

# 1960-2020. Sixty Years Of Your Society.

NORTHERN CAVERN & MINE RESEARCH SOCIETY

# NEWSLETTER

VOLUME 1.

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N.C. & M.R.S.RECORDS.

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## News from our Society

The first newsletter of another year and thank you to all who have paid their **membership fees** promptly which is a big help for our membership secretary, Gary Topping. Those who are now paid up will find their membership card and meet list enclosed. Watch out for any other events added in future newsletters and on our website. A gentle reminder to those of you who have not paid up this will be your last newsletter!

This year marks **60 years of our Society** – an event we should be proud of. If you look at our members' area of our website you will see there are 204 newsletters there and we have published over 125 publications. Here's to the next 60 years! A big thank you to all who have contributed over the years to make our Society so successful. Regarding the newsletters on our website we are still missing some early ones so if you can help out please contact Malcolm, our webmaster. A commemorative bookmark to mark our 60th has been produced and will be sent out with book orders. All members will receive theirs with the next British Mining publication

Our **A.G.M** this year is on Saturday 25th April at Mealbank Hall, Ingleton SD69497394. As usual book sales will commence at 11.30 (please let me know if you intend to bring some of your own) with **the pre-booked free lunch** at 12.00 noon. In order to arrange catering for this please book your place with me **prior to April 11th** on 01282 614615 (there is an answer machine should we be out) or email [mansemins@btopenworld.com](mailto:mansemins@btopenworld.com). Also in order to save time and photocopying please look at the minutes of our Autumn meeting on our website prior to the meeting. If you are unable to access a computer please let me know on booking and I will make sure a copy with your name on it is available when you arrive at the Hall. With a break from tradition we are having short presentations at this event after the formal part of the meeting. Please contact me if you are willing to offer a presentation. It would be very helpful if you could bring any necessary equipment, eg a laptop with you. The Society has a projector. I am also looking for older photos of our activities to display on our promotional boards so if you can help please get in touch.

On behalf of NMRS I would like to welcome the following **new members**:

Ian Bartram	Leicester
Paul Blackburn	Stockport
Phil Clifford	Diss
Ellen Dempster	Durham
Peter Drew	Hook
Katherine Emmerson	Newcastle
Stephen Harker	York
Nick Hennessey	Bowland Bridge
Frank Haskew	Henfield
Roger Holden	Stockport
Angus Dorbie	Kilmarnock
George Maxwell	Doncaster
Jim Rolfe	Mansfield
Tony Standen	Chesterfield
Nicky Stubbs	Barnsley
James Weddle	Dunbar

We were saddened to hear of the death of Mr A Woods, a member from Shipley.

Our **Facebook page** continues to be well received and we now have over 1700 followers. The **website**, too, continues to expand and it is worth checking it for added information. There are added resource pages with more to come. Malcolm is continually updating and adding so please have a look.

We are always very pleased to receive publications for our extensive library or for resale. We must thank Arthur Baldwin for suggesting we should benefit from the late Ken Makin's extensive collection – books have gone to the library and/or for resale and many records have gone to our Recorder. We were saddened to hear of the death of Ken's wife soon after our last visit. Please may I remind members that in order to benefit from members' discount orders must be via the members' area on our website.

A reminder that we at NMRS are well aware of the **Data Protection Act** ([www.gov.uk/data-protection-act](http://www.gov.uk/data-protection-act)) and how it should be implemented and can confirm that we use any data we receive in approved ways. It is kept for membership purposes only. If a member resigns their entry is erased from our database. Details are never passed to third parties.

#### Checklist

**Do I need to renew my membership?**

**Have I booked for the AGM? This is very important from the catering side!**

**Can I offer a contribution to our next newsletter?**

**Have I any old photos from our earlier days?**

**Barbara Sutcliffe.**

### LIBRARY NEWS

Thank you to Barbara for including the autumn library news in her November Newsletter report. We have recently received a copy of "Delving along the Derwent" from Ian Thomas, one of its co-authors. Ian is a leading quarry historian and he founded the National Stone Centre: in retirement he is training researchers; the research team responsible for this book call themselves The Delvers. The Derwent of the book's title is the Derbyshire river, and the area covered is from Matlock and Parwich south to Darley Abbey. After geological and historical sections, the main divisions are by stone type, and sub-sections deal with geographical areas. There is a gazetteer, and the quality of the descriptions encourages visits to the sites mentioned. There are maps and plans; and photographs on nearly every page – half-a-dozen or more on some pages.

One of the most interesting of the recent donations to the library is the set of 15 books "Industrial Heritage" by Mike Rothwell. These books cover more than 30 named towns and villages in the Blackburn and Accrington areas. All sites are grid-referenced, and a happy year could be spent visiting them; although unhappily some of the buildings have been demolished since the photographs were taken. Since the title of the series is industrial heritage, there are many references to mills; but there are also lots of references to quarries and to mines. The author is careful to acknowledge help from many organisations and people, including Northern Mine's members Arthur Baldwin and Ken Makin.

**Sallie Bassham (Honorary Librarian)**

### Late news just in.

We have just heard the sad news that a long time member, David Neal died on 25th of January. In 2007 he volunteered as Membership Secretary, a post he held until 2012. When we needed a Newsletter Editor he again volunteered in 2009 and

was also involved in our website in the early days. During our 50th anniversary year he produced our first printed colour newsletter which in turn led to members being able to access full colour issues via our website as an option. A move down to the south coast led us to losing his help.

He had been one of the chief instigators of the early British Mineral shows in the 1980 along with Ivor Thurgood. They also ran the "Mineral Realm" magazine for many years.

**Barbara Sutcliffe.**

### Book and Calendar review

This week 18.12.19. I was pleasantly surprised to receive an unexpected publication from CATMHS. The Mine Explorer Forty Years of Exploration, Research and Conservation.

This is a beautifully produced soft backed, glossy A4 sized book. The content is as the subtitle says, the history of Cumbria Amenity Trust Mining History Society.

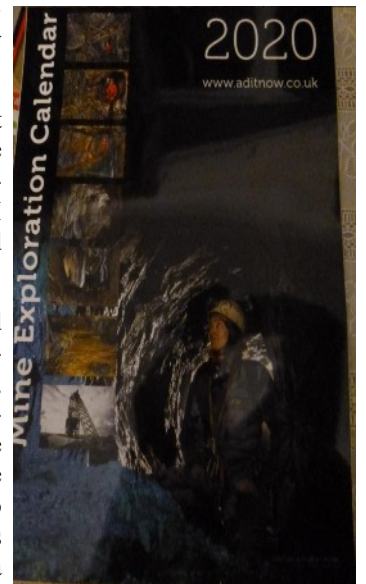
I often say to people "What good is a book without pictures!" this book does not disappoint me, it has loads of photos, some are worthy of the Adit Now Calendar. The front cover of the book is a stunning photo of The Blue Pool on Middle Level Coniston Copper Mine by Mark Hatton.

I started to read this as soon as it arrived and so far (I'm on page twenty one) I've found it fascinating and at times humorous, I have actually laughed out loud twice up to now.

The book states that it is based on a timeline prepared by CATMHS archivist Don Borthwick, who along with the other researchers must have had a whale of a time trawling through the old newsletters, Journals, photo collections etc. to make up this book. If you can get hold of a copy I'm sure that you will enjoy.

My next mail delivery brought my copy of the 2020 [www.aditnow.co.uk](http://www.aditnow.co.uk) Mine Exploration Calendar. As one would expect, this is a high quality wall calendar with a great photo on each of the twelve heavy weight paper pages. The cracking cover picture is of Kate Tyler at The Blue Cascade in Taylor's Level, Coniston by John Dale.

**C. M. Keighley.** {Member}



## History of Lowthers' mining past is revealed



Leadhills Miners Library, 1886. It was founded by workers in 1774 . With the help of industry visionary James Stirling.

They sit at the highest altitude of any village in Scotland. Wanlockhead, in Dumfries and Galloway, nestling in the beautiful Lowther Hills, has a sign to prove its lofty reputation, showing 1531 feet. About one mile away – also in the shadow of hills famous for being among the first to witness winter sports – sits Leadhills, the second highest village in the country at 1430 feet. Both can also lay claim to being Scotland's historic centre of lead mining in an area James Moir Porteus christened, for his 19th Century history of area, God's Treasure-House In Scotland. But a recent survey carried out in the Leadhill Miners Library found little information on the history of lead mining or its significance. However, today, in a first of its kind, a conference is being held in an attempt to uncover Scotland's "lost" history of lead mining.

The gathering, in Hopetoun Hotel, Leadhills, was initiated by Leadhills Heritage Trust with the support of Historic Environment Scotland, and will examine ways in which the mining they say has been "a largely forgotten part of our industrial heritage" can be remembered and brought back to life. Speakers at the conference include key researchers who will look at lead mining's importance to Scotland's industrial development and how its heritage the industry's history can be developed to "take its proper place in our national story".

Leadhills Miners' Library, founded by miners in 1741 with the help of the visionary James Stirling, who was put in charge of the Scots Mining Company in 1735, will be open for viewing. The library's admirers over the years are said to have included literary luminaries such as Burns, Wordsworth and Dickens and it is home to Britain's oldest library banner, which featured on the Antiques Road show. But there is concern that, despite this cultural treasure trove, the area's industrial history remains a well-kept secret. Dr John Crawford, chairman of Leadhills Heritage Trust, said: "Although visitors to the library show a keen interest in the books and in Scottish and local history, we have found lead-mining history is less understood. "The conference aims to raise awareness of this under-researched area and suggests ways forward. Two hundred years ago the Leadhills-Wanlockhead area was one of Scotland's major industrial centres but today all that survives are the mine spoil heaps. This is an important and ignored part of Scottish history. "The aim of the conference is to bring together people with an interest in the subject, identify issues and problems and, hopefully, identify ways forward. I would like to conference outcomes to include the formation of a group who can take things forward."

