burlington Company decided to close down the offices at the Elterwater site and Alastair Cameron was offered a number of Mellon surveys from the early 20th C which had been stored there. He readily accepted. They needed proper storage so he constructed a unit in his loft at home which would safely hold the individual plans horizontally on flat surfaces.

The recent Covid issue created spare time which meant that he was able to check the plans and photograph some which are of current interest. All of these are of sites that are on Coniston Old Man.

One of the plans, of Saddlestone quarries, was used in the last issue to illustrate Alastair's report on the Old Man Quarries project and another, which shows the development of Scald Cop with Spion Kop beneath, has been used on the cover of this newsletter. The plan below shows the Saddlestone Level. This was still being worked in living memory and will now be much more extensive than it was in 1910.



### **New members**

Welcome to: Alan Brentall, from High Peak, Derbyshire  
Carolina Goodship, from Kirkby Lonsdale  
Helen James, from Portinscale, near Keswick  
Stuart Shuttleworth, from Ambleside  
Ian Green, from Ulverston  
Thomas Ferry, from Hargrave, Northamptonshire  
John P Hughes, from Porthmadog

### **CATMHS Committee**

Due to Covid-19 the CATMHS committee has been unable to hold meetings as usual, but essential business has been conducted by email. A virtual meeting was held by Zoom on 24<sup>th</sup> May. Lorraine Crisp has recently joined the committee.

### **CATMHS AGM & Dinner**

The 2021 AGM & Dinner has been arranged for Saturday 11<sup>th</sup> December at Rydal Hall. You should find a booking form enclosed with this newsletter.

### **Dalemain Estate – Carrock Mine**

When Carrock Mine ceased operation the site was landscaped and the entrance to No. 1 Level was filled in. Over time this infill caused silt to build up inside the mine bringing the risk of eventual blockage and flooding.

In May 2011, with permission from Dalemain Estates, CATMHS started a project to dig out and restore the entrance. The LDNPA and English Heritage were involved. The Environment Agency was the principal regulator; who gave CATMHS clear guidance on environmental care for the project. Since the site was a SSSI a condition of the agreement from English Heritage was that we provided a secure entrance gate and carried out a three year maintenance plan of the site. The project was completed in October 2011.

Since its completion the gate has suffered considerable abuse with the locking mechanism cut and battered, despite being readily capable of opening with a 17mm Hex Key like many caving situations. CATMHS have repaired the locking mechanism several times with a full mechanism replacement recently.

Dalemain Estates had expressed their concerns over access to the mine as they are required to satisfy their Insurance Brokers about who “controlled” access. CATMHS sought an understanding but at that time were unable to comply with the implications of their terms. The casual arrangement thus lapsed for several years.

Recently the secretary was contacted by George McCosh with a view to starting communications again. A meeting was held between John Brown and Colin Woollard for CATMHS and George and Robert Hazel McCosh together with Jo Edwards, their PFK Land Agent, to look for a way forward. This meeting was very constructive and those present came to an understanding in principle whereby a less formal agreement would be drafted for us to consider. The Estate would like this to include a simple annual note which summarises the access made by CATMHS and any advice on mine conditions etc. CATMHS green and orange Insurance cards were explained and our BCA scheme was likened to the shooting scheme they operate and understand. It was recognised that CATMHS cannot take on liability from the

Estate but that we are willing to assist in mining matters and conditions noted on CATMHS meets etc.

Visits to the mine outwith formal CATMHS arrangements or the Estate's knowledge or authorisation are still an issue. It was agreed that we would ensure that we do not inadvertently allow or encourage other organisations to visit without the Estate's agreement. We would however consider assisting the Estate by guiding any of their approved visitors; similar to how we support the LDNPA at places like Greenside.

To help the Estate put the situation to their Insurers, CATMHS have provided a detailed dossier on our insurance and meet procedures etc. and we now await perusal of their draft agreement in due course. We have been asked by Dalemain to guide the tenant farmer around later in the year after haymaking and shearing.

#### **CATMHS publications:**

##### **The Mine Explorer, CATMHS Journal Vol.7.**

CATMHS Journal No.7 was launched in the last newsletter with a view to publishing it later next year. Sufficient articles have been offered or commissioned to make it a viable proposition, providing that everyone who has agreed fulfils their commitment. There is still time and space for more articles, so anyone else willing to contribute would be appreciated. [imatheson007@btinternet.com](mailto:imatheson007@btinternet.com)

##### **Red Earth Revisited.**

The first one hundred copies have sold out and an additional thirty reprints have been ordered for delivery around 20th July. So far there have been expressions of interest for twenty five of those, although not all may turn into sales.

##### **CATMHS, the First Forty Years.**

To celebrate CATMHS 40<sup>th</sup> anniversary in 2019, a history was produced, 'CATMHS, the First 40 Years'. Two hundred copies were printed, most of which were issued to members who were current at the time and the remainder were offered for sale. There has been a small but steady demand, and there are now only five copies left.

#### **Forthcoming meets:**

SUNDAY, 8 AUGUST 2021

Williamson Tunnels. Liverpool

SATURDAY, 21 AUGUST 2021

Florence Mine - survey, preservation & tour day

Bob Mayow and Gilbert Findlinson continue their work to preserve Florence Mine.

SUNDAY, 12 SEPTEMBER 2021

Kirby Steven Lead and Copper Mines

A surface walk exploring the seldom visited Lead and Copper mines of the area.

SUNDAY, 10 OCTOBER 2021

Prominent Coal Mine Features in the Kells Area of Whitehaven

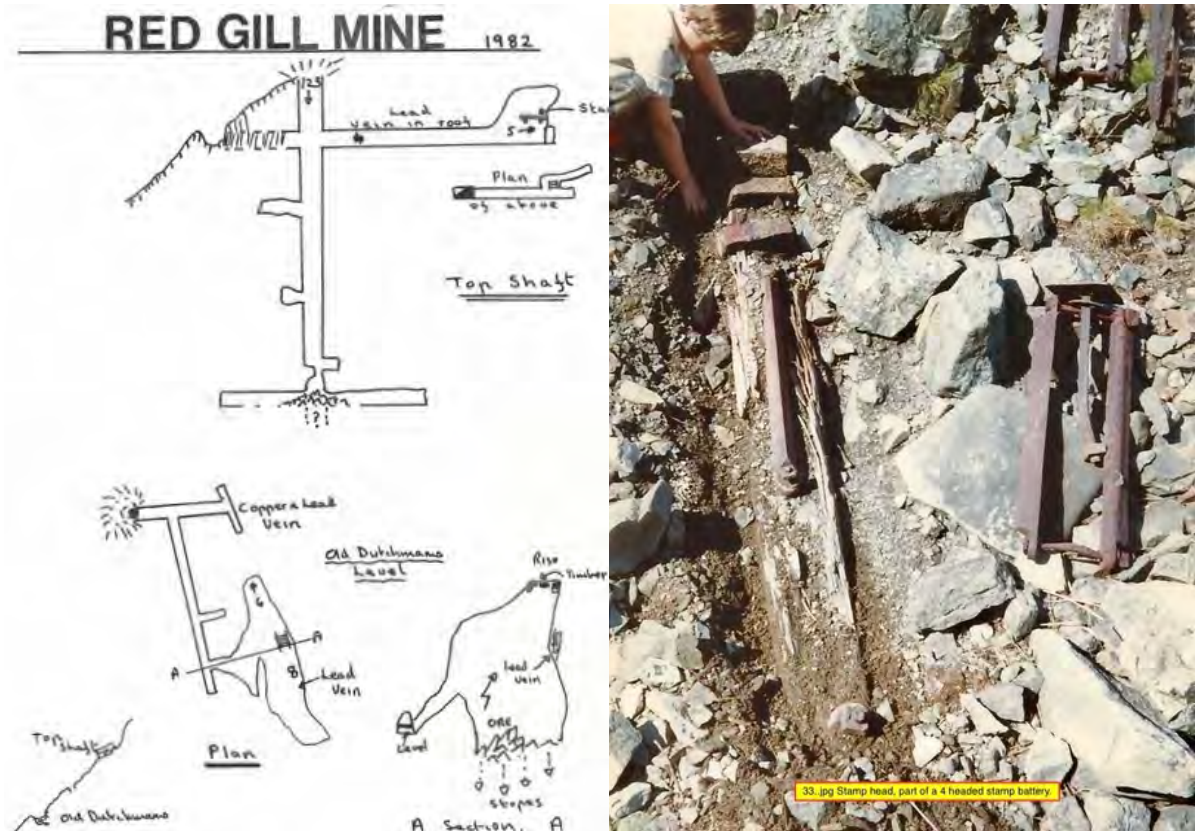
Kevin Timmins has offered to lead a surface walk of the prominent mines and features of Whitehaven's Kells Isle. This will not include Haig Pit other than in reference.



## Brae Fell Mine

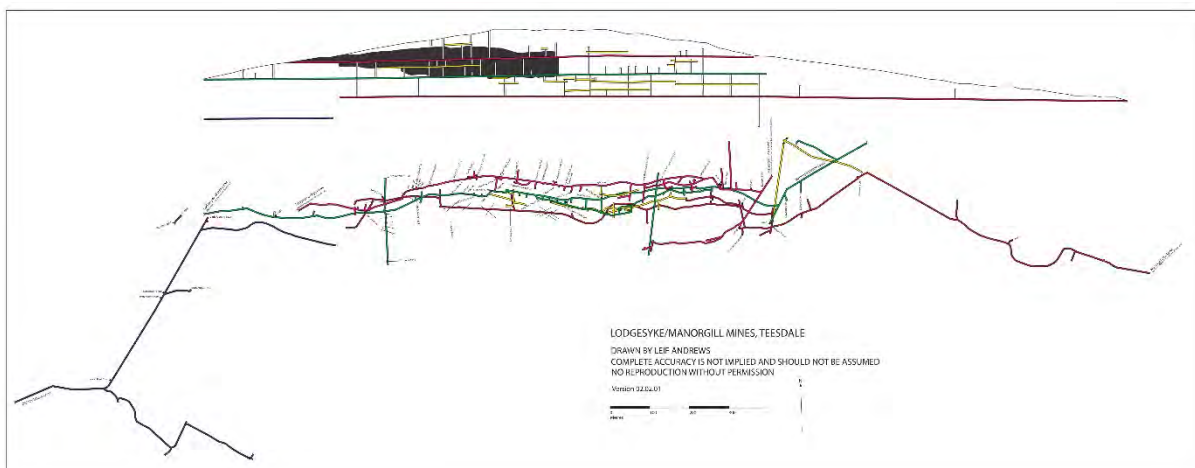
Having just read the Brae Fell section of the May newsletter, I remember in the 1970's uncovering what appeared to be a cast iron base for a winch (I think). Quite large and heavy. I thought it was used as a bucking table. Unfortunately I have lost the photo of it. So as a consolation prize, I enclose a photo of part of the stamps at Red Gill in 1982!! And a plan/section taken at the same time.

