



Newsletter

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**Please note that the
deadline for inclusion
in the, February 2021
Newsletter is the 28th
of January 2021.**

News from our Society

The last newsletter of this year, and my last as President and what a strange year we have had to mark our 60th Anniversary –cancelled meetings and meets and enforced isolation for many of us. Let's all hope we can soon get back to some sort of normality. The one good outcome is that people have had more time for writing and research. Some of the results are in this issue.

With both the 2020 AGM and Autumn meetings postponed we have placed **all reports on our members' area of our website**. Please read them to find out what has been going on within our Society. As usual if you cannot access a computer and would like physical copies please contact me.

Despite the worldwide problems the, year has still passed quickly and in preparation for 2021 you will find enclosed with this mailing the membership **renewal form for 2021**. Once again we have been able to hold our membership prices at the same level as this year. It would be very helpful to our Membership Secretary Gary Topping if they were completed and sent to him as soon as possible. I must thank Tim Cook, our Treasurer, for printing the labels out this year. Please remember gift aid is important to us but you need to inform us if your circumstances change and we are no longer able to claim it. Please may I also remind you of our **privacy policy** which you will find on our website.

It is also 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 2020/2021 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, CB4 3JW.

The **present acting officers** are listed below –they have indicated they are prepared to stand for election or re-election in 2021

President -	Malcolm Street
Vice-President	Len Morris
Junior Vice-President	VACANT
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	VACANT
N.A.M.H.O Representative	Sallie Bassham
Website Administrator	Malcolm Street

We were saddened to hear of the death of our former Secretary and present Meet Leader, Mick Cooke (more elsewhere) so unfortunately we need a new Meets Leader. With all planned meets for this year cancelled there is the possibility some of these can be re-arranged for 2021. Also we do have a list of **recommended responsibilities** to help a willing volunteer. A copy can be obtained from James or myself. Needless to say I do hope we have some response to this important post.

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

Robert Andrews	Melrose, Scotland
Andrew Rees	Swansea
Nigel Hewett	Ivybridge, Devon.

Chris Cooper from Kirkcudbright, Scotland joined last year but slipped under our radar – apologies for this. Another eight people have deferred membership until 2021. We should be very pleased we are attracting more new members.

Please don't forget **we award grants**. If you know of anyone who might benefit from one please suggest they ask for a grant form. There is a section on our website with more details.

Jim Tuck, another member is **offering his help** to others with similar interests to his and also asking for help. He is collecting mining photographs for Northumberland and Durham in particular North Northumberland, Lambley on the Cumbrian border and west Durham. Anyone doing a research project need only contact him – **jamestuck1@gmail.com** and if he has a photograph he will help them. Also if any reader can help fill the gaps mentioned please let Jim know.

Finally on behalf of all on Committee I would like to wish you all **Seasons Greetings** for Christmas and the New Year and thank you all for your support during this difficult year. Thanks should also be given to all of our Committee who work extremely hard on your behalf. Hopefully we will be able to meet up again at our next AGM, kindly arranged by Graham Topping at Slaidburn Village Hall for Saturday 24th April 2021. Full details will be in the February newsletter.

Barbara Sutcliffe

Publications News

We recently received a generous donation of our BMs from Ron Gordon. We are always appreciative of donations not only of our publications but other mining related books.

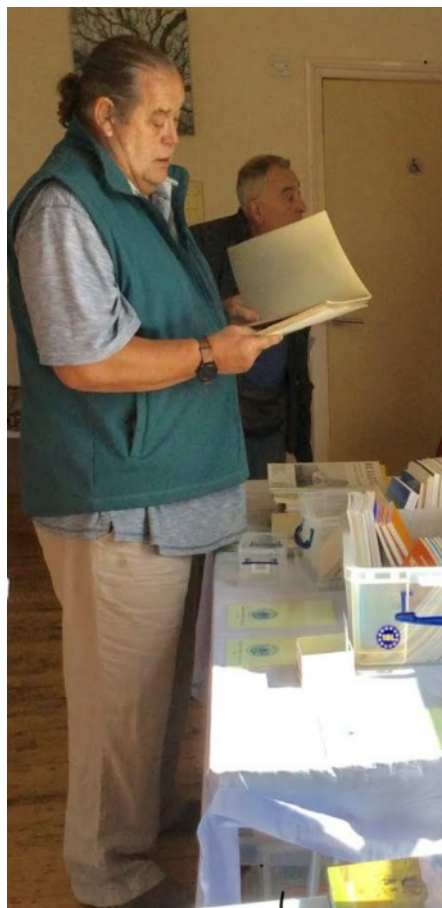
One recent acquisition comprised of bound copies of the Bulletin of the Peak District Mines Historical Society. These have been bound very well and are an excellent resource with lots of interesting articles. Prices as follows

Vol 1-2 starts 1959	£50
Vol 3-4 starts 1966	£50
Vol 5-6 starts 1972	£40
Vol 7-8 starts 1978	£40
Vol 9-10 starts 1984	£40
Vol 11-12 starts 1990	£40

Each one is post free. If anyone wants them all the price is £210

Those of you who come to our meetings have been very enthusiastic in purchasing our second hand, still in print, BMs but with no meetings this year I thought it would be a good idea to offer these to all members as we have reasonable stocks accumulated over the years. These are £4 each with a special offer of buy two get one free (postage on the latter will be capped at £3.30). If interested please mail me your requirements with two alternatives for your 3rd free book, also informing me if you wish to pay by cheque or PayPal. In the latter instance I will need your address so Malcolm can produce a PayPal invoice. This generous offer will extend until the end of December and will be available to members only. Any book purchased will be in very good condition. Please send all enquiries to me at **mansemins@btopenworld.com**

Barbara Sutcliffe.



Mick at a recent AGM in Cliviger.

Michael (Mick) Cooke {1951-2020}

Mick was a Burnley Football supporter, his home town, who sadly died after a battle with cancer on 4th October 2020.

He had had an interesting life from working in a kibbutz in Israel, as a legal executive, a bailiff, a private investigator and a housing officer. He was also for some time an art dealer in the Furness area from where he was able to pursue hobbies of mountaineering and caving. It also explains his love of mineral specimens from that area.

It was his geology teacher at Burnley Grammar school who instilled his love of geology in him and led to an interest in mining and mineral specimens. After early retirement he returned to his home town where he discovered our Society. There he became a very active member, attending the indoor meetings, becoming secretary and later and until his death our Meets Leader. He was proud of the varied meets he organised especially the Weardale ones which were very popular. He also helped NMRS at the outside events we attended in the last few years at Tennants, Leyburn and the North Pennines Mineral Expo. He loved Cornwall and its mining history delivering our Cape Cornwall books to Geevor and Poldark Mine when we were unable to go.

He leaves his mum 92 whom he helped to care for.

Enrico Rinaldi, the organiser of the North Pennines Mineral Expo sums up Mick very well on our Facebook page, "A real gentleman who always had a smile for everyone. I'll miss our chats about minerals, life and Italian food." So will myself and Rex .

Barbara Sutcliffe.

Note from the Editor

This is the last news letter of our 60th anniversary year. Now would be a good time to start making plans to celebrate our 70th anniversary?

Please start collecting information, photographs, stories and above all memories of your time as a member of the NMRS? This will make for some bumper news letters as well as making the then acting editors job a lot easier in 2030.

NAMHO 2021

Hosted by the Shropshire Caving and Mining Club.

Lecture Theme: Sixty Years of Mining History Projects.

To celebrate the 60th Anniversary since the formation of the Shropshire Caving and Mining Club (SCMC) the Club will host the NAMHO 2021 conference. On the 2nd to 5th July 2021 at a venue near Shrewsbury Shropshire. Delegates will be offered a range of surface and underground mine visits and a lecture programme.

The SCMC was formed when a group of like-minded people got together and formalised their interest in mining because they believed that they had a mining history worth exploring, conserving and recording. Their interest eventually turned into a full-blown project and for the SCMC the Snailbeach lead mine to the south of Shrewsbury for example provided one of a number of focal points.

Other mining history groups undoubtedly went through similar experiences so to enable NAMHO members and others to give their projects an airing at the SCMC we would like to make the main lecture theme: Sixty Years of Mining History Projects.

You are invited to submit an abstract if you would like to give a lecture / presentation at NAMHO-2021 about a group project. Projects can be past, present or future and range from surface and underground conservation projects through to archival studies. With hindsight or experience would you have been done the project differently? Talks on other topics will also be considered. It is intended to hold the lecture programme on the Saturday and if necessary or for practical reasons it may continue on the Sunday.

In view of the Coronavirus pandemic we cannot be sure at this stage what safety procedures may have to be implemented to conduct the lecture programme. Presentations should therefore be given using Power Point or similar format. This will simplify proceedings, if for example the talks have to be split across two rooms to adhere to social distancing regulations or ultimately the lecture programme has to be delivered on-line to delegates.

In view of the possible extra administration involved to organise rooms etc. It would be helpful if you could notify Rob Vernon (email address below) by mid-October 2020 of your intention to give a talk at the conference.

Would you please send a summary of your talk on half a page of A4 before the end of December 2020 to Rob Vernon. Giving the full title of the talk, the name of the presenter, organisations contact details and the abstract.

Rob Vernon. rbtvernon@aol.com

LIBRARY UPDATE

Thank you to Rhiannon Holt for a copy of "Paper on the Wyllie Colliery" by W.D. Woolley which was presented to the South Wales Institute of Engineers on 19 September 1929. Rhiannon found this amongst her late father's books and kindly offered it to NMRS. Accompanied by photographs and plans, it describes the

planning of colliery and village; with technical details of engines and head-frames. I have also received the latest edition of "Archive" which includes an interesting article on Lydbrook tinplate works, and a sobering one on the Haswell colliery disaster. As always with "Archive", the quality of the photographs is superb.

Sallie Bassham. {Honorary Librarian}

From our Readers.

Dear Editor. The Cementation steel making process in the August 2020 Newsletter had me puzzled. Modern steel making takes cast iron from a blast furnace and reduces the carbon content to make steel but the cementation process takes wrought iron and adds carbon to make steel. As wrought iron is also made from cast iron, why put carbon back into it to make steel. Is it that in those early days wrought iron was perhaps not made from cast iron?

Also in response to Tim McGowan's colliery drum, I suspect it might be from Abercynon Colliery. The C is quite clear and there might be a trace of the Y.

