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**Please note that the  
deadline for inclusion  
in the November  
2019 Newsletter is  
the 26th October  
2019.**

## Society News.

**O**ur AGM which took place prior to our May newsletter was another enjoyable event held at Slaidburn Hall and organised by Graham. It was a good opportunity to catch up with old and new friends, hear the progress being made within our Society, browse our donated books for sale and enjoy the cream scones! Following on from the Committee Elections the only changes are my return to the role of President and James Cleland becoming Secretary, taking over from Mick Cooke who remains as our meet organiser. If you were unable to attend all the reports given by our Committee are on our website in the Members' Area. Please have a look.

At the AGM it was suggested we join the "Twitter" brigade. This we have done but we will only be "tweeting" events directly concerning NMRS. Facebook continues to be our main social platform with news of our activities, our members and sharing other interesting posts. For example a recent post about obituaries of members of the Institute of Mining & Metallurgy (1892-1968) was seen by over 2000 people within a few days of posting the news. We must thank Mike Gill and Malcolm Street for all the work involved in this which is one of the latest additions to our fantastic website. It is still a "work in progress" but is an excellent resource for researchers. This latest news on our website is to be found at the bottom of the page and a few clicks will take you to it as well as the index of graduates of the Camborne School of Mines 1898-1940. Another addition to our website is in the Publication section. Since I have been involved in that side of our Society I have been putting to one side the out of print BMs we have been donated. Malcolm has now kindly added them to our website with the numbers available. If you are missing some of our excellent publications please have a look. As usual normal members' discount will apply. We are also adding more books we have been kindly donated and which are surplus to our library's requirements and again our members will be entitled to the usual discount. If you have some books you could donate to us please contact me. There should be plenty of reading in the winter months to come! We have also introduced **publications special offers**. These will be on a monthly basis – perhaps a further discount, perhaps free postage. Details will be on our website so please remember to look out for them.

**Our next general meeting** is to be held on Saturday 26th October at Gisburn Festival hall starting at 11.30am. It will follow the same format as usual book sales, lunch, Committee reports and short presentations (no more than 15 mins). Please email me if you have a **presentation** to offer along with the title. There will be a projector available but it would help if could bring your own laptop. If you intend coming please also **book your lunch** via me by October 16th to make sure there is enough food to go round. Last Autumn a few did not book and if I had not taken some spare plates along we would have been short. Our food is made to order, kindly organised by Sallie, and freshly made by a near neighbour of hers who needs time to get the ingredients and for her hens to lay the eggs needed for the delicious cakes. Hopefully some of our newer members will come along to meet like minded people. We are a friendly bunch with very diverse interests.

Our latest publication should be with this newsletter or in the post to you. "**Mining Exploration during the last Sixty Years**" submitted by Tim Colman should provide valuable source material for future authors, relating to recent developments at UK Mines. We must thank our Editor, Richard Smith, for all the work regarding our publications.

The **Yorkshire Mineral & Fossil Fair** up at Tennants in May was an enjoyable event for NMRS, although several members who visited last year were missing. It was good to catch up with those who did make the journey, including one very early lapsed member from the 60's who I had not seen for some time! Our new display boards were admired by many. At the time of writing this Rex and I are looking forward to the **North Pennines Mineral Expo** in St John's

Chapel where I know we will meet quite a few of our more northern members. There will be a report in the next newsletter. Mick Cooke has kindly offered to help us and our new secretary, James Cleland, has said he will call in.

On behalf of our Society I would like to welcome our **new members**.

Denise Brown	- Dublin
Mr J Cawthorne	- Keswick
Phil Devitt + family member	- Burton Upon Trent
Mr B James	- Harrogate
Mr Paul Renken	- London
Neville Wilkinson + Family member	- Blackburn

We were also sorry to hear of the **death** of David Scurrah.

Next year marks the 60<sup>th</sup> Anniversary of our Society which is a great achievement. With our new display boards it would be great if we could have some memories, mementos and early photos taken by members to present at our indoor meetings next year. If you have anything please email copies to me or send by post. Everything will be returned to you.

Since the last newsletter **meets** took place at Goldscope Mine, Keswick and Coldstones Quarry at Pateley Bridge and there should be reports on these in this newsletter. In June our best-seller publication was a download of BM 17, probably the result of the recent NAMHO conference which several of our members attended. Hopefully someone will do a write up on this very popular annual event. We have already placed some photos on our Facebook page.

Don't forget the **heritage open weekends** in September which is England's largest festival of history and culture, bringing together 2,000 organisations, 5,000 events and 40,000 volunteers. Heritage Open Days this year will be 13-22 September and all events are free. More details are at [www.heritageopendays.org.uk](http://www.heritageopendays.org.uk)

#### Checklist

**Book your lunch for the Autumn meeting**

**Consider offering a short presentation**

**Search for early memories, photos from our first 60 years**

**Look out for Special offers on our website**

**Plan your Heritage Open Weekends**

**Barbara Sutcliffe. Contact:**  
**[mansemins@btopenworld.com](mailto:mansemins@btopenworld.com)**

## LIBRARY NEWS

Thank you to generous donors of books and journals for the library. Thank you to Arthur Baldwin for L J Bullen's "Mining in Cornwall, Volume 7", Tom Greaves "The Mines and Miners of Dartmoor", F A Darren & C Finlayson's "The Fortifications of Gibraltar", H Parker and L Willies' "Peakland: Lead Mines and Miners" and "The Clywedog Trail Guide"; to Rex Cook for issues 106 & 107 of "Down to Earth"; to Matthew Hatton for "The Story of Tanfield Way" by the Sunnyside & District History Society; and

to Barbara for the oral history project "Quarry Tales: Ingleborough Dales". Also, I have recently received the latest Peak District Mines Historical Society (PDMHS) Newsletter. We have a reciprocal arrangement with PDMHS, each of us sending the other copies of publications. Although many NMRS members also belong to PDMHS and may borrow their publications from them, our library does have an almost complete set of PDMHS newsletters and journals for anyone who wishes to borrow or consult them.

## Sallie Bassham (Honorary Librarian)

### NAMHO NEWS

I have received no news from NAMHO since the last Newsletter.

## Sallie Bassham (NAMHO representative)

### The Second International Early Engines Conference (IEEC2)

#### Conference Details and Call for Papers

Building on the success of IEEC1, we are pleased to confirm that the second International Early Engines Conference (IEEC2) will be at the Black Country Living Museum (BCLM) on 15-17 May 2020.

#### DATES, TIMES AND VISITS?

The event will run from noon on Friday 15th until noon on Sunday 17th May 2020 and we intend that it coincides with the BCLMs 2020 "Red by Night" evening of Saturday 16th when many of their engines will be working into the night. This date is still to be finalised by the BCLM and if confirmed, will incur an additional entry charge. On the Friday evening delegates travel by coach to Sandfields pumping station for a buffet dinner and access to and talks about the 1873 Cornish engine and house being conserved by our hosts the Litchfield Waterworks Trust. Additional excursions and visits may be arranged.

#### FORMAT, CULTURE AND WHAT ABOUT PAPERS?

We are determined that the culture of the event will again be inclusive, co-operative and non-elitist and the format will be similar to that of IEEC1 including publication of the conference transactions. We already have papers offered on topics such as John Curr's Attercliffe Engines, the oldest B&W Engine House, Early engines around Swansea, Boiler Making and Water Management. We seek additional proposals for papers no later than the end of September 2019.

#### WHAT IS DIFFERENT FROM IEEC1?

1. No partners tickets as logistics of site entry preclude such arrangements
2. 10% early bird discount for all bookings paid for before end November 2019

#### COSTS

**See booking form on page 18**

#### CONTACTS AND QUESTIONS

**Web Site – [WWW.Earlyengines.org](http://WWW.Earlyengines.org)**

**E Mail - [Admin@earlyengines.org](mailto:Admin@earlyengines.org)**

**Facebook – International Early Engines Conference**

## Primitive copper mine on Eagle Hill, Co. Kerry

The mine is on Eagle Hill in Rath Townland about 2 km south-west of Caherdaniel village. (Another Eagles Hill is 5 km NE of Caherdaniel).

If you go to the Archaeological Survey Database here you can search County Kerry for Mines - copper, which will bring up the other nearby mines on the Lambs Head, Coad Mountain and Staigue. (Garrough Mine is victorian, as are later workings at Behaghane).



**Alistair Lings.** More information to follow soon.

## The Grand Plan – January 2019



The trustees and volunteers of the Lancashire Mining Museum have been working hard over the past 18 months breathing new life into the site, however there is still much to do. The headgear alone is likely to cost in the region of 1 million pounds to restore and preserve and we will need significant funding to achieve all our goals. It was therefore decided that a full review of the site and its development, which is possible

over the coming years should be made, to allow funding bodies to see what the site could be developed into over the next five years, with adequate funding. We believe this plan outlines the benefits the site could give to the whole community, properly managed with clear and concise goals. This will be the blueprint to work to and aspects could change as we develop but we feel this is a great starting point, to ensure we go forward with a clear understanding of where we want to get to.

### Masterplan Vision Draft E PDF.

Its 64 pages long and may take some time to load. If you want to help us achieve this vision why not consider coming down to site to volunteer. A lot of this work will be done by unpaid volunteers, working together to make the site a major heritage location for the future.



Construction of the head gear 1910.

## A Life Long Interest in Mining

How many NMRS members have spent the majority of their working lives in the mining industry? I would guess not very many. So in response to our newsletter editor's plea for articles on members working lives I invite you to take a walk with me down the path that led to my abiding interest in mining.



Roger Frost with his racing Scott motorcycle.

I was not an achiever at school, but from the age of nine years. I used to go with my dad at weekend, to his little factory and do simple tasks on machines such as capstan lathes. There is a folk saying, "that you are more fortunate to be born lucky than clever" and I am lucky! Logical systems, especially mechanical logical systems were transparent to me. Of course at such an early age I had yet to realise that although human beings had the same general arrangement of arms and legs their thinking patterns could differ profoundly.