Richard Hewer.



## Mine plans

Leif Andrews has made available another of his carefully drawn mine plans interpreted from Dunham. This one is of Lodgesyke/Monorgill mines, in Teesdale. If you would like a pdf copy then email [membership@catmhs.org.uk](mailto:membership@catmhs.org.uk)



## NAMHO CONFERENCE 2021 LECTURES

At this year's conference part of the theme was on digging underground, and I offered to do a lecture on the thirty years of the CATMHS digging team. I intended to go and present the talk in person but in the last week with Covid restrictions not fully lifted and having a huge backlog at work to clear I did not want to take the chance of getting "pinged" and having to isolate so I did it by Zoom.

Unfortunately, I missed Mark Hatton's lecture on Coniston Copper Mines, but did manage to see the one by Martin Downing in between ours. He described the work that Wardell Armstrong has done over the years and continues to do at places like the Milwir Tunnel near Halkyn in North Wales which includes underground workings. Apparently, he was so impressed with the work that the Society has done he wants to have a talk about it.

In my talk I did not have time to detail every dig but started off with mentioning Ding Dong and Whittriggs Mines before going on to the formation of the digging team in 1992 with the reopening of the Lucy Tongue entrance at Greenside Mine, followed by rebuilding the entrance to Middleclough Mine at Nenthead, reopening Hudgill Burn Mine near Alston, Silver Gill Mine at Caldbeck although the initial dig was done separate to CATMHS, Kernal Crag, re-opening the entrance to Carrock Mine and finishing off with the seven year dig at Tilberthwaite Horse Crag Level which Pete Fleming said "would be a good fill in project between others".

I finished off with the possible re-opening of No3 level at Force Crag Mine and the work of the Mines Forum over twenty plus years, which includes organisations when required such as The Lake District National Park Authority, National Trust, Environment Agency, Historic England, Coal Authority, Natural England, as well as the involvement of the landowners such as Rydal Estates and Dalmain Estates, etc. Much of what CATMHS has achieved in its digs would not have happened without the involvement of these various organisations and the relationship the Society built up over those many years, which continues today.

However, none this would have happened without Pete Blezard, who was a mining engineer by profession and said at Greenside when we were digging the third fall, which required proper mining techniques, "if you don't do it my way, we won't be doing it".

Below are a few of the photographs from the lecture.



*Pete Blezard*



*Breakthrough to Smiths Shaft December 1996*



Dig on the third fourth fall at Greenside Mine:



*John Brown on the sledgehammer  
Pete holding the scaffolding tube*

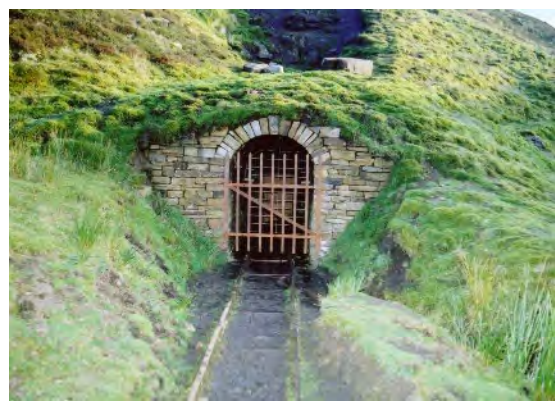


*John Brown mucking out*

Middleclough Level, Nenthead:



*Colin and Andrew Woollard  
removing the overburden*



*Entrance rebuilt with original gate*



*Carrock Mine entrance just after closure*



*Day one of the dig*





*Project completed*



*Slate Close head in Tilberthwaite Horse Crag Level used a dump for the spoil from the first fall- before and after.*



*Second fall cleared*

*Building the pack wall to get rid of the debris*



*Memorial to Pete installed by the digging team in Tilberthwaite Horse Crag Level.*

Warren Allison

### **Saturday lecture programme**

Snailbeach mine - early remains and surface development c.1760-1856 - Andy Cuckson, Shropshire Caving and Mining Club

Country Gas - Small scale gas production Cothercott and Bog Mines - Mike Shaw, Shropshire Caving and Mining Club

The Cornish Mining Industry - A study in postcards from 1900 - Kevin Baker, King Edward Mine, Cornwall

The long and winding road to the Cultural Park of Linares, La Carolina mining district - Antonio Angel Perez Colectivo Proyecto Arrayanes, Spain

Sixty Years of Mining History and Archaeology, a personal journey - Peter Claughton, Welsh Mines Society

History of the Coniston Copper Mine - Mark Hatton, Cumbria Amenity Trust Mining History Society

Mine Remediation Projects in the UK: The role of the Consultant? - Martin Downing, Associate Director Wardell, Armstrong

Thirty years of CATMHS Digs - Warren Allison, Cumbria Amenity Trust Mining History Society

### **Sunday lecture programme**

Sixty Years of the Shropshire Caving and Mining Club - Kelvin Lake, Shropshire Caving and Mining Club

Changes in the Bristol Coal Industry and the need for the SGMRG - David Hardwick, South Gloucestershire Mines Research Group

Current SGMRG Projects particularly associated with Newcomen Engines - Steve Grudgings, South Gloucestershire Mines Research Group

Chatterley Whitfield Colliery, Stoke-on-Trent, Artefacts and Archives - Lloyd Boardman, Friends of Chatterley Whitfield

The British influence on Portuguese coal and metal mining - José Manuel Brandão (Zoom) Associação Portuguesa de Arqueologia Industrial, Portugal

The Wirral Colliery, Neston - Phil Pritchard, Northern Mine Research Society

Title to be announced - John Amos or Natalie Braber, East Midlands Coal Mining Heritage Forum

Remote methods of Recording Mine workings - Neal Rushton, Shropshire Caving and Mining Club



## NAMHO Conference 2021 – Shropshire

The NAMHO Conference in 2021 was always going to be a challenge to organise given the vagaries of the Covid-19 situation. The conference was organised by the Shropshire Caving and Mining Club, with the conference centre at Norbury Village Hall.

The usual programme of lectures, surface walks and underground trips all took place, with special consideration given to the requirements of the Covid-19 rules. Sadly the usual social gatherings on the Friday and Saturday evenings could not take place in any form. The conference was also hampered by a large number of inconvenient road closures, causing time-consuming detours around miles of confusing single track roads.

Your correspondent arrived late Friday afternoon to register, and made some purchases from Moore Books who usually have a bookstand at these events. Starless River were also present selling caving gear.

Saturday morning saw a winch trip down Chapel Shaft at Snailbeach on the winch manufactured by Paul Thorne of Orpheus Caving Club. This is a truly extraordinary piece of engineering, made solely for the purpose of mine exploration. Chapel Shaft was sunk in the early 1860s to a depth of over 365m (1200ft). It lies on land originally belonging to the Earl of Tankerville who hoped to exploit the progression of the main Snailbeach veins in an easterly direction. Unfortunately, mineralisation ceased on reaching the Stiperstones quartzite, so the shaft never fulfilled its full potential. Today, the shaft is blocked at a depth of about 130m just above the 112 Yard cross-cut, by refuse thrown down the shaft over the years since closure.

Following John Aird, the winch lowered your correspondent down to the 40 yard level horizon, which is connected to the main 40 yard level of the Snailbeach mine by a crosscut. This was followed by a short exploration of various artefacts, including a couple of decaying waggons and a large sieve. The way out was to climb and prussic approximately seventy meters up through the stopes to the Perkins Level horizon, where Steve Holding kindly gave an impromptu tour of the 'show mine', including the Baryte Stope and a reconstructed wagon.



*Stope crossing, Snailbeach*

The afternoon trip was a visit to Cambrian Slate Quarry at Glyn Ceiriog, this being a good hours drive from Snailbeach, not helped by some particularly obtuse satellite navigation 'assistance'. This trip was led by Roy Fellows and was a gentle tour around most of the accessible workings. Highlights included an enormous air receiver and a large underground site for the pelton wheel.



*Air Receiver, Cambrian Quarry*



Sunday saw a number of trips within the Huglith group of workings. These are relatively modern and exploited a number of parallel veins containing baryte.

They were all accessed by SRT, and contained a number of interesting artefacts (including the only known ore hopper in Shropshire) and very colourful secondary mineralisation. There was also plenty of evidence of mineral collectors 'having a go'.

Monday saw a visit to Clive Mine which is in the village of Clive, between Shrewsbury and Whitchurch. This was an unexpected pleasure, being worked in the triassic sandstone well above the water table. The mine extracted copper, however the miners did a very good job such that the only evidence remaining was a little copper staining. To compensate, the sandstone walls are covered in Liesegang bands. These are semi-regular bands of darker colouration giving an

effect not unlike that of a large scale wood-grain.

The mine was exploited for three hundred meters along a single linear slickensided fault which was almost vertical. Clive Mine shares its geology with the Alderley Edge mines. The mine was worked in three phases, with the possibility of an earlier Roman phase. Documentary evidence is scant, however records show workings in the early 18th century and again in the 1860's.





*Full display of Liesgance Ripples, Clive Mine*

The tour involved a short abseil down to a level, then a 30m abseil to the lower level, which gave intermediate access to the village well. This apparently is used as a water source still, and is nearly eighty meters from surface to the water. A seemingly very long crawl gave access to another pitch back up to the first level, from which a huge amount of material had been extracted. The linear chamber was hugely impressive in height and length. It was clear that the final workings intersected and partly destroyed a number of earlier independent workings, the evidence being a number of hand-picked tunnels and shafts leading to surface.



