Northern Mine Research Society

Newsletter

Society established 1960

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Please note that the deadline for inclusion in the Febuary 2020 Newsletter is the 26th January 2020.

The Northern Mine Research Society is a Registered Charity No. 326704

Visit our Website

www.nmrs.org.uk

News from our Society

Writing this before our **Autumn meeting** news of that event will be in the February Newsletter. However Reports should be going on our website sometime this month so please look out for them. If anyone wants a physical copy please let me know which you are interested in either by email (at the end) or via our Secretary (address further on). There are also interesting presentations planned. Thank you so much to all who attend our meetings. We do realise many of you live too far away to come but we do appreciate your support.

Well this year has flown by and 2020 will soon be upon us. Enclosed with this mailing is the **membership renewal form for 2020.** Once again we have been able to hold our membership prices at the same level as this year. Please complete your form as soon as possible in order to help our Membership Secretary, Gary Topping. Thank you to all who gift aid their membership but please remember to inform us if your circumstances change and we are no longer able to claim it. May I also remind you our **privacy policy** document is on our website.

It is also the time to consider **Committee nominations.** If you are interested in any of the positions all you need to do is to contact our Secretary in writing at **least twenty eight days before the 2020 AGM** with signatures of a proposer and seconder and the position you are interested in. Obviously your signature will be required. The secretary`s address is Dr J. Cleland, 30 Windsor Rd., Cambridge, CB5 3JW

The present officers are listed below – they have all indicated they are prepared to stand for re-election in 2020

President	Barbara Sutcliffe
Vice-President	Malcolm Street
Junior vice-president	Len Morris
Membership Secretary	Gary Topping
Secretary	James Cleland
Treasurer	Tim Cook
Publications Editor	Richard Smith
Publications officer	Barbara Sutcliffe
Recorder	Mike Gill
Librarian	Sallie Bassham
Newsletter Editor	Graham Topping
Meets Leader	Mick Cooke
N.A.M.H.O. Representative	Sallie Bassham
Website Administrator	Malcolm Street

Please note that elsewhere in this Newsletter Malcolm is asking for help with the website. It is a great asset to us not only for the huge amount of information there but for the added income streams via publications.

Please don`t forget we award **grants.** If you know of anyone who might benefit from one please suggest they ask for a grant application form. There is a section on our website with full details.

On behalf of our Society I would like to welcome the following **new members.** It is pleasing to note they come from all over the country.

Chris Bargmann	- Exeter
Ian Bruce	- Somerset
Hamish Campbell	- Hamilton
Dr Bob Dowdell	- Newcastle upon Tyne
Richard Fletcher	- Halifax

Mr S.J. Harker - York
Mark Hatton - Hexham
Mr T Harvey-James - Redruth
Nick Hennessey - Grange over sands
Carl Spence-Jones - Leeds
William West - Ashburton
S. Whitehouse - Harrogate

For this edition of our newsletter the **publications and library news** are being combined due to a very generous donation of the late Ken Makin`s collection of books by his widow, Alma, who is keen for us to benefit both financially as well as augmenting the library. Sallie and I co-operated to decide what went where. The collection consisted of books on mining, minerals, archaeology, caving, quarrying, PDMHS publications including bound copies, tourist brochures, British Regional Geology publications and maps not to mention his set of our British Mining Series. We are very appreciative of this donation and thanks must be given to Arthur Baldwin who helped Alma so much after Ken`s untimely death. Quite a few of the books, along with other donations, have been added to the new web section under publications "second hand books for sale published by others." Just click on that link to see photos, details and prices of the 100 plus books listed. Please remember, that as a member, you are entitled to 25% off the published prices. In order to benefit from this discount you need to order via the members` area. Others will be taken to meetings and events we attend. Sallie would like to thank Richard Smith for a copy of "The Slate Industry" by Anthony Coulls and Rob Needham for a book on Fluorspar edited by Ray Fairburn. John Simpson from Accrington Library donated some of the late Mike Rothwell NMRS publications to us. We also had a donation of our BMs from Geoff Greeenough whose father had been very active in our Society in the 1980s. Many thanks to Sallie for collecting these and bringing them to Nelson. Needless to say all our donations have been acknowledged.

Amongst Ken`s books **are a bound set of PDMHS publications** from Vol 1 up to Vol 12, in 6 books and up to 1994. There are **also bound yearly copies of "Mineralogical Record" from 1978 through to 1999.** In both cases if interested please contact me.

Can anyone help Bernard Bond please? He has been asked to find any photo or information on a pre 1900 railway carriage that was standing outside the Wells Springs Inn on the road going over Pendle Hill from Sabden. It is thought the railway carriage had been taken there from the Rimington Lead Mines, near Clitheroe. If anyone has any photos of the Rimington Site it may show the railway carriage. You can contact him on **janetbond@pobroadband.co.uk**

Thank you to those of you who have contacted me about the last 59 years of our Society. As mentioned before I envisage our display boards to be split into decades marking (in 2020) 60 years of our success and progress. They would make an excellent talking point. Scanned Photos, captions and memories with approximate dates will be appreciated. Remember, too, that most of our back copies of newsletters are available on our website in our members`area. If anyone wants a specific year (4 issues) as physical copies please contact me. Postage cost only would be needed. I have spent some time sorting sets out from donated copies. Obviously there are very limited supplies. Even I have not managed to acquire a full set of my own!

Finally on behalf of all our Committee I would like to wish you all **Seasons Greetings for Christmas and the New Year** and thank you all for your support in 2019. Thanks should also be given to all of our Committee who work extremely hard on your behalf.

Barbara Sutcliffe
Email – mansemins@btopenworld.com

Website

The website has grown somewhat over the past year with the addition of some 1700 obituaries of mining engineers who were members of the Institute of Mining & Metallurgy. Obituary sounds a bit morbid, but these are actually brief stories of their working lives and range from a couple of lines to a couple of pages. It is interesting to note that few died as a result of a mining accident (<1%). Many of those who didn't reach old age died from illness (17%), as a result of war (10%), vehicle accident (6%) or from tropical diseases (3%)

The website page count currently stands at just over 4,100 pages, all of which are indexed and fully searchable by our website's search engine, and have been optimised for Google searches.

Help needed
While I have no plans at this moment in time to hang up my mouse, it would be good to have another person/persons who can take over should I suddenly not be around for whatever reason.

There is so much more that we can do on the website and you don't need to directly access the website to help. I only have one pair of hands and with all the other things I am involved in, limited time. The more visitors we bring in, potentially the more members we get and the more books we sell. This in turn brings more finance in for our operations. This can be brought about in two ways:

1. The more pages we have the more we will feature in Google searches.
2. The more links we have on other pages the more visitors we could get.

Option 1.
If you look on our pages from https://www.nmrs.org.uk/mines/ there are many pages that could be written. All you need to do is send me text and/or photographs and a link to where it needs to go and I'll create the page.

Option 2.
Trading links with other websites is time consuming and requires us to somehow display their links in an appropriate place. There is a simpler way – to place links on Wikapedia pages – I know these pages can sometimes be untrustworthy, but people do use them, 5% of recent visitors to our online mapping come from a link I placed on their coal mining pages (and we get around 45 visitors a week). You can either suggest a Wiki page for a link (and our page to link to) or you can make the update yourself – I can supply written instructions on how to do this.

Option 3.
We have written permission from the National Library of Scotland to use "in excess of 200 OS map images" from its website to add to our web pages. We have many pages where a map would add to a page – all you need to do is to locate the page and create a map section - full instructions will be supplied on how to do this. Example pages can be found on the Leicestershire Coalfield pages.

Malcolm Street.

Company of Mines Royal

The Arms of
The Company of Mines Royal
1568 - 1605

This is the Coat of Arms of The Company of Mines Royal, granted on 26th August 1568. Keswick was the Head Office and centre of mining and smelting operations of this Company. The main activity of this Company was mining copper ores, with Goldscope in The Newlands Valley being the main source. Smelting took place at Brigham on the River Greta near Keswick. The Miners and Smelters were from Central Europe and possessed knowledge and skills far more advanced than anything known to Englishmen at that time.

The Coat of Arms was granted to the Company by The College of Arms under a system that dates back to the 12th Century. The Coat of Arms acts as an identification mark (like a Trademark or Corporate Logo). Great care went in to the design of the Coat of Arms following a strict set of rules.

By studying this Coat of Arms we can learn a great deal about how these German Miners appeared and worked in Elizabethan times, including what equipment and techniques they used. The image on the shield in the centre of the Coat of Arms is of a miner working underground and shows how, 100 years before the use of gunpowder in Mines, they used a pair of hammers to drive adits and work ore bodies. Each hammer has a sharp pointed end and a flat, blunt end. The pointed end of the first hammer appears to be held against the rock face (like a chisel) and the blunt end of the second hammer is used to strike the blunt end of the first hammer. There is an oil lamp or a candle in the roof of the level providing light. The miner is wearing a pantaloon type of trousers with the addition of a Miner's apron (usually a leather garment worn to cover the bum and it keeps the miner dry when sitting down and prevents wear & tear of the trousers). All of the figures in the image have a beard and wear the same headwear. This headwear appears to be a padded hood which would serve to protect the head and provide insulation just like a helmet does today.

The top of the shield (above the working miner) shows two round objects and a square object. These objects are different colours and may be a Gold Coin, a Copper Plate and a Silver Coin. These objects illustrate the main metals that the Company was seeking and examples of the goods manufactured with those metals.

The figure to the left of the shield shows a miner wearing the same clothing and carrying the same hammer as the figure on the shield. The figure to the right of the shield is carrying a long two pronged fork and he is wearing a very distinctive garment. His job may well be to work in the Smelter and the garment is to protect him against the heat, sparks and splashing of molten metal. The garment appears to be made of fustian (a thick mixture of linen and cotton) rather than leather. The flared trousers serve to prevent drips of hot metal falling on to his shoes, although it is perhaps surprising that he isn't wearing thick boots. The fork would be used as a tool for tasks such as to open and close hot furnace doors, stir the molten material and lift kibbles.