I gained experience as a Toolmaker then joined our modest family firm where we were involved in defence, aerospace and progressed to be designers and makers of prototype special high volume machine tools. I loved my job as works manager and was responsible ultimately for 70 skilled engineers. By this time I was married with three young children so family holidays were on the menu and so I found myself in Cornwall, on a beach making sand castles for the children. When the children found others of similar age, they did not need me and I looked about for an interest. I went to the nearest shop where a selection of small basic books on the local mining traditions by D Bradford Barton, were for sale. I read these with the greatest pleasure and soon wanted more.

I joined The Carb Brea Mining Society, The Trevithick Society and NMRS in about 1968. I also began a routine of leaving our Leicester factory once a month at noon on a Tuesday to drive to Camborne. There I attended many lectures on mining subjects. Which in subsequent years I either recorded or filmed on early home VHS video. The next morning I drove back to Leicester to be in the factory by 14.00 hrs for the afternoon shift.

In about 1968 my wife prevailed on me to take an afternoon off and attend my son Richard's school sports day. I met his teacher Rosemary Boon who in turn introduced me to her adult son. "This is Robin, who is a Tin Miner" she said. What joy I felt someone who is actually involved in the once proud army of Cornish Tin miners. Robin and I became firm friends and remain so to this day. I have been extremely fortunate to have been guided around, South Crofty, Geevor and after they broke through the Levant mine undersea workings.

In the 1970's, the leading members of CBMS decided that we must make an effort to repair the cliff side Botallack Crowns section engine houses. These were of course, industrial buildings and as such were not expected to have to remain in a useable state long after the mineral reserves were exhausted. They were built with window lintels of oak, and these had eventually decayed and the the structure was now beginning to collapse. The CBMS did not have a big membership but was headed by proactive ex miners such as Tony Brooks and Lawrence Holmes. I wanted to help but was too far away to be of practical help.

However fate came to my help as my company were producing seven large machine tools for a new engine plant near Cape Town in South Africa which was to produce Perkins and Daimler Benz diesel engines. Although I am not a salesman nobody else wanted to go. So I got to visit Cape Town, then the Ford Plant at Port Elizabeth, Toyota at Durban and Nissan at Pretoria.

While I was in JoBurg I visited a mining museum set up by the Chamber of Mines. The PR woman introduced me to the Chief Engineer. Who was pleased to demonstrate his pride and joy that being a Whiting Steam Hoist. He told me the history of it and explained that at a time of great mining activity the mining aspirations of many company's were severely limited by the long wait to get hold of mining machinery especially hoists manufactured like this one.

An enterprising engineer from one of the S. A. mining companies went over to USA to visit all manufacturers of such equipment. Having drawn a blank at a well known hoist manufacturers he visited a company called, Whiting. There he saw a large horizontal winding machine. After asking what it was for he was told that this was for the San Francisco Cable Car Company to haul the cables that moved the Street Cars. The winder had just under gone its final testing and was ready to be delivered. The mining engineer offered the existing customer a sizeable bonus to let this machine go to South Africa and to wait for the next one to be produced. The deal was subsequently done. And that's how it came to be in South Africa.

The PR woman Anuska Gettelich Vilhoun, invited me to have dinner with her mother and herself and so I found myself in a very nice house and introduced to her mother. She was a typical Grandmother type and after a short time in her company she looked me square in the eye and said. "Young man I will have you know that I am a fully qualified Mining Engineer in my own right and still own a mine. Furthermore I along with my late husband and 40 mules prospected much of Southern Africa and were the first to find the Zambia Copper Belt". She then said "come along with me" and took me into a small library and opening a glass fronted cabinet she withdrew a book and handed it to me.

"Do you know what that is" ? she asked. I realised that I was in the company of an exceedingly wise old lady and so took my time before I replied. I had recognised the Germanic woodcut prints as I had a copy of De Re Metallica at home but one of the 1950

translations by USA president and mining engineer Herbert Hoover and his wife Mary Lou Hoover. My book was much thicker and I could not identify what this book was printed on. I studied it carefully and came to the conclusion that it was some form of processed animal skin. At length I replied that I could hardly believe what I had in my hand but guessed that it was an original De Re Metallica in Latin and possibly a very early example. She took it from me and with a gleeful twinkle in her eye said “even Mr Oppenheimer does not have one of these”

When we returned to the dining room she explained that her mine was mining mica at a place called Mica in the Eastern Transvaal. She also said that she had a young mining engineer not long out of Wits University running it for her but then added, “They don’t teach them very much” She then told me that this young man had phoned to tell her that the mica had pinched out and although they did some trial headings no more mica could be located.

Was he to pay off the men? No you stay there, I am coming. This lady well over 80, collected her underground gear and drove five hours to the mine. The young manager took her and showed their exploratory trials and proved, he thought, his decision to close the mine. The lady went outside and carefully surveyed the surrounding country side. After a few moments, she pointed to a lone tree on a small hill. Go dig under there and give me a ring when you find mica. She then drove five hours back home to JoBurg.

Two days later, the young mining engineer phoned to say that they had found a big deposit of Mica and how did she know it was there? She told him that that particular type of tree would not survive the dry season without some source of water and that the laminar nature of mica would hold water like a hydraulic battery. He explained that this was in no books he had read at Wits, to which she replied that they had better write a new book, as technology did not mean abandoning traditional practices.

With her husband, she had identified the Zambia Copper belt by the copper resistant flora she saw there. I asked the South African chamber of mines if they would contribute towards the restoration of the crown Engine Houses back in Cornwall and they gave me a thousand Rand’s to bring home.

With the decline in customers for our special machine tools, our family business failed. I was 53 and found a small cottage with a workshop in a village between Leicester and Melton Mowbray. Here I make spare parts and repair Scott motorcycle engines for customers worldwide. I also occasionally make new replica engines. However my interest in mining is as special to me today as it has been throughout my life.

**Roger Moss.**

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## **Extract from The Coal Authority Annual Report and Accounts.**

### **Highlights in 2018-19**

**W**e’ve made sustained progress in delivering the outcomes from the first year of our 5 year plan. We’ve continued to invest in the future and innovation as well as deliver our core roles of keeping people safe, protecting the environment and providing good quality information to help others make informed decisions.

### **We:**

- carried out 10,984 mine entry inspections, repaired or rebuilt 117 homes and other properties, fixed 17 holes under roads or railways and 410 on other land and settled 544 claims as part of our 24/7 public safety and subsidence programme to keep people Safe.
- delivered mine water treatment capital projects across both coal and metal mines, continuing our research and development programme to protect drinking water, surface water and the wider environment by preventing mining pollution across England, Scotland and Wales.
- enhanced our CON29M mining search report to further improve the information given to our customers and continued to work with other providers and data licensees to enable choice and competition in the conveyance market.
- generated commercial income of £5.5 million from our advisory services and through innovative use of by-products. This included the first commercial sale of ochre to treat contaminated land and to support sustainable land remediation.
- improved our governance and core processes through our new teams in project management, legal and governance and customer insights to help drive efficiencies, remain compliant with all our legal obligations (including General Data Protection Regulation) and react better to customer needs and expectations.
- continued to invest in our people through our new people plan, learning and development programme, and increased focus on diversity, inclusion, mental health and well being.

### **The coal authority annual report for 2018-2019 pg 13. Sent in by Alistair Lings.**

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### **OS Locate - know where you are.**



**M**ake the most of your adventures in the great outdoors with OS Locate. Used alongside your Ordnance Survey map, OS Locate is a fast and highly accurate means of pinpointing your exact location on the map, anywhere in Great Britain. If you have lost your bearings or simply would like a little reassurance, OS Locate is the ideal companion for all enthusiasts of the great outdoors.

The app converts GPS location readings from your mobile phone to Ordnance Survey National Grid references, enabling you to determine precisely where you are on an Ordnance Survey map. No mobile signal? No problem; OS Locate does not require a mobile signal to function – the inbuilt GPS system can be relied upon, even in the most remote areas.

OS Locate is packed with additional features. The ‘Share’ button allows you to connect with friends and family via messaging and social media – let them know where you are, how your adventure is progressing and what time you will be home. Use the handy digital compass to take your bearings – always ensuring you are on the right track. For those who are keen to learn more about maps and navigation, the ‘About’ button hosts a wealth of information including hints and tips and a guide to map reading. In addition, you will find simple yet comprehensive guides on how to use Easting’s and Northing’s.

**Ordnance Survey.**



## The Rowan Tree to tell story of Kolar Gold Fields

The strong links that once bound Cornwall with Karnataka, India had long been forgotten until a Cornish folk band decided it was time they were revived once more.

The Rowan Tree uncovered a missing piece of Cornwall's history when they learnt of a large Cornish community who had uprooted their lives to make their home in the gold mines of southern India.

Cornish miners had been recruited in their droves to establish the mining district known as the Kolar Gold Fields (KGF) that would go on to become one of the most successful gold mines in the history of mining.

The Cornish families were at the Kolar Gold Fields roughly between 1900-1950, although some stayed on as late as the 1980s. The mines only closed in 2001 so the history of KGF still feels very recent and relevant to the community.

Determined to tell the stories of these Cornish miners and their Indian counterparts, the band secured funding from the Arts Council England and the Cornwall Heritage Trust and their mixed media project 'Kolar's Gold' was born.

This month members of the band, who live in Truro, Bod-

min and Tintagel and Norwich, travelled to India where they met historians, musicians and local people from KGF. In a groundbreaking move for Cornish music, the band are combining the folk traditions of Cornwall with those from Karnataka, India and bringing Cornish music and culture to a whole new audience worldwide.

"Given that the Cornish and Indian communities lived side by side at KGF, combining the music from the two cultures seemed an appropriate way of telling their stories, and is a first for Cornwall! We've put together a fantastic team of musicians in Bangalore and are very excited to see how the music progresses," Laura Garcia.

**Sent in by a member. The Packet.** April 2019.

## Yorkshire Dales caver dies after fall despite efforts of almost 100 rescuers



Rescuers at work in Curtain Pot. Photo: Swaledale MRT.