While lead was mined as early as 1239 by the monks of Newbattle, it the mining of lead was a small-scale endeavour until the 1570's when Thomas Foulis, a goldsmith from Edinburgh, started to work the mines. From the 16th Century to the early 1900s, the mines produced 400,000 tonnes of lead, 10,000 tonnes of zinc and 25 tonnes of silver. Sediment in the streams was even a source of gold. The mines in the two villages were worked separately because the minerals in Wanlockhead belonged to the dukes of Buccleugh and those in Leadhills to the earls of Hopetoun. In the 16th Century, gold from Leadhills, then known as Crawford Muir, was used for gold coins, including the "bonnet pieces" of James V.

It is believed that between 1538 and 1542 the district produced 1163 grams of gold for a crown for King James V of Scotland and 992 grams for a crown for his queen. By the 1660's the mines were owned by Sir John Hope, and profitable enough to justify building roads the 50 miles to Leith to allow the metals to be exported. The arrival of a railway in 1900 was not enough to ensure return the mines' profitability and mining activity in Leadhills ceased in 1928, though it continued for another decade in Wanlockhead.

Besides the Lowthers, Dr Crawford said he wants to see more research into other lead mining areas, including Tyndrum in Argyll and elsewhere in Dumfries and Galloway. "There is a lot of primary source material but nobody has looked at it properly yet," he said. "Nobody has done any co-ordination and brought it all together," added Dr Crawford.

One of the library's treasures is an archive of "Bargain Books" that record the contracts miners and bosses agreed between 1737 and 1854. "There may well be similar material like this elsewhere and it needs to be explored," he said. It also has the only library pulpit in Britain where the venue president sat while presiding over meetings.

**The Herald Scotland.** Oct 2019. {Sent in by a member.}

## Spanish award for Rob Vernon, NMRS member

On the 26th September 2019, at Ponferrada, Castile-León, Spain, NMRS member Rob Vernon, together with his co-author Antonio Cabrera, were presented with the Francisco Javier Ayala Carcedo Award by the Sociedad Española para la Defensa del Patrimonio Geológico y Minero (SEDPGYM) (Spanish Society for the Defence of Geological and Mining Heritage).

The award was for the best peer-reviewed paper of 2018, published in the Society's Journal, 'De Re Metallica.' The paper was about three Scottish lead mining companies, The Belalcázar Silver-Lead Mining Company, Limited (1883 to 1887), The Solana Mining Company, Limited (1889 to 1891), and the Toro Mining Company, Limited (1892 to 1904). The paper describes the mining history of the La Solana site, located in a remote part of Córdoba Province, Andalucía, Spain, and records the many mining structures still to be seen. One structure is a relatively intact engine house and engine base that once contained a horizontal-compound pumping engine manufactured by Hathorn Davey, of Leeds. In fact the mining company ordered two engines from Hathorn Davey, as the first engine was 'lost at sea.'

D. Raul Fernández Sobrino, Vice Consejero de Culture de la Junta de Castilla y León, presented the award that consisted of a metal figurine of a Knights Templar on horseback (and a free night at a local hotel). Templars once protected pilgrims travelling on the Camino de Santiago that passes through Ponferrada, where there is a magnificent Knights Templar castle.

Further information (in Spanish) can be found at: <http://www.sedpgym.es/actividades/resenas/183-entrega-del-xv-premio-francisco-javier-ayala-carcedo-2019>

And the well illustrated paper (in Spanish) can be viewed at: [https://www.researchgate.net/publication/326985097\\_La\\_Mina\\_Solana\\_de\\_Belalcazar\\_Una\\_Borrascosa\\_Operacion\\_Minera\\_Escocesa\\_en\\_Cordoba\\_Solana\\_Mine\\_Belalcazar\\_Cordoba\\_An\\_extraordinary\\_Scottish\\_mining\\_venture](https://www.researchgate.net/publication/326985097_La_Mina_Solana_de_Belalcazar_Una_Borrascosa_Operacion_Minera_Escocesa_en_Cordoba_Solana_Mine_Belalcazar_Cordoba_An_extraordinary_Scottish_mining_venture)



Rob being presented with the award.



The remains of the Hathorn Davey engine house at La Solana Mine.

**Rob Vernon.** {Member}

## New owner at Mining Searches UK

Mining Searches UK has kicked off the new year under new ownership. The Redruth-based business, which specialises in historical mining risk, has been acquired by leading environmental search specialist, Groundsure. The combined business will have a compelling and broad product set, with geo-environmental experts and geospatial data scientists providing advice and information products across the spectrum of geo-environmental risks.

Mining Searches UK MD, Paul Raglan, said: "Following our recent and successful collaborations, Mining Searches UK is thrilled to have been acquired by Groundsure. "We have strong synergy in our outlook to business and how we look after customers and our people. We believe this will create opportunities for a wide range of new products and services bringing benefits for our existing clients as well as developing new business relationships."

Dan Montagnani, MD and SVP at Groundsure, added: "I am delighted to announce this acquisition. Paul and the Mining Searches UK team have been brilliant collaboration partners and our teams have been working together for two years now."

The natural next step was to bring the businesses together to continue to build on the foundations already established, and to continue working towards delivering innovative new products to meet the demands of tomorrow's property market."

Sent in by a member. **Business Cornwall.** Nov 2020.





## The Duddon Bridge Iron Furnace

First operated in 1736, this blast furnace was charcoal fuelled and worked through to 1867. Today the site is remarkably well preserved. The furnace stack shown in the picture is in excellent condition. Slightly further uphill is a very large charcoal store and an iron ore store. There are the remains of a Bobbin Mill close by and the water management system bringing water 100's of yards from the River Duddon to power both processes is still visible. The leather bellows used to pump air in to the furnace were driven by a waterwheel and the wheel pit remains.

In the surrounding woodland there is much evidence of the charcoal burning industry and a network of narrow tracks. Haematite would have been brought here by horse drawn carts from the mines at Dalton and Lindal, which are almost 15 miles away. The site of this furnace was chosen due to the availability of water power and char-

coal. Pig Iron was produced here (ingots of iron cast in moulds that resemble piglets feeding from a Sow). The iron was used in many industries and markets, with major customers in the Bristol and South Wales area. This is surely the most impressive 18th Century Charcoal fired blast furnace remaining in Britain and well worth a visit.

**Mark Hatton.** {Member}

## Cononish Diary

**Invitation :** With regret, I had to decline an invitation to visit the Cononish gold mine in Perthshire last August, but I am hoping to have another opportunity this Spring. If so, I will return with my camera to augment a dwindling batch of images and report accordingly. Fingers crossed !

**The news' trickle :** Fortunately my snout in Glasgow is an avid reader of The Herald and regularly sends snippets of information on the woes and joys of the events besetting Scotgold Resources. With access to the ever-optimistic annual report for 2019, I have also followed Scotgold Resources' progress on (i) the Cononish project at Tyndrum, and (ii) the Grampian project, (which supports exploration further afield in Scotland).

**Official version :** In August, the directors approved the purchase of essential equipment and the items shipped from South Africa included a roof bolter, a single boom drill rig, a low profile dump truck and an Epiroc LHD – for loading, hauling and dumping, hence LHD. To ensure safe transportation to the mine, a new bridge was built and already the dimensions of the main adit are being enlarged to accommodate the bulky machinery. In addition, and because Scotgold is well aware that it operates in a national park, the company has improved footpaths for walkers and, in conjunction with the Mountaineering Club of Scotland, has agreed the safety arrangements for ice-climbing on the nearby peaks.

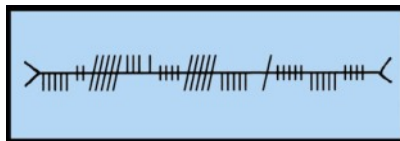
The chief executive, Richard Gray, forecasts that once mining starts, it will continue for the next nine years but, with candour, he acknowledges that at the beginning of 2019 some plans had to be trimmed by around £1m. During the year, however, Scotgold

Resources raised a further £2.7M and has earmarked this funding to cover, not only mining but the costs of exploration further afield in Scotland. With reserves of optimism, the company promises to start producing of gold and silver in February 2020. It is reasonable, therefore, to conclude that Scotgold Resources has overcome its earlier setbacks and – publicly at least – the company is managing to present an optimistic outlook for a worthwhile future.

**Rings of gold :** Already the famed Scottish jeweller Sheila Fleet, who operates from her workshops in Orkney, is fortunate to be receiving very small quantities of Cononish gold in granular form, which has probably been recovered from spoil and the rock arising from widening the adit at Cononish. In fashioning this gold into rings of 18 carat, Sheila warns, with justification, that the available numbers are limited. Of course, each of the rings has to carry three compulsory marks; that is, the maker's mark, another showing the purity of the precious metal and the one of the Edinburgh Assay Office. For her Scottish Gold Mark, Sheila has adopted the initials 'S F' in a distinctive hand-drawn style.

**Author's note :** As an enthusiast for the ancient standing stones of Great Britain, I was intrigued that the design of the rings by Sheila Fleet incorporates a word in the ancient Gaelic language known as 'Ogham'. In spite of visiting over two hundred sites in Scotland, only twice have I encountered examples of Ogham script; that is, words made up of letters painstakingly crafted into the stone with primitive tools. As an example, here is a transliteration of letters for 'Northern Mine', (but note that the Neolithic convention was to position words in the vertical).

**Ron Callender.** {Member}



# Can we Help? Edward or Albert Medals

To Graham Topping  
 Newsletter Editor  
 North Mine Research Society  
 C/o- N.M.R.S Publications  
 38 Main Street  
 Sutton in Craven, Keighley  
 England  
 August 15, 2019

Dear Mr Topping,

Edward or Albert Medals

**C**an members help Paul Street locate any surviving recipients of the above medals? In 1972, the British government decided that all holders of the Edward Medal and the Albert Medal who were still alive in October 1971 would be considered holders of the George Cross. They could exchange their medals or turn down the offer of exchanging their medals for the George Cross.

Only 584 Edward Medals were ever awarded between 1908 and 1968 for bravery during mining or industrial accidents, in 1949 it was decided that the medal would only be awarded posthumously.