Paul Smyth. {Interested reader. Comments to the editor. }

Sallie Bassham has informed me that the location coordinates in my article on the Cementation Furnace on page ten of the August 2020 news letter are incorrect. I apologize for this mistake. I enclose the correct ones:

OS. Easting's: 434847.755327

OS. Northing's: 387959.02359

OS. Grid SK348879

Graham Topping. {Member}

Some information on the "Unusual Tipping Arrangement" on page twelve of the May 2020 news letter.



A modern day variant in an agricultural setting.

In a recent telephone conversation with one of our very experienced members relating to the above subject he was able to provide some further valuable information.

He indicates that it was more than likely made by Edbro of Bolton Lancashire. They are venerable manufacturers of wagon tipping gear arrangements. Circa 1930s / 1940s. The wagon is a Leyland. The body itself would be attached to a scissor framework arrangement thus allowing it to be raised and tipped while still being attached to the wagon. Behind the cab is the hydraulic oil tank and pump assembly which would have been driven from a power takeoff on the gearbox. This would indicate that it was hydraulic and not a screw action. Its design and subsequent adoption would most likely have come from a previous agricultural context. Its purpose was to allow steam coal to be tipped directly into a raised boiler feed hopper or bunker.

Rodney Mitchell. {Member}

NAMHO REPORT

I have just received a copy of the proceedings of the NAMHO Conference held at Nenthead. These are published under the aegis of the Nenthead Mines Conservation Society as Volume 1. Six of the presented papers are printed in A4 format with a shiny cover and excellent quality colour photographs to illustrate the articles.

Tim Barmby has written about C18 and C19 labour contracts, with reproductions of hand written bargains. Peter Claughton's article is about metalliferous needs and resources in war time, with examples from many parts of the world. I remember that, at the conference, Peter's perspective was excellently complemented by a paper from Warren Allison concentrating on wolfram and Carrock mine.

Greg Finch's article is about the C17 North Pennines lead industry with fascinating information about carrier routes and many smelt mills; but also social aspects of the successful merchants and the magnificent houses they have left behind. Alistair Robertson gives detailed observations of narrow gauge railways of Alston Moor and the South Tyne. Much of this is familiar to those who know the area, and there are nostalgic reminders of coal mines which worked in the late C20. There are grid references and detailed descriptions encouraging further visits to check fine details.

Tony Harrison's conference presentation was mind-blowing. He described Britain's longest maze cave at Hudgill. I can still remember my amazement when he showed his slide of the plan of the caverns. This plan is credited to Moldywarps Speliological Group. They expected the survey to take a few days: the work took seventeen months, and is described as "painstakingly systematic". Credit is also given to CATMHS members for re-opening Hudgill Burn Mine: this took three years, and then they re-opened the rise which led to the natural cavern, and surveyed the main passageways.

The presentation I remember best from the conference was given by Ivor Brown. The title of his talk was "Mines and War in the C20". Ivor gave an overview of the First World War, with particular reference to his family's involvement and the Shropshire mines where Ivor himself worked during the Second World War. It was the personal stories that really brought the well-researched talk to life. Ivor had special training on a Civil Defence Course for mines with supposedly relevant lectures about "The H Bomb", "Fallout" and "Nuclear Weapons", and a practical session designing a wooden fan which could be powered by ten men. However, the government instructions for coal mines were self-contradictory, and Ivor gave his informed and wry comments about officialdom and its theoretical ideas.

I understand that the Conference Proceedings will be available via the Nenthead Mines Conservation Society website; so I do not suggest that NMRS purchase its own paper version. If anyone wishes to read it, then I am willing to lend them my copy.

Sally Bassham.

HALTON LEA GATE OPEN-CAST MINE

Residents at Hartleyburn in Cumbria fought for more than a decade to prevent land close to their houses becoming an

open-cast mine. The application was eventually accepted on condition that the mining company, HM Project Development, contribute 50p a tonne into a Community Fund. The plan was to extract 140,000 tonnes of coal. The Community Fund condition on the planning recognised that there would be noise and disruption to local residents, and was intended to be some form of compensation.

Before any restoration work started, HM Project Development entered administration this year. Local parish councils have now agreed to a much lower sum of money, and were hoping for this to be paid within weeks. No money has yet been received. The administrators say "It is our intention to work closely with officers from the county council and other stakeholders to secure the future of the operation given its impact on the local community". A local resident recommended that other residential communities in similar situations should demand that funds are paid on a staged basis as the mining or quarrying occurs.

(Source – Hexham Courant, 6 August 2020)

Sent in by Sally Bassham.

Up to 250 jobs at risk at Banks Mining as current sites cease production

North East employer Banks Mining says 250 jobs could be lost across the company amid planning decision delays and rejections, as it announced a second round of redundancies. The company – the last coal mining firm in England – has begun a further round of consultation on job losses at the Bradley surface mine, based between Leadgate and Dipton, saying 12 jobs will be lost.

The announcement comes on top of a separate redundancy consultation which is already under way on up to 24 job losses at Banks Mining's Brenkley Lane surface mine near Newcastle. The firm said that with no replacement mines currently permitted to replace Banks' existing mines due to delays in planning decisions, a total of 250 skilled North East jobs are at risk across the firm, as its current sites cease production. Banks Mining had been looking to progress plans for a small extension on land to the west of the Bradley site, which would have entailed extracting around 90,000 tonnes of coal for supply to UK steel manufacturers and 20,000 tonnes of fireclay for use by regional brick makers.

However, the proposal was rejected by a majority of the members of the council's planning committee last month, despite a recommendation for approval – a decision which has now led to the instigation of the redundancy consultation. Managing director Gavin Styles said: "We have a highly skilled and dedicated workforce at our Bradley site, the great majority of whom live in surrounding communities, and they have done an exceptional job over the last two and a half years. "I am hugely frustrated, angry and sad to have to tell my skilled, hard-working and loyal team at Bradley that we will no longer be able to employ all of them, even though there is still significant demand from British industry for the coal and fireclay that they produce. "We have been continuing, without any support from the public purse, to invest in training resources which ensure our colleagues' certifications remain fully up-to-date and transferable and will continue to do everything we possibly can to provide maximum support to all those affected by this demoralising situation."

Sent in by a member. Chronicle Live. {Aug. 2020}.



Some interesting Tweets and Twittering's, the editor has been following.

1 @coal_legacies Landscape Legacies of Coal
Excellent little find on a short evening walk the Alloa residence of Robert Bald who managed the Earls of Mar Collieries, the home is still standing including this ornate iron work. Bald was an early advocate of the prohibition of women and children working underground #coal #mininghistory



2 @GrimArtGroup Industrial landscapes and sad faces, muted colours, red bricks and rust, smoke and smog, pits and mills, whippets and wastelands. #art #photography#sculpture. Vincent Evans 1896-1976. Ystalafera in the Swansea valley, artist, teacher & miner from the age of 13 to 23. He was the first student from Swansea to win a scholarship to the Royal College of Art in 1920 & went on to teach art in New Zealand before re turning to Wales in 1932.



3 The_Forgotten_Conscript@Conscript The Jaye L Swift award winning writer and producer and author with an interest in both world wars Final Southern Counties Bevin Boy Reunion, 2017. 7 Bevin Boys attended. The Bevin Boys called themselves the forgotten conscripts of WW 2. I'm continuing to get their story out there before all are gone. Please retweet my tweets, help them be remembered. #bevinboys #ww2 #VEDay75



4 Landscape legacies of coal@coal_legacies Some sad news, here's hoping it can be repaired Isle of Man's Great Laxey Wheel stopped for second time. Director Edmund Southworth said a detailed assessment of the repairs required would now be carried out by engineers. The work would be "complex and financially demanding", he said.

5 Alan Davies@pitheadbaths Joy Mining recently moved into new premises at Little Hulton. Here roof supports up to 7m high with rams 48cm diameter can be tested with loads of up to 2,500 tons (as used on longwall faces 400m wide in thick seams in Australia). I was on my knees in those I worked in Face screaming in fear#mining



Derwentcote Steel Works near Hamsterley Co Durham. (NZ 131565)

Derwentcote Steel Furnace

This steel furnace was built in the 1730s and was used for cementation, a process which converted wrought iron into steel.

It is one of the few complete examples of this type of furnace, and is the last surviving piece of evidence for cementation steelmaking in the north-east.

The conical chimney houses two sandstone chests into which iron bars were packed with alternate layers of charcoal powder. When the fire was lit and the chests sealed, flames and heat travelled up through flues and chimneys around them, and temperatures reached 1,100°C. This heat enabled the carbon from the charcoal to diffuse into the iron.

Each cementation cycle, or 'heat', took three weeks, producing about 10 tons of steel. The firing took 6 to 10 days and the furnace was then allowed to cool for a week, before the bars could be extracted.

These bars of 'blister steel' were taken to the nearby water-powered forge, to be made into items such as cutting tools and springs. The steel had remarkable flexibility and strength, and was said to be of excellent quality.

The Derwent valley was the centre of the British steel industry in the early 18th century, as it had all the natural resources needed for the cementation process. It had plentiful supplies of charcoal, coal, clay and sandstone, and easy access to the North Sea for the import of Swedish iron.

Derwentcote furnace went out of use by 1891 and subsequently fell into disrepair. It was restored by English Heritage in 1990.

A photograph of the interior of the furnace, showing the entrance into the main firing chamber.

A photograph from 1897, showing a workman inside a similar cementation furnace refilling the chests with bars of iron.

ENGLISH HERITAGE

In response to the statement made on page ten of the August 2020 News Letter, which said:

“This is the only example of this type of steel making furnace to survive in Great Britain”.

One of our members has sent the following article in.

Niel Cossons states in The B.P. Book of Industrial Archaeology, 3rd impression 1978. “That after 1682 high quality Swedish steel was imported to Britain for conversion to steel and Cementation Furnaces became

established in and around Newcastle, the main port of importation”. It is in the North East that one of the few surviving Cementation Furnaces can be seen. The Derwentcote Furnace, North-West of Hamsterley, built in the early eighteenth century and used until 1880. He goes on to say, “It is possible that the Cementation process was exported from the North East to the Sheffield area”.

Colin Keighley. {Member}



Bold Venture Lime Works, Chatburn, Lancashire. 1948. SD 763437



The photo shows the old draw kilns, bottom centre, and the new Horrocksford Lime Co. kilns, top centre.

The Bold Venture Lime Works at Chatburn was first opened in 1780 with small kilns. In 1837 the business was bought by Dixon Robinson who built new kilns. The Dixon family continues to run the kilns until the mid 1940s. There were 7 lime kilns and 1 gas retort. Up until 1924 the quarry supplied Chatburn Village with gas. The new kilns were built alongside the railway and are still there today, except they are bricked up for safety. In the 1940s the demand for lime was going down and the kilns were in need of major repairs. New gas fired kilns were the up and coming thing. So lime burning ceased.