A caver has died in the Yorkshire Dales after falling underground. Almost 100 people battled to save the man's life but he died in the cave as rescuers were preparing to extricate him. The Clapham-based Cave Rescue Organisation was alerted to the incident shortly before 1 pm on Saturday. The man was one of three who were excavating a new route in Curtain Pot on Fountains Fell, between Malham Tarn and Horton in Ribblesdale. The man fell 6m down a pitch deep within the cave, suffering a suspected broken femur.

A CRO spokesperson said: "His companions immediately exited the cave to summon assistance before one returned to him, while one awaited our arrival to direct us to the site. "As an exploration site, the cave was not mapped, nor were the passages of sufficient width to allow extrication of an immobile casualty. "Realising this would require major engineering work simultaneously at many places along the length of the cave, as well as fully rigging for rescue, the team called on neighbouring teams and our own reserve cavers list to assist with making access and egress suitable, and with rigging the cave so that the casualty could be extricated smoothly once access was secured."

Upper Wharfedale Fell Rescue Association, Swaledale Mountain Rescue Team, Cumbria Ore Mines Rescue Unit and Calder Valley Search and Rescue Team were all involved in the operation, along with members of Bradford Pothole Club and the Yorkshire Subterranean Society and the CRO cavers' list. Personnel from North Yorkshire Fire and Rescue also worked with the volunteer rescuers. The CRO spokesperson said: "In total, the incident actively involved 94 volunteers for over 17½ hours. This includes personnel involved in providing food and drink, coordinating resources, both human and equipment, and communications. "We would also like to extend our thanks to Yorkshire Ambulance Service and YAS hazardous area response team and to the Maritime and Coastguard Agency who remained in close touch in readiness to provide immediate air evacuation in the event of a successful extrication, which sadly was not to be."



The scene of the surface site on Fountains Fell. Photo: Swaledale MRT.

The operation involved a total of 1,626 volunteer hours. While the Fountains Fell rescue was underway, the CRO received another call for help for an injured caver in the western Dales. A 36-year-old woman fell 6m while dismantling a rig in County Pot in Ease Gill, north-east of the village of Leck. She injured her leg in the fall. The spokesperson said: "Again, with help from other teams and pothole club members, the team were able to respond rapidly to assist." "The casualty was treated and her injury splinted before she was assisted to the surface by cavers from multiple teams. "Once on the surface, the casualty was winched aboard a Coastguard helicopter for transfer to hospital in Blackpool."

Members of Red Rose Pothole Club helped CRO, UWFRA, Comru, and the Calder Valley team in the rescue. Once the woman was airlifted, many of the rescuers returned to Fountains Fell to the original incident. About 6.10 pm the same day, the CRO was alerted to a walker suffering a possible cardiac problem at the top of Malham Cove. The spokesperson said: "The ambulance service was asked to task Upper Wharfedale with the incident, whilst CRO released two surface

team members from the Curtain Pot incident, only three miles away, to assist. "Fortunately, the Yorkshire Air Ambulance was able to make it to the casualty just before mountain rescue team members arrived. After assessment by the air ambulance crew, the casualty was flown down to Malham village for transfer to a road ambulance and onward conveyance to hospital. "Rescuers then returned to their vehicles to help at the two caving incidents. On Sunday, as the CRO team was cleaning and sorting equipment from the caving rescues at its Clapham base, it was alerted to a woman in difficulties on Little Ingleborough. The 44-year-old walker was suffering a cardiac incident on the steep slope above Gaping Gill. The spokesperson said: "Being on site, the team was able to quickly despatch a full party to the location, and arrived on site simultaneously with the Yorkshire Air Ambulance. "Once the casualty had been assessed, team members carried the casualty by stretcher to the waiting helicopter, for immediate transfer to Leeds General Infirmary for further treatment."

[Grough.co.uk](http://Grough.co.uk). June 2019.

## PIT PONIES OF THE MT. KEMBLA MINE DISASTER

Horses and pit ponies were a major part of mining life up to the 1950s and even as far as the 1990s.

Of the 30 horses or pit ponies at work in the mine on the day of the disaster, 18 were found alive. Having survived the explosion of the 1902 Mt Kembla mine disaster, miner Donald Brisbane miraculously escaped through a tunnel near the mine manager's residence. When he went back into the mine to check on his horse all he found



was one leg of his animal. Taking the leg home, he removed the hoof which still had the steel shoe attached.

The Brisbane family lovingly cleaned the hoof and after filling it with wadding and covering it with cloth, they made a pin cushion. Donald Brisbane passed away in 1935 and this rare and significant reminder of the devastation the explosion caused, was presented to the Illawarra Historical Society Museum in 1976, some 74 years after the event.

**Sent in by a member.  
Wollongong. Heritage  
and stories.**

## Spring Meet to Jumbles Quarry. Graham Topping.

Following the AGM at Slaidburn Village Hall on April 27<sup>th</sup> myself and nine members did a surface walk to Jumbles Quarry. The weather was over cast with occasional light showers but warm.

Jumbles was one of the quarries used to supply Millstone Grit to the Stocks Reservoir project around 1924. An engineer called Harry Cottam was working for the Fylde Water Board on the project and was out with his family one day having a picnic and discovered the outcrop which is situated at "Greet Valley" Jumbles on Lamb Hill Fell. The stone is hard enough to be extremely resilient but soft enough to be easily worked.

To access the quarry a 3ft narrow gauge railway was extended from a nearby quarry to Jumbles and was 4.5 miles distance from the dam. This was used both to bring quarry workers and supplies to the site and take stone to the dam. A Smith & Rodley Ltd. steam crane was used for loading stones onto the rail wagons each carrying 8-10 tons of stone and aggregate for transportation to the dam and the stone masons yard there. Many of the stone masons were from the Merthyr Tydfil area of South Wales.

The quarry is situated approximately 5 miles from the village hall along the Bentham Rd. We parked our cars in a lay bye called "Cross of Greets". We then walked along the public footpath which in many places was the route of the original narrow gauge railway. The remnants of old sleepers and track were still visible in places even though it was abandoned around 1930. This stretch of track was originally left in situ after the project was completed in case further extension of the Reservoir were required. It remained there until the 1980s when it was sold off for scrap. There is still a short section near the quarry entrance which was inaccessible to scrap men so it still remains today.

The decaying remains of the Smith & Rodley Ltd steam crane No. A759 is also still there along with a section of standard gauge track within the quarry. The steam crane is starting to corrode quite badly and the bottom of the boiler is almost rotted through. A length of the original wire rope is still present with the hemp contained in the rope windings being clearly visible. The crane has also suffered from extensive vandalism and many parts are now missing. Time is slowly ticking away for the crane and who knows how long it will still be in one piece?.

The actual quarry is horseshoe in shape and is about 1 acre in size. The stone faces still have signs of shot holes being drilled as do some of the large stones scattered in the quarry. There was evidence of stone sizing and selecting having been taken place with large piles of abandoned stones of various sizes being present. There is a stream which runs through the edge of the quarry and a length of steam pipe was found which was probably used to supply the steam boiler on the crane with water.

A very enjoyable meet with lots of interesting archeology to see and touch. {All photographs Graham Topping}.



Nine members in total meet at "Cross of Greets"



Part of the original narrow gauge railway still in situ. Actual set of points.



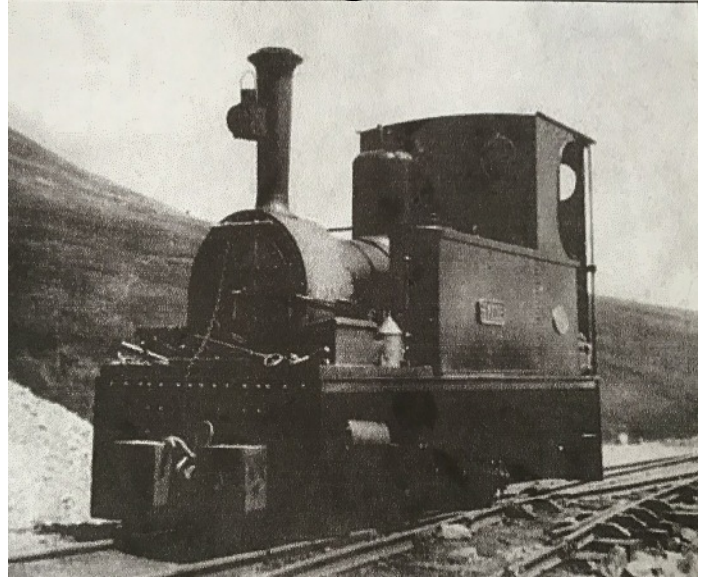
About 30 mts of track is still in situ at the quarry entrance.



# The Jumbles Meet Collage.



Inspecting the Smith & Rodley No. A759 steam crane.



Peckett 0-4-0 side tank Loco "Fylde" 1930 used in Jumbles quarry.



Site layout. About 1 acre in area. Inc. large piles of selected stones



Remains of shot holes in quarry face.



Smith & Rodley Ltd. No A759. on standard gauge tracks.



Boom winch with rope and hemp clearly visible.

**The following articles have all been recently sourced from the internet. Many of our members would be very interested in more details about them. If you are a member and live in the area or just interested why not do some research and submit it for inclusion in a future newsletter? Remember there's nothing like local knowledge for interesting reading.**

## **New plans for South Oxfordshire quarry.**

**N**EW plans to carve out an enormous quarry the size of 165 football pitches on the banks of the Thames in Oxfordshire have been revealed.

Hills Quarry Products has submitted new, amended plans to extract sand and gravel at the 'Fullamoor Plantation' site near Clifton Hampden in South Oxfordshire.

Describing the scheme, Hill says its current proposal includes 'the extraction of sand, gravel and clay including the creation of new access, processing plant, offices with welfare accommodation, weighbridge, concrete batching plant and silt water lagoon system'.

The company has also pledged to restore the site after the quarrying is finished to 'agriculture and nature conversation including lakes with recreational after uses'. Hills has wanted to create a new quarry at the site for years.

Last year, the company welcomed an proposed package of road improvements around Didcot, saying it showed the 'critical need' for a local supply of sand and gravel. Local residents have long opposed a quarry in that location, arguing it would increase the congestion and pollution in the area and damage the green belt.