**Edward Medal**



Reverse of the Edward Medal (Industry) Class I (left).  
 Reverse of Edward Medal (Mines) Class II (centre).  
 Obverse of the Edward Medal Class II(right).

**Awarded by United Kingdom and some British Empire/Commonwealth countries**

<b>Type</b>	Civilian decoration
<b>Eligibility</b>	United Kingdom and British Empire/Commonwealth personnel
<b>Awarded for</b>	Acts of bravery by miners, quarrymen and industrial workers in mines and factory accidents and disasters.
<b>Status</b>	Replaced by George Cross in 1971.
<b>Post-nominals</b>	EM

[Wikipedia.](#)

The awards of Edward Medal in both classes are as follows:

Period	Awards	Living Recipients	GC Exchanges	Death Date Unknown
1908-1914	235	223	0	183
1915-1919	117	113	5	94
1920-1938	179	176	37	136
1939-1968	55	47	26	19
<b>Totals</b>	<b>584</b>	<b>559</b>	<b>68</b>	<b>423</b>

Only 68 Edward Medallists were known to be still alive, of these 59 exchanged their medals for the George Cross, while nine turned down the offer.

I had long believed that all the surviving Edward Medallists had come forward in 1972 to claim or refuse the offer of swapping their medals for George Cross. That view changed in 2012, when I found an article on the internet about the Norwood Primary School in Eastleigh, Hampshire which is named after Percival Leslie Norwood (1893-1972) who was awarded the Edward Medal in Silver in 1914. He jumped down from the platform at the railway station at Liss, Hampshire to drag a man out of the way of an oncoming train in 1913. He was unaware of the medal exchanges as was another Edward Medallist Frank Gordon Duller who died in Somersham, Huntingdon on January 18, 1983, aged 89.

Duller was born in Chattis, Cambridgeshire in 1895 and travelled to Australia in 1912. He earned the Edward Medal for his bravery during a mining accident at the Mount Morgan Mine, Queensland on July 12, 1918 when he helped Michael Fogarty drag an injured miner out of danger, as two charges were about to explode, which happen as they reached safety. Both men were awarded the Silver Medal of the Royal Humane Society of Australasia and the Edward Medal which they received from the Governor of Queensland at Rockhampton on August 29, 1919. Duller returned to England in 1920. Recently the names of both Duller and Norwood were added to the list of George Cross winners.

There could have been many Edward Medallists who were still alive in October 1971 but who failed to come forward in 1972 because of advanced old age, had moved overseas or were just simply unaware of the medal exchanges. Anyone who wishes to help me with my research on Edward Medallists can write to Paul Street, 30 Baldwin Ave, Boronia 3155, Victoria Australia or can email me at [vhstreet21@yahoo.com.au](mailto:vhstreet21@yahoo.com.au)

**Paul Street.** {Bold type and photograph added}

## OLD PROVIDENCE WHEEL REBUILT



Photo Caption: David Carlisle and Mason Scarr rebuilding the Old Providence crusher and waterwheel at the Dales Countryside Museum in Hawes. (Picture – ©YDNPA)

The waterwheel-driven roller-crusher, which worked at the Old Providence Mine's Middle Level, at the head of Dowber Gill, Kettlewell, had survived the scrappage campaigns of two major wars, but by the late 1960s was felt to be increasingly at risk from vandals and deterioration. In 1971 it was recovered by members of the Earby Mines Research Group and the Friends of Craven Museum. It was stored for many years, but was eventually rebuilt and became a major feature at the EMRG's museum at Earby Grammar School, which became the Yorkshire Dales Mining Museum. On the closure of that museum in 2015 the crusher, along with 860 other objects, was moved to the Dales Countryside Museum in Hawes.

It took 18 months to rust proof and repaint the various castings, then they built a new wheel-case and assembled the wheel, crusher etc on the north platform of the former Hawes railway station. In addition, the museum was awarded £90,600 towards a major updating of its Dales lead mining and textile heritage displays. Based on an article by Sophie McCandlish in the Yorkshire Post's 'Country Week' section, 16/11/2019.

Sent in by **Mike Gill.** {Member}



### Gold Occurrences in the UK – A Gold Prospectors Guide by Lee Gary Palmer MSc.

The title itself is very apt for this A4 paperback publication with 136 pages packed with a comprehensive guide to the gold deposits which have been discovered in the United Kingdom.

Starting with gold, the element, its properties and the three main types of deposits and how it was formed the book then moves on to the actual location information. Thirty four maps are provided broken into areas and with numerical locations marked. Using these maps and the relevant number, the name and location is provided, along with a grid reference. There is also accompanying analysis setting them within the context of local geology. The book then has chapters on England, Wales, Scotland and Northern Ireland giving general information about each specific map and listing each reference number from the map providing details of each. Some are only a couple of lines, others are very detailed. It is interesting that even fake localities provided by "experts" of the time are mentioned.

Ancient links to gold objects have a small section followed by information about gold panning including necessary permissions, considerations and land access. Even sites of special scientific interest (SSSI) are mentioned. The reference section at the end is nearly eight pages. Each one starts with the page number, the author, the article and publisher. Using one of our early members as an example and one of our publications,

“(125) Harker RS (1966 Copper Mines in the Lake District ) The Northern Cavern & Mine Research Society Memoirs 1966”

A very well written and comprehensive book on gold with a few excellent photographs of gold specimens. The book is to be recommended for the amount of information between the covers including the easy to use index. The photos on the front and back of the book indicate the standard of the contents. A mineral member pointed out the lack of gold photos but it is the actual title that says it all! Priced at £28 including 1st class signed for postage the book is available by email to, [goldoccurrencesuk@gmail.com](mailto:goldoccurrencesuk@gmail.com) or direct via [www.goldpublications.co.uk](http://www.goldpublications.co.uk)

**Rex Cook.** {Member}

## Is this building a former smelt mill?

It is just south of Cupola Bridge over the River Allen; on the 1859 OS Map it is shown as a building with a leat heading back to the river, but later maps lose the leat. Cupola Bridge carries the A686 over The River Allen in great style.

The bridge was built in 1778 and no expense was spared to make this a magnificent structure, well able to handle the notoriously fierce river in times of flood. Today this bridge is a Grade 2 listed structure and is well worth examining close up (ideally when river levels are very low). Beneath the bridge is an interesting limestone pavement through which the river has carved some delightful channels. The waters flow off the edge of this limestone pavement with a flourish and onwards down the steeply banked gorge towards Staward Peel, Plankey Mill and Allen Banks. Kayakers will know how exciting and challenging this stretch of river is in high water and many will have muttered a silent prayer as they swept underneath the bridge and down the raging torrent. Certainly not a moment to ponder how the bridge got its name, Cupola.

The bridge was named after an adjacent lead smelter, known as Whitfield Mill (although sited 1.5 miles East of Whitfield) which used the cutting edge 17<sup>th</sup> century technology of a Cupola Furnace. The date this Mill was first built is unclear, but it was during the same century. The London Lead Company took over the Mill in 1706, when they took a 99 year lease. The London Lead Company acquired the Nenthead Mill in 1745 and production at Whitfield Mill began a gradual decline. This Mill finally closed in 1811 after well over 100 years of production. Today little remains at the Mill site. A farmhouse, which probably post dates the mill itself is possibly a conversion of an industrial building. A large barn by the road may well have been used by the mill operators. And if you know where to look and ask for permission at the farmhouse, you can still find plenty of slags and part of a Peat House”.



*I recently Came across this: “Whitfield Smelt Mill. Working before 1706, shortly after which it was bought by the London Lead Co. They converted it to Reverberatory furnaces and it became their primary mill. It was phased out as Nenthead came on stream. It closed in 1811 and was ruined by 1821”.*

**Mathew and Mark Hatton.** {Members}.

### Potential Power Source?



I'm looking for some information about possible power sources for a stone-breaking machine used in a small surface quarry in the 1920s around the Wiltshire area. The machine was likely a jaw-crusher like the ones by Broadbent, Marsden, and Hadfield illustrated in Graces Guide (see images). There is no archive information or evidence on site for the possible power sources. The quarry is in a woodland there is no water source nearby. What might have been used for driving one of these crushers in the 1920s?



**Katy Whitaker.** {Information to the editor}

## Former Derbyshire Drift Mine made safe to protect public and environment

After Eckington Colliery in Derbyshire unexpectedly closed in January 2019, the Coal Authority carried out a detailed programme of works to keep people safe and protect the environment. The drift mine had been worked by 2 roadways that ran about 30 metres beneath a railway line linking London to Sheffield.

To ensure this major route wasn't damaged by future subsidence linked to the former mining operation, these roadways needed to be sealed and packed to permanently stabilise the ground. Our team carried out detailed investigations to assess the rate at which the water within the mine would recharge once the site was no longer active. This showed that swift action was required to complete the work before rapidly rising water levels from underground springs made any solution more difficult and costly.

Poor access to the site – via a weight-restricted bridge over the River Rother – added further complications to the project. Senior engineer Zoe Rose-Higgins worked on the project with colleagues from across the Coal Authority and other relevant bodies, including Network Rail and North East Derbyshire District Council. She said: “There are underground springs at this site, so when the mine was open they had a series of pumps which were constantly running to control the water levels. “Once the mine closed the pumps were inoperable, so rising water levels meant we needed to get works agreed quickly and put an engineering solution in place. “We designed stops, which are reinforced concrete block work retaining walls, about 140 metres inside each roadway. “The drifts followed the coal seam and, because of the steep angle, we could essentially use gravity to fill them with foamed concrete.”

Concrete was used as, due to the pillar and stall working methods employed at the mine, there was no suitable waste material on the surface. An 80 metre section in each roadway was packed, using a total of 1,000 cubic metres of concrete, which was poured and allowed to set in sections so the walls wouldn't collapse. The lack of mechanical haulage systems on the site meant much of the work was done by hand and our contractor employed former miners on the project to undertake this vital work.