The Horrocksford Lime Co was started in 1899 on Horrocksford Hall land in Clitheroe. It built a new works and plant in Bold Venture Quarry, Chatburn in 1948. It produced Tarmac and dry stone chippings. In the 70's it became part of a company that also owned Ribble Cement. The works closed in the 1990s and is completely gone, even the ground where it stood has been quarried away.

Dave Kitching {Member}

Coal wagons, information required.

I have long been fascinated by the design, construction, livery and specification of railway coal wagons. This fascination has led to me starting a photographic collection of different coal wagons such as this one. If any members have any information on design, construction, livery, components, numbers in service I would be very interested?

Information like the following would be very useful.

This seven plank open mineral wagon to 1923 Railway Clearing House specification, builder and former owners unknown. Obtained 1988 from the National Coal Board's Cwm Coke Works where it had been in internal use without any painted livery. Rebuilt by the Museum in 1989 and again in 2004, on the latter rebuild being painted with two different replica Welsh colliery private owner coal wagon liveries: "Ocean Coal Co Ltd" on one side, and "Cwmgwrach Colliery (Caerbryn & Empire Collieries Ltd)" on the other side.



on liveries: "Ocean Coal Co Ltd" on one side, and "Cwmgwrach Colliery (Caerbryn & Empire Collieries Ltd)" on the other side.

The two liveries applied to this wagon in 2005 following rebuilding in 2004-05 are based on the following - "Ocean" (a 1904 record photograph taken by a railway wagon building company, published in A.J.Watts "Private owner wagons from the Ince Waggon & Ironworks Co.", Historical Model Railway Society, 1998, p.162) and "Cwmgwrach" (a 1909 record photograph taken by railway a wagon building company, published in "K.Montague "Private owner wagons from the Gloucester Railway Carriage and Wagon Company Ltd", Oxford publishing Co, 1981, p.71.).

Measurements.
length (mm):5940
width (mm):2600
height (mm):2438

Material.
Wood
Metal

Location.
National Waterfront Museum.

L.T. {Member. Information to the editor.}

North Wales Project & Tunnel Boring Machines.

This project came about following the successful purchase of land around Wylfa, by Horizon, to build a new 2.8GW power station. The new power station requires connecting to the electricity network but as it is nearly three times as big as the old power station, a new connection is required. I was involved with schools and Careers Wales, to try to encourage STEM subjects in our schools and colleges. I was also involved with NG Consultation events, Anglesey Show several times, presentation to various groups e.g. IET, Gwynedd Engineering Society, PROBUS, WI's, Merched Y Wawr etc., to try to get the message across as so few people were turning up to organised events. I even had my picture in some of the literature published – even if it was the back of me showing my balding head. The connection being proposed is an overhead line from Wylfa to Star, a cable tunnel under the Menai Strait between Star and Nant Y Garth and then an overhead line for the last few kilometres to Pentir substation. The tunnel was an interesting engineering project and I learnt a lot about the ground geology and structure and how a Tunnel Boring Machine works, including the auxiliary equipment required and how to dispose of the slurry from the machine. It shows that we're never too late to learn!

A **Tunnel Boring Machine (TBM)**, also known as a "mole", is a machine used to excavate tunnels with a circular cross section through a variety of soil and rocks. They can bore through anything from hard rock to sand. Tunnel diameters can range from a 1m (done with micro-TBMs) to 19.25m to date. Tunnels of less than a 1m or so in diameter are typically done using trenchless construction methods or horizontal directional drilling (HDD) rather than TBMs.

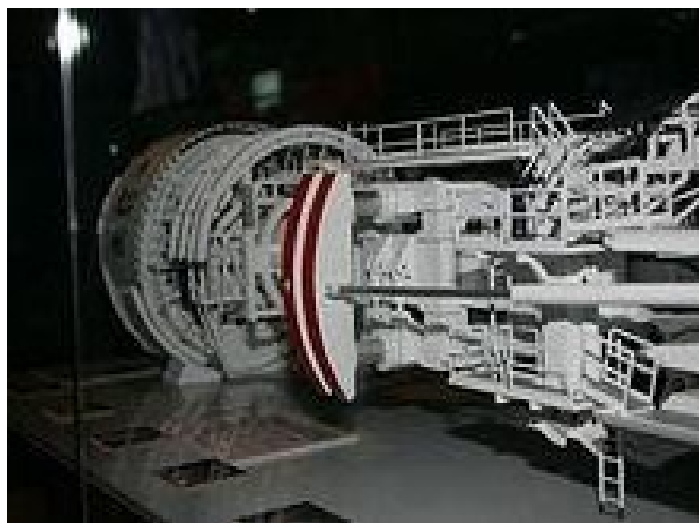
Tunnel boring machines are used as an alternative to drilling and blasting (D&B) methods in rock and conventional "hand mining" in soil. TBMs have the advantages of limiting the disturbance to the surrounding ground and producing a smooth tunnel wall. This may significantly reduce the cost of lining the tunnel. The major disadvantage is the upfront cost. TBMs are expensive to construct, and can be difficult to transport. The longer the tunnel, the less the relative cost of tunnel boring machines versus drill and blast methods. This is because tunneling with TBMs is much more efficient and results in shortened completion times, assuming they operate successfully.

The first successful tunneling shield was developed by Sir Marc Isambard Brunel (not the infamous Isambard Kingdom Brunel) to excavate the Thames Tunnel in 1825. However, this was only the invention of the shield concept and did not involve the construction of a complete tunnel boring machine, the digging still having to be accomplished by the then standard excavation methods. The first boring machine reported to have been built was Henri-Joseph Maus's *Mountain Slicer*. It was commissioned by the King of Sardinia in 1845 to dig the Fréjus Rail Tunnel between France and Italy through the Alps. D Brunton of England built a machine employing cutting discs that were mounted eccentrically on rotating plates, which in turn were mounted eccentrically on a rotating plate, so that the cutting discs would travel over almost all of the rock face that was to be removed. In 1875, the French Government approved the construction of a tunnel under the English Channel and the British Parliament allowed a trial run to be made; English's TBM was chosen for the project. The cutting head of English's TBM consisted of a conical drill bit behind which were a pair of opposing arms on which were mounted



The cutting shield used at the head of a TBM.

cutting discs. From June 1882 to March 1883, the machine tunneled, through chalk, a total of 6,036 feet (1.84 km). However, despite this success, the cross-Channel tunnel project was abandoned in 1883 after the British military raised fears that the tunnel might be used as an invasion route. Nevertheless, in 1883, this TBM was used to bore a railway ventilation tunnel — 7 feet (2.1 m) in diameter and 6,750 feet (2 km) long — between Birkenhead and Liverpool, through sandstone under the Mersey River.



Looking towards the cutting shield at the hydraulic jacks.

During the late 19th and early 20th century, inventors continued to design, build, and test TBMs in response to the need for tunnels for railroads, subways, sewers, water supplies, etc. TBMs employing rotating arrays of drills or hammers were patented. TBMs that resembled giant hole saws were proposed. Other TBMs consisted of a rotating drum with metal tines on its outer surface or a rotating circular plate covered with teeth, or revolving belts covered with metal teeth. However, all of these TBMs proved expensive, cumbersome, and unable to excavate hard rock; interest in TBMs therefore declined. Nevertheless, TBM development continued in potash and coal mines, where the rock was softer.

Modern TBMs typically consist of the rotating cutting wheel, called a cutter head, followed by a main bearing, a thrust system and trailing support mechanisms. The type of machine used depends on the particular geology of the project, the amount of ground water present and other factors.

John Shorney. {Member}

NMRS - Newsletter Nov. 2020.

HATFIELD COLLIERY

The Hatfield Main Colliery Co. Ltd. chose a site next to the G.C.R's Barnsley to Barnetby line for its proposed new colliery. The latter was also linked to staithe's on the Sheffield and South Yorkshire Navigation by a mineral line.

The first sod was cut to begin shaft sinking on October 14th 1911, and two 6.7 metre diameter shafts were sunk simultaneously. No.1 down-cast shaft cut the Barnsley seam, at a depth of 786 metres's, in August 1916. Problems with the influx of water meant that No.2 shaft was not finished until 1917. Both shafts were lined with concrete. Like Askern, Hatfield was sunk on the Morley Campsell Fault Belt and the Stainforth Fault and the Stainforth Fault, trending WNW-ESE with a throw of 90 metres, passes close to the shafts. This effectively divides the colliery into two parts, with pit bottoms at very different levels. Coal getting in the Barnsley seam, in places up to 10 feet thick, began in 1917 and continued until 1983. Some work was also done in the Kent's Thick seam between 1917 and 1922. The latter was around 1.2 metres thick. Subsequent work was confined to the Barnsley seam.

In January 1927 Hatfield was incorporated into the Carlton Main Colliery Company, which began working the High Hazel seam. This was around four feet of high quality coal and was worked until 2004. The National Coal Board merged its Hatfield and Thorne collieries in 1967, though the latter remained in mothballs. They were separated in 1978, when it was proposed to redevelop Thorne, but merged again in 1986 when that project was abandoned. British Coal stopped production on December 3rd 1993, but, in a management buyout, the Hatfield Coal Co. Ltd was incorporated on January 25th. British Coal cut its last coal in High Hazel seam on March 7th and the new company cut its first coal on July 7th 1994. A profit of £2.4 million was made in the first year, but geological problems in 2000 cut the planned output by a fifth from 500,000t/a. The company sought Operating Aid from the government, but this did not prevent the company going into receivership and closing the mine on August 9th 2001 with the loss of 223 jobs. The site was mothballed, with funding from the Department of Trade and Industry, until October when Coalpower Ltd, run by Richard Budge the former owner of RJB Mining, took control of the pit. In 2003 the company published plans for a 33 hectare "Power Park". This would include a 450 MW power station at the site, but geological problems at the coal face led to losses and, in late 2003, Coalpower went into administration. The mine closed in early 2004.

Encouraged by the doubling of coal prices between 2004 and 2008, Richard Budge then formed Powerfuel to take on the colliery in 2006, and Russian coal company Kuzbassrazrezugol (KRU) took a 51% stake in the venture. Coal production began in March 2007. Plans for a carbon capture and storage (CCS) coal burning power station at the site were announced, and £180 million of EU funding was approved in 2009. Nevertheless, the CCS project failed to obtain sufficient investment for it to proceed. In December 2010, in part due to coal production problems, Powerfuel Mining Ltd entered administration. In 2011 2 Co Energy Ltd. (via holding Entero BV, backed by ING Bank) acquired the company and renamed it Hatfield Colliery Ltd.