**South Oxfordshire District Council has a page on the plans.**

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## **Middlesbrough 'ironworks' found under construction site.**

**A** town's former ironworks is believed to have been unearthed by construction workers building a business park.

Several 19th Century brick structures were found during work on Middlesbrough's £22.6m Tees Advanced Manufacturing Park.

The find had been anticipated before work began, the Local Democracy Reporting Service said. The site had been occupied by the Newport Iron Works, which opened in 1864.

Middlesbrough Council said the site was "subject to ongoing archaeological investigation in light of its historical significance". "Remains associated with the former ironworks are being recorded and assessed by Durham University and their findings will be published in due course," a spokesman said.

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## **Scotland's first railway uncovered in East Lothian after being hidden for centuries**

**T**he Waggonway is one of the oldest railway remains anywhere in the world. The remains of Scotland's oldest railway, dating back to 1722, have been uncovered in an archaeological dig in East Lothian. The remarkable find was made at the weekend by

the Waggonway Project, which has been looking for traces of the freight line between Cockenzie and Tranent for years.

In one of the UK's earliest examples of a railway, the wooden tracks were used to move two-tonne carriages filled with coal downhill to the port. Gravity was used to move them down and teams of ponies would haul the empty carriages back up the two-mile track.

The waggonway predates traditional steam railways and is thought to be one of the oldest remains of a railway anywhere in the world.

Ed Bathune, chairman of the community project, was among those who made the discovery over the weekend. He told Edinburgh Live: "The waggonway was rebuilt in the 19th Century, the remains of it are still in Cockenzie. "We wanted to see is the original railway had survived. We planned an exploratory dig and dug around a metre down. It turns out the early railway is largely still preserved a metre down." He added: "It was quite an exciting moment, we had started uncovering a layer of cobblestones. "Then with a bit more investigation we noticed a trace of the woody remnants the rails leave in the soil."

Discussions will now be held with East Lothian Council as to what will be done with the discovery.

**Edinburgh Live.** June 2019.

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## **Opening of Kent Mining Museum delayed after Hadlow boss resigns**

**T**he opening of a multi-million pound museum celebrating Kent's mining heritage has been put on hold.

Kent Mining Museum at Betteshanger Park is 85% complete and was due to open to the public next month. But the resignation of deputy principal and chief executive Mark Lumsdon-Taylor within the Hadlow Group - who own the site - means work has halted.

An extended timeframe has not been given but with the site preparing to install extra temporary facilities for the Easter holidays, the wait is expected to be more than a month. Richard Morsley, director of Betteshanger Sustainable Parks, said: "With some of the transitional work currently taking place within Hadlow Group, we unfortunately have to confirm that there will be a delay in the opening of our new Visitor Centre, including the Kent Mining Museum. "Both of these were originally scheduled for the end of March 2019. "At this stage we are unable to confirm when the new building will open but we are very much committed to opening the state-of-the-art facility as soon as it is feasible.

"Meantime, we would like to encourage visitors to continue to use the park as normal. "Drinks, toilets and cycle hire remain available in the car park and we will be adding more toilets, catering and covered spaces before the Easter school holidays begin. "Despite this set-back, it is very much business as usual with all our outdoor activities and seasonal events taking place as planned."

**Kent Online.** Feb 2019. {Edited}



## Update by Rob Needham from the Forest of Dean.

I visited the New Venture Mine recently. The miners were not working, and the weather was wet. I managed to have a good look around. There was no sign of a haulage engine yet, but the shed has now been extended to cover the winch area and the rails have been extend down into mine entrance. Photos are not good because of the weather, thus I hope to have another look soon.

When I last visited one of the miners told me that Cannop Drift Mine has been taken by Rab Warren, who with his son Christian is working the Reddings Level. Where there is insufficient space to tip waste from the mine they load the waste into the back of their pick-up trucks and take it to Cannop DM to tip. I was also told that the Hardings, who used to work Cannop before moving to Haywood Drift Mine have since given up mining.



## Lea Bailey Light Railway Society fund raising appeal.

As a member of the Lea Bailey Light Railway Society I hope you are following our progress with interest. We also post regular updates on our website and Facebook page.

As you may be aware, back in March this year, thieves broke into the shed at Lea Bailey and stole a number of items including engine parts from our Motor Rail diesel locomotive which rendered it useless. Despite new parts costing over £2,000 we have

managed, through our network of contacts, to source the parts we need for just over £500. We are therefore asking our members and supporters if they would all be willing to make a small donation to allow this locomotive to return to service.

This includes you — could you spare the cost of a round of drinks at the pub or lunch in a coffee shop to get 21282 running again? As a paid member you are already supporting us but would you perhaps consider recommending a friend or a member of your family to join us? The cost is only £10 for individuals or £20 for a family. All our subscriptions are managed by MemberMojo: <https://membermojo.co.uk/lblr/>

## Work on Pike River Mine re-entry continues after faulty tubes replaced

Workers are back cutting into the concrete seal plugging the Pike River Mine drift after the leaky tubes that delayed the long-awaited re-entry were replaced. Expert miners were due to enter the West Coast mine on May 3 to start an operation trying to recover the 29 men killed during the November 19, 2010 disaster.

The Pike River Recovery Agency (PRRA) had been working for months to purge methane and oxygen from the mine by pumping in nitrogen through pipes before they headed underground. But the day before they were due to go in, they got an "unknown reading of oxygen" from a borehole 2.3km into the mine's drift, where the roof collapsed in the 2010 explosions. The oxygen had the potential for a "spontaneous combustion event".

Pike River Recovery Agency chief operating officer Dinghy Pattinson denied it was a tough call to delay the re-entry, because they have also stressed a safety-first attitude. They soon discovered a leaky sampling tube was to blame for the oxygen spike. But now that the tubes have been replaced and tested, work on cutting into the concrete seal has resumed.



Dinghy Patterson, chief operating officer of the Pike River Recovery Agency. Stands outside the entrance to the Pike River Mine near Greymouth. Photo, Kurt Bayer.

Pattinson confirmed to the Herald today: "Integrity testing has been completed on all the monitoring tubes that check the mine's atmosphere. The concrete cutting is under way, along with other preparations for re-entry."

Anna Osborne, chairwoman for the Pike River Family Reference Group and whose husband Milton died in the tragedy, posted on the Supporting the recovery of our Pike 29' Facebook page that work was going well. "The concrete cutting is under way, and the drillers are making good progress," she said. "The atmosphere in the drift is good. No date has been set yet for the re-entry but it certainly won't be too far away."

At the time of the delay, Osborne admitted being "slightly" disappointed but was glad that the agency was putting the health and safety of the men going back into the mine first. It wasn't a

showstopper, she said, and once the issues are investigated, "it will be back on". A ceremonial event was still held at the mine's entrance on May 3, attended by Prime Minister Jacinda Ardern. Ardern sat beside Osborne and Sonya Rockhouse during the service and said the focus was entirely on the families. "They've been waiting a very long time to get to this point where the active re-entry has begun, is under way, and they've been fighting for that for a really long time. So for me, just seeing the huge amount of emotion around that for them is acknowledgement of the work they've put in and the sense of justice they feel now for that finally happening."

**NZ. Herald.** June 2019.

## Miners dig deep to unearth estate's pit history at Temple Newsam, Leeds

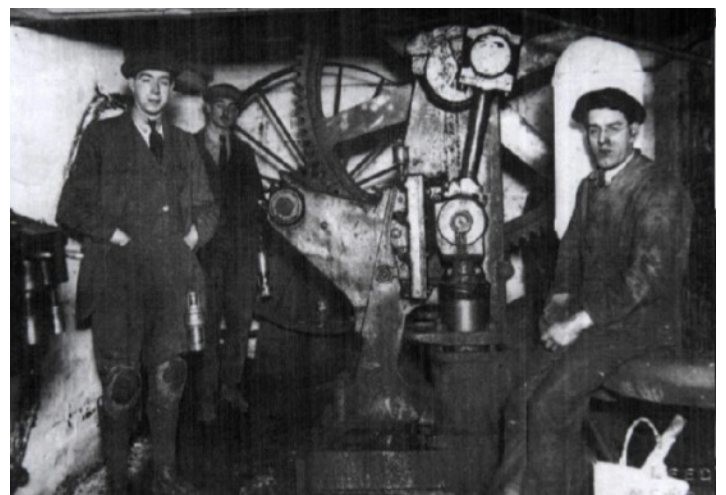
A GROUP of ex-miners have returned to the coal face, working with volunteers to unearth the history of mining at Temple Newsam in Leeds.

Blot on the Landscape, a new exhibition at Temple Newsam House, explores stories of deep shaft, drift and open cast mining on the estate, which once saw large swathes of the stunning parkland dug up to make way for huge industrial operations.

Through a series of objects collected by local miners over decades, including a bible made of coal and an anthracite inkwell, visitors will get a unique, first-hand insight into what life was like for those who toiled down the estate's former Waterloo pit.

Former coal miner Tony Banks will be telling the public about his 38 years 'down the pit'. The fifth generation miner, who worked with his family at Manor Colliery in Wakefield from 1957 as a pony driver, then moved to Lofthouse Colliery in 1966 and later worked at Selby.

He was working at Lofthouse in 1973, on the night of the pit disaster which claimed seven lives. He was involved in the rescue attempts and later set up the Lofthouse Disaster Trust Fund, of which he is chairman. Tony, 76, of Wakefield, said: "People will be interested and enjoy this exhibition. I will be bringing a miner's Davy lamp which dates back to 1848. "We really enjoy talking about life down the pit. Sadly, there are no working pits left in this area now. "I tell people about the conditions we faced down the mines. It was really hard graft." Tony, who also volun-



Pump in downcast shaft at Waterloo pit Temple Newsam Estate.

cont

teers at the National Coal Mining Museum, near Wakefield, works tirelessly in former mining communities.

The Temple Newsam estate was the setting for a succession of huge mining operations as recently as the late 1970s, with similarly large-scale digs throughout the 1940s. Uncovering an important chapter of Leeds's heritage, the new exhibition has seen community curator Helen Pratt work with Swillington Elderberries, a local group of volunteers which also includes former miners. Together, they researched the history of Temple Newsam's pits and talked to former miners from North, South and West Yorkshire and loaned objects which encapsulated their time down the mine.