Zoe said: “One of the technical challenges was pumping the concrete to where we needed it. We couldn't take trucks over the bridge, so we had to park in a yard on the other side of the railway tracks – around 300 metres away – and use a specialist pump to undertake the work.”

Finally the entrances were dug out and re-profiled to close the roadways off and provide a permanent solution to keep people safe and protect the local environment. Building the



underground retaining walls interrupted the mine's ventilation circuit, which then had to be maintained with temporary surface fans. As the adits were on a flood plain, we also removed the old colliery infrastructure and tidied the site.

### Notes.

When a private company stops operating a mine, the Coal Authority can be called in by the liquidator to undertake any relevant works.

We work with the liquidator and other relevant bodies to protect the public and the environment.

The engineering works at Eckington Colliery were undertaken over a 13 week period and completed by June 2019.

Forwarded to NMRS by.

**The Coal Authority.** Jan 2020.

# Highlights from the NMRS 2019 Autumn Meeting.

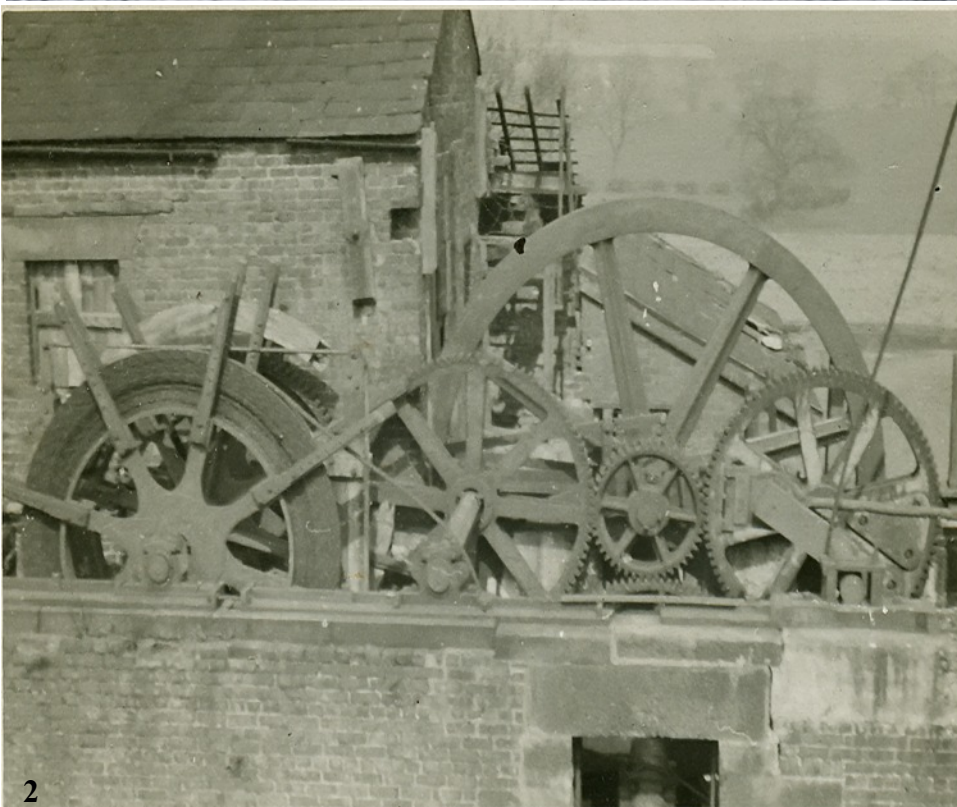
## Canal Pit, Poynton

The site of the Canal Pit at Poynton, Cheshire is notable for the significant remains of the surface arrangements when you consider that it closed along with the remaining operations of the Poynton Collieries Company in August 1935. When I first discovered the site back in the early 1970s there was little information available and over the last nearly 50 years I have managed to piece together what the remains once were and the long history of the colliery which was the longest running of any of the shafts at Poynton.

When the Macclesfield Canal opened in 1831 it opened up a range of new markets for the Poynton Collieries even if it did not go to Stockport where the largest demand was. To serve the canal markets at Bollington, Macclesfield, New Mills, Marple and Romiley the existing Gees Engine Pit was developed with a private canal arm and renamed the Nelson Pit in 1835. At around the same time the Canal Pit was sunk alongside the canal a little further north and equipped with a loading wharf on the eastern bank of the canal and served via a bridge from the towpath side. The shaft was 10ft in diameter. This wharf was also served by a Higher Canal Pit (sometimes known as the Rover Pit) which was used as the upcast using a furnace for ventilation at some point in its life. A tramroad brought coal down to the wharf from the Dingle Pit about half a mile away.

Three seams, Gees, Reform and Accommodation were worked at the Canal Pit. The Gees was the first reached at a depth of 65 yards whilst the Accommodation was the deepest at 127 yards. By 1847 the standard gauge colliery railway had been extended to Canal Pit thus allowing these pits around the canal to send coal to Stockport by rail. There were 84 men and 10 boys working underground here and another 41 men and 5 boys at the Higher Canal Pit. The winding engines were rated at 34 hp and 15 hp with the Canal Pit engine also capable of pumping water up the shaft.

By 1856 the colliery reports noted that Canal Pit was no longer winding coal but was retained for pumping with the engine





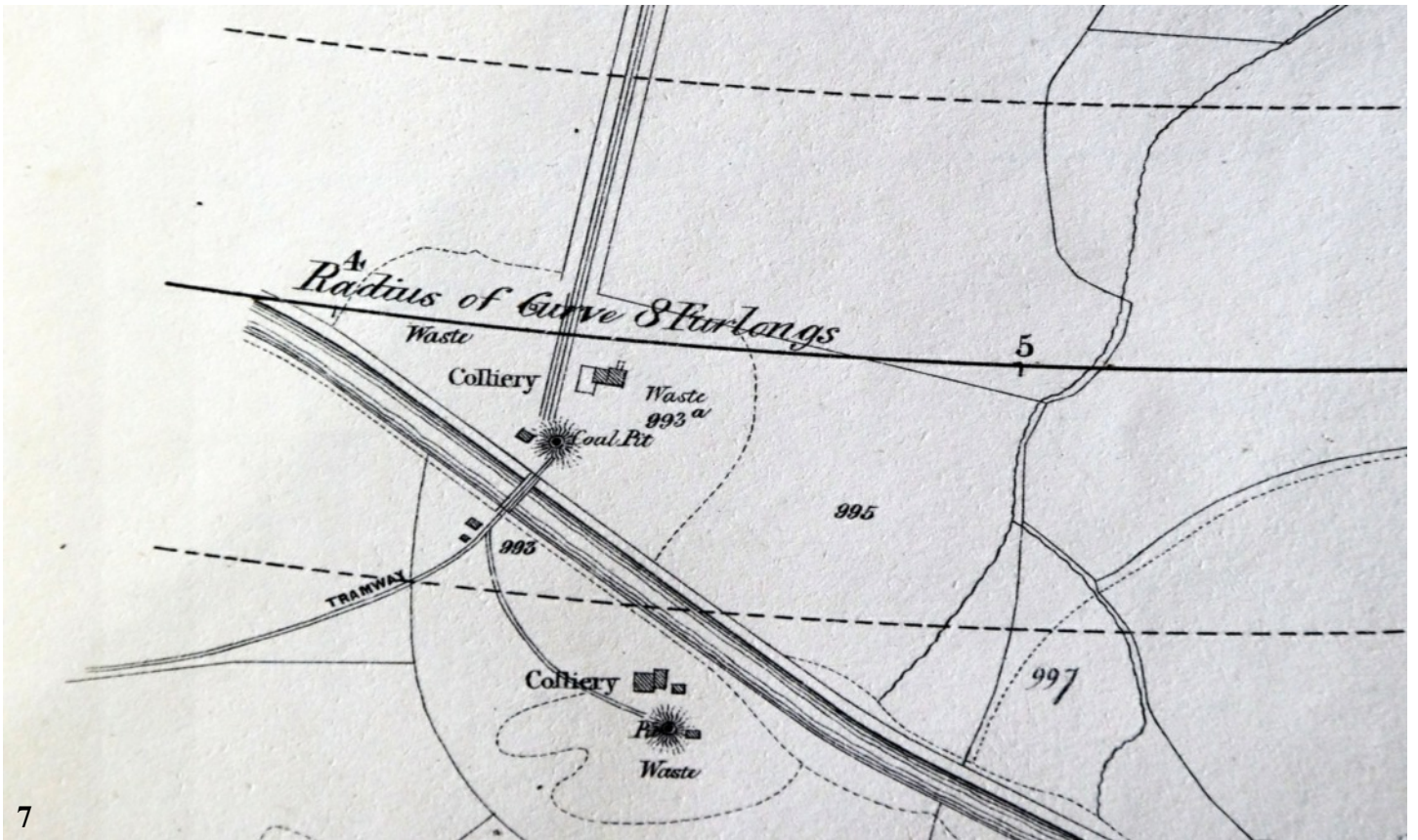
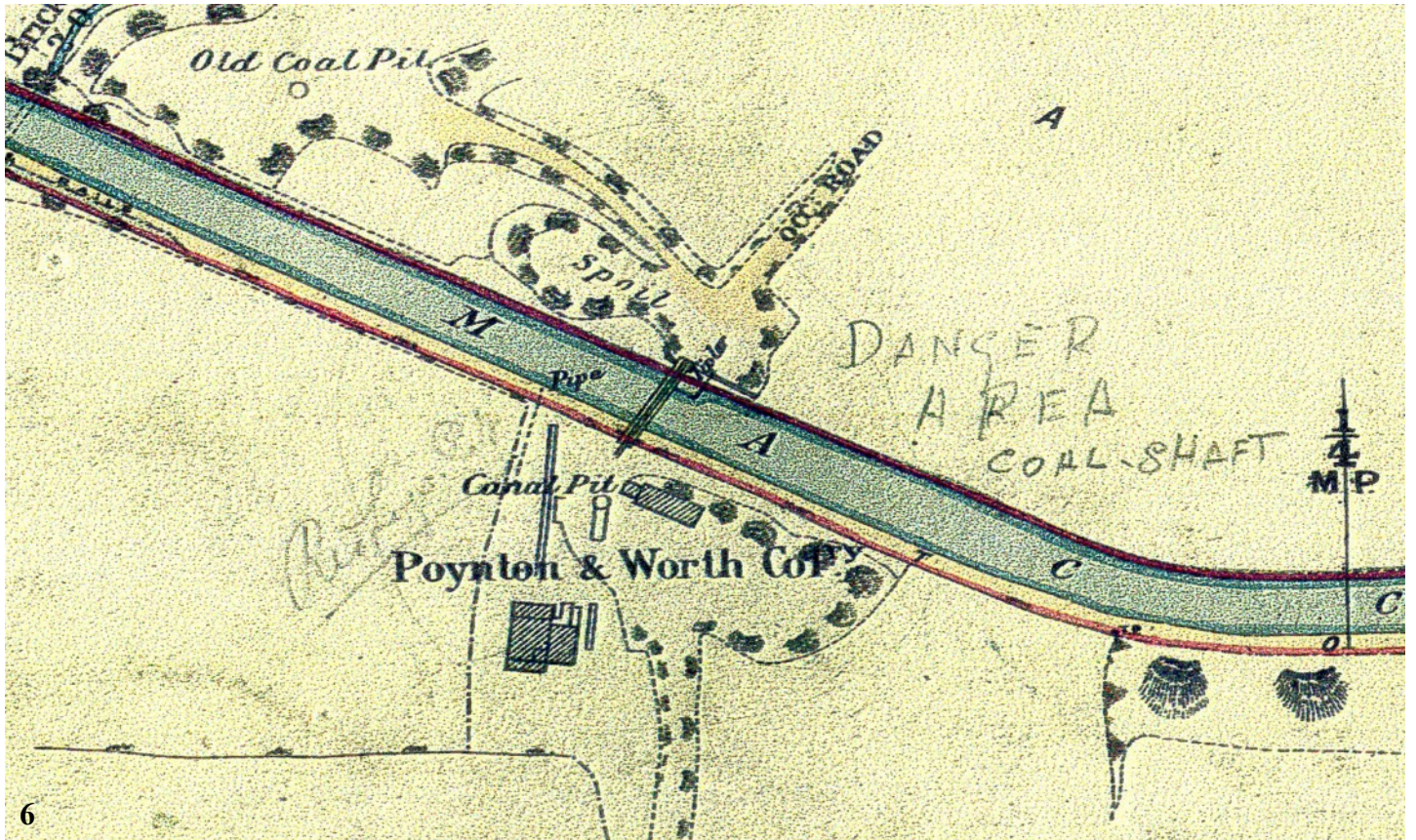
running for 3 ½ hours a day. It was recommended that this be changed to running the engine once or twice a week instead if lodge capacity was available for the water and this was adopted by 1857. By 1864 the engine was lifting 500,000 gallons a week.