Additionally a recent stabilisation project had partitioned off a length of the chamber to allow it to be fully grouted (to protect the road on the surface), but an access crawl had been left open to give access to the other side.

*Start of handpicked level dated 1884, Clive mine.*

Overall the conference was very well organised and run, and was a credit to the organisers.

Chris Cowdery, photos by John Aird.

PS. In three days we visited four mines and never got our feet wet! John Aird.



**NAMHO**  
National Association  
of Mining History  
Organisations



# **NAMHO Conference 2022**

## **“Industrial Minerals”**

**Friday 17<sup>th</sup> - Monday 20<sup>th</sup> June 2022**

**Cleveland Mining Heritage Society invite you to spend the weekend at Grosmont, in the North York Moors National Park.**

**Two-day lecture programme in a venue adjacent to the North York Moors Railway, a short walk from bunkhouse and campsite with their own mineshaft !**

**Surface and underground visits planned to local Ironstone, Jet, Alum and Whinstone workings.**

**Watch the NAMHO website in early 2022 for further details and booking information.**



## Burlington Slate Meet, Kirby-in-Furness, 6th June

In 1843 William Cavendish, (Lord Burlington) brought together all the independent groups of



quarrymen to form Burlington Slate Limited. The company is still owned by descendants of the Cavendish family.

And so with permission, our very own Quarryman Carl Barrow led a group of 17 CAT members & 1 dog on a tour of the modern and historic workings of the Burlington, Kirby Moor open cast Slate workings.



*You've really got to envy Carl when you see the view from his office.*



Carl was able to show us how stone is cut from the quarry using diamond wires, a technique which is less damaging to the environment than the conventional process of blasting, and reduces the amount of waste or damage to the stone as it is extracted. Although we didn't get to see this process taking place we were able to see the equipment that is used for drilling and cutting in situ around the quarry.





*Carl shows the wire saw and how the diamond saw wire is made up with an explanation of how the holes are drilled for the wire saw to be fed through.*



*Carls further explanations of the working in the bottom of the quarry and the horizontal drill in situ ready to start drilling again on the return to work.*



*Older areas of the quarry, now reclaimed by nature and a section of the old incline that was used to take the stone from the quarry to the road/railway.*





*A beautiful set of slate steps between the two levels of inclines.*



*Carl shows the finished products including different finishes of the varied colour of slate.*



*And to finish the tour, the Burlington war memorial for quarrymen lost in the wars.*

Four and a half hours of sun-drenched wandering around the ever-changing working landscape only to discover that there is no gift shop or café at the end of the tour!

However, a good day was had by all as Carl was able to impress onto us his twenty years of Kirkby Moor quarrying experience and knowledge.

Kevin Timmins.

*Further Information extract from Wikipedia*

**“Burlington Slate Quarries** are located near Kirkby-in-Furness in Cumbria, England. The quarries have produced a characteristic blue-grey slate for hundreds of years, with large-scale production starting in the early 19th century, when the Cavendish family organised small-scale quarrying activities by local farmers into a larger group of quarries, which then attracted others into the area to live and work in the quarries from the 1820s onwards.

The slates were formed during the Early Devonian when a slaty cleavage was imposed on the Ordovician and Silurian rocks of the area. The best quality slate with the most even and regular cleavage was formed from the lithologically uniform mudstone successions.

The quarrying at Burlington can be directly related to the development of Kirkby, which merged from six smaller farming hamlets: Soutergate, Wall End, Beck Side, Sand Side, Marshside and Chapels. The opening of the slate quarry helped merge these, the name Kirkby dating from the construction of the Cumbrian Coast railway line to the village.

The quarry does not have a galleries system, as many quarries are, but as an enormous pit several hundred feet in depth. The quarry operations have spread throughout and under Kirkby Moor, but now production only takes place at the very bottom of the quarry; with the rock being removed via a cutting from a shallower part of the pit.

The slate blocks were initially removed from the large open pits by blasting and then reduced to a manageable size using a mell (sledge hammer) and tully (long-handled wedge-shaped hammer) before being transported to the cutting sheds, sawn to size and riven into thin slates. Typical of many Welsh slate quarries, such as Dinorwig, Penrhyn and Rhiw-Bach, Burlington adopted the use of a long series of inclined trackways and water balance lifts to provide material transport from the quarries. The lowest of the series was the Sandside, which connected Burlington with the port and mainline railway at Sandside on the Duddon Estuary”

### **Other meets**

Active meets also took place at Dorothea & Pen-yr-Orsedd on 26<sup>th</sup> /27<sup>th</sup> June, and the Cleveland Jet Mines on 18<sup>th</sup> July. Some photos were shared on Facebook, and it is to be hoped that proper reports will be available for the next CATMHS newsletter. IM



## Walney Island South End, June 20<sup>th</sup>

Present: Warren Alison, Liz Withey, Peter Holmes, Philip Coates, Duncan Scott, David Hughes, Stephe Cove, Jane Toothill, Peter Sandbach (ML)

Long awaited rain was forecast on what turned out to be a beautiful sunny day beside the seaside. From Biggar Bank we first crossed the island to the site of the salt wells near Biggar village. Some of the foundations of the four derricks can be found but most are buried in dense scrub. No 1 well has the wellhead still standing. One piece of misinformation I need to correct here is that seawater could have been used to dissolve the salt. In fact mains water was laid on here and at the works at Southend.

Returning to the cars, we paused to look at Peter Holmes' photographs of the large variety of three foot gauge locomotives which had served the saltworks and the gravel works. After lunch at the nature reserve we made a circuit of the gravel workings, pausing at the pier and the site of saltworks. Some of us then went down to the shoreline to view the remains of the brigantine *Huntress* which was driven ashore with a broken rudder in January 1904. I was expecting some difficulty with seagulls but in the event there was hardly one to be seen and no evidence that they had ever been there.

The extraction of gravel, carried on for over a century has left a large area of lagoons which are now used for breeding oysters, the gravel providing a natural filter for seawater. One of these ponds contains some large slabs of concrete, all that remains of the saltworks once the gravel has been taken away from under it. Photographs of the saltworks appear to show a row of six chimneys but only five belong to the main building. This contained twenty pans for the production of salt for industrial use. The taller chimney served a smaller pan house for refined salt for table use. The floor of this building is intact and nearby are two concrete towers, the supports of a crane used for maintaining the locomotives. Much excitement was caused by the discovery of two of the wooden-bodied side tipping wagons which were used for moving the gravel.



*Sankey photograph 1770, Lighthouse and saltworks, Walney Island C. 1914, published courtesy of Signal Film and Media © Cumbria Archive Service.*

The extraction of gravel from Walney was carried out informally for a long time. In the case *Queen v Joseph Fisher & others* it was claimed that a large quantity of gravel had been taken for road mending so as to endanger the island and the harbour of Piel. A letter in *Soulby's Ulverston Advertiser* claimed that the removal of stones actually strengthened the beach and said that it had been going on prior to 1832.

Thomas Hunter or his son Coulton Walker Hunter took a more formal approach. They had a contract to take ballast for Barrow docks in 1874. In January 1878 they had a "steam navy" at work and from 1<sup>st</sup> March 1878 CW Hunter leased a large area which included Southend Farm, but the arrangements were still primitive, as described in the case of John Jones and John Beckett who were charged with fraud against the Mersey Docks and Harbour Board. Beckett was a contractor who chartered small vessels to bring the gravel to Liverpool. Messrs Hunter & Son had no proper means of loading the vessels at this time and no means of ascertaining the weight of gravel. They were not particular about the weight as its intrinsic value was low and they could always say that they gave more than the tonnage stated in the invoices. In Liverpool it was weighed in railway wagons where Jones was the weighbridge operator.

The pier was proposed in March 1881 and had become a reality by May. Over the years it was extended and improved. When the saltworks arrived, it was extended to allow vessels to moor on both sides, bunkers were added for coal cargoes for the salt pans. In September 1896 Wadham noted three steamers loading, two of three hundred tons and one of five hundred tons. The Mersey Docks and Harbour Board continued to be the main customer for gravel but it was also used by the Manchester Ship Canal Company from 1891. After the death of CW Hunter the gravel works was carried on by his executors until 1927 and then by the Roose and Walney Sand and Gravel Co. Storm damage to the pier and the cost of dredging brought an end to the works in 1962.

ARRIVALS.			
PASSED INWARDS THROUGH EASTHAM LOCKS.			
FRIDAY, DECEMBER 16.			
Name of vessel.	From	For	Cargo.
Lady Kate, s	..... Saltport	.....	Gravel
Galgom Castle s.	..... Saltport	.....	Gravel
Hannah	..... Piel	..... Saltport	Gravel
Celestial	..... Saltport	.....	Gravel
In addition to the above:—			
3 Steam hopper barges		3 Steam tugs	
25 Cargo barges		— Passenger steamer	
SAILINGS.			
PASSED OUTWARDS THROUGH EASTHAM LOCKS.			
FRIDAY, DECEMBER 16.			
Name of vessel.	From	For	Cargo.
Lady Kate, s	..... Saltport	..... Fleetwood	Light
Ocean Sprite	..... Ellesmere Port	..... Gerston	Light
Celerity	..... Saltport	..... Piel	Light
In addition to the above:—			
2 Steam hopper barges		3 Steam tugs	
51 Cargo barges		— Passenger steamer	

*Manchester Courier* 14 Jan 1893: From the *Manchester Courier*, 14<sup>th</sup> January 1893. Like *Liverpool Docks*, the *Manchester Ship Canal* was built with Walney gravel. Saltport was a temporary port near Frodsham

Salt was discovered by the Walney exploration Company in 1889 when they were searching for coal but it took until June 1896 to float a limited company to exploit it at the second attempt. CW Hunter, Augustus Strongitharm and Edward Wadham were among the directors. The works were in production in the spring of 1892 and plans were laid for a brine baths hotel on the seafront near the Castle House Hotel. A shaft was sunk for rock salt but it appears never to have reached its working depth.