Artists from Yorkshire and Northumberland have also created artworks for the exhibition and The Elderberries crafted a Yorkshire design rag rug for the exhibition. Rag rugs were commonly made in households up to the middle of the 20th Century by prodding scraps of fabric through the weave of old sacking. Helen said: "It's been a privilege to work alongside miners and local volunteers and to learn more about their experiences working at Temple Newsam at a time when it was so profoundly different to the way we see it now. "It's hard to imagine, but the stunning greenery which surrounds the mansion today was once the setting for massive, industrial mining operations which were deemed essential for the provision of fossil fuels nationwide. "Thankfully the estate has recovered in the intervening decades, but what's left

is a fascinating legacy of experience and history which those who worked down those mines have shared with us in this exhibition."

#### FACT FILE

Temple Newsam House was surrounded by a wasteland, effectively scalped thanks to an open coal mine on the estate, which closed in 1976.

The site was said to have six seams of coal, some as deep as 180ft - in July 1975, it was down to the last 500,000 tons.

Despite the 970-acre site being donated to Leeds City Council in 1922 on the grounds it be used "as a public park", the open-cast mining operation had been in place since 1943.

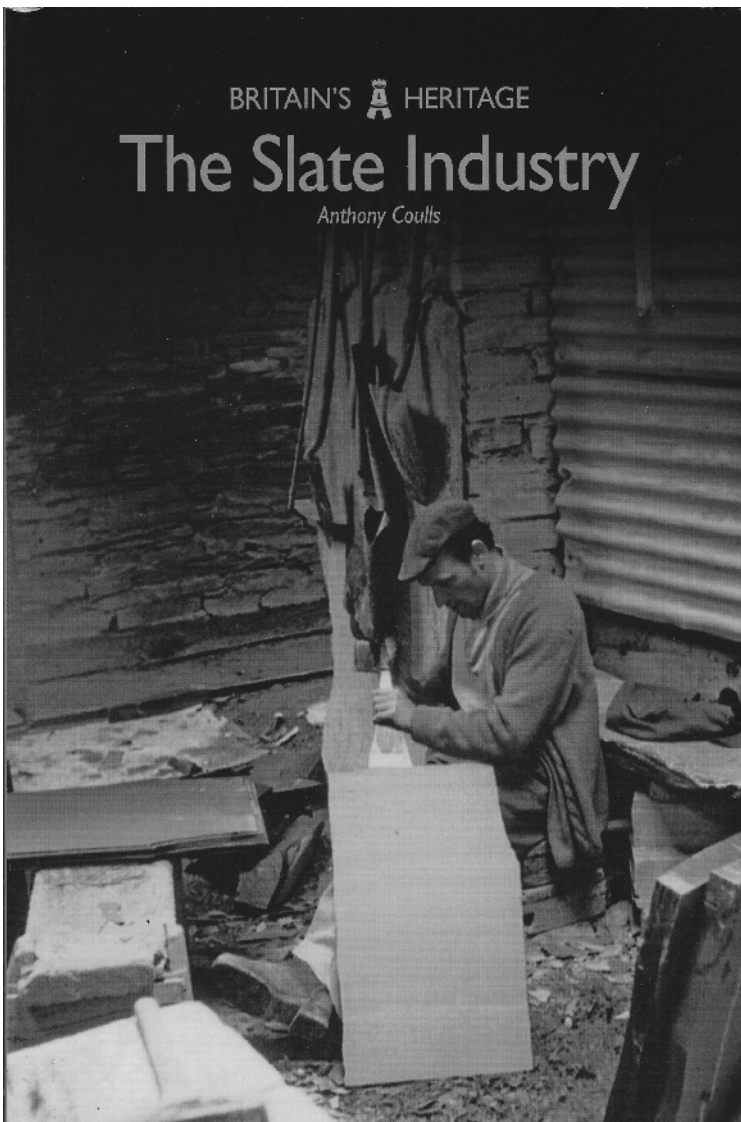
Although Leeds councillors put up a strong opposition, the Ministry of Fuel and Power forcibly requisitioned the land from Leeds on September 1, 1942 and again on July 21, 1945.

One monstrous crane towered three storeys high, built in the US and made for scraping away topsoil, it had three men operating it and was called 'The 600'.

Blot on the Landscape will be at Temple Newsam House until October 31.

Sent in by A Member.

**Yorkshire Evening Post.** June 2019.



## Book Review

### Britain's Heritage - The Slate Industry

by  
**Anthony Coulls**

The UK slate industry has a long and fascinating history and in the nineteenth century thousands of tons of roofing slate were exported throughout the world. This book is a well-illustrated story of that industry, which provided the raw material also for electrical installations, writing slates, snooker tables and decorative uses in the home and garden. Slate craft as an art form is also covered in the book.

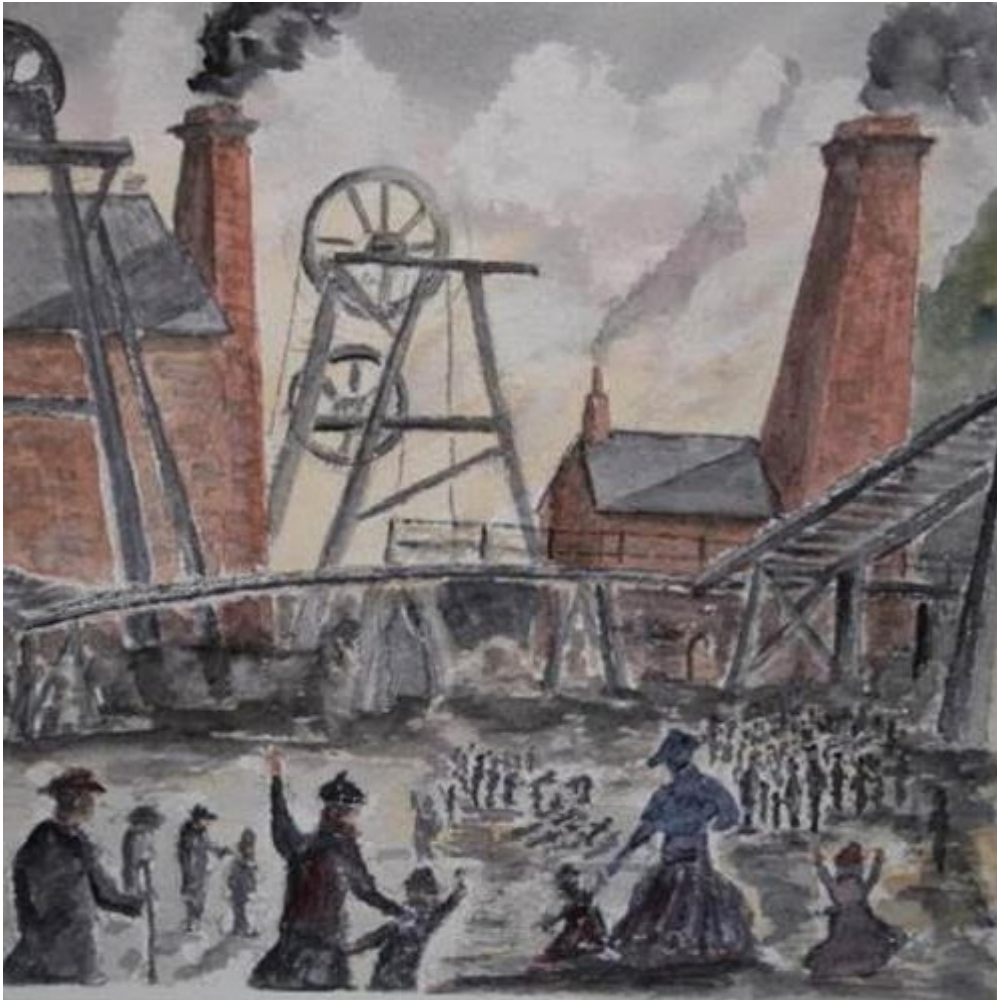
The book is heavily weighted towards the slate industry of North Wales and deals only superficially with quarrying and processing slates in Leicestershire, Cornwall and Cumbria. The processes, products and transport of slate are all explored as is the life and communities of the quarrymen. Finally, the book looks at the physical remains of the quarries themselves.

There are 80 illustrations, mostly in colour and the great majority from Welsh quarries. Virtually all of the detailed history refers to Wales, so, perhaps, another title would have been more suitable. Nevertheless, the book is an interesting description of an industry which is still active today, although a shadow of its former self.

Coulls A., 2019, *Britain's Heritage - The Slate Industry*, Amberley Publishing, Stroud, Gloucestershire, pp. 64, 234 x 165 mm, ISBN 978-1-44569-105-3. (£8.99).

Richard Smith.

## THE YEW TREE PIT DISASTER, TYLDESLEY, LANCASHIRE.



Painting by, Robin Sharples. The Yew Tree Pit Disaster. Tyldesley. 13<sup>th</sup> December 1858.

**13<sup>th</sup> DECEMBER 1858**

**During the mid-nineteenth century “King Coal” ruled throughout Britain.**

In the small Lancashire cotton and coal mining town of Tyldesley, there were upwards of some twelve collieries within a tight radius of the town centre. Even though cotton was important for the lifeblood of Tyldesley, however, from the very first stirrings of the Industrial Revolution, the town's most important industry was the mining of ‘King Coal’! From around the 17th century, and particularly so in the nineteenth century, the gaseous mines of the Lancashire coalfield would all too often explode with enormous ferocity resulting in the deaths overtime of hundreds of men and boys working at winning coal, deep in the bowels of the earth.

The Yew Tree Pit was situated a little to the east of Tyldesley railway station and just north of Manchester Road, close to Milk Street and Tyldesley Town Hall. The 750 feet deep pit was operated by colliery owners Green and Holland. In 1858, the underground workings had become extensive and ran beneath St. George's Church, well over a thousand yards out from the bottom of the shaft.