The Figure at the crest holds a compass in his left hand and in his right hand appears to be a device for measuring angles (possibly an inclinometer or for measuring headings when driving the level). Adits had to be driven on precise headings, for measured distances and on a gentle upward slope so the water would run out. A device like this, taken together with a compass, would be essential surveying tools.

The Company of Mines Royal revolutionised Mining and Smelting in The British Isles and the impact this company had should not be underestimated. This was the first Joint Stock Company to be engaged in Manufacture. They were one of the first to be granted a Patent allowing them a monopoly to mine for Lead, Copper, Gold and Silver in England & Wales. They greatly advanced Mining techniques (including locating veins, driving adits, building pumping, winching and stamping systems) and they developed highly sophisticated smelting technology. Indeed they can quite fairly be described as the first technology company in the Country and an important step on the path towards the Industrial Revolution. The Company also deployed very advanced Cost Accounting techniques which have been influential for centuries. We have no known portraits of these men so the images on their Coat of Arms is perhaps as close as we can now get to seeing them in action.

Mark Hatton. {Member}

The following headlines have all recently been in the news or on 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.

The Victorian Society publishes its top 10 most endangered buildings and structures every year. Its director Christopher Costelloe said the latest list is a "rich mix".

It includes Chatterley Whitfield Colliery in Staffordshire, Queensbury Tunnel in West Yorkshire.

The scheme, now in its 12th year, uses public nominations to determine which buildings to list.

Victorian Society president Griff Rhys Jones said this year's examples include "gems" and "real historical monuments".

He said: "It is both inspiring and saddening to see this list. Who would have thought that a call to arms would reveal such a wealth of distinguished and absorbing architecture?"

BBC News. Sept 2019.

New images reveal cavernous new chamber discovered at Williamson's Tunnels

Liverpool Echo. Sept 2019.

The Halkyn Mine Tunnel network runs several hundred feet below the Rhydymwyn Tunnels

The Daily Post. Sept 2019.

Museum of mining to get £1.8m for renovations

BBC News Wales. Sept 2019.

KING EDWARD MINE
MUSEUM
CORNISH MINING WORLD HERITAGE

Holman Exhibition - one of the world's most famous manufacturer of rock drills

Oct 2019.

The world's biggest accessible geode opens in Southern Spain

Entrance to Mina Rica, where the geode is located. Francisco Bonilla

For the man who discovered a giant geode 20 years ago in Pilar de Jaravía, located in the municipality of Pulpí, in Spain's southern province of Almería, its upcoming opening to the public on August 5 will be a moment to be treasured.

"It's a dream come true for me," says Javier García Guinea, a research professor at the Spanish National Research Council (CSIC) who carried out the first analysis of mineral samples from the giant gypsum crystals found inside a cavity by members of the Madrid Mineralogist Group in 1999. It is he who has been mainly responsible for making it accessible to the public.

Geodes are cavities in the rock that are typically lined with quartz, calcite or gypsum crystals, formed quite simply from a recipe of water, minerals and lots of time. Pulpí's is now the biggest accessible geode in the world – the largest one is in Naica in Mexico, but temperatures of 50ºC and a difficult location make it impossible to visit. As one of the first people to show up at the old abandoned mine after the discovery of the geode within, García Guinea was among those who persuaded Pulpí's mayor, María Dolores Muñoz, to take measures to prevent the translucent crystals from being plundered.

A committee of representatives from the regional government of Andalusia, the University of Almería, the CSIC and the local council considered several less viable and more expensive ideas to make the public aware of the site's existence, but they were finally convinced that opening it for guided tours was the most practical and desirable solution. Working with a budget of €500,000, 700 tons of earth and rubble were removed from the mine to make it safe for visitors, and points of access were constructed, which was one of the biggest challenges to making the crystals a tourist attraction, according to José Ángel Solanilla, a mining engineer and the project manager at Tecminsa, the company that carried out the work. Finally, a cast iron spiral staircase allows the public to descend the 40 meters from the main gallery into the geode itself. While there has been some concern that tours of the Pulpí mine could lead to the deterioration of the exquisitely translucent crystals within, Tecminsa geologist Francisco Javier Fernández Amo insists that the risk is minimal. He says that the University of Almería has designed a monitoring system that includes alarms if visitor numbers are exceeded, as well as sensors that control temperature, humidity and CO2 levels.

Costing €22 per person, the group tours take a maximum of 12 visitors on a visit of a stretch of 500 meters inside Mina Rica, ending at the massive geode. In the 20 years since its discovery, scientists have been confirming the crystals' uniqueness and size – at times as big as two meters – by feeding themselves into awkwardly small nooks and crannies for samples. Fernández Amo attributes a large part of the formation of the geode at Pulpí to volcanic activity that took place millions of years ago in this area. "Fluids filled with minerals are injected into the layers or cracks," he explains, adding that first the cavity is formed, and then the mineral deposit within it. The cavity in Pulpí was possibly created by the karstification of the dolomites that form the local Aguilón mountain range. As far as the crystals are concerned, the theory suggests a mixed karstic-hydrothermal model – in other words, the presence of gypsum and calcite reacting with the hot waters from the volcanic activity.

Jose Angel Solanilla, a mining engineer, holds a crystal found inside Mina Rica.. Francisco Bonilla.

Unique

In June 2000, this newspaper published the headline 'Giant geode found in an Almería mine astounds scientists.' In the story, Javier García Guinea affirmed that a search of international databases had confirmed that nothing like it had previously been found. In the 20 years since its discovery, scientists have been confirming the crystals' uniqueness and size – at times as big as two meters – by feeding themselves into awkwardly small nooks and crannies for samples. Fernández Amo attributes a large part of the formation of the geode at Pulpí to volcanic activity that took place millions of years ago in this area. "Fluids filled with minerals are injected into the layers or cracks," he explains, adding

that first the cavity is formed, and then the mineral deposit within it."The crystal prisms measuring an average of half a meter cover the entire cavity – floor, roof and walls – which is shaped like a rugby ball. They are far bigger in size than those found in the biggest accessible geodes on Earth, such as the one in the south of Brazil where the amethyst quartz geodes can measure up to a meter in diameter," he said.

Pulpí's blue geode is another element of interest, according to Fernández Amo, who explains the hue is due to the presence of strontium, and that the cavity was once over 20 meters in size but was largely destroyed by the mining activities. The site was a working mine from the middle of the 19th century to the end of the 1960s, producing first iron, then silver and lead. Now part of the mine's attraction is those "underground cathedrals" that reach a height of up to 40 meters, and the clothing worn by miners in those days, which is now on display. Other elements of note at the mine are the abundance of celestine (a variety of strontium sulfate), barite and siderite. There are also samples of lapis specularis – a transparent gypsum that was used as glass in the windows of Roman palaces.

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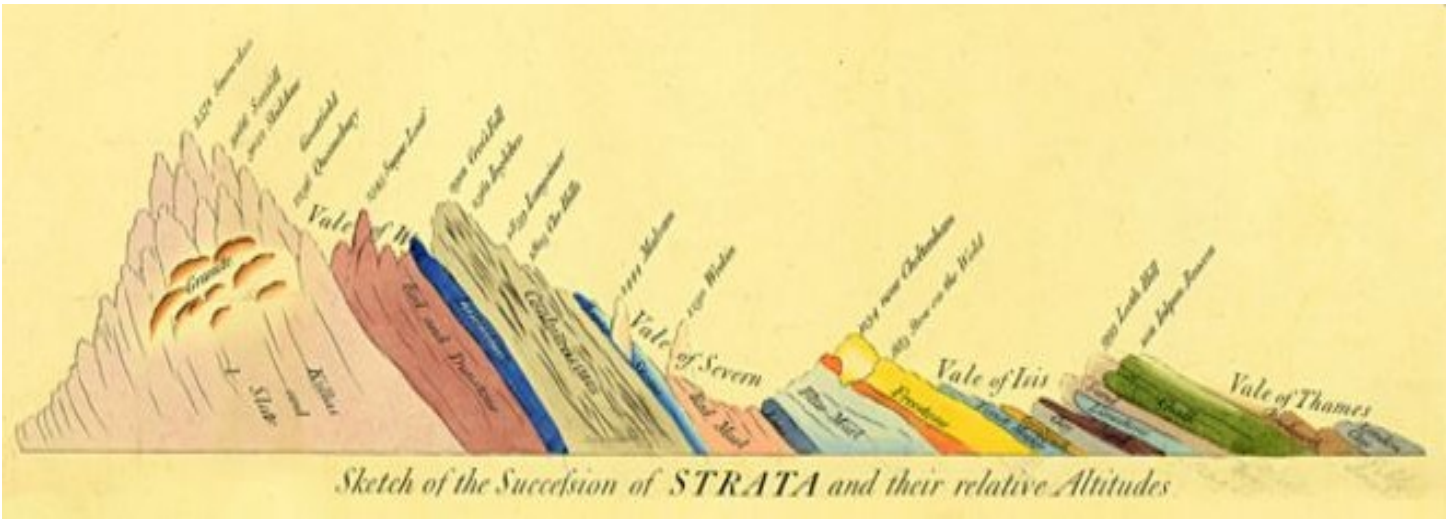
Sent in By Colin M Keighley. EL PAIAS July 2019.