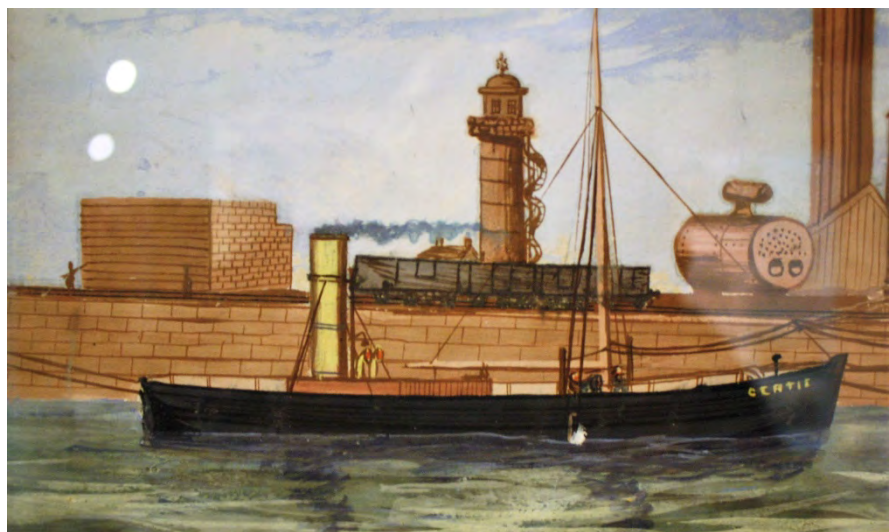




*Sankey photograph 1806 showing one of a row of four brine wells and its pump, C. 1910. published courtesy of Signal Film and Media © Cumbria Archive Service.*

The company was unable to make a profit and was wound up in July 1902. A second attempt to use the salt was made in 1906 when CW Hunter took the lease of the saltworks. Production was quickly re-started, he advertised his Dairy and Land Salt for butter and bacon and salt in penny packets in 1908 but still failed to make a profit. Production finally ended in 1909. In 1913 Hunter asked to be relieved of the requirement to maintain the works, having demonstrated that it would not pay. At the same time he requested an extension of his gravel lease, to include the ground under the salt sheds.

*Gertie: CW Hunter's steamship, detail of painting of the jute works by W Milvenny in Barrow Dock Museum. CW Hunter named himself as builder and his wife as owner when he registered his steamship. It was used to deliver the railway wagons.*



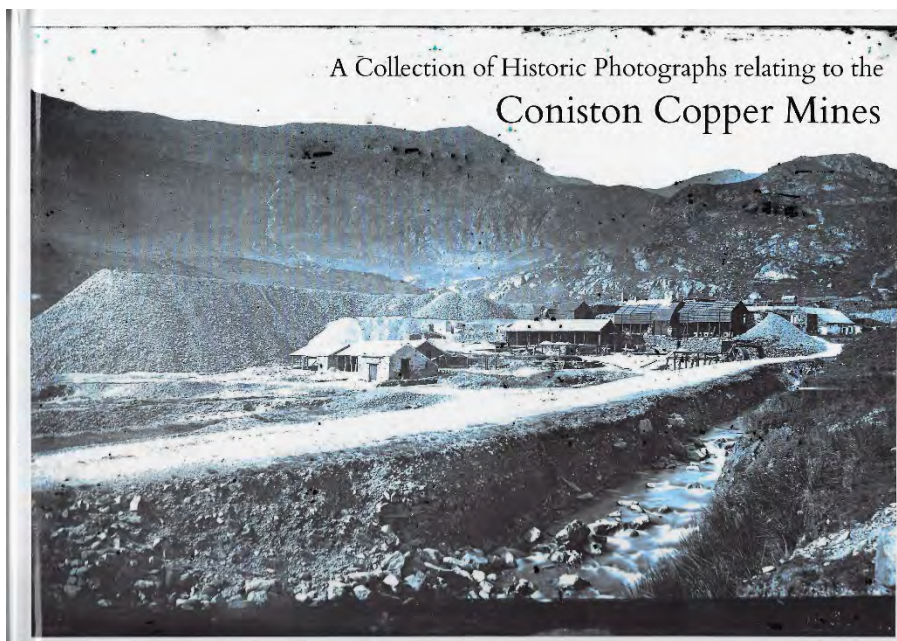
**References:**

- Queen v Joseph Fisher and others, Westmorland Gazette, 20 Oct 1843
- Frauds on the Dock Board, Liverpool Daily Post 19 January 1882
- Barrow Salt, BD Cubbon
- Wadham diaries

### Zoom talks:

#### April 30<sup>th</sup>. Historic photographs of Coniston Copper mines. Ian Matheson

For some time I have been trying to collect together as many historic photographs relating the Coniston copper mines as I could find, with the intention of making a definitive collection that could be viewed in one place. Warren Allison joined in and was able to find several photos that I hadn't seen before.



All the images have been digitised, but, as there doesn't seem to be a safe way of preserving digital images in perpetuity, I wanted to provide hard copy for storage in the CATMHS archive. The photos are best studied in digital form where they can be enhanced and details better seen by zooming in, but paper copy should provide a permanent record and would serve as a catalogue.

My first attempt was to compile a folder of prints with accompanying notes on content and provenance, but this wasn't satisfactory, so I put them into a 100 page A4 Photobook. A benefit of this method is that it can be edited continuously if new images or information becomes available, and printed off in very small numbers. A disadvantage is that the printing company delete any files that are inactive for more than thirty days, so that if I forgot to update it all my work would be lost.

The Daguerotype photograph, in which an image was formed directly onto a sheet of copper, was invented in 1839, and the first photograph on a glass plate from which a print could be taken was made in 1848. This means that there can be no photographs earlier than about 1850, twenty five years after John Taylor and John Barratt started work at Coniston. So far, no photos have been found that were taken underground during the period that the mine was productive.

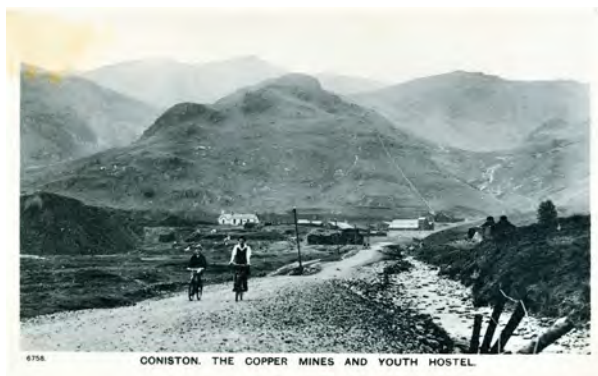
As a first step the images were arranged in sequence based on the development or decay of the structures they displayed. An estimated date for each photograph was based on what is known about the photographer and the image shown. A framework of known dates was used, such as the enlargement of Old Engine Shaft wheel in 1850, the opening of the railway in 1865, rebuilding of Bonsor Upper Mill in 1885, the construction and destruction of the smelter in 1893/4 and the commissioning of French electrolytic smelter in 1914. Serial numbers on postcards and the dress of individuals shown contributed to dating. The photographs have been classified by giving each a number with a prefix of the supposed year that they were taken.



The images are mainly of the Bonsor area in Coppermines Valley and record the development of the ore dressing structures from about 1850 up to the short lived smelter built by Thomas Warsop in 1894. There is a collection of images of the electrolytic equipment installed by the French owned Coniston Copper Works Ltd in 1914. That closed due to WW1 and the site fell into gradual decay, illustrated by postcards of the time. There are some photos taken in the 1970's and 80's, and a section on the restoration in 2019 of the sawmill waterwheel by Philip Johnston, which in due course will become historic. In order to fill the remaining pages I have included a short collection of pictures relating to transport of ore.

A copy of the photobook will be added to the CATMHS archive in the Armit Museum in Ambleside. I don't intend to maintain the printing file indefinitely so copies will not be available in the future. Anyone wanting a copy now should email [imatheson007@btinternet.com](mailto:imatheson007@btinternet.com). The cost will depend upon available discounts, but should be in the region of £25 delivered.

Ian Matheson.





### **May 21<sup>st</sup>. Mines of Rio Tinto. Colin Keighley**

Several years ago I was lucky enough to spend a month in S.W. Spain, visiting friends, walking, and birding. The trip included several days at Minas de Riotinto. Unfortunately I couldn't find much information about the place before I set off, I have no foreign languages at all and I was travelling alone, so those are my excuses for the quality of my talk.

In 1872 a British banker Hugh Matheson formed an international company, the Rio Tinto Company to purchase the mining rights for the area around Minas de Riotinto, in Huelva province in the region of Andalucía, SW Spain, with the condition that they would be able to build and operate a railway to Huelva in the estuary of the Odel and Tinto rivers, which is on the Atlantic coast, close to the southern border of Portugal. Mining for copper at Rio Tinto started in pre historic times around 3,000 BC. Silver was mined in the late Bronze Age, 12<sup>th</sup> to 9<sup>th</sup> century BC. Phoenicians, Carthaginians and Romans worked the mines. Many Roman artefacts including a series of a series of sixteen water lifting wheels which worked in pairs lifting water around thirty two feet. Seventeen Roman drainage adits were discovered along with many shafts, enormous slag heaps, described as being as high as mountains and kilometres in length were reworked by the Rio Tinto Company.

The illustrations (holiday slides) used as part of the talk showed sights around the village, where there are a few mining related statues and many artefacts on display. The Rio Tinto Company built a British enclave to house the British staff, Bella Vista. The houses are built in an English style, with amenities such as a sports club with tennis courts, swimming pool, and a billiard room in the club house. There is a small 'Church of England chapel where Hugh Matheson, who was a lay preacher, gave two hour long sermons when he was in town! A war memorial using a Roman cast iron pillar is close by the church, built in remembrance of staff killed in The Great War. Other public amenities built by the company were a cinema/theatre and one of the first football stadiums to be built in Spain; there is also a golf club.

There is an excellent mining museum that houses a spectacular mineral collection, railway rolling stock and locomotives and mining artefacts from the Roman occupation to the present day. The Museum building was the RTC hospital that in 'The Day' treated all of the local population, not just employees. Across the road from the hospital is what used to be the health clinic; this building now houses the archives.

There is a tourist railway that uses renovated Victorian coaches and either diesel locos or an 1875 0-6-0 Beyer Peacock steam loco. The journey lasts ninety minutes including a 20 minute stop at the old station of La Frailes on the remains of the once eighty four kilometre track. The journey follows the Tinto river through a barren Mars like landscape of calcination fields and slag heaps. The river water contains six grams of metal per litre! Unsurprisingly it is poisonous so contains no life. NASA scientists have studied the river and area so that they would have an idea of what life forms to look out for when spacecraft landed on the planet Mars. I guess that the life forms that they were searching for was Archaea and Bacteria.