At 6 a.m. on the freezing cold morning of the 13th December of 1858, approximately thirty men and boys descended into the maw of the pit-shaft as they did every working shift. Some five hours later at around 11 o'clock some of the miners became aware that the atmosphere in the workings were becoming increasingly gaseous with the dreaded ‘firedamp’, and therefore extremely dangerous. This resulted in several of the more experienced colliers anticipating an explosion excitedly stated that everyone should immediately down tools and urgently evacuate the pit. However, notwithstanding the older, more experienced colliers' concerns, most of the men and boys remained hewing coal.

At around noon and without any warning whatsoever, Yew Tree Pit suddenly exploded, with a muffled roar. Unlike most other methane gas explosions in coal mines, at Yew Tree Pit there was no loud cacophony of the blast which was hardly felt up on the pit bank. Resulting from the firedamp explosion, the entire workings of Yew Tree Pit became clogged with the lethal ‘exhaust’ gas known as ‘afterdamp’, which is extremely toxic, induces asphyxiation, followed by collapse and finally death. The ventilation system in the pit was evidently inadequate, so the highly poisonous ‘afterdamp’ lingered in the numerous tunnels and workings. The gas problem was so severe that all attempts to descend the shaft by the colliery's rescue party was severely hampered, until several hours had passed following the explosion. By around 4 o'clock in the afternoon, the colliery management led a considerable number of extremely brave colliers, from Yew Tree Pit and also several neighbouring collieries, down into the depths of the still extremely dangerous smoke and gas filled pit.

With utmost bravery and not without considerable effort, the rescue teams reached a district known as ‘Jig Brow’ which was a considerable way into the workings. Here they discovered one lifeless body. By 6 o'clock in the evening, another seven bodies were discovered and the news of the tragic and gruesome findings were relayed to the surface. In the opinion of the experienced members of the search party, there was no hope in finding anyone left alive in the gas-filled galleries of the pit. Therefore, with their hopes dashed in finding anyone still alive, it was regrettably decided to concentrate on recovering their dead comrades' remains.

Whilst the difficult underground rescue work was underway, on the surface, a burgeoning crowd of anxious relatives, friends and neighbours, plus several hundred curious on-lookers gathered, all desperate for news of their loved ones entombed in the pit. Distraught wives with suckling infants anxiously seeking their husbands; fathers holding out hope for a son. A profoundly terribly and immensely sad scene. The mine officials still underground, upon hearing the news of the massive crowd up in the pit yard, ordered that no dead bodies were to be hauled up to the surface until late into the night. They hoped that the crowd, by now riotous, would by then have diminished in number.

At 17 minutes past 10 o'clock in the evening, the order for the cage to ascend was given and it was hauled slowly up the deep shaft, bringing out a number of lifeless bodies of the men and boys tragically gassed. By midnight some fifteen bodies had been brought to the surface, most having been suffocated by the afterdamp. There was also the body of a miner named Hugh Aspinall – who apparently, on realising that a massive pocket of methane gas was about to burst into flame, had desperately run to his comrades to warn them. Sadly, poor Hugh was literally blown asunder, his head, body and limbs being discovered over a wide area of the workings.

As the rescue team toiled deeper into the mine, their progress was thwarted by a mish-mash of wrecked machinery and coal-tubs, smashed and splintered timbers, and enormous piles of rock and coal brought down in roof falls. The men were now dog-tired and many were suffering the physical effects of working in the gas-laden atmosphere of the workings. Nevertheless, they dragged, hauled and cleared a path through the debris with their bare hands; their sole aim being to reclaim the bodies of their unfortunate fellow colliers.

By dawn, the rescuers had found a further three bodies, all badly burnt and horribly dismembered, which made identification impossible. The remains were wrapped in woollen blankets and hauled up to the pit-bank where they were placed onto carts and conveyed through the throng of grieving relatives and townsfolk to their cottages. By 12 o'clock noon, some twenty-four hours following the firedamp explosion, six men and boys were counted as missing. The pit management concluded that the total number of colliery workers who had perished, amounted to twenty five. Evidently, an error had been made when the grisly discovery of a man's naked thigh, blown off by the fierce explosion, was found lying among a heap of debris. This was mistaken for the limbless body of a young lad; however, the boy's body was subsequently recovered and identified.

Finally, the actual death toll in the depths of the gaseous Yew Tree Pit amounted to 24 men and boys.

Later the coroner's inquest was profoundly scathing regarding safety and working conditions at Yew Tree Pit and reported thus: "Our verdict is accidental death. We cannot however, allow this opportunity to pass without expressing our unanimous opinion that due precautions have not been taken to ensure the lives of the workmen employed in the mine; finding that the ventilation of the mine has generally been imperfect, more especially from the area of the out-let airways being too small. We are also of the opinion that there has been a great want of practical knowledge of the working of the mine on the part of the underlooker, and also that the firemen had neglected their duties....."

The names of the colliers and young boys who tragically lost their lives on that terrible day at Tyldesley's Yew Tree Pit were named as:

- James Barlow, collier, who was married
- William Baxter, Collier, married with two children
- Matthew Owen, collier, married with four or five children
- Hugh Aspinall, collier, married
- Peter Nightingale, collier, married
- John Eckersley, collier, married
- Henry Hope, collier, married with three children
- Thomas Beswick, fireman, married with six or seven children
- James Aldred, collier, single
- Thomas Hindley, drawer, single
- Michael Beswick, drawer, single
- William Beswick, drawer, single
- Thomas O'Neil, drawer, single
- Richard Bradshaw, drawer, single
- William Coop, drawer, single
- Joseph Lythgoe, collier, married
- John Lee, drawer, single
- Lawrence Gurner, collier, widower, with two or three young children
- Benjamin Foulds, drawer, single
- James Tyrer, collier, married with a family
- William Unsworth, drawer, single
- William Lomax, collier
- David Blackledge, drawer, single
- Moses Brooks, foreman, married

Regarding the prevalence of the deadly firedamp in the pit, it was not as if the colliery management were unaware of the danger of this highly explosive methane gas, since earlier in April 1852 there had been a previous explosion which killed a collier named Thomas Fletcher and one of his comrades.

The colliers all used safety lamps. Therefore, what caused these two tragic explosions? Summing up, it appears that poor ventilation of the pit was without doubt the foremost factor in allowing the continuous accumulation of gas. And what caused the noxious firedamp to ignite and explode? There was no documented evidence, but it may have been a spark caused from a collier wielding his pick, or even a shovel striking a lump of rock. We will never know. By around 1895, Yew Tree Pit was abandoned.

Tyldesley sadly endured a number of other mining disasters; apart from the firedamp explosions at Yew Tree Pit in 1852 and 1858, there was a tragedy at Great Boys Pit, 1877 which claimed the lives of seven miners; and at Astley Green Colliery five men were killed in an explosion in 1939.

**Fire-Damp:** is composed mainly of methane with varying percentages of other gases and is highly inflammable.

**After-Damp:** is a mixture of gases resulting from a fire-damp or coal-dust explosion and its composition can vary. It is recorded that over 75% of the deaths caused by explosions of British coal mines have been directly due to the after-damp alone.

**With kind permission. Alan McEwen. [www.sledgehammerengineeringpress.co.uk](http://www.sledgehammerengineeringpress.co.uk).**

## New Mineral Classification System Proposed



This image shows tri-colour crystals of elbaite, a mineral species belonging to the tourmaline group on quartz. Image credit:Reno Chris.

The modern mineral classification system, developed by the American geologist and mineralogist James Dwight Dana in the 1850s, categorizes more than 5,400 mineral species based on their dominant chemical compositions and crystalline structures. Professor Robert Hazen from the Carnegie Institution's Geophysical Laboratory and George Mason University suggests an additional classification system, which could amplify existing knowledge of how minerals evolve over time without superseding the existing designations. In his new paper, published in the journal *American Mineralogist*, he argues for categories that reflect a deeper, more-modern understanding of planetary scale transformation over time.

“A system grouping minerals and non-crystalline natural solids — which are not currently classified by the existing system — into what I call ‘natural kind clusters’ would better reflect the inherent messiness of planetary evolution,” Professor Hazen said. “For maximum efficacy, scientific classification systems must not just organize and define, but also reflect current theory, and allow it to expand and guide us to new conclusions. Professor Hazen pioneered the concept of mineral evolution, linking an explosion in mineral diversity to the rise of life on Earth and the resulting oxygen-rich atmosphere. He then added another layer to his vision by introducing mineral ecology, which analyses the spatial distribution of Earth's minerals to predict which ones remain undiscovered and to assert our planet's mineralogical uniqueness.

A system of categorization that reflects not just a mineral's chemistry and crystalline structure, but also the physical, chemical, or biological processes by which it formed, would be capable of recognizing that nanodiamonds from space are fundamentally different to diamonds formed in Earth's depths. The existing classification system groups some minerals with disparate formation histories together in one category, while splitting others with similar origin stories into separate mineral species. Another example: currently 32 different mineral species of the tourmaline group are delineated by the distribution of the major elements of which they are comprised. So, a single shard of tourmaline with slight variations in chemistry often contains multiple species of the mineral, even if they all formed in the same geologic event.

A natural kind classification system would rectify that problem, and allow for the inclusion of non-crystalline materials, such as volcanic glass, amber, and coal, which currently aren't counted as minerals, but can offer knowledge about our evolving planet. “Earth's mineralogy tells vivid stories, revealing how eons of geologic activity and the rise of life facilitated novel combinations of elements,” Professor Hazen said. “But to glean every nuance of this mineralogical text, we must embrace a new language for describing the creation of minerals that reflects the passage of time.”