3 Drone photographs of Hatfield pit top area

It planned to continue the CCS project, which it renamed "Don Valley Power Project". The colliery was then managed under contract by Hargreaves Services plc, which was then working Maltby colliery. Production issues led to a three shift working pattern being adopted in 2013 and 70 of around 700 employees were made redundant. On February 12th 2013 Hatfield was in the news when a major movement of spoil squeezed the underlying alluvium both displacing and heaving upwards the railway tracks over a distance of 550 yards. This closed the line until July. An employee controlled company, Hatfield Colliery Partnership Limited (HCPL), purchased the mine from ING Bank in December 2013. A bridging loan of £4 million from the National Union of Mineworkers, in September 2014, allowed production to be moved to a new pit face. This was intended to extend mining until summer 2016, but coal production at Hatfield ended on June 29th 2015. Work on filling the shafts began in August.

By kind permission of. Phil Thomas.

Babbington Colliery

Forty years ago the National Coal Board (NCB) was implementing the “Plan for Coal” to sustain coal production as our primary energy source. The NCB required Mining Engineers and was offering scholarships to study Mining Engineering. After attending a week long residential “Focus on Engineering Course” run by the NCB with Nottingham University in 1981 I obtained a place to study Mining Engineering at Nottingham University and a scholarship with the South Nottinghamshire Area of the NCB. I elected to spend a year working on the NCB Mining Engineering Training Scheme before starting University. I was based at Babbington Colliery, three miles north west of Nottingham, except for coal face training at Gedling Colliery and courses at the training centres at Moorgreen and Bentinck Collieries. During University vacations I continued to work at Babbington Colliery on the Engineering Training Scheme. My last assignment was in December 1985 to undertake the final survey of the T50 face in the Tupton Seam. As a Mining Engineering Trainee I worked in all departments, in all areas of the mine, both surface and underground – including abandoned workings from the 19th century. When Babbington Colliery connected with Hucknall Colliery I worked on the coal preparation plant at Hucknall Colliery. Babbington and Hucknall collieries closed in 1986 and I joined the oil and gas industry. I returned to Nottingham a couple of years ago and rode the tram from the city centre to Phoenix Park, a business park built on the site of Babbington Colliery. The only memorial to the Colliery that I could find were the following words on a small plaque, in the middle of a roundabout, to commemorate the opening of the business park in 1994: “This new business park – Partly funded by the European Union – is built on the site of the former Babbington Colliery which, when it closed in 1986, was the oldest working mine in Nottinghamshire. Following Nationalisation of the mining industry in 1947, it employed 1,900 men. It reached a peak output of 864,000 tons in 1968”.



Plaque in the middle of the roundabout at Phoenix park, Nottingham.



© Alan Murray-Rust 2006
Babbington Colliery No.1, No.2 and No.4 Shafts. April 1983.



September 1984. Dosco LH1300 and team. Driving K25 main gate in the East side. Blackshale seam.

Babbington Colliery was a “state of the art” pit sunk by Thomas North in 1841 to 1842 in an area that had generally been believed to have no coal. Innovative features included the use of iron tubing in the shafts to address water ingress, tandem headgear, powerful steam winding engines, iron winding ropes, a patented hydraulic loading/unloading system, underground mechanical haulages, furnace ventilation, underground gas lighting and longwall mining. Major faulting was encountered in 1845 and it took two and a half years to drive a 730 yard drift through the fault to locate the coal measures. Further shafts were sunk, and existing shafts were deepened, as the workings expanded and deeper seams exploited, these included: No.3 shaft (1851), Newcastle Shafts (1853), Kimberley Shafts (1855), Broxtowe Shafts (1863), No.4 shaft (1864), Bulwell shaft (1868), No.5 shaft (1901), No.6 shaft (1942) and finally No.7 shaft (1954, a

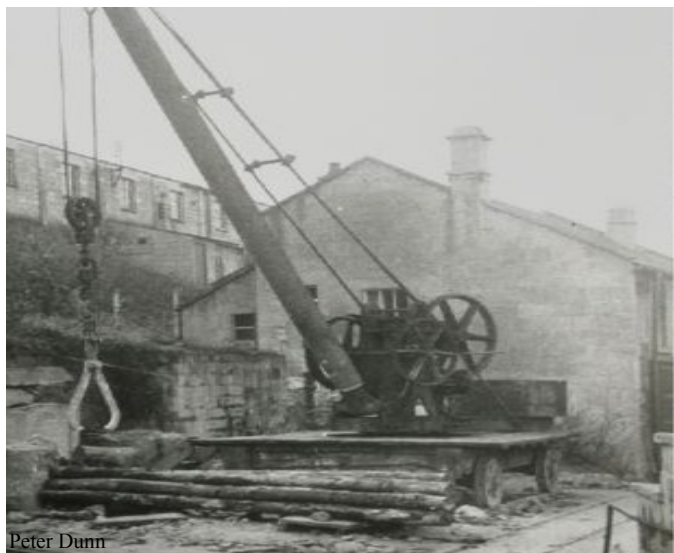
Recently I was going through some boxes in the loft and I came across a report that I wrote on Babbington Colliery in the summer of 1985. In effect this report provides a snapshot of the Colliery immediately prior to closure. Alongside the report I found background information on the Colliery, including: photographs, historical notes, an illustrated article titled “life in a coal mine” from an 1897 edition of the Windsor magazine and two technical papers from 1861 and 1977. I have been able to find brief articles on aspects of Babbington Colliery but I have not been able to find a full history. While I have enough material to produce a memoir I wondered if a Colliery with such a lengthy history and extensive workings warrants a monograph.

deepening of the existing No.2 shaft of Hucknall No.1 Colliery). In the late 1950's/early 1960's there was a major reconstruction of the Colliery which included replacement of the steam winders with electric winders, new steel headgear and cages, a new dense medium plant, new underground coal conveyors and a vertical coal storage bunker. The colliery workings continued to expand and deepen. As the workings approached the take of Hucknall No.2 Colliery there was an opportunity to combine the two collieries to reduce costs and form a single one million tonnes a year complex. The Hucknall Access Drift was driven to connect the two collieries underground in the Tupton seam and from August 1985 Babbington coal was transported via the Hucknall Access Drift. Technical innovations were still being deployed, including the use of the prototype Dosco LH1300 roadheader for the driveages for retreat long walling in the Blackshale Seam. During the life of Babbington Colliery the following seams were worked: Main Bright, Low Bright, Cinderhill Main, Coombe, Top Hard, Dunsil, 1st and 2nd Waterloo, Deep Soft, Deep Hard, Tupton and Blackshale. Geological challenges were regularly encountered and overcome. Connections were made with other Collieries such that in 1984 some 300 million gallons of water, primarily from Cossall, were being pumped from No.4 shaft each year.

The above is only a brief summary of the history of Babbington Colliery. I believe that a full history of the Colliery covering the geology, equipment, working methods, key events and people (specifically Thomas North) would provide a valuable record for coal mining in the East Midlands. Are there any members who have information on Babbington Colliery, Thomas North or the Collieries connected to Babbington and would be interested in working on a monograph ?

Steve Bedford. {Member} Enquires to the editor.

Oldest Stothert and Pitt crane set to be restored



Peter Dunn

The crane fell into disrepair before being saved from scrap in the 1980s.



Bath Stone Quarry Museum Trust

Similar models were used in industrial settings all across the South West. Stothert and Pitt is seen as an important part of Bath's industrial heritage and the cranes it built in the city were shipped all over the world.

The oldest known crane built by the Bath engineering firm Stothert and Pitt is to be restored after a £4,000 grant. Built in the 1860s, the machine was used for quarrying Bath stone at Clift Quarry near Box, Wiltshire. It was saved from the scrapheap in the 1980s, and now lives in the garden of former Stothert and Pitt engineer Peter Dunn, in Southwick, Wiltshire. "The original company employed over 2,000 people at one point, it's important to Bath's history," he said.

Stothert and Pitt was founded in 1855 and made various cast iron items, including several cranes which survive as listed structures on Bristol's harbour-side. Mr Dunn and a team of volunteers plan to return the crane to the site of Stothert and Pitt's former factory in Bath. The grant has come from various sources, including the widow of the crane's previous owner, and the Association for Industrial Archaeology.

The team of volunteers has so far refitted the crane's timber frame and wheels, with repairs due to finish next year. "We want to return it to the yard it was built in, back in 1864," said Mr Dunn. "A lot of people in Bath have connections to Stothert and Pitt. "We've not found an older crane yet. I keep looking and I'm happy to see ours is the oldest."

Sent in by a member. BBC News. {Aug 2020}

The Great Explosion at Hickleton Main Colliery, Yorkshire



Hickleton Main was one of those fortunate collieries that never suffered an uncontrolled explosion underground just the planned ones instigated by shot-firers in the normal course of their work.

There was one, however, that happened on the surface. I doubt that it was ever recorded and so giving it a precise date is probably not possible. I have asked around and although a couple of people remember the incident no one remembers the exact year let alone the date but it was around 1968 give or take a year or so.

About 10 yards to the east of the building around number 1 shaft, on the opposite side to the winding engine, was a single story brick building. It was reputed to have been built on skids, i.e. without foundations, to make it technically mobile, consequently they didn't have to bother about getting planning permission. We wondered why this should be so

and we came to the conclusion that it was probably because it was the explosives magazine and planning regulations could well require all sorts of safety features such as bund's being incorporated at some considerable expense and somewhat more remote to the general workplace. That was though pure speculation.

Close to this location there was a wagon loading station where large coal was loaded direct from the screens into railway wagons. The wagon loader, who carried out this task, had a little hut, a bit like a sentry hut, by the lines. In front of the hut he had a brazier in the form of an oil drum. It was in this brazier that the explosives magazine staff burnt all their waste paper and cardboard in which the explosives came packed.

Now the powder used underground was a fairly inert substance. It could be dropped, or bumped around without any risk, even if put on a fire it would just burn and not very fiercely at that. It needed to be in a confined space and subjected to a small explosion from a detonator to cause it to explode. Not so the detonators. These were brass ¼ inch tubes about two inches long sealed tight at both ends. Inside it was a small charge with an electrical fuse in it with two wires coming from the fuse. All detonators were all individually numbered and accounted for. The 'shot-firer' would collect his allocation of detonators, which were individually packed in compartments in a leather case that he attached to his belt, and would sign for them. At the end of the shift he would return the unused ones to the magazine where they would be booked back in again. Thus all detonators were individually accounted for.