William Smith: Seminal geology map rediscovered

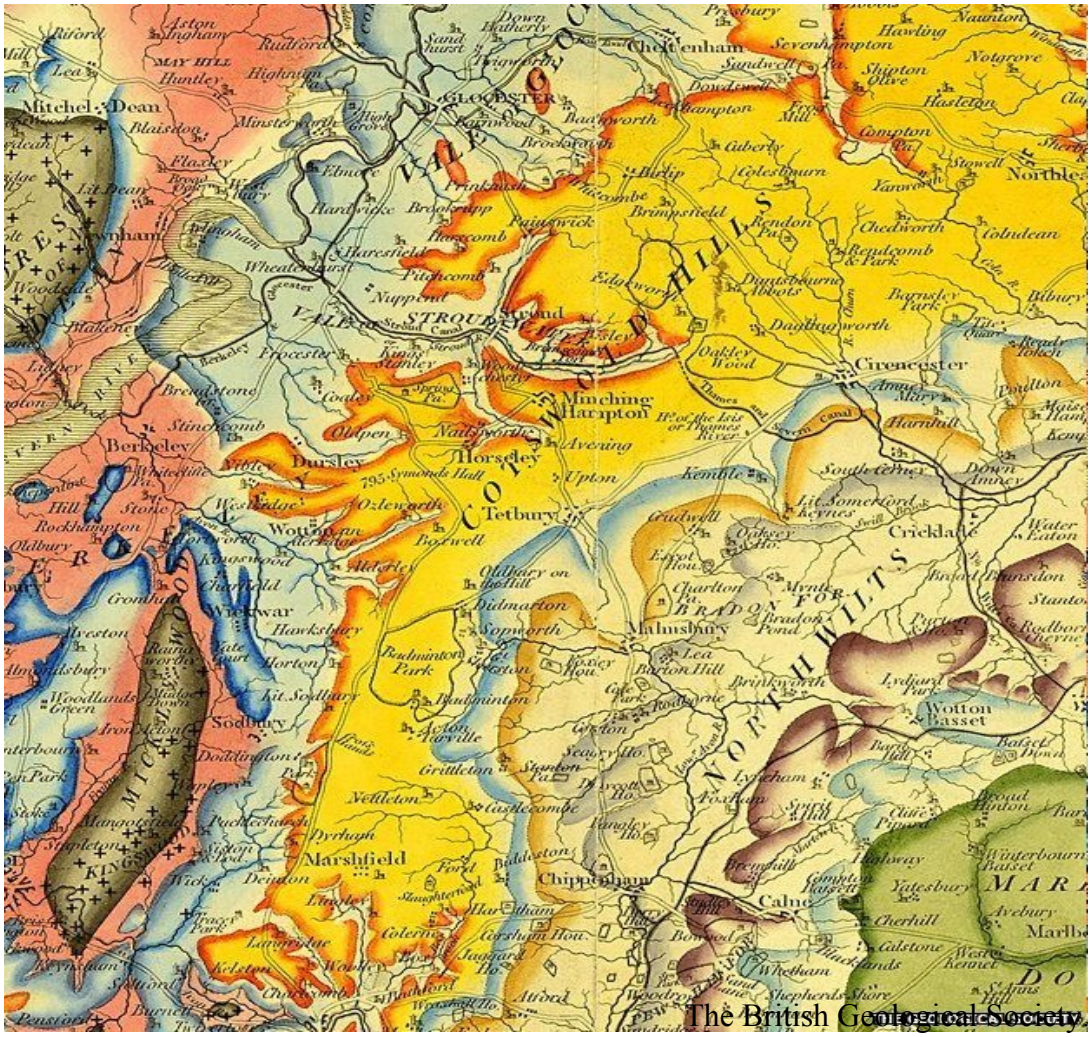


The archivists knew of the maps existence but just couldnt find it.

A first edition copy of one of the most significant maps in the history of science has been rediscovered in time for an important anniversary. Smith's 1815 depiction of the geology of England, Wales and part of Scotland is a seminal piece of work. The first map of its kind produced anywhere in the world, only about 70 copies are thought to exist today. Now, The Geological Society has turned up another in its own archives, ready to celebrate the map's bicentenary. Tucked away in a leather sleeve case, the mislaid artefact was last seen roughly 40 or 50 years ago. "It just wasn't where people expected it to be," said John Henry, the chairman of The Geological Society's History of

Geology Group. "I guess the person who put it away knew where it was, but then they left and that was it - it became lost," he told Now, The Geological Society has turned up another in its own archives, ready to celebrate the map's bicentenary. Tucked away in a leather sleeve case, the mislaid artefact was last seen roughly 40 or 50 years ago. "It just wasn't where people expected it to be," said John Henry, the chairman of The Geological Society's History of Geology Group. "I guess the person who put it away knew where it was, but then they left and that was it - it became lost," he told BBC News.

In one sense, the map is better for its abeyance because it means it has not been exposed to light, and that has protected its exquisite colours. Smith spent the better part of 15 years collecting the information needed to compile the map. It is said he covered about 10,000 miles a year on foot, on horse and in carriage, cataloguing the locations of all the formations that make up the geology of the three home nations. An estimated 370 copies were produced. The outline of the geography and the strata were printed from copper plate engravings, but the detail was finished by hand with watercolours. The lower edge of a formation is saturated and then the paint is made to fade back to the high edge. It is this colouring technique, combined with the tendency of many of England's rocks to dip to the south or southeast, that gives Smith's map its iconic look.



Exquisite work. The maps were finished by hand using watercolour.

The re-discovered copy comes in 15 separate sheets. These have no serial numbers on them, but that in itself is a clue to the map's position in the production sequence. The first batch in the run is known not to have carried any numbering. Another clue is the geology of the Isle of Wight. Smith changed its depiction several times, and the re-discovered map displays his earliest efforts. The artefact is certainly among the first 50 to come off the production line, and very probably among the first 10. Quite what its value is - that is difficult to say. Possibly in the six figures. The Geological Society has had the map fully restored and digitised. And from Monday, anyone will be able to view it online. The paper version will also go on display at the society's Burlington House H.Q. in London's Piccadilly.

William Smith (1769-1839) is often referred to as the "Father of English Geology" - a title bestowed on him by The Geological Society, which at first had been reluctant to embrace his vision. The organisation's first members were drawn from the metropolitan elite, and they took a rather disdainful view of the blacksmith's son turned surveyor. But the big landowners knew his worth. They brought him into contact with the rocks and with the fossils that would lead him to his greatest scientific contribution.

John Henry explained: "The concept which enabled him to do the mapping and that drove him along almost obsessively was this realisation that specific fossils were unique to a specific stratum, and that you knew where you were in a sequence if you could see what the fossils were. That was the breakthrough. People had been collecting them for a long time and naming them in the Linnaean way, but without any real idea that they were in a sequence. But Smith knew it."

Today, it is called the "principle of faunal succession", and this idea holds that because fossils succeed one another in order, rocks containing similar fossils are similar in age. This principle has enabled scientists to construct the geological timescale by which the relative ages of rocks can be measured, and thereby understand the history of the Earth. No wonder Simon Winchester called his 2001 book about William Smith, The Map that Changed the World.

Sent in by a member. BBC News. **March 2018.**

The Major Government and the Union of Democratic Mineworkers – by Steven Daniels

Email: s.j.daniels@liverpool.ac.uk **Twitter: @stevandan**

Previously in this newsletter (February 2018) I shared some of my PhD research into the Nottinghamshire-based Union of Democratic Mineworkers (UDM), and how newly released archival material reveals they were successfully utilised by the Thatcher Government to weaken the National Union of Mineworkers (NUM). Emerging in the dying days of the 1984-5 miners' strike, the UDM were a trade union based upon the principles of moderation and co-operation, versus the more militant, confrontational NUM. The weakening of the NUM was achieved in morally and legally questionable ways. For example, files suggest that UDM-majority collieries such as Cadley Hill were kept open, even if no longer financially viable; and that UDM members at Ellistown were paid higher wages compared to NUM members, even if doing an identical job. Newly released material has suggested this relationship continued into the Major years.

Upon leaving office in November 1990, Thatcher could claim that the trade union 'question' had been answered. With John Major becoming Prime Minister, he began preparations for the rationalisation and privatisation of the coal industry, a process that began in earnest in 1992 and finished in 1994. Having been utilised so efficiently in neutering the NUM as a strike threat, the question remained as to what role the UDM would play in the privatisation process.

Due to Thatcher's success in weakening the trade union movement, when the major rationalisation of the coal industry came in 1992 (closing 31 of the remaining 50 collieries), archival files have revealed that the Government did not consider strike action to be a realistic prospect. They believed that the NUM and UDM would instead focus on preserving what little would remain of the industry. UDM leader Roy Lynk even led a sit-in at Silverhill colliery to no effect, and the massive rationalisation of the industry continued.

Previously a trusted ally rewarded for their co-operation and moderation, the UDM quickly found themselves out of the loop as privatisation edged closer. The Major Government was eager to engage with the UDM in streamlining the coal industry as a precursor to privatisation, but were not prepared to entertain UDM efforts to buy the collieries at which they were the majority union, despite recruiting Lloyds Bank as their financial backer. UDM-majority mines were eventually sold, with RJB Mining emerging as the major winner in the bidding process.

Long maligned for splitting the trade union movement following the miners' strike, the UDM could be viewed sympathetically today: engaging with the Government in good faith on behalf of their members, challenging what they viewed as the NUM's extremism, the UDM were taken advantage of and discarded by the Major Government when they no longer offered any material or political advantage. It is yet another tragic tale in the decline of the British coal industry.

Steven Daniels is a PhD candidate at the University of Liverpool, researching the decline of the National Union of Mineworkers, c.1985-1990. {Member.}

Mining History & Archaeology in Scotland: Towards a research strategy.

On the 19th of October a one day conference on mining history & archaeology in Scotland was organised by the Leadhills Heritage Trust with financial assistance from Historic Environment Scotland (HES). It took place in Leadhills and was attended by various people from the local communities, UK mining researchers and activists both academic and private along with representatives from relevant Scottish statutory agencies.

Background information was given by Miles Oglethorpe (HES), Peter Claughton (NAHMO), Catherine Mills (University of Sterling), John Pickin (Independent Researcher) & Ken Ledger (Leadhills Heritage Trust).

There followed a broad ranging discussion on 'taking research forward' Inevitably this concentrated on the Leadhills-Wanlockhead Mining Field. Topics discussed included the need to raise awareness of Scottish mining and industrial history; a re-assessment & conservation of scheduled sites; archival of relicts and information; the need to integrate catalogues of sites - including a cross referencing of mining bibliography, historical sources, mineralogy along with modern and historical open datasets compiled by statutory bodies and government agencies.

A whole landscape approach (both physical & social) was suggested to integrate the needs of local communities, landowners, tourism and business. This including the provision of interpretation material at scheduled sites and designing heritage trails both real and virtual and encouraging new industrial archaeological research and exploration of the mines. An informal e-mail group of interested attendees will try to take this forward. Afterwards some delegates visited the Lochnell Mine Level for a brief underground visit organised by the Wanlockhead Mining Museum.