Robert M. Hazen. 2019. An evolutionary system of mineralogy: Proposal for a classification of planetary materials based on natural kind clustering. *American Mineralogist* 104 (6): 810-816; doi: 10.2138/am-2019-6709CCBYNCND

**SCI NEWS.** June 2019



# Greenlaw Mine.

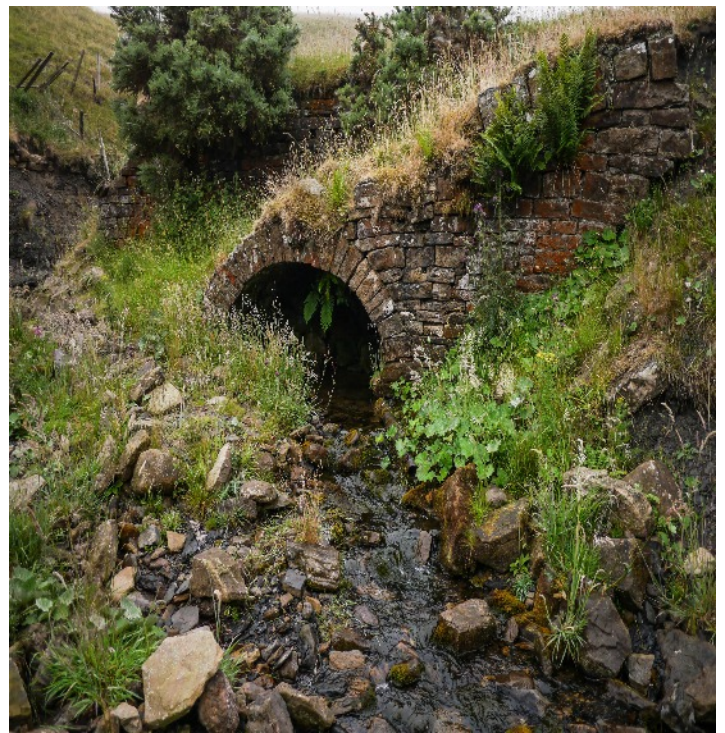


Lead Miners son Joseph Robinson was born in Stanhope around 1843 and by the age of 13 he was working at a mine. The 1861 census shows that Joseph is living with his parents and his four siblings Phoebe, George, Mary and Addy at Huntshieldford. The census also lists lead miner Isaac Vickers and his wife Mary as being the Robinson's neighbours and they have three daughters Margaret 15, Hannah 8 and Sarah 4. In 1866 Joseph marries Margaret Vickers.

In the August of 1868 their first child a son is born and on the 14th of August he is baptised Isaac Vickers Robinson. In 1870 their son John is born and the 1871 census lists him as being 6 months old. The Robinson's are still living at Huntshieldford and Margaret's widowed mother Mary and Sarah her sister are living next door. By the early 1880's the lead mining industry was in the doldrums and the mine owner and the church were in dispute over the payment of royalties and it was impacting on all the miners and their families. In the January of 1881 Weardale was in the grip of the worst winter weather in living memory it seemed like snow was falling every day the winter winds swirling the snow in to massive drifts. As the disputed between mine owner and church dragged on Mr Wentworth Beaumont MP had become an absent mine owner having moved to the family seat in Wakefield. With miners being laid off and as the threat of mine closures abound Walter Beaumont the mine owners younger brother starts touring the dale campaigning for miners rights and questioning the actions of his brother and the mine agents for the miners the year dragged on and Joseph Robinson had managed to keep working.

On Monday the 21st of November Joseph left for work not knowing that it would be his last day working in the mine; Joseph was with Thomas Eggleston when they went to work in a rise in the quarry level of Lead Mine; the rise was 14 fathoms up, and when they had climbed up about eight fathoms both their candles went out owing to foul air. They tried to re-light them with matches but could not, and Robinson said he would go up to the end of the Air-box and light his candle there. Eggleston advised him not to do so, but he went, and, when about three fathoms from the top, was overcome by the foul air and suffocated. The rise was ventilated by 5-inch air boxes from a water blast, with a column of eight fathoms, but the current had been too feeble to sweep away the foul air which had escaped from the strata during a falling barometer. These two men had driven the rise from the level, and Eggleston said it was usually well ventilated, but that occasionally, when there was a change in the weather, they had seen foul air, and gone home. They did not report this to anyone, and the agent said he was not aware of it.

Joseph's death made the news headlines as the Coroner's verdict was accidental death, Walter Beaumont queried the findings arguing that the mines managers should never have allow the men to work in such



conditions and in the December of 1881 Mr Wentworth Beaumont MP closed the mines. In early 1882 the Church Commissioners and Mr Wentworth Beaumont MP reach agreement on the issue of royalties and the lead miners were able to return to work, their dissatisfaction with conditions and wages continued and the following year Mr Wentworth Beaumont MP sold the mines and they were leased to the Weardale Lead Company. The miner's leader Walter Beaumont left the dale the same year.

*Members. I'm looking for a photograph of Jeffery's House [Mine Shop] which once stood on Jeffery's Rake part of Derwent Mines and was wondering if any fellow member has a photo. I need it for an article that I'm working on.*

**Peter Giroux.**

**Note. If any members can help Peter please contact the editor**

www.earlyengines.org



## BOOKING FORM

**Second International Early Engines Conference (IEEC2)** 15-17 May 2020, Black Country Living Museum, Dudley

Number Required

**FULL CONFERENCE TICKET - £135** -----

*Includes all papers, lunch and evening meals on Friday and Saturday, coffee and tea on all three days, plus copies of conference transactions*

**CONFERENCE DAY TICKETS**

**Friday 15<sup>th</sup> (day only) - £40** -----

*Includes papers, lunch, tea and coffee*

**Friday 15<sup>th</sup> (day and evening) - £60** -----

*As above plus evening meal at Sandfields and coach to and from Dudley*

**Saturday 16<sup>th</sup> (day only) - £45** -----

*Includes papers lunch, tea and coffee*

*(Note that in the evening we hope to have access to BCLMs "Red by Night")*

**Sunday 17<sup>th</sup> (day only) - £30** -----

*Includes papers and tea and coffee*

*If you have specific dietary or access needs, please describe them below and we will endeavour to comply*

**NOTE.** THE "EARLY BIRD" DISCOUNT OF 10% OFF THE ABOVE PRICES APPLIES FOR BOOKINGS RECEIVED BEFORE 31<sup>st</sup> NOVEMBER 2019

### PAYMENT INSTRUCTIONS:

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**Sent in by Steve Grudgings.**

## “Gentleman Jack” - in need of the Coal Authority



One of the abandonment plans available to view.



One of seven abandonment plans of collieries owned by the Lister family.

family mines around Shibden Hall. Often labelled “the first modern lesbian”, Anne Lister was a highly intelligent woman operating in what was then a ‘man’s world’. She opened a pit in the area after she inherited Shibden Hall in 1836 from her aunt. Although Anne’s original plans are not held by the Coal Authority, it does hold a total of 7 different abandonment plans of collieries owned by the Lister family in the Shibden area. These early coloured plans for the Lister pits name several of Anne’s relatives, such as John Lister, Esq. Another plan dating from 1886 is marked with the name of Mr. Lister and Mr. N. Brooke.

Plans stored in the Coal Authority’s historical records linked to Anne Lister’s Shibden Hall estate.

Television’s latest great Sunday night heroine – ‘Gentleman Jack’ - would have found her life a great deal easier if the Coal Authority had been in existence. Based on Anne Lister, the West Yorkshire landowner who defied the social conventions of the time, the BBC 1 series shows her battling with neighbours over her coal mines. This was in the 1830s – at a time when coal mine abandonment plans were not centrally held.

Today, the owner of Shibden Hall near Halifax, could have checked on any local underground coal workings by visiting the Coal Authority, the non-departmental government body that’s working to create a better future from our mining past. Over 120,000 abandonment plans are held in temperature-controlled rooms in its Mining Heritage Centre in Mansfield, Nottinghamshire. Dating from the 1760s, these are still used and accessed on a regular basis today to help protect people and the environment. Problems encountered by Anne Lister in the programme – such as coal seams at different levels and the management of underground water – are all still relevant, with abandonment plans continuing to play an important role in managing Britain’s coal mining legacy.

Abandonment plans for the country’s former coal mines feature on rolls of parchment, linen and aluminium boards, with some measuring 6 feet high. Among them are the original plans for the Lister

## Visit to Goldscope - May 2019

A small but dedicated bunch of NMRS members joined up with other mine enthusiasts for a fascinating visit to Goldscope and adjacent mines in the Lake District. In the company of Mark Hatton from CATMHS, we were treated to a tour of the above and below ground remains, together with an explanation of the fascinating history of this gem of a site. The story goes something like this . . .

From the vicinity of the historic Newlands Church you can look south towards the steep ridge of land known as Scope End, bounded on the east by Newlands Beck and on the west by Scope Beck. Mineral veins run roughly E-W (copper) and N-S (lead), and were known since antiquity with the ancients pecking at the surface exposures of the copper vein on both sides of the Newlands Valley. These open works were relatively modest affairs, and it was not until the arrival of miners from Germany in reign of Queen Elizabeth the First that serious underground excavations took place. The Germans were drafted in to look for copper which was desperately needed by the crown to alloy with silver, thereby making the supply of silver for coinage go that bit further (the Tudor version of quantitative easing), as well as for other uses such as making bronze used for naval cannon. The Germans, under the leadership of Daniel Hechstetter, were given free rein to mine wherever they wanted, with the profits returning directly to the crown. This situation caused problems with the landowners, particularly with Thomas Percy, Earl of Northumberland who ultimately paid with his life for his treason. The Germans brought with them the most advanced mining and smelting technologies of the age – apparently the Goldscope copper ore was particularly difficult to smelt – and as we were soon to witness - some awesome surveying skills . . .