The pit was revitalised in 1878 after the neighbouring colliery at Middlecale, operated by Thomas Brocklehurst, closed on the exhaustion of the seams available. The agent for Poynton Collieries, G. C. Greenwell decided that there was an opportunity to fill the gap in canal sales left by the closure of the rival pit and he arranged for the Canal Pit to reopen for winding coal as well as purchasing a couple of extra narrowboats at the dispersal sale at Middlecale.



The flywheel for the engine was renewed at a cost of £41 16s 6d and a new bridge had to be provided to carry coal across the canal to a tippler on the wharf at a further cost of £70. In 1881 there were 15 men underground and the output in the week to May 11th was 209 tons of coal from the Accommodation seam. The revival faltered and no coal was wound in 1883 but 1,543 tons are noted in 1888. Thereafter the pit returned to a pumping shaft with just one rope on for inspection and maintenance purposes. Pumping continued until 1928 and then only on standby until closure in 1935. At some point after 1915 the wooden headframe was replaced with a steel structure and there is evidence of this in the alterations to the mountings that survive.

The winding and pumping engine seems to have been the same from the opening of the pit for the full 100 years of the pit. The maker appears to have been Mitchell of Leeds. It had one horizontal cylinder 20" x 30" geared 1 to 3 to two horizontal rods and 2 L. legs working over the shaft. It raises water in 3 lifts Top lift 50 yds 12" bucket, Middle 50 yds 12", Bottom 45 yds 11". The brick boiler chimney survived until 1977 by which time it had developed a significant lean and was demolished before it fell on someone using the adjacent footpath.

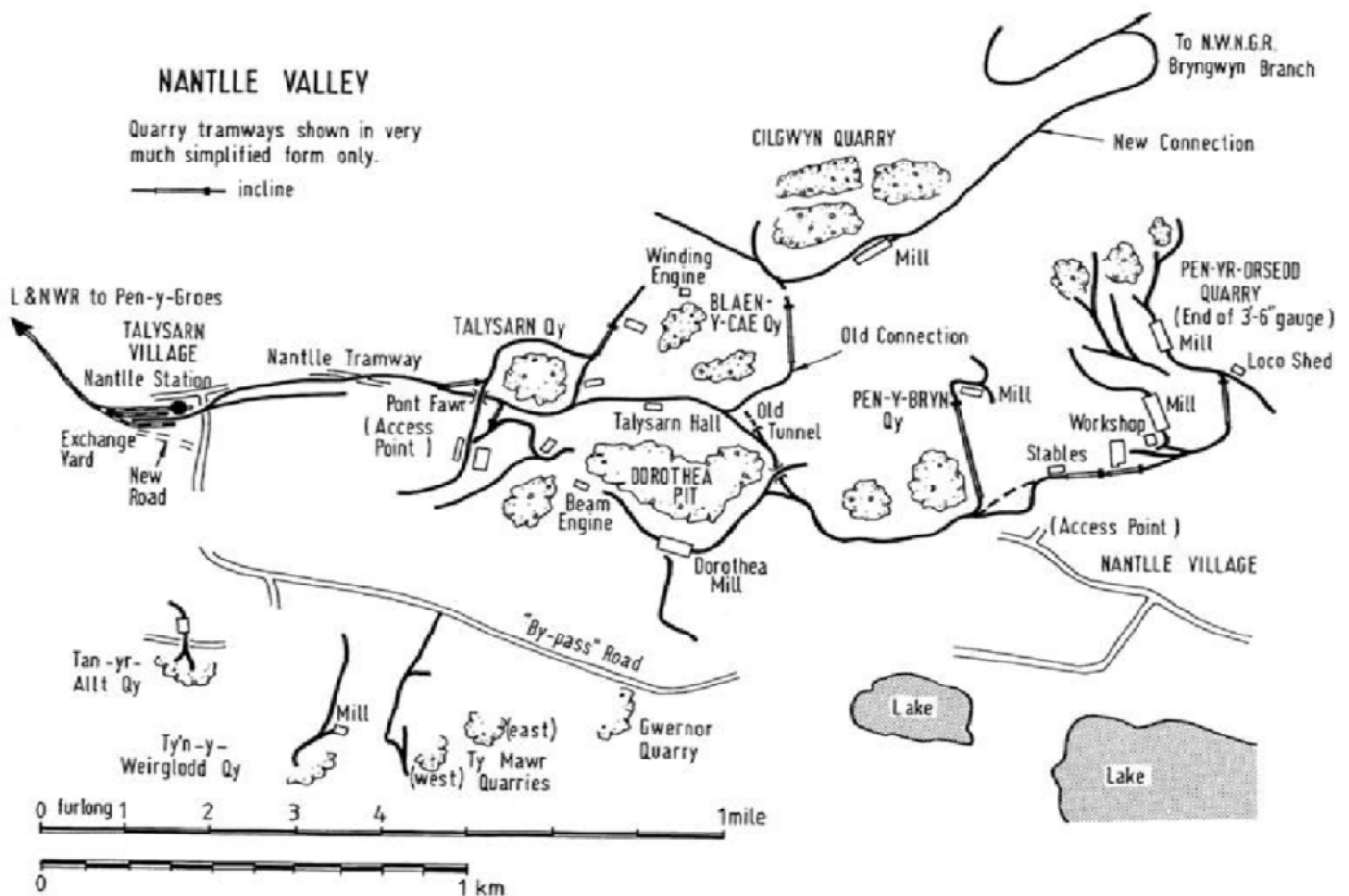


Picture credits.

1. Pit Head. 1915. {William Sumner}
2. Side view of engine drive. 1936. {Ely Simpson}
3. Pit Bank. 2009. {Dave Kitching}
4. Pit Bank looking toward the shaft. 2013. {Dave Kitching}
5. Engine driver 1930. {Unknown}
6. Canal Pit on the Macclesfield Canal line plan. 1891.
7. Rail and Tramroad connections to the colliery. 1849. {The plan for the proposed Staffordshire and Macclesfield & Sheffield & Lincolnshire Railway Junction}.

**Presented at the NMRS Autumn Meeting by  
David Kitching.**

# Slate Quarries of the Nantlle Valley



The Nantlle Tramway was a Welsh Narrow Gauge Railway gauge 3ft 6in. It was opened in 1828 to carry slate from several slate quarries across the Nantlle Valley to the harbour at Caernarfon for export by sea and operated entirely with horses. It was the first public railway to be operated in North Wales. During the 1860's and 1870's part of the line was replaced by the standard gauge branch of the LNWR which acquired the line in the late 1860s. Just 2 miles of the original line remained from Nantlle Station to the quarries. After 1872 the slate was unloaded at Nantlle Station (actually at Talysarn). The Nantlle Railway was closed in 1963 by BR, when it was the last line to be operated by BR using horse traction. After this the quarries turned to moving the slate by road. The slate veins in the Nantlle Valley were vertical so the quarries operated as open pits. The lower quarries soon reached down below the water table (eg, Dorothea) and so pumping was necessary. The higher quarries (eg. Pen-yr-Orsedd) remained dry. The original village at Talysarn was threatened by waste heaps from the higher quarries and the extending Dorothea quarry. So the entire village was moved to its present site a mile further West. The ruins still remain, together with the once magnificent Taysarn Hall.