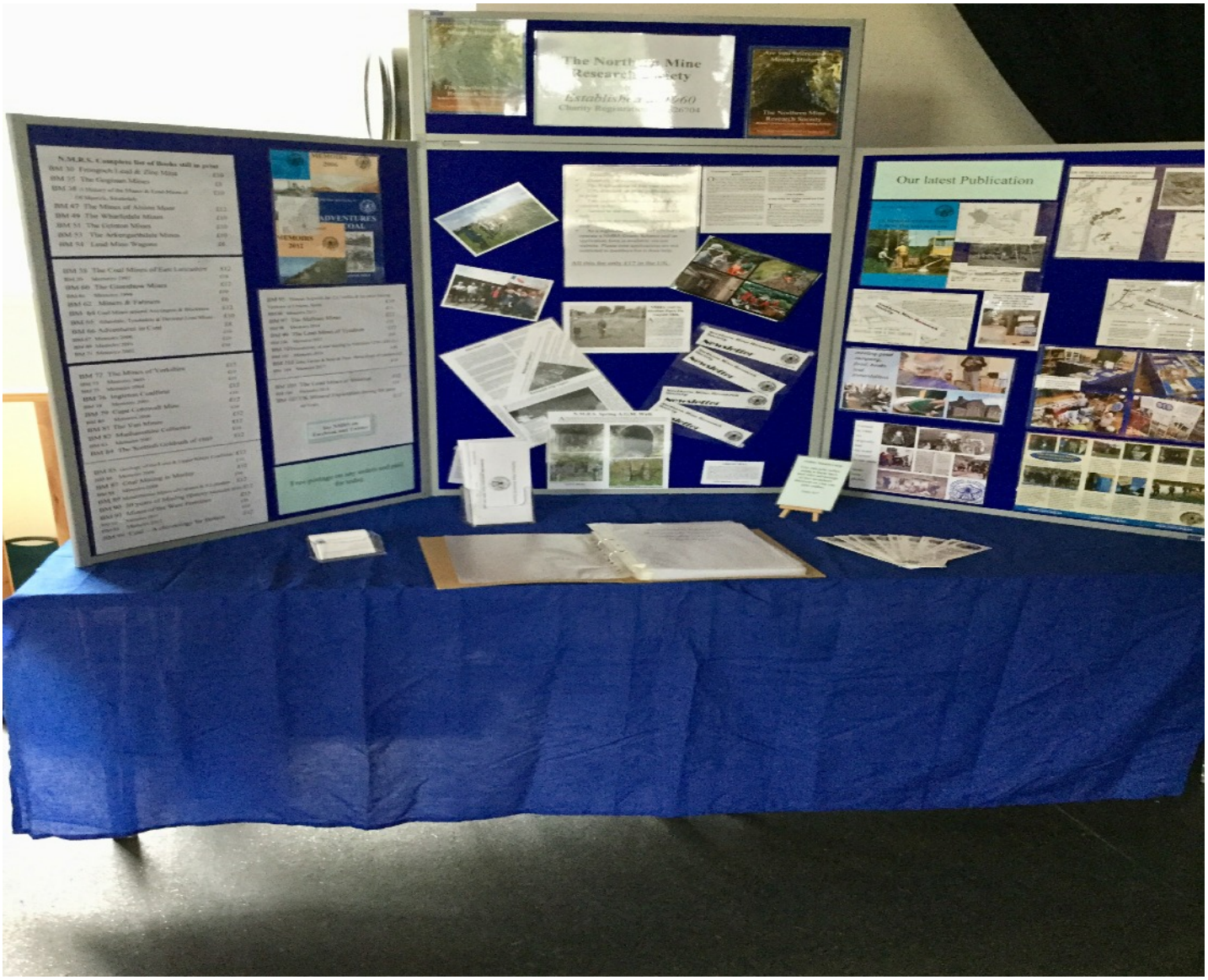
Dr. Terence M. Whitaker. {Member.}

Data Protection Act

Members are reminded that the NMRS maintains a list of their names and addresses solely for the purposes of printing labels for Membership Cards and posting newsletters and publications. Such details are deleted from the database for any member who leaves the Society, either after the committee have been notified or after it has been determined that an overdue subscription has not been paid for several months.

A Grand Day Out at the North Pennines Mineral Expo

Back in July we were fortunate to be involved for the third year running at this event held in the Town Hall in St John`s Chapel, Weardale, Co Durham. Its aims are to showcase the mining history of the area and it attracts visitors from far and wide including from overseas.



Rex and I set up on the Friday afternoon ably helped by our meets` organiser, Mick Cooke who was already in the area. Our new display boards were positioned on the stage and were admired by many during the weekend. A small light would be a good idea for next year. Also on the stage was the Russell Society display panel, their scavenger event aimed at children young and old and two cases of fine mineral specimens from the collection of Ian Jones. One contained calcites and specimens from the Iron Mines and the other fluorites of various hues and differing localities in Weardale. Plenty to see and admire.

The main body of the hall accommodated various mineral dealers and, new this year, fossils. Our NMRS stand was the first display you met on entering the hall. One corner was devoted to children`s activities including word searches, word shape puzzles, mineral and fossil scrabble, and "A grand day Out" acrostic poem sheet. Once completed and having returned the pencils provided the children were able to choose between a named mineral specimen or an I-Spy book for their efforts and surprisingly the mineral specimens were the most popular. Rex and I had provided the prizes so again there was no cost to our Society.

Both days had a steady stream of visitors encouraged by the fact it was a free event. On the Sunday the Stanhope Silver Band played outside, attracting quite a crowd and later in the day the results of the photo competition were announced with all three winners being NMRS members. There was also a raffle held throughout the weekend with a prize of an excellent Black Dene fluorite.

What is so great about this event is the friendliness of the visitors and it is an excellent chance to meet up with our more Northern members. It helped that Mick had organised a meet in the area for the Sunday and several of the participants popped in to say hello.

A break for Rex, Mick & Barbara

Two well know authors - Ian Tyler and Ray Fairbairn

The three winners of the annual photograph competition, Jean Thornley, Mike Hall, and Andy Hopkirk - all NMRS members!

The winner of the raffle for a Blackdene Fluorite with the organiser of the show EnrIco Rinaldi on the right.

I would like to thank Rex and Mick for helping me and especially Enrico Rinaldi, an Italian living in France, who organises the event and is so accommodating of our Society. We are already looking forward to next year!

Barbara Sutcliffe.

Valued Feed Back from One of Our Members

"Just a couple of comments on the above which I hope you will take in good faith. The article about Jumbles Quarry in the August 2019 news letter pg, 8 has several references to Smith & Rodley. This is incorrect, the firm, who were owned by Thos. W. Ward of Sheffield made the machines at Rodley Leeds. Maybe the counterbalance was missing from this excavator? They were all cast iron with Smith-Rodley in big letters. I used to work at Kilnsey Limes' quarry years ago where we had one of these as a stand-by machine. I can remember going for spares to their works. The other point is that archaeology is mis-spelt in several places in the publication".

William J. Houston.

Information Appreciated on Dale Mine near Warslow.

I'm hoping there's someone in this group who can help shed some light on the structure in the attached photo album. I've tried the "Love of Lime Kilns" lot but had no guesses, so lets see if you folks can do better. The structure looks like a series of lime kilns (and are labelled thus on the OS maps), but where the arched tunnels meet the large "bins" behind, there are wooden frames, so no heat could have been involved. The "bins" were full of clinker, on top of various sizes of stones, and have huge slabs of stone for their bases. The sides of the "bins" have been rendered with Portland cement, which was not in use until several years after the site closed down and there are 4 large tubes between the 2 "bins" we cleaned out. It's a real enigma. Any suggestions welcomed!

Conservation work taking place at the site.

Lead archaeologist John Barnatt sat in front of the “ore bins” at Dale Mine near Warslow.

Gradually working our way down to floor level in the bins. Only bins one and two were emptied, as there was insufficient time to do the others {six in all}.

One of the arched tunnels leading out from a chamber of the “ore bin”.

In bin two, this drystone wall closed off the arched exit tunnel.

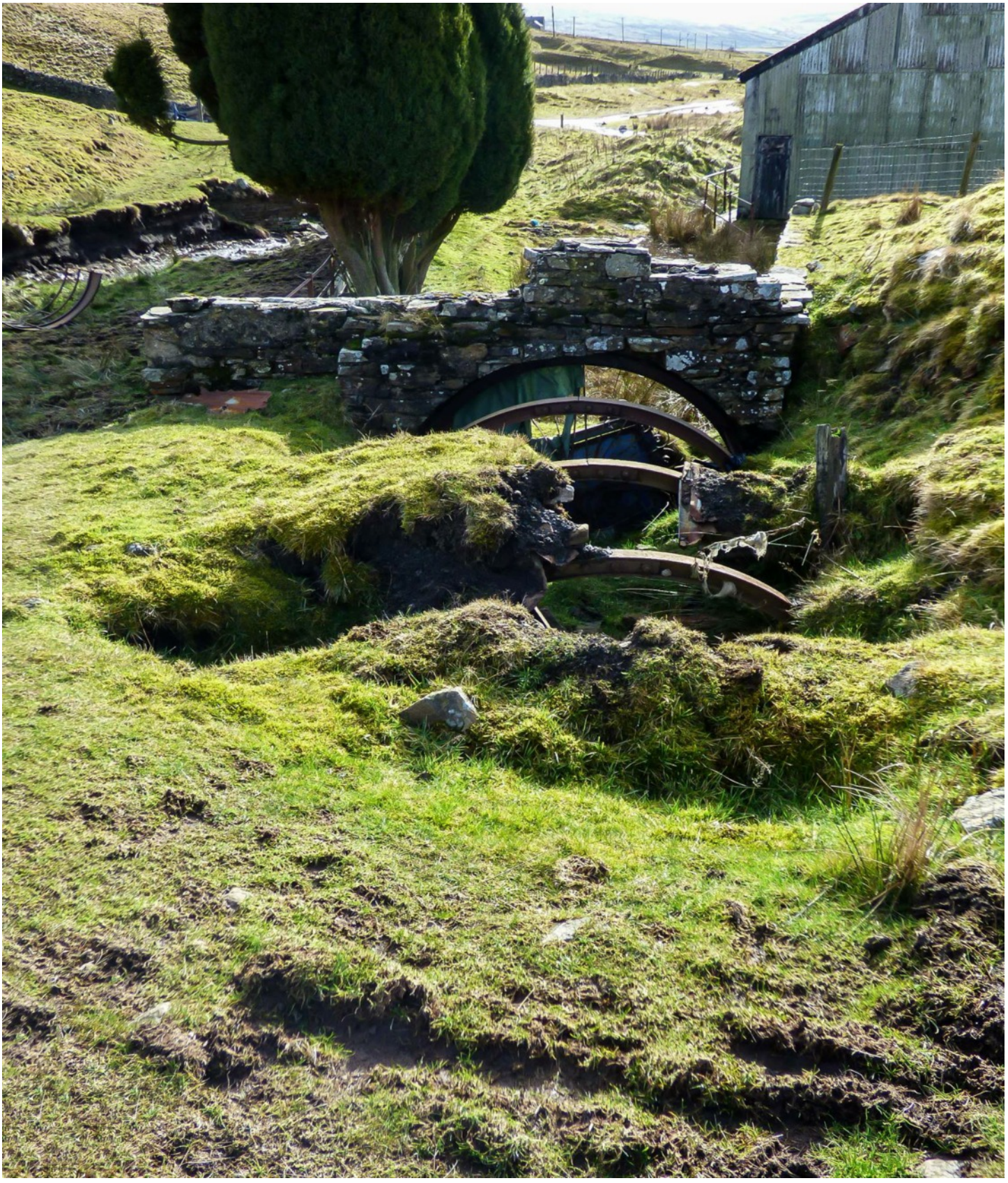
Until they were removed and revealed these four circular pipes which went through into bin two, where they were also covered by roofing stones.