The twin spoil heaps beneath St. George's Level. The earlier (bottom) heap may have been the site of an early dressing floor – subsequently covered by the spoil of later working. The vein can be seen sloping diagonally up the hillside. (GU)

Using only rudimentary hand tools, the painstaking process of tunnelling through the hard rock began at both ends of the St. George's Level (the Grand Level). This in itself is an impressive accomplishment that took many years to complete. At one section there is a slight dog-leg in the tunnel which is believed to

be point where the two ends of the tunnel met – almost perfectly. As well as access, St. George's Level served another vital purpose – it was a key part of a hydraulic engineering scheme to power both the de-watering of the lower workings and also the dressing floors. A dam was constructed at the head of Scope Beck, supplying a leat that perfectly followed the contours of the valley side for one mile to a position close to the west end of St. George's Tunnel. A connecting tunnel was driven to feed a water wheel located in an underground wheel pit in an impressive chamber at the end of St. Georges Tunnel. The wheel was used to de-water deeper workings, with the combined waters draining out by down the slight incline on which St. George's Tunnel had been constructed. But the waters job was not yet complete; the adit entrance is located some distance above the floor of Newlands Valley, giving sufficient head to power yet another water wheel and the dressing floors postulated to be located under the spoil from lead workings in subsequent centuries



NMRS members looking inbye at Goldscope. (MH)

By now we were thinking that we had already seen and learnt rather a lot, but there was more to come . . . After exploring St. George's Level for ourselves, we were led higher up Scope End to view the Pan Holes – a series of open cuts, now flooded almost to surface - before dropping down to an open works of considerable size. It was here that the copper and lead veins crossed; and where they were found to be particularly rich.



One of the 'pan holes' – flooded to the brim. (GU)



Walking between sites-in spectacular surroundings. MH

After lunch we visited Sealby's Level higher up the valley for another underground exploration. This is a more recent work from the eighteen hundreds, driven through a vein of sugary quartz and an interesting porous rock with a pinkish hue. This mine was apparently not successful being little more than a long trial ending abruptly at a blank wall when eventually the miners gave up. Besides the curious rock, there were in-situ wooden rails at the far end – which we were careful not to stand on since they looked very fragile.

Sadly it was now time to turn back, but the return route led past yet more mining remains and some fantastic views out over the hills. Of particular note was a wheelpit and pump rod adit of c. 1860, built to house a waterwheel of 42 ft diameter. The only remains of the wheel itself are some holding down bolts protruding from the rock, but it wasn't too hard to imagine what it must have been like when operational



Wheelpit and pump rod adit. GU

Last, but not least, on the tour was an ancient dressing floor, identifiable by vast quantities of hand napped gang (waste rock) strewn over the ground. There was a one final curiosity to behold at this point – a bucking stone. Set firmly in the ground, this ancient stone 'anvil' carried some hollows in its upper surface –

just the right size to hold the mined rock as it was manually hit with a hammer to separate ore from waste. Gradually as the stone was used, the depressions would deepen to the size we can see today.

It must have been dreary work kneeling down all day to hit rocks with a hammer, but the views were better than from any modern office or factory.



The Bucking Stone – now lichen covered, but otherwise just as the miners left it. (GU)



An excellent example of Elizabethan coffin level – part of the Goldscope complex. (MH)

Northern Mines and in particular those on this trip – would like to express their thanks to Mark Hatton for leading us, and generally for making the history of this fantastic place come alive. Thanks also to David Taylor for doing the 'organising'.

**Geoff Usher.**



## Coldstones Cut and Quarry

### 15th June 2019

Four members met at the 'Coldstones Cut' car park at about 10am on a cold and overcast Saturday. We were met by Bob Orange, a Unit Manager at Hansons Aggregates who outlined the days itinerary and explained that it would not be possible to visit the actual quarry workings. He led us to the Coldstones Cut which is a large sculptural viewpoint designed by the artist Andrew Sabin. The Cut has been designed to mimic a modern townscape with bollards, asphalt road, a roundabout and yellow lines – very apt as the quarry was originally opened to supply the road builders and townscape makers of the 20<sup>th</sup> century.



The large blocks of limestone used to build the structure were brought from the quarry. There are 2 narrow footpaths leading North and South from the roundabout, the Northern one spirals upwards and reaches open air where the handrail transforms itself into a compass that runs for 18 metres and 360 deg's around the perimeter of the platform. The Southern path again spirals upwards and opens out into a platform of limestone flags cut to continue the spiral and forming the shape of an ammonite ( here the architect got it wrong, ammonites are found in Jurassic period rocks, not Carboniferous).

At the centre of this platform is a limestone plinth on which there is an etching recording the flora and fauna of Nidderdale. At the end of the Cut, overlooking the quarry is a large viewing platform from where you can look into the depths of the quarry, watch the working of the quarry and see the crushing mill and asphalt plant. The Cut is closed during blasting operations. There are interpretation panels explaining the history and geology of the site.





Coldstones Quarry is situated on Greenhow Hill at 1400 ft above sea level and is one of the highest quarries in Britain, the quarry currently covers an area of about 30 hectares. It is worked on 6 benches 15-18m high to a depth of 300m at the base. Coldstones provides an average of 600,000 tons of aggregate annually. Over 90% of its products are used locally within a radius of 30 miles. The limestone is crushed on site using a jaw crusher and produces aggregate from about 25mm down to dust, all of which is stored on the quarry top. The asphalt plant produces 50,000 tons annually. Any excess produced is stored and recycled as necessary. At the moment the plant is situated close to the quarry entrance, they are however going to be re-sited on the opposite side of the quarry. Greenhow Hill is an old mining area and there has been evidence of this over the years as old workings have been exposed. There are 2 mineral veins exposed within the quarry, the Garnet and Sun Vein.

One interesting geological feature is a sinkhole which has a sandstone and shale infill. The quarry has an estimated life of 10-15 years and after that time it is anticipated that it will be allowed to return to nature. On the way back to the car park we visited the Toft Gate Lime Kiln which is a large, fairly intact, kiln. The flue stack which is visible from the car park is attached to the kiln by a long well preserved stone flue.

**Michael Cooke.**

## **60 years celebration appeal.**

**Your society will be sixty years old next year. Have you thought of any of the following?**

If you have any photographs, stories, memorabilia, or any thing else why not share it with the current membership?

If you are a long standing member why not tell us how the society has changed from your perspective?

Do you have a memorable article from years past that we could reprint?

**Please forward to the editor. Details on the front cover.**

## Editors Notes.

1. As this Newsletter is representative of its members interests, hobbies and working lives. Why don't you tell the membership what your interest is or what your hobbies are and what you have done throughout your working life? As long as its connected in some way to mining all articles will be published. If you need help or guidance in doing so please contact me.

2. Have you noticed that a few members have made appeals for information in the last few issues? These have meet with a very good response. So if you have something puzzling you that's mining related why not ask the membership for information?

## Disclaimer

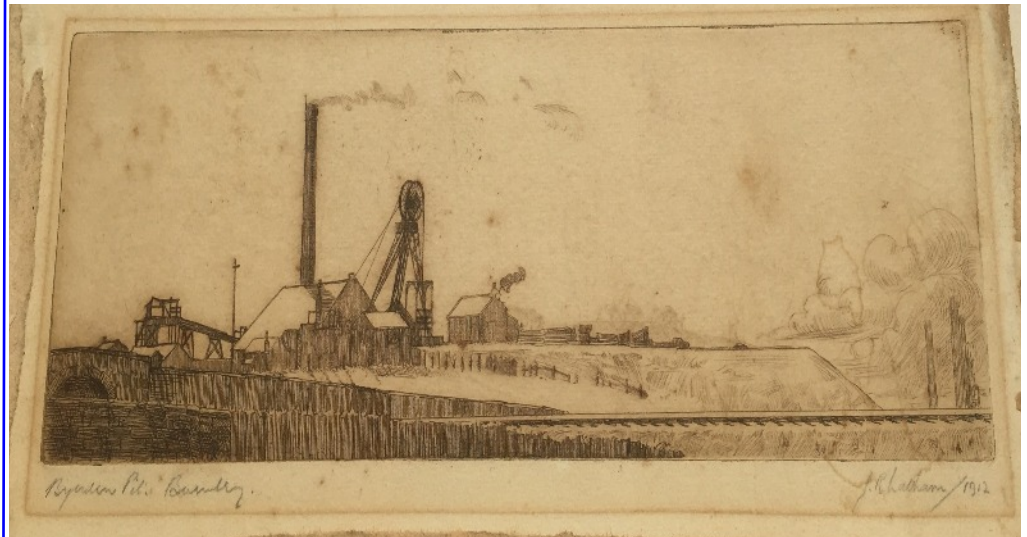
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## Information Required for this Sketch of a Colliery?



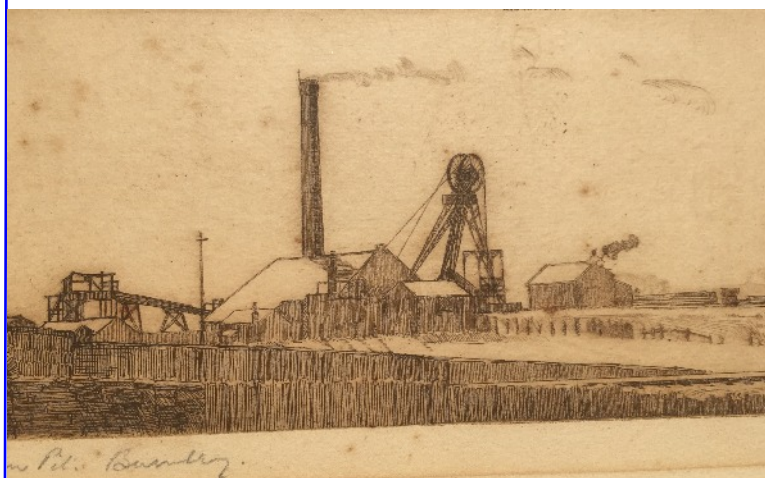
**A** member of the public who lives in Burnley Lancashire recently bought this pencil and ink sketch of a colliery which is believed to be in the Burnley area.



The signature reads J.R. Latham. And the date is 1912. The inscription reads Byrden Pit Burnley although it is a bit vague. Also on the back is the name of the company who framed it but we are not sure that this is relevant.



He has researched into it but cannot find a colliery under that name. The nearest to it is Barden Pit Burnley. However he has found nothing to link this colliery to this sketch.



If you look closely at the drawing it shows a stone arch bridge which looks like it is over a railway. The above Barden Pit was on the side of the Leads to Liverpool Canal and not the railway. Although the Burnley to Colne line is nearby.

As he is very interested in the industrial archeology of the area. He lives locally and would dearly love to be able to identify the colliery and its location. If you have any information that might be relevant please contact the editor who will forward it to him.

**Editors details located on front cover.**