Early one morning, and fortunately during 'snap' time, an explosion occurred at the wagon loading station. I wasn't on shift at the time but was on the next shift and took a look at the damage. The brazier had been blown outwards and resembled a half-peeled banana. The back and both sides of the hut were blown outwards with the boards just hanging on at one edge. About 50 yards in front, across the railway lines, was the fitting shop with a considerable number of windows blown in. Everyone was certain what had happened and that was, allegedly, a bundle of detonators had got mixed up with the waste paper which had been put on the brazier.

No one was hurt and to avoid an embarrassing formal inquiry with HM Mines Inspectorate etc. and its consequences, the real cause was, allegedly, hushed up and I suppose a little bit of creative bookkeeping accounted for the missing detonators. There had to be some formal account for the explosion and it came a few days later when a memo was circulated among surface staff prohibiting the heating of baked beans in their cans as they may explode. I wonder what brand they were.

John Clarke. {Member}

Bersham colliery tip could supply concrete block factory

A concrete block-making plant could be built as part of controversial plans to remove a landmark slag heap in Wrexham. Bersham Glenside Ltd. won permission to flatten the Bersham colliery tip in 2010 and initially planned to take away six million tonnes of shale by lorry. It now says a block-making factory would produce lower carbon emissions. Wrexham council leader Mark Pritchard said there had been "lots of false dawns" over the project and local people were "fond" of the tip. Bersham Colliery closed in 1986, putting 300 miners out of work. Wrexham council had originally refused permission for the 50-metre tip to be removed by BGL, but it was granted on appeal in 2010 by the Welsh Government. Since then, concerns have been raised by community leaders about the lack of progress made at the site, which some residents regard as a landmark of the area's industrial history. The approval was renewed in 2015 for a further period of five years despite objections from Councillor Pritchard who represents the village of Rhostyllen, which the heap towers over.

BBC News. Wales. July 2020. {Edited}

News. North East Yorkshire and Cleveland Part Two.



Skelton shaft mine Guibal fan house.

East Cleveland Industrial Heartland

is a Heritage Lottery Funded project to discover catalogue and conserve industrial heritage across East Cleveland. This project is being led by NMRS member Chris Twigg who has created a website and Facebook pages. Other activities of this project have been public talks, 3D Photogrammetry, 3D modelling of mine remains, small mammal surveying, Environmental impacts of ironstone mining, mine water discharges and invertebrates testing. The industries covered as well as Ironstone mining are alum industry, jet mining and brickworks. The website and Facebook page are well worth a visit.

Cleveland Mining Heritage Society

is still very busy uncovering remains at several sites, Grinkle Mine winding house and boiler plant remains is progressing slowly, work continues in trying to maintain Skelton Park Pit and digging continues at Skelton Shaft mine, where the estate owners have kindly removed some trees that were in the way, on the site of the winding gear boiler plant and have also cleared trees and shrubs from around the remains of the Guibal Fan House.



Boiler flue connection to Chimney

The CMHS members are at present uncovering the flue system that carried the smoke gasses from the boiler plant to the chimney. It appears that there had been, egg shaped boilers originally, then Cornish and latterly Lancashire boilers that powered the winding gear. The engine and winding gear beds were, we think, destroyed by artillery or other explosives during military exercises, as that is the only explanation that we have for the way that such large lumps



Ventilation chimney.



North York Moors Railway collapsed wall repair.

demolishing the section and when the temperature rose the mortar set OK. The other problem occurred during heavy rain which percolated down through the unprotected wall and dampened the mortar around some bricks that had been replaced lower in the wall, in this case when the wall had dried out we just gave it a good dry brushing and everything was fine, but we did cover the top of the wall to stop the rain getting in.

Just after the work stated on the Esk Valley Powder store we were asked by the North York Moors Railway if we could repair a wall on the site of the old Whinstone crushing plant at Goathland Railway Station. A landslip had pushed over this wall which was built in part by some enormous stones. We slid and lifted some stones back into place using crow bars, timber and muscle power. These stones were replaced only inches above the ground and this work was, to say the least dangerous. We needed to lift the other stones on top of the first course. Due to the situation of this wall we could not get access for any kind of mechanical lifting machinery like a small hydraulic digger so we improvised a lifting device using scaffolding tubes and a Chain Block and inspiration from Cumbria Ore Mines Rescue Unit's shaft rescue equipment.

Colin M. Keighley. {Member}.



Bristol Dramway.

The start of the Dramway from the C18th Scheduled Heritage Site at Ram Hill, northeast of Bristol that ran to the river Avon near Keynsham (yes it does exist) southeast of Bristol. Some of it seems to have been incorporated into a later Midland Railways Line. It transported coal from the Rams Hill site. Worth a visit if you are around there as is the Bitterwell lake nearby. Some of the Dramway still has visible carved out rock sleepers where the rails were attached. Good day out.

Sent in by a member.

of rock have been scattered around the site. Some of the members did a lot of repair work with what we think is spectacular results at another site during spring and summer 2019. This powder house roof was repaired during 2013, last year the cement render was repaired cleaned and then re coated with bitumen, and a new door was fitted. Both the Chimney and powder store are on private land and the landowner wishes that the location remains confidential. The same team transferred their attention to the Esk Valley Powder House. This gunpowder store was a triple skinned brick built building that had had lots of bricks and its roof robbed. The inner skin was repaired first to stabilise the walls by replacing missing bricks with bricks of a similar age and size from another mine site, the bricks were transported for us by NYMNP apprentices, staff 4 x 4 and trailer, all done officially and efficiently. Thanks Bill and the lads and Lasses. All of the bricks are being laid using the Hot Mix Lime Mortar and skills gained on the previous building work. All of this work has been done in the most pleasant of surroundings with good quality bird life for distraction and in the case of the Esk Valley work we were distracted by some very interesting Steam locomotives, especially visiting locos during the North York Moors Railway steam gala and war weekends.

If you are puzzled with the term Hot Mix Lime Mortar? It is the traditional way of using Lime Mortar to a recipe using sharp and soft sand as aggregates and quicklime as the binding agent. Other aggregates can be used. It is the most wonderful stuff to use, surprisingly easy, sticky, can be like butter and it sets amazingly quickly, faster than I expected, and is equal to any other mixes that I have used. When mixing it gets hot enough to melt holes in certain types of plastic! I think that people over emphasize the dangers. I just use the same precautions that I use when using normal Portland cement. We had two problems that occurred, one during cold weather the carbonising reaction, setting, was slow and one wall started to lean outwards but we were able to fix it without

Intake Colliery Brandwood Moor

Thank you very much to Bill Lloyd for donating an original plan of this small but important colliery which was situated on Rooley Moor Road by the side of Intake farm Rossendale. We have had the plan professionally restored to remove the ravages of time; almost 180 years.

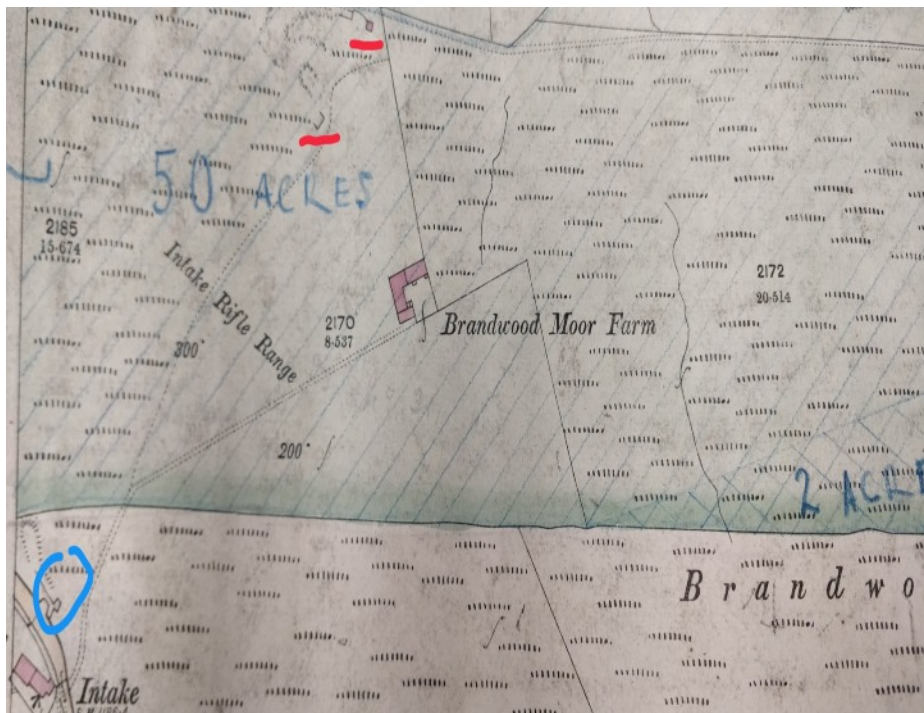
A detailed history of the colliery will be compiled in the next few months as we have learned quite a lot about some of the families involved at the pit. Livesey's, Ashworths, Woodhead's, and David Law and I also believe that the Brearley family were probably involved with the pit during the 1830's and 40's.

The coal must have been known about from ancient times as Rooley Moor road itself cuts through the outcrop and there are the remains of quite a few ancient workings. It looks now

as though the pit was commenced by the Livesey, following their financial troubles, to provide coal for Cowpe Mill. The pit was first developed through a drift situated on the bottom track into Cragg Quarry. It appears on the 1844 map and shows a substantial building or gantry covering the road. The extent of these workings are shown on a plan of 1886.

Operations then moved onto Rooley Moor road it' self to a drift opposite Intake farm. The remains of the drift are still clearly to be seen today though are much dilapidated. This drift, it is believed was first used by the Ashworths, of Cowpe Mill and our plan dates from January 1843 and the pit appears on the 1844 map, so we have a little time capsule of that period.

The plan was to determine the royalties to be paid out to the land



Intake colliery circled {blue}. Two underline markings {red} are the two Brandwood Moor Drifts. Shaded area is the {Green} extent of Mr. Lloyds land. Brandwood Moor Farm is situated on the outcrop {hatched}.



Birds eye view of relative positions along Rooley Moor road today.

owners and shows the amount of coal worked over the previous 6 months. It is not a complete plan of all the workings but shows those being developed at the time under Mr. Lloyd's land, the older workings of Part House under Livesey's land are not shown.

The Ashworths went on to develop Brandwood Moor colliery which began production in 1851 and looking at the plan we can see two underground roads being driven out towards that area. When Brandwood Moor colliery was running as a separate entity from new drifts, supplying Cowpe Mill, John Woodhead of Boarsgreave took over Intake Colliery with his Brother Samuel acting as Underlooker. Samuel was killed in the pit during August 1867.

“An accident of a very serious nature occurred at the Henpeck (Intake) Colliery, near Cowpe, on Wednesday last, which resulted in the death of Samuel Woodhead, of Holmes Nook, near Stacksteads. At the time of the accident, about half-past eleven in the morning, the deceased was employed in getting at a place termed the drift being about 550 yards in the interior of the pit, when large stone about five or six cwt, with immense quantity of dirt fell upon his back, causing almost immediate death. A man who was employed near to him, seeing the fall, immediately went for assistance, but on returning the heap of dirt was great that an hour elapsed before he could be extricated. The deceased was much respected in the locality for his steady and persevering habits, having by his industry accumulated little money by which he became the occupier a small farm, (Holm Nook Farm) and most assiduously attended to besides his ordinary employment as a miner. He leaves a wife and a family of children to mourn his loss”.

Cont.



Intake Colliery 1979. The main drift is at the top. The hole in the wall was to let the water out.

John Woodhead continued with the venture alone until the 1870's and the pit was taken over by David Law. It looks as though David had been employed as a collier at the pit before that time and then went on to lease it himself. David worked all the bits that had been left by the previous owners which would be seen as unprofitable. He also ran a drift into the coal further up the track to Cragg Quarry known as Part Banks Colliery. When the workings of Intake and Part Banks were exhausted, David opened up Brandwood Moor Drift and worked some coal close to the crop edge finally closing the operations down by 1886.

David must have made a success of the pit as he managed to also lease Lower Fold farm and 40 acres, he had married into the



Actual working area and solid coal shaded {grey}. Top left a road being driven out toward what would become Brandwood Moor Colliery.



Hardman family of Sheephouses in 1861 when he married Mary. Following the closing of the pit, David Law moved across to Norden where he took a pub and he finally died in 1900 when he lived at 185 Rooley Moor road Spotland and he left £647. At least two of his daughters returned across the moor to marry men from Cowpe. Mary married Frederick Barns a clerk at Cowpe Mill.

There is a rich history associated with this little colliery that still stands silent by the side of Rooley Moor road today, its presence unknown to most passers by.

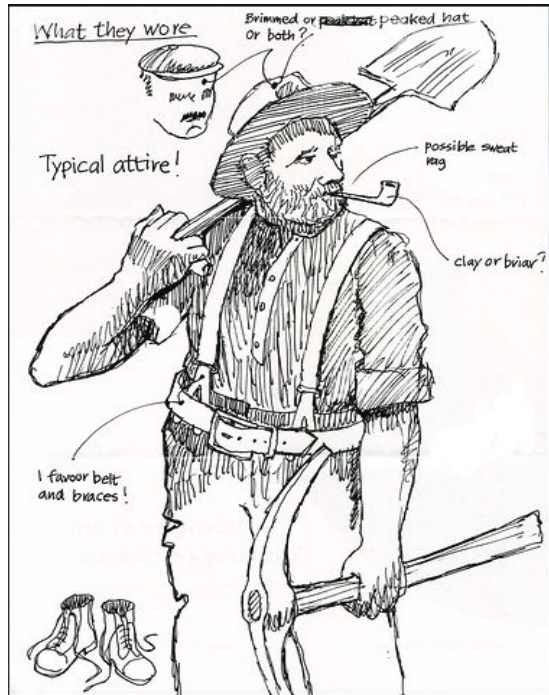
Left. 1884 O/S. Intake colliery shown above Intake farm. Part House Drift is near the bottom right with its gantry and compound right across the road.

**Submitted by C.S.
Rossendale Collierys.**
{Member}

The Campbell Papers. The Kildonan men of 1869 :

Part one of a four part series:

I had a free afternoon in Edinburgh and popped into the very grand building of the Scottish Record Office. Security was tight and more rigorous than the National Library of Scotland, which I had visited while researching the Scottish Gold Rush for BM 94. Soon I was immersed in the correspondence of a 19th century village schoolmaster who had lived in Helmsdale, Sutherland, Mr James Campbell.



A preliminary sketch made by the late Ron Wilkinson, to assess the clothing and accessories of the Kildonan miner

Garnets, however, were plentiful and when Campbell sent a selection of large ones to Naughton the jeweller, he said they had cost no more than “a glass of beer”. In return, he received and acknowledged a pin in a ‘very nice design’. When Campbell learned of a gold ring being made for the Prince of Wales, he helped two Inverness jewellers who were anxious to locate the gold miner, William Murray. However, the Duke of Sutherland terminated gold mining on 31st December 1869, and Campbell notified Naughton the jeweller that there was to be a public meeting in Helmsdale to “excite an agitation” for the gold diggings to be continued. A deputation of “nine miners and three gentlemen” was formed; their brief was to ask the Duke of Sutherland to change his decision. Nothing materialised; the Duke’s refusal was based on difficulties in collecting the monthly ‘Royalty’, as well as complaints from the local sheep farmers and the fishermen. In writing to Naughton, Campbell hinted that the duke wanted a government official to collect the 10% Royalty.



Garnets of varying size are plentiful in the Kildonan burns, and are recovered just prior to assessing the gold in the pan.

Helmsdale was the scene of the gold rush in 1869, and the village schoolmaster – ‘the dominie’ – took an interest in local affairs. As schoolmaster, James Campbell (1827- 1913) had considerable status in the village, with contacts in prominent places, such as the Duke’s Factor, the Bank Manager and many of the successful gold miners.

Of course, much of his correspondence dealt with matters of education; others summarised his four-year command of a battery of the Sutherland Artillery Volunteers. In one letter dated 14th July 1871, he told the Education Committee he intended to “hire a female teacher for the junior classes”. But scattered among these letters, were some eye-witness accounts on gold, the miners, and the dominie’s role as agent for the Inverness jewellers.

In September 1869, Campbell predicted “the whole affair is on its last legs” in a letter to Mr Robert Naughton, a jeweller in Inverness seeking Kildonan gold. The high price of gold was because the miners, who had worked in the colonies, were reluctant to sell their ‘take’. The schoolmaster had approached the storekeeper at the Suisgill Burn, Mr John Sinclair, who had about “two ounces to sell” at three pounds and ten shillings (£3.50), which converts to £419 today.

On receiving requests from other Inverness jewellers, Campbell approached David Sutherland, a miner who had been active during 1869. From Thurso, Sutherland offered twelve ounces of gold but as this was more than Campbell wanted, he suggested “an active value” of £3 8's per ounce.



An aerial view taken by the author to show the road from Helmsdale that bridges the Kildonan burn adjacent to the former miners township.

Campbell retired from teaching in 1881 and relinquished his public positions as Clerk to the Drainage & Water Supply Committee, and Registrar of births, marriages and deaths. A letter dated 30th July 1883 provides local news for a friend in Peterhead when Campbell wrote: “A London Company have taken a lease of the flat along Suisgill Burn above the road – the part that was so much coveted by the diggers in 1869 – at an annual rate of £10 per acre. Here they have erected machinery and I understand are doing well.”

In retirement, Campbell accepted a commission in 1886 when the Duke’s man in Golspie asked him to inspect the gold.

Ron Callender. {Member}



Ground Hollow Quarry, Hollington, about 1908.

A steam powered crane is lifting a large block of sandstone. John Stevenson (1844-1916) was responsible for re-opening Hollington Quarry after a long period of redundancy. Hollington Stone was used to repair stonework at Covent Garden Market, Ludlow Castle and Dudley Castle. There were two quarries at Hollington run by the Stevenson's, one produced white sandstone and the other produced red sandstone. When her husband John died in 1916 Mary Stevenson took over the management of the White Turn Quarry. Her stepson George Stephenson owned the Red Quarry. More recently, stone from Hollington Quarry was used in the building of Coventry Cathedral. Photographed by Alfred McCann of Uttoxeter, from the collections of Staffordshire County Museum Service.



Mossfield Colliery, Longton, 1960.

Description: The ventilation shaft located in the old Stirrup and Pye Adderley Green Colliery on the opposite side of Anchor Road to that of Mossfield Colliery, Adderley Green, Longton. Mossfield Colliery was sunk in the 1850s, with up to four shafts, and closed in 1963. The colliery was located near Adderley Green near Longton with shafts over a quarter of a mile deep. The mine produced steam coal for industry such as bottle ovens and household coal. The main seam was the Cockshead Seam, up to 8 feet thickness of "clean coal". The colliery site is now part of an industrial estate. Photograph courtesy & with permission from Bill Webster. Information Peter Landon

By kind permission of, Staffordshire Past Track. {Sourced by a member}



Can anybody help with the identification of this rather nice face shovel?

A photograph showing a large steam powered shovel, excavating a large hole. Does anyone know what digger type this is or what what date this may have been taken?

Possibly the construction of the Meon Valley or Basingstoke and Alton Light Railway.

Part of the collection cared for by Hampshire Cultural Trust.

**Information via the
Editor.** {Member}

A rare view of an Opencast site Nr. St Helen's Lancashire.

A few years ago I was lucky enough to have access to one of the last Opencast Coal mines in Lancashire. This was at Crockhey near St Helens. I managed to get a few years of visits in before it was closed for good and backfilled. It was spectacular place with 4 coal seams exposed some with old underground mine workings and plenty of fossils. An article on the fossils will be in the February 2021 news letter.



Photographs descriptions:

1. Two coal seams clearly exposed.
2. An old working in the shallowest seam.
3. Inside of the old level.
4. More coal seams in the mine bottom.
5. An exposed fossilised tree trunk.

By kind permission of Andrew Tenny.



The Blackpool Miners convalescent home.

On the same day as the stone laying, the Lancashire and Cheshire Coal Association negotiated reduced rail fares with the Railway Company to enable up to 30,000 people to attend the event. When addressing the guests at the opening ceremony, his Royal Highness said: "I have looked forward to seeing this fine convalescent home. It is a magnificent building and will, I am sure, prove an inestimable boon to those recovering from sickness and injury. It is only right that there should be buildings like these to take those who have fallen by the way in their work in the mining industry and set them on their feet again."

Iconic Blackpool building which was home to convalescing miners

It's interesting to note that before the Miners' Convalescent Home was constructed, back around the 1920s, a small cottage that was later named Fanny Hall stood on the cliffs opposite the site of today's Miners' Home at Bispham.

It was then part of a larger group of cottages and farm buildings and was occupied by the Whiteside family.