A level was reached where t was thought it was best to take out a half section to determine how far we needed to go down.
The roofing stones laying against the wall were extremely puzzling!
Left Roofing stones found in the bin.

Information to the following or via the editor, details on the front page.
https://www.facebook.com/richard.kniselymarpole/med

THE END OF THE RICHEST LEAD MINE IN ENGLAND;

Burtree Pasture Mine, Cowshill, Weardale, is being denuded of its plant by the instructions of the Lead Company. The rails and wagons are being brought out preparatory to the closing. This mine which yielded by far the most ore of any ever known, a few years ago gave employment to 450 pick men, exclusive of wage men and others. It is proposed to work the strata from Rookhope, the feasibility of which is much questioned by the local authorities.



Cont.

An article published on the 3rd of December 1889 by The Northern Echo.

Sent in by Peter Giroux **{Member}**

Carrs and Firestone Mines

Carrs mine members and guides.

Six members of the NMRS together with three members of the Nenthead Group enjoyed a super visit to Carrs Mine on the morning of Sunday 28 July 2019 followed by a visit to the Firestone Mine in the afternoon to see the work being done to allow greater access into the mine. Both visits were under the excellent guidance of Peter Jackstone to whom we give many thanks. The happy band are shown in (Carrs Mine Members and Guides)

Carrs Mine

There is much historical information in R.A. Fairbairn, "The Mines of Alston Moor", British Mining No. 47, 1993 and on the internet. I thank R.A. Fairbairn and those from whom I have cribbed information and refer readers interested in the mine history to these sources.

Carrs Mine lies below the Smallcleugh Mine and above the Hangingshaw Branch Level of Rampgill Mine with connections to both. Carrs Mine divides into two sections and I understand that our section must have been Carrs East of Nent since Carrs West of Nent has collapsed levels.

We entered Carrs Mine through the Show Mine (07313), which is interesting with well preserved tram rails, and after the "gate" entered the 'real' mine. Beyond the "gate" there are three flats. Initially, we progressed along the Horse Level that is below the Smallcleugh Cross Vein. As many have seen in the Nenthead mines there are very fine stacked stone walls (07314), arched corbels(07315) and arches with one even serving as a dump for deads in the Middle Level (7325). I confess to being very keen on stacking since I worked on dry-stone dikes when I worked on a hill farm in my student days. There was much evidence of secondary hydrozincite, some of which was pristine white and other were stained by minerals. The Horse Level, being on a slight downward slope, cannot be de-watered through the adit so is de-watered through sumps to the Rampgill Mine.

DSC07313

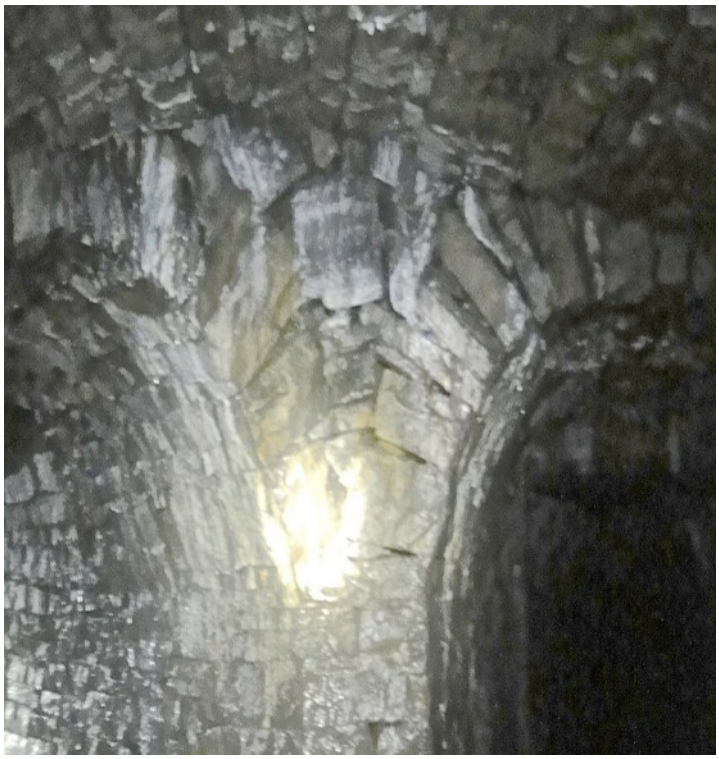
Then to the Low Flats by ladder up a walled shaft into the Great Limestone. At the base of the shaft there was a fine example of a calcite flow stained by different minerals; copper, zinc, manganese and iron (7321). Just by the top of the ladder there was a fine pool of very clear water framed by secondary calcite.

Another ladder, with an awkward twist halfway up, took us to the Middle Flats where there were good calcite flows. Of interest were the ore chutes to the Low Flats that used the fault line.

Firestone Mine

The Firestone Mine runs approximately easterly and is uphill of both Carrs Mine and Rampgill Mine. It owes its name to the Firestone Sill. It was driven in 1830 to give access to the workings and improve ventilation and it runs parallel above the Rampgill Vein for almost its full course.

DSC07314



DSC07315

Published information on the Firestone Mine is scant. It was described as "enterable but deep water (4'-5' approx.) after 100 ft." by the Kendal & District Mine Research Society on 26/08/79. This has been reduced to a trickle due to the work of volunteers over little over

DSC07325

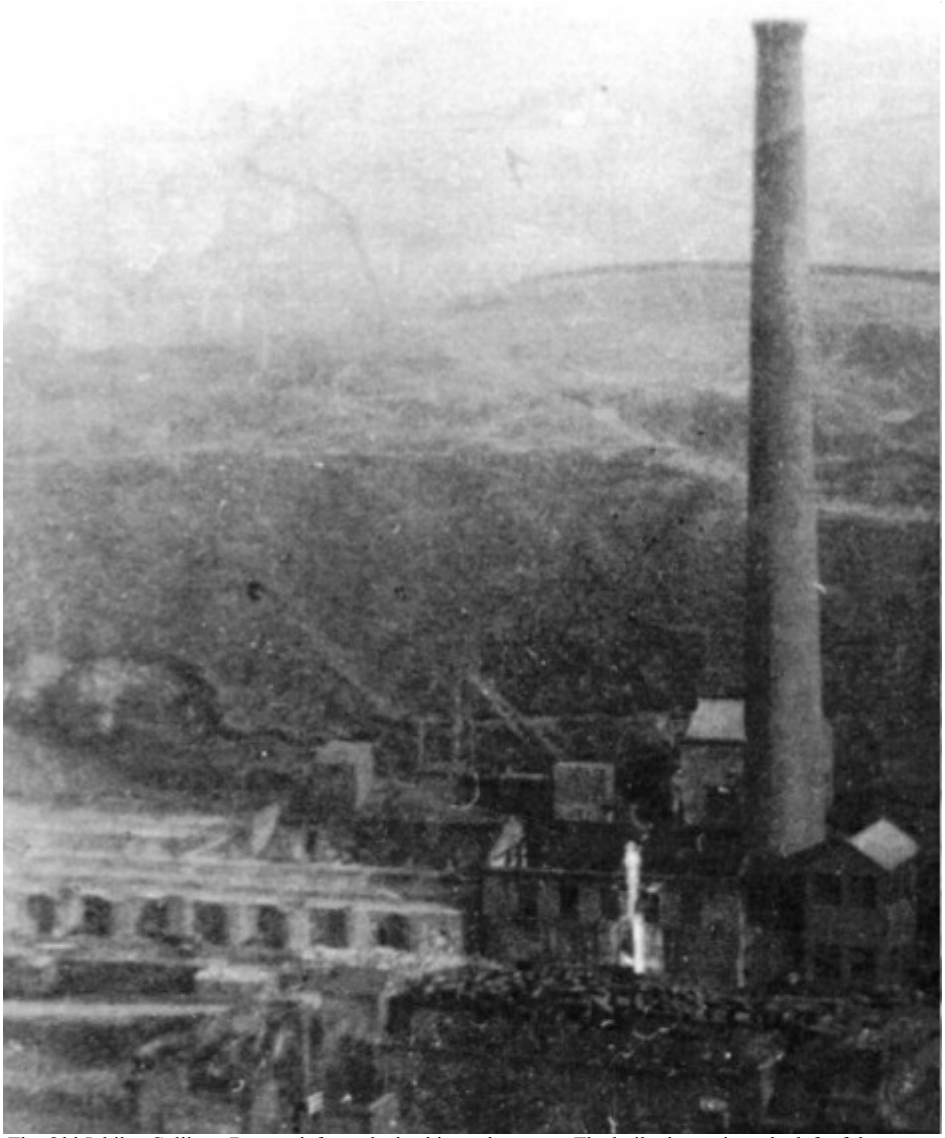
DSC07327

a year and the adit is now enterable for considerably longer than 100 ft.(7327)One side of the adit is now lined with bags full of muck that has been cleared by the volunteers; an augean task indeed.