Chain incline Dorothea Quarry.

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**Dorothea quarry** (now flooded) operated from 1820 to 1970. It was originally drained by a Cornish Bull Engine which was replaced in 1904 by a Cornish Beam Engine, (the last Cornish engine built) which worked until 1951. The mine was drained by electric pumps from then on until closure. The slate was originally removed by chain inclines; a chain anchored



from a high pyramid at the top of the quarry to a point at the base of the quarry. The loaded slate wagon was attached to the chain and run up to the pyramid where it was freed from the chain. The chain inclines were later replaced by “Blondins” tall towers with cables running down into the base of the quarry with a wheeled carriage attached to a winding cable. The wagon was suspended from the carriage and drawn up to the top where it could be detached and run off into the mill. The mill area has now been cleared but the Cornish Engine House is now a Grade 1 protected building..

**Pen-yr-Orsedd Quarry.** Higher up, is dry and has several Grade 2 listed structures which include Blondin Towers with their winding drums. The lower quarry also has buildings which are now derelict. These include Workshops, Forge and a Hospital. The upper mill is still in use and was securely locked. In 1992 five Blondin Towers were still standing but four have since collapsed and only one remains standing.

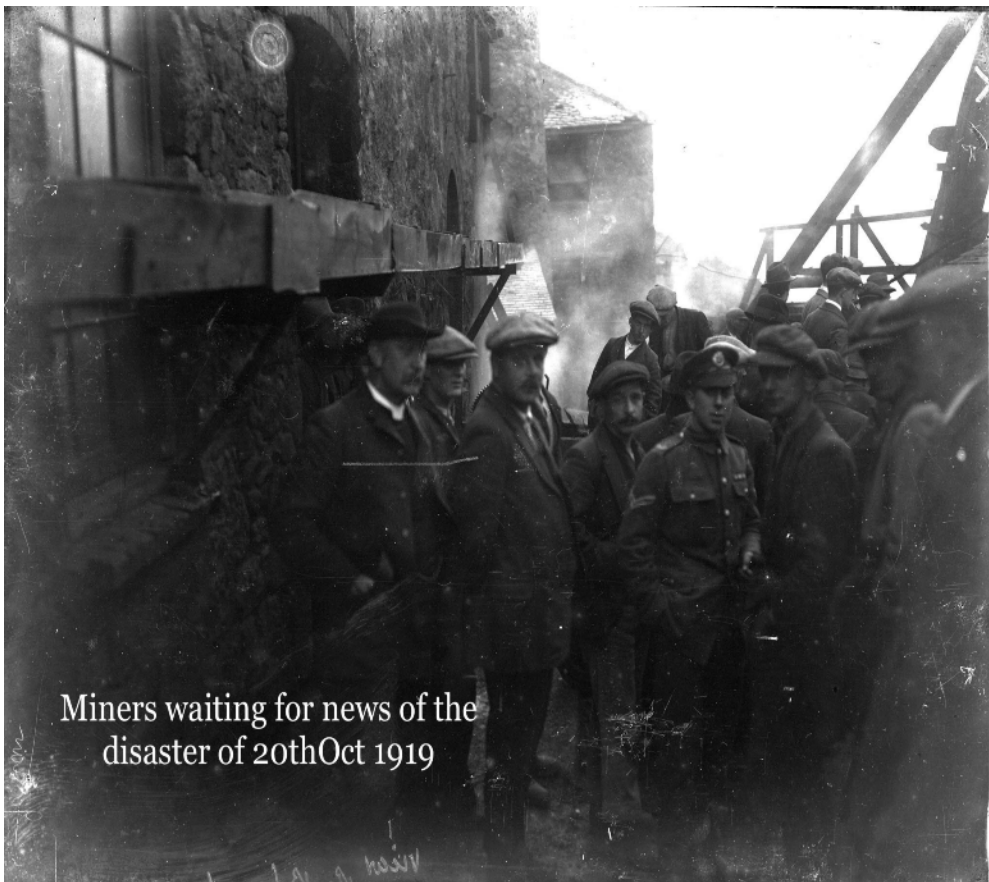
**Picture credits.**

1. Cornish Beam Engine House.
2. Pen-yr-Orsedd Drum House. 2019.
3. Winding Drum. 2019.
4. Pen-yr-Orsedd Incline plus Tramway. 1962.
5. Surviving Blondin Towers. 2019.




**Presented at the NMRS Autumn Meeting  
by David Lewis.**

# Levant Mine and their Disaster.



A short pictorial presentation on Levant Mine and their disaster which had taken place 100 years ago on 20th October 1919. She explained there were several books on Levant plus a section on the NMRS website under mining accidents. She ended with a quote from "The Cornishman and Cornish Telegraph" on Wednesday 29th October 1919,

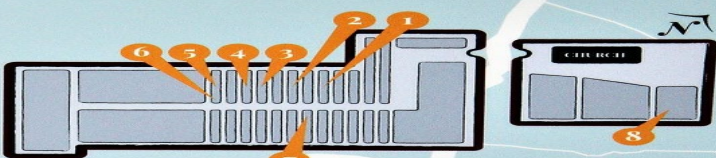
"Never have such scenes of impressiveness and deep pathos been witnessed in St Just and neighbourhood as those on Friday (24th) which marked the burial of 8 victims of the Levant disaster. As the afternoon progressed the dark and foreboding clouds that hovered overhead, disgorged their contents and rain descended with heavy force. Despite such pitiless weather, huge clouds of sorrowful sympathisers paid their mutual tributes of condolence although it was heart breaking, under these grievous conditions, to watch the anguish laden bereaved with heads bowed by unspeakable grief silently following the remains of their dead men-folk to their graves....."



*Where the Levant Miners are buried*

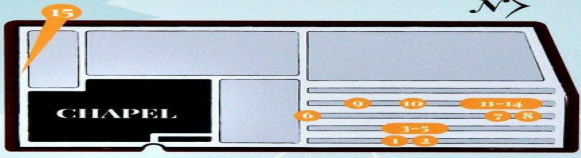
**Pendeen Church**  
Pendeen, TR19 7SQ

- 1 James Vingoe Trembath
- 2 John Kevern
- 3 Thomas Branwell
- 4 Edward Thomas Trathen
- 5 William James Harvey
- 6 Nicholas Hocking Thomas
- 7 Matthew Eddy Matthews
- 8 William Edward Waters



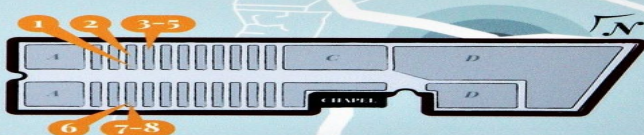
**St. Just Miners' Chapel**  
St. Just, TR19 7LT

<ol style="list-style-type: none"> <li>1 Eddy F. Pascoe</li> <li>2 William Henry Tregear</li> <li>3 Nicholas J. Matthews</li> <li>4 John Wearne</li> <li>5 George Eddy</li> <li>6 Sampson Osborne</li> <li>7 Matthew Newton</li> <li>8 William J. Murley</li> </ol>	<ol style="list-style-type: none"> <li>9 John E. Grenfell</li> <li>10 John Ellis</li> <li>11 S.J. Brewer</li> <li>12 Tom Rowe</li> <li>13 Peter Branwell</li> <li>14 James H. Oats</li> <li>15 William Henry Ellis</li> </ol>
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**St. Just Church**  
Higher Bosavern, TR19 7QY

- 1 Henry Andrews
- 2 John T. Angwin
- 3 Leonard Semmens
- 4 James Maddern
- 5 W.J. George
- 6 Ben Hocking
- 7 John Tonkin
- 8 W.J. Hocking



© St. Just Miners' Chapel
Charity No: 1180038
Designed by Alex Waghorn

Cape Cornwall Scouts had tidied up the graveyard at St Just Miners Cathedral and there are now information boards of where the graves are of those 31 who perished in the tragedy that Levant did not recover from.

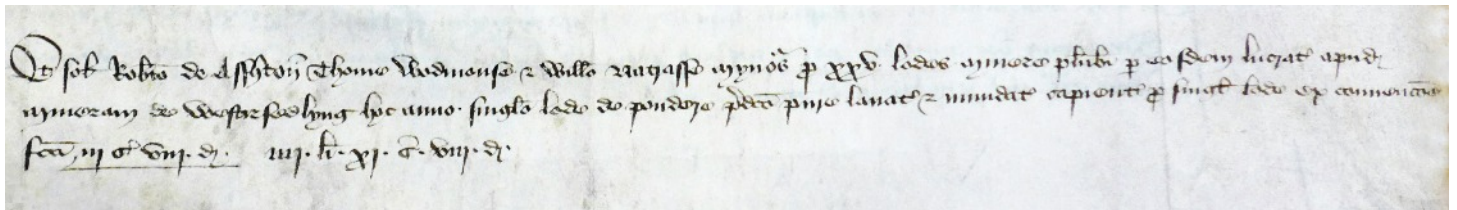
**Presented at the NMRS Autumn Meeting by Barbara Sutcliffe.**

## Lead Smelting for the Bishops of Durham, 1425-1529

As part of the NMRS supported project on medieval lead smelting sites in the Yorkshire Dales, it was decided to study some of the primary documentary sources on the early lead industry. One of the most important are the Accounts of the surveyors and clerks of the Bishop of Durham's lead mines in Weardale, 1425-1529 held at the University of Durham library (CCB B/82/1-11). There are eleven of these and the first four have been the subject of a paper by the archivist. (Drury J.L., 1987, 'Lead Works in Weardale, County Durham, 1425-1431', Durham County Local History Society Bulletin, p. 38). They have also been referred to in Blanchard I., 2001, 'Mining, Metallurgy and Minting in the Middle Ages, vol's. 2 and 3, Franz Steiner, Stuttgart.