The Lancashire and North Staffordshire Miners' Convalescent Home is a magnificent purpose-built building standing in 6.9 acres of land overlooking the sea on the North Shore of Blackpool.

The foundation stones for the home were laid on June 28, 1925 by Col. Pilkington of Haydock Colliery, Mr Thomas Greenall MP and the chairman of the board of management. Officially opened by the Prince of Wales on the



A plaque from the entrance commemorating the opening of the home.

The home took two years to build and cost a reported £150,000 – all the money coming from a levy of 1d per ton on the coal raised in the Lancashire and Cheshire coalfields. The unique history of the home could be seen in a series of commemorative plaques which did adorn the home's foyer.

The grade two listed building was built by Sir Lindsay Parkinson and Co, for the Lancashire Miner's Welfare Fund, and eventually had beds for 132 male miners. It had been designed by Bradshaw, Gass, and Hope between 1925 and 1927, and originally consisted of 110 bedrooms which the management boasted of offering "hotel standards, with each room having its own washing facilities plus good food and cheerful company".

Initially the home was for men only, so if they brought their wives with them, the wives stopped in the local boarding houses and then met at the gates daily. Much later, bungalows were built in the grounds so that the wives could come and stay with

their husbands. Those bungalows were eventually demolished in 2003, making way for the new developments called Admiral View and Admiral Heights. The home had its own two bowling greens and bowling hut, and there was also a skittle alley (now the underground car park) and a billiard room with three tables. An advert at the time, stated the convalescent home had the following facilities: "For relaxation there is a picturesque sun lounge, two television rooms, a handsome library and a writing room. For the sporting minded there is a superb games room equipped with two full-sized snooker tables and a dart board, there is a bowling green in the grounds. There is a fully stocked medical surgery and medical trained assistance is on hand, a local doctor provides any necessary back up. The home is open from the beginning of April to the middle of December and offers full board accommodation for 155 people in comfortable single or double rooms. Extra facilities have also been added in the form of three bungalows for paraplegic mineworkers which now offer three bedroom family accommodation. The staff at the home pride themselves on a welcoming and cherry attitude. If you want good food, facilities and a friendly environment it's got to be the Blackpool Miners' Home!"

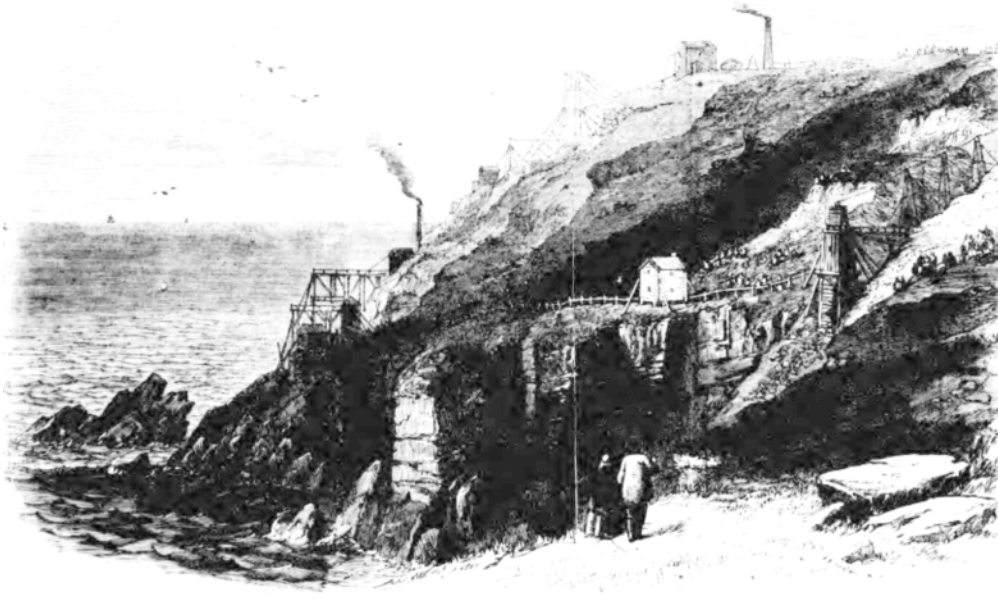
The Miners' Home was eventually forced to closed to patients in 1987, following the long-term decline of the mining industry across the country. Originally put on the market in 1996 through Blackpool estate agents Bentley Higgs for £2.5 million, as time went on the asking price gradually dropped. Work began on rebuilding the home as private luxury apartments in 2004 – these were then called Admiral Point.

I remember attending, with my mother Kath Gregson, an open day at the home that was organised for the local residents in early 2001. The queue to gain entry was halfway down the promenade when we arrived, and I admit I was surprised to see so many people interested in the local heritage landmark. However, I felt extremely privileged that I and others had the opportunity to have one last look around before renovation and change took over.

Forwarded to the NMRS by a local resident.

Fleetwood Weekly News. {Edited. Sept 2020}.

THE BOTALLACK MINE, CORNWALL



A print of the Crowns included in the newspaper article of the disaster, {British Newspaper Archives}. This appears to show the Crowns pre-sinking of the Boscawen shaft. It shows an engine house with smoke coming from its chimney which is situated on the Old Wheal Button Shaft. It illustrates very well the extent of structures on the cliffs at the time.

In one of the wildest parts of Cornwall and only a short distance from Land's End, lies the famed Botallack tin and copper mine. It has been worked for upwards of a century and during that time various shafts, levels, courses and adits have been worked most profitably in the production of large quantities of tin and copper. Of this mine, we give some descriptive particulars:

The mine has long been notorious for the length and depth of its workings and while it extends downwards to several hundred fathoms, in some parts the roaring of the sea and tumbling of boulders may be heard distinctly by the miner while at work. To obviate the difficulty of raising the ore in a perpendicular shaft and to render the ascent and descent of the miner easier of accomplishment, a diagonal shaft has been constructed through rock and soil, and extending for about 400 fathoms. This is known as the Boscawen Shaft. The incline is raised at an angle from the horizontal line of 32 degrees and is about 6 feet high and 8 feet wide throughout its entire length. The nature of the soil has rendered it necessary to make the shaft a little bent in some parts, so that the tramway is not exactly straight. This tramway is laid down as far as the 192 fathoms and on it runs what is called by the miners a "skip" - that is made from cast steel or iron, for the bringing the ore to the surface, for carrying materials down to the different levels, and for the conveyance of the labourers to and from their underground toil. This skip is connected by a chain to the workings at the surface, and is wound by a "cage" or drum, by steam power as the skip ascends. This cage is under the supervision of a man who is called a "minuter," who notifies, when the alarm-bell is rung, the proper time to stop the engine. This diagonal shaft took some four years in excavating, and is a marvellous example of engineering skill, as well as the perseverance in its prosecution by spirited adventurers.

The skip at Botallack is in cast steel weighing about a ton and is 2 feet 6 inches high and will carry eight or nine persons. It has a perfect arrangement of breaks under it, so that if the connecting chain snaps the breaks are self-adjusting, grasping the rail on each side, if the handle is out of the "catch," by which the skip is immediately stopped on its downward course. This break system is described by the engineers as being very perfect. To secure a careful supervision of the breaks, there is a captain of the skip appointed with each company of miners ascending or descending. The neglect of this, and the breaking of the chain, would be the cause of a serious and fatal accident, as there is nothing to stop the skip from going over the incline with a fearful velocity. The strength of the connecting chain and a proper attention to the breaks are two things necessary in the working of this part of the mine's operations, and must be attended to out of consideration for the safety of the miners.

The cause of the accident was the breaking of the chain when the skip containing a party of nine men, was at the 130-fathom level; and as the men were so taken by surprise that the breaks were not applied, the skip ran down the incline at an immense velocity, with a trail of about 3 tons of chain after it. It passed the 160-fathom level, where another party of men were waiting to come up, so swiftly that the bewildered miners could only observe the mere shadow of the carriage, enveloped in a misty cloud. The miners from the hot air being so disturbed, thought the mine was on fire. They immediately went up over the incline on foot to gain intelligence of their comrades, but it was quickly seen that the lives of the nine persons had been sacrificed. The skip went on its terrific downward course as far as the 190-fathom level, having passed a "sollar" of woodwork, it reached the bottom of the shaft. It was soon ascertained that all of the miners were killed. When found the bodies were frightfully mangled, cut, bruised, and crushed so much so that the disfigurement rendered it a matter of difficulty for persons to recognise the corpses of their relatives.

The bodies were found in various parts of the shaft: four were found at the bottom, one partly in the skip - the latter of whom was fearfully crushed - and in other parts of the shaft the bodies of others were found, so it is supposed that some of the unfortunate men must have slipped out over the skip, and may have been killed by the lashing of the chain from side to side of the shaft.

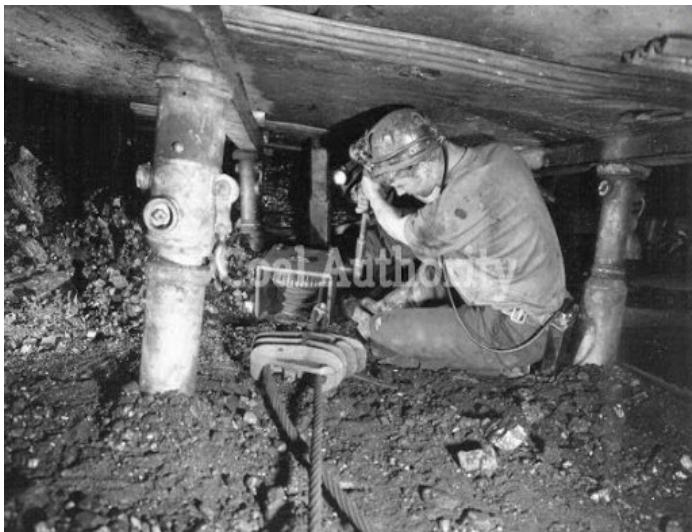
First of three articles by Paul Smith. {Member. Parts 2 & 3 to follow in future news letters.}

Mine-Craft the Prequel: The Photographic Story of East Midlands Coal (1965-2015)

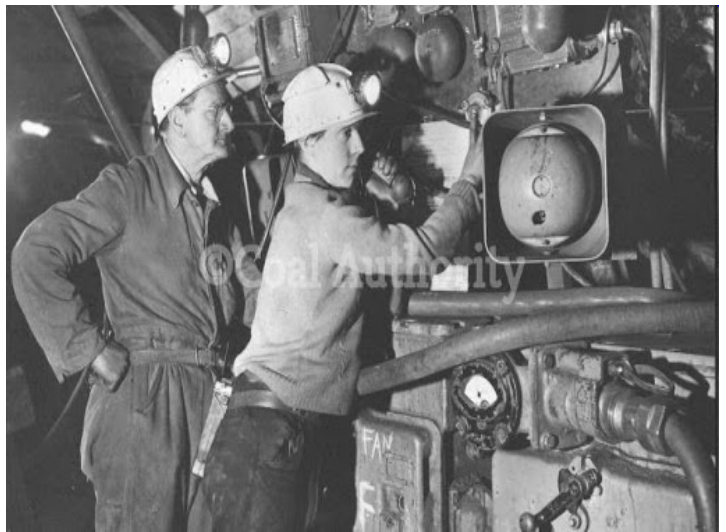
The proposed mining heritage project is a tripartite initiative between Nottingham Trent University (Lead Partner), the Coal Authority and the Derbyshire Record Office and will focus on both the tangible and intangible heritage of the coal mining industry in the East Midlands.

The tangible heritage focuses on the photographic collection of the Coal Authority at its Mansfield archive. There are around 50,000 digitised coal mining images in the archive of which 13,000 are subjects and locations in the East Midlands. All of the images are part of the National Collection as part of the National Archives. The images cover a wide range of subjects from technical subjects underground through to social and welfare issues in the coal mining industry. Many of these photographs lack full and accurate information and the main aim of the project is to add meta-data about the working industrial processes, mining equipment, working practices and the social and welfare aspects of the coal mining industry. This will be obtained from the remaining organisations and individuals in the East Midlands region who have direct links with the coal mining industry.

Below are examples of some of the coal images in the Coal Authority Archive



Coal face 1960s - Sylvester.



NCB App. Elec. & trainer 1960s.



Miner with pigeon 1960s.



Women and kids 1960s, pit community.

The project will also update the current database of coal mining images at the Coal Authority which was catalogued in 2004/05. An improved search facility will be introduced which will be accessible on-line. Currently, the only way to access the collection is by booking a research session at the Coal Authority's Records Office. Due to the current Covid-19 restrictions access to the collection is not possible.

The intangible part of the proposed project is the knowledge capture of the living language and industrial processes associated with coal mining which are in danger of being lost forever. These will be collected by audio testimony and video from various focus groups and organisations. The project will also ensure that the Coal Authority collection of images is made accessible to a wider audience both on-line and by means of educational resources. The project will actively engage with specialist coal mining organisations, community groups and younger audiences by means of schools and colleges.

Cont.

It is hoped that the project will create a template for other regional coal mining heritage projects in former coalfield regions of Britain. Local knowledge while it still exists is a key component for such projects. The generation of coal mining historians and organisations dedicated to the preservation of coal mining and its history are either in the twilight of their lives or rapidly approaching it. Paul Fillingham, a digital advisor on the project, describes this as the ‘demographic cliff’.

A funding bid will be submitted to the Heritage Lottery Fund in 2021 to run a two-year project based at the Coal Authority’s Records Office at its headquarters in Mansfield, Nottinghamshire. More details about the proposed project can be obtained from Professor, **Natalie Braber**. At **Nottingham Trent University** on **(0115) 848 3011** or by e-mail at **natalie.braber@ntu.ac.uk**

David Amos
Heritage Resources Officer
Mine 2 Minds Education.

{Member. Sept 2020}

Note. The NMRS has sent a letter of support for this program. If you would like to do so please use the contact details highlighted.



Road sign directing tourists to the historic Treacle mines 1980s



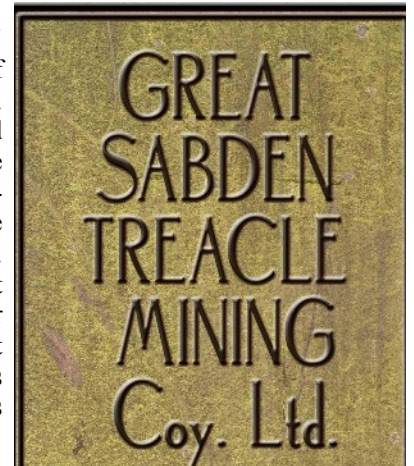
Natural Treacle is very viscous.

The Treacle Mines of England

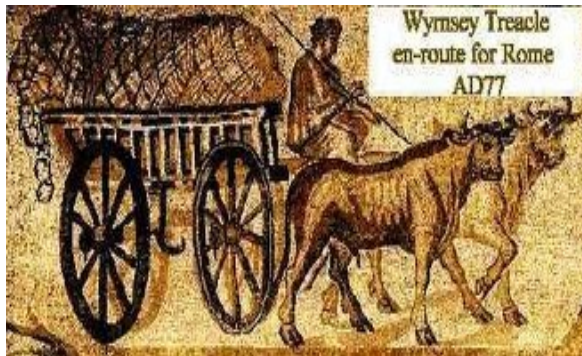
In very early April 2020, I was having a pint of beer at the pub in the village of Sabden Nr. Burnley, pre lockdown. One of the locals reminded me that there used to be a famous Treacle Mine behind the pub which was linked to the late entertainer Ken Dodd and his Diddy men miners. He even produced a share certificate for the said mine. I remembered hearing about and seeing the tourist signs for this attraction during my youth but I never visited it. We had an enjoyable conversation about how popular this tourist attraction was back in its day and some of the antics the Diddy men miners used to get up to.

This encounter raised the question in my mind is there such a thing as a “Treacle Mine”?

Treacle mines do exist but are very rare, they appear in five regions of England, Lancashire, Yorkshire, Kent the West Country, the biggest mine being in Elcaert, Northern England. Having a treacle mine in your area brought many benefits to the inhabitants. The people in these areas were particularly healthy especially the miners themselves. This was mentioned by, William Lyle Tate in 1816 when he visited the village mentioned above.



Front cover of the fictitious Sabden Treacle mine share certificate.



Floor mosaic tile of a journey man carting refined treacle to Rome.

“This place I found to be a fair and healthy place, the women and children well fed and happy. Most men folk were at work upon the land but that evening in the excellent Cain and Beat Inn I was surpassingly surprised to see many men brown of hue. On enquiry I determined that these were miners of Treacle and what a jolly crew they turned out to be. That night I repaired to my bed thanking our maker that there was at least one happy parish in the land”.

Unrefined black treacle is formed from fossilised beds of sugar cane rather like oil or peat. The heat from the sun liquefies this which leaches into the surrounding strata this can happen very close to the surface. What makes the regions mentioned above unique is that the liquid treacle has for thousands of years been leaching into the porous surrounding rock that absorb it like a sponge. It’s this rock that is mined.

The history of treacle mining dates back to Roman times. There is evidence to support that there was a healthy trade between England and Rome via Roman-occupied Gaul. This may well be one of the reason why the Romans wanted to conquer the British Isles. Why else would they want to take over an island that was inhospitable to them? A Roman floor mosaic tile from AD 77 was recently unearthed depicting treacle mining and refining by the Romans. Demand was so great that any new mine sites had to be kept secret. The mine site in Whalley which is nestled between Burnley and Clitheroe in East Lancashire was so closely guarded that only a very few individuals knew of its location and those that did were sworn to secrecy. It is rumoured that the site of the famous Whalley Abbey was chosen because it was thought that a treacle vein ran through its grounds. Unfortunately it seems that they were wrong as no treacle has ever been found there to date.

As far as I am aware there has been no significant treacle mining operations in Britain since the end of the nineteenth century because the treacle mining industry has also suffered from the impact of cheap imports. Also most of the mines were by then completely exhausted and no significant new reserves could be identified. The last working mine eventually dried up in the 1900s during the World Food famine. There are plans in the pipe line to locate all of the mines sites and record them for future reference. It would be a crying shame if we didn't draw attention to this, {April fools} fact as part of the nation’s food history.

G. L. Topping.

{Member. comments to the editor please}}

Editors Notes.

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

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

Disclaimer

The views expressed in this newsletter are not necessarily agreed with or shared by the Northern Mine Research Society, its Officers or the Newsletter Editor. The accuracy of statements made in articles submitted for publication will not normally be checked for validity by the Newsletter Editor. The responsibility for the content of articles submitted by individual members or groups remains with the authors and cannot be accepted by the Society, its Officers or the Newsletter Editor.

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Engine drivers welfare suite inside the engine house at Astley Green.

Pilkington's Lancastrian Pottery & Tiles was a manufacturer of tiles, vases and bowls, based in Clifton, Greater Manchester, England. The company was established in 1892 at Clifton Junction, alongside Fletcher's Canal. The photograph shows the factory and kilns, adjacent to the canal.



Pilkington Pottery and Tile works along side the Fletcher's Canal.

decided to use the marl that had been encountered to make glazed bricks, however, the marl was found to be unsuitable for this purpose.

By chance, the secretary of the coal company knew William Burton, a chemist working for Josiah Wedgwood & Sons. Burton tested the marl and suggested that a more commercial venture would be to make tiles. Decorative tiles were at that time becoming quite fashionable and they were in high demand. The site of the proposed factory had many advantages it was close to Clifton Junction railway station, it was adjacent to Fletcher's Canal and there was abundant coal nearby in the local Wet Earth Colliery, a short distance away along the same canal. William Burton joined them as Manager and his brother Joseph as Assistant Manager. Production began in January 1893.

By 1903 the factory had developed an opalescent ceramic glaze called Lancastrian, named after the county of Lancashire where the factory was sited. It became popular in Pilkington's Lancastrian line of pottery. A later glaze took its name from Manchester the Cunian glaze. Other famous glazes were used, e.g. sunstone, eggshell, fiery crystalline, aventurine, merged and curdled glazes. Glazes of different textures were also produced. These "fruit skin" glazes had surfaces like orange peel or apricot. Who would have thought a waste product from the mining operation would be able to produce such wonderful decorative objects.

By kind permission of. Lancashire Mining Museum.

Art Nouveaux Tiles Adorn Colliery Engine House.

Kat Houghton one of our volunteers got fascinated by the wonderful Art Nouveaux tiles decorating part of the winding house at the museum. This is the history of the company that produced them. It was an offshoot from the Clifton and Kearsley Colliery Company, which was owned by the Pilkington Family. They were responsible for opening the colliery at Astley Green in 1908.

In 1889 the Clifton and Kersley Coal Company sank a pair of pit shafts with the intention of working the coal seams lying adjacent to the geological feature known as the Pendleton Fault. However, the work became increasingly difficult due to the excessive quantity of water that was encountered. When it became clear that the work would not produce coal, the four Pilkington brothers