Currently, the visit ends at a T-junction with the T running approximately north-south. The south leg of the T is gated since there is most likely a shaft to the Rampgill Mine.

JAMES CLELAND

Platt's 2 – Jubilee Colliery, Shaw, Archaeological Site



The Old Jubilee Colliery. Bottom left are the beehive coke ovens. The boiler house is to the left of the chimney. To the right of the chimney is the Blacksmiths shop.

Platt's of Oldham. Besides becoming the largest textile machine manufacturer in the world, they used backward integration of their supply chain, collieries and iron works (and I am sure other parts), to ensure continued supply of cheap raw materials and to maximise profits.

Jubilee Colliery was sunk in 1845 by the Edge Lane & Dry Clough Colliery Co to access the Mountain Mine Pennine coal seam 99m below ground. By 1854 the colliery was worked by Evans Barker & Co. Ownership passed to the Oldham, Middleton & Rochdale Colliery Co Ltd before being bought in 1883 by Platt Brothers & Co. Ltd.

By 1913, Platt Brothers also owned Butterworth Hall Colliery, Milnrow, and Moston Colliery. In 1929, however, they only owned Moston and Jubilee, with the latter producing all the coke needed at the works iron foundry – at one stage 500 tons a week for delivery to the Hartford Works, Werneth, by rail. The site closed in the early 1930's - about the time of the old picture showing the coke ovens (bottom left), the boiler house (just left of the chimney) and the chimney.

Jubilee Colliery is a great example of a combined colliery and coke oven site, with rail sidings, and is a preserved site following an archaeological survey completed in 2014, with many footprints of industrial features still visible. However, many dig areas were re-covered to preserve much of the sub-surface structures.

Image 2 Image 2

One of the beehive coke ovens {damaged}. Showing the brickwork in the dome, the oven floor and in the fore front the hearth area.

Image 3

The tunnel above the spine of the beehive back to back coke ovens for the exhaust gases and heat. More than likely used for heating the boilers.

Image 4

The plinth of the chimney {the straight wall}. Which appears low but has a deep foundation

Coke production became of major significance for Jubilee Colliery when Platts built a battery of 26 double, back-to-back ovens north of the boiler house in the 1880s (with later extensions). See{image 2} shows damaged and vitrified rear wall, domed roof, oven floor and hearth. At the rear of each oven was an opening into a brick flue above and along the top and centre of the battery (see image 3), which carried the exhaust gas through to boilers on its way to the chimney stack (it is believed that 24 beehive coke ovens could maintain steam in one 'egg-ended' Lancashire boiler – Jackson 2014).

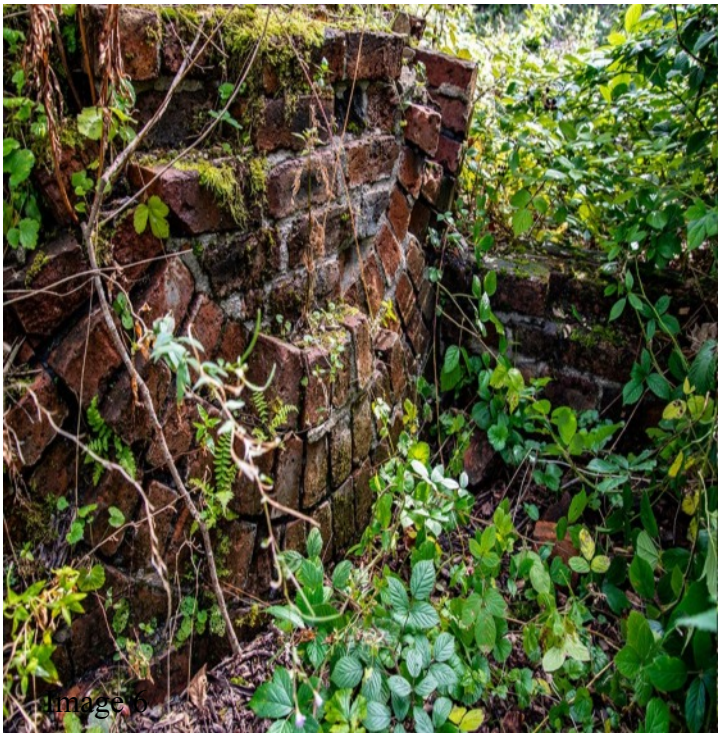
The main boiler house possibly supplied power to the northern part of the site and hot water for coking. It is now a shallow mound of several floor surfaces, which appear hand-made mould-thrown bricks, stained red by exposure to heat. There is a central raised part which is the base of a flue which ran from the coke ovens to the chimney. The chimney (built pre-1893) was partially enclosed within the boiler house and appears to be cylindrical tapering with six radial courses of hand-made bricks forming a wall (1.68m thick) around a central diameter circular chamber (2.13m). Externally, the chimney wall was set on a deep plinth {image 4}.

The chimney wall has two arches (recovered inside and on north section with fill to preserve its features, but still visible on the south side). The north arch was for flues from the boiler house and coke ovens. What is fascinating is in {image 5} - arrows in the bricks, I am not sure if it was done during the chimney build or left during the 2014 dig to highlight the north flue position - maybe someone can confirm.

The second flue arch south-west {image 6} probably served the nearby blacksmiths workshop. In this image you can see the arch and a small wall 90-deg to the chimney which led to a supporting external wall for the chimney.

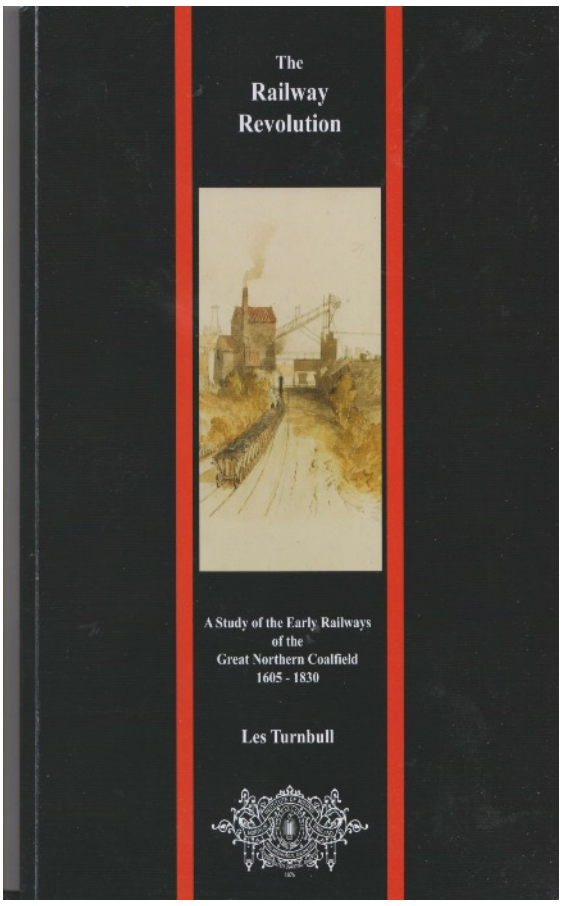
There is evidence of other buildings associated to the mine shaft, air shaft and a second chimney.

The two arrows in the brickwork. I am taking this to be the position of the flue in the North section of the chimney



The arch for the flue in the South West section of the chimney. The bricks inside the arch were added during the 2014 archeological dig {for support}. The wall running at 90 degrees to this arch is a kind of buttress which joins an external wall that supports the chimney.

Article and photographs by the kind permission of Peter Oneill.



Book Review – The Railway Revolution – A study of the Early Railways of the Great Northern Coalfield by Les Turnbull.

Published by the North of England Institute of Mining and Mechanical Engineers in association with the Newcastle upon Tyne Centre of the Stephenson Locomotive Society. ISBN978-0-9931151-5-8. Les Turnbull's latest publication provides a compelling account of the regional and commercial context for the development of the railway networks that served the Great Northern Coalfield and laid the foundations for the "railway revolution". Whilst some aspects of this topic have been ably documented by Les and others, this account covers new ground, specifically: A detailed study of the costs and challenges of hauling coal by road from Whitley Colliery a mile or so to the River Tyne at Cullercoats in 1678/9 and the resulting economic case for the introduction of a waggonway in the 1680's.

In depth descriptions of the development of the railway network connecting the Duke of Northumberland's royalty at Hedley with the coal staithe's on the Tyne at Stella Analysis of the development of rail transport (with some previously unrecorded systems) in what is now urban Newcastle from the records of eighteenth century engineers. The evidence for the coexistence of steam traction, iron rails and passenger transport in 1813 that predates George Stephenson's similar endeavours. And if this is not enough Les provides a sixty page illustrated gazetteer of all the railways in the Great Northern Coalfield from 1605 to 1830.

As with his previous work on Early Railways in the Derwent Valley and William Browns Engine's, this 170 page account is copiously illustrated with maps 5 and related documents. I was particularly drawn to the drawing and engravings of Thomas Bewick and John his lesser known brother, whose family worked a small colliery near Prudhoe from 1700 onwards.

I heartily recommend this to anyone interested in early railways 172 pages and the cost is £15 plus £3-50 pp. The book is available from Melissa Forster at the Common Room. **Tel. 0191 2509717**
Email Melissa.Forster@thecommonroom.org.uk

Steve Grudging. {Member}

Grassington Moor 21st September:

Grassington Moor is a significant former lead mining area situated on the eastern side of the Wharf Valley. The area has a history of lead mining dating back to the Bronze age and the Romans. The majority of the archaeology on the moor dates from the late 18th C to the mid 20th c.

On the 21st September, a group of 4 members met at Yarnbury, the wind was shaking the trees by the mine offices (now privately owned) but the sunlight had an extraordinary brilliance.

Crossing the cattle grid and taking the Duke's New Road, the remains of the Yarnbury Dressing floors consist of little more than a few small cobbled areas,only a rough idea of the layout can be gained but the immense volume of processed spoil on the lower side of the track gives a good impression of the amount of work done here.

We left the main track and walked towards Beever Mine, on a small path that passes a flooded shaft, a Meerstone was found in this area. The top of the 60 fathom deep Engine Shaft is guarded by a metal grid. Work started on this shaft in August 1836,water was a problem from the start and initially the shaft was drained using a set of rods from the nearby Cockbur Wheel. This arrangement lasted until the winter of 1837/8 when the wheel at Beevers was built. The fine, well preserved pump rod lobby was inspected, there appears to be 3 gates between the entrance and the shaft. One member thought there were pump rods in the shaft but we could not see them. There are two Bouse Teams in this area, one is in good condition though it appears people are trying to fill it with rocks, some small amount of work is required here. The Manway Shaft and the Mill were also investigated.

On the way back to the Duke's road we found a Meerstone marked ISF, the F is very indistinct. We followed the road across the embankment over the valley of Hebden Beck where we left the Low Moor and entered the High Moor. Just inside the boundary wall is the Cupola Smelt Mill. Built in 1792 near to the Moor Mill, it originally had 2 reverberatory furnaces (cupolas), a third being added in 1825/6. Coal was shipped to Skipton from the West Yorkshire Coalfield until 1872 when the Duke leased the Ray Bridge Wharf at Gargrave and bought coal from Messrs Hargreaves Collieries in Burnley. In both cases coal was brought to the furnace by horse and cart. Little remains of Cupola Smelt Mill except the back wall, a room with a barrelled ceiling and the well preserved flue system. The flue system was built in 3 stages, in 1840, 1849 when the current chimney was built and in 1852 when the loop around the chimney was added. The flue system has collapsed in a few places, mainly due to it being used as a footpath, the top of the arch is only a single layer of stone which was then covered with earth and small stones and which is now being worn away. The flues terminate at the fine chimney which was preserved by the Earby Mine Group in the 1960s.

Along the way we looked at the huge water filled pit that is all that is left of the Brake House Water Wheel. The wheel drove 5 sets of rods some distance across the moor, the details of how this was achieved can only be guessed at, the power achieved by the 50ft diameter wheel must have been considerable. The tracks of the rods can be traced across the moor and there are stone plinths to be found which supported the rods and ropes. The wheel axle was measured by Dr Raistrick in the 1950s and was found to be 3ft 6ins tapering to 2ft 6ins

The High Moor is around 1200 ft above sea level and in contrast to valley mine sites is very exposed. At times the surface workers must have suffered as much discomfort as the miners. We were lucky to find some shelter from the wind near Coalgrove Beck reservoir to have our lunch. The clear air gave fine views across the moor and out to Pendle Hill. After lunch we looked at the High Winding

House, the wheel of which wound and pumped the shaft at Coalgrove Head.

The ducts which carried the ropes and rods under the road can be clearly seen. Amongst the spoil heaps around the shaft stands another well preserved Pump Rod Lobby. The quality of its dry stone walling is a thing of beauty in contrast with the decaying concrete and breeze block constructions of the 1950s built for the re working of the tips for barite.

They were erected on the site of the main dressing floor and destroyed much archaeology. The shaft has collapsed leaving a large crater, a large part of a possible Gin track has gone with it. We came across another large but dilapidated Bouse Team nearby close to what appeared to be a small dressing floor.

Walking on across the moor we found another Meerstone, inscribed DD. Several Gin tracks can be found in this area but their central bearing stones along with many of the Meerstone's have gone, no doubt several of them adorning gardens.

Walking back to Yarnbury the wind abated and the heat of the sun was more intensely felt. The golden September light showed the moor at its best. The Wheatears have left for Africa but a few white star flowers of the lead loving Spring Sandwort remain. Always a good place to be, today's visit turned out to be one of the best to be had there.

Brian James

Sept 2019. Member.

Editor.

As you are aware 2020 is our society's sixtieth anniversary. We are looking for anything of historical interest such as photographs, articles, life stories and alike, to publish in our four news letters in 2020. If you think you have something of interest then please contact the editor? Details on the front page.

The price of Cowpe Coal.

Much been written locally about the history of Cowpe village and its mills but very little of the upper Cowpe valley and onto Brandwood and Rooley Moor, it was as though this was a wholly different world and yet this small community had a rich and dynamic history, certainly during the mid 19th century when mans lust for the treasures of the earth reached a peak. From the 1830's more and more mills were using steam power to satisfy the hungry boilers of the 'Golden Valley' and the Cowpe mills were no exception.

The owners of Cowpe Mill; the Livesey's and Ashworth's had already begun to mine coal from under the moor. Thomas Livesey is credited as employing 3 colliers at Part House colliery in 1820 and in the mid 30's Livesey and Ashworth were leasing coal belonging to the Lloyds, firstly, it appears from available records. they were at Old Sink. However they didn't pay all the rent due and Old Sink was re- leased to a Mr Howarth but Ashworth and Livesey kept on mining coal on the moor.

The growth in industry brought with it an influx of families in search of a stable future and prosperity, amongst these were the Brierley brothers who moved from the Heywood area. The twins; James , Thomas and half brother John were coal miners and sometime between 1833 and 1837 had settled at Part Houses just above Boarsgreve. These houses were finally destroyed when the dam for Cowpe res was constructed. James had something of an entrepreneurial spirit and saw a good business opportunity when the Intake farm came up for rent. The farm had been tenanted in 1841 by John Taylor then aged 80. James Brierley and his wife Betty took over the farm, running it also as a beer house and a place where carters, or anybody for that matter, could be put up and get fed, you could say it was what we today call a Truck stop. The business must have been very successful because John later opened up Brandwood Moor colliery and brick works……ahh but that's another story.

The Butterworth's find a new life in Cowpe

James Butterworth was born in Rochdale around 1810 and married Hanna Earnshaw in 1829. They later moved to Nanny Brow at Britannia, James most likely working in one of the Hogshead pits along with his sons ; Adam aged 11 and Ruben aged 8 who were coal drawers, that is they took empty tubs into the collier, helped fill them and brought the full tubs back to the marshalling point Also at home were Simeon 6, Ann 4, and Joseph 1. The chance of good stable jobs and a secure home in a nice locality doubtless took James and Hanna, along with their ever growing family, up to Cowpe where they settled at Part Houses. Ruben left the pit and went to work as a woollen carder in the mill. By 1851 Adam was now a fully fledged collier. His brothers; Simeon, John, Joseph and Thomas along with their father all worked in the pits on the moor. At home was Benjamin aged 8, Margaret Anne and a baby sister Jane aged 1.

In all likelihood young Benjamin would attend the school at Boarsgreave. If he did then he would spend the day with George Barlow, who certainly attended that school and lived at Folly above Rakehead. When the two young lads left school George at first became an errand boy but when he was old enough he went to work for the owner of Cowpe Mill, Richard Ashworth, at his Brandwood Moor colliery which had operated from behind Heights farm since 1850/51. Benjamin, it would seem went to work for the Ormerod brothers at their Mill Moor colliery on the slopes of Hailstorm hill, both lads would be drawers. We know that both lads worked 12 hour shifts maybe even longer, even on Saturdays. They would be starting at 6 am and were maybe still underground waiting to come out with their last run of tubs by 6 pm. The workings were low, the Sandrock coal only being 15" thick, the main roads the lads drew in may only have been a yard high and every tub would be brought from the collier right out onto the hillside, tipped, and the empties trundled back in…..all day……everyday. Tragedy hit the Butterworth family for the first time on July 30th 1857 when 13 year old Benjamin was killed by a roof fall, as yet we have no details of how it happened. Needless to say a pall of grief must have descended on Part Houses and a sad sensation would have befallen the whole community with a young happy life cut so short.

Just 18 months later, 15 days into the new year of 1859; the young George Barlow, now aged 15, met with the same fate in Brandwood Colliery belonging to Richard Ashworth. A collection was taken at Boarsgreave school for the family. George's father, John Barlow, had been born up in the Whitehaven coalfield, notorious for its gassy seams and dangerous under sea workings. He married a girl from Whalley and had settled at Folly above Rakehead by 1851. Following the death of George. John moved his family to Long Acres and then Market St Whitworth next to Buckly Mills. Rawstron's owned collieries there and John worked as a colliery underlooker for a number of years, his other sons also working in the pit. By 1881, then into his 60's he was living at Tong End and was an engine tenter, his mining finished. But let us now return to the Butterworth Family at Part House. Simeon Butterworth worked in Ashworth's Brandwood Moor colliery as a coal getter, we know little about his life except it was cut short when tragedy again hit the Butterworth family and Simeon was killed by a roof fall whilst at work on Oct 30th 1860 , he was aged just 25.

The Oldest Butterworth son, Adam, had married Mary Entwhistle during October 1853 and by 1861 they were living at Hugh Mill and had 3 children; Hannah 7, Margaret Anne was 4 and Joseph was 2. March 10th 1866 fell on a Saturday morning. Adam set off for work

at 4.30 am and walked up to James Brierley's Brandwood moor colliery. That Saturday Adam wasn't planning to get any coal, he was going to remove the fireclay that lay beneath the coal he had already wrought, so he could advance and put down another set of rails, build a stone pack and prepare his face for coal production on Monday morning. Unfortunately the roof above Adam had shown signs on the Friday that it was becoming unstable and a set of timber had been taken in to Adam's working to secure it. Adam hadn't set the timber as he was planning to remove the stone floor and must have thought the timber would get in his way so the two props and a bar still lay there by the side of the road until Adam had finished his task. The working height he was in would be about a yard and he was in a sitting position on the floor, bent double. As he worked away the large sandstone block above his head, 3 feet long, 2 feet wide and 2 foot thick gradually slipped from its place and settled on his head and shoulders. It slowly crushed the life out of poor Adam who was helpless to extract himself from his predicament, and as he was shifting stone, his drawer had no reason to go into him all day. It wasn't till the shift ended and Adam failed to return to the surface that the alarm went out. Adam's drawer went in and discovered the accident at 7 o'clock in the evening. Adam left a widow and four children, his daughter Eliza had been born earlier that year. There is some conflicting information regarding Adam's widow, Margaret. Some sources say that she died during 1871 in Manchester. However, a more credible source informs us that she married James Buckley a year later who was also a collier. Together they had a son James Edmund in 1870 and he became a quarry man. It does appear however that James outlived Mary by quite some years. Eliza Butterworth, born less than a year before Adam's death died before she reached 30. We could reasonably agree that the Butterworth family had suffered enough but fate was not through with them yet. Fate was not through with the Brandwood collieries neither; Only a year previous to Adam's death, John Holden had died in the same manner at Brearley's pit. All I have been able to find out about John was that he was 34 and that he left a wife and one child. He was killed on the 27th of July 1865.

A family arrives from Scout Moor

Like the Butterworth's and Brealey's many other families migrated to the Cowpe area during those years of expansion. Another such family was the Ratcliff's. During the late 1700's the family were farming up Haslingden Grane. Ellis Ratcliffe married Betty Rushton, both from Grane in 1832 and they had 3 children together; James, Ellis and Susannah. Sadly father Ellis died at the age of only 37 and Betty married a collier, John Walsh, who was 17 years her junior and together they lived at Scout Corner so it would be most likely that John worked in one of the Scout Moor collieries. Betty's eldest son, James, also went into the pit and he married his sweetheart Betty Hill from Scout Fold in the April of 1857. Betty's father Abraham was also a coal miner along with her brothers. During the 60's James obtained employment in one of the Cowpe pits and moved his young family up to Boarsgreave. Their eldest son, Ellis , was born 1857/58 and when he was old enough he went to work at Ashworth's Brandwood Moor colliery as a drawer On Wednesday the 4th August 1869 Ellis, now aged just 11, was drawing for John Hill (probably his uncle). John was pillaring back or 'robbing' his wark (bord). This was normal practice. When a working had been driven to it's intended extent and all the coal removed to one side of the drawing road, then the coal on the other side was cut over and the face worked back towards the main heading. This would throw extra weight onto the wark thus affecting roof conditions always a hazardous job and especially more so in the Sandrock coal where the roof is formed out of large unstable sandstone blocks. At 6pm Ellis was about to come out with his last tub and then home, wash, supper and maybe enjoy the long summer evening playing out with his friends. As he was about to set off the roof gave way and struck poor Ellis on the left side killing him outright, John Hill had a very narrow escape.

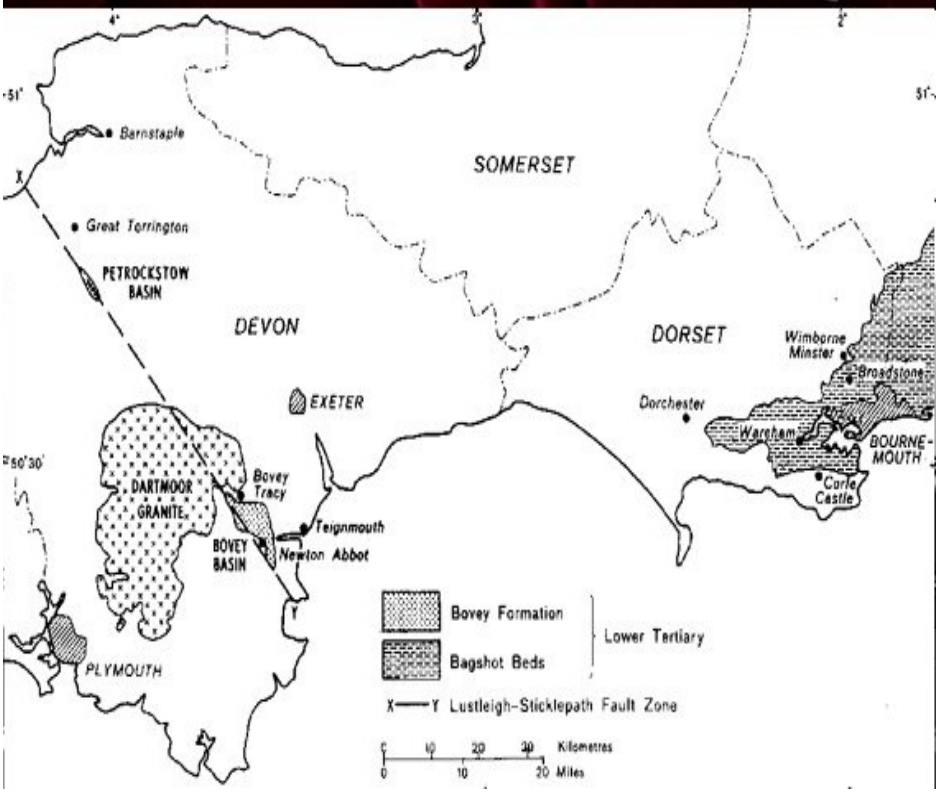
We read about these episodes and try and empathise with the families but it is hard to really understand how it must have been when young Ellis was finally brought back to Boarsgreave that night and what effect it had long term on the Family. John Hill married Pricilla Brindle in 1871 and they lived at Scout View, John probably resuming at Scout Moor colliery. He brought the family back to Brandwood whilst he worked as a stone miner for a short while before returning to Scout Moor colliery. In 1901 he was living at 211 Rochdale road James Ratcliff on the other hand continued to live the rest of his life in Brandwood and Stacksteads. There is an unconfirmed report that he was an official at Brearley's colliery for a while but I cannot substantiate that report. Very reliable sources say that he went on to work for George Hargreaves collieries, more than likely at either Stackesteds or Top pits. He died in 1906 at Stacksteads. He and Betty had a further son whom they called Ellis in 1880. Betty lived on till a ripe old age and died at Waterbarn in 1931 and I daresay she always carried within her the events of that terrible summer night back at Boarsgreave in 1869.

A New generation of Butterworths move to Stubilee farm

Let us now return to the main focus of our story; The Butterworth family. Father James had passed away in 1882 and Hanna in 1884. Their son John, also a coal miner, had married his wife Nancy in September 1862 and together they had 9 children. They later moved from Part Houses to Stubbylee farm. His son John Thomas left the pit and became a farm labourer but his other sons stayed in the pit. Two of them; James and David worked at Lee pit belonging to Thomas Leach. On Wednesday 16th Sept 1891 23 year old David and his brother James went to work as usual. James Thomas Greenwood, 17, was drawing for David that morning. Just before 10 am a stone weighing about 5 cwt fell on David as he was lying flat out working the Sandrock coal which was about 17 inches high. The stone was about 5 foot long by 6 inches thick and caught David on the chest, with all the breath left in him he called out to his drawer who, try as he might was unable by himself to lift the Stone. James Greenwood ran to get help from the other men and in no time Edmund Whitworth, the Fireman at the pit, James Butterworth and all the other men were there in the narrow roadway desperately trying to get to David. 'Teddy! Do Help me!' David called out to the fireman; 'Its on my breast I can't breath'. The place was also very narrow where the stone fell, being only about 4 feet wide and David's head was closest to the coal face. The men had to slowly work their way in from his feet and it took about half an hour of frantic work to get him out, sadly David died about 15 mins into his ordeal.

That is where we shall leave the Butterworth family who's quest for a decent living and a secure future, things we all desire, lead to a struggle against the odds; against social and economic upheavals and against nature itself, some battles won but a high price paid for those that were lost. Today the upper Cowpe valley and Brandwood moor can be a tranquil place of peace, a haven where one can escape from the stress of our modern day lives. But those moors have always been wild and unforgiving; both above and below ground!

By kind permission of Clive Seal. Rossendale Collieries. Fb.



Clay Pipes to Fine Porcelain.

Ball clay is a very special mineral, and is the product of a rare coincidence of geological conditions. It can be found at Petrockstowe in North Devon and Purbeck in Dorset, but the deposits near Newton Abbot are the largest in the world. Laid down 60 million years ago, the layers of clay here are up to 3000 feet deep.

Originally cut by hand from shallow pits, or later mined, the soft cubes of clay became rounded "balls" through handling and transport. It is this ease with which it can be moulded, combined with an ultra-fine texture, and whiteness when fired at high temperature, that gives the clay its value.

The clay was first used in the seventeenth century to make clay tobacco pipes. From simple beginnings, the industry expanded rapidly in the 18th century once Wedgewood, Astbury and Spode began to exploit the clay's unique properties in the making of high quality pottery. Nearly all trade was by sea, and as new export markets opened, and new uses for the clay were developed, the pressure grew to exploit reserves at depth.

By the mid-20th century, wars, economic depression, and a failure to adopt modern working practices had caused stagnation in the industry. Today however, extraction is highly mechanised. The clay is widely exported by a modern and highly technical industry, and is still an essential ingredient in tiles, sanitary ware, electro-porcelain and crockery.

By kind permission of Geoff Ward. Fb.

"Whilst doing field research for an up-coming Newsletter article"

I was following the outcrop of the Orrell Five Feet seam in Dean Wood, Orrell, near Wigan. I came across a fallen tree which must have originally taken root in the workings: there was a good chunk of the seam still attached to the roots. Also visible was what I recognised as a pick head, from its shape, although it was covered in clay. I recovered it and rinsed it off: there was no sign of the wooden handle- the hole for it was full of clay. It is 12 inches long and the ends are still sharp. Despite being quite corroded, it does not appear to be old enough to correspond to the original 18th Century working of this seam- it looks too evenly proportioned and was probably mass produced. I wonder if it dates from the miner's strikes of the 1920's, when any available crop working would have been reworked for fuel, just to survive. The fallen tree was quite sizeable, so could easily be 100 years old. Whatever the real story of this pick head, if it could talk, it would be fascinating to know! I had hoped to donate it to a suitable museum: if no-one can suggest a suitable place, via the editor, I may just return it back where I found it, for someone else to find..

Dave Turner. {Member}