The manuscripts are written on vellum and are in good condition; for the most part the paleographic script is fairly easy to read once one gets used to it. Ten of the eleven accounts were in medieval Latin and only one in English. This meant that a rusty knowledge of classical Latin and a Latin dictionary were of limited assistance only. Many of the words, particularly those relevant to technical aspects, had been anglicised; many other terms were translated using an on-line Anglo-Norman dictionary. Several terms had been abbreviated and in places some phrases were similar to those found in later mining leases.

### For example:



'Minera plubi de Westersedlyng – Et sol Robta de Asshton Thome Wodmanse & Willo Natrasse mynos p xxv lodes mynere plubi p eosdem luquat apud myneram de Westersedlyng hoc anno singlo lode de pondere pdca pure lavate & inundate capiente p singlo lode ex connencae foa iij s viij d iij Li xj s viij d.'

### Which we roughly translated as:

'The lead mine of West Sedling – to pay Robert Ashton, Thomas Woodmanse and William Natrass miners for 25 loads of lead ore produced by the same at the mine of West Sedling this year; each load weighing as stated previously (pdca=praedicta), well cleaned and washed, excluding other charges, 3 shillings and 8 pence, £4.11s.8d'.

The term 'ex connencae foa or fca' appears throughout the set of documents and applies to a range of activities including mining, smelting, making fuel, transport, smithing etc. We have taken 'foa/fca' to be an abbreviation for the Latin 'feodis = fee' or Anglo-Norman 'focage = hearth money'. The translation given above fits well with the many contexts in which the phrase has been used.

The ores were taken from the mines to a collection point at Stanhope, where some smelting took place, although most of the smelting took place at Wolsingham or nearby locations at Fawnlees ('ffernelee') or Knitsley ('knighterlaes'). Some of the lead metal, was then taken to Bishop Auckland for distribution in the north of England but most went to Whickham/Swalwell staithe (east of Gateshead on the Tyne) for shipping by sea to London. In the last accounts, during the reign of Henry VIII 1527-1529), ore was only smelted at Stanhope and later all the ore was smelted at a new refinery at Gateshead.

The accounts are very informative about the production of lead from the ore, particularly during the early reign of Henry VI (1426-1431). Two distinct processes are referred to: 'bolyng/bailyng' using wood as the fuel and 'smeltyng' using charcoal. 'Balyng' was carried out at Stanhope, Wolsingham, Fawnlees and Knitsley. Wood for this was obtained from Stanhope Park (NZ 975 416), Wolsingham Park (NZ 069 393), Fawlees, Knitsley (NZ 099 346), Black Bank (NZ 110 353) and the Shull (NZ 090 333). Charcoal was made at Knitsley and Wolsingham and 'Smeltyng' was carried out only at these locations. The precise locations of the smelting sites have not been identified, although the bales at Wolsingham were probably on the hillside above Baal Hill Wood, shown on the current O.S. map.

The accounts for 'bolyng' show, for example; 'And to pay Robert de Wheelhouse Boler, for burning and making 8 fothers 166 stones of lead by Boling this year...each fother of weight 180 stones, a stone containing 14 lb troy measure receiving for each fother "ex connencae fca" 5 s. Finally for felling chopping and carrying wood fuel and materials necessary for making the same to costs £4..12s'. The accounts for 'smeltyng' show: 'To pay the said Robert for burning, melting and casting 3 fothers 164 stones of lead by smelting this year, with a wheel, each fother of weight aforesaid taking per fother excluding associated fees (ex connencae foa) for due 12s – value of making charcoal and carrying of the same to costs due 47s. And to the same Robert for burning, melting and casting 9 fothers 158 stones of lead by smelting with a wheel and feet of men each fother of weight aforesaid containing per fother excluding associated fees (ex connencae foa) value to costs as before and value for treating of the blackwork 10s £4 18s 9d'.

It is explained that 'smelting with the feet of men (cum pedibus homine)' was resorted to during a period of drought when the wheel could not be used. Whether they used a footblast type of bellows or simply used the waterwheel as a treadmill is not stated. Richard Skinner, Thomas Walker and Robert Whorlton, young men, were paid 4d per day for 22 days for blowing the bellows, burning, melting and casting lead by smelting in that year (1427-1429) under the supervision of Robert Whelehouse, necessitated by reason of a time of drought. Later, in 1458-1459, John Water, John Ulshelve, John Wharlton and William Taylor were paid 4d each per day for blowing for making lead at the smeltings at Knitsley near Wolsingham and Fawnlees.

Cont.

Other expenses in 'smeltyng' included: 'a payment to John Richmond for one piece of soft cow's leather bought for cladding five pair of bellows for making lead by smelting 4s 6d. And to the same for one bottle of oil bought for softening and lubricating the leather of another pair of bellows for these works 10d. And to William Smith of Auckland for the leathering & associated iron work for the end of ?vinq (five) pair of bellows one at the furnace & for installing 1 iron pipe for introducing air & for checking the ends of the same 3s 8d. And to pay William Rykhouse for one pair of banastres bought for taking charcoal for melting and smelting lead 12d. And to pay for two other pair of new banastres bought for the aforesaid reason 3s 7d'. Banastres were pairs of skids used to transport charcoal; they would have avoided breakage and the need to put the charcoal into bags. At other times, five barrels were bought for water to extinguish the bales and payments were made for carrying stones and clay for making the bales.

The significance of the Durham manuscripts was discussed in the light of archaeological observations made at several sites in Swaledale where smelting sites with charcoal dumps had been found. These were in relatively sheltered locations and all had black glassy slags with low lead contents. In contrast, nearby sites, having no charcoal were found in exposed locations, typical of a classic bale site. These sites had lead-rich slags. The inference has been that the latter were primary lead smelting sites and the former were sites used for treating the primary slags or 'blackwork'. This will be more fully discussed in a forthcoming paper in the 2020 British Mining.

### Presented at the NMRS Autumn Meeting by Richard Smith.



Fred McNeil, Edmund Green, Harry Houghton, Julian Holmes, Mike Gill Eddie Nutter and John McNeil at Chimney Shaft, 1976.



Mike Gill behind one of the multi-tube boilers at Chimney Shaft, 1976.

The society has not, of itself, sought to direct members to its own projects, rather to make them aware of work being done by others who would welcome assistance. The 1970s were a busy time, with a relatively young and active membership undertaking all manner of research. For example, in Scotland, Bill Harvey and Geoff Downs-Rose organised a series of Summer Schools in Industrial Archaeol-

### Sixty Years of the NCMRS/NMRS – Some early landmarks

The Society's founders were mostly from a caving background in Yorkshire, but many of them had interests in Dales' mines, or had scientific skills that enabled them to study cave or mine ecology/biology/hydrology/geology etc. and analyse underground waters. This background drove our formative years, and the results can be seen in our early publications, with papers on caves and mines in Cornwall, Devon, the Americas, Brora Coalfield in Sutherland, Cuba, France, Lake District, north and mid-Pennines.

I joined NC&MRS in 1965, at the age of 13, and was immediately included and encouraged. My first field meet was spent as 'chainman' helping to survey Cam or Springs Wood Level, at Starbotton. This was part of an intensive study of the mine which was published as the first of our Individual Survey Series (viz. a monograph). Later, a group of members, led by Doug Richardson and Jean Dixon, established a field research station in Cam Level and continued their studies of underground ecology.

Jean, who became the first of our five women Presidents in 1971, also led plans to mark our 10th year by organising a national Conference on scientific approaches to studying caves and mines, held at Skipton, on 4th Oct. 1969. This was a great success, but the growing number of members interested in mining history, and the formation of organisations, like the British Cave Research Association, dedicated to the scientific study of caves led to pressures for a more focused approach and a change of name. Thus, in early 1975, the Northern Cavern & Mine Research Society became the Northern Mine Research Society. At this point, it is worth remarking that the 'Northern' element our name was never used with the intention of implying an interest solely in the north. It is a reflection of a time when communications were not as they are now, and it was foreseen that like the caving world, which had the northern and southern regions of the Cave Research Group of Great Britain, we too would have a southern section.

The name change also brought a change in our publications' titles. The Memoirs and Individual Survey Series (ISS) were united under the banner of 'British Mining' as memoirs and monographs. Again, not a parochial choice, because Britain's mining interests cover the Earth.



Remains of Ore-hearth at Buckden High Smelt Mill, Wharfedale, 1975.



Roger Harker, Edith and Dusty Miller, at Gillfield Level, c1969.



Members at Cam Level, Starbotton, October 1965.



Caleb Wade, Ray Walls, Bob Guthrie and Ken Walls, at Cockhill Level, c1970.

ogy, at Wanlockhead, where they excavated the site of a Symington engine at the Bay Mine, and an eighteenth century lead smelting mill at Pates Knowes. On the northern slopes of Great Dun Fell, Cyril McChesney and others studied the mines on the remote Moor House estate. In 1971, the Buckden Gavel mine was thoroughly explored and surveyed. In 1973-4 members excavated the site of an early C18th lead smelting mill at Sutton in Craven. In 1974-5 they cleared the remains of the late C17th Buckden High smelting mill. 1976 opened with the construction of a headgear and winding engine house at the top of Chimney Shaft on Greenhow Hill. This was the site of an underground boiler house, built c1860 at the head of a deep sump from Cockhill Level. The 750 mm diameter shaft, which had served as a chimney for the Cornish boilers, was blocked at 27 metres by a mixture of ashes, old cans and a steel steam pipe. When cleared it was 30 metres deep and then entered the top of old, soot-filled workings. Progress downwards to a brick wall which, given that there was water at both sides of it, we hoped was Cockhill Level. On breaking through the bricks we were in the boiler/engine house. Luckily we could see the top of the sump through the clear water, so quickly knew its location. We were also fortunate that 1976 was a very dry summer and the water level fell as recording work progressed. Chimney Shaft was by far the dirtiest project and, amazingly, we were not over-run by requests to go down the shaft and visit the boiler house. That joy was limited to around ten men and one woman!

Practically all of the above work was written up and appears in British Mining.