The mining museum provides a self-drive tour to Pena de Hierro, which is an opencast excavation with remains of a processing floor, power station, a very old furnace and a winding headstock and with ancillary buildings.

The Rio Tinto Company mined the lodes using opencast methods and created what was at the time the biggest man made hole, Corta Atalaya, almost a mile across and one thousand feet deep. This hole had six tunnels driven to and from lower valleys for removal of waste and ore, the lowest tunnel was the 16<sup>th</sup> floor level of twenty three floors; this was the main tunnel for removal of the ore. Other lodes were the North and South lodes; these were also worked opencast and uncovered older workings, including Roman adits, tunnels and shafts, and artefacts including the series of Roman water lifting wheels.

The railway to Huelva followed the Rio Tinto (Red River); the short tourist railway is all that remains of the laid track. Huelva has the fine RTC pier was used to load the ships directly from the rail wagons. The wagons were shunted to the top of the three levels, where they returned, running down by gravity, to a middle level unloading directly into ships before returning to sidings off the pier. The bottom level of the pier was used for loading and unloading general cargo.

**Recommended reading:**

The Rio Tinto Mine: Its History and Romance by William Giles Nash, 1904. Published by Nabu Public Domain Reprint.

Not on Queen Victoria's Birthday: the history of the Rio Tinto Mines, by David Avery, 1974. Published by Collins.

The Rio Tinto Railway by Alan Sewell, 1991, published by Plateway Press.

A Technical History of the Rio Tinto Mines: Some Notes on Exploitation from Pre-Phoenician Times to the 1950s, by Leonard Unthank Salkield, 1987. Published by The Institute of Mining and Metallurgy.



*Corta Atalaya just less than a mile across and a thousand feet deep. One of the tiny dark shapes on the second floor up from the water level in the centre of the photo is a 1907 0-6-0 K Class Locomotive.*





*The tourist railway at Minas de Riotinto, 'C' class 0-6-0 Beyer Peacock 1875 with renovated victorian carriages.*



*Beyer Peacock, 2-6-2+2-6-2 Garrett loco. Built 1929 seen from the tourist train.*





*Pozzo Rotilio, this was the last headstock to be built in the mining basin 1960.*

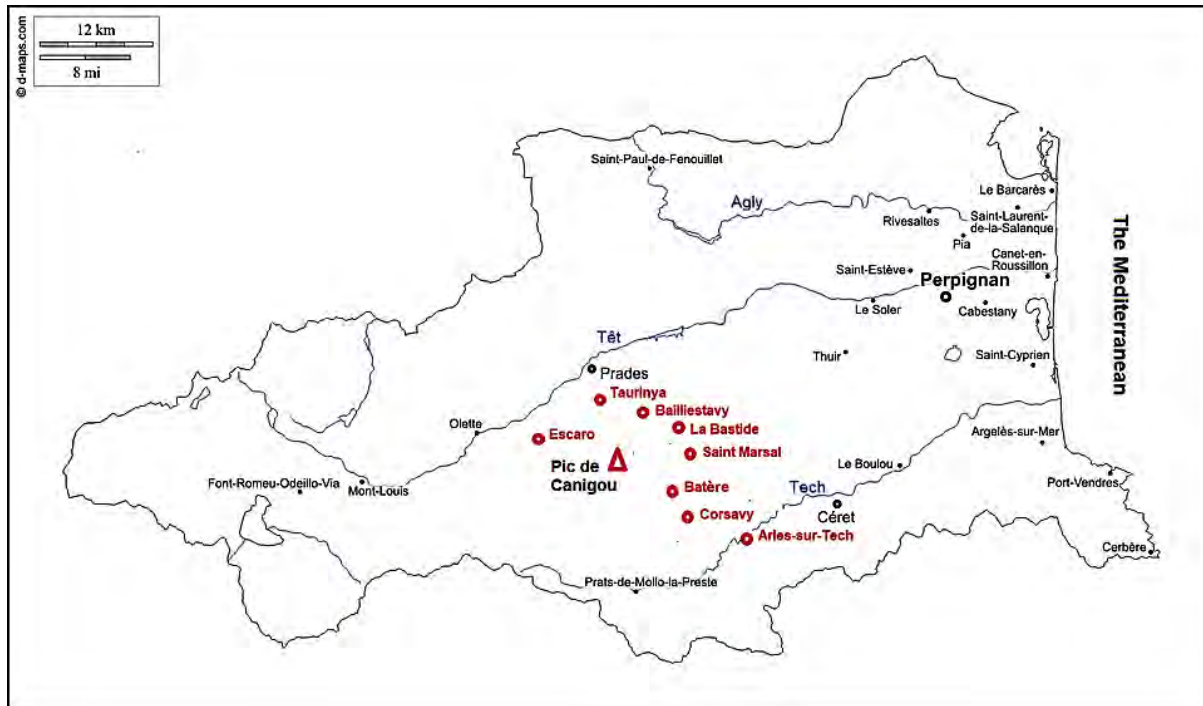


*Huelva Pier came into operation 1876, photo shows the three levels. The bottom level housed coal bunkers for imported Welsh coal, the middle level was from where the waggons discharged copper ore into ships holds, for export to Cwm Avon Copper Works near Port Talbot.*



## 11<sup>th</sup> June. Mining in the mountains. Peter Claughton.

The presentation covered three aspects of the mining of rich manganiferous iron ores around the Canigou massif in the French department of Pyrénées-Orientales, adjacent to the Spanish border, around fifty kilometres west of the Mediterranean coast. These were the transport systems bringing iron ores from high in the mountains down to the valleys; Mining and memory – the links between the mines and the communities today; and *les minières* - the earlier, shallow workings for iron.



*The Canigou Massif, centred on the Pic de Canigou, and the associated iron mining villages (Peter Claughton, based on open source mapping.)*

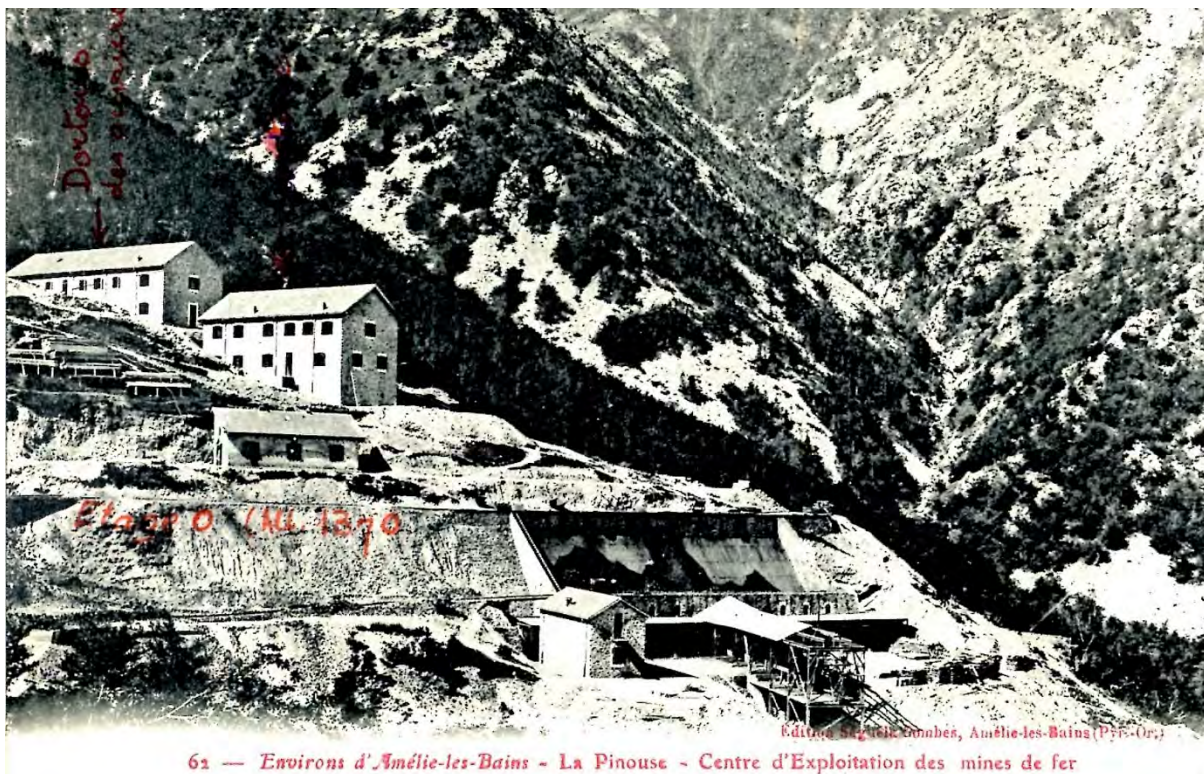
There is good evidence for prehistoric working of the mines – probably late Iron Age and certainly during the Roman period – primarily based on the evidence from smelting sites. As yet there is no archaeological evidence for post-Roman working and the first documentary evidence comes from the 9<sup>th</sup> century. Thereafter the working of iron, smelting and the supply of ore, was increasingly in the control of the abbeys, the major landowners, such as St Michel de Cuixa. With the Revolution came increased state control. The abbeys were closed down and their mineral rights transferred to either the communes or private landowners, and, in 1810, a system of concessions was introduced for deep working of mineral deposits. But, around the Canigou until the late 19<sup>th</sup> century, many of the workings were not deep and remained as unregulated *minières*. An exception was the mine at Taurinya, the concession date for which continued to be cited using the Revolutionary calendar - 25 germinal An XIII – up until closure in the 1960s.

Up until the mid-19<sup>th</sup> century the mines had supplied the advanced charcoal fired bloomeries of the *Forges Catalanes*. Production of iron by this means was limited in scale. Utilising local woodland for fuel, it could not develop to supply an expanding industrial economy, but the rich ores found around the Canigou massif and in the mountains to the north and west of the department were too remote to justify movement untreated over any distance until improved

transport techniques were developed in the mid to late 19<sup>th</sup> century. It was not until railways were developed from the coast, west along the narrow valleys of the Tech and the Têt, that there was any prospect of large-scale iron mining.

The first serious attempt at a bulk transport system was the erection of a continuous chain funicular tramway linking the mine at Salve, near Taurinya, to the main-line railway at Prades by 1890. This was not innovative technology, continuous chain systems had been in use since the early years of the century, and the altitude of the mine at Salve was not great, two hundred and fifty metres above the level of the railway at Prades, but the distance travelled was perhaps unique at around six kilometres. In the 1890s an aerial ropeway of unknown type, using wooden structures, was in use at Batère, on the southern slopes of the Canigou, and by 1899 work had commenced on a larger system, nine kilometres in length, linking that mine to the newly opened railway at Arles-sur-Tech.

In 1909, after three years in construction, a more complex system involving two aerial ropeways and a twelve kilometre long high-altitude narrow-gauge railway was opened to link the iron mine at La Pinouse, fifteen hundred metres high on the inaccessible eastern slopes of the Canigou, with the main line railway in the Tech valley at Amières-les-Bains, two hundred and twenty metres above sea level. Thereafter, aerial ropeways were used by a number of mines around the massif. More details on these transport systems and the investment involved can be found in my paper presented to the International Mining History Congress in 2016, available online.



*La Pinouse in 1906 (Académie François Bourdon, Le Creusot - 01G0563)*

The second aspect of the presentation involved the investigation of memory and the mines – led by my colleague Sharon Jenkins Carter. Along with the communities which expanded to



support the mines, the remains of barracks on the mines themselves, the physical evidence of the mine entrances and the transport systems are features which survive in the landscape today. But the memory of what they represent amongst the population today is mixed, responding to changes in the landscape and its uses since the closure of the mines.

Sharon and I are in the process of carrying out a detailed appraisal of the evidence for iron mining on and around the Canigou massif over two millennia. Building on that evidence there are two strands to those investigations - the interpretation of the physical evidence for mining and the associated transport systems which are significant features in the landscape today – as summarised above; and understanding how the memory of iron mining has developed since the closure of the mines. For the latter strand extensive use is being made of narrative inquiry, interviewing current residents of the area, including those who worked in or had direct links to the mines when they were active.

Over the centuries, the area has seen movement of peoples and ideas, along the Mediterranean and over the mountains. The Catalan language is spoken by many, alongside French, and, although Catalonia has never had defined borders, the region is referred to as Catalonia du Nord. The mountain, the Canigou massif, dominates the landscape and is part of the mythology of the Catalan culture.

Iron mining, and processing of the ores, has left its mark on the mountain. The sites for the Catalan Forges, and earlier smelting activity, might only be marked by their heaps of slag. Remains of the large-scale mines of the 20th century are much more prominent in the landscape today. The mine entrances, heaps of waste rock, and ore hoppers, the barracks and office buildings, and the earthworks associated with the transport systems, are very evident for all who penetrate the forest covered slopes of the Canigou.

Consideration of the long history of iron mining in the area brings together a variety of strands: mining and processing the ore over the centuries, the documented evidence to support mining and forging activities, the promulgations to respect the forest desertification, medieval trade and finance, the Catalan Forge as part of the culture, the loss of production leading to eventual closures. These strands form a multi-layered approach to the relationship between people and their landscape. It has relevance for this research in that it gives a platform from which to discuss the role of this heritage on the identity and culture of the local population which live in the villages today.

Further details are available in our paper to the Institute Europa Subterranea (IES) published in 2018 – copies of which can be provided on request.

The third aspect is very much work in progress – the investigation of shallow iron workings high on the southern slopes of the massif, close to the deep mine of Batère, in the commune of Corsavy – unfortunately, interrupted by the Covid 19 crisis. Those shallow works, *les minières*, have a unique status in French mining law.

Prior to 1791 there had been considerable variations in the rights to work mineral deposits. The regal rights in place during the Carolingian period had been devolved to feudal lordships with little or no central control. There were attempts in the 15th and again in the 17th century to exert central control over mineral working, using a system of concessions, but with much of what we now know as France being outside regal control, these had only limited impact. It was only after the Revolution that effective control was introduced.

In 1791 the law of 28<sup>th</sup> July (passed by the National Assembly in 1789) declared that mines, metalliferous and non-metalliferous, could only be worked by consent of the nation. On the 21<sup>st</sup> April 1810, under Napoleon Bonaparte, a new and comprehensive law was passed regulating mineral working – this removed the preferential rights of land owners in obtaining concessions but retained their right to work minerals to a depth of thirty metres, the *minières*, without a concession – and that law of 1810, subsequently subject to some modification, continues to be the basis for the regulation of mining in France today.



Evidence for these shallow workings and their associated infrastructure was illustrated on the higher slopes above Batère along with documentary evidence, from plans and sections of deeper working of mines which began as *minières*. Again, further information is available in a paper published this year by the IES – copies available on request.

Peter Cloughton  
P.F.Claughton@exeter.ac.uk



## **Greenside and Coniston copper mine walks**

Nicky Sproson who runs WALX Helvellyn and lives at Bell Cottage, Greenside Mine, asked if I would help on their walk to Greenside Mine and at Coniston copper mines with Phil Johnston.

The first walk was to Greenside on a glorious sunny day. We started at Nicky's base at the Information Centre in Glenridding where around fifteen people met, and we were joined by Phil. We walked through the village where I explained a bit about the history and development which was inextricably linked to the mine. The hotels, shops, the doctor's house, Askew House where Charles Darwin had a holiday with his family the year before he died, where the army camp was during the Second World War, the houses that the mining company built. We stopped outside my grandmother's house which has been in the family since 1918 when she and her family moved there from Halton Terrace further up the village.

I explained that during Mum's childhood there were seven of the family living there, her Grandmother, Grandfather, Mother, Grandmother's sister, Grandmother's brother, Mum and her cousin, and they took a lodger in, Jack Blair who was the head timberman at the mine. This was in basically a two up two down cottage with a large attic with two double beds and an outside toilet and a wash house in a block between the two sets of cottages, but no bathroom. I well remember it being the same when our family including my brother and sister used to stay there.

We carried on up the hill and stopped in the Travellers Rest car park, where I commented on the houses opposite, which were owned by the company, and why the pub was called the Jerry. Its name came from when pubs which were only licensed to sell beer were known as Jerry houses. In the 1930's Mrs McGhie, who was the landlady, was prosecuted for serving spirits. She was caught by two undercover policemen from Workington employed at the mine to dismantle part of the old smelt mill chimney, and they went to the pub on an evening to watch what was going on. One Saturday night there was a Hunt Ball in the village hall and people came to the pub for spirits to take back and the policemen made their arrests.

Next door to the pub are two cottages which used to be four, and where I remember as a child visiting Abe and Anne Routledge. Abe won the Military Medal during the First World War. Next stop was Memorial Cottage, which is a War Memorial as it was purchased with public subscriptions after the First World War in memory of the men who fought in the war and is used as low-cost housing. Many of them worked at Greenside. Walking on we reached Halton Terrace and the Rakes, which were rows of twenty two houses built by the company for its workers.

We carried on along the mine road, which gives superb views down the valley, until we stopped at the powder house, which is the most complete one in the Lake District, if not Cumbria. About a hundred yards further on is Bell Cottage, where Mr and Mrs Robinson lived when the mine was working. Mrs Robinson had a small sweet shop on the side and during the Second World War Mum remembers that she and other children in the village would walk up and buy sweets before carrying on past the Italian POW Camp where they could see the prisoners through the fence.

Stopping at the bridge I took out plans and photographs to explain the history and scale of the mine. Carrying on past the office where my Mum worked as the wages clerk, we carried on through the workings to have a look at the Lucy Tongue entrance. Marching on we went up

towards Kepplecove further up the valley, passing the foundations of the two houses where the families Mignonelli, Tallentire, Stephenson and Hughes lived. I remember meeting Jennifer Stephenson who said that as a child the mine buildings and mill were a fantastic playground, especially when playing hide and seek. The Mignonelli family came over before the First World War from North Italy with other Italian families and I am sure one of them worked in the Tilberthwaite Horse Crag Level in the 1930's.

As we walked up the valley, the leats soon came into view where everyone was very impressed with the workmanship. After lunch we carried on and soon the site of No1 Hydro-Electric Power Station, built in 1891, came into view on the opposite side of the valley. People could not understand the sheer amount of effort, all by hand, that had gone into digging and timbering the mile and a half leat from Kepplecove Tarn (couldn't see it from here) to a box high on the fell to run the water down in a cast iron pipe to No1 power station, where it ran first a Gilkes turbine and in turn the electrical generator, to then take the electric on two lead sheathed cables on poles up to Low Horse Level, along the level and down the Willie Shaft to a chamber near Smiths Shaft a mile underground in order to drive the electric winder and underground electric locomotive, the first in a UK metal mine.

Soon we arrived at the wonderful site of Kepplecove Dam, which was built in 1928 after Kepplecove Tarn round the corner had burst its banks in October 1927 following a severe storm. The concrete dam burst in August 1931 which just about made No1 power station redundant, and it was apparently dismantled after the Second World War.



*View of the mine showing the leats, the road to Kepplecove Dam, and the Low Horse Level tip in the background with the road to the upper workings.*



Crossing the beck, we made our way back down the valley, crossing Red Tarn Beck pausing at the foundations of No1 Power Station where I used old photographs to show what it was like when it was operational. Carrying on down the valley you get a good view of the mine, especially the leats traversing the fell which took water to the mill. Arriving at the footbridge and the weir by the Hydro intake for No3 power station at Gillside Farm in Glenridding, which was installed in 1928, we opted to carry on on this side of the valley.

Arriving at Gillside Farm, No3 hydro-power station came into view, and all the thousands of people walking past it every year do not realise what it is. Walking through the camp site it was not long before we passed Eagle Farm, one of Glenridding's oldest buildings, then the Public Hall which was originally a sawmill and then a Dame School, before being given to the Parish by the Marshall family from Patterdale Hall, when it became a reading room which many of the miners used and is now a focal point of the community. There is a lovely photograph hanging in the hall of miners at Greenside having their bait in a heading, which was taken by Alex Anderson in 1902 and presented to the Public Hall in memory of the men who worked at the mine.

We ended back at the Information Centre after a superb day, in lovely company and weather.

### **Coniston Copper Mines**

We met Philip Johnston in his new car park behind the Ruskin Museum and set off on yet another sunny day. But instead of walking up the road to the mine we went back down into the village where Phil explained the history behind each building, from the museum, COOP, pubs, various houses, bank, etc. We walked up the lane by the bridge before turning into Dixon Ground Farm. Stopping there, Phil gave a talk on the history of this part of the village which includes some of Coniston's oldest buildings, before carrying on past the Hydro-Power station built by locals.

As we started to climb it was not long before we stopped at the terminus of the Coniston railway where the wagons loaded with copper ore were brought to. Phil explained how he was encouraging the regeneration of the vegetation in the area above the terminus up towards the mines. Crossing over Miners Bridge we re-joined the main road to the mine and stopped just past the road to Blue Quarries and Irish Row, where the incredible vista of the site comes into view. Using old photographs and plans Phil and I explained what had happened here from the late 1590's to the present day. Stopping at Low Bonsor Mill and again the old photos made it easier to describe the remains, before we moved on to the Upper Bonsor Mill. Here I explained about the Coniston Copper project which CATMHS had been heavily involved in, and there are various interpretation panels at the mill and higher up on the fell which explain some of the fascinating history of this valley.

. Moving on towards Deep Level, I mentioned the tragic story of Sarah Duke, who at fourteen years old and working on the dressing floor was having bait with the other children near the entrance. The children had been warned not to ride on the tubs as they came out of the level, but she jumped on the back of one and then tried to get off, but her long dress caught and the next one ran over her leg. She died a few days later and it is a reminder of just how hard those times were.

Phil was in his element and imparted his knowledge with so much humility, given he has put over forty years into the place, especially with his waterwheel that he has recently had built. The design came from two photographs of the original one which Ian Matheson and I lent him, and it is an idea that Phil had for many years which has now come to fruition.



*The re-built Bonsor Sawmill waterwheel.*

Crossing the new bridge, which was part of the Coniston Copper Project, we lunched at the entrance to Deep Level. The bridge is railed and has a mine tub on it. (*Although more recent and not of a pattern that was used at Coniston. Ed.*)



*Waterwheel pit for Bonsor East Shaft*



Afterwards we slowly made our way up the Elizabethan track made by the German miners into the area around Cobblers level, started in 1603 to undercut the upper workings, and it is here that they possibly had a stamp mill. As we wound our way up towards Bonsor East Shaft, sunk by Charles Roe in the mid 1750's, we pointed out the various bucking stones which the Germans used to break the ore up on. Arriving at the Old Engine Shaft with its very impressive launder tower, we had a look at the top of the shaft a few yards underground and the sheave wheel still in place, thanks to members of CAT, who many years ago managed to conserve it from disappearing down the shaft. Everyone was extremely impressed, and it is also a good place to explain how the shot holes were drilled by hand.



*Top of the Old Engine shaft*

Wandering over the beck we arrived at the New Engine Shaft and waterwheel pit for the Thriddle Incline, known as Millican's Wheel. There is an information panel explaining the operation and the tragic death of Thomas Millican, who got tangled up in the wheel. Phil suggested that we went up the fell to the top water leat and follow it round to below Top Level and then walk up the track to Levers Water. Arriving at the dam we took in the lovely view before wandering over towards the area around Simon's Nick. Here I explained how you could descend to Hospital level and the work that CATMHS did to open up and re-instate the entrance to Levers Water Mine.

Walking towards Boulder Valley with its superb views of the valley, lake and the Old Man quarries. Phil gave a potted history of the quarries and other copper workings in this part of the valley before we made our way down the track to the road from Coniston and back to the cars. This had been a fantastic day, enjoyed by all and once again in good company.

Warren Allison .



**Coniston Copper Mines geological walk**

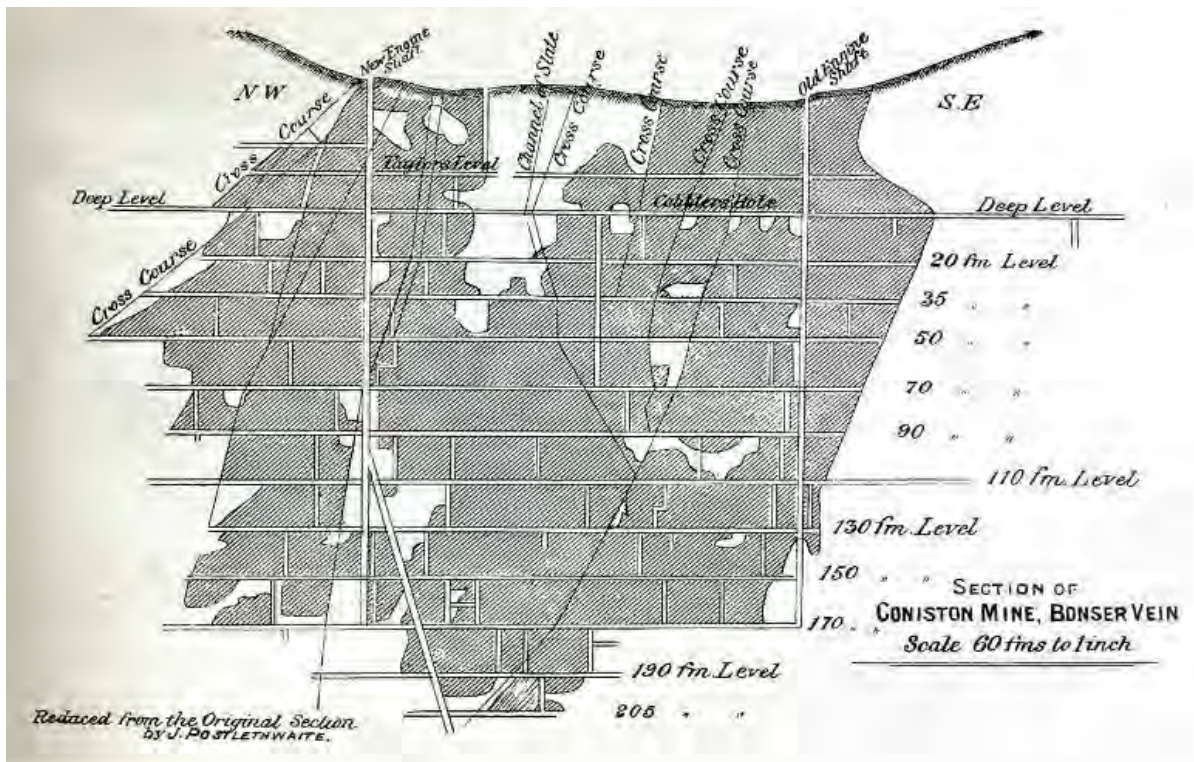
Carolina Goodship from Cumbria Geoconservation asked if I could help to explain the history of the Coniston Copper Mines on a walk, she was leading for the Westmorland Geological Society

Meeting in the village, when it started to rain, Liz Withey and I met the group at the Ruskin Museum where Carolina gave a short talk on what the day would entail. The route would be up to the mines, continue to Deep Level, Cobblers Level, Old Engine Shaft, round the leat which the French reused just before the First World War and back down the track passing the Paddy End workings and back to Coniston. Basically, much of the walk has been described in another article in this newsletter.

However, it was really interesting to be involved in a walk which described the geology of the area and in some places could be related to the underground workings. For me, the points I well remember are how the rocks change at the intake just above Miner’s bridge for the hydro power station so the area containing the mines above is a hanging valley. The description of a dyke of hard rock above Deep Level which crosses the beck and is probably responsible for cutting the Bonsor Vein off to the Southeast from being mineralised as shown in the section of the mine. As the weather was forecast to deteriorate in the afternoon, we aimed to be back in Coniston for 3pm.



*The dyke of rock*



*Section of the Coniston mines possibly cutting the mineralisation off*





*The group at Millican's Wheel*



*The view across to the area around the Old Engine Shaft, Carl Barrow (member) is visible on here somewhere.*

Once again, it had been a good day with people who had a different but related interest, and this made it even more enjoyable as it added a different dimension to the walk, and we made it back before the rain came.

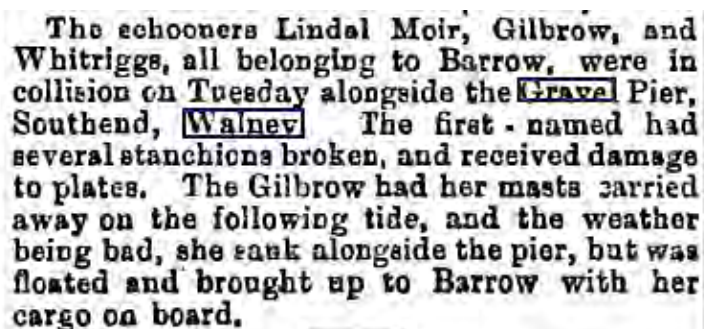
Warren Allison.

### Three iron schooners

Thomas Roper followed in his father's footsteps as manager and shipping agent for Harrison Ainslie and as a shipowner in his own right. He was born in 1806 and first described himself as a shipowner in 1837. In 1856 he was living at Newland House, his father having retired to Gawithfield. In that year he departed from the usual custom of buying Ulverston-built vessels with an order for three iron schooners from Thomas Vernon and Co of Liverpool. Iron shipbuilding was not new at the time, the yard was turning out a steamship every few months. One of their products was a patent collier with folding masts and new system of ballasting, tanks for water built into the hull. They were advertising iron houses for shipment to California, carried out major repairs to the *Great Britain* and had a major project on the Wirral side, the construction of a floating landing stage for the pierhead. The launch of the three schooners did not get into the papers but *Lindal Moor* and *Whittriggs* were registered on 5<sup>th</sup> July 1856 and *Gillbrow* on the 24<sup>th</sup>. The main business of the three schooners was delivering iron ore from Barrow to the Mersey ports, usually to Ellesmere Port but also to Birkenhead, Runcorn, Garstang and Liverpool. They sometimes carried charcoal from the Solway Firth to Ulverston.

Thomas Roper's son Richard Steven Roper was as active in the commerce and public life of Newport as his father and grandfather were in Ulverston but he had to give up his partnership in the Cwmbran ironworks, his directorship of the tramway company and his seat on the council due to ill health. Thomas Roper died at his son's office in Newport in December 1874 when he cut his throat in a fit of despair. RS Roper died on 7<sup>th</sup> April 1876 at the age of 45.

The three iron ships were bought by James Ashcroft and continued to cross the Irish Sea much as before. There were more shipments of ore to Harrison Ainslie's depot at Saltney and the *Whittriggs* spent a season carrying sand from Fleetwood to Ulverston ironworks. They rarely, if ever, sailed together which makes the incident of 21<sup>st</sup> March 1882 quite remarkable. They collided with each other and with CW Hunter's pier. The *Gillbrow* was sunk but Edward Wadham was more concerned about the damage to the pier. He settled for £25. Ashcroft was so impressed with iron schooners that he owned at least two more and ordered another one from D Noble and Son of Barrow in 1877 but the cutting from 1878 shows him attempting to dispose of most of his fleet, although the iron schooners *Bridget Annie*, *British Queen* and *British Workman* are not included. The sale seems to have been as failure as most of these ships sailed for a few more years under his management. The last I could find of James Ashcroft as a shipowner was in 1886 when his brigantine *Eugenie* ran down an Irish fishing smack.



The schooners *Lindal Moir*, *Gilbrow*, and *Whittriggs*, all belonging to Barrow, were in collision on Tuesday alongside the **Grave** Pier, Southend, **Wainey**. The first-named had several stanchions broken, and received damage to plates. The *Gilbrow* had her masts carried away on the following tide, and the weather being bad, she sank alongside the pier, but was floated and brought up to Barrow with her cargo on board.

*Shields Daily Gazette 25 March 1882*

The *Gillbrow* and the *Lindal Moor* became involved in an ownership dispute and were sold by order of the Admiralty Court. They fell into the hands of Liverpool Lighterage in 1896 who removed the masts and used them as dumb barges until 1922 when they were disposed of by sinking them. *Whittriggs* was sold in 1886. She was bought by James Geldart, Harrison Ainslie's shipping agent in 1892 and spent another year sailing for Harrison Ainslie but he died the following year and she was sold to John Coppack in 1893. She was still afloat in 1920, registered at Chester.

Peter Sandbach.





On Thursday, the 19th instant, at Twelve o'clock, at the Brokers' Sale-room, Walmer-buildings, Water-street, Liverpool (if not previously disposed of by private treaty),

44-64th SHARES of the fine Iron Schooner

**GILBROW,**

of Barrow, 78 tons register; built at Liverpool, by Messrs. T. Vernon and Son, in 1856; carries 160 tons, and requires no ballast; is in very good order. Dimensions:—Length 90 feet, breadth 18·1 feet, depth 7·4 feet.

Also, 44-64th SHARES of the Iron Schooner

**LINDAI MOOR,**

of Barrow, 78 tons register; built at Liverpool, by Messrs. T. Vernon and Son, in 1856; carries 160 tons on 7·4 feet, and requires no ballast; has just had new ceiling, etc., etc. Dimensions:—Length 89·6 feet, breadth 18 feet, depth 7·4 feet.

Also, 44-64th SHARES of the Three-masted Iron Schooner

**WHITRIGGS,**

of Barrow, 78 tons register; built at Liverpool, by Messrs. T. Vernon and Son, in 1858; carries well and sails without ballast. Dimensions:—Length 89·8 feet, breadth 18 feet, depth 7·4 feet.

Also, 16-64th SHARES of the handy Fore-and-aft Schooner

**LADY ARABELLA,**

of Barrow, 44 tons register; built at Tarleton in 1855. Carries 85 tons on 8·6 feet, and requires no ballast. Dimensions:—Length 59·6 feet, breadth 14·9 feet, depth 7·1 feet.

Also, 4-64th SHARES of the handsome Schooner

**LILLA,**

of Preston, 62 tons register; built at Freckleton in 1868; carries 115 tons, and requires no ballast.

Also, 8-64th SHARES of the Schooner

**JANE,**

of Preston, 55 tons register; built at Tarleton in 1868; carries 10½ tons, and requires no ballast; is in good order and condition.

Also, 44-64th SHARES of the Schooner

**MARIA M'MILLAN,**

of Barrow, 92 tons register; built at Ardrossan in 1862, and then classed A1 at Lloyd's; carries 160 tons on 10 feet. Dimensions:—Length 80·5 feet, breadth 19·9 feet, depth 10·2 feet.

Also, 2-64th SHARES of the Schooner  
**PRINCESS LOUISE,**

of Barrow, 72 tons register; built at Perth in 1871, and then classed eight years A1 at Lloyd's. Dimensions:—Length 71·7 feet, breadth 19·9 feet, depth 9·5 feet.

Also 42-64th SHARES of the handsome Schooner

**CHRISTIANIA DAVIS,**

of Barrow, 72 tons register; built at Whitehaven in 1865, and then classed eight years at Lloyd's, and continued for five years; carries 135 tons on 10 feet; sails fast. Dimensions:—Length 81·4 feet, breadth 19·5 feet, depth 8·95 feet.

Also, 4-64th SHARES of the Three-masted Schooner

**HARRY RUSSELL,**

of Barrow, 164 tons register; built at Barrow in 1863, carries 350 tons, and is in good order. Dimensions:—Length 95·8 feet, breadth 22·8 feet, depth 12·7 feet.

Also, 4-64th SHARES of the fine Schooner

**CATHERINE LATHAM,**

of Barrow, 62 tons register; built at Barrow in 1867, and classed nine years A 1 at Lloyd's, and continued for six years A 1 at Lloyd's. Carries 125 tons, and requires no ballast. Dimensions:—Length 77·5 feet, breadth 19·2 feet, depth 8·3 feet.

Also, 46-64th SHARES of the Schooner

**LADY LILFORD,**

of Barrow, 59 tons register; built at Whitehaven in 1862, and then classed eight years at Lloyd's; carries 115 tons on 8·9 feet, and requires no ballast; sails well. Dimensions:—Length 73·1 feet, breadth 19·3 feet, depth 7·8 feet.

Also, the Schooner

**HELEN MAR,**

of Barrow, 96 tons register; built at Nova Scotia in 1838; carries 175 tons; has large hatchway. Dimensions:—Length 77·9 feet, breadth 21·7 feet, depth 10·1 feet.

Also, 8-64th SHARES of the Schooner

**THOMAS PARKER,**

of Douglas, 73 tons register; built at St. John, N.B., in 1835; carries 115 tons on 10 feet. Dimensions:—Length 64·6 feet, breadth 19·2 feet, depth 9·6 feet.

All these handy vessels are in good working order and condition, and are trading under good management; and are only being offered in consequence of the illness of the owner.—For further particulars apply to

C. W. KELLOCK & CO., Brokers,  
Walmer Buildings, Water-street, Liverpool,  
and 72, Cornhill, London, E.C.  
469

*Soulby's Ulverston Advertiser 10 Dec 1878*

References: Obituary of Richard Steven Roper for the Institution of Civil Engineers.

Golden Wedding at Broughton, Mr & Mrs James Ashcroft, *Soulby's Ulverston Advertiser*, 2 Sept 1909.

Barrow shipping registers.

### **The Sankey Family Photography Collection**

There can be few bookshelves in Furness without at least one volume of Sankey photographs. As mentioned by Stephe Cove in NL142, Signal Film and Media and their volunteers are cataloguing a huge number of images, some going back to about 1903. There are many themes to the collection. It is strong on railways, Edward Sankey being the official Furness Railway photographer. It is strong on docks, ferries and trawlers, possibly because the railway companies owned the docks. The streets of Barrow are covered. There are plenty of scenes of Blackpool and its beaches and of the hills in all seasons. Mining is not one of the collection's themes. There are a handful of photographs of quarries, some unidentified and unidentifiable but mines only appear incidentally in the background as in these two photographs.

Photograph No 2546 has Lindal Cote No1 and 2 pits in the background. No1 pit had the oldest Cornish pumping engine in the district, erected by the Ulverston Mining Company in 1850. No2 pit also had a Cornish engine. These pumps remained in use until 1912. It may be the only photograph of these mines in existence. The engine beds were demolished by the farmer about 1990 before the relic survey reached them.



*Sankey photograph 2546, Lindal Station ©Sankey Family Photography Collection*

Photograph 7300 shows Thwaite Flat mine, identified by the distinctive ventilator on the top of Oak Lea stables. The mine was worked by the Furness Iron and Steel Co and their successors. The mine buildings seem out of proportion to the amount of ore known to be raised here, in fact there seems to have been no ore raised since 1879, yet the chimney is shown on my OS map, revised in 1976

Peter Sandbach





*Sankey photograph 7300, FR 0 6 0 No 30 at Park Crossing, 31 Jan 1919. ©Sankey Family Photography Collection.*

**References**

The Red Earth Revisited, B Cubbon et al.

# CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Registered Charity No. 1180198

- Honorary President:** Lord Egremont  
Petworth House, Sussex
- Chairman** Warren Allison  
Phone: 01228 523923  
Email: [chairman@catmhs.org.uk](mailto:chairman@catmhs.org.uk)
- Secretary:** Colin Woollard,  
Phone 01900 823686  
Email: [secretary@catmhs.org.uk](mailto:secretary@catmhs.org.uk)
- Treasurer:** John Aird,  
Phone: 0208 997 5985  
Email: [treasurer@catmhs.org.uk](mailto:treasurer@catmhs.org.uk)
- Membership Secretary  
& Newsletter Editor:** Ian Matheson  
Phone: 015394 32957.  
Email: [membership@catmhs.org.uk](mailto:membership@catmhs.org.uk)
- Meets Secretary:** Michael Oddie  
Phone 07747 607691  
Email: [meets@catmhs.org.uk](mailto:meets@catmhs.org.uk)
- Webmaster** Chris Cowdery  
Email: [webmaster@catmhs.org.uk](mailto:webmaster@catmhs.org.uk)
- Committee members:** John Aird, Warren Allison, John Brown,  
Chris Bunker, Stephen Cove, Chris Cowdery,  
Lorraine Crisp, Graham Derbyshire, Mark Hatton, Ian  
Matheson, Michael Oddie, Michael Pringle,  
Colin Woollard
- CATMHS website:** [www.catmhs.org.uk](http://www.catmhs.org.uk)

CATMHS Newsletter No 144, August 2021