NMRS was an active participant in the formation of the National Association of Mining History Organisations following a meeting of representatives of Britain's mining organisations at Beamish Museum in 1979. In 1983 we organised one of the latter's biennial Conferences at the Leeds Industrial Museum, Armley Mills. In 2001, as a consequence of the Irish field meet being cancelled owing to the Foot and Mouth outbreak, we organised a second NAMHO conference, at very short notice. This was held at the Novotel, Bradford, from 14 th-16th September.

**Presented at the NMRS Autumn Meeting by  
Mike Gill.**

# Extensive Flood Damage at Grinton Smelt Mill



## Dalesman Article.

The dramatic impact of the summer floods in the Northern Dales is starkly highlighted in these two photographs. The images show how a covered culvert at Cogden Beck has been destroyed by the flood. The culvert, which was a listed building, is part of the Grinton Smelt Mill, in Swaledale, which dates from 1820. The mill is now considered to be at risk by Historic England. Miles Johnson, senior historic environment officer at the Yorkshire Dales National Park, said, “The culvert was built for access from one side of the beck to the other and to provide a safe working area for the smelter, who would have been taking waste slags and tipping them close to the watercourse. It also stopped the watercourse from moving, and now, every time there's heavy rain there is a risk of the building itself being undercut because in places it is very close to the mill. Historic England have told us they now consider it to be a monument at risk and so will go on their statutory at-risk register. It is an important site of the most complete smelt mill in the Yorkshire dales. So we are going to try to do emergency works to armour the side of the watercourse.”

## Yoredale Mine and Cave Group.

We had a look up to the mill and Devis mine site a week after the flood our observations as follows. The mill has suffered no apparent damage. A few weeks before the flood it had been cleared of many years of sheep droppings and general rubbish. This had exposed the original flag floor on the inside the building.

Outside there was extensive damage to the area in front of the mill mainly stuff washed down by the beck. The flood waters had exposed a small area of cobbles which had been covered over with twelve inches of soil and grass. It seems that the whole area was at one time all cobbled and maybe still is under the soil and grass.

Further up the Gill a lot of the tip heap from Devis mine was washed away. This may well have contributed to the collapse of Cogden road bridge. Above this tip area is an area of flat ground where many hundreds of tons of rocks and stones have been washed down the Gill from above the mine entrance.

At first we thought the mine entrance was lost but we found the site of the shaft dug by, E.M.R.G. In the 1960s. This was only covered with about two feet of small gravelly debris. We were able to dig down to shaft top but we did not remove the covering. We then covered it back up to be dealt with at another time. Hopefully by extending the shaft lining another metre this should keep the mine accessible in the future.

Two years previous on a trip into Devis mine one of the members tried to help himself up out of the shaft by grabbing one of the shaft top cross members unfortunately it broke. So we had to replace the entire frame and lid with a more robust construction. We also placed some hefty flag stones over the wood shaft top which has helped to keep debris out of the shaft during this recent flood.

The flood also washed a lot of debris down from above the mine which has scoured the beck down to the bed rock. This has exposed many deposits of Galena in the cracks and crevices.

I believe the levels in Hags Gill has been totally lost as well as damage to several adits in Arkengarthdale and Sleegill.



The site of the Devis Shaft



The mill from up the Gill showing flood damage.



The profile of the lower dam exposed by the floods.



Pockets of Galena in the beck bottom.

**Submitted by Mason Scarr.** {Member}



## “The New Venture” Forest of Dean.

Some info of what we are up to here in the Forest of Dean Gloucestershire where the ancient tradition of Free Mining for coal is allowed. We are currently working two mines one of which for a large part of the year we cannot work because the working coal face is under water. So in December last year we decided to reopen a very old entrance to potential higher workings. This entrance had not been used since before WW 2 and had collapsed.

The first picture shows you what was left of the old adit. After completing the works on the surface which now includes a motorised winch along with two other buildings. We set about reopening this old adit. We decided to drive a new adit to the right hand side of the old one using new timbers as we progressed inbye. Once we were beyond the collapsed area of the old adit we broke back through into the old level where we found original cart rails still in place. There are also large reserves of coal to be worked from this new adit.

This project is on-going but more importantly we are preserving a very important historical tradition that of Free Mining in the Forest of Dean. We have named this project, "The New Venture"



By Kind Permission. **Paul Baverstock.**

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## Elsecar Heritage Centre

For those aficionados of British Industrial History, stationary steam engine enthusiasts, and indeed, students of early steam engines, may I suggest a visit to the historic Elsecar Heritage Centre, near Barnsley is a must.

Elsecar Heritage Centre –(many of the buildings were originally part of the 19<sup>th</sup> century Milton Ironworks) - is owned by Barnsley Metropolitan Borough Council. Housed within the distinctive Georgian Engine House, originally belonging to Elsecar New Colliery is the Newcomen Engine, dating back to circa 1795 and widely documented to be the world's oldest steam engine in its original Engine House. In recent years the Newcomen Engine has undergone significant renovation, supported by the Heritage Lottery Fund and English Heritage. The Newcomen Engine was declared an Ancient Monument in 1972, placed on the At Risk Register in 2010, and in 2013, a project to conserve the engine, together with its Engine House and deep Georgian mineshaft, got underway. The engine has been stationary since the 1950s. In 1928, Henry Ford offered a blank cheque to remove it to the United States. Fortunately, his offer was rejected.

I have delighted in visiting this ancient monument several times past. And I recall stepping foot inside and drinking in the atmosphere of this ancient building. Indeed, during my last visit, I had a rather pleasant flash-back to the early 1980's, when I had firstly viewed the Newcomen engine. At that time my firm McEwen Boilermakers had been engaged on the retubing of a steam boiler

at a colliery situated just a few miles away. Thus, I had taken the opportunity of enacting a long-term ambition of visiting Elsecar to photograph the dormant Engine House, which, at that period was normally securely locked. However, on that day Lady Luck was undoubtedly with me, for as I approached, I noticed that around the bottom of the Engine House yard there were a number of boilersuit-clad, National Coal Board men milling around. I could also see the door leading to the Engine House was ajar. Methinks, because I was similarly clad in a dirty, oily boilersuit, and wearing on my head a flat, tweedy cap, the friendly Barnsley N.C.B. fitters who greeted me, willingly allowed me the freedom to explore within the Engine House.



The Elsecar engine house built 1795.

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Looking up at the beam and pumping rod.



The view down the 100 ft plus pumping shaft.

### A Brief History of the Elsecar Newcomen Engine

Thomas Newcomen, a Devon ironmonger, is noted for his invention of the atmospheric steam engine in 1712. Newcomen was the first to conceive the concept of working a piston by steam in a cylinder. His idea worked on the atmospheric principle of low pressure steam being introduced into the base of an open-topped cylinder, which enacting on the piston causes it to rise. Cold water then injected into the cylinder rapidly condensed the steam, resulting in a partial vacuum: the piston then being forced down by atmospheric pressure. The Elsecar engine was built to Newcomen's principle in circa 1795, to pump water out of Earl Fitzwilliam's Elsecar High Colliery, which mined coal out of the famous Barnsley Seam.

The Steward's Papers in the Wentworth Woodhouse Muniment record that in 1795, John Bargh of Chesterfield charged £42-2 shillings for erecting the Elsecar engine, complete with a 42" diameter cast-iron cylinder and a wooden beam. Sometime later, this cylinder appears to have failed, for the Muniments record that in 1801, a newly cast, 48" diameter cylinder was installed. This work was followed during 1836 – 1837 with the installation of a cast-iron beam to replace the wooden beam, and also a 21" cast-iron pump. These items are assumed to be the ones extant. The Elsecar Newcomen engine pumps water from the Elsecar High Colliery shaft from a depth of just over 100 feet above the sump depth.

It is believed that the steam for the engine was provided firstly by a Haystack-type boiler installed in 1795 in a Boiler House, then located on the north side of the Engine House. In circa 1804, a second Haystack boiler of around 16 feet diameter was also installed. Today there is no surface evidence remaining of the Boiler House.

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

## 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?

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# BEE HOLE COLLIERY

N.G.R. 851.326



This is the only known image of Bee Hole Colliery. Which was situated at Lower Brunshaw, at the bottom on Browsholme Avenue to the rear of Turf Moor football ground Burnley. This colliery is one which is frustrating to research, even though it was virtually on the edge of town, very little is known about it. The pit was worked by the Exors of John Hargreaves, and was sunk in 1872. At a depth of 230 feet it struck the King Mine, a shallow pit by local standards.

There are references to the pit having flooded in 1878, happily with no loss of life. Other

seams worked included the Fulfilled Thin and the Blindstone Seam. The colliery was abandoned in 1935, when the wooden headgear was dismantled and the shafts filled. Interestingly this end of the Turf Moor football ground is still locally called the "Bee Hole End". A surface ginny ran from the pit to a place called the "turnings" where it met another ginny coming from the Rowley Colliery.

Here, coals from the Bee Hole pit could either be sent to Bank Hall Colliery for washing and screening, or to a canal wharf on the east side of the "Culvert" near Yorkshire Street. In doing so, this ginny passed underground via a tunnel beneath Belvedere Road and Blakey Street. Near the canal, is a stone structure, a relic from the ginny days. The return wheel for the endless chain system was situated here. Because of the wet conditions at Bee Hole pit, the men who worked underground were entitled to free clogs every three months. The pit in its hey day employed some 120 men underground, the last manager being Mr. Lowcock.

**By kind permission. Jack Nadin.**

**Editor.**

Jack Nadin, recently found this image of the colliery contained in a short film entitled, **Watch Burnley Football {1903} - BFI Player**. Jack has done a excellent job of lifting the image from

the film. This is believed to be the only surviving photograph of the colliery. A rare find indeed.



As Jack mentions and many football fans will know Burnley Football Club used to have a stand called the Bee Hole End, {now Jimmy McIlroy stand} The origins of this stand go back to the days of the colliery slag heap. On match days the supporters would stand on the steep sides of the slag heap to watch the match, this is depicted in the above sketch.

Bee Hole Colliery 1903. {Jack Nadin 